
***THE ECONOMIC IMPACTS
OF THE OIL AND NATURAL
GAS INDUSTRY ON THE
U.S. ECONOMY IN 2009:
EMPLOYMENT, LABOR
INCOME, AND VALUE
ADDED***

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The Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy in 2009: Employment, Labor Income, and Value Added

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THE ECONOMIC IMPACTS OF THE OIL AND NATURAL GAS INDUSTRY ON THE U.S. ECONOMY IN 2009: EMPLOYMENT, LABOR INCOME, AND VALUE ADDED

EXECUTIVE SUMMARY

The oil and natural gas industry is the primary energy source for transportation and the production of other goods and services. The oil and natural gas industry currently supplies more than 60% of the nation's total energy demands and more than 99% of the fuel used by Americans in their cars and trucks.¹

The American Petroleum Institute engaged PwC to quantify the direct, indirect, and induced impacts of the U.S. oil and natural gas industry on the U.S. national and state economies in terms of employment, labor income, and value added.² This report sets forth our estimates of the oil and gas industry's economic impacts in **2009**, the most recent year for which a consistent set of national and state-level data is available.³

The report's findings show that 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. These impacts result directly from the employment and production activities occurring within the oil and gas industry, indirectly through the industry's purchases of intermediate inputs and capital goods from a variety of other U.S. industries, and by the personal purchases of employees and business owners both within the oil and natural gas industry and out of the additional income in the supply chain to the industry.

In describing these economic impacts, this report considers three separate channels -- the direct impact, the indirect impact, and the induced impact -- that in aggregate provide a measure of the total economic impact of the oil and natural gas industry. The **direct impact** is measured in terms of the jobs, labor income, and value added *within* the oil and natural gas industry. The **indirect impact** is measured in terms of the jobs, labor income, and value added occurring *throughout the supply chain* of the oil and natural gas industry. The **induced impact** is measured in terms of the 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.

This report quantifies the industry's **operational impact** (due to its purchases of intermediate inputs) and **capital investment impact** (due to its investment in new structures and equipment) at the national level. It further breaks out the industry's

¹ <http://www.api.org/aboutoilgas/> and <http://www.energy.gov/energysources/oil.htm>

² Value added refers to the additional value created at a particular stage of production. It is a measure of the overall importance of an industry and represents the industry's portion of U.S. gross domestic product ("GDP"). Value added consists of: employee compensation, proprietors' income, income to capital owners from property, and indirect business taxes (i.e., those borne by consumers rather than producers).

³ PwC prepared a prior study for the American Petroleum Institute that quantified the economic impacts of the oil and gas industry in 2007. See PwC, *The Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy: Employment, Labor Income, and Value Added* (September 8, 2009). Appendix B of this study provides a brief comparison of results between the reported economic impacts in 2009 and 2007.

operational impact at the state level.⁴ These economic impacts represent all of the *backward linkages* of the U.S. oil and natural gas industry to its suppliers. They do not capture any *forward linkages* (i.e., the economic impact on production in sectors that use oil and natural gas as an input).

PwC estimates that the U.S. oil and natural gas industry's total employment impact to the national economy in 2009, combining the **operational** and **capital investment** impacts, amounted to 9.2 million full-time and part-time jobs, accounting for 5.3 percent of the total employment in the country (see **Table E-1**). At the national level, each direct job in the oil and natural gas industry supported more than three jobs elsewhere in the U.S. economy in 2009. The associated labor income, including proprietors' income, was estimated to be \$534 billion or 6.0 percent of national labor income in 2009. The industry's total U.S. value-added was \$1.1 trillion, accounting for 7.7 percent of U.S. GDP in 2009. Together these effects result in the oil and natural gas industry having a widespread economic impact throughout all sectors of the U.S. economy and in all geographic areas.

Table E-1. Total Impacts of the Oil and Natural Gas Industry's Operations and Capital Investments on the U.S. Economy, 2009

Item	Amount	Percent of U.S. Total
Operational Impact		
Employment*	7,978,636	4.6%
Labor Income (\$ millions)**	\$466,869	5.3%
Value Added (\$ millions)	\$966,324	6.8%
Capital Investment Impact		
Employment*	1,181,930	0.7%
Labor Income (\$ millions)**	\$66,679	0.8%
Value Added (\$ millions)	\$115,377	0.8%
Total Impacts		
Employment*	9,160,566	5.3%
Labor Income (\$ millions)**	\$533,548	6.0%
Value Added (\$ millions)	\$1,081,701	7.7%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

⁴ The industry's *capital investment* impact is not quantified at the state level due to data limitations.

The economic impact of the oil and natural gas industry reaches all 50 states and the District of Columbia. The total number of jobs directly or indirectly attributable to the oil and natural gas industry's **operations** (i.e., not counting any **capital investment impacts**) ranged from a low of 10,000 (in the District of Columbia) to 2 million (in Texas) in 2009. The top 15 states, in terms of the total number of jobs directly or indirectly attributable to the oil and natural gas industry's operations in 2009 were Texas, California, Louisiana, Oklahoma, Pennsylvania, Illinois, New York, Ohio, Florida, Michigan, Colorado, New Jersey, North Carolina, Indiana, and Georgia. Combined these states account for over 70 percent of the total jobs attributable to the U.S. oil and natural gas industry's operations (see **Table E-2a**).

Table E-2a. Total Impacts of the Oil and Natural Gas Industry's Operations in 2009

Top 15 States, Ranked by Total Employment Impact

State	Employment*		Labor Income**		Value Added	
	Amount	Percent of State Total	(\$ Million)	Percent of State Total	(\$ Million)	Percent of State Total
Texas	1,982,140	14.3%	\$134,866	18.9%	\$297,510	24.3%
California	908,801	4.6%	\$62,321	5.4%	\$131,589	7.0%
Louisiana	375,245	15.1%	\$20,818	18.0%	\$43,010	22.8%
Oklahoma	299,093	14.1%	\$17,856	19.3%	\$42,321	27.1%
Pennsylvania	275,563	3.9%	\$14,958	4.2%	\$28,440	5.1%
Illinois	268,970	3.7%	\$16,816	4.2%	\$34,400	5.4%
New York	245,948	2.3%	\$17,374	2.5%	\$32,898	3.0%
Ohio	230,858	3.6%	\$11,374	3.9%	\$22,709	4.9%
Florida	230,561	2.4%	\$10,086	2.3%	\$18,590	2.6%
Michigan	162,380	3.2%	\$8,364	3.5%	\$16,819	4.4%
Colorado	161,266	5.2%	\$10,235	6.3%	\$20,467	7.8%
New Jersey	147,045	3.0%	\$9,782	3.3%	\$19,604	4.1%
North Carolina	135,165	2.6%	\$6,065	2.6%	\$10,963	2.9%
Indiana	132,528	3.8%	\$6,220	4.0%	\$13,527	5.4%
Georgia	130,176	2.5%	\$6,251	2.5%	\$11,594	2.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The top 15 states in terms of the percentage of jobs directly or indirectly attributable to the oil and natural gas industry's operations in 2009 were Wyoming (15.8 percent) Louisiana (15.1 percent), Texas (14.3 percent), Oklahoma (14.1 percent), Alaska (10.3 percent), North Dakota (7.5 percent), New Mexico (7.5 percent), West Virginia (7.1 percent), Delaware (6.5 percent), Kansas (6.5 percent), Montana (6.4 percent), Mississippi (6.1 percent), Colorado (5.2 percent), Arkansas (5.0 percent), and Utah (4.9 percent) (see **Table E-2b**).

Table E-2b. Total Impacts of the Oil and Natural Gas Industry's Operations in 2009

Top 15 States, Ranked 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	61,065	15.8%	\$3,452	19.9%	\$7,018	24.3%
Louisiana	375,245	15.1%	\$20,818	18.0%	\$43,010	22.8%
Texas	1,982,140	14.3%	\$134,866	18.9%	\$297,510	24.3%
Oklahoma	299,093	14.1%	\$17,856	19.3%	\$42,321	27.1%
Alaska	46,310	10.3%	\$3,559	14.1%	\$6,671	16.9%
North Dakota	36,995	7.5%	\$1,835	8.8%	\$3,868	11.8%
New Mexico	79,389	7.5%	\$3,856	8.2%	\$7,461	10.6%
West Virginia	63,306	7.1%	\$2,920	7.4%	\$5,887	9.5%
Delaware	34,213	6.5%	\$2,046	7.3%	\$4,810	10.5%
Kansas	116,070	6.5%	\$5,781	7.2%	\$14,117	10.8%
Montana	40,276	6.4%	\$1,771	7.7%	\$4,050	10.7%
Mississippi	91,201	6.1%	\$4,014	6.8%	\$8,576	9.4%
Colorado	161,266	5.2%	\$10,235	6.3%	\$20,467	7.8%
Arkansas	76,532	5.0%	\$3,404	5.4%	\$6,457	6.6%
Utah	78,425	4.9%	\$3,811	5.6%	\$7,986	7.4%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

THE ECONOMIC IMPACTS OF THE OIL AND NATURAL GAS INDUSTRY ON THE U.S. ECONOMY IN 2009: EMPLOYMENT, LABOR INCOME, AND VALUE ADDED

I. Introduction

The oil and natural gas industry is the primary energy source for transportation and the production of other goods and services. The oil and natural gas industry currently supplies more than 60% of the nation's total energy demands and more than 99% of the fuel used by Americans in their cars and trucks.⁵

The American Petroleum Institute engaged PwC to quantify the direct, indirect, and induced impacts of the U.S. oil and natural gas industry on the U.S. national and state economies in terms of employment, labor income, and value added.⁶ This report sets forth our estimates of the oil and gas industry's economic impacts in 2009, the most recent year for which a consistent set of national and state-level data is available.⁷

This study quantifies the industry's **operational impact** (due to its purchases of intermediate inputs) and **capital investment impact** (due to its investment in new structures and equipment) at the national level. It further breaks out the industry's **operational impact** at the state level.⁸ These economic impacts represent all of the *backward linkages* of the U.S. oil and natural gas industry to its suppliers. They do not capture any *forward linkages* (i.e., the economic impact on production in sectors that use oil and natural gas as an input).

In describing the economic impact of the U.S. oil and natural gas industry through its employment and purchases of goods and services, this report considers three separate channels -- the direct impact, the indirect impact, and the induced impact -- that in aggregate provide a measure of the total economic impact of the oil and natural gas industry.

- **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 *throughout the supply chain* of the oil and natural gas industry.
- **Induced impact** is measured as the 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.

⁵ <http://www.api.org/aboutoilgas/> and <http://www.energy.gov/energysources/oil.htm>

⁶ Value added refers to the additional value created at a particular stage of production. It is a measure of the overall importance of an industry and represents the industry's share of gross domestic product ("GDP"). Value added consists of: employee compensation, proprietors' income, income to capital owners from property, and indirect business taxes (i.e., taxes such as sales and excise taxes).

⁷ PwC prepared a prior study for the American Petroleum Institute that quantified the economic impacts of the oil and gas industry in 2007. See PwC, *The Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy: Employment, Labor Income, and Value Added* (September 8, 2009).

⁸ The industry's *capital investment* impact is not quantified at the state level due to data limitations.

Together these effects result in the oil and natural gas industry having a widespread economic impact throughout all sectors of the U.S. economy and in all geographic areas.

Using the IMPLAN input-output modeling system, PwC has built customized multiplier models for the U.S. as a whole, as well as the 50 states and the District of Columbia. The models calculate the oil and natural gas industry's economic impacts at the national and state level in 2009, the most recent historical year for which a consistent set of national and state level data is available from the IMPLAN modeling system.⁹

The rest of this report is organized as follows. **Section II** defines the oil and natural gas industry for this study. **Section III** presents the industry's total economic impacts at the national and state level, followed by a breakdown of the total economic impacts into direct, indirect, and induced economic impacts in **Section IV**. Detailed state-by-state operational impact results are presented in **Appendix A**. A brief comparison of results between the reported economic impacts in 2009 and 2007 is provided in **Appendix B**. Data sources and methodology used in this research report are discussed in **Appendix C**.

⁹ The IMPLAN input-output economic modeling system is supported by the Minnesota IMPLAN Group. Its users include academia, federal, state, and local governments, and the private sector.

II. Industry Definition

In government economic data, the oil and natural gas industry encompasses a number of sectors. Oil and natural gas exploration and 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 this study, PwC has defined the oil and natural gas industry based on the *North American Industry Classification System* (NAICS). **Table 1**, below, shows the composition of the industry as defined by PwC, followed by detailed NAICS descriptions.¹⁰

Table 1. Composition of Oil and Natural Gas Industry

NAICS	IMPLAN SECTOR	Description
211	20	Oil and gas extraction (including NGL extraction)
213111	28	Drilling oil and gas wells
213112	29	Support activities for oil and gas operations
2212	32	Natural gas distribution (private)
2212	432	Natural gas distribution (public)
23712	36	Oil and gas pipeline and related structures construction
32411	115	Petroleum refineries
32412	116,117	Asphalt paving, roofing, and saturated materials manufacturing (primarily petroleum-based products)
324191	118	Petroleum lubricating oil and grease manufacturing
4247	319	Petroleum and petroleum products merchant wholesalers
44711	326	Gasoline stations with convenience stores
44719	326	Other gasoline stations
45431	331	Fuel dealers
486	337	Pipeline transportation

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.

¹⁰ IMPLAN sectors 432, 36, 319, and 331 include additional NAICS activities outside the oil and natural gas industry. Our modeling of the economic impacts includes only the portion of these sectors that include the oil and gas industry NAICS segment.

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. Both privately and publicly owned establishments are included in this study.

NAICS 23712. Oil and gas pipeline and related structures construction. This subsector comprises establishments primarily engaged in the construction of oil and gas lines, mains, refineries, and storage tanks. The work performed may include new work, reconstruction, rehabilitation, and repairs. Specialty trade contractors are included in this group if they are engaged in activities primarily related to oil and gas pipeline and related structures construction. All structures (including buildings) that are integral parts of oil and gas networks (e.g., storage tanks, pumping stations, and refineries) are included in this subsector.

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 32412. Asphalt paving, roofing, and saturated materials manufacturing. This subsector comprises establishments primarily engaged in (1) manufacturing asphalt and tar paving mixtures and blocks and roofing cements and coatings from purchased asphaltic materials and/or (2) saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials. These are primarily petroleum-based products.

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 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.

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.

The primary data source for the direct impact of the oil and natural gas industry is the IMPLAN 2009 database on the U.S. national and sub-national economies, the most recent such dataset currently available. The IMPLAN database represents a consistent set of economic data processed from various published sources in a variety of formats and under varying disclosure restrictions, including 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 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 Department of Labor and Census Bureau for the NAICS code were used and PwC estimated the corresponding value added and labor income using the IMPLAN database. **Appendix C** provides a more detailed discussion of the data sources and estimating methodology used for the study.

III. Total Economic Impact

This section presents the estimated total economic impact of the oil and natural gas industry on the U.S. national and state economies. As 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 includes the **direct impact** (the jobs and value added within the oil and natural gas industry), the **indirect impact** (the jobs and value added occurring throughout the supply chain of the oil and natural gas industry), and the **induced impact** (the 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 national-level impact presented below includes the industry's **operational impact** and **capital investment impact**, while the state-level impact reflects the industry's **operational impact** only (the industry's capital investment impact is not quantified at the state level due to data limitations). 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 impact of the oil and natural gas industry in terms of jobs, labor income (including wages and salaries and benefits as well as proprietors' income), and value added is significant.

Employment

PwC estimates that at the national level, the oil and natural gas industry's operations directly and indirectly generated 8.0 million full-time and part-time jobs in the national economy in 2009. Further, the industry's capital investment supported an additional 1.2 million jobs in the national economy. Combining both operational and capital investment impacts, the oil and natural gas industry's total employment impact to the national economy amounted to 9.2 million full-time and part-time jobs in 2009, accounting for 5.3 percent of the total employment in the country.

Labor Income

The associated labor income (including wages and salaries and benefits, as well as proprietors' income) from the total jobs directly or indirectly supported by the oil and natural gas industry through its operational spending and capital investment was estimated to be \$534 billion, or 6.0 percent of the national labor income.

Value Added

Value added refers to the additional value created at a particular stage of production. 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, proprietors' income, income to capital owners from property, and indirect business taxes (i.e., those borne by consumers rather than producers).

PwC estimates that the oil and natural gas industry's *operations* directly or indirectly generated \$966 billion of value added in the U.S. economy in 2009, and its *capital*

investment resulted in an additional \$115 billion of value added. Combining both operational and capital investment impacts, the industry's total value-added impact to the national economy was \$1.1 trillion, accounting for 7.7 percent of U.S. GDP in 2009.

Table 2. Total Operational and Capital Investment Impact of the Oil and Natural Gas Industry to the U.S. Economy, 2009

Item	Amount	Percent of U.S. Total
<i>Operational Impact</i>		
Employment*	7,978,636	4.6%
Labor Income (\$ millions)**	\$466,869	5.3%
Value Added (\$ millions)	\$966,324	6.8%
<i>Capital Investment Impact</i>		
Employment*	1,181,930	0.7%
Labor Income (\$ millions)**	\$66,679	0.8%
Value Added (\$ millions)	\$115,377	0.8%
<i>Total Impacts</i>		
Employment*	9,160,566	5.3%
Labor Income (\$ millions)**	\$533,548	6.0%
Value Added (\$ millions)	\$1,081,701	7.7%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

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 oil and natural gas industry's state-by-state total *operational* impact in terms of jobs, labor income (including wages and salaries and benefits as well as proprietors' income), and value added, where the states are shown alphabetically. **Table 3b** is the same as **Table 3a**, except that the states are ranked in order of the industry's total employment impact as a percent of each state's total employment. The state-level results, as explained earlier, do not include the economic impact of the industry's significant capital investment in 2009.

Employment

The total number of jobs directly or indirectly attributable to the oil and natural gas industry's operations as a percent of each state's total employment in 2009 ranged from 1.2 percent (the District of Columbia) to nearly one in every six jobs (Wyoming). The oil and natural gas industry directly and indirectly supported 5.0 percent or more of the total employment in 14 states in 2009: Wyoming (15.8 percent), Louisiana (15.1 percent), Texas (14.3 percent), Oklahoma (14.1 percent), Alaska (10.3 percent), North Dakota (7.5 percent), New Mexico (7.5 percent), West Virginia (7.1 percent), Delaware (6.5 percent), Kansas (6.5 percent), Montana (6.4 percent), Mississippi (6.1 percent), Colorado (5.2 percent), and Arkansas (5.0 percent). In these top 14 states, the oil and natural gas industry on average was directly or indirectly responsible for one in every nine jobs.

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's operations ranged from 1.2 percent (the District of Columbia) to one in every five dollars of labor income (Wyoming) in 2009. The oil and natural gas industry's total labor income impact exceeded 5.0 percent of the state total in 16 states: Wyoming (19.9 percent), Oklahoma (19.3 percent), Texas (18.9 percent), Louisiana (18.0 percent), Alaska (14.1 percent), North Dakota (8.8 percent), New Mexico (8.2 percent), Montana (7.7 percent), West Virginia (7.4 percent), Delaware (7.3 percent), Kansas (7.2 percent), Mississippi (6.8 percent), Colorado (6.3 percent), Utah (5.6 percent), California (5.4 percent), and Arkansas (5.4 percent).

Value Added

As a percent of each state's economy, the oil and natural gas industry's total value-added impact from its operations ranged from 1.4 percent (the District of Columbia) to more than one in every four dollars of value added (Oklahoma) in 2009. The oil and natural gas industry's total value-added impact accounted for at least 5.0 percent of the state total in 20 states: Oklahoma (27.1 percent), Texas (24.3 percent), Wyoming (24.3 percent), Louisiana (22.8 percent), Alaska (16.9 percent), North Dakota (11.8 percent), Kansas (10.8 percent), Montana (10.7 percent), New Mexico (10.6 percent), Delaware (10.5 percent), West Virginia (9.5 percent), Mississippi (9.4 percent), Colorado (7.8

percent), Utah (7.4 percent), California (7.0 percent), Arkansas (6.6 percent), Nebraska (5.8 percent), Illinois (5.4 percent), Indiana (5.4 percent), and Pennsylvania (5.1 percent).

Table 3a. Total Operational Impact of the Oil and Natural Gas Industry by State in 2009 (Sorted Alphabetically)

State	Employment*		Labor Income**		Value Added	
	Amount	Percent of State Total	(\$ Million)	Percent of State Total	(\$ Million)	Percent of State Total
Alabama	87,781	3.5%	\$4,010	3.7%	\$7,690	4.6%
Alaska	46,310	10.3%	\$3,559	14.1%	\$6,671	16.9%
Arizona	85,949	2.7%	\$4,074	2.7%	\$7,672	3.0%
Arkansas	76,532	5.0%	\$3,404	5.4%	\$6,457	6.6%
California	908,801	4.6%	\$62,321	5.4%	\$131,589	7.0%
Colorado	161,266	5.2%	\$10,235	6.3%	\$20,467	7.8%
Connecticut	55,405	2.6%	\$3,817	2.8%	\$7,349	3.3%
Delaware	34,213	6.5%	\$2,046	7.3%	\$4,810	10.5%
District of Columbia	9,973	1.2%	\$926	1.2%	\$1,513	1.4%
Florida	230,561	2.4%	\$10,086	2.3%	\$18,590	2.6%
Georgia	130,176	2.5%	\$6,251	2.5%	\$11,594	2.8%
Hawaii	22,807	2.7%	\$1,154	2.8%	\$2,663	4.2%
Idaho	23,218	2.6%	\$901	2.6%	\$1,731	3.3%
Illinois	268,970	3.7%	\$16,816	4.2%	\$34,400	5.4%
Indiana	132,528	3.8%	\$6,220	4.0%	\$13,527	5.4%
Iowa	58,801	3.0%	\$2,278	2.8%	\$4,192	3.2%
Kansas	116,070	6.5%	\$5,781	7.2%	\$14,117	10.8%
Kentucky	86,210	3.7%	\$3,673	3.7%	\$7,060	4.4%
Louisiana	375,245	15.1%	\$20,818	18.0%	\$43,010	22.8%
Maine	28,504	3.5%	\$1,094	3.3%	\$2,061	4.1%
Maryland	67,730	2.0%	\$3,585	1.9%	\$6,331	2.2%
Massachusetts	102,332	2.5%	\$6,800	2.7%	\$12,700	3.3%
Michigan	162,380	3.2%	\$8,364	3.5%	\$16,819	4.4%
Minnesota	117,319	3.5%	\$5,802	3.5%	\$11,094	4.1%
Mississippi	91,201	6.1%	\$4,014	6.8%	\$8,576	9.4%
Missouri	111,290	3.2%	\$5,094	3.2%	\$9,523	3.8%
Montana	40,276	6.4%	\$1,771	7.7%	\$4,050	10.7%
Nebraska	45,338	3.7%	\$2,340	4.4%	\$4,897	5.8%
Nevada	43,527	2.9%	\$2,089	2.9%	\$4,204	3.5%
New Hampshire	24,322	3.0%	\$1,194	3.0%	\$2,245	3.6%
New Jersey	147,045	3.0%	\$9,782	3.3%	\$19,604	4.1%
New Mexico	79,389	7.5%	\$3,856	8.2%	\$7,461	10.6%
New York	245,948	2.3%	\$17,374	2.5%	\$32,898	3.0%
North Carolina	135,165	2.6%	\$6,065	2.6%	\$10,963	2.9%
North Dakota	36,995	7.5%	\$1,835	8.8%	\$3,868	11.8%
Ohio	230,858	3.6%	\$11,374	3.9%	\$22,709	4.9%
Oklahoma	299,093	14.1%	\$17,856	19.3%	\$42,321	27.1%
Oregon	55,600	2.5%	\$2,538	2.6%	\$4,775	3.1%
Pennsylvania	275,563	3.9%	\$14,958	4.2%	\$28,440	5.1%
Rhode Island	14,538	2.5%	\$752	2.5%	\$1,444	3.2%
South Carolina	63,192	2.6%	\$2,438	2.4%	\$4,334	2.7%
South Dakota	18,318	3.3%	\$709	3.2%	\$1,317	3.9%
Tennessee	102,083	2.9%	\$4,588	2.9%	\$8,370	3.3%
Texas	1,982,140	14.3%	\$134,866	18.9%	\$297,510	24.3%
Utah	78,425	4.9%	\$3,811	5.6%	\$7,986	7.4%
Vermont	13,591	3.3%	\$512	3.0%	\$960	3.7%
Virginia	128,030	2.7%	\$6,507	2.4%	\$11,601	2.8%
Washington	109,195	2.8%	\$6,129	2.9%	\$12,250	3.7%
West Virginia	63,306	7.1%	\$2,920	7.4%	\$5,887	9.5%
Wisconsin	94,060	2.8%	\$4,029	2.6%	\$7,007	2.9%
Wyoming	61,065	15.8%	\$3,452	19.9%	\$7,018	24.3%
U.S. Total	7,978,636	4.6%	\$466,869	5.3%	\$966,324	6.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 3b. Total Operational Impact of the Oil and Natural Gas Industry by State in 2009 (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	61,065	15.8%	\$3,452	19.9%	\$7,018	24.3%
Louisiana	375,245	15.1%	\$20,818	18.0%	\$43,010	22.8%
Texas	1,982,140	14.3%	\$134,866	18.9%	\$297,510	24.3%
Oklahoma	299,093	14.1%	\$17,856	19.3%	\$42,321	27.1%
Alaska	46,310	10.3%	\$3,559	14.1%	\$6,671	16.9%
North Dakota	36,995	7.5%	\$1,835	8.8%	\$3,868	11.8%
New Mexico	79,389	7.5%	\$3,856	8.2%	\$7,461	10.6%
West Virginia	63,306	7.1%	\$2,920	7.4%	\$5,887	9.5%
Delaware	34,213	6.5%	\$2,046	7.3%	\$4,810	10.5%
Kansas	116,070	6.5%	\$5,781	7.2%	\$14,117	10.8%
Montana	40,276	6.4%	\$1,771	7.7%	\$4,050	10.7%
Mississippi	91,201	6.1%	\$4,014	6.8%	\$8,576	9.4%
Colorado	161,266	5.2%	\$10,235	6.3%	\$20,467	7.8%
Arkansas	76,532	5.0%	\$3,404	5.4%	\$6,457	6.6%
Utah	78,425	4.9%	\$3,811	5.6%	\$7,986	7.4%
California	908,801	4.6%	\$62,321	5.4%	\$131,589	7.0%
Pennsylvania	275,563	3.9%	\$14,958	4.2%	\$28,440	5.1%
Indiana	132,528	3.8%	\$6,220	4.0%	\$13,527	5.4%
Nebraska	45,338	3.7%	\$2,340	4.4%	\$4,897	5.8%
Illinois	268,970	3.7%	\$16,816	4.2%	\$34,400	5.4%
Kentucky	86,210	3.7%	\$3,673	3.7%	\$7,060	4.4%
Ohio	230,858	3.6%	\$11,374	3.9%	\$22,709	4.9%
Alabama	87,781	3.5%	\$4,010	3.7%	\$7,690	4.6%
Maine	28,504	3.5%	\$1,094	3.3%	\$2,061	4.1%
Minnesota	117,319	3.5%	\$5,802	3.5%	\$11,094	4.1%
South Dakota	18,318	3.3%	\$709	3.2%	\$1,317	3.9%
Vermont	13,591	3.3%	\$512	3.0%	\$960	3.7%
Michigan	162,380	3.2%	\$8,364	3.5%	\$16,819	4.4%
Missouri	111,290	3.2%	\$5,094	3.2%	\$9,523	3.8%
Iowa	58,801	3.0%	\$2,278	2.8%	\$4,192	3.2%
New Jersey	147,045	3.0%	\$9,782	3.3%	\$19,604	4.1%
New Hampshire	24,322	3.0%	\$1,194	3.0%	\$2,245	3.6%
Nevada	43,527	2.9%	\$2,089	2.9%	\$4,204	3.5%
Tennessee	102,083	2.9%	\$4,588	2.9%	\$8,370	3.3%
Washington	109,195	2.8%	\$6,129	2.9%	\$12,250	3.7%
Wisconsin	94,060	2.8%	\$4,029	2.6%	\$7,007	2.9%
Hawaii	22,807	2.7%	\$1,154	2.8%	\$2,663	4.2%
Virginia	128,030	2.7%	\$6,507	2.4%	\$11,601	2.8%
Arizona	85,949	2.7%	\$4,074	2.7%	\$7,672	3.0%
Idaho	23,218	2.6%	\$901	2.6%	\$1,731	3.3%
North Carolina	135,165	2.6%	\$6,065	2.6%	\$10,963	2.9%
South Carolina	63,192	2.6%	\$2,438	2.4%	\$4,334	2.7%
Connecticut	55,405	2.6%	\$3,817	2.8%	\$7,349	3.3%
Oregon	55,600	2.5%	\$2,538	2.6%	\$4,775	3.1%
Massachusetts	102,332	2.5%	\$6,800	2.7%	\$12,700	3.3%
Rhode Island	14,538	2.5%	\$752	2.5%	\$1,444	3.2%
Georgia	130,176	2.5%	\$6,251	2.5%	\$11,594	2.8%
Florida	230,561	2.4%	\$10,086	2.3%	\$18,590	2.6%
New York	245,948	2.3%	\$17,374	2.5%	\$32,898	3.0%
Maryland	67,730	2.0%	\$3,585	1.9%	\$6,331	2.2%
District of Columbia	9,973	1.2%	\$926	1.2%	\$1,513	1.4%
U.S. Total	7,978,636	4.6%	\$466,869	5.3%	\$966,324	6.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

IV. Economic Impact Breakdown: Direct, Indirect, and Induced Impacts

The total economic impact presented in the previous section includes the *direct impact* (the jobs, labor income, and value added within the oil and natural gas industry), the *indirect impact* (the jobs and value added occurring throughout the supply chain of the oil and natural gas industry), and the *induced impact* (the 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 are separately quantified.

