
Economic Impacts of the Oil and Natural Gas Industry on the US Economy in 2011

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Economic Impacts of the Oil and Natural Gas Industry on the US Economy in 2011

Executive Summary

The American Petroleum Institute engaged PwC to quantify the economic impacts of the US oil and natural gas industry in terms of employment, labor income, and value added.¹ This report provides PwC's economic impacts estimates for 2011, the most recent year for which a consistent set of national and state-level data are available.

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 within the oil and gas industry, indirectly through the industry's purchases of intermediate and capital goods from a variety of other US 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 and from dividends received from oil and natural gas companies.

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 US 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 labor and proprietor's 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 purchases of intermediate inputs and payments of labor compensation and dividends) and **capital investment impact** (due to its investment in new structures and equipment) at the national level. Separate detail is also provided on the industry's **operational impact** at the state level.² These economic impacts represent all of the *backward linkages* of the US 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).

¹ 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 US gross domestic product ("GDP"). Value added consists of: employee compensation, proprietors' income, income to capital owners from property, and indirect business taxes (including excise taxes, property taxes, fees, licenses, and sales taxes paid by businesses).

² The industry's *capital investment impact* is not quantified at the state level due to the non-availability of capital expenditure data at the state level.

The US oil and natural gas industry's total employment impact to the national economy in 2011, combining the **operational** and **capital investment** impacts, amounted to 9.8 million full-time and part-time jobs and accounted for 5.6 percent of total US employment (see **Table E-1**). At the national level, each direct job in the oil and natural gas industry supported approximately 2.8 jobs elsewhere in the US economy in 2011. Counting direct, indirect, and induced impacts, the industry's total impact on labor income (including proprietors' income) was \$598 billion, or 6.3 percent of national labor income in 2011. The industry's total impact on US GDP was \$1.2 trillion, accounting for 8.0 percent of the national total in 2011.

Table E-1.— Total Operational and Capital Investment Impacts of the Oil and Natural Gas Industry on the US Economy, 2011

	Direct Impacts	Indirect and Induced Impacts		Total Impacts	Percent of U.S. Total
		Operational Impacts	Capital Investment Impacts		
Employment*	2,590,700	5,854,500	1,388,100	9,833,200	5.6%
Labor Income (\$ billions)**	\$203.6	\$311.8	\$82.2	\$597.6	6.3%
Value Added (\$ billions)	\$551.0	\$522.5	\$135.8	\$1,209.4	8.0%

Source: PwC calculations using the IMPLAN modeling system (2011 database).

Note: 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 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 13,700 (in District of Columbia) to 1.9 million (in Texas) in 2011. 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 2011 were Texas, California, Louisiana, Oklahoma, Pennsylvania, Florida, New York, Illinois, Ohio, Colorado, Michigan, Kansas, North Carolina, New Jersey, and Georgia. Combined these states account for 70 percent of the total jobs attributable to the US 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 2011
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	1,938,700	13.6%	\$144,085	18.7%	\$308,346	23.2%
California	793,200	4.1%	\$58,884	4.9%	\$131,445	6.7%
Louisiana	412,600	16.2%	\$24,213	19.4%	\$73,925	35.5%
Oklahoma	364,300	16.8%	\$23,298	22.9%	\$39,002	23.1%
Pennsylvania	339,000	4.7%	\$19,550	5.1%	\$34,654	5.8%
Florida	286,800	2.9%	\$12,919	2.8%	\$23,154	3.1%
New York	270,600	2.4%	\$20,419	2.7%	\$35,197	3.0%
Illinois	263,700	3.6%	\$15,745	3.8%	\$33,308	5.1%
Ohio	255,100	3.9%	\$12,744	4.1%	\$28,445	5.7%
Colorado	213,100	6.7%	\$14,088	8.1%	\$25,811	9.1%
Michigan	182,000	3.6%	\$8,808	3.5%	\$15,761	4.1%
Kansas	148,300	8.1%	\$7,211	8.6%	\$12,903	9.5%
North Carolina	146,100	2.8%	\$6,764	2.6%	\$12,479	3.0%
New Jersey	143,900	2.9%	\$10,124	3.3%	\$19,876	4.0%
Georgia	141,600	2.7%	\$6,765	2.5%	\$12,902	3.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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 2011 were Wyoming (20.4 percent), Oklahoma (16.8 percent), Louisiana (16.2 percent), Texas (13.6 percent), North Dakota (12.0 percent), Alaska (11.9 percent), New Mexico (9.9 percent), West Virginia (8.9 percent), Kansas (8.1 percent), Montana (6.7 percent), Colorado (6.7 percent), Mississippi (6.6 percent), Arkansas (5.9 percent), Utah (4.9 percent), and Pennsylvania (4.7 percent) (see **Table E-2b**).