Direct Impact

Table 4 shows the direct impact of the oil and natural gas industry by NAICS subsectors for the country as a whole in terms of employment, labor income (including wages and salaries and benefits as well as proprietors' income), and value added.

In 2009, the oil and natural gas industry directly provided 2.2 million jobs for American workers with approximately \$176 billion in wages and salaries and fringe benefits and proprietors' income. The industry directly generated \$465 billion in GDP.

Table 4. Direct Impact of the Oil and Natural Gas Industry in the U.S. Economy by Sub-sector, 2009

NAICS	Sub-sector Description	Employment*	Labor Income**	Value Added
		Amount	(\$ Millions)	(\$ Millions)
211	Oil and gas extraction (including NGL extraction)	477,091	\$55,366	\$127,507
213111	Drilling oil and gas wells	78,780	\$7,110	\$30,325
213112	Support activities for oil and gas operations	225,832	\$17,664	\$18,770
2212	Natural gas distribution (private)	112,682	\$14,883	\$63,725
2212	Natural gas distribution (public)	7,870	\$583	\$662
23712	Oil and gas pipeline and related structures construction	101,095	\$5,031	\$5,717
32411	Petroleum refineries	75,062	\$21,558	\$122,653
32412	Asphalt paving, roofing, and saturated materials manufacturing	23,590	\$3,758	\$12,737
324191	Petroleum lubricating oil and grease manufacturing	9,472	\$1,666	\$4,614
4247	Petroleum and petroleum products merchant wholesalers	100,348	\$7,593	\$13,071
44711, 44719	Gasoline stations	853,428	\$28,776	\$47,020
45431	Fuel dealers	86,370	\$1,598	\$4,675
486	Pipeline transportation	<u>40,771</u>	<u>\$10,719</u>	<u>\$13,099</u>
	Total Oil and Natural Gas Industry	2,192,392	\$176,305	\$464,574

Source: IMPLAN 2009 database, U.S. Census Bureau, U.S. Bureau of Labor Statistics, and U.S. Bureau of Economic Analysis.

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 5a shows the direct employment, labor income (including wages and salaries and benefits as well as proprietors' 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 that the states are ranked by the oil and natural gas industry's direct employment. In 2009, the ten states with the largest combined direct employment effect generated by the oil and natural gas industry were, in order: Texas, California, Louisiana, Oklahoma, Pennsylvania, Ohio, Florida, Illinois, New York, and Colorado. These top ten states accounted for 56.6 percent of the oil and natural gas industry's national direct employment, 72.1 percent of the oil and natural gas industry's national direct labor income, and 73.6 percent of the oil and natural gas industry's national direct value added in 2009.

**Table 5a. Direct Impact of the Oil and Natural Gas Industry by State, 2009
(Sorted Alphabetically)**

State	Direct Employment*		Direct Labor Income**		Direct Value Added	
	Amount	Percent of U.S. Total	(\$ Million)	Percent of U.S. Total	(\$ Million)	Percent of U.S. Total
Alabama	31,014	1.4%	\$1,563	0.9%	\$3,488	0.8%
Alaska	18,741	0.9%	\$2,253	1.3%	\$4,230	0.9%
Arizona	25,208	1.1%	\$1,149	0.7%	\$2,390	0.5%
Arkansas	29,532	1.3%	\$1,415	0.8%	\$3,124	0.7%
California	163,729	7.5%	\$18,891	10.7%	\$58,818	12.7%
Colorado	54,240	2.5%	\$4,675	2.7%	\$10,456	2.3%
Connecticut	15,334	0.7%	\$1,074	0.6%	\$2,727	0.6%
Delaware	5,904	0.3%	\$488	0.3%	\$2,217	0.5%
District of Columbia	958	0.0%	\$68	0.0%	\$231	0.0%
Florida	60,394	2.8%	\$2,202	1.2%	\$4,653	1.0%
Georgia	38,100	1.7%	\$1,630	0.9%	\$3,552	0.8%
Hawaii	4,920	0.2%	\$324	0.2%	\$1,238	0.3%
Idaho	8,048	0.4%	\$294	0.2%	\$733	0.2%
Illinois	57,723	2.6%	\$4,732	2.7%	\$14,002	3.0%
Indiana	36,630	1.7%	\$1,891	1.1%	\$6,050	1.3%
Iowa	22,571	1.0%	\$695	0.4%	\$1,456	0.3%
Kansas	42,614	1.9%	\$2,614	1.5%	\$8,578	1.8%
Kentucky	31,788	1.4%	\$1,325	0.8%	\$2,975	0.6%
Louisiana	116,923	5.3%	\$9,660	5.5%	\$23,769	5.1%
Maine	12,165	0.6%	\$408	0.2%	\$922	0.2%
Maryland	17,325	0.8%	\$751	0.4%	\$1,660	0.4%
Massachusetts	24,689	1.1%	\$1,661	0.9%	\$4,458	1.0%
Michigan	45,093	2.1%	\$2,635	1.5%	\$6,922	1.5%
Minnesota	33,349	1.5%	\$1,397	0.8%	\$3,690	0.8%
Mississippi	33,291	1.5%	\$1,769	1.0%	\$4,742	1.0%
Missouri	37,089	1.7%	\$1,548	0.9%	\$3,566	0.8%
Montana	13,086	0.6%	\$798	0.5%	\$2,268	0.5%
Nebraska	14,476	0.7%	\$992	0.6%	\$2,667	0.6%
Nevada	12,397	0.6%	\$574	0.3%	\$1,445	0.3%
New Hampshire	8,502	0.4%	\$390	0.2%	\$898	0.2%
New Jersey	31,528	1.4%	\$2,217	1.3%	\$7,036	1.5%
New Mexico	32,408	1.5%	\$1,924	1.1%	\$4,189	0.9%
New York	56,715	2.6%	\$4,106	2.3%	\$10,919	2.4%
North Carolina	41,636	1.9%	\$1,657	0.9%	\$3,388	0.7%
North Dakota	14,846	0.7%	\$944	0.5%	\$2,373	0.5%
Ohio	67,787	3.1%	\$3,543	2.0%	\$9,580	2.1%
Oklahoma	111,461	5.1%	\$10,562	6.0%	\$29,159	6.3%
Oregon	14,969	0.7%	\$659	0.4%	\$1,611	0.3%
Pennsylvania	77,526	3.5%	\$4,417	2.5%	\$10,905	2.3%
Rhode Island	4,008	0.2%	\$198	0.1%	\$541	0.1%
South Carolina	22,180	1.0%	\$718	0.4%	\$1,320	0.3%
South Dakota	8,499	0.4%	\$304	0.2%	\$640	0.1%
Tennessee	32,628	1.5%	\$1,317	0.7%	\$2,769	0.6%
Texas	474,393	21.6%	\$64,294	36.5%	\$169,660	36.5%
Utah	20,444	0.9%	\$1,382	0.8%	\$3,859	0.8%
Vermont	5,987	0.3%	\$202	0.1%	\$434	0.1%
Virginia	45,678	2.1%	\$1,785	1.0%	\$3,828	0.8%
Washington	25,007	1.1%	\$1,466	0.8%	\$4,397	0.9%
West Virginia	29,068	1.3%	\$1,526	0.9%	\$3,414	0.7%
Wisconsin	30,103	1.4%	\$1,001	0.6%	\$1,952	0.4%
Wyoming	29,687	1.4%	\$2,217	1.3%	\$4,677	1.0%
U.S. Total	2,192,392	100%	\$176,305	100%	\$464,574	100%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

**Table 5b. Direct Impact of the Oil and Natural Gas Industry by State, 2009
(Sorted by Direct Employment)**

State	Direct Employment*		Direct Labor Income**		Direct Value Added	
	Amount	Percent of U.S. Total	(\$ Million)	Percent of U.S. Total	(\$ Million)	Percent of U.S. Total
Texas	474,393	21.6%	\$64,294	36.5%	\$169,660	36.5%
California	163,729	7.5%	\$18,891	10.7%	\$58,818	12.7%
Louisiana	116,923	5.3%	\$9,660	5.5%	\$23,769	5.1%
Oklahoma	111,461	5.1%	\$10,562	6.0%	\$29,159	6.3%
Pennsylvania	77,526	3.5%	\$4,417	2.5%	\$10,905	2.3%
Ohio	67,787	3.1%	\$3,543	2.0%	\$9,580	2.1%
Florida	60,394	2.8%	\$2,202	1.2%	\$4,653	1.0%
Illinois	57,723	2.6%	\$4,732	2.7%	\$14,002	3.0%
New York	56,715	2.6%	\$4,106	2.3%	\$10,919	2.4%
Colorado	54,240	2.5%	\$4,675	2.7%	\$10,456	2.3%
Virginia	45,678	2.1%	\$1,785	1.0%	\$3,828	0.8%
Michigan	45,093	2.1%	\$2,635	1.5%	\$6,922	1.5%
Kansas	42,614	1.9%	\$2,614	1.5%	\$8,578	1.8%
North Carolina	41,636	1.9%	\$1,657	0.9%	\$3,388	0.7%
Georgia	38,100	1.7%	\$1,630	0.9%	\$3,552	0.8%
Missouri	37,089	1.7%	\$1,548	0.9%	\$3,566	0.8%
Indiana	36,630	1.7%	\$1,891	1.1%	\$6,050	1.3%
Minnesota	33,349	1.5%	\$1,397	0.8%	\$3,690	0.8%
Mississippi	33,291	1.5%	\$1,769	1.0%	\$4,742	1.0%
Tennessee	32,628	1.5%	\$1,317	0.7%	\$2,769	0.6%
New Mexico	32,408	1.5%	\$1,924	1.1%	\$4,189	0.9%
Kentucky	31,788	1.4%	\$1,325	0.8%	\$2,975	0.6%
New Jersey	31,528	1.4%	\$2,217	1.3%	\$7,036	1.5%
Alabama	31,014	1.4%	\$1,563	0.9%	\$3,488	0.8%
Wisconsin	30,103	1.4%	\$1,001	0.6%	\$1,952	0.4%
Wyoming	29,687	1.4%	\$2,217	1.3%	\$4,677	1.0%
Arkansas	29,532	1.3%	\$1,415	0.8%	\$3,124	0.7%
West Virginia	29,068	1.3%	\$1,526	0.9%	\$3,414	0.7%
Arizona	25,208	1.1%	\$1,149	0.7%	\$2,390	0.5%
Washington	25,007	1.1%	\$1,466	0.8%	\$4,397	0.9%
Massachusetts	24,689	1.1%	\$1,661	0.9%	\$4,458	1.0%
Iowa	22,571	1.0%	\$695	0.4%	\$1,456	0.3%
South Carolina	22,180	1.0%	\$718	0.4%	\$1,320	0.3%
Utah	20,444	0.9%	\$1,382	0.8%	\$3,859	0.8%
Alaska	18,741	0.9%	\$2,253	1.3%	\$4,230	0.9%
Maryland	17,325	0.8%	\$751	0.4%	\$1,660	0.4%
Connecticut	15,334	0.7%	\$1,074	0.6%	\$2,727	0.6%
Oregon	14,969	0.7%	\$659	0.4%	\$1,611	0.3%
North Dakota	14,846	0.7%	\$944	0.5%	\$2,373	0.5%
Nebraska	14,476	0.7%	\$992	0.6%	\$2,667	0.6%
Montana	13,086	0.6%	\$798	0.5%	\$2,268	0.5%
Nevada	12,397	0.6%	\$574	0.3%	\$1,445	0.3%
Maine	12,165	0.6%	\$408	0.2%	\$922	0.2%
New Hampshire	8,502	0.4%	\$390	0.2%	\$898	0.2%
South Dakota	8,499	0.4%	\$304	0.2%	\$640	0.1%
Idaho	8,048	0.4%	\$294	0.2%	\$733	0.2%
Vermont	5,987	0.3%	\$202	0.1%	\$434	0.1%
Delaware	5,904	0.3%	\$488	0.3%	\$2,217	0.5%
Hawaii	4,920	0.2%	\$324	0.2%	\$1,238	0.3%
Rhode Island	4,008	0.2%	\$198	0.1%	\$541	0.1%
District of Columbia	958	0.0%	\$68	0.0%	\$231	0.0%
U.S. Total	2,192,392	100%	\$176,305	100%	\$464,574	100%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Indirect and Induced Impacts

The oil and natural gas industry purchases intermediate inputs from a variety of other U.S. industries, supporting jobs in these industries and spurring additional rounds of purchases. Other economic impacts are generated by the personal purchases of employees and business owners both within the oil and natural gas industry and out of the additional income in the supply chain to the industry. The jobs, labor income (including wages and salaries and benefits as well as proprietors' income), and value added supported by this cycle of spending, or multiplier process, are referred to as the indirect and induced economic impacts.

Further, the oil and natural gas industry purchases capital goods from a variety of U.S. suppliers, which has a similar multiplier effect on the rest of the U.S. economy. Based on data from the Census Bureau and U.S. Department of Commerce, PwC estimates that the oil and natural gas industry invested \$132 billion in new equipment and structures in 2009.

PwC quantified these indirect and induced impacts of both the oil and natural gas industry's operational and capital spending using the customized impact models PwC has built based on the IMPLAN modeling system.

Table 6 shows the oil and natural gas industry's indirect and induced impacts by sector, separately identifying its **operational** and **capital investment** impacts at the national level. PwC estimates that at the national level, each direct job in the oil and natural gas industry supported more than three jobs elsewhere in the U.S. economy in 2009. Accordingly, in addition to the 2.2 million direct jobs in the oil and natural gas industry, the industry's purchase of intermediate inputs from other U.S. suppliers are estimated to support 5.8 million indirect and induced jobs in other industries across the country in 2009, while its capital investment is estimated to support an additional 1.2 million indirect and induced jobs across many sectors of the U.S. economy. Combined, the oil and natural gas industry directly or indirectly generated 9.2 million jobs in the U.S. economy in 2009. The service sector accounts for the largest number of indirect and induced jobs attributable to the oil and natural gas industry's spending (3.4 million) in 2009, followed by Wholesale and Retail Trade (1.1 million), Finance, Insurance, Real Estate, Rental and Leasing (0.9 million), and Manufacturing (0.6 million).

The industry's estimated national indirect and induced labor income (including wages and salaries and benefits as well as proprietors' income) was \$357 billion and the indirect and induced value added was \$617 billion in 2009.

Table 6. The Direct, Indirect, and Induced Impacts of the Oil and Natural Gas Industry to the U.S. Economy, 2009

Sector Description	Employment*	Labor Income** (\$ million)	Value Added (\$ million)
Direct Impact of the Oil and Natural Gas Industry	2,192,392	\$176,305	\$464,574
Indirect and Induced Impact on Other Industries	6,968,174	\$357,243	\$617,126
<i>Operational Impact</i>	5,786,244	\$290,564	\$501,749
Agriculture	91,218	\$2,580	\$3,510
Mining	12,982	\$913	\$2,235
Utilities	27,397	\$3,554	\$12,091
Construction	122,132	\$6,027	\$7,207
Manufacturing	396,459	\$27,933	\$50,156
Wholesale and retail trade	883,136	\$40,242	\$67,406
Transportation and warehousing	249,301	\$12,486	\$17,256
Information	117,511	\$10,495	\$20,881
Finance, insurance, real estate, rental and leasing	771,363	\$35,111	\$139,389
Services	2,890,314	\$136,279	\$164,592
Other	224,431	\$14,944	\$17,026
<i>Capital Investment Impact</i>	1,181,930	\$66,679	\$115,377
Agriculture	15,524	\$460	\$659
Mining	3,080	\$216	\$541
Utilities	3,740	\$483	\$1,763
Construction	9,482	\$454	\$588
Manufacturing	196,690	\$14,966	\$25,355
Wholesale and retail trade	194,274	\$10,099	\$17,648
Transportation and warehousing	51,281	\$2,587	\$3,807
Information	32,896	\$3,259	\$6,886
Finance, insurance, real estate, rental and leasing	123,551	\$5,876	\$22,783
Services	538,104	\$27,276	\$34,497
Other	13,311	\$1,004	\$850
Total Economic Impact	9,160,566	\$533,548	\$1,081,701

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The remainder of this section provides more details on the operational economic impacts of the oil and natural gas industry at the state level. Due to data limitations, these state-level impacts exclude economic impacts from capital investment in the oil and natural gas industry.

Table 7a shows the sum of the oil and natural gas industry's indirect and induced effects from its operations (i.e., not including its capital investment impact) in terms of employment, value added, and labor income in the 50 states and the District of Columbia, where the states are shown alphabetically. **Table 7b** is the same as **Table 7a** except that the states are ranked in order of the indirect and induced employment effect. In 2009, the five states with the largest combined indirect and induced employment effects generated by the oil and natural gas industry were, in order: Texas, California, Louisiana, Illinois, and Pennsylvania. These top five states accounted for 50.5 percent of the oil and natural gas industry's national combined indirect and induced employment, 50.9 percent of the oil and natural gas industry's national combined indirect and induced labor income, and 51.4 percent of the oil and natural gas industry's national combined indirect and induced value added in 2009.

Table 8a shows the direct, indirect, induced, and total employment impact of the oil and natural gas industry from its operations in the 50 states and the District of Columbia, where the states are shown alphabetically. **Table 8b** is the same as **Table 8a** except that the states are ranked in order of the industry's total employment impact from its operations as a percent of each state's total employment. Using this metric, the top five states in 2009 were, in order: Wyoming (15.8 percent), Louisiana (15.1 percent), Texas (14.3 percent), Oklahoma (14.1 percent), and Alaska (10.3 percent).

Table 9a shows the direct, indirect, induced, and total labor income impact of the oil and natural gas industry from its operations 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 ranked in order of the industry's total impact from its operations as a percent of each state's total labor income. The top five states by this metric in 2009 were, in order: Wyoming (19.9 percent), Oklahoma (19.3 percent), Texas (18.9 percent), Louisiana (18.0 percent), and Alaska (14.1 percent).

Table 10a shows the direct, indirect, induced, and total value-added impact of the oil and natural gas industry from its operations in the 50 states and the District of Columbia, where the states are shown alphabetically. **Table 10b** is the same as **Table 10a** except that the states are ranked in order of the industry's total impact from its operations to each state's GDP. The top five states by this metric in 2009 were, in order: Oklahoma (27.1 percent), Texas (24.3 percent), Wyoming (24.3 percent), Louisiana (22.8 percent), and Alaska (16.9 percent).

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

Table 7a. Indirect and Induced Impacts of the Oil and Natural Gas Industry's Operations by State (Sorted Alphabetically), 2009

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	56,767	1.0%	\$2,447	0.8%	\$4,201	0.8%
Alaska	27,568	0.5%	\$1,306	0.4%	\$2,441	0.5%
Arizona	60,742	1.0%	\$2,925	1.0%	\$5,283	1.1%
Arkansas	46,999	0.8%	\$1,989	0.7%	\$3,332	0.7%
California	745,073	12.9%	\$43,430	14.9%	\$72,770	14.5%
Colorado	107,026	1.8%	\$5,560	1.9%	\$10,011	2.0%
Connecticut	40,071	0.7%	\$2,743	0.9%	\$4,623	0.9%
Delaware	28,309	0.5%	\$1,558	0.5%	\$2,593	0.5%
District of Columbia	9,015	0.2%	\$858	0.3%	\$1,282	0.3%
Florida	170,167	2.9%	\$7,884	2.7%	\$13,937	2.8%
Georgia	92,076	1.6%	\$4,621	1.6%	\$8,043	1.6%
Hawaii	17,887	0.3%	\$830	0.3%	\$1,426	0.3%
Idaho	15,170	0.3%	\$608	0.2%	\$998	0.2%
Illinois	211,248	3.7%	\$12,084	4.2%	\$20,398	4.1%
Indiana	95,898	1.7%	\$4,328	1.5%	\$7,476	1.5%
Iowa	36,229	0.6%	\$1,582	0.5%	\$2,736	0.5%
Kansas	73,456	1.3%	\$3,167	1.1%	\$5,539	1.1%
Kentucky	54,423	0.9%	\$2,348	0.8%	\$4,085	0.8%
Louisiana	258,323	4.5%	\$11,158	3.8%	\$19,241	3.8%
Maine	16,339	0.3%	\$686	0.2%	\$1,139	0.2%
Maryland	50,406	0.9%	\$2,835	1.0%	\$4,671	0.9%
Massachusetts	77,644	1.3%	\$5,139	1.8%	\$8,242	1.6%
Michigan	117,287	2.0%	\$5,729	2.0%	\$9,897	2.0%
Minnesota	83,971	1.5%	\$4,405	1.5%	\$7,404	1.5%
Mississippi	57,909	1.0%	\$2,245	0.8%	\$3,834	0.8%
Missouri	74,202	1.3%	\$3,546	1.2%	\$5,956	1.2%
Montana	27,190	0.5%	\$973	0.3%	\$1,782	0.4%
Nebraska	30,862	0.5%	\$1,348	0.5%	\$2,230	0.4%
Nevada	31,130	0.5%	\$1,516	0.5%	\$2,758	0.5%
New Hampshire	15,820	0.3%	\$803	0.3%	\$1,347	0.3%
New Jersey	115,517	2.0%	\$7,566	2.6%	\$12,568	2.5%
New Mexico	46,981	0.8%	\$1,932	0.7%	\$3,272	0.7%
New York	189,233	3.3%	\$13,268	4.6%	\$21,979	4.4%
North Carolina	93,529	1.6%	\$4,408	1.5%	\$7,576	1.5%
North Dakota	22,149	0.4%	\$891	0.3%	\$1,495	0.3%
Ohio	163,071	2.8%	\$7,830	2.7%	\$13,129	2.6%
Oklahoma	187,632	3.2%	\$7,294	2.5%	\$13,162	2.6%
Oregon	40,630	0.7%	\$1,879	0.6%	\$3,163	0.6%
Pennsylvania	198,037	3.4%	\$10,541	3.6%	\$17,535	3.5%
Rhode Island	10,529	0.2%	\$554	0.2%	\$903	0.2%
South Carolina	41,012	0.7%	\$1,720	0.6%	\$3,015	0.6%
South Dakota	9,819	0.2%	\$406	0.1%	\$677	0.1%
Tennessee	69,454	1.2%	\$3,272	1.1%	\$5,600	1.1%
Texas	1,507,747	26.1%	\$70,572	24.3%	\$127,850	25.5%
Utah	57,981	1.0%	\$2,429	0.8%	\$4,127	0.8%
Vermont	7,604	0.1%	\$309	0.1%	\$526	0.1%
Virginia	82,352	1.4%	\$4,722	1.6%	\$7,773	1.5%
Washington	84,188	1.5%	\$4,663	1.6%	\$7,853	1.6%
West Virginia	34,237	0.6%	\$1,394	0.5%	\$2,473	0.5%
Wisconsin	63,957	1.1%	\$3,028	1.0%	\$5,056	1.0%
Wyoming	31,378	0.5%	\$1,236	0.4%	\$2,341	0.5%
U.S. Total	5,786,244	100.0%	\$290,564	100.0%	\$501,749	100.0%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 7b. Indirect and Induced Impacts of the Oil and Natural Gas Industry's Operations by State (Sorted by Employment Impact), 2009

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	1,507,747	26.1%	\$70,572	24.3%	\$127,850	25.5%
California	745,073	12.9%	\$43,430	14.9%	\$72,770	14.5%
Louisiana	258,323	4.5%	\$11,158	3.8%	\$19,241	3.8%
Illinois	211,248	3.7%	\$12,084	4.2%	\$20,398	4.1%
Pennsylvania	198,037	3.4%	\$10,541	3.6%	\$17,535	3.5%
New York	189,233	3.3%	\$13,268	4.6%	\$21,979	4.4%
Oklahoma	187,632	3.2%	\$7,294	2.5%	\$13,162	2.6%
Florida	170,167	2.9%	\$7,884	2.7%	\$13,937	2.8%
Ohio	163,071	2.8%	\$7,830	2.7%	\$13,129	2.6%
Michigan	117,287	2.0%	\$5,729	2.0%	\$9,897	2.0%
New Jersey	115,517	2.0%	\$7,566	2.6%	\$12,568	2.5%
Colorado	107,026	1.8%	\$5,560	1.9%	\$10,011	2.0%
Indiana	95,898	1.7%	\$4,328	1.5%	\$7,476	1.5%
North Carolina	93,529	1.6%	\$4,408	1.5%	\$7,576	1.5%
Georgia	92,076	1.6%	\$4,621	1.6%	\$8,043	1.6%
Washington	84,188	1.5%	\$4,663	1.6%	\$7,853	1.6%
Minnesota	83,971	1.5%	\$4,405	1.5%	\$7,404	1.5%
Virginia	82,352	1.4%	\$4,722	1.6%	\$7,773	1.5%
Massachusetts	77,644	1.3%	\$5,139	1.8%	\$8,242	1.6%
Missouri	74,202	1.3%	\$3,546	1.2%	\$5,956	1.2%
Kansas	73,456	1.3%	\$3,167	1.1%	\$5,539	1.1%
Tennessee	69,454	1.2%	\$3,272	1.1%	\$5,600	1.1%
Wisconsin	63,957	1.1%	\$3,028	1.0%	\$5,056	1.0%
Arizona	60,742	1.0%	\$2,925	1.0%	\$5,283	1.1%
Utah	57,981	1.0%	\$2,429	0.8%	\$4,127	0.8%
Mississippi	57,909	1.0%	\$2,245	0.8%	\$3,834	0.8%
Alabama	56,767	1.0%	\$2,447	0.8%	\$4,201	0.8%
Kentucky	54,423	0.9%	\$2,348	0.8%	\$4,085	0.8%
Maryland	50,406	0.9%	\$2,835	1.0%	\$4,671	0.9%
Arkansas	46,999	0.8%	\$1,989	0.7%	\$3,332	0.7%
New Mexico	46,981	0.8%	\$1,932	0.7%	\$3,272	0.7%
South Carolina	41,012	0.7%	\$1,720	0.6%	\$3,015	0.6%
Oregon	40,630	0.7%	\$1,879	0.6%	\$3,163	0.6%
Connecticut	40,071	0.7%	\$2,743	0.9%	\$4,623	0.9%
Iowa	36,229	0.6%	\$1,582	0.5%	\$2,736	0.5%
West Virginia	34,237	0.6%	\$1,394	0.5%	\$2,473	0.5%
Wyoming	31,378	0.5%	\$1,236	0.4%	\$2,341	0.5%
Nevada	31,130	0.5%	\$1,516	0.5%	\$2,758	0.5%
Nebraska	30,862	0.5%	\$1,348	0.5%	\$2,230	0.4%
Delaware	28,309	0.5%	\$1,558	0.5%	\$2,593	0.5%
Alaska	27,568	0.5%	\$1,306	0.4%	\$2,441	0.5%
Montana	27,190	0.5%	\$973	0.3%	\$1,782	0.4%
North Dakota	22,149	0.4%	\$891	0.3%	\$1,495	0.3%
Hawaii	17,887	0.3%	\$830	0.3%	\$1,426	0.3%
Maine	16,339	0.3%	\$686	0.2%	\$1,139	0.2%
New Hampshire	15,820	0.3%	\$803	0.3%	\$1,347	0.3%
Idaho	15,170	0.3%	\$608	0.2%	\$998	0.2%
Rhode Island	10,529	0.2%	\$554	0.2%	\$903	0.2%
South Dakota	9,819	0.2%	\$406	0.1%	\$677	0.1%
District of Columbia	9,015	0.2%	\$858	0.3%	\$1,282	0.3%
Vermont	7,604	0.1%	\$309	0.1%	\$526	0.1%
U.S. Total	5,786,244	100.0%	\$290,564	100.0%	\$501,749	100.0%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 8a. Employment Impact of the Oil and Natural Gas Industry's Operations by State (Sorted Alphabetically), 2009

State	Direct Employment	Indirect Employment	Induced Employment	Total Contribution	Total Contribution as a % of State Total Employment
Alabama	31,014	19,933	36,834	87,781	3.5%
Alaska	18,741	9,896	17,672	46,310	10.3%
Arizona	25,208	19,528	41,214	85,949	2.7%
Arkansas	29,532	19,971	27,029	76,532	5.0%
California	163,729	315,077	429,995	908,801	4.6%
Colorado	54,240	40,112	66,913	161,266	5.2%
Connecticut	15,334	12,669	27,401	55,405	2.6%
Delaware	5,904	16,527	11,783	34,213	6.5%
District of Columbia	958	2,688	6,327	9,973	1.2%
Florida	60,394	52,927	117,240	230,561	2.4%
Georgia	38,100	28,125	63,952	130,176	2.5%
Hawaii	4,920	8,019	9,868	22,807	2.7%
Idaho	8,048	4,776	10,394	23,218	2.6%
Illinois	57,723	80,302	130,946	268,970	3.7%
Indiana	36,630	40,067	55,831	132,528	3.8%
Iowa	22,571	11,363	24,866	58,801	3.0%
Kansas	42,614	31,412	42,044	116,070	6.5%
Kentucky	31,788	20,902	33,520	86,210	3.7%
Louisiana	116,923	124,012	134,311	375,245	15.1%
Maine	12,165	5,372	10,967	28,504	3.5%
Maryland	17,325	15,553	34,853	67,730	2.0%
Massachusetts	24,689	24,378	53,266	102,332	2.5%
Michigan	45,093	39,684	77,603	162,380	3.2%
Minnesota	33,349	32,843	51,128	117,319	3.5%
Mississippi	33,291	27,165	30,744	91,201	6.1%
Missouri	37,089	25,419	48,783	111,290	3.2%
Montana	13,086	13,426	13,764	40,276	6.4%
Nebraska	14,476	10,173	20,689	45,338	3.7%
Nevada	12,397	11,071	20,060	43,527	2.9%
New Hampshire	8,502	4,984	10,836	24,322	3.0%
New Jersey	31,528	47,741	67,776	147,045	3.0%
New Mexico	32,408	19,767	27,214	79,389	7.5%
New York	56,715	54,286	134,947	245,948	2.3%
North Carolina	41,636	30,040	63,489	135,165	2.6%
North Dakota	14,846	10,339	11,810	36,995	7.5%
Ohio	67,787	62,231	100,839	230,858	3.6%
Oklahoma	111,461	72,740	114,892	299,093	14.1%
Oregon	14,969	13,296	27,335	55,600	2.5%
Pennsylvania	77,526	74,229	123,808	275,563	3.9%
Rhode Island	4,008	3,337	7,192	14,538	2.5%
South Carolina	22,180	12,759	28,254	63,192	2.6%
South Dakota	8,499	2,868	6,951	18,318	3.3%
Tennessee	32,628	23,059	46,396	102,083	2.9%
Texas	474,393	579,531	928,216	1,982,140	14.3%
Utah	20,444	25,092	32,889	78,425	4.9%
Vermont	5,987	2,302	5,302	13,591	3.3%
Virginia	45,678	27,244	55,107	128,030	2.7%
Washington	25,007	33,485	50,703	109,195	2.8%
West Virginia	29,068	14,032	20,206	63,306	7.1%
Wisconsin	30,103	20,834	43,123	94,060	2.8%
Wyoming	29,687	15,411	15,967	61,065	15.8%
U.S. Total	2,192,392	2,212,997	3,573,247	7,978,636	4.6%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

Table 8b. Employment Impact of the Oil and Natural Gas Industry's Operations by State (Sorted by Employment Share), 2009

State	Direct Employment	Indirect Employment	Induced Employment	Total Contribution	Total Contribution as a % of State Total Employment
Wyoming	29,687	15,411	15,967	61,065	15.8%
Louisiana	116,923	124,012	134,311	375,245	15.1%
Texas	474,393	579,531	928,216	1,982,140	14.3%
Oklahoma	111,461	72,740	114,892	299,093	14.1%
Alaska	18,741	9,896	17,672	46,310	10.3%
North Dakota	14,846	10,339	11,810	36,995	7.5%
New Mexico	32,408	19,767	27,214	79,389	7.5%
West Virginia	29,068	14,032	20,206	63,306	7.1%
Delaware	5,904	16,527	11,783	34,213	6.5%
Kansas	42,614	31,412	42,044	116,070	6.5%
Montana	13,086	13,426	13,764	40,276	6.4%
Mississippi	33,291	27,165	30,744	91,201	6.1%
Colorado	54,240	40,112	66,913	161,266	5.2%
Arkansas	29,532	19,971	27,029	76,532	5.0%
Utah	20,444	25,092	32,889	78,425	4.9%
California	163,729	315,077	429,995	908,801	4.6%
Pennsylvania	77,526	74,229	123,808	275,563	3.9%
Indiana	36,630	40,067	55,831	132,528	3.8%
Nebraska	14,476	10,173	20,689	45,338	3.7%
Illinois	57,723	80,302	130,946	268,970	3.7%
Kentucky	31,788	20,902	33,520	86,210	3.7%
Ohio	67,787	62,231	100,839	230,858	3.6%
Alabama	31,014	19,933	36,834	87,781	3.5%
Maine	12,165	5,372	10,967	28,504	3.5%
Minnesota	33,349	32,843	51,128	117,319	3.5%
South Dakota	8,499	2,868	6,951	18,318	3.3%
Vermont	5,987	2,302	5,302	13,591	3.3%
Michigan	45,093	39,684	77,603	162,380	3.2%
Missouri	37,089	25,419	48,783	111,290	3.2%
Iowa	22,571	11,363	24,866	58,801	3.0%
New Jersey	31,528	47,741	67,776	147,045	3.0%
New Hampshire	8,502	4,984	10,836	24,322	3.0%
Nevada	12,397	11,071	20,060	43,527	2.9%
Tennessee	32,628	23,059	46,396	102,083	2.9%
Washington	25,007	33,485	50,703	109,195	2.8%
Wisconsin	30,103	20,834	43,123	94,060	2.8%
Hawaii	4,920	8,019	9,868	22,807	2.7%
Virginia	45,678	27,244	55,107	128,030	2.7%
Arizona	25,208	19,528	41,214	85,949	2.7%
Idaho	8,048	4,776	10,394	23,218	2.6%
North Carolina	41,636	30,040	63,489	135,165	2.6%
South Carolina	22,180	12,759	28,254	63,192	2.6%
Connecticut	15,334	12,669	27,401	55,405	2.6%
Oregon	14,969	13,296	27,335	55,600	2.5%
Massachusetts	24,689	24,378	53,266	102,332	2.5%
Rhode Island	4,008	3,337	7,192	14,538	2.5%
Georgia	38,100	28,125	63,952	130,176	2.5%
Florida	60,394	52,927	117,240	230,561	2.4%
New York	56,715	54,286	134,947	245,948	2.3%
Maryland	17,325	15,553	34,853	67,730	2.0%
District of Columbia	958	2,688	6,327	9,973	1.2%
U.S. Total	2,192,392	2,212,997	3,573,247	7,978,636	4.6%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

Table 9a. Impact of the Oil and Natural Gas Industry's Operations on Labor Income by State (Sorted Alphabetically), 2009 (\$ Million)

State	Direct Labor Income	Indirect Labor Income	Induced Labor Income	Total Contribution	Total Contribution as a % of State Total Labor Income
Alabama	\$1,563	\$999	\$1,448	\$4,010	3.7%
Alaska	\$2,253	\$542	\$764	\$3,559	14.1%
Arizona	\$1,149	\$1,060	\$1,865	\$4,074	2.7%
Arkansas	\$1,415	\$960	\$1,029	\$3,404	5.4%
California	\$18,891	\$20,603	\$22,827	\$62,321	5.4%
Colorado	\$4,675	\$2,509	\$3,050	\$10,235	6.3%
Connecticut	\$1,074	\$1,033	\$1,710	\$3,817	2.8%
Delaware	\$488	\$1,007	\$551	\$2,046	7.3%
District of Columbia	\$68	\$316	\$542	\$926	1.2%
Florida	\$2,202	\$2,810	\$5,074	\$10,086	2.3%
Georgia	\$1,630	\$1,651	\$2,969	\$6,251	2.5%
Hawaii	\$324	\$418	\$412	\$1,154	2.8%
Idaho	\$294	\$218	\$390	\$901	2.6%
Illinois	\$4,732	\$5,415	\$6,669	\$16,816	4.2%
Indiana	\$1,891	\$2,031	\$2,297	\$6,220	4.0%
Iowa	\$695	\$572	\$1,010	\$2,278	2.8%
Kansas	\$2,614	\$1,534	\$1,633	\$5,781	7.2%
Kentucky	\$1,325	\$1,040	\$1,308	\$3,673	3.7%
Louisiana	\$9,660	\$6,048	\$5,110	\$20,818	18.0%
Maine	\$408	\$253	\$433	\$1,094	3.3%
Maryland	\$751	\$1,043	\$1,791	\$3,585	1.9%
Massachusetts	\$1,661	\$1,927	\$3,212	\$6,800	2.7%
Michigan	\$2,635	\$2,338	\$3,392	\$8,364	3.5%
Minnesota	\$1,397	\$2,010	\$2,395	\$5,802	3.5%
Mississippi	\$1,769	\$1,160	\$1,085	\$4,014	6.8%
Missouri	\$1,548	\$1,432	\$2,114	\$5,094	3.2%
Montana	\$798	\$533	\$440	\$1,771	7.7%
Nebraska	\$992	\$511	\$837	\$2,340	4.4%
Nevada	\$574	\$611	\$905	\$2,089	2.9%
New Hampshire	\$390	\$292	\$512	\$1,194	3.0%
New Jersey	\$2,217	\$3,619	\$3,947	\$9,782	3.3%
New Mexico	\$1,924	\$921	\$1,011	\$3,856	8.2%
New York	\$4,106	\$4,618	\$8,650	\$17,374	2.5%
North Carolina	\$1,657	\$1,669	\$2,739	\$6,065	2.6%
North Dakota	\$944	\$460	\$430	\$1,835	8.8%
Ohio	\$3,543	\$3,508	\$4,322	\$11,374	3.9%
Oklahoma	\$10,562	\$3,233	\$4,062	\$17,856	19.3%
Oregon	\$659	\$716	\$1,163	\$2,538	2.6%
Pennsylvania	\$4,417	\$4,684	\$5,857	\$14,958	4.2%
Rhode Island	\$198	\$208	\$347	\$752	2.5%
South Carolina	\$718	\$636	\$1,085	\$2,438	2.4%
South Dakota	\$304	\$129	\$276	\$709	3.2%
Tennessee	\$1,317	\$1,221	\$2,051	\$4,588	2.9%
Texas	\$64,294	\$31,571	\$39,001	\$134,866	18.9%
Utah	\$1,382	\$1,194	\$1,235	\$3,811	5.6%
Vermont	\$202	\$105	\$204	\$512	3.0%
Virginia	\$1,785	\$1,924	\$2,798	\$6,507	2.4%
Washington	\$1,466	\$2,103	\$2,559	\$6,129	2.9%
West Virginia	\$1,526	\$660	\$734	\$2,920	7.4%
Wisconsin	\$1,001	\$1,171	\$1,857	\$4,029	2.6%
Wyoming	\$2,217	\$691	\$545	\$3,452	19.9%
U.S. Total	\$176,305	\$127,916	\$162,647	\$466,869	5.3%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 9b. Impact of the Oil and Natural Gas Industry's Operations on Labor Income by State (Sorted by Labor Income Share), 2009 (\$ Million)

State	Direct Labor Income	Indirect Labor Income	Induced Labor Income	Total Contribution	Total Contribution as a % of State Total Labor Income
Wyoming	\$2,217	\$691	\$545	\$3,452	19.9%
Oklahoma	\$10,562	\$3,233	\$4,062	\$17,856	19.3%
Texas	\$64,294	\$31,571	\$39,001	\$134,866	18.9%
Louisiana	\$9,660	\$6,048	\$5,110	\$20,818	18.0%
Alaska	\$2,253	\$542	\$764	\$3,559	14.1%
North Dakota	\$944	\$460	\$430	\$1,835	8.8%
New Mexico	\$1,924	\$921	\$1,011	\$3,856	8.2%
Montana	\$798	\$533	\$440	\$1,771	7.7%
West Virginia	\$1,526	\$660	\$734	\$2,920	7.4%
Delaware	\$488	\$1,007	\$551	\$2,046	7.3%
Kansas	\$2,614	\$1,534	\$1,633	\$5,781	7.2%
Mississippi	\$1,769	\$1,160	\$1,085	\$4,014	6.8%
Colorado	\$4,675	\$2,509	\$3,050	\$10,235	6.3%
Utah	\$1,382	\$1,194	\$1,235	\$3,811	5.6%
California	\$18,891	\$20,603	\$22,827	\$62,321	5.4%
Arkansas	\$1,415	\$960	\$1,029	\$3,404	5.4%
Nebraska	\$992	\$511	\$837	\$2,340	4.4%
Illinois	\$4,732	\$5,415	\$6,669	\$16,816	4.2%
Pennsylvania	\$4,417	\$4,684	\$5,857	\$14,958	4.2%
Indiana	\$1,891	\$2,031	\$2,297	\$6,220	4.0%
Ohio	\$3,543	\$3,508	\$4,322	\$11,374	3.9%
Alabama	\$1,563	\$999	\$1,448	\$4,010	3.7%
Kentucky	\$1,325	\$1,040	\$1,308	\$3,673	3.7%
Michigan	\$2,635	\$2,338	\$3,392	\$8,364	3.5%
Minnesota	\$1,397	\$2,010	\$2,395	\$5,802	3.5%
Maine	\$408	\$253	\$433	\$1,094	3.3%
New Jersey	\$2,217	\$3,619	\$3,947	\$9,782	3.3%
South Dakota	\$304	\$129	\$276	\$709	3.2%
Missouri	\$1,548	\$1,432	\$2,114	\$5,094	3.2%
Vermont	\$202	\$105	\$204	\$512	3.0%
New Hampshire	\$390	\$292	\$512	\$1,194	3.0%
Washington	\$1,466	\$2,103	\$2,559	\$6,129	2.9%
Nevada	\$574	\$611	\$905	\$2,089	2.9%
Tennessee	\$1,317	\$1,221	\$2,051	\$4,588	2.9%
Connecticut	\$1,074	\$1,033	\$1,710	\$3,817	2.8%
Iowa	\$695	\$572	\$1,010	\$2,278	2.8%
Hawaii	\$324	\$418	\$412	\$1,154	2.8%
Massachusetts	\$1,661	\$1,927	\$3,212	\$6,800	2.7%
Arizona	\$1,149	\$1,060	\$1,865	\$4,074	2.7%
Wisconsin	\$1,001	\$1,171	\$1,857	\$4,029	2.6%
Idaho	\$294	\$218	\$390	\$901	2.6%
Oregon	\$659	\$716	\$1,163	\$2,538	2.6%
North Carolina	\$1,657	\$1,669	\$2,739	\$6,065	2.6%
Rhode Island	\$198	\$208	\$347	\$752	2.5%
New York	\$4,106	\$4,618	\$8,650	\$17,374	2.5%
Georgia	\$1,630	\$1,651	\$2,969	\$6,251	2.5%
South Carolina	\$718	\$636	\$1,085	\$2,438	2.4%
Virginia	\$1,785	\$1,924	\$2,798	\$6,507	2.4%
Florida	\$2,202	\$2,810	\$5,074	\$10,086	2.3%
Maryland	\$751	\$1,043	\$1,791	\$3,585	1.9%
District of Columbia	\$68	\$316	\$542	\$926	1.2%
U.S. Total	\$176,305	\$127,916	\$162,647	\$466,869	5.3%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 10a. Impact of the Oil and Natural Gas Industry's Operations on Value Added by State (Sorted Alphabetically), 2009 (\$ Million)

State	Direct Value Added	Indirect Value Added	Induced Value Added	Total Contribution	Total Contribution as a % of State GDP
Alabama	\$3,488	\$1,726	\$2,475	\$7,690	4.6%
Alaska	\$4,230	\$1,086	\$1,355	\$6,671	16.9%
Arizona	\$2,390	\$1,932	\$3,351	\$7,672	3.0%
Arkansas	\$3,124	\$1,629	\$1,703	\$6,457	6.6%
California	\$58,818	\$33,434	\$39,337	\$131,589	7.0%
Colorado	\$10,456	\$4,448	\$5,563	\$20,467	7.8%
Connecticut	\$2,727	\$1,688	\$2,935	\$7,349	3.3%
Delaware	\$2,217	\$1,628	\$965	\$4,810	10.5%
District of Columbia	\$231	\$475	\$807	\$1,513	1.4%
Florida	\$4,653	\$4,976	\$8,961	\$18,590	2.6%
Georgia	\$3,552	\$2,753	\$5,290	\$11,594	2.8%
Hawaii	\$1,238	\$703	\$722	\$2,663	4.2%
Idaho	\$733	\$367	\$631	\$1,731	3.3%
Illinois	\$14,002	\$9,063	\$11,335	\$34,400	5.4%
Indiana	\$6,050	\$3,529	\$3,948	\$13,527	5.4%
Iowa	\$1,456	\$1,005	\$1,730	\$4,192	3.2%
Kansas	\$8,578	\$2,746	\$2,793	\$14,117	10.8%
Kentucky	\$2,975	\$1,806	\$2,279	\$7,060	4.4%
Louisiana	\$23,769	\$10,552	\$8,689	\$43,010	22.8%
Maine	\$922	\$424	\$715	\$2,061	4.1%
Maryland	\$1,660	\$1,675	\$2,996	\$6,331	2.2%
Massachusetts	\$4,458	\$3,014	\$5,228	\$12,700	3.3%
Michigan	\$6,922	\$4,001	\$5,896	\$16,819	4.4%
Minnesota	\$3,690	\$3,305	\$4,099	\$11,094	4.1%
Mississippi	\$4,742	\$1,993	\$1,841	\$8,576	9.4%
Missouri	\$3,566	\$2,379	\$3,577	\$9,523	3.8%
Montana	\$2,268	\$978	\$804	\$4,050	10.7%
Nebraska	\$2,667	\$842	\$1,388	\$4,897	5.8%
Nevada	\$1,445	\$1,138	\$1,620	\$4,204	3.5%
New Hampshire	\$898	\$487	\$860	\$2,245	3.6%
New Jersey	\$7,036	\$5,765	\$6,803	\$19,604	4.1%
New Mexico	\$4,189	\$1,569	\$1,704	\$7,461	10.6%
New York	\$10,919	\$7,537	\$14,442	\$32,898	3.0%
North Carolina	\$3,388	\$2,754	\$4,822	\$10,963	2.9%
North Dakota	\$2,373	\$785	\$710	\$3,868	11.8%
Ohio	\$9,580	\$5,790	\$7,339	\$22,709	4.9%
Oklahoma	\$29,159	\$6,076	\$7,086	\$42,321	27.1%
Oregon	\$1,611	\$1,202	\$1,962	\$4,775	3.1%
Pennsylvania	\$10,905	\$7,725	\$9,810	\$28,440	5.1%
Rhode Island	\$541	\$334	\$569	\$1,444	3.2%
South Carolina	\$1,320	\$1,126	\$1,888	\$4,334	2.7%
South Dakota	\$640	\$232	\$445	\$1,317	3.9%
Tennessee	\$2,769	\$2,086	\$3,514	\$8,370	3.3%
Texas	\$169,660	\$58,581	\$69,269	\$297,510	24.3%
Utah	\$3,859	\$1,991	\$2,136	\$7,986	7.4%
Vermont	\$434	\$185	\$341	\$960	3.7%
Virginia	\$3,828	\$2,977	\$4,796	\$11,601	2.8%
Washington	\$4,397	\$3,459	\$4,394	\$12,250	3.7%
West Virginia	\$3,414	\$1,220	\$1,253	\$5,887	9.5%
Wisconsin	\$1,952	\$1,950	\$3,106	\$7,007	2.9%
Wyoming	\$4,677	\$1,330	\$1,011	\$7,018	24.3%
U.S. Total	\$464,574	\$220,456	\$281,294	\$966,324	6.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

Table 10b. Impact of the Oil and Natural Gas Industry's Operations on Value Added by State (Sorted by Value Added Share), 2009 (\$ Million)

State	Direct Value Added	Indirect Value Added	Induced Value Added	Total Contribution	Total Contribution as a % of State GDP
Oklahoma	\$29,159	\$6,076	\$7,086	\$42,321	27.1%
Texas	\$169,660	\$58,581	\$69,269	\$297,510	24.3%
Wyoming	\$4,677	\$1,330	\$1,011	\$7,018	24.3%
Louisiana	\$23,769	\$10,552	\$8,689	\$43,010	22.8%
Alaska	\$4,230	\$1,086	\$1,355	\$6,671	16.9%
North Dakota	\$2,373	\$785	\$710	\$3,868	11.8%
Kansas	\$8,578	\$2,746	\$2,793	\$14,117	10.8%
Montana	\$2,268	\$978	\$804	\$4,050	10.7%
New Mexico	\$4,189	\$1,569	\$1,704	\$7,461	10.6%
Delaware	\$2,217	\$1,628	\$965	\$4,810	10.5%
West Virginia	\$3,414	\$1,220	\$1,253	\$5,887	9.5%
Mississippi	\$4,742	\$1,993	\$1,841	\$8,576	9.4%
Colorado	\$10,456	\$4,448	\$5,563	\$20,467	7.8%
Utah	\$3,859	\$1,991	\$2,136	\$7,986	7.4%
California	\$58,818	\$33,434	\$39,337	\$131,589	7.0%
Arkansas	\$3,124	\$1,629	\$1,703	\$6,457	6.6%
Nebraska	\$2,667	\$842	\$1,388	\$4,897	5.8%
Illinois	\$14,002	\$9,063	\$11,335	\$34,400	5.4%
Indiana	\$6,050	\$3,529	\$3,948	\$13,527	5.4%
Pennsylvania	\$10,905	\$7,725	\$9,810	\$28,440	5.1%
Ohio	\$9,580	\$5,790	\$7,339	\$22,709	4.9%
Alabama	\$3,488	\$1,726	\$2,475	\$7,690	4.6%
Kentucky	\$2,975	\$1,806	\$2,279	\$7,060	4.4%
Michigan	\$6,922	\$4,001	\$5,896	\$16,819	4.4%
Hawaii	\$1,238	\$703	\$722	\$2,663	4.2%
Minnesota	\$3,690	\$3,305	\$4,099	\$11,094	4.1%
New Jersey	\$7,036	\$5,765	\$6,803	\$19,604	4.1%
Maine	\$922	\$424	\$715	\$2,061	4.1%
South Dakota	\$640	\$232	\$445	\$1,317	3.9%
Missouri	\$3,566	\$2,379	\$3,577	\$9,523	3.8%
Washington	\$4,397	\$3,459	\$4,394	\$12,250	3.7%
Vermont	\$434	\$185	\$341	\$960	3.7%
New Hampshire	\$898	\$487	\$860	\$2,245	3.6%
Nevada	\$1,445	\$1,138	\$1,620	\$4,204	3.5%
Connecticut	\$2,727	\$1,688	\$2,935	\$7,349	3.3%
Massachusetts	\$4,458	\$3,014	\$5,228	\$12,700	3.3%
Idaho	\$733	\$367	\$631	\$1,731	3.3%
Tennessee	\$2,769	\$2,086	\$3,514	\$8,370	3.3%
Rhode Island	\$541	\$334	\$569	\$1,444	3.2%
Iowa	\$1,456	\$1,005	\$1,730	\$4,192	3.2%
Oregon	\$1,611	\$1,202	\$1,962	\$4,775	3.1%
Arizona	\$2,390	\$1,932	\$3,351	\$7,672	3.0%
New York	\$10,919	\$7,537	\$14,442	\$32,898	3.0%
Wisconsin	\$1,952	\$1,950	\$3,106	\$7,007	2.9%
North Carolina	\$3,388	\$2,754	\$4,822	\$10,963	2.9%
Virginia	\$3,828	\$2,977	\$4,796	\$11,601	2.8%
Georgia	\$3,552	\$2,753	\$5,290	\$11,594	2.8%
South Carolina	\$1,320	\$1,126	\$1,888	\$4,334	2.7%
Florida	\$4,653	\$4,976	\$8,961	\$18,590	2.6%
Maryland	\$1,660	\$1,675	\$2,996	\$6,331	2.2%
District of Columbia	\$231	\$475	\$807	\$1,513	1.4%
U.S. Total	\$464,574	\$220,456	\$281,294	\$966,324	6.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