Table E-2b.– Total Impacts of the Oil and Natural Gas Industry’s Operations in 2011
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	80,000	20.4%	\$5,134.7	21.3%	\$13,018.7	32.9%
Oklahoma	364,300	16.8%	\$23,297.9	22.9%	\$39,001.9	23.1%
Louisiana	412,600	16.2%	\$24,213.4	19.4%	\$73,925.4	35.5%
Texas	1,938,700	13.6%	\$144,085.3	18.7%	\$308,346.0	23.2%
North Dakota	64,000	12.0%	\$3,831.4	13.1%	\$6,575.1	12.3%
Alaska	56,600	11.9%	\$4,501.6	12.6%	\$19,277.0	34.7%
New Mexico	105,600	9.9%	\$5,350.1	10.3%	\$11,273.6	14.2%
West Virginia	80,400	8.9%	\$3,638.6	8.8%	\$5,756.1	8.7%
Kansas	148,300	8.1%	\$7,211.1	8.6%	\$12,902.8	9.5%
Montana	43,100	6.7%	\$2,009.3	7.7%	\$4,546.7	10.8%
Colorado	213,100	6.7%	\$14,087.6	8.1%	\$25,811.3	9.1%
Mississippi	97,800	6.6%	\$4,526.1	7.4%	\$9,055.3	9.4%
Arkansas	92,500	5.9%	\$4,220.3	6.3%	\$8,062.7	7.8%
Utah	79,600	4.9%	\$4,091.5	5.3%	\$8,376.7	6.9%
Pennsylvania	339,000	4.7%	\$19,550.5	5.1%	\$34,654.3	5.8%

Source: PwC calculations using the IMPLAN modeling system (2011 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.

Economic Impacts of the Oil and Natural Gas Industry on the US Economy in 2011

I. Introduction

The American Petroleum Institute engaged PwC to quantify the economic impacts of the US oil and natural gas industry on the national and state economies in terms of employment, labor income, and value added.³ This report presents PwC's economic impact estimates for 2011, the most recent year for which a consistent set of national and state-level data is available.⁴

This study quantifies the industry's **operational impact** (due to purchases of intermediate inputs and payments of labor compensation and dividends) and **capital investment impact** (due to its investment in new structures and equipment) at the national level. Separate detail is also provided on the industry's **operational impact** at the state level.⁵ These economic impacts represent all of the *backward linkages* of the US 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 US 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 US 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 labor and proprietor's income earned either directly or indirectly from the oil and natural gas industry's spending.

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

³ 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 (including excise taxes, property taxes, fees, licenses, and sales taxes paid by businesses).

⁴ PwC prepared a prior study for the American Petroleum Institute that quantified the economic impacts of the oil and gas industry in 2009. See PwC, *The Economic Impacts of the Oil and Natural Gas Industry on the US Economy in 2009: Employment, Labor Income, and Value Added* (May 2011).

⁵ The industry's *capital investment impact* is not quantified at the state level due to the non-availability of capital expenditure data at the state level.

Using the IMPLAN input-output modeling system, PwC has built customized multiplier models for the US as a whole, as well as for each of 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 2011, the most recent historical year for which a consistent set of national and state level data is available from the IMPLAN modeling system.⁶

The rest of this report is organized as follows. **Section II** defines the oil and natural gas industry for this study. **Section III** presents PwC's estimates of the industry's total economic impacts at the national and state level in 2011. **Section IV** provides detail on each of the three separate components -- the direct, indirect, and induced economic impacts -- that in aggregate represent the total economic impacts of the oil and natural gas industry. **Section V** presents a composite measure of the industry's total "spend" based on its direct labor income, capital expenditures, and dividend payments. Detailed state-by-state operational impact results are presented in **Appendix A**. A description of the data sources and methodology used for the study is provided in **Appendix B**.

⁶ The IMPLAN input-output economic modeling system is supported by the IMPLAN Group LLC. Its users include academia, federal, state, and local governments, and the private sector.

II. Industry Definition

The US oil and natural gas industry encompasses a number of activities that span separate industry classifications in government economic data. 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 to include all of these activities.