Appendix A

Detailed State-by-State Operational Impact Results

The Economic Impact of the Oil and Natural Gas Industry in Alabama, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	31,014			31,014	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		8,675	18,042	26,717	
<i>Wholesale and retail trade</i>		1,417	6,523	7,939	
<i>Manufacturing</i>		3,419	3,271	6,689	
<i>Finance, insurance, real estate, rental and leasing</i>		2,253	4,388	6,641	
<i>Transportation and warehousing</i>		1,095	1,006	2,101	
<i>Construction</i>		1,211	388	1,599	
<i>Agriculture</i>		186	1,106	1,291	
<i>Information</i>		360	487	847	
<i>Utilities</i>		191	208	399	
<i>Mining</i>		218	72	290	
<i>Other</i>		911	1,343	2,254	
Total Operational Impact on Employment	31,014	19,933	36,834	87,781	3.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,563.0			\$1,563.0	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$387.2	\$649.8	\$1,037.0	
<i>Manufacturing</i>		\$227.9	\$185.2	\$413.1	
<i>Wholesale and retail trade</i>		\$79.5	\$224.0	\$303.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$85.4	\$159.0	\$244.4	
<i>Transportation and warehousing</i>		\$48.0	\$45.7	\$93.8	
<i>Construction</i>		\$47.2	\$15.0	\$62.1	
<i>Information</i>		\$20.0	\$26.5	\$46.4	
<i>Utilities</i>		\$20.5	\$23.0	\$43.5	
<i>Agriculture</i>		\$5.6	\$29.8	\$35.4	
<i>Mining</i>		\$19.5	\$6.4	\$25.8	
<i>Other</i>		\$58.6	\$83.6	\$142.2	
Total Operational Impact on Labor Income	\$1,563.0	\$999.2	\$1,448.1	\$4,010.2	3.7%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,488.5			\$3,488.5	2.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$464.3	\$759.3	\$1,223.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$347.6	\$671.2	\$1,018.8	
<i>Manufacturing</i>		\$431.2	\$319.2	\$750.4	
<i>Wholesale and retail trade</i>		\$135.1	\$366.3	\$501.4	
<i>Utilities</i>		\$69.5	\$78.0	\$147.5	
<i>Transportation and warehousing</i>		\$65.4	\$62.3	\$127.7	
<i>Information</i>		\$44.2	\$59.1	\$103.3	
<i>Construction</i>		\$56.4	\$17.9	\$74.3	
<i>Mining</i>		\$39.6	\$12.8	\$52.5	
<i>Agriculture</i>		\$6.1	\$33.1	\$39.2	
<i>Other</i>		\$66.8	\$95.9	\$162.7	
Total Operational Impact on Value Added	\$3,488.5	\$1,726.3	\$2,475.2	\$7,690.0	4.6%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Alaska, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	18,741			18,741	4.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,494	9,697	14,191	
<i>Wholesale and retail trade</i>		934	3,580	4,514	
<i>Finance, insurance, real estate, rental and leasing</i>		1,629	1,970	3,598	
<i>Transportation and warehousing</i>		695	478	1,172	
<i>Manufacturing</i>		249	366	615	
<i>Information</i>		271	283	554	
<i>Construction</i>		421	94	515	
<i>Agriculture</i>		70	286	356	
<i>Mining</i>		184	51	235	
<i>Utilities</i>		123	81	204	
<i>Other</i>		<u>826</u>	<u>788</u>	<u>1,614</u>	
Total Operational Impact on Employment	18,741	9,896	17,672	46,310	10.3%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,253.4			\$2,253.4	8.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$232.1	\$408.5	\$640.6	
<i>Wholesale and retail trade</i>		\$50.0	\$129.0	\$179.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$58.4	\$76.1	\$134.5	
<i>Transportation and warehousing</i>		\$43.8	\$30.5	\$74.3	
<i>Information</i>		\$18.0	\$18.7	\$36.7	
<i>Construction</i>		\$29.9	\$6.7	\$36.5	
<i>Manufacturing</i>		\$18.1	\$15.4	\$33.5	
<i>Utilities</i>		\$13.0	\$8.4	\$21.4	
<i>Mining</i>		\$11.5	\$3.1	\$14.6	
<i>Agriculture</i>		\$1.4	\$5.4	\$6.8	
<i>Other</i>		<u>\$65.4</u>	<u>\$62.5</u>	<u>\$127.8</u>	
Total Operational Impact on Labor Income	\$2,253.4	\$541.5	\$764.3	\$3,559.2	14.1%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,230.4			\$4,230.4	10.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$293.9	\$484.7	\$778.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$354.0	\$410.7	\$764.6	
<i>Wholesale and retail trade</i>		\$85.0	\$212.4	\$297.4	
<i>Transportation and warehousing</i>		\$65.4	\$45.4	\$110.9	
<i>Information</i>		\$46.7	\$48.6	\$95.3	
<i>Utilities</i>		\$44.3	\$27.9	\$72.2	
<i>Mining</i>		\$51.1	\$13.9	\$65.0	
<i>Manufacturing</i>		\$29.5	\$20.4	\$49.9	
<i>Construction</i>		\$35.7	\$8.0	\$43.7	
<i>Agriculture</i>		\$2.1	\$8.1	\$10.1	
<i>Other</i>		<u>\$78.3</u>	<u>\$74.6</u>	<u>\$152.9</u>	
Total Operational Impact on Value Added	\$4,230.4	\$1,086.0	\$1,354.6	\$6,670.9	16.9%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Arizona, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	25,208			25,208	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		9,302	21,173	30,476	
<i>Finance, insurance, real estate, rental and leasing</i>		2,956	6,417	9,373	
<i>Wholesale and retail trade</i>		1,081	7,004	8,085	
<i>Manufacturing</i>		1,940	1,906	3,846	
<i>Transportation and warehousing</i>		1,113	1,226	2,339	
<i>Construction</i>		1,234	424	1,659	
<i>Information</i>		466	683	1,149	
<i>Agriculture</i>		119	694	813	
<i>Mining</i>		353	120	474	
<i>Utilities</i>		129	175	304	
<i>Other</i>		<u>835</u>	<u>1,392</u>	<u>2,227</u>	
Total Operational Impact on Employment	25,208	19,528	41,214	85,949	2.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,148.9			\$1,148.9	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$488.4	\$921.7	\$1,410.1	
<i>Wholesale and retail trade</i>		\$71.1	\$290.1	\$361.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$114.4	\$245.2	\$359.7	
<i>Manufacturing</i>		\$131.7	\$134.6	\$266.3	
<i>Transportation and warehousing</i>		\$53.1	\$61.4	\$114.6	
<i>Construction</i>		\$62.7	\$21.3	\$84.0	
<i>Information</i>		\$31.7	\$45.1	\$76.7	
<i>Mining</i>		\$29.3	\$9.8	\$39.1	
<i>Utilities</i>		\$15.8	\$22.0	\$37.8	
<i>Agriculture</i>		\$3.9	\$20.6	\$24.5	
<i>Other</i>		<u>\$57.8</u>	<u>\$93.2</u>	<u>\$151.0</u>	
Total Operational Impact on Labor Income	\$1,148.9	\$1,060.0	\$1,865.0	\$4,073.9	2.7%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,389.5			\$2,389.5	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$607.5	\$1,101.0	\$1,708.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$523.5	\$1,090.5	\$1,614.0	
<i>Wholesale and retail trade</i>		\$121.6	\$485.4	\$607.0	
<i>Manufacturing</i>		\$225.8	\$216.0	\$441.8	
<i>Information</i>		\$67.1	\$96.9	\$164.0	
<i>Transportation and warehousing</i>		\$74.6	\$86.3	\$160.9	
<i>Mining</i>		\$111.3	\$36.7	\$148.1	
<i>Utilities</i>		\$53.6	\$73.2	\$126.9	
<i>Construction</i>		\$74.9	\$25.5	\$100.4	
<i>Agriculture</i>		\$6.2	\$33.3	\$39.5	
<i>Other</i>		<u>\$65.4</u>	<u>\$106.2</u>	<u>\$171.6</u>	
Total Operational Impact on Value Added	\$2,389.5	\$1,931.7	\$3,351.1	\$7,672.3	3.0%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Arkansas, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	29,532			29,532	1.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		8,738	12,902	21,640	
<i>Wholesale and retail trade</i>		2,106	4,767	6,872	
<i>Finance, insurance, real estate, rental and leasing</i>		2,316	2,954	5,270	
<i>Manufacturing</i>		2,365	2,400	4,766	
<i>Transportation and warehousing</i>		1,546	960	2,506	
<i>Agriculture</i>		266	1,335	1,601	
<i>Construction</i>		834	235	1,069	
<i>Information</i>		368	333	701	
<i>Utilities</i>		175	121	296	
<i>Mining</i>		96	25	121	
<i>Other</i>		1,159	998	2,157	
Total Operational Impact on Employment	29,532	19,971	27,029	76,532	5.0%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,415.2			\$1,415.2	2.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$406.1	\$457.6	\$863.7	
<i>Wholesale and retail trade</i>		\$115.8	\$158.9	\$274.8	
<i>Manufacturing</i>		\$131.0	\$116.3	\$247.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$73.8	\$95.6	\$169.4	
<i>Transportation and warehousing</i>		\$70.7	\$44.5	\$115.2	
<i>Information</i>		\$34.2	\$30.9	\$65.1	
<i>Agriculture</i>		\$10.3	\$47.3	\$57.6	
<i>Construction</i>		\$29.8	\$8.3	\$38.1	
<i>Utilities</i>		\$17.9	\$11.9	\$29.8	
<i>Mining</i>		\$5.1	\$1.3	\$6.4	
<i>Other</i>		\$65.1	\$56.3	\$121.4	
Total Operational Impact on Labor Income	\$1,415.2	\$959.8	\$1,028.9	\$3,403.9	5.4%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,124.3			\$3,124.3	3.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$497.2	\$532.7	\$1,029.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$330.9	\$417.7	\$748.7	
<i>Wholesale and retail trade</i>		\$196.6	\$258.1	\$454.7	
<i>Manufacturing</i>		\$239.1	\$194.7	\$433.8	
<i>Transportation and warehousing</i>		\$94.2	\$59.3	\$153.5	
<i>Information</i>		\$78.3	\$70.5	\$148.8	
<i>Utilities</i>		\$60.8	\$40.0	\$100.7	
<i>Agriculture</i>		\$11.5	\$53.5	\$65.0	
<i>Construction</i>		\$35.6	\$9.9	\$45.5	
<i>Mining</i>		\$10.2	\$2.6	\$12.9	
<i>Other</i>		\$74.6	\$64.5	\$139.1	
Total Operational Impact on Value Added	\$3,124.3	\$1,629.1	\$1,703.4	\$6,456.8	6.6%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in California, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	163,729			163,729	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		158,358	221,979	380,337	
<i>Wholesale and retail trade</i>		36,107	73,464	109,571	
<i>Finance, insurance, real estate, rental and leasing</i>		35,927	60,342	96,269	
<i>Manufacturing</i>		26,978	24,686	51,663	
<i>Transportation and warehousing</i>		21,996	12,956	34,951	
<i>Information</i>		8,948	10,066	19,014	
<i>Construction</i>		9,299	2,803	12,102	
<i>Agriculture</i>		1,552	9,133	10,685	
<i>Utilities</i>		1,040	698	1,738	
<i>Mining</i>		480	123	603	
<i>Other</i>		<u>14,394</u>	<u>13,746</u>	<u>28,139</u>	
Total Operational Impact on Employment	163,729	315,077	429,995	908,801	4.6%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$18,890.6			\$18,890.6	1.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$9,717.6	\$10,933.6	\$20,651.2	
<i>Wholesale and retail trade</i>		\$2,587.9	\$3,287.5	\$5,875.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,909.1	\$3,004.2	\$4,913.3	
<i>Manufacturing</i>		\$2,214.8	\$1,931.0	\$4,145.8	
<i>Information</i>		\$1,041.2	\$1,159.9	\$2,201.1	
<i>Transportation and warehousing</i>		\$1,132.0	\$671.3	\$1,803.3	
<i>Construction</i>		\$595.4	\$178.2	\$773.7	
<i>Agriculture</i>		\$82.4	\$443.0	\$525.4	
<i>Utilities</i>		\$163.8	\$105.6	\$269.4	
<i>Mining</i>		\$25.2	\$6.4	\$31.6	
<i>Other</i>		<u>\$1,133.1</u>	<u>\$1,106.7</u>	<u>\$2,239.8</u>	
Total Operational Impact on Labor Income	\$18,890.6	\$20,602.7	\$22,827.4	\$62,320.7	5.4%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$58,818.1			\$58,818.1	3.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$11,907.3	\$13,025.5	\$24,932.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$7,047.4	\$12,078.9	\$19,126.3	
<i>Wholesale and retail trade</i>		\$4,419.7	\$5,489.3	\$9,908.9	
<i>Manufacturing</i>		\$3,888.7	\$3,312.0	\$7,200.7	
<i>Information</i>		\$1,912.2	\$2,138.5	\$4,050.7	
<i>Transportation and warehousing</i>		\$1,538.0	\$912.0	\$2,450.0	
<i>Construction</i>		\$713.1	\$213.4	\$926.5	
<i>Utilities</i>		\$561.8	\$351.0	\$912.8	
<i>Agriculture</i>		\$99.7	\$542.7	\$642.4	
<i>Mining</i>		\$57.8	\$14.6	\$72.4	
<i>Other</i>		<u>\$1,287.8</u>	<u>\$1,259.0</u>	<u>\$2,546.9</u>	
Total Operational Impact on Value Added	\$58,818.1	\$33,433.6	\$39,336.9	\$131,588.6	7.0%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Colorado, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	54,240			54,240	1.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		18,686	31,934	50,620	
<i>Finance, insurance, real estate, rental and leasing</i>		7,819	11,632	19,452	
<i>Wholesale and retail trade</i>		3,523	13,858	17,381	
<i>Manufacturing</i>		2,448	2,160	4,608	
<i>Transportation and warehousing</i>		2,000	1,640	3,640	
<i>Information</i>		1,163	1,432	2,595	
<i>Construction</i>		1,739	521	2,260	
<i>Agriculture</i>		278	1,186	1,464	
<i>Utilities</i>		263	220	483	
<i>Mining</i>		258	80	339	
<i>Other</i>		1,935	2,250	4,185	
Total Operational Impact on Employment	54,240	40,112	66,913	161,266	5.2%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,675.4			\$4,675.4	2.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,276.3	\$1,394.1	\$2,670.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$297.9	\$476.6	\$774.5	
<i>Wholesale and retail trade</i>		\$232.2	\$520.3	\$752.5	
<i>Information</i>		\$162.2	\$196.7	\$358.9	
<i>Manufacturing</i>		\$165.0	\$142.5	\$307.5	
<i>Transportation and warehousing</i>		\$98.9	\$82.3	\$181.2	
<i>Construction</i>		\$88.5	\$26.3	\$114.8	
<i>Utilities</i>		\$28.8	\$23.6	\$52.4	
<i>Agriculture</i>		\$7.0	\$28.3	\$35.3	
<i>Mining</i>		\$21.2	\$6.5	\$27.7	
<i>Other</i>		\$131.4	\$153.1	\$284.5	
Total Operational Impact on Labor Income	\$4,675.4	\$2,509.5	\$3,050.3	\$10,235.1	6.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$10,455.8			\$10,455.8	4.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,379.6	\$1,953.1	\$3,332.7	
<i>Services</i>		\$1,536.6	\$1,670.8	\$3,207.5	
<i>Wholesale and retail trade</i>		\$395.5	\$859.1	\$1,254.6	
<i>Information</i>		\$293.9	\$359.0	\$652.9	
<i>Manufacturing</i>		\$274.4	\$253.6	\$527.9	
<i>Transportation and warehousing</i>		\$139.2	\$115.6	\$254.8	
<i>Utilities</i>		\$98.6	\$79.2	\$177.8	
<i>Construction</i>		\$105.9	\$31.5	\$137.4	
<i>Mining</i>		\$62.4	\$18.9	\$81.3	
<i>Agriculture</i>		\$11.3	\$45.9	\$57.2	
<i>Other</i>		\$150.8	\$175.9	\$326.7	
Total Operational Impact on Value Added	\$10,455.8	\$4,448.2	\$5,562.6	\$20,466.6	7.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Connecticut, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	15,334			15,334	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		5,502	14,139	19,641	
<i>Finance, insurance, real estate, rental and leasing</i>		1,742	4,499	6,241	
<i>Wholesale and retail trade</i>		589	4,279	4,868	
<i>Manufacturing</i>		2,537	1,921	4,458	
<i>Transportation and warehousing</i>		618	664	1,282	
<i>Construction</i>		704	259	964	
<i>Information</i>		373	571	944	
<i>Agriculture</i>		32	184	216	
<i>Utilities</i>		56	82	138	
<i>Mining</i>		39	14	53	
<i>Other</i>		478	789	1,268	
Total Operational Impact on Employment	15,334	12,669	27,401	55,405	2.6%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,073.6			\$1,073.6	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$445.0	\$762.2	\$1,207.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$157.0	\$376.8	\$533.8	
<i>Manufacturing</i>		\$223.2	\$178.2	\$401.4	
<i>Wholesale and retail trade</i>		\$49.0	\$208.7	\$257.7	
<i>Information</i>		\$38.2	\$56.5	\$94.8	
<i>Transportation and warehousing</i>		\$31.0	\$34.5	\$65.5	
<i>Construction</i>		\$41.4	\$15.1	\$56.5	
<i>Utilities</i>		\$8.1	\$12.5	\$20.6	
<i>Agriculture</i>		\$1.0	\$5.0	\$5.9	
<i>Mining</i>		\$2.2	\$0.7	\$2.9	
<i>Other</i>		\$37.3	\$59.9	\$97.1	
Total Operational Impact on Labor Income	\$1,073.6	\$1,033.3	\$1,710.0	\$3,816.9	2.8%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,726.6			\$2,726.6	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$449.2	\$1,089.9	\$1,539.1	
<i>Services</i>		\$548.6	\$893.0	\$1,441.6	
<i>Manufacturing</i>		\$375.0	\$314.2	\$689.2	
<i>Wholesale and retail trade</i>		\$83.9	\$358.8	\$442.7	
<i>Information</i>		\$64.3	\$96.8	\$161.0	
<i>Transportation and warehousing</i>		\$42.8	\$47.7	\$90.5	
<i>Utilities</i>		\$27.7	\$41.4	\$69.2	
<i>Construction</i>		\$49.7	\$18.1	\$67.8	
<i>Agriculture</i>		\$1.1	\$5.7	\$6.8	
<i>Mining</i>		\$3.5	\$1.2	\$4.6	
<i>Other</i>		\$42.0	\$68.0	\$110.1	
Total Operational Impact on Value Added	\$2,726.6	\$1,687.7	\$2,934.9	\$7,349.2	3.3%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Delaware, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	5,904			5,904	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		8,333	5,800	14,132	
<i>Wholesale and retail trade</i>		3,179	2,510	5,688	
<i>Finance, insurance, real estate, rental and leasing</i>		1,416	1,976	3,392	
<i>Transportation and warehousing</i>		1,235	255	1,490	
<i>Manufacturing</i>		393	452	844	
<i>Construction</i>		371	78	449	
<i>Information</i>		255	169	424	
<i>Utilities</i>		215	46	261	
<i>Agriculture</i>		14	82	96	
<i>Mining</i>		8	1	9	
<i>Other</i>		1,109	414	1,523	
Total Operational Impact on Employment	5,904	16,527	11,783	34,213	6.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$487.8			\$487.8	1.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$482.9	\$262.5	\$745.5	
<i>Wholesale and retail trade</i>		\$221.1	\$91.1	\$312.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$67.4	\$101.1	\$168.6	
<i>Transportation and warehousing</i>		\$59.1	\$12.2	\$71.3	
<i>Manufacturing</i>		\$37.6	\$30.6	\$68.2	
<i>Utilities</i>		\$29.1	\$5.7	\$34.9	
<i>Information</i>		\$17.5	\$11.7	\$29.2	
<i>Construction</i>		\$18.2	\$3.8	\$22.0	
<i>Agriculture</i>		\$0.8	\$4.3	\$5.1	
<i>Mining</i>		\$0.1	\$0.0	\$0.1	
<i>Other</i>		\$73.1	\$27.8	\$100.9	
Total Operational Impact on Labor Income	\$487.8	\$1,007.0	\$550.9	\$2,045.8	7.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,217.1			\$2,217.1	4.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$610.2	\$317.4	\$927.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$249.8	\$344.6	\$594.4	
<i>Wholesale and retail trade</i>		\$376.7	\$149.2	\$525.8	
<i>Utilities</i>		\$99.0	\$18.8	\$117.7	
<i>Manufacturing</i>		\$64.5	\$49.2	\$113.7	
<i>Transportation and warehousing</i>		\$81.1	\$16.7	\$97.8	
<i>Information</i>		\$40.0	\$26.6	\$66.7	
<i>Construction</i>		\$21.7	\$4.6	\$26.3	
<i>Agriculture</i>		\$1.1	\$6.0	\$7.1	
<i>Mining</i>		\$0.1	\$0.0	\$0.2	
<i>Other</i>		\$83.6	\$31.7	\$115.3	
Total Operational Impact on Value Added	\$2,217.1	\$1,627.8	\$964.7	\$4,809.6	10.5%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in the District of Columbia, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of District Total
Direct Operational Impact of the Oil and Natural Gas Industry	958			958	0.1%
Indirect and Induced Operational Impacts on Other Industries					
Services		1,795	4,573	6,368	
Finance, insurance, real estate, rental and leasing		227	542	769	
Information		133	240	373	
Wholesale and retail trade		63	271	334	
Construction		87	30	116	
Transportation and warehousing		49	65	114	
Utilities		25	29	54	
Manufacturing		17	25	42	
Agriculture		0	1	1	
Mining		0	0	0	
Other		292	550	843	
Total Operational Impact on Employment	958	2,688	6,327	9,973	1.2%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of District Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$67.7			\$67.7	0.1%
Indirect and Induced Operational Impacts on Other Industries					
Services		\$220.6	\$374.7	\$595.3	
Finance, insurance, real estate, rental and leasing		\$19.0	\$43.3	\$62.3	
Information		\$17.9	\$30.4	\$48.3	
Wholesale and retail trade		\$5.5	\$12.6	\$18.2	
Construction		\$5.4	\$1.8	\$7.2	
Utilities		\$2.8	\$3.5	\$6.3	
Transportation and warehousing		\$2.3	\$3.3	\$5.6	
Manufacturing		\$1.8	\$2.0	\$3.8	
Agriculture		\$0.0	\$0.0	\$0.0	
Mining		\$0.0	\$0.0	\$0.0	
Other		\$40.6	\$70.6	\$111.2	
Total Operational Impact on Labor Income	\$67.7	\$315.9	\$542.3	\$925.9	1.2%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of District Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$231.1			\$231.1	0.2%
Indirect and Induced Operational Impacts on Other Industries					
Services		\$297.5	\$465.5	\$763.0	
Finance, insurance, real estate, rental and leasing		\$76.1	\$173.0	\$249.0	
Information		\$26.2	\$45.9	\$72.1	
Wholesale and retail trade		\$9.5	\$21.8	\$31.3	
Utilities		\$9.5	\$11.8	\$21.3	
Transportation and warehousing		\$3.6	\$5.1	\$8.7	
Construction		\$6.4	\$2.2	\$8.5	
Manufacturing		\$3.3	\$4.8	\$8.1	
Agriculture		\$0.0	\$0.0	\$0.0	
Mining		\$0.0	\$0.0	\$0.0	
Other		\$43.3	\$76.6	\$119.8	
Total Operational Impact on Value Added	\$231.1	\$475.4	\$806.6	\$1,513.1	1.4%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Florida, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	60,394			60,394	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		25,242	62,804	88,047	
<i>Finance, insurance, real estate, rental and leasing</i>		8,281	17,581	25,862	
<i>Wholesale and retail trade</i>		3,374	18,938	22,313	
<i>Manufacturing</i>		4,620	4,447	9,068	
<i>Transportation and warehousing</i>		3,186	3,761	6,947	
<i>Construction</i>		3,923	1,288	5,211	
<i>Information</i>		1,461	2,257	3,717	
<i>Agriculture</i>		422	2,537	2,959	
<i>Utilities</i>		308	357	665	
<i>Mining</i>		149	47	196	
<i>Other</i>		<u>1,960</u>	<u>3,222</u>	<u>5,182</u>	
Total Operational Impact on Employment	60,394	52,927	117,240	230,561	2.4%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,202.4			\$2,202.4	0.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,368.2	\$2,606.3	\$3,974.5	
<i>Wholesale and retail trade</i>		\$212.0	\$764.7	\$976.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$305.2	\$669.5	\$974.7	
<i>Manufacturing</i>		\$287.0	\$279.4	\$566.4	
<i>Transportation and warehousing</i>		\$136.3	\$169.2	\$305.5	
<i>Information</i>		\$116.4	\$173.4	\$289.8	
<i>Construction</i>		\$177.9	\$57.8	\$235.7	
<i>Agriculture</i>		\$13.6	\$72.9	\$86.5	
<i>Utilities</i>		\$33.9	\$39.9	\$73.8	
<i>Mining</i>		\$10.0	\$3.1	\$13.2	
<i>Other</i>		<u>\$149.7</u>	<u>\$237.5</u>	<u>\$387.2</u>	
Total Operational Impact on Labor Income	\$2,202.4	\$2,810.0	\$5,073.7	\$10,086.1	2.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,653.2			\$4,653.2	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,776.1	\$3,232.2	\$5,008.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,400.4	\$2,777.6	\$4,178.0	
<i>Wholesale and retail trade</i>		\$362.2	\$1,271.3	\$1,633.6	
<i>Manufacturing</i>		\$471.3	\$508.8	\$980.2	
<i>Information</i>		\$229.4	\$348.0	\$577.4	
<i>Transportation and warehousing</i>		\$193.7	\$240.3	\$434.0	
<i>Construction</i>		\$212.6	\$69.1	\$281.7	
<i>Utilities</i>		\$115.8	\$134.6	\$250.4	
<i>Agriculture</i>		\$18.1	\$98.8	\$117.0	
<i>Mining</i>		\$25.7	\$8.0	\$33.7	
<i>Other</i>		<u>\$170.4</u>	<u>\$272.7</u>	<u>\$443.0</u>	
Total Operational Impact on Value Added	\$4,653.2	\$4,975.8	\$8,961.4	\$18,590.4	2.6%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Georgia, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	38,100			38,100	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		12,653	31,799	44,452	
<i>Wholesale and retail trade</i>		1,706	10,478	12,184	
<i>Finance, insurance, real estate, rental and leasing</i>		3,097	7,981	11,078	
<i>Manufacturing</i>		4,112	5,297	9,409	
<i>Transportation and warehousing</i>		2,012	2,485	4,498	
<i>Construction</i>		1,861	711	2,572	
<i>Information</i>		910	1,487	2,397	
<i>Agriculture</i>		199	1,227	1,426	
<i>Utilities</i>		207	297	504	
<i>Mining</i>		185	62	247	
<i>Other</i>		<u>1,183</u>	<u>2,127</u>	3,310	
Total Operational Impact on Employment	38,100	28,125	63,952	130,176	2.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,630.1			\$1,630.1	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$710.3	\$1,292.3	\$2,002.7	
<i>Manufacturing</i>		\$264.3	\$326.3	\$590.7	
<i>Wholesale and retail trade</i>		\$117.6	\$430.0	\$547.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$158.2	\$370.0	\$528.2	
<i>Information</i>		\$100.8	\$157.5	\$258.3	
<i>Transportation and warehousing</i>		\$97.6	\$127.4	\$225.0	
<i>Construction</i>		\$75.7	\$28.6	\$104.3	
<i>Agriculture</i>		\$10.8	\$59.1	\$70.0	
<i>Utilities</i>		\$22.7	\$35.1	\$57.9	
<i>Mining</i>		\$10.6	\$3.5	\$14.1	
<i>Other</i>		<u>\$82.5</u>	<u>\$139.6</u>	\$222.1	
Total Operational Impact on Labor Income	\$1,630.1	\$1,651.1	\$2,969.5	\$6,250.7	2.5%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,551.6			\$3,551.6	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$883.6	\$1,538.7	\$2,422.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$574.2	\$1,447.2	\$2,021.4	
<i>Manufacturing</i>		\$467.3	\$713.3	\$1,180.7	
<i>Wholesale and retail trade</i>		\$200.9	\$717.4	\$918.3	
<i>Information</i>		\$194.6	\$311.1	\$505.7	
<i>Transportation and warehousing</i>		\$139.2	\$181.5	\$320.7	
<i>Utilities</i>		\$77.7	\$120.3	\$198.0	
<i>Construction</i>		\$90.5	\$34.2	\$124.7	
<i>Agriculture</i>		\$10.3	\$57.3	\$67.6	
<i>Mining</i>		\$19.9	\$6.5	\$26.4	
<i>Other</i>		<u>\$94.9</u>	<u>\$162.2</u>	\$257.1	
Total Operational Impact on Value Added	\$3,551.6	\$2,753.1	\$5,289.6	\$11,594.3	2.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Hawaii, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	4,920			4,920	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		3,993	5,154	9,147	
<i>Wholesale and retail trade</i>		1,253	1,744	2,997	
<i>Finance, insurance, real estate, rental and leasing</i>		843	1,272	2,115	
<i>Transportation and warehousing</i>		519	322	841	
<i>Manufacturing</i>		151	306	457	
<i>Construction</i>		286	92	378	
<i>Agriculture</i>		45	276	321	
<i>Information</i>		124	141	265	
<i>Utilities</i>		120	47	167	
<i>Mining</i>		18	4	23	
<i>Other</i>		666	512	1,178	
Total Operational Impact on Employment	4,920	8,019	9,868	22,807	2.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$323.9			\$323.9	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$200.2	\$217.3	\$417.4	
<i>Wholesale and retail trade</i>		\$60.7	\$58.8	\$119.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$26.1	\$39.7	\$65.9	
<i>Transportation and warehousing</i>		\$24.4	\$15.4	\$39.7	
<i>Construction</i>		\$18.6	\$5.9	\$24.5	
<i>Manufacturing</i>		\$8.2	\$12.0	\$20.2	
<i>Utilities</i>		\$12.8	\$4.8	\$17.6	
<i>Information</i>		\$7.9	\$8.8	\$16.7	
<i>Agriculture</i>		\$1.0	\$5.6	\$6.6	
<i>Mining</i>		\$1.8	\$0.4	\$2.2	
<i>Other</i>		\$56.0	\$43.4	\$99.4	
Total Operational Impact on Labor Income	\$323.9	\$417.7	\$412.0	\$1,153.5	2.8%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,237.6			\$1,237.6	1.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$256.9	\$277.0	\$533.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$139.2	\$206.5	\$345.8	
<i>Wholesale and retail trade</i>		\$103.8	\$97.1	\$200.9	
<i>Utilities</i>		\$43.6	\$16.3	\$59.8	
<i>Transportation and warehousing</i>		\$34.2	\$21.5	\$55.8	
<i>Information</i>		\$17.3	\$19.4	\$36.7	
<i>Manufacturing</i>		\$13.6	\$19.0	\$32.7	
<i>Construction</i>		\$22.2	\$7.1	\$29.3	
<i>Agriculture</i>		\$1.0	\$5.5	\$6.5	
<i>Mining</i>		\$4.3	\$1.0	\$5.3	
<i>Other</i>		\$67.0	\$52.1	\$119.1	
Total Operational Impact on Value Added	\$1,237.6	\$703.2	\$722.5	\$2,663.3	4.2%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Idaho, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	8,048			8,048	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		1,922	4,621	6,543	
<i>Finance, insurance, real estate, rental and leasing</i>		728	1,388	2,116	
<i>Wholesale and retail trade</i>		287	1,739	2,026	
<i>Manufacturing</i>		600	791	1,391	
<i>Agriculture</i>		131	834	964	
<i>Transportation and warehousing</i>		280	307	587	
<i>Construction</i>		381	136	517	
<i>Information</i>		115	172	287	
<i>Mining</i>		90	30	120	
<i>Utilities</i>		16	24	40	
<i>Other</i>		<u>227</u>	<u>352</u>	579	
Total Operational Impact on Employment	8,048	4,776	10,394	23,218	2.6%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$293.6			\$293.6	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$93.7	\$162.4	\$256.1	
<i>Manufacturing</i>		\$33.9	\$44.4	\$78.3	
<i>Wholesale and retail trade</i>		\$14.8	\$59.6	\$74.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$19.1	\$35.1	\$54.2	
<i>Agriculture</i>		\$7.0	\$39.1	\$46.1	
<i>Transportation and warehousing</i>		\$11.2	\$12.9	\$24.1	
<i>Construction</i>		\$13.9	\$4.9	\$18.8	
<i>Information</i>		\$5.3	\$7.7	\$13.0	
<i>Mining</i>		\$4.9	\$1.6	\$6.5	
<i>Utilities</i>		\$1.7	\$2.4	\$4.2	
<i>Other</i>		<u>\$12.9</u>	<u>\$19.3</u>	\$32.2	
Total Operational Impact on Labor Income	\$293.6	\$218.3	\$389.6	\$901.5	2.6%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$732.9			\$732.9	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$114.3	\$192.2	\$306.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$80.2	\$150.4	\$230.6	
<i>Manufacturing</i>		\$58.2	\$72.7	\$130.9	
<i>Wholesale and retail trade</i>		\$25.2	\$99.6	\$124.8	
<i>Agriculture</i>		\$7.3	\$41.6	\$48.9	
<i>Transportation and warehousing</i>		\$15.4	\$17.7	\$33.1	
<i>Information</i>		\$10.1	\$14.9	\$25.0	
<i>Mining</i>		\$18.8	\$6.1	\$24.8	
<i>Construction</i>		\$16.6	\$5.8	\$22.5	
<i>Utilities</i>		\$6.0	\$8.1	\$14.1	
<i>Other</i>		<u>\$14.7</u>	<u>\$22.2</u>	\$36.9	
Total Operational Impact on Value Added	\$732.9	\$366.7	\$631.4	\$1,731.0	3.3%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Illinois, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	57,723			57,723	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		36,493	68,674	105,167	
<i>Wholesale and retail trade</i>		8,751	22,478	31,229	
<i>Finance, insurance, real estate, rental and leasing</i>		9,509	18,182	27,691	
<i>Manufacturing</i>		10,397	7,714	18,111	
<i>Transportation and warehousing</i>		5,672	4,583	10,254	
<i>Construction</i>		3,266	939	4,205	
<i>Information</i>		1,749	2,311	4,060	
<i>Agriculture</i>		307	1,973	2,279	
<i>Utilities</i>		592	413	1,005	
<i>Mining</i>		271	84	355	
<i>Other</i>		<u>3,296</u>	<u>3,596</u>	<u>6,892</u>	
Total Operational Impact on Employment	57,723	80,302	130,946	268,970	3.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,732.1			\$4,732.1	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$2,488.0	\$3,231.6	\$5,719.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$542.4	\$1,049.6	\$1,592.0	
<i>Wholesale and retail trade</i>		\$616.1	\$927.1	\$1,543.2	
<i>Manufacturing</i>		\$782.5	\$557.6	\$1,340.0	
<i>Transportation and warehousing</i>		\$290.7	\$239.4	\$530.1	
<i>Information</i>		\$151.1	\$196.1	\$347.2	
<i>Construction</i>		\$190.5	\$54.3	\$244.8	
<i>Utilities</i>		\$84.6	\$57.9	\$142.5	
<i>Agriculture</i>		\$16.7	\$95.1	\$111.9	
<i>Mining</i>		\$20.9	\$6.4	\$27.3	
<i>Other</i>		<u>\$231.9</u>	<u>\$253.7</u>	<u>\$485.6</u>	
Total Operational Impact on Labor Income	\$4,732.1	\$5,415.4	\$6,668.8	\$16,816.2	4.2%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$14,001.6			\$14,001.6	2.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$3,124.0	\$3,841.3	\$6,965.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,952.1	\$3,586.4	\$5,538.5	
<i>Wholesale and retail trade</i>		\$1,049.0	\$1,542.0	\$2,591.0	
<i>Manufacturing</i>		\$1,396.7	\$952.2	\$2,348.8	
<i>Transportation and warehousing</i>		\$399.1	\$328.0	\$727.1	
<i>Information</i>		\$297.8	\$390.0	\$687.8	
<i>Utilities</i>		\$288.8	\$195.6	\$484.4	
<i>Construction</i>		\$227.6	\$64.9	\$292.5	
<i>Agriculture</i>		\$23.1	\$133.5	\$156.5	
<i>Mining</i>		\$41.9	\$12.7	\$54.7	
<i>Other</i>		<u>\$263.0</u>	<u>\$288.5</u>	<u>\$551.4</u>	
Total Operational Impact on Value Added	\$14,001.6	\$9,063.1	\$11,335.1	\$34,399.7	5.4%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Indiana, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	36,630			36,630	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		16,627	27,622	44,249	
<i>Wholesale and retail trade</i>		4,896	10,057	14,953	
<i>Manufacturing</i>		6,822	5,183	12,004	
<i>Finance, insurance, real estate, rental and leasing</i>		3,744	6,389	10,133	
<i>Transportation and warehousing</i>		2,952	1,937	4,889	
<i>Construction</i>		1,683	471	2,154	
<i>Agriculture</i>		226	1,431	1,657	
<i>Information</i>		711	784	1,495	
<i>Utilities</i>		402	249	651	
<i>Mining</i>		203	67	270	
<i>Other</i>		<u>1,801</u>	<u>1,642</u>	3,444	
Total Operational Impact on Employment	36,630	40,067	55,831	132,528	3.8%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,891.3			\$1,891.3	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$705.3	\$1,052.8	\$1,758.1	
<i>Manufacturing</i>		\$494.8	\$358.5	\$853.3	
<i>Wholesale and retail trade</i>		\$272.0	\$337.2	\$609.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$133.8	\$224.0	\$357.8	
<i>Transportation and warehousing</i>		\$135.8	\$90.3	\$226.2	
<i>Construction</i>		\$78.3	\$21.7	\$100.0	
<i>Information</i>		\$40.2	\$43.9	\$84.1	
<i>Utilities</i>		\$44.9	\$27.0	\$71.9	
<i>Agriculture</i>		\$8.1	\$45.0	\$53.0	
<i>Mining</i>		\$17.5	\$5.6	\$23.2	
<i>Other</i>		<u>\$100.4</u>	<u>\$91.4</u>	\$191.7	
Total Operational Impact on Labor Income	\$1,891.3	\$2,031.0	\$2,297.4	\$6,219.7	4.0%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$6,050.2			\$6,050.2	2.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$889.0	\$1,254.6	\$2,143.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$578.7	\$980.6	\$1,559.3	
<i>Manufacturing</i>		\$914.0	\$630.9	\$1,544.9	
<i>Wholesale and retail trade</i>		\$460.7	\$556.9	\$1,017.6	
<i>Transportation and warehousing</i>		\$189.6	\$126.0	\$315.6	
<i>Utilities</i>		\$152.5	\$89.0	\$241.5	
<i>Information</i>		\$89.1	\$97.6	\$186.6	
<i>Construction</i>		\$93.6	\$26.0	\$119.5	
<i>Agriculture</i>		\$12.6	\$71.5	\$84.1	
<i>Mining</i>		\$35.3	\$11.3	\$46.6	
<i>Other</i>		<u>\$113.5</u>	<u>\$103.5</u>	\$217.1	
Total Operational Impact on Value Added	\$6,050.2	\$3,528.7	\$3,947.8	\$13,526.6	5.4%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Iowa, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	22,571			22,571	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		3,917	10,809	14,726	
<i>Manufacturing</i>		2,613	2,519	5,132	
<i>Wholesale and retail trade</i>		782	4,124	4,907	
<i>Finance, insurance, real estate, rental and leasing</i>		1,228	2,882	4,111	
<i>Agriculture</i>		318	2,069	2,386	
<i>Transportation and warehousing</i>		791	864	1,655	
<i>Construction</i>		728	241	969	
<i>Information</i>		305	444	749	
<i>Utilities</i>		90	103	193	
<i>Mining</i>		70	24	94	
<i>Other</i>		520	789	1,309	
Total Operational Impact on Employment	22,571	11,363	24,866	58,801	3.0%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$695.4			\$695.4	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$164.0	\$363.5	\$527.5	
<i>Manufacturing</i>		\$164.2	\$146.8	\$311.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$60.1	\$137.1	\$197.2	
<i>Wholesale and retail trade</i>		\$42.8	\$136.8	\$179.6	
<i>Agriculture</i>		\$17.1	\$97.4	\$114.5	
<i>Transportation and warehousing</i>		\$33.3	\$37.8	\$71.1	
<i>Construction</i>		\$30.9	\$10.1	\$41.1	
<i>Information</i>		\$16.7	\$23.6	\$40.3	
<i>Utilities</i>		\$9.0	\$10.6	\$19.6	
<i>Mining</i>		\$4.0	\$1.3	\$5.3	
<i>Other</i>		\$30.2	\$44.9	\$75.1	
Total Operational Impact on Labor Income	\$695.4	\$572.3	\$1,009.9	\$2,277.6	2.8%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,456.4			\$1,456.4	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$210.4	\$463.0	\$673.3	
<i>Services</i>		\$207.3	\$433.7	\$641.0	
<i>Manufacturing</i>		\$297.7	\$244.8	\$542.5	
<i>Wholesale and retail trade</i>		\$72.6	\$227.9	\$300.5	
<i>Agriculture</i>		\$27.2	\$157.7	\$185.0	
<i>Transportation and warehousing</i>		\$45.2	\$51.3	\$96.5	
<i>Information</i>		\$35.1	\$50.2	\$85.2	
<i>Utilities</i>		\$30.5	\$35.8	\$66.4	
<i>Construction</i>		\$37.0	\$12.1	\$49.1	
<i>Mining</i>		\$8.7	\$2.9	\$11.5	
<i>Other</i>		\$33.9	\$50.6	\$84.5	
Total Operational Impact on Value Added	\$1,456.4	\$1,005.5	\$1,730.0	\$4,191.9	3.2%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Kansas, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	42,614			42,614	2.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		13,674	20,401	34,075	
<i>Wholesale and retail trade</i>		4,169	8,725	12,894	
<i>Finance, insurance, real estate, rental and leasing</i>		4,781	5,478	10,259	
<i>Manufacturing</i>		2,364	2,228	4,592	
<i>Transportation and warehousing</i>		1,882	1,016	2,898	
<i>Agriculture</i>		272	1,476	1,748	
<i>Information</i>		751	712	1,463	
<i>Construction</i>		1,152	244	1,397	
<i>Utilities</i>		335	159	494	
<i>Mining</i>		61	17	77	
<i>Other</i>		1,971	1,589	3,560	
Total Operational Impact on Employment	42,614	31,412	42,044	116,070	6.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,614.2			\$2,614.2	3.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$619.2	\$732.9	\$1,352.1	
<i>Wholesale and retail trade</i>		\$241.5	\$283.9	\$525.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$161.6	\$199.4	\$361.0	
<i>Manufacturing</i>		\$144.0	\$135.7	\$279.7	
<i>Transportation and warehousing</i>		\$92.2	\$50.1	\$142.3	
<i>Information</i>		\$61.3	\$57.9	\$119.2	
<i>Agriculture</i>		\$10.8	\$53.3	\$64.1	
<i>Construction</i>		\$50.5	\$10.6	\$61.1	
<i>Utilities</i>		\$37.3	\$17.4	\$54.6	
<i>Mining</i>		\$3.2	\$0.9	\$4.1	
<i>Other</i>		\$112.3	\$90.6	\$202.9	
Total Operational Impact on Labor Income	\$2,614.2	\$1,533.9	\$1,632.7	\$5,780.8	7.2%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$8,577.6			\$8,577.6	6.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$745.6	\$851.0	\$1,596.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$719.6	\$786.2	\$1,505.8	
<i>Wholesale and retail trade</i>		\$410.9	\$464.7	\$875.7	
<i>Manufacturing</i>		\$244.6	\$215.8	\$460.4	
<i>Information</i>		\$152.1	\$143.7	\$295.9	
<i>Transportation and warehousing</i>		\$129.8	\$70.4	\$200.3	
<i>Utilities</i>		\$127.6	\$59.3	\$186.9	
<i>Agriculture</i>		\$16.2	\$80.6	\$96.8	
<i>Construction</i>		\$60.3	\$12.7	\$73.0	
<i>Mining</i>		\$7.0	\$1.9	\$8.8	
<i>Other</i>		\$132.4	\$106.7	\$239.1	
Total Operational Impact on Value Added	\$8,577.6	\$2,746.2	\$2,792.9	\$14,116.8	10.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Kentucky, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	31,788			31,788	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		8,342	15,865	24,207	
<i>Wholesale and retail trade</i>		2,166	5,770	7,935	
<i>Finance, insurance, real estate, rental and leasing</i>		2,093	3,704	5,796	
<i>Manufacturing</i>		3,067	2,679	5,746	
<i>Transportation and warehousing</i>		1,438	1,250	2,688	
<i>Agriculture</i>		327	1,888	2,214	
<i>Construction</i>		1,072	310	1,382	
<i>Mining</i>		688	229	917	
<i>Information</i>		412	498	910	
<i>Utilities</i>		169	116	286	
<i>Other</i>		1,129	1,212	2,341	
Total Operational Impact on Employment	31,788	20,902	33,520	86,210	3.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,325.1			\$1,325.1	1.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$360.5	\$574.9	\$935.3	
<i>Manufacturing</i>		\$196.9	\$163.9	\$360.8	
<i>Wholesale and retail trade</i>		\$122.3	\$197.2	\$319.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$75.6	\$137.2	\$212.8	
<i>Transportation and warehousing</i>		\$73.3	\$66.1	\$139.4	
<i>Mining</i>		\$53.3	\$17.4	\$70.7	
<i>Construction</i>		\$42.6	\$12.2	\$54.8	
<i>Information</i>		\$21.4	\$25.5	\$46.9	
<i>Agriculture</i>		\$4.8	\$25.1	\$30.0	
<i>Utilities</i>		\$16.4	\$11.0	\$27.4	
<i>Other</i>		\$72.6	\$77.3	\$150.0	
Total Operational Impact on Labor Income	\$1,325.1	\$1,039.7	\$1,307.9	\$3,672.8	3.7%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,975.4			\$2,975.4	1.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$458.1	\$680.1	\$1,138.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$325.0	\$556.6	\$881.7	
<i>Manufacturing</i>		\$350.9	\$350.1	\$701.0	
<i>Wholesale and retail trade</i>		\$207.8	\$322.9	\$530.6	
<i>Transportation and warehousing</i>		\$110.6	\$100.0	\$210.6	
<i>Mining</i>		\$106.7	\$34.6	\$141.3	
<i>Information</i>		\$47.7	\$57.1	\$104.8	
<i>Utilities</i>		\$55.9	\$37.1	\$93.0	
<i>Construction</i>		\$50.9	\$14.6	\$65.5	
<i>Agriculture</i>		\$6.6	\$34.7	\$41.3	
<i>Other</i>		\$85.7	\$91.3	\$177.0	
Total Operational Impact on Value Added	\$2,975.4	\$1,806.0	\$2,279.2	\$7,060.5	4.4%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Louisiana, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	116,923			116,923	4.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		61,747	75,544	137,291	
<i>Wholesale and retail trade</i>		18,904	27,141	46,045	
<i>Finance, insurance, real estate, rental and leasing</i>		13,278	16,017	29,295	
<i>Transportation and warehousing</i>		7,839	2,783	10,622	
<i>Manufacturing</i>		5,666	2,826	8,492	
<i>Construction</i>		4,112	786	4,898	
<i>Information</i>		2,273	1,836	4,109	
<i>Agriculture</i>		797	1,945	2,742	
<i>Utilities</i>		1,147	496	1,642	
<i>Mining</i>		251	32	283	
<i>Other</i>		7,998	4,906	12,904	
Total Operational Impact on Employment	116,923	124,012	134,311	375,245	15.1%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$9,659.6			\$9,659.6	8.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$2,653.6	\$2,737.5	\$5,391.0	
<i>Wholesale and retail trade</i>		\$1,073.0	\$926.3	\$1,999.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$438.2	\$548.9	\$987.1	
<i>Transportation and warehousing</i>		\$467.3	\$165.8	\$633.1	
<i>Manufacturing</i>		\$430.6	\$188.9	\$619.5	
<i>Information</i>		\$139.9	\$113.1	\$253.0	
<i>Construction</i>		\$199.9	\$38.1	\$237.9	
<i>Utilities</i>		\$134.1	\$50.0	\$184.1	
<i>Agriculture</i>		\$17.9	\$43.6	\$61.5	
<i>Mining</i>		\$16.9	\$2.1	\$19.0	
<i>Other</i>		\$477.2	\$295.8	\$772.9	
Total Operational Impact on Labor Income	\$9,659.6	\$6,048.5	\$5,110.0	\$20,818.1	18.0%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$23,769.1			\$23,769.1	12.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$3,472.6	\$3,291.3	\$6,763.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$2,109.2	\$2,471.2	\$4,580.4	
<i>Wholesale and retail trade</i>		\$1,820.4	\$1,491.5	\$3,311.9	
<i>Manufacturing</i>		\$889.6	\$354.8	\$1,244.4	
<i>Transportation and warehousing</i>		\$661.5	\$234.9	\$896.4	
<i>Utilities</i>		\$457.1	\$161.7	\$618.8	
<i>Information</i>		\$287.8	\$232.4	\$520.2	
<i>Construction</i>		\$238.6	\$45.5	\$284.1	
<i>Agriculture</i>		\$24.2	\$58.9	\$83.1	
<i>Mining</i>		\$38.6	\$4.9	\$43.5	
<i>Other</i>		\$552.7	\$341.8	\$894.5	
Total Operational Impact on Value Added	\$23,769.1	\$10,552.3	\$8,688.8	\$43,010.2	22.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Maine, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	12,165			12,165	1.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		2,370	5,644	8,014	
<i>Wholesale and retail trade</i>		474	1,870	2,343	
<i>Finance, insurance, real estate, rental and leasing</i>		549	1,214	1,763	
<i>Manufacturing</i>		655	753	1,408	
<i>Transportation and warehousing</i>		388	287	675	
<i>Agriculture</i>		90	492	582	
<i>Construction</i>		374	131	505	
<i>Information</i>		123	167	290	
<i>Utilities</i>		37	32	69	
<i>Mining</i>		27	7	34	
<i>Other</i>		286	370	656	
Total Operational Impact on Employment	12,165	5,372	10,967	28,504	3.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$407.7			\$407.7	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$104.3	\$213.1	\$317.4	
<i>Wholesale and retail trade</i>		\$25.3	\$63.8	\$89.1	
<i>Manufacturing</i>		\$42.2	\$44.8	\$87.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$22.1	\$48.4	\$70.5	
<i>Transportation and warehousing</i>		\$16.2	\$12.3	\$28.5	
<i>Construction</i>		\$12.8	\$4.4	\$17.3	
<i>Information</i>		\$6.5	\$8.7	\$15.2	
<i>Agriculture</i>		\$2.3	\$11.2	\$13.5	
<i>Utilities</i>		\$3.5	\$3.0	\$6.4	
<i>Mining</i>		\$0.3	\$0.1	\$0.4	
<i>Other</i>		\$17.9	\$22.8	\$40.6	
Total Operational Impact on Labor Income	\$407.7	\$253.4	\$432.6	\$1,093.6	3.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$921.7			\$921.7	1.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$131.5	\$251.4	\$382.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$87.6	\$186.9	\$274.6	
<i>Manufacturing</i>		\$77.1	\$81.3	\$158.5	
<i>Wholesale and retail trade</i>		\$43.1	\$107.9	\$151.0	
<i>Transportation and warehousing</i>		\$21.8	\$16.5	\$38.3	
<i>Information</i>		\$11.5	\$15.5	\$27.0	
<i>Utilities</i>		\$11.9	\$10.2	\$22.0	
<i>Construction</i>		\$15.4	\$5.3	\$20.7	
<i>Agriculture</i>		\$2.8	\$14.2	\$17.0	
<i>Mining</i>		\$0.6	\$0.2	\$0.7	
<i>Other</i>		\$20.3	\$25.9	\$46.2	
Total Operational Impact on Value Added	\$921.7	\$423.6	\$715.4	\$2,060.8	4.1%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Maryland, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	17,325			17,325	0.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		7,486	18,979	26,464	
<i>Finance, insurance, real estate, rental and leasing</i>		1,995	4,834	6,829	
<i>Wholesale and retail trade</i>		937	5,343	6,280	
<i>Manufacturing</i>		1,524	1,572	3,096	
<i>Transportation and warehousing</i>		900	1,074	1,975	
<i>Construction</i>		1,336	472	1,807	
<i>Information</i>		426	702	1,128	
<i>Agriculture</i>		61	381	442	
<i>Utilities</i>		108	137	245	
<i>Mining</i>		57	19	76	
<i>Other</i>		725	1,340	2,065	
Total Operational Impact on Employment	17,325	15,553	34,853	67,730	2.0%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$750.6			\$750.6	0.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$515.5	\$934.3	\$1,449.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$91.7	\$218.2	\$309.9	
<i>Wholesale and retail trade</i>		\$66.3	\$224.9	\$291.2	
<i>Manufacturing</i>		\$121.0	\$120.8	\$241.8	
<i>Construction</i>		\$76.9	\$26.8	\$103.8	
<i>Information</i>		\$40.3	\$63.5	\$103.8	
<i>Transportation and warehousing</i>		\$38.0	\$47.3	\$85.3	
<i>Utilities</i>		\$17.5	\$23.8	\$41.2	
<i>Agriculture</i>		\$1.6	\$9.0	\$10.7	
<i>Mining</i>		\$3.4	\$1.1	\$4.6	
<i>Other</i>		\$70.9	\$121.7	\$192.7	
Total Operational Impact on Labor Income	\$750.6	\$1,043.3	\$1,791.4	\$3,585.3	1.9%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,659.9			\$1,659.9	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$601.0	\$1,076.5	\$1,677.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$393.9	\$903.3	\$1,297.2	
<i>Wholesale and retail trade</i>		\$113.0	\$371.6	\$484.6	
<i>Manufacturing</i>		\$197.2	\$188.2	\$385.3	
<i>Information</i>		\$75.7	\$122.0	\$197.6	
<i>Utilities</i>		\$60.3	\$82.4	\$142.7	
<i>Construction</i>		\$92.0	\$32.1	\$124.0	
<i>Transportation and warehousing</i>		\$53.0	\$65.6	\$118.6	
<i>Agriculture</i>		\$2.3	\$13.0	\$15.4	
<i>Mining</i>		\$6.8	\$2.2	\$9.0	
<i>Other</i>		\$79.8	\$138.9	\$218.7	
Total Operational Impact on Value Added	\$1,659.9	\$1,675.0	\$2,995.7	\$6,330.6	2.2%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Massachusetts, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	24,689			24,689	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		12,251	30,068	42,319	
<i>Finance, insurance, real estate, rental and leasing</i>		2,989	6,815	9,805	
<i>Wholesale and retail trade</i>		1,248	8,075	9,323	
<i>Manufacturing</i>		3,476	3,314	6,790	
<i>Transportation and warehousing</i>		1,183	1,281	2,464	
<i>Information</i>		786	1,243	2,028	
<i>Construction</i>		1,340	484	1,824	
<i>Agriculture</i>		63	385	448	
<i>Utilities</i>		86	121	208	
<i>Mining</i>		55	19	73	
<i>Other</i>		902	1,460	2,362	
Total Operational Impact on Employment	24,689	24,378	53,266	102,332	2.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,661.2			\$1,661.2	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$984.4	\$1,675.7	\$2,660.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$263.1	\$552.9	\$815.9	
<i>Manufacturing</i>		\$282.9	\$271.5	\$554.4	
<i>Wholesale and retail trade</i>		\$101.0	\$365.3	\$466.3	
<i>Information</i>		\$80.6	\$122.5	\$203.1	
<i>Transportation and warehousing</i>		\$53.1	\$58.9	\$112.0	
<i>Construction</i>		\$77.8	\$27.8	\$105.6	
<i>Utilities</i>		\$11.7	\$17.5	\$29.2	
<i>Agriculture</i>		\$2.2	\$12.3	\$14.5	
<i>Mining</i>		\$2.9	\$1.0	\$3.9	
<i>Other</i>		\$67.1	\$106.9	\$174.1	
Total Operational Impact on Labor Income	\$1,661.2	\$1,926.8	\$3,212.2	\$6,800.2	2.7%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,458.1			\$4,458.1	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,169.3	\$1,934.6	\$3,103.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$765.7	\$1,692.2	\$2,457.9	
<i>Manufacturing</i>		\$462.8	\$434.9	\$897.7	
<i>Wholesale and retail trade</i>		\$172.2	\$616.6	\$788.8	
<i>Information</i>		\$158.0	\$244.9	\$402.9	
<i>Transportation and warehousing</i>		\$74.2	\$82.3	\$156.5	
<i>Construction</i>		\$93.1	\$33.2	\$126.4	
<i>Utilities</i>		\$40.0	\$59.1	\$99.1	
<i>Agriculture</i>		\$2.7	\$14.9	\$17.6	
<i>Mining</i>		\$5.5	\$1.8	\$7.3	
<i>Other</i>		\$70.2	\$113.5	\$183.8	
Total Operational Impact on Value Added	\$4,458.1	\$3,013.7	\$5,228.2	\$12,700.0	3.3%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Michigan, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	45,093			45,093	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		17,831	40,676	58,507	
<i>Wholesale and retail trade</i>		3,002	13,610	16,612	
<i>Finance, insurance, real estate, rental and leasing</i>		4,824	9,789	14,613	
<i>Manufacturing</i>		7,073	5,553	12,627	
<i>Transportation and warehousing</i>		1,974	1,963	3,937	
<i>Construction</i>		1,894	604	2,498	
<i>Information</i>		776	1,118	1,895	
<i>Agriculture</i>		272	1,622	1,894	
<i>Utilities</i>		311	327	638	
<i>Mining</i>		137	46	183	
<i>Other</i>		1,589	2,294	3,883	
Total Operational Impact on Employment	45,093	39,684	77,603	162,380	3.2%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,634.8			\$2,634.8	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,048.8	\$1,682.0	\$2,730.8	
<i>Manufacturing</i>		\$523.5	\$406.3	\$929.9	
<i>Wholesale and retail trade</i>		\$183.6	\$493.1	\$676.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$189.6	\$380.5	\$570.1	
<i>Transportation and warehousing</i>		\$93.2	\$95.1	\$188.3	
<i>Information</i>		\$50.5	\$71.0	\$121.5	
<i>Construction</i>		\$87.7	\$27.7	\$115.5	
<i>Utilities</i>		\$38.7	\$41.9	\$80.6	
<i>Agriculture</i>		\$7.9	\$42.3	\$50.2	
<i>Mining</i>		\$9.3	\$3.1	\$12.4	
<i>Other</i>		\$104.9	\$148.8	\$253.7	
Total Operational Impact on Labor Income	\$2,634.8	\$2,337.7	\$3,391.8	\$8,364.3	3.5%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$6,921.8			\$6,921.8	1.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,285.1	\$1,982.2	\$3,267.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$855.7	\$1,693.2	\$2,548.9	
<i>Manufacturing</i>		\$924.5	\$723.3	\$1,647.8	
<i>Wholesale and retail trade</i>		\$311.4	\$809.6	\$1,121.1	
<i>Utilities</i>		\$132.4	\$143.5	\$275.8	
<i>Transportation and warehousing</i>		\$128.5	\$130.9	\$259.4	
<i>Information</i>		\$106.9	\$152.1	\$259.1	
<i>Construction</i>		\$105.0	\$33.2	\$138.2	
<i>Agriculture</i>		\$9.8	\$53.4	\$63.2	
<i>Mining</i>		\$24.5	\$8.0	\$32.4	
<i>Other</i>		\$117.1	\$167.1	\$284.2	
Total Operational Impact on Value Added	\$6,921.8	\$4,001.0	\$5,896.4	\$16,819.2	4.4%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Minnesota, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	33,349			33,349	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		14,987	25,784	40,771	
<i>Wholesale and retail trade</i>		3,824	8,572	12,397	
<i>Finance, insurance, real estate, rental and leasing</i>		3,097	6,423	9,521	
<i>Manufacturing</i>		4,441	3,941	8,382	
<i>Transportation and warehousing</i>		2,111	1,461	3,572	
<i>Agriculture</i>		299	1,893	2,192	
<i>Construction</i>		1,283	404	1,687	
<i>Information</i>		738	908	1,646	
<i>Utilities</i>		354	214	568	
<i>Mining</i>		180	58	237	
<i>Other</i>		1,529	1,469	2,998	
Total Operational Impact on Employment	33,349	32,843	51,128	117,319	3.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,396.8			\$1,396.8	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$894.6	\$1,113.8	\$2,008.3	
<i>Wholesale and retail trade</i>		\$265.6	\$331.9	\$597.6	
<i>Manufacturing</i>		\$301.9	\$262.6	\$564.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$168.0	\$332.1	\$500.1	
<i>Transportation and warehousing</i>		\$102.5	\$72.3	\$174.8	
<i>Information</i>		\$52.8	\$63.9	\$116.8	
<i>Agriculture</i>		\$14.1	\$78.5	\$92.6	
<i>Construction</i>		\$62.9	\$19.6	\$82.6	
<i>Utilities</i>		\$39.2	\$23.8	\$63.0	
<i>Mining</i>		\$12.3	\$3.9	\$16.2	
<i>Other</i>		\$96.2	\$92.6	\$188.8	
Total Operational Impact on Labor Income	\$1,396.8	\$2,010.2	\$2,395.0	\$5,802.0	3.5%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,690.1			\$3,690.1	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,125.0	\$1,314.1	\$2,439.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$612.9	\$1,243.5	\$1,856.4	
<i>Wholesale and retail trade</i>		\$452.3	\$557.4	\$1,009.8	
<i>Manufacturing</i>		\$488.1	\$423.9	\$912.1	
<i>Transportation and warehousing</i>		\$145.4	\$102.5	\$247.9	
<i>Information</i>		\$108.3	\$132.0	\$240.3	
<i>Utilities</i>		\$134.1	\$80.6	\$214.8	
<i>Agriculture</i>		\$18.7	\$106.2	\$124.9	
<i>Construction</i>		\$75.2	\$23.5	\$98.7	
<i>Mining</i>		\$36.8	\$11.5	\$48.4	
<i>Other</i>		\$107.7	\$103.9	\$211.5	
Total Operational Impact on Value Added	\$3,690.1	\$3,304.5	\$4,099.3	\$11,093.9	4.1%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Mississippi, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	33,291			33,291	2.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		12,263	15,256	27,519	
<i>Wholesale and retail trade</i>		3,948	5,842	9,789	
<i>Finance, insurance, real estate, rental and leasing</i>		2,549	3,449	5,999	
<i>Manufacturing</i>		1,885	1,973	3,859	
<i>Transportation and warehousing</i>		2,216	907	3,122	
<i>Agriculture</i>		262	1,187	1,449	
<i>Construction</i>		1,101	259	1,361	
<i>Information</i>		425	356	781	
<i>Utilities</i>		425	176	601	
<i>Mining</i>		49	12	62	
<i>Other</i>		2,042	1,326	3,367	
Total Operational Impact on Employment	33,291	27,165	30,744	91,201	6.1%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,769.3			\$1,769.3	3.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$462.8	\$520.1	\$982.9	
<i>Wholesale and retail trade</i>		\$205.4	\$186.4	\$391.7	
<i>Manufacturing</i>		\$104.8	\$94.5	\$199.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$74.0	\$101.3	\$175.3	
<i>Transportation and warehousing</i>		\$93.7	\$38.3	\$132.1	
<i>Utilities</i>		\$41.8	\$15.6	\$57.4	
<i>Construction</i>		\$38.0	\$8.9	\$47.0	
<i>Information</i>		\$21.5	\$18.0	\$39.5	
<i>Agriculture</i>		\$7.1	\$30.1	\$37.2	
<i>Mining</i>		\$2.3	\$0.6	\$2.9	
<i>Other</i>		\$108.7	\$70.8	\$179.6	
Total Operational Impact on Labor Income	\$1,769.3	\$1,160.2	\$1,084.6	\$4,014.1	6.8%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,741.8			\$4,741.8	5.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$596.0	\$628.2	\$1,224.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$362.4	\$485.1	\$847.4	
<i>Wholesale and retail trade</i>		\$349.6	\$303.3	\$652.9	
<i>Manufacturing</i>		\$183.7	\$148.7	\$332.4	
<i>Utilities</i>		\$142.2	\$51.4	\$193.6	
<i>Transportation and warehousing</i>		\$126.4	\$51.7	\$178.2	
<i>Information</i>		\$48.3	\$40.5	\$88.8	
<i>Construction</i>		\$45.5	\$10.7	\$56.2	
<i>Agriculture</i>		\$8.9	\$38.0	\$46.9	
<i>Mining</i>		\$4.1	\$1.0	\$5.1	
<i>Other</i>		\$126.4	\$82.3	\$208.7	
Total Operational Impact on Value Added	\$4,741.8	\$1,993.5	\$1,840.9	\$8,576.1	9.4%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Missouri, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	37,089			37,089	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		11,088	23,923	35,011	
<i>Finance, insurance, real estate, rental and leasing</i>		3,560	6,293	9,853	
<i>Wholesale and retail trade</i>		1,661	8,057	9,718	
<i>Manufacturing</i>		3,669	3,366	7,035	
<i>Transportation and warehousing</i>		1,585	1,590	3,176	
<i>Agriculture</i>		359	2,268	2,626	
<i>Construction</i>		1,410	473	1,883	
<i>Information</i>		680	926	1,606	
<i>Utilities</i>		142	168	310	
<i>Mining</i>		135	46	181	
<i>Other</i>		1,130	1,674	2,804	
Total Operational Impact on Employment	37,089	25,419	48,783	111,290	3.2%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,547.7			\$1,547.7	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$654.0	\$1,011.3	\$1,665.3	
<i>Manufacturing</i>		\$233.1	\$218.1	\$451.2	
<i>Wholesale and retail trade</i>		\$101.5	\$301.9	\$403.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$145.0	\$245.1	\$390.0	
<i>Transportation and warehousing</i>		\$73.3	\$76.4	\$149.7	
<i>Information</i>		\$57.1	\$75.8	\$132.9	
<i>Construction</i>		\$66.6	\$22.1	\$88.8	
<i>Agriculture</i>		\$7.5	\$42.0	\$49.5	
<i>Utilities</i>		\$14.6	\$17.7	\$32.3	
<i>Mining</i>		\$10.2	\$3.4	\$13.6	
<i>Other</i>		\$68.9	\$100.2	\$169.1	
Total Operational Impact on Labor Income	\$1,547.7	\$1,431.8	\$2,114.1	\$5,093.6	3.2%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,566.2			\$3,566.2	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$809.8	\$1,203.5	\$2,013.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$520.0	\$915.9	\$1,435.9	
<i>Manufacturing</i>		\$408.4	\$416.8	\$825.2	
<i>Wholesale and retail trade</i>		\$173.0	\$504.5	\$677.5	
<i>Information</i>		\$120.9	\$162.6	\$283.5	
<i>Transportation and warehousing</i>		\$101.3	\$105.5	\$206.7	
<i>Utilities</i>		\$49.6	\$59.3	\$108.9	
<i>Construction</i>		\$79.6	\$26.4	\$106.0	
<i>Agriculture</i>		\$10.6	\$60.3	\$70.9	
<i>Mining</i>		\$29.1	\$9.6	\$38.7	
<i>Other</i>		\$77.0	\$112.7	\$189.7	
Total Operational Impact on Value Added	\$3,566.2	\$2,379.3	\$3,577.0	\$9,522.5	3.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Montana, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	13,086			13,086	2.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		6,139	6,723	12,862	
<i>Wholesale and retail trade</i>		2,338	2,798	5,137	
<i>Finance, insurance, real estate, rental and leasing</i>		1,632	1,972	3,604	
<i>Transportation and warehousing</i>		902	313	1,215	
<i>Agriculture</i>		144	725	869	
<i>Manufacturing</i>		302	297	599	
<i>Construction</i>		457	115	573	
<i>Information</i>		271	206	477	
<i>Utilities</i>		200	68	268	
<i>Mining</i>		181	54	236	
<i>Other</i>		<u>859</u>	<u>492</u>	1,351	
Total Operational Impact on Employment	13,086	13,426	13,764	40,276	6.4%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$798.3			\$798.3	3.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$201.7	\$212.6	\$414.3	
<i>Wholesale and retail trade</i>		\$111.0	\$82.3	\$193.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$42.9	\$51.4	\$94.3	
<i>Transportation and warehousing</i>		\$43.7	\$15.2	\$58.8	
<i>Utilities</i>		\$24.0	\$7.7	\$31.7	
<i>Manufacturing</i>		\$14.8	\$12.8	\$27.5	
<i>Information</i>		\$12.5	\$9.5	\$22.0	
<i>Construction</i>		\$16.9	\$4.2	\$21.1	
<i>Mining</i>		\$14.3	\$4.2	\$18.5	
<i>Agriculture</i>		\$2.7	\$12.6	\$15.3	
<i>Other</i>		<u>\$48.3</u>	<u>\$27.9</u>	\$76.2	
Total Operational Impact on Labor Income	\$798.3	\$532.7	\$440.3	\$1,771.3	7.7%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,268.0			\$2,268.0	6.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$253.3	\$256.0	\$509.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$207.0	\$251.8	\$458.8	
<i>Wholesale and retail trade</i>		\$189.4	\$134.2	\$323.7	
<i>Utilities</i>		\$82.7	\$26.0	\$108.7	
<i>Transportation and warehousing</i>		\$62.4	\$21.7	\$84.1	
<i>Mining</i>		\$50.3	\$14.7	\$65.0	
<i>Information</i>		\$27.3	\$20.8	\$48.2	
<i>Manufacturing</i>		\$25.0	\$21.1	\$46.1	
<i>Agriculture</i>		\$4.5	\$21.0	\$25.5	
<i>Construction</i>		\$20.2	\$5.0	\$25.2	
<i>Other</i>		<u>\$55.5</u>	<u>\$32.0</u>	\$87.5	
Total Operational Impact on Value Added	\$2,268.0	\$977.6	\$804.4	\$4,050.0	10.7%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Nebraska, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	14,476			14,476	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,838	9,839	14,677	
<i>Wholesale and retail trade</i>		631	3,817	4,448	
<i>Finance, insurance, real estate, rental and leasing</i>		1,548	2,593	4,142	
<i>Manufacturing</i>		1,083	1,394	2,477	
<i>Transportation and warehousing</i>		643	754	1,397	
<i>Agriculture</i>		175	1,129	1,304	
<i>Construction</i>		529	172	701	
<i>Information</i>		257	312	569	
<i>Mining</i>		27	9	37	
<i>Utilities</i>		5	7	12	
<i>Other</i>		437	661	1,098	
Total Operational Impact on Employment	14,476	10,173	20,689	45,338	3.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$992.2			\$992.2	1.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$233.6	\$361.5	\$595.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$68.4	\$104.4	\$172.8	
<i>Wholesale and retail trade</i>		\$35.4	\$124.2	\$159.6	
<i>Manufacturing</i>		\$60.4	\$76.3	\$136.6	
<i>Transportation and warehousing</i>		\$32.9	\$41.2	\$74.0	
<i>Agriculture</i>		\$10.7	\$60.9	\$71.6	
<i>Information</i>		\$16.2	\$19.4	\$35.6	
<i>Construction</i>		\$23.4	\$7.6	\$30.9	
<i>Mining</i>		\$2.7	\$0.9	\$3.6	
<i>Utilities</i>		\$0.8	\$1.2	\$1.9	
<i>Other</i>		\$26.6	\$39.6	\$66.1	
Total Operational Impact on Labor Income	\$992.2	\$510.9	\$837.0	\$2,340.0	4.4%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,666.9			\$2,666.9	3.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$289.6	\$423.6	\$713.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$223.8	\$386.0	\$609.8	
<i>Wholesale and retail trade</i>		\$60.4	\$206.0	\$266.4	
<i>Manufacturing</i>		\$103.7	\$116.5	\$220.2	
<i>Agriculture</i>		\$16.8	\$96.6	\$113.4	
<i>Transportation and warehousing</i>		\$47.2	\$58.9	\$106.2	
<i>Information</i>		\$31.6	\$38.2	\$69.8	
<i>Construction</i>		\$27.8	\$9.0	\$36.8	
<i>Mining</i>		\$7.4	\$2.4	\$9.8	
<i>Utilities</i>		\$2.7	\$3.9	\$6.6	
<i>Other</i>		\$31.4	\$46.8	\$78.2	
Total Operational Impact on Value Added	\$2,666.9	\$842.4	\$1,388.0	\$4,897.3	5.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Nevada, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	12,397			12,397	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		6,016	11,596	17,612	
<i>Finance, insurance, real estate, rental and leasing</i>		1,640	3,036	4,676	
<i>Wholesale and retail trade</i>		563	2,960	3,523	
<i>Transportation and warehousing</i>		645	671	1,316	
<i>Manufacturing</i>		604	571	1,175	
<i>Construction</i>		640	219	859	
<i>Mining</i>		377	128	506	
<i>Information</i>		196	257	453	
<i>Agriculture</i>		17	103	120	
<i>Utilities</i>		43	52	95	
<i>Other</i>		329	467	796	
Total Operational Impact on Employment	12,397	11,071	20,060	43,527	2.9%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$573.6			\$573.6	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$331.5	\$535.1	\$866.6	
<i>Wholesale and retail trade</i>		\$35.1	\$115.5	\$150.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$52.6	\$94.5	\$147.1	
<i>Manufacturing</i>		\$36.0	\$35.8	\$71.8	
<i>Transportation and warehousing</i>		\$32.0	\$34.9	\$66.9	
<i>Construction</i>		\$43.2	\$14.7	\$57.8	
<i>Mining</i>		\$35.1	\$11.7	\$46.8	
<i>Information</i>		\$12.1	\$15.5	\$27.7	
<i>Utilities</i>		\$4.8	\$6.0	\$10.8	
<i>Agriculture</i>		\$0.6	\$3.3	\$3.9	
<i>Other</i>		\$27.3	\$38.3	\$65.6	
Total Operational Impact on Labor Income	\$573.6	\$610.5	\$905.1	\$2,089.2	2.9%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,445.4			\$1,445.4	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$466.6	\$736.9	\$1,203.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$224.2	\$411.1	\$635.2	
<i>Wholesale and retail trade</i>		\$60.2	\$196.3	\$256.5	
<i>Mining</i>		\$159.6	\$52.6	\$212.3	
<i>Manufacturing</i>		\$60.3	\$58.3	\$118.6	
<i>Transportation and warehousing</i>		\$43.3	\$46.9	\$90.2	
<i>Construction</i>		\$51.6	\$17.5	\$69.1	
<i>Information</i>		\$23.8	\$30.8	\$54.6	
<i>Utilities</i>		\$16.3	\$20.3	\$36.6	
<i>Agriculture</i>		\$1.0	\$5.5	\$6.5	
<i>Other</i>		\$31.2	\$44.0	\$75.2	
Total Operational Impact on Value Added	\$1,445.4	\$1,138.2	\$1,620.1	\$4,203.7	3.5%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in New Hampshire, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	8,502			8,502	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		2,070	5,526	7,596	
<i>Wholesale and retail trade</i>		311	2,068	2,379	
<i>Finance, insurance, real estate, rental and leasing</i>		587	1,379	1,966	
<i>Manufacturing</i>		1,019	771	1,789	
<i>Construction</i>		345	126	471	
<i>Transportation and warehousing</i>		233	227	461	
<i>Information</i>		121	192	314	
<i>Agriculture</i>		24	139	163	
<i>Utilities</i>		33	39	72	
<i>Mining</i>		25	9	34	
<i>Other</i>		215	360	576	
Total Operational Impact on Employment	8,502	4,984	10,836	24,322	3.0%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$390.3			\$390.3	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$118.6	\$249.7	\$368.3	
<i>Manufacturing</i>		\$69.9	\$53.3	\$123.2	
<i>Wholesale and retail trade</i>		\$22.0	\$85.7	\$107.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$27.8	\$64.3	\$92.1	
<i>Information</i>		\$9.7	\$14.8	\$24.5	
<i>Construction</i>		\$15.6	\$5.6	\$21.2	
<i>Transportation and warehousing</i>		\$9.7	\$9.7	\$19.4	
<i>Utilities</i>		\$3.7	\$4.7	\$8.4	
<i>Agriculture</i>		\$0.6	\$3.2	\$3.8	
<i>Mining</i>		\$1.1	\$0.4	\$1.5	
<i>Other</i>		\$12.8	\$20.6	\$33.4	
Total Operational Impact on Labor Income	\$390.3	\$291.6	\$511.8	\$1,193.7	3.0%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$897.9			\$897.9	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$145.4	\$293.1	\$438.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$107.0	\$240.6	\$347.6	
<i>Manufacturing</i>		\$114.1	\$86.0	\$200.1	
<i>Wholesale and retail trade</i>		\$37.6	\$144.9	\$182.5	
<i>Information</i>		\$20.6	\$32.0	\$52.5	
<i>Utilities</i>		\$12.7	\$15.8	\$28.5	
<i>Transportation and warehousing</i>		\$13.3	\$13.3	\$26.6	
<i>Construction</i>		\$18.8	\$6.7	\$25.5	
<i>Agriculture</i>		\$0.8	\$4.2	\$5.0	
<i>Mining</i>		\$2.0	\$0.7	\$2.7	
<i>Other</i>		\$14.3	\$23.2	\$37.6	
Total Operational Impact on Value Added	\$897.9	\$486.6	\$860.5	\$2,245.0	3.6%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in New Jersey, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	31,528			31,528	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		23,212	34,671	57,883	
<i>Wholesale and retail trade</i>		5,587	11,486	17,073	
<i>Finance, insurance, real estate, rental and leasing</i>		5,311	10,629	15,940	
<i>Manufacturing</i>		4,419	3,807	8,226	
<i>Transportation and warehousing</i>		3,826	2,596	6,422	
<i>Information</i>		1,133	1,384	2,517	
<i>Construction</i>		1,704	549	2,253	
<i>Agriculture</i>		66	389	455	
<i>Utilities</i>		160	117	277	
<i>Mining</i>		71	19	90	
<i>Other</i>		<u>2,253</u>	<u>2,130</u>	4,383	
Total Operational Impact on Employment	31,528	47,741	67,776	147,045	3.0%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,216.5			\$2,216.5	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,736.4	\$1,860.2	\$3,596.5	
<i>Wholesale and retail trade</i>		\$457.2	\$583.1	\$1,040.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$330.8	\$609.1	\$939.9	
<i>Manufacturing</i>		\$440.6	\$360.8	\$801.4	
<i>Transportation and warehousing</i>		\$201.2	\$138.6	\$339.8	
<i>Information</i>		\$133.7	\$160.5	\$294.2	
<i>Construction</i>		\$107.7	\$34.4	\$142.0	
<i>Utilities</i>		\$23.9	\$17.1	\$41.0	
<i>Agriculture</i>		\$2.0	\$10.9	\$13.0	
<i>Mining</i>		\$5.4	\$1.4	\$6.8	
<i>Other</i>		<u>\$179.8</u>	<u>\$171.1</u>	\$350.9	
Total Operational Impact on Labor Income	\$2,216.5	\$3,618.7	\$3,947.2	\$9,782.5	3.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$7,035.9			\$7,035.9	1.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$2,150.7	\$2,220.1	\$4,370.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,060.5	\$2,108.0	\$3,168.6	
<i>Wholesale and retail trade</i>		\$784.0	\$996.3	\$1,780.3	
<i>Manufacturing</i>		\$810.7	\$668.9	\$1,479.6	
<i>Information</i>		\$265.7	\$321.4	\$587.1	
<i>Transportation and warehousing</i>		\$275.0	\$189.2	\$464.2	
<i>Construction</i>		\$128.9	\$41.1	\$170.0	
<i>Utilities</i>		\$81.0	\$54.8	\$135.8	
<i>Agriculture</i>		\$2.4	\$13.2	\$15.6	
<i>Mining</i>		\$11.2	\$3.0	\$14.2	
<i>Other</i>		<u>\$195.3</u>	<u>\$186.8</u>	\$382.1	
Total Operational Impact on Value Added	\$7,035.9	\$5,765.5	\$6,802.8	\$19,604.2	4.1%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in New Mexico, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	32,408			32,408	3.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		9,658	14,828	24,486	
<i>Wholesale and retail trade</i>		2,347	5,327	7,673	
<i>Finance, insurance, real estate, rental and leasing</i>		2,907	3,461	6,367	
<i>Transportation and warehousing</i>		1,219	582	1,800	
<i>Manufacturing</i>		604	536	1,140	
<i>Construction</i>		805	202	1,007	
<i>Information</i>		483	475	958	
<i>Agriculture</i>		133	523	656	
<i>Utilities</i>		167	107	274	
<i>Mining</i>		141	46	187	
<i>Other</i>		<u>1,304</u>	<u>1,128</u>	<u>2,431</u>	
Total Operational Impact on Employment	32,408	19,767	27,214	79,389	7.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,924.0			\$1,924.0	4.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$461.0	\$540.8	\$1,001.8	
<i>Wholesale and retail trade</i>		\$113.0	\$175.3	\$288.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$81.9	\$100.3	\$182.1	
<i>Transportation and warehousing</i>		\$56.9	\$27.2	\$84.1	
<i>Manufacturing</i>		\$31.0	\$27.1	\$58.1	
<i>Information</i>		\$24.7	\$24.3	\$49.0	
<i>Construction</i>		\$34.4	\$8.6	\$43.0	
<i>Utilities</i>		\$17.3	\$10.4	\$27.7	
<i>Agriculture</i>		\$5.8	\$21.7	\$27.5	
<i>Mining</i>		\$11.8	\$3.7	\$15.5	
<i>Other</i>		<u>\$83.0</u>	<u>\$71.8</u>	<u>\$154.7</u>	
Total Operational Impact on Labor Income	\$1,924.0	\$920.6	\$1,011.0	\$3,855.7	8.2%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,189.0			\$4,189.0	5.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$546.6	\$636.2	\$1,182.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$409.7	\$482.0	\$891.7	
<i>Wholesale and retail trade</i>		\$192.3	\$287.2	\$479.4	
<i>Transportation and warehousing</i>		\$78.7	\$37.7	\$116.4	
<i>Information</i>		\$57.6	\$56.5	\$114.1	
<i>Manufacturing</i>		\$51.1	\$45.6	\$96.7	
<i>Utilities</i>		\$58.9	\$34.4	\$93.3	
<i>Construction</i>		\$41.1	\$10.3	\$51.3	
<i>Mining</i>		\$32.6	\$10.2	\$42.9	
<i>Agriculture</i>		\$5.7	\$21.4	\$27.1	
<i>Other</i>		<u>\$94.7</u>	<u>\$82.0</u>	<u>\$176.7</u>	
Total Operational Impact on Value Added	\$4,189.0	\$1,568.9	\$1,703.5	\$7,461.4	10.6%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in New York, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	56,715			56,715	0.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		24,803	73,347	98,150	
<i>Finance, insurance, real estate, rental and leasing</i>		7,327	19,729	27,056	
<i>Wholesale and retail trade</i>		3,241	19,781	23,022	
<i>Manufacturing</i>		6,813	6,528	13,341	
<i>Transportation and warehousing</i>		3,371	4,259	7,631	
<i>Information</i>		2,195	3,768	5,963	
<i>Construction</i>		3,204	1,129	4,333	
<i>Agriculture</i>		198	1,200	1,398	
<i>Utilities</i>		435	574	1,009	
<i>Mining</i>		210	70	280	
<i>Other</i>		<u>2,488</u>	<u>4,561</u>	<u>7,049</u>	
Total Operational Impact on Employment	56,715	54,286	134,947	245,948	2.3%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,106.4			\$4,106.4	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$2,138.6	\$3,937.5	\$6,076.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$826.4	\$2,111.6	\$2,938.0	
<i>Wholesale and retail trade</i>		\$243.2	\$904.0	\$1,147.2	
<i>Manufacturing</i>		\$491.8	\$457.9	\$949.7	
<i>Information</i>		\$316.4	\$517.6	\$834.0	
<i>Transportation and warehousing</i>		\$138.3	\$183.6	\$321.8	
<i>Construction</i>		\$190.8	\$66.5	\$257.3	
<i>Utilities</i>		\$53.4	\$75.3	\$128.7	
<i>Agriculture</i>		\$6.2	\$33.9	\$40.2	
<i>Mining</i>		\$10.5	\$3.4	\$13.9	
<i>Other</i>		<u>\$202.4</u>	<u>\$358.6</u>	<u>\$561.0</u>	
Total Operational Impact on Labor Income	\$4,106.4	\$4,618.0	\$8,650.0	\$17,374.4	2.5%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$10,918.8			\$10,918.8	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$2,189.9	\$5,499.1	\$7,689.0	
<i>Services</i>		\$2,772.1	\$4,731.9	\$7,504.0	