Table 1, below, shows the composition of the industry as defined by PwC, followed by detailed descriptions based on the *North American Industry Classification System* (“NAICS”).

Table 1.– Composition of the US 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

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

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

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

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

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

III. Total Economic Impact

This section presents the estimated total economic impact of the US oil and natural gas industry on the 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, labor income, and value added *within* the oil and natural gas industry), the **indirect impact** (the jobs, labor income, and value added occurring *throughout the supply chain* of the oil and natural gas industry), and the **induced impact** (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 and from dividends received from oil and natural gas companies).

A. National Impact

As shown in **Table 2**, the total economic impact of the US 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 supported 8.4 million full-time and part-time jobs in the national economy in 2011. Further, the industry's *capital investment* supported an additional 1.4 million jobs in the national economy. Combining the operational and capital investment impacts, the oil and natural gas industry's total employment impact on the national economy amounted to 9.8 million full-time and part-time jobs in 2011, accounting for 5.6 percent of total US employment.

Labor Income

The associated labor income (including wages and salaries and benefits, as well as proprietors' income) from jobs directly or indirectly supported by the oil and natural gas industry through its operational spending, dividend payments, and capital investment is estimated to be \$597.6 billion, or 6.3 percent of total US labor income in 2011.

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 US oil and natural gas industry's *operations* directly or indirectly generated \$1.1 trillion of value added in the national economy in 2011, and its *capital investment* added an additional \$135.8 billion of value added. Combining both operational and capital investment impacts, the industry's total value added impact at the national level was \$1.2 trillion, accounting for 8.0 percent of US GDP in 2011.

Table 2.– Total Operational and Capital Investment Impact of the Oil and Natural Gas Industry to the US Economy, 2011

Item	Amount	Percent of US Total
Operational Impact		
Employment*	8,445,200	4.9%
Labor Income (\$ millions)**	\$515,368	5.4%
Value Added (\$ millions)	\$1,073,552	7.1%
Capital Investment Impact		
Employment*	1,388,100	0.7%
Labor Income (\$ millions)**	\$82,247	0.9%
Value Added (\$ millions)	\$135,837	0.9%
Total Impacts		
Employment*	9,833,200	5.6%
Labor Income (\$ millions)**	\$597,615	6.3%
Value Added (\$ millions)	\$1,209,389	8.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impacts

The US 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 wage 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. State-level results, as explained earlier, do not include the economic impact of the industry's capital investment due to the non-availability of state capital expenditure data.

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 2011 ranged from 1.7 percent (District of Columbia) to 20.4 percent (Wyoming). The oil and natural gas industry directly or indirectly supported 5.0 percent or more of the total employment in 13 states in 2011: Wyoming (20.4 percent), Oklahoma (16.8 percent), Louisiana (16.2 percent), Texas (13.6 percent), North Dakota (12.0 percent), Alaska (11.9 percent), New Mexico (9.9 percent), West Virginia (8.9 percent), Kansas (8.1 percent), Montana (6.7 percent), Colorado (6.7 percent), Mississippi (6.6 percent), and Arkansas (5.9 percent). In these 13 states, the oil and natural gas industry was, on average, directly or indirectly responsible for one out of 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 total jobs directly or indirectly supported by the oil and natural gas industry's operations ranged from 1.3 percent (District of Columbia) to 22.9 percent (Oklahoma) in 2011. The oil and natural gas industry's total labor income impact exceeded 5.0 percent of the state total in 15 states: Oklahoma (22.9 percent), Wyoming (21.3 percent), Louisiana (19.4 percent), Texas (18.7 percent), North Dakota (13.1 percent), Alaska (12.6 percent), New Mexico (10.3 percent), West Virginia (8.8 percent), Kansas (8.6 percent), Colorado (8.1 percent), Montana (7.7 percent), Mississippi (7.4 percent), Arkansas (6.3 percent), Utah (5.3 percent), and Pennsylvania (5.1 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 1.9 percent (District of Columbia) to 35.5 percent (Louisiana) in 2011. The oil and natural gas industry's total value-added impact accounted for at least 5.0 percent of the state total in 22 states: Louisiana (35.5 percent), Alaska (34.7 percent), Wyoming (32.9 percent), Texas (23.2 percent), Oklahoma (23.1 percent), New Mexico (14.2 percent), North Dakota (12.3 percent), Montana (10.8 percent), Kansas (9.5 percent), Mississippi (9.4 percent), Colorado (9.1 percent), West Virginia (8.7 percent), Arkansas (7.8 percent), Utah (6.9 percent), California (6.7 percent), Alabama (6.4 percent), Indiana (6.3 percent), Pennsylvania (5.8 percent), Ohio (5.7 percent), Nebraska (5.4 percent), Illinois (5.1 percent), and Minnesota (5.0 percent).