<i>Wholesale and retail trade</i>		\$417.1	\$1,543.7	\$1,960.8	
<i>Manufacturing</i>		\$853.1	\$881.6	\$1,734.7	
<i>Information</i>		\$463.5	\$777.4	\$1,240.9	
<i>Transportation and warehousing</i>		\$195.1	\$257.5	\$452.6	
<i>Utilities</i>		\$182.1	\$257.7	\$439.8	
<i>Construction</i>		\$227.9	\$79.5	\$307.4	
<i>Agriculture</i>		\$6.6	\$36.6	\$43.2	
<i>Mining</i>		\$24.7	\$8.1	\$32.8	
<i>Other</i>		<u>\$204.4</u>	<u>\$369.2</u>	<u>\$573.6</u>	
Total Operational Impact on Value Added	\$10,918.8	\$7,536.6	\$14,442.3	\$32,897.6	3.0%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in North Carolina, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	41,636			41,636	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		12,930	31,544	44,474	
<i>Wholesale and retail trade</i>		1,835	10,259	12,094	
<i>Manufacturing</i>		5,438	6,296	11,733	
<i>Finance, insurance, real estate, rental and leasing</i>		3,444	7,769	11,212	
<i>Transportation and warehousing</i>		1,735	1,789	3,525	
<i>Construction</i>		2,063	761	2,824	
<i>Information</i>		710	1,075	1,785	
<i>Agriculture</i>		255	1,526	1,781	
<i>Utilities</i>		126	170	296	
<i>Mining</i>		123	41	164	
<i>Other</i>		<u>1,381</u>	<u>2,260</u>	3,641	
Total Operational Impact on Employment	41,636	30,040	63,489	135,165	2.6%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,657.5			\$1,657.5	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$709.0	\$1,241.3	\$1,950.3	
<i>Manufacturing</i>		\$363.8	\$385.1	\$748.9	
<i>Wholesale and retail trade</i>		\$113.1	\$388.1	\$501.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$149.4	\$314.7	\$464.1	
<i>Transportation and warehousing</i>		\$76.0	\$81.7	\$157.7	
<i>Information</i>		\$54.7	\$80.0	\$134.7	
<i>Construction</i>		\$78.7	\$28.7	\$107.4	
<i>Agriculture</i>		\$9.8	\$52.2	\$62.1	
<i>Utilities</i>		\$12.8	\$18.1	\$30.9	
<i>Mining</i>		\$7.3	\$2.4	\$9.6	
<i>Other</i>		<u>\$94.3</u>	<u>\$146.5</u>	\$240.8	
Total Operational Impact on Labor Income	\$1,657.5	\$1,668.8	\$2,738.8	\$6,065.1	2.6%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,387.7			\$3,387.7	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$864.7	\$1,457.1	\$2,321.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$557.3	\$1,226.7	\$1,784.0	
<i>Manufacturing</i>		\$646.8	\$878.6	\$1,525.4	
<i>Wholesale and retail trade</i>		\$191.2	\$636.1	\$827.3	
<i>Information</i>		\$109.5	\$163.0	\$272.5	
<i>Transportation and warehousing</i>		\$104.7	\$112.8	\$217.4	
<i>Construction</i>		\$94.2	\$34.3	\$128.5	
<i>Utilities</i>		\$43.7	\$61.1	\$104.7	
<i>Agriculture</i>		\$13.4	\$72.5	\$85.9	
<i>Mining</i>		\$16.8	\$5.4	\$22.2	
<i>Other</i>		<u>\$111.4</u>	<u>\$174.4</u>	\$285.8	
Total Operational Impact on Value Added	\$3,387.7	\$2,753.6	\$4,822.1	\$10,963.5	2.9%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in North Dakota, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	14,846			14,846	3.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,725	5,808	10,534	
<i>Wholesale and retail trade</i>		1,361	2,424	3,785	
<i>Finance, insurance, real estate, rental and leasing</i>		1,586	1,499	3,085	
<i>Transportation and warehousing</i>		746	286	1,032	
<i>Agriculture</i>		142	740	882	
<i>Manufacturing</i>		456	292	748	
<i>Information</i>		252	162	414	
<i>Construction</i>		273	79	352	
<i>Utilities</i>		75	54	129	
<i>Mining</i>		58	18	75	
<i>Other</i>		664	449	1,113	
Total Operational Impact on Employment	14,846	10,339	11,810	36,995	7.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$944.1			\$944.1	4.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$184.0	\$189.3	\$373.3	
<i>Wholesale and retail trade</i>		\$75.8	\$77.2	\$153.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$52.7	\$47.9	\$100.5	
<i>Transportation and warehousing</i>		\$38.7	\$14.9	\$53.7	
<i>Agriculture</i>		\$8.6	\$40.6	\$49.2	
<i>Manufacturing</i>		\$24.2	\$15.4	\$39.6	
<i>Information</i>		\$14.4	\$9.3	\$23.7	
<i>Construction</i>		\$12.9	\$3.7	\$16.6	
<i>Utilities</i>		\$8.1	\$5.8	\$13.9	
<i>Mining</i>		\$5.3	\$1.6	\$6.9	
<i>Other</i>		\$35.7	\$24.5	\$60.2	
Total Operational Impact on Labor Income	\$944.1	\$460.3	\$430.2	\$1,834.6	8.8%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,373.0			\$2,373.0	7.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$227.3	\$220.1	\$447.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$195.3	\$192.2	\$387.5	
<i>Wholesale and retail trade</i>		\$129.4	\$126.4	\$255.8	
<i>Transportation and warehousing</i>		\$52.8	\$20.4	\$73.2	
<i>Manufacturing</i>		\$44.1	\$25.1	\$69.2	
<i>Agriculture</i>		\$10.5	\$50.2	\$60.6	
<i>Information</i>		\$30.7	\$19.8	\$50.5	
<i>Utilities</i>		\$27.6	\$19.7	\$47.3	
<i>Construction</i>		\$15.4	\$4.4	\$19.9	
<i>Mining</i>		\$9.8	\$2.9	\$12.7	
<i>Other</i>		\$42.0	\$28.6	\$70.6	
Total Operational Impact on Value Added	\$2,373.0	\$785.0	\$709.8	\$3,867.8	11.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Ohio, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	67,787			67,787	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		27,330	51,491	78,822	
<i>Wholesale and retail trade</i>		6,076	18,155	24,231	
<i>Finance, insurance, real estate, rental and leasing</i>		6,519	12,541	19,060	
<i>Manufacturing</i>		11,012	7,663	18,675	
<i>Transportation and warehousing</i>		4,011	3,238	7,250	
<i>Construction</i>		2,423	776	3,198	
<i>Information</i>		1,241	1,583	2,824	
<i>Agriculture</i>		315	1,887	2,202	
<i>Utilities</i>		427	342	769	
<i>Mining</i>		249	79	327	
<i>Other</i>		<u>2,630</u>	<u>3,084</u>	5,713	
Total Operational Impact on Employment	67,787	62,231	100,839	230,858	3.6%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,543.3			\$3,543.3	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,504.2	\$2,083.0	\$3,587.1	
<i>Manufacturing</i>		\$746.5	\$509.1	\$1,255.6	
<i>Wholesale and retail trade</i>		\$363.7	\$656.1	\$1,019.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$274.9	\$514.0	\$788.8	
<i>Transportation and warehousing</i>		\$192.5	\$158.5	\$351.0	
<i>Information</i>		\$81.5	\$102.1	\$183.6	
<i>Construction</i>		\$110.2	\$35.0	\$145.2	
<i>Utilities</i>		\$48.5	\$38.9	\$87.4	
<i>Agriculture</i>		\$5.5	\$29.8	\$35.3	
<i>Mining</i>		\$17.1	\$5.3	\$22.4	
<i>Other</i>		<u>\$163.7</u>	<u>\$190.3</u>	\$354.0	
Total Operational Impact on Labor Income	\$3,543.3	\$3,508.3	\$4,322.1	\$11,373.7	3.9%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$9,580.4			\$9,580.4	2.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,855.0	\$2,447.8	\$4,302.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,067.5	\$2,019.8	\$3,087.3	
<i>Manufacturing</i>		\$1,287.6	\$888.3	\$2,175.9	
<i>Wholesale and retail trade</i>		\$618.8	\$1,094.9	\$1,713.7	
<i>Transportation and warehousing</i>		\$267.7	\$220.0	\$487.7	
<i>Information</i>		\$165.7	\$209.4	\$375.1	
<i>Utilities</i>		\$165.4	\$131.6	\$297.0	
<i>Construction</i>		\$131.8	\$41.8	\$173.6	
<i>Agriculture</i>		\$10.8	\$58.9	\$69.7	
<i>Mining</i>		\$35.1	\$10.8	\$45.9	
<i>Other</i>		<u>\$184.5</u>	<u>\$215.3</u>	\$399.8	
Total Operational Impact on Value Added	\$9,580.4	\$5,789.8	\$7,338.8	\$22,709.0	4.9%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Oklahoma, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	111,461			111,461	5.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		34,294	60,734	95,027	
<i>Wholesale and retail trade</i>		7,630	23,828	31,458	
<i>Finance, insurance, real estate, rental and leasing</i>		12,304	15,626	27,930	
<i>Manufacturing</i>		4,201	2,295	6,496	
<i>Transportation and warehousing</i>		3,915	2,428	6,343	
<i>Information</i>		1,778	1,864	3,642	
<i>Agriculture</i>		774	2,763	3,537	
<i>Construction</i>		2,948	565	3,513	
<i>Utilities</i>		618	443	1,061	
<i>Mining</i>		221	47	269	
<i>Other</i>		4,056	4,299	8,355	
Total Operational Impact on Employment	111,461	72,740	114,892	299,093	14.1%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$10,562.0			\$10,562.0	11.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,445.6	\$2,075.0	\$3,520.7	
<i>Wholesale and retail trade</i>		\$404.6	\$778.6	\$1,183.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$357.5	\$483.2	\$840.7	
<i>Manufacturing</i>		\$295.9	\$141.0	\$436.9	
<i>Transportation and warehousing</i>		\$193.2	\$120.2	\$313.5	
<i>Information</i>		\$107.4	\$112.3	\$219.7	
<i>Construction</i>		\$103.6	\$19.8	\$123.4	
<i>Utilities</i>		\$69.9	\$48.4	\$118.3	
<i>Agriculture</i>		\$9.4	\$32.5	\$41.9	
<i>Mining</i>		\$9.9	\$2.1	\$12.0	
<i>Other</i>		\$235.5	\$248.2	\$483.8	
Total Operational Impact on Labor Income	\$10,562.0	\$3,232.6	\$4,061.5	\$17,856.1	19.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$29,159.2			\$29,159.2	18.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,850.7	\$2,459.7	\$4,310.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,818.5	\$2,184.5	\$4,003.0	
<i>Wholesale and retail trade</i>		\$685.4	\$1,269.4	\$1,954.9	
<i>Manufacturing</i>		\$550.0	\$238.5	\$788.5	
<i>Information</i>		\$231.8	\$242.7	\$474.5	
<i>Transportation and warehousing</i>		\$265.0	\$164.8	\$429.8	
<i>Utilities</i>		\$240.6	\$163.7	\$404.2	
<i>Construction</i>		\$123.9	\$23.7	\$147.5	
<i>Agriculture</i>		\$12.8	\$44.7	\$57.5	
<i>Mining</i>		\$21.3	\$4.5	\$25.9	
<i>Other</i>		\$275.7	\$289.8	\$565.6	
Total Operational Impact on Value Added	\$29,159.2	\$6,075.7	\$7,086.0	\$42,321.0	27.1%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Oregon, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	14,969			14,969	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		5,825	13,384	19,208	
<i>Wholesale and retail trade</i>		741	4,384	5,124	
<i>Finance, insurance, real estate, rental and leasing</i>		1,745	3,359	5,104	
<i>Manufacturing</i>		2,229	2,197	4,427	
<i>Agriculture</i>		244	1,522	1,766	
<i>Transportation and warehousing</i>		754	820	1,574	
<i>Construction</i>		769	265	1,033	
<i>Information</i>		330	487	817	
<i>Mining</i>		95	32	127	
<i>Utilities</i>		45	59	104	
<i>Other</i>		519	827	1,346	
Total Operational Impact on Employment	14,969	13,296	27,335	55,600	2.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$658.9			\$658.9	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$306.2	\$536.1	\$842.3	
<i>Manufacturing</i>		\$147.8	\$137.3	\$285.1	
<i>Wholesale and retail trade</i>		\$50.0	\$175.4	\$225.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$63.7	\$118.5	\$182.2	
<i>Transportation and warehousing</i>		\$35.8	\$40.5	\$76.3	
<i>Information</i>		\$24.3	\$34.6	\$58.9	
<i>Agriculture</i>		\$8.4	\$46.6	\$55.0	
<i>Construction</i>		\$36.5	\$12.4	\$48.9	
<i>Utilities</i>		\$5.4	\$7.2	\$12.6	
<i>Mining</i>		\$3.8	\$1.2	\$5.0	
<i>Other</i>		\$34.2	\$53.0	\$87.2	
Total Operational Impact on Labor Income	\$658.9	\$716.2	\$1,162.9	\$2,538.1	2.6%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,611.5			\$1,611.5	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$387.7	\$641.2	\$1,028.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$267.7	\$507.4	\$775.2	
<i>Manufacturing</i>		\$243.6	\$228.0	\$471.7	
<i>Wholesale and retail trade</i>		\$85.4	\$293.6	\$379.0	
<i>Information</i>		\$48.9	\$70.7	\$119.6	
<i>Transportation and warehousing</i>		\$49.2	\$55.6	\$104.8	
<i>Agriculture</i>		\$11.3	\$63.6	\$75.0	
<i>Construction</i>		\$43.6	\$14.8	\$58.5	
<i>Utilities</i>		\$18.6	\$24.4	\$43.0	
<i>Mining</i>		\$7.3	\$2.4	\$9.6	
<i>Other</i>		\$38.3	\$59.8	\$98.1	
Total Operational Impact on Value Added	\$1,611.5	\$1,201.6	\$1,961.8	\$4,774.9	3.1%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Pennsylvania, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	77,526			77,526	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		33,768	66,140	99,908	
<i>Wholesale and retail trade</i>		7,603	21,653	29,257	
<i>Finance, insurance, real estate, rental and leasing</i>		7,601	15,201	22,803	
<i>Manufacturing</i>		10,604	7,826	18,430	
<i>Transportation and warehousing</i>		5,268	3,998	9,266	
<i>Construction</i>		3,061	965	4,026	
<i>Information</i>		1,648	2,084	3,731	
<i>Agriculture</i>		334	1,754	2,088	
<i>Mining</i>		676	214	890	
<i>Utilities</i>		451	367	818	
<i>Other</i>		<u>3,215</u>	<u>3,606</u>	<u>6,820</u>	
Total Operational Impact on Employment	77,526	74,229	123,808	275,563	3.9%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,416.8			\$4,416.8	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$2,178.2	\$3,031.3	\$5,209.5	
<i>Wholesale and retail trade</i>		\$499.7	\$816.5	\$1,316.2	
<i>Manufacturing</i>		\$761.3	\$527.8	\$1,289.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$379.1	\$739.1	\$1,118.2	
<i>Transportation and warehousing</i>		\$253.3	\$195.0	\$448.2	
<i>Information</i>		\$138.0	\$171.7	\$309.7	
<i>Construction</i>		\$160.4	\$50.1	\$210.5	
<i>Utilities</i>		\$64.4	\$51.8	\$116.2	
<i>Mining</i>		\$40.2	\$12.5	\$52.7	
<i>Agriculture</i>		\$7.0	\$33.9	\$40.9	
<i>Other</i>		<u>\$203.0</u>	<u>\$227.1</u>	<u>\$430.1</u>	
Total Operational Impact on Labor Income	\$4,416.8	\$4,684.4	\$5,856.9	\$14,958.0	4.2%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$10,905.0			\$10,905.0	2.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$2,689.8	\$3,548.8	\$6,238.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,420.3	\$2,781.1	\$4,201.4	
<i>Manufacturing</i>		\$1,431.4	\$963.3	\$2,394.6	
<i>Wholesale and retail trade</i>		\$851.3	\$1,373.4	\$2,224.8	
<i>Transportation and warehousing</i>		\$347.2	\$266.6	\$613.8	
<i>Information</i>		\$264.2	\$331.2	\$595.4	
<i>Utilities</i>		\$220.2	\$173.2	\$393.4	
<i>Construction</i>		\$191.8	\$59.9	\$251.7	
<i>Mining</i>		\$82.7	\$25.6	\$108.2	
<i>Agriculture</i>		\$8.6	\$41.9	\$50.5	
<i>Other</i>		<u>\$217.5</u>	<u>\$245.1</u>	<u>\$462.6</u>	
Total Operational Impact on Value Added	\$10,905.0	\$7,724.9	\$9,810.1	\$28,440.1	5.1%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Rhode Island, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	4,008			4,008	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		1,579	3,972	5,551	
<i>Finance, insurance, real estate, rental and leasing</i>		453	954	1,408	
<i>Wholesale and retail trade</i>		165	1,051	1,217	
<i>Manufacturing</i>		553	555	1,108	
<i>Transportation and warehousing</i>		155	158	313	
<i>Information</i>		100	145	245	
<i>Construction</i>		177	66	243	
<i>Agriculture</i>		10	58	67	
<i>Utilities</i>		7	10	17	
<i>Mining</i>		7	2	9	
<i>Other</i>		132	220	352	
Total Operational Impact on Employment	4,008	3,337	7,192	14,538	2.5%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$197.8			\$197.8	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$96.9	\$176.5	\$273.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$26.0	\$49.1	\$75.1	
<i>Manufacturing</i>		\$36.8	\$34.5	\$71.4	
<i>Wholesale and retail trade</i>		\$11.5	\$43.3	\$54.9	
<i>Information</i>		\$8.1	\$11.3	\$19.4	
<i>Transportation and warehousing</i>		\$6.0	\$6.4	\$12.4	
<i>Construction</i>		\$8.9	\$3.3	\$12.2	
<i>Utilities</i>		\$1.0	\$1.5	\$2.5	
<i>Agriculture</i>		\$0.2	\$1.1	\$1.3	
<i>Mining</i>		\$0.5	\$0.1	\$0.6	
<i>Other</i>		\$11.6	\$19.1	\$30.7	
Total Operational Impact on Labor Income	\$197.8	\$207.5	\$346.5	\$751.8	2.5%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$540.6			\$540.6	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$118.0	\$206.8	\$324.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$81.1	\$168.9	\$250.0	
<i>Manufacturing</i>		\$62.1	\$55.0	\$117.2	
<i>Wholesale and retail trade</i>		\$19.7	\$72.7	\$92.4	
<i>Information</i>		\$16.6	\$23.7	\$40.3	
<i>Transportation and warehousing</i>		\$8.5	\$8.9	\$17.4	
<i>Construction</i>		\$10.7	\$3.9	\$14.6	
<i>Utilities</i>		\$3.4	\$5.3	\$8.7	
<i>Agriculture</i>		\$0.4	\$1.9	\$2.3	
<i>Mining</i>		\$0.8	\$0.2	\$1.0	
<i>Other</i>		\$13.1	\$21.7	\$34.8	
Total Operational Impact on Value Added	\$540.6	\$334.2	\$569.0	\$1,443.9	3.2%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in South Carolina, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	22,180			22,180	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,813	14,000	18,813	
<i>Manufacturing</i>		3,000	2,710	5,710	
<i>Wholesale and retail trade</i>		632	4,561	5,193	
<i>Finance, insurance, real estate, rental and leasing</i>		1,560	3,564	5,125	
<i>Transportation and warehousing</i>		675	771	1,446	
<i>Construction</i>		948	327	1,275	
<i>Agriculture</i>		108	653	761	
<i>Information</i>		261	418	679	
<i>Utilities</i>		135	182	317	
<i>Mining</i>		42	14	56	
<i>Other</i>		585	1,052	1,636	
Total Operational Impact on Employment	22,180	12,759	28,254	63,192	2.6%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$717.9			\$717.9	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$211.8	\$464.1	\$675.8	
<i>Manufacturing</i>		\$199.1	\$168.3	\$367.5	
<i>Wholesale and retail trade</i>		\$35.5	\$162.3	\$197.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$52.8	\$119.8	\$172.6	
<i>Transportation and warehousing</i>		\$26.7	\$32.4	\$59.1	
<i>Construction</i>		\$37.0	\$12.6	\$49.6	
<i>Information</i>		\$16.4	\$25.2	\$41.6	
<i>Utilities</i>		\$12.6	\$18.2	\$30.8	
<i>Agriculture</i>		\$2.8	\$15.2	\$18.0	
<i>Mining</i>		\$2.2	\$0.7	\$2.9	
<i>Other</i>		\$38.8	\$65.9	\$104.7	
Total Operational Impact on Labor Income	\$717.9	\$635.6	\$1,084.7	\$2,438.3	2.4%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,319.6			\$1,319.6	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$268.3	\$561.3	\$829.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$229.7	\$503.1	\$732.8	
<i>Manufacturing</i>		\$355.7	\$281.9	\$637.6	
<i>Wholesale and retail trade</i>		\$59.9	\$265.7	\$325.6	
<i>Utilities</i>		\$42.7	\$61.6	\$104.3	
<i>Information</i>		\$36.4	\$57.3	\$93.7	
<i>Transportation and warehousing</i>		\$35.8	\$43.3	\$79.1	
<i>Construction</i>		\$44.2	\$15.1	\$59.3	
<i>Agriculture</i>		\$3.6	\$19.8	\$23.5	
<i>Mining</i>		\$4.9	\$1.6	\$6.6	
<i>Other</i>		\$45.1	\$77.4	\$122.5	
Total Operational Impact on Value Added	\$1,319.6	\$1,126.3	\$1,888.2	\$4,334.1	2.7%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in South Dakota, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	8,499			8,499	1.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		966	2,928	3,894	
<i>Wholesale and retail trade</i>		212	1,243	1,456	
<i>Finance, insurance, real estate, rental and leasing</i>		460	928	1,388	
<i>Manufacturing</i>		443	490	932	
<i>Agriculture</i>		110	712	823	
<i>Transportation and warehousing</i>		177	187	364	
<i>Construction</i>		207	72	278	
<i>Information</i>		67	97	165	
<i>Utilities</i>		28	33	62	
<i>Mining</i>		27	9	37	
<i>Other</i>		<u>169</u>	<u>251</u>	421	
Total Operational Impact on Employment	8,499	2,868	6,951	18,318	3.3%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$303.7			\$303.7	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$38.8	\$101.9	\$140.7	
<i>Agriculture</i>		\$8.0	\$45.4	\$53.5	
<i>Wholesale and retail trade</i>		\$11.1	\$39.5	\$50.6	
<i>Manufacturing</i>		\$23.5	\$24.6	\$48.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$15.8	\$32.0	\$47.8	
<i>Transportation and warehousing</i>		\$7.4	\$8.3	\$15.7	
<i>Construction</i>		\$7.9	\$2.7	\$10.6	
<i>Information</i>		\$3.5	\$5.0	\$8.5	
<i>Utilities</i>		\$2.5	\$3.1	\$5.6	
<i>Mining</i>		\$1.5	\$0.5	\$2.0	
<i>Other</i>		<u>\$9.3</u>	<u>\$13.2</u>	\$22.5	
Total Operational Impact on Labor Income	\$303.7	\$129.3	\$276.2	\$709.2	3.2%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$639.8			\$639.8	1.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$62.9	\$117.7	\$180.6	
<i>Services</i>		\$48.8	\$121.2	\$170.0	
<i>Wholesale and retail trade</i>		\$19.0	\$65.8	\$84.8	
<i>Manufacturing</i>		\$41.8	\$36.5	\$78.3	
<i>Agriculture</i>		\$9.0	\$51.7	\$60.6	
<i>Transportation and warehousing</i>		\$10.1	\$11.3	\$21.4	
<i>Utilities</i>		\$8.7	\$10.5	\$19.2	
<i>Information</i>		\$7.7	\$10.9	\$18.5	
<i>Construction</i>		\$9.4	\$3.2	\$12.7	
<i>Mining</i>		\$4.0	\$1.3	\$5.4	
<i>Other</i>		<u>\$10.6</u>	<u>\$15.2</u>	\$25.8	
Total Operational Impact on Value Added	\$639.8	\$232.0	\$445.3	\$1,317.1	3.9%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Tennessee, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	32,628			32,628	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		9,121	22,727	31,848	
<i>Wholesale and retail trade</i>		1,778	7,690	9,467	
<i>Manufacturing</i>		4,416	3,989	8,404	
<i>Finance, insurance, real estate, rental and leasing</i>		2,560	5,582	8,142	
<i>Transportation and warehousing</i>		1,697	1,943	3,640	
<i>Construction</i>		1,559	506	2,065	
<i>Agriculture</i>		273	1,693	1,966	
<i>Information</i>		532	787	1,319	
<i>Mining</i>		133	44	177	
<i>Utilities</i>		54	55	108	
<i>Other</i>		<u>937</u>	<u>1,381</u>	<u>2,318</u>	
Total Operational Impact on Employment	32,628	23,059	46,396	102,083	2.9%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,316.8			\$1,316.8	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$471.0	\$987.4	\$1,458.4	
<i>Manufacturing</i>		\$284.1	\$255.8	\$539.9	
<i>Wholesale and retail trade</i>		\$107.4	\$298.6	\$406.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$112.3	\$244.5	\$356.8	
<i>Transportation and warehousing</i>		\$83.7	\$102.3	\$186.0	
<i>Information</i>		\$34.1	\$48.9	\$82.9	
<i>Construction</i>		\$60.1	\$19.3	\$79.5	
<i>Agriculture</i>		\$1.7	\$9.1	\$10.8	
<i>Mining</i>		\$7.4	\$2.4	\$9.8	
<i>Utilities</i>		\$4.2	\$4.4	\$8.7	
<i>Other</i>		<u>\$54.7</u>	<u>\$78.0</u>	<u>\$132.7</u>	
Total Operational Impact on Labor Income	\$1,316.8	\$1,220.8	\$2,050.8	\$4,588.4	2.9%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,769.4			\$2,769.4	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$586.3	\$1,166.8	\$1,753.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$450.3	\$941.4	\$1,391.7	
<i>Manufacturing</i>		\$499.5	\$490.9	\$990.4	
<i>Wholesale and retail trade</i>		\$182.9	\$494.5	\$677.4	
<i>Transportation and warehousing</i>		\$124.0	\$151.6	\$275.6	
<i>Information</i>		\$72.3	\$105.4	\$177.8	
<i>Construction</i>		\$72.0	\$23.2	\$95.2	
<i>Agriculture</i>		\$5.5	\$30.7	\$36.1	
<i>Utilities</i>		\$14.4	\$14.7	\$29.1	
<i>Mining</i>		\$16.8	\$5.4	\$22.3	
<i>Other</i>		<u>\$62.3</u>	<u>\$89.5</u>	<u>\$151.7</u>	
Total Operational Impact on Value Added	\$2,769.4	\$2,086.3	\$3,513.9	\$8,369.7	3.3%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Texas, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	474,393			474,393	3.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		270,059	497,090	767,148	
<i>Wholesale and retail trade</i>		69,027	185,405	254,431	
<i>Finance, insurance, real estate, rental and leasing</i>		88,350	129,582	217,931	
<i>Transportation and warehousing</i>		39,378	25,376	64,755	
<i>Manufacturing</i>		39,127	25,466	64,593	
<i>Construction</i>		23,323	4,928	28,251	
<i>Information</i>		12,549	14,758	27,307	
<i>Agriculture</i>		3,835	13,798	17,633	
<i>Utilities</i>		4,665	3,208	7,873	
<i>Mining</i>		1,284	281	1,565	
<i>Other</i>		<u>27,935</u>	<u>28,325</u>	<u>56,260</u>	
Total Operational Impact on Employment	474,393	579,531	928,216	1,982,140	14.3%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$64,294.0			\$64,294.0	9.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$13,699.5	\$19,548.3	\$33,247.9	
<i>Wholesale and retail trade</i>		\$4,670.1	\$6,954.4	\$11,624.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$3,504.4	\$5,636.7	\$9,141.1	
<i>Manufacturing</i>		\$2,964.9	\$1,735.1	\$4,700.0	
<i>Transportation and warehousing</i>		\$2,032.5	\$1,312.8	\$3,345.4	
<i>Information</i>		\$1,041.4	\$1,220.2	\$2,261.6	
<i>Construction</i>		\$1,098.8	\$231.6	\$1,330.4	
<i>Utilities</i>		\$739.2	\$462.0	\$1,201.2	
<i>Agriculture</i>		\$49.1	\$173.6	\$222.7	
<i>Mining</i>		\$78.3	\$17.1	\$95.4	
<i>Other</i>		<u>\$1,692.4</u>	<u>\$1,709.6</u>	<u>\$3,402.0</u>	
Total Operational Impact on Labor Income	\$64,294.0	\$31,570.7	\$39,001.3	\$134,866.0	18.9%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$169,660.0			\$169,660.0	13.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$16,987.3	\$23,147.3	\$40,134.6	
<i>Services</i>		\$16,746.6	\$22,899.2	\$39,645.8	
<i>Wholesale and retail trade</i>		\$7,970.3	\$11,395.8	\$19,366.1	
<i>Manufacturing</i>		\$5,724.6	\$3,223.2	\$8,947.7	
<i>Information</i>		\$2,285.3	\$2,682.1	\$4,967.4	
<i>Transportation and warehousing</i>		\$2,780.7	\$1,794.9	\$4,575.6	
<i>Utilities</i>		\$2,569.6	\$1,539.8	\$4,109.4	
<i>Construction</i>		\$1,313.6	\$276.8	\$1,590.4	
<i>Agriculture</i>		\$84.3	\$298.9	\$383.2	
<i>Mining</i>		\$160.7	\$35.0	\$195.7	
<i>Other</i>		<u>\$1,957.9</u>	<u>\$1,975.9</u>	<u>\$3,933.7</u>	
Total Operational Impact on Value Added	\$169,660.0	\$58,580.9	\$69,268.9	\$297,509.9	24.3%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Utah, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	20,444			20,444	1.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		11,827	15,825	27,653	
<i>Finance, insurance, real estate, rental and leasing</i>		3,735	6,030	9,765	
<i>Wholesale and retail trade</i>		2,934	5,910	8,844	
<i>Manufacturing</i>		1,859	1,722	3,580	
<i>Transportation and warehousing</i>		1,622	925	2,547	
<i>Information</i>		623	641	1,264	
<i>Construction</i>		887	270	1,158	
<i>Agriculture</i>		82	417	500	
<i>Mining</i>		231	70	300	
<i>Utilities</i>		146	83	229	
<i>Other</i>		1,147	996	2,142	
Total Operational Impact on Employment	20,444	25,092	32,889	78,425	4.9%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,382.0			\$1,382.0	2.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$552.5	\$590.4	\$1,142.9	
<i>Wholesale and retail trade</i>		\$163.5	\$210.1	\$373.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$96.3	\$155.0	\$251.3	
<i>Manufacturing</i>		\$115.0	\$99.4	\$214.4	
<i>Transportation and warehousing</i>		\$85.1	\$49.0	\$134.0	
<i>Information</i>		\$35.7	\$36.5	\$72.3	
<i>Construction</i>		\$40.5	\$12.2	\$52.7	
<i>Utilities</i>		\$17.2	\$9.4	\$26.6	
<i>Mining</i>		\$16.7	\$5.0	\$21.6	
<i>Agriculture</i>		\$1.4	\$6.5	\$7.9	
<i>Other</i>		\$70.6	\$61.4	\$132.1	
Total Operational Impact on Labor Income	\$1,382.0	\$1,194.4	\$1,234.9	\$3,811.2	5.6%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,858.9			\$3,858.9	3.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$679.0	\$696.4	\$1,375.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$401.0	\$641.3	\$1,042.2	
<i>Wholesale and retail trade</i>		\$277.8	\$350.9	\$628.6	
<i>Manufacturing</i>		\$211.4	\$166.2	\$377.7	
<i>Transportation and warehousing</i>		\$117.7	\$67.8	\$185.4	
<i>Information</i>		\$68.6	\$70.3	\$138.9	
<i>Utilities</i>		\$58.8	\$31.6	\$90.4	
<i>Construction</i>		\$48.4	\$14.6	\$63.0	
<i>Mining</i>		\$45.1	\$13.3	\$58.4	
<i>Agriculture</i>		\$2.8	\$13.2	\$15.9	
<i>Other</i>		\$80.8	\$70.3	\$151.2	
Total Operational Impact on Value Added	\$3,858.9	\$1,991.3	\$2,135.8	\$7,986.0	7.4%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Vermont, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	5,987			5,987	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		981	2,868	3,848	
<i>Wholesale and retail trade</i>		131	818	949	
<i>Finance, insurance, real estate, rental and leasing</i>		257	515	772	
<i>Manufacturing</i>		355	411	765	
<i>Construction</i>		188	67	255	
<i>Transportation and warehousing</i>		126	116	243	
<i>Agriculture</i>		33	195	228	
<i>Information</i>		65	94	159	
<i>Utilities</i>		23	26	49	
<i>Mining</i>		28	10	38	
<i>Other</i>		<u>115</u>	<u>183</u>	<u>298</u>	
Total Operational Impact on Employment	5,987	2,302	5,302	13,591	3.3%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$202.5			\$202.5	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$38.2	\$101.2	\$139.4	
<i>Manufacturing</i>		\$22.6	\$23.8	\$46.5	
<i>Wholesale and retail trade</i>		\$7.2	\$28.9	\$36.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$9.5	\$18.8	\$28.4	
<i>Transportation and warehousing</i>		\$5.3	\$5.1	\$10.5	
<i>Construction</i>		\$6.8	\$2.4	\$9.1	
<i>Information</i>		\$3.3	\$4.7	\$7.9	
<i>Utilities</i>		\$2.5	\$3.1	\$5.6	
<i>Agriculture</i>		\$0.9	\$4.7	\$5.6	
<i>Mining</i>		\$1.4	\$0.5	\$1.9	
<i>Other</i>		<u>\$7.2</u>	<u>\$11.0</u>	<u>\$18.2</u>	
Total Operational Impact on Labor Income	\$202.5	\$105.0	\$204.1	\$511.6	3.0%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$433.9			\$433.9	1.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$48.8	\$120.4	\$169.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$41.4	\$80.9	\$122.3	
<i>Manufacturing</i>		\$39.9	\$42.6	\$82.5	
<i>Wholesale and retail trade</i>		\$12.2	\$49.1	\$61.3	
<i>Utilities</i>		\$8.6	\$10.6	\$19.2	
<i>Information</i>		\$6.6	\$9.5	\$16.2	
<i>Transportation and warehousing</i>		\$7.3	\$7.0	\$14.3	
<i>Construction</i>		\$8.1	\$2.8	\$10.9	
<i>Agriculture</i>		\$0.9	\$4.9	\$5.8	
<i>Mining</i>		\$2.9	\$0.9	\$3.8	
<i>Other</i>		<u>\$8.0</u>	<u>\$12.4</u>	<u>\$20.4</u>	
Total Operational Impact on Value Added	\$433.9	\$184.8	\$341.2	\$959.8	3.7%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Virginia, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	45,678			45,678	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		13,630	29,115	42,745	
<i>Wholesale and retail trade</i>		1,605	8,873	10,478	
<i>Finance, insurance, real estate, rental and leasing</i>		2,921	6,746	9,666	
<i>Manufacturing</i>		3,002	3,162	6,163	
<i>Transportation and warehousing</i>		1,540	1,660	3,200	
<i>Construction</i>		1,861	658	2,519	
<i>Information</i>		725	1,177	1,903	
<i>Agriculture</i>		191	1,093	1,283	
<i>Mining</i>		243	81	324	
<i>Utilities</i>		141	165	307	
<i>Other</i>		<u>1,386</u>	<u>2,377</u>	3,763	
Total Operational Impact on Employment	45,678	27,244	55,107	128,030	2.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,785.2			\$1,785.2	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,079.5	\$1,480.0	\$2,559.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$142.8	\$322.2	\$465.0	
<i>Wholesale and retail trade</i>		\$104.8	\$335.8	\$440.7	
<i>Manufacturing</i>		\$200.6	\$198.2	\$398.7	
<i>Information</i>		\$73.1	\$113.8	\$186.9	
<i>Transportation and warehousing</i>		\$69.3	\$78.3	\$147.5	
<i>Construction</i>		\$88.5	\$30.9	\$119.4	
<i>Utilities</i>		\$18.9	\$23.0	\$41.9	
<i>Mining</i>		\$23.2	\$7.6	\$30.9	
<i>Agriculture</i>		\$2.3	\$11.8	\$14.1	
<i>Other</i>		<u>\$121.5</u>	<u>\$196.2</u>	\$317.7	
Total Operational Impact on Labor Income	\$1,785.2	\$1,924.4	\$2,797.9	\$6,507.5	2.4%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,827.5			\$3,827.5	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,233.7	\$1,694.7	\$2,928.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$622.1	\$1,383.6	\$2,005.7	
<i>Wholesale and retail trade</i>		\$178.6	\$556.2	\$734.8	
<i>Manufacturing</i>		\$321.5	\$411.9	\$733.4	
<i>Information</i>		\$157.1	\$249.8	\$406.9	
<i>Transportation and warehousing</i>		\$96.8	\$109.4	\$206.3	
<i>Utilities</i>		\$64.7	\$78.9	\$143.6	
<i>Construction</i>		\$105.8	\$37.0	\$142.8	
<i>Mining</i>		\$49.2	\$16.0	\$65.3	
<i>Agriculture</i>		\$5.1	\$26.5	\$31.6	
<i>Other</i>		<u>\$142.4</u>	<u>\$232.0</u>	\$374.3	
Total Operational Impact on Value Added	\$3,827.5	\$2,977.0	\$4,796.1	\$11,600.6	2.8%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Washington, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	25,007			25,007	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		14,608	24,345	38,952	
<i>Wholesale and retail trade</i>		4,384	8,446	12,830	
<i>Finance, insurance, real estate, rental and leasing</i>		3,633	6,702	10,336	
<i>Manufacturing</i>		3,187	3,573	6,760	
<i>Transportation and warehousing</i>		2,372	1,526	3,898	
<i>Agriculture</i>		356	2,184	2,540	
<i>Information</i>		1,015	1,373	2,388	
<i>Construction</i>		1,641	524	2,165	
<i>Mining</i>		142	41	182	
<i>Utilities</i>		114	66	180	
<i>Other</i>		<u>2,033</u>	<u>1,923</u>	3,956	
Total Operational Impact on Employment	25,007	33,485	50,703	109,195	2.8%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,466.5			\$1,466.5	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$865.7	\$1,101.8	\$1,967.4	
<i>Wholesale and retail trade</i>		\$297.0	\$368.4	\$665.4	
<i>Manufacturing</i>		\$237.8	\$262.9	\$500.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$159.7	\$293.0	\$452.7	
<i>Information</i>		\$134.6	\$177.0	\$311.7	
<i>Transportation and warehousing</i>		\$127.9	\$83.7	\$211.6	
<i>Construction</i>		\$95.4	\$30.2	\$125.6	
<i>Agriculture</i>		\$17.5	\$95.1	\$112.6	
<i>Utilities</i>		\$15.2	\$8.3	\$23.5	
<i>Mining</i>		\$6.8	\$1.9	\$8.7	
<i>Other</i>		<u>\$145.6</u>	<u>\$137.1</u>	\$282.8	
Total Operational Impact on Labor Income	\$1,466.5	\$2,103.1	\$2,559.5	\$6,129.1	2.9%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,396.6			\$4,396.6	1.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,072.3	\$1,319.3	\$2,391.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$673.5	\$1,219.2	\$1,892.7	
<i>Wholesale and retail trade</i>		\$508.7	\$630.9	\$1,139.6	
<i>Manufacturing</i>		\$383.5	\$410.4	\$793.9	
<i>Information</i>		\$279.4	\$372.4	\$651.9	
<i>Transportation and warehousing</i>		\$176.5	\$115.6	\$292.1	
<i>Construction</i>		\$114.0	\$36.1	\$150.1	
<i>Agriculture</i>		\$18.3	\$101.6	\$119.9	
<i>Utilities</i>		\$52.1	\$27.5	\$79.6	
<i>Mining</i>		\$15.1	\$4.2	\$19.3	
<i>Other</i>		<u>\$165.8</u>	<u>\$156.5</u>	\$322.3	
Total Operational Impact on Value Added	\$4,396.6	\$3,459.2	\$4,393.8	\$12,249.6	3.7%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in West Virginia, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	29,068			29,068	3.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		6,278	11,004	17,283	
<i>Wholesale and retail trade</i>		1,464	4,149	5,613	
<i>Finance, insurance, real estate, rental and leasing</i>		1,754	1,994	3,748	
<i>Manufacturing</i>		1,073	647	1,720	
<i>Transportation and warehousing</i>		719	428	1,147	
<i>Mining</i>		725	241	966	
<i>Construction</i>		670	141	811	
<i>Information</i>		318	285	603	
<i>Agriculture</i>		132	456	588	
<i>Utilities</i>		149	121	270	
<i>Other</i>		750	738	1,489	
Total Operational Impact on Employment	29,068	14,032	20,206	63,306	7.1%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,526.3			\$1,526.3	3.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$253.5	\$381.0	\$634.6	
<i>Wholesale and retail trade</i>		\$70.9	\$126.1	\$197.0	
<i>Manufacturing</i>		\$70.9	\$39.8	\$110.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$50.2	\$60.3	\$110.5	
<i>Mining</i>		\$66.2	\$21.6	\$87.9	
<i>Transportation and warehousing</i>		\$34.1	\$20.6	\$54.7	
<i>Construction</i>		\$30.6	\$6.4	\$37.0	
<i>Information</i>		\$16.7	\$15.0	\$31.7	
<i>Utilities</i>		\$15.6	\$12.4	\$28.1	
<i>Agriculture</i>		\$0.8	\$2.5	\$3.3	
<i>Other</i>		\$50.0	\$48.6	\$98.6	
Total Operational Impact on Labor Income	\$1,526.3	\$659.6	\$734.4	\$2,920.2	7.4%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,414.3			\$3,414.3	5.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$320.0	\$450.8	\$770.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$281.5	\$308.2	\$589.7	
<i>Wholesale and retail trade</i>		\$119.8	\$204.1	\$323.9	
<i>Manufacturing</i>		\$133.8	\$75.2	\$209.0	
<i>Mining</i>		\$131.2	\$42.5	\$173.7	
<i>Utilities</i>		\$52.9	\$40.8	\$93.7	
<i>Transportation and warehousing</i>		\$48.4	\$29.3	\$77.7	
<i>Information</i>		\$37.6	\$33.7	\$71.3	
<i>Construction</i>		\$36.5	\$7.6	\$44.1	
<i>Agriculture</i>		\$1.7	\$5.6	\$7.3	
<i>Other</i>		\$56.6	\$55.1	\$111.7	
Total Operational Impact on Value Added	\$3,414.3	\$1,220.1	\$1,252.9	\$5,887.3	9.5%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The Economic Impact of the Oil and Natural Gas Industry in Wisconsin, 2009

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	30,103			30,103	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		7,200	20,011	27,211	
<i>Manufacturing</i>		6,594	5,335	11,929	
<i>Wholesale and retail trade</i>		1,205	6,948	8,152	
<i>Finance, insurance, real estate, rental and leasing</i>		1,871	4,966	6,836	
<i>Transportation and warehousing</i>		1,219	1,410	2,629	
<i>Agriculture</i>		303	1,943	2,246	
<i>Construction</i>		1,035	379	1,414	
<i>Information</i>		428	679	1,106	
<i>Utilities</i>		132	166	298	
<i>Mining</i>		99	34	132	
<i>Other</i>		751	1,253	2,003	
Total Operational Impact on Employment	30,103	20,834	43,123	94,060	2.8%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,000.9			\$1,000.9	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$384.9	\$797.9	\$1,182.9	
<i>Manufacturing</i>		\$422.2	\$331.1	\$753.3	
<i>Wholesale and retail trade</i>		\$70.5	\$246.3	\$316.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$84.9	\$207.8	\$292.8	
<i>Transportation and warehousing</i>		\$54.8	\$66.6	\$121.4	
<i>Information</i>		\$29.0	\$44.2	\$73.2	
<i>Construction</i>		\$50.8	\$18.4	\$69.3	
<i>Agriculture</i>		\$8.7	\$49.2	\$57.9	
<i>Utilities</i>		\$14.0	\$18.6	\$32.6	
<i>Mining</i>		\$5.3	\$1.8	\$7.1	
<i>Other</i>		\$46.3	\$75.0	\$121.3	
Total Operational Impact on Labor Income	\$1,000.9	\$1,171.4	\$1,856.9	\$4,029.3	2.6%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,951.7			\$1,951.7	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$481.8	\$937.8	\$1,419.6	
<i>Manufacturing</i>		\$725.5	\$561.3	\$1,286.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$308.6	\$775.2	\$1,083.8	
<i>Wholesale and retail trade</i>		\$119.7	\$418.9	\$538.7	
<i>Transportation and warehousing</i>		\$74.1	\$89.7	\$163.8	
<i>Information</i>		\$60.1	\$93.5	\$153.6	
<i>Utilities</i>		\$47.3	\$63.3	\$110.6	
<i>Construction</i>		\$60.8	\$22.0	\$82.8	
<i>Agriculture</i>		\$9.8	\$56.2	\$66.0	
<i>Mining</i>		\$10.8	\$3.6	\$14.4	
<i>Other</i>		\$51.4	\$84.0	\$135.4	
Total Operational Impact on Value Added	\$1,951.7	\$1,949.9	\$3,105.6	\$7,007.2	2.9%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