**Table 3a. – Total Operational Impact of the Oil and Natural Gas Industry
By State in 2011 (Sorted Alphabetically)**

State	Employment*		Labor Income**		Value Added	
	Amount	Percent of State Total	(\$ Million)	Percent of State Total	(\$ Million)	Percent of State Total
Alabama	103,300	4.2%	\$4,903.9	4.2%	\$11,327.8	6.4%
Alaska	56,600	11.9%	\$4,501.6	12.6%	\$19,277.0	34.7%
Arizona	97,100	3.0%	\$4,654.4	3.0%	\$9,016.6	3.4%
Arkansas	92,500	5.9%	\$4,220.3	6.3%	\$8,062.7	7.8%
California	793,200	4.1%	\$58,883.6	4.9%	\$131,445.1	6.7%
Colorado	213,100	6.7%	\$14,087.6	8.1%	\$25,811.3	9.1%
Connecticut	59,400	2.7%	\$4,160.4	2.8%	\$7,683.0	3.3%
Delaware	16,100	3.0%	\$957.4	3.2%	\$1,965.6	4.1%
District of Columbia	13,700	1.7%	\$1,426.6	1.3%	\$2,702.6	1.9%
Florida	286,800	2.9%	\$12,918.6	2.8%	\$23,154.0	3.1%
Georgia	141,600	2.7%	\$6,765.0	2.5%	\$12,902.3	3.0%
Hawaii	20,500	2.3%	\$1,036.4	2.0%	\$2,167.2	2.9%
Idaho	27,000	3.1%	\$1,041.0	2.9%	\$1,796.9	3.1%
Illinois	263,700	3.6%	\$15,744.6	3.8%	\$33,307.9	5.1%
Indiana	136,400	3.8%	\$6,699.1	4.1%	\$16,595.7	6.3%
Iowa	65,100	3.3%	\$2,568.0	3.0%	\$4,419.0	3.1%
Kansas	148,300	8.1%	\$7,211.1	8.6%	\$12,902.8	9.5%
Kentucky	94,700	4.0%	\$4,054.0	3.8%	\$7,867.8	4.6%
Louisiana	412,600	16.2%	\$24,213.4	19.4%	\$73,925.4	35.5%
Maine	28,800	3.6%	\$1,150.2	3.2%	\$2,370.5	4.2%
Maryland	75,400	2.2%	\$4,190.0	1.9%	\$7,084.8	2.2%
Massachusetts	106,300	2.5%	\$7,117.9	2.6%	\$12,638.9	2.9%
Michigan	182,000	3.6%	\$8,807.8	3.5%	\$15,761.3	4.1%
Minnesota	122,100	3.5%	\$6,018.2	3.4%	\$14,305.7	5.0%
Mississippi	97,800	6.6%	\$4,526.1	7.4%	\$9,055.3	9.4%
Missouri	118,800	3.4%	\$5,527.1	3.3%	\$9,810.9	3.8%
Montana	43,100	6.7%	\$2,009.3	7.7%	\$4,546.7	10.8%
Nebraska	47,200	3.8%	\$2,687.4	4.7%	\$4,722.2	5.4%
Nevada	48,600	3.2%	\$2,432.7	3.2%	\$4,539.9	3.8%
New Hampshire	24,900	3.0%	\$1,252.7	2.8%	\$2,250.3	3.3%
New Jersey	143,900	2.9%	\$10,123.7	3.3%	\$19,875.5	4.0%
New Mexico	105,600	9.9%	\$5,350.1	10.3%	\$11,273.6	14.2%
New York	270,600	2.4%	\$20,419.4	2.7%	\$35,196.8	3.0%
North Carolina	146,100	2.8%	\$6,763.6	2.6%	\$12,479.2	3.0%
North Dakota	64,000	12.0%	\$3,831.4	13.1%	\$6,575.1	12.3%
Ohio	255,100	3.9%	\$12,744.4	4.1%	\$28,444.7	5.7%
Oklahoma	364,300	16.8%	\$23,297.9	22.9%	\$39,001.9	23.1%
Oregon	60,400	2.8%	\$2,811.2	2.8%	\$5,027.0	3.0%
Pennsylvania	339,000	4.7%	\$19,550.5	5.1%	\$34,654.3	5.8%
Rhode Island	15,100	2.5%	\$934.4	2.8%	\$1,650.0	3.2%
South Carolina	67,700	2.9%	\$2,634.2	2.4%	\$4,672.8	2.8%
South Dakota	22,500	3.9%	\$857.0	3.5%	\$1,459.0	3.9%
Tennessee	111,500	3.2%	\$5,086.1	3.0%	\$8,918.5	3.4%
Texas	1,938,700	13.6%	\$144,085.3	18.7%	\$308,346.0	23.2%
Utah	79,600	4.9%	\$4,091.5	5.3%	\$8,376.7	6.9%
Vermont	14,600	3.6%	\$567.0	3.1%	\$1,042.2	3.6%
Virginia	141,600	3.0%	\$7,215.2	2.5%	\$12,460.6	2.9%
Washington	104,300	2.8%	\$5,908.4	2.7%	\$14,004.8	4.0%
West Virginia	80,400	8.9%	\$3,638.6	8.8%	\$5,756.1	8.7%
Wisconsin	103,300	3.0%	\$4,557.1	2.9%	\$7,901.5	3.1%
Wyoming	80,000	20.4%	\$5,134.7	21.3%	\$13,018.7	32.9%
U.S. Total	8,445,200	4.9%	\$515,368.0	5.4%	\$1,073,552.3	7.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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 2011 (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	80,000	20.4%	\$5,134.7	21.3%	\$13,018.7	32.9%
Oklahoma	364,300	16.8%	\$23,297.9	22.9%	\$39,001.9	23.1%
Louisiana	412,600	16.2%	\$24,213.4	19.4%	\$73,925.4	35.5%
Texas	1,938,700	13.6%	\$144,085.3	18.7%	\$308,346.0	23.2%
North Dakota	64,000	12.0%	\$3,831.4	13.1%	\$6,575.1	12.3%
Alaska	56,600	11.9%	\$4,501.6	12.6%	\$19,277.0	34.7%
New Mexico	105,600	9.9%	\$5,350.1	10.3%	\$11,273.6	14.2%
West Virginia	80,400	8.9%	\$3,638.6	8.8%	\$5,756.1	8.7%
Kansas	148,300	8.1%	\$7,211.1	8.6%	\$12,902.8	9.5%
Montana	43,100	6.7%	\$2,009.3	7.7%	\$4,546.7	10.8%
Colorado	213,100	6.7%	\$14,087.6	8.1%	\$25,811.3	9.1%
Mississippi	97,800	6.6%	\$4,526.1	7.4%	\$9,055.3	9.4%
Arkansas	92,500	5.9%	\$4,220.3	6.3%	\$8,062.7	7.8%
Utah	79,600	4.9%	\$4,091.5	5.3%	\$8,376.7	6.9%
Pennsylvania	339,000	4.7%	\$19,550.5	5.1%	\$34,654.3	5.8%
Alabama	103,300	4.2%	\$4,903.9	4.2%	\$11,327.8	6.4%
California	793,200	4.1%	\$58,883.6	4.9%	\$131,445.1	6.7%
Kentucky	94,700	4.0%	\$4,054.0	3.8%	\$7,867.8	4.6%
Ohio	255,100	3.9%	\$12,744.4	4.1%	\$28,444.7	5.7%
South Dakota	22,500	3.9%	\$857.0	3.5%	\$1,459.0	3.9%
Nebraska	47,200	3.8%	\$2,687.4	4.7%	\$4,722.2	5.4%
Indiana	136,400	3.8%	\$6,699.1	4.1%	\$16,595.7	6.3%
Illinois	263,700	3.6%	\$15,744.6	3.8%	\$33,307.9	5.1%
Maine	28,800	3.6%	\$1,150.2	3.2%	\$2,370.5	4.2%
Michigan	182,000	3.6%	\$8,807.8	3.5%	\$15,761.3	4.1%
Vermont	14,600	3.6%	\$567.0	3.1%	\$1,042.2	3.6%
Minnesota	122,100	3.5%	\$6,018.2	3.4%	\$14,305.7	5.0%
Missouri	118,800	3.4%	\$5,527.1	3.3%	\$9,810.9	3.8%
Iowa	65,100	3.3%	\$2,568.0	3.0%	\$4,419.0	3.1%
Nevada	48,600	3.2%	\$2,432.7	3.2%	\$4,539.9	3.8%
Tennessee	111,500	3.2%	\$5,086.1	3.0%	\$8,918.5	3.4%
Idaho	27,000	3.1%	\$1,041.0	2.9%	\$1,796.9	3.1%
Arizona	97,100	3.0%	\$4,654.4	3.0%	\$9,016.6	3.4%
Wisconsin	103,300	3.0%	\$4,557.1	2.9%	\$7,901.5	3.1%
Delaware	16,100	3.0%	\$957.4	3.2%	\$1,965.6	4.1%
Virginia	141,600	3.0%	\$7,215.2	2.5%	\$12,460.6	2.9%
New Hampshire	24,900	3.0%	\$1,252.7	2.8%	\$2,250.3	3.3%
Florida	286,800	2.9%	\$12,918.6	2.8%	\$23,154.0	3.1%
New Jersey	143,900	2.9%	\$10,123.7	3.3%	\$19,875.5	4.0%
South Carolina	67,700	2.9%	\$2,634.2	2.4%	\$4,672.8	2.8%
North Carolina	146,100	2.8%	\$6,763.6	2.6%	\$12,479.2	3.0%
Oregon	60,400	2.8%	\$2,811.2	2.8%	\$5,027.0	3.0%
Washington	104,300	2.8%	\$5,908.4	2.7%	\$14,004.8	4.0%
Georgia	141,600	2.7%	\$6,765.0	2.5%	\$12,902.3	3.0%
Connecticut	59,400	2.7%	\$4,160.4	2.8%	\$7,683.0	3.3%
Rhode Island	15,100	2.5%	\$934.4	2.8%	\$1,650.0	3.2%
Massachusetts	106,300	2.5%	\$7,117.9	2.6%	\$12,638.9	2.9%
New York	270,600	2.4%	\$20,419.4	2.7%	\$35,196.8	3.0%
Hawaii	20,500	2.3%	\$1,036.4	2.0%	\$2,167.2	2.9%
Maryland	75,400	2.2%	\$4,190.0	1.9%	\$7,084.8	2.2%
District of Columbia	13,700	1.7%	\$1,426.6	1.3%	\$2,702.6	1.9%
U.S. Total	8,445,200	4.9%	\$515,368.0	5.4%	\$1,073,552.3	7.1%