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Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	29,687			29,687	7.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		6,106	7,393	13,500	
<i>Wholesale and retail trade</i>		2,219	3,886	6,105	
<i>Finance, insurance, real estate, rental and leasing</i>		2,870	2,588	5,458	
<i>Transportation and warehousing</i>		1,132	364	1,496	
<i>Construction</i>		478	99	577	
<i>Agriculture</i>		171	336	506	
<i>Information</i>		291	196	486	
<i>Mining</i>		319	103	422	
<i>Manufacturing</i>		267	143	409	
<i>Utilities</i>		246	96	342	
<i>Other</i>		1,312	764	2,076	
Total Operational Impact on Employment	29,687	15,411	15,967	61,065	15.8%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,216.5			\$2,216.5	12.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$239.3	\$244.9	\$484.2	
<i>Wholesale and retail trade</i>		\$124.1	\$123.8	\$248.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$68.9	\$64.2	\$133.1	
<i>Transportation and warehousing</i>		\$68.5	\$21.8	\$90.4	
<i>Mining</i>		\$31.4	\$10.0	\$41.4	
<i>Utilities</i>		\$27.3	\$10.3	\$37.6	
<i>Construction</i>		\$23.4	\$4.8	\$28.2	
<i>Manufacturing</i>		\$16.1	\$7.6	\$23.7	
<i>Information</i>		\$12.8	\$8.7	\$21.5	
<i>Agriculture</i>		\$1.6	\$3.2	\$4.7	
<i>Other</i>		\$77.3	\$45.6	\$122.9	
Total Operational Impact on Labor Income	\$2,216.5	\$690.8	\$544.9	\$3,452.2	19.9%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,676.7			\$4,676.7	16.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$374.6	\$328.9	\$703.5	
<i>Services</i>		\$305.8	\$294.4	\$600.2	
<i>Wholesale and retail trade</i>		\$211.4	\$201.7	\$413.1	
<i>Transportation and warehousing</i>		\$98.2	\$31.3	\$129.4	
<i>Utilities</i>		\$93.3	\$34.6	\$127.9	
<i>Mining</i>		\$68.2	\$21.5	\$89.6	
<i>Information</i>		\$30.0	\$20.2	\$50.2	
<i>Manufacturing</i>		\$27.6	\$12.1	\$39.7	
<i>Construction</i>		\$27.9	\$5.7	\$33.6	
<i>Agriculture</i>		\$4.1	\$8.2	\$12.4	
<i>Other</i>		\$89.2	\$52.5	\$141.7	
Total Operational Impact on Value Added	\$4,676.7	\$1,330.2	\$1,011.2	\$7,018.1	24.3%

Source: PwC calculations using the IMPLAN modeling system (2009 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Appendix B: Comparison of 2009 and 2007 Economic Impacts

This Appendix provides a comparison of the total economic impacts of the oil and natural gas industry at the national level, including both operational and capital investment impacts, in the current study for 2009 and those reported in PwC's previous study for 2007 (published in 2009).¹¹

As shown in the accompanying table, the U.S. oil and natural gas industry's total employment impact, while rounding to 9.2 million jobs in both 2007 and 2009, declined by about 77,000 jobs in 2009. The total employment impact can be separated into changes in employment from operational impacts and capital investment impacts. Employment supported directly and indirectly through operations increased between 2007 and 2009, from 7.8 million to nearly 8.0 million, an increase of approximately 160,000 jobs. Employment supported from the oil and natural gas industry's capital investment declined between 2007 and 2009, from 1.4 million to 1.2 million, a decrease of approximately 237,000 jobs.

The total economic impact of the oil and natural gas industry on labor income declined between 2007 and 2009, from \$558 billion in 2007 to \$534 billion in 2009. The decline in labor income occurred both from operational and capital investment impacts.

The oil and natural gas industry's total value added increased between 2007 and 2009, from \$1.037 trillion to \$1.082 trillion, an increase of \$45 billion. Value added increased by about \$51 billion from the industry's operational impacts, while decreasing about \$6 billion from its capital investment impacts.

¹¹ PwC, *The Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy: Employment, Labor Income, and Value Added* (September 8, 2009).

Table B-1. Total Impacts of the Oil and Natural Gas Industry's Operations and Capital Investments on the U.S. Economy, 2009 Compared to 2007

Item	2009		2007		Difference (2009 - 2007)	
	Amount	Percent of U.S. Total	Amount	Percent of U.S. Total	Amount	Percent of U.S. Total
Operational Impact						
Employment*	7,978,636	4.6%	7,818,437	4.4%	160,199	0.2%
Labor Income (\$ millions)**	466,869	5.3%	477,249	5.4%	-10,380	-0.1%
Value Added (\$ millions)	966,324	6.8%	915,370	6.6%	50,954	0.2%
Capital Investment Impact						
Employment*	1,181,930	0.7%	1,418,944	0.8%	-237,014	-0.1%
Labor Income (\$ millions)**	66,679	0.8%	81,012	0.9%	-14,333	-0.1%
Value Added (\$ millions)	115,377	0.8%	121,690	0.9%	-6,313	-0.1%
Total Impacts						
Employment*	9,160,566	5.3%	9,237,381	5.2%	-76,815	0.1%
Labor Income (\$ millions)**	533,548	6.0%	558,260	6.3%	-24,712	-0.3%
Value Added (\$ millions)	1,081,701	7.7%	1,037,060	7.5%	44,641	0.2%

Source: PwC calculations using the IMPLAN modeling system (2009 and 2007 databases).
 Details may not add to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Appendix C: Data Sources and Methodology

This Appendix describes the methodology used to derive the results for the study. It first discusses the data sources PwC utilized to develop estimates of the oil and natural gas industry's direct economic impacts. It then describes the development of the indirect and induced impact estimates.

I. Estimates of Direct Economic Impacts

This study uses the IMPLAN input-output modeling system and its most recent database (for the year 2009 - released in October 2010) as the primary data sources. The IMPLAN modeling system is similar to the Regional Input-Output Modeling System developed by the U.S. Department of Commerce. 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 users 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 for the oil and natural gas industry. The IMPLAN sectors that correspond to PwC's definition of the oil and natural gas industry are shown in **Table 1** of the report. The direct employment in the oil and natural gas industry was used in each model to drive the impact analysis.¹² Direct value added and labor income (including wages and salaries and benefits as well as proprietors' income) corresponding to the national or state-specific direct employment in the oil and natural gas industry were obtained from each model.

In general, most subsectors of the oil and natural gas industry as defined by PwC have a one-to-one correspondence to an IMPLAN sector, thus the 2009 employment for these subsectors were directly obtained from the customized IMPLAN national or state impact models. The exceptions are four NAICS codes: NAICS 2212 ("Natural gas distribution - public"), NAICS 23712 ("Oil and gas pipeline and related structures construction"), NAICS 4247 ("Petroleum and petroleum products wholesalers"), and NAICS 45431 ("Fuel dealers"). Each is included as part of a larger IMPLAN sector.

PwC undertook the following procedure to estimate the employment for the four NAICS sectors. First, payroll employment for these sectors was obtained from the U.S. Department of Labor's *Bureau of Labor Statistics* (BLS). Then, establishment counts

¹² Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

from *Nonemployer Statistics* (NES) were obtained from the Census Bureau.¹³ In our analysis, data were obtained at both the national level and for each of the 50 states and the District of Columbia.

For the four NAICS sectors, in some states the payroll employment or nonemployer establishment counts were suppressed because of the small number of establishments in these sectors. Since counts were available for these sectors at the national-level and for higher-level industries 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 two 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 starting values were determined by allocating the difference between the total national employment in the industry and the sum of the known values across the states based on the number of establishments provided in the BLS database. Because not all cell values were known, the column totals did not match the national employment counts from BLS. 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 BLS sub-sector and state sector totals.¹⁴

There were two exceptions to the above methodology for filling in missing values at the state level. First, NES does not report data for all detailed industry sectors. In particular, while NES provides data for NAICS 2371 ("Utility System Construction"), it does not provide data for the NAICS 23712 ("Oil and Gas Pipeline and Related Structures Construction"). As a result, PwC used establishment data from the latest CBP database (currently for 2008) to apportion the NAICS 2371 nonemployer establishments to NAICS 23712. For example, according to CBP, there were 322 establishments with payroll employees in NAICS 2371 in Alabama, 38 of which were in NAICS 23712. As such, 11.8 percent (38/322) of Alabama's 187 nonemployer establishments in NAICS 2371 were assumed to be in NAICS sector 23712. State level estimates were then scaled to match the estimated national total for NAICS 23712.

The second exception was for public-sector employment in NAICS 2212. For this sector it was not possible to use the standard raking procedure as industry control totals were not readily available. Instead, employees per establishment for the public-sector employment in NAICS 22 ("Utilities") from BLS were used to obtain initial values for states with only establishment missing values. These initial values were then scaled to match the difference between the known national total for the public sector employment in NAICS 2212 and the sum of the employment for the same NAICS code in states with known values.

Because nonemployer businesses can be operated as sole proprietorships, partnerships, or corporations, the number of jobs per establishment may exceed one. Data on self-

¹³ 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.

¹⁴ Oh, H.L. and Scheuren, F. (1987). Modified Raking Ratio Estimation. *Survey Methodology*, vol. 13, no. 2, pp. 209-219.

employment at the 3-digit NAICS level from the Bureau of Economic Analysis (BEA) were used to convert nonemployer establishment counts into the number of jobs for each of the four NAICS sectors by state and at the national level. Given that the most recent edition of *Nonemployer Statistics* provides counts of establishments for 2008, we relied on the same more up-to-date BEA data source to project the level of self-employment in the four NAICS sectors by state and nationally in 2009. The estimated state-level self-employment in the four NAICS sectors in 2009 has been controlled to the national total.

Estimates of the oil and natural gas industry's new capital investment in 2009 are obtained from the *Annual Capital Expenditure Survey* published by the Census Bureau. For quantifying the economic impact of the oil and natural gas industry's capital investment, its capital spending is translated into purchases of capital assets by type through the use of the so-called "capital flow matrix" from the U.S. Department of Commerce.

II. Estimates of Indirect and Induced Economic Impacts

Estimates of indirect and induced economic impacts by the oil and natural gas industry were derived based on the IMPLAN models for the country as a whole and for each of the 50 states and the District of Columbia.

The IMPLAN models are built around an "input-output" table that relates the purchases that each industry has made from other industries to the value of the output of each industry. To meet the demand for goods and services from an industry, purchases are made in other industries according to the patterns recorded in the input-output table. These purchases in turn spark still more purchases by the industry's suppliers, and so on. Additionally, 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. Multipliers describe these iterations. The Type I multiplier measures the direct and indirect effects of a change in economic activity. It captures the inter-industry effects only, i.e., industries buying from local industries. The Type II (Social Accounting Matrix or SAM) multiplier captures the direct and indirect effects and, in addition, it also reflects induced effects (i.e., changes in spending from households as income increases or decreases due to the changes in production). The indirect and induced impacts by the oil and natural gas industry on other sectors of the economy in terms of employment, labor income (including wages and salaries and benefits as well as proprietors' income), and value added were calculated through the multiplier process built in each model.¹⁵

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 adjusted, 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. PwC allocated the cross-state indirect and induced employment,

¹⁵ Because the IMPLAN models are used for total impact analysis (as opposed to marginal impact analysis) in this study, necessary adjustments are made to the initial indirect and induced impact estimates to prevent double-counting. For instance, any indirect or induced effects from the initial estimates for IMPLAN sectors that are fully mapped to the oil and natural gas industry are removed. Similarly, indirect and induced effects for IMPLAN sectors that are partially mapped to the oil and natural gas industry are proportionately adjusted.

labor income, and value added effects by industry 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 in each industry. The state indirect and induced effects reported throughout this study include such allocation of the cross-state spillover effects.