Source: PwC calculations using the IMPLAN modeling system (2011 database).

Details may not add to totals due to rounding.

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

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

IV. Detail by Component of Economic Impact: 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, labor income, and value added occurring throughout the supply chain of the oil and natural gas industry), and the *induced impact* (the jobs, labor income, and value added resulting from household spending earned either directly or indirectly from the oil and natural gas industry's spending or from dividends received from oil and natural gas companies). In this section, the three different economic impacts are separately quantified.

A. Direct Impact

Table 4 shows the direct impact of the US oil and natural gas industry by NAICS subsector 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 2011, the oil and natural gas industry directly provided 2.6 million jobs for American workers, paid \$204 billion in wages, salaries and fringe benefits and proprietors' income, and generated \$551 billion in GDP.

Table 4.– Direct Impact of the Oil and Natural Gas Industry in the US Economy by Subsector, 2011

NAICS	Sub-sector Description	Employment*	Labor Income**	Value Added
		Amount	(\$ Millions)	(\$ Millions)
211	Oil and gas extraction (including NGL extraction)	783,800	61,454	174,178
213111	Drilling oil and gas wells	97,400	9,040	15,883
213112	Support activities for oil and gas operations	269,300	22,271	39,130
2212	Natural gas distribution (private)	112,300	15,599	59,021
2212	Natural gas distribution (public)	6,500	356	557
23712	Oil and gas pipeline and related structures construction	112,500	9,443	10,036
32411	Petroleum refineries	72,500	20,596	125,332
32412	Asphalt paving, roofing, and saturated materials manufacturing	24,200	4,225	25,712
324191	Petroleum lubricating oil and grease manufacturing	10,200	1,899	11,554
4247	Petroleum and petroleum products merchant wholesalers	95,900	7,558	13,297
44711, 44719	Gasoline stations	879,400	30,650	48,522
45431	Fuel dealers	83,200	1,840	6,655
486	Pipeline transportation	<u>43,500</u>	<u>18,660</u>	<u>21,140</u>
	Total Oil and Natural Gas Industry	2,590,700	\$203,591	\$551,018

Source: Estimates based on 2011 employment data from the U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and U.S. Census Bureau and 2011 input-output relationships from the IMPLAN modeling system. 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 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 2011, the ten states with the largest direct employment effect generated by the oil and natural gas industry were, in order: Texas, California, Oklahoma, Louisiana, Pennsylvania, Ohio, Florida, Colorado, Illinois, and New York. These ten states accounted for 59.0 percent of the oil and natural gas industry's national direct employment, 73.3 percent of the oil and natural gas industry's national direct labor income, and 73.3 percent of the oil and natural gas industry's national direct value added in 2011.

**Table 5a.– Direct Impact of the Oil and Natural Gas Industry by State, 2011
(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	33,900	1.3%	\$1,787.6	0.9%	\$6,111.6	1.1%
Alaska	18,700	0.7%	\$2,241.0	1.1%	\$15,691.6	2.8%
Arizona	27,500	1.1%	\$1,240.5	0.6%	\$2,543.4	0.5%
Arkansas	33,800	1.3%	\$1,686.3	0.8%	\$3,990.4	0.7%
California	182,800	7.1%	\$21,725.4	10.7%	\$69,466.0	12.6%
Colorado	69,700	2.7%	\$6,312.5	3.1%	\$12,482.1	2.3%
Connecticut	15,900	0.6%	\$1,048.5	0.5%	\$2,409.3	0.4%
Delaware	4,500	0.2%	\$286.5	0.1%	\$848.9	0.2%
District of Columbia	2,100	0.1%	\$165.5	0.1%	\$915.1	0.2%
Florida	72,000	2.8%	\$2,708.5	1.3%	\$5,269.9	1.0%
Georgia	42,600	1.6%	\$1,650.8	0.8%	\$3,718.7	0.7%
Hawaii	4,700	0.2%	\$254.9	0.1%	\$947.5	0.2%
Idaho	9,000	0.3%	\$299.6	0.1%	\$532.6	0.1%
Illinois	65,200	2.5%	\$3,895.6	1.9%	\$13,642.1	2.5%
Indiana	39,600	1.5%	\$2,168.1	1.1%	\$8,910.0	1.6%
Iowa	24,500	0.9%	\$768.8	0.4%	\$1,256.2	0.2%
Kansas	56,900	2.2%	\$2,937.2	1.4%	\$5,856.0	1.1%
Kentucky	33,400	1.3%	\$1,340.9	0.7%	\$3,291.4	0.6%
Louisiana	130,300	5.0%	\$10,912.4	5.4%	\$52,267.4	9.5%
Maine	12,400	0.5%	\$386.0	0.2%	\$1,081.5	0.2%
Maryland	17,900	0.7%	\$804.0	0.4%	\$1,632.2	0.3%
Massachusetts	26,700	1.0%	\$1,697.0	0.8%	\$3,818.0	0.7%
Michigan	53,000	2.0%	\$2,385.9	1.2%	\$4,924.2	0.9%
Minnesota	36,300	1.4%	\$1,415.6	0.7%	\$6,328.7	1.1%
Mississippi	37,700	1.5%	\$2,110.7	1.0%	\$5,123.2	0.9%
Missouri	38,200	1.5%	\$1,521.8	0.7%	\$3,065.1	0.6%
Montana	15,500	0.6%	\$923.9	0.5%	\$2,693.6	0.5%
Nebraska	14,300	0.6%	\$1,210.9	0.6%	\$2,264.1	0.4%
Nevada	14,500	0.6%	\$705.8	0.3%	\$1,538.3	0.3%
New Hampshire	8,700	0.3%	\$392.1	0.2%	\$849.7	0.2%
New Jersey	34,500	1.3%	\$2,869.1	1.4%	\$7,639.3	1.4%
New Mexico	39,200	1.5%	\$2,322.3	1.1%	\$6,554.3	1.2%
New York	63,200	2.4%	\$4,000.5	2.0%	\$8,271.1	1.5%
North Carolina	44,700	1.7%	\$1,831.1	0.9%	\$3,847.8	0.7%
North Dakota	27,900	1.1%	\$2,155.3	1.1%	\$3,944.4	0.7%
Ohio	77,000	3.0%	\$3,875.9	1.9%	\$13,859.4	2.5%
Oklahoma	149,300	5.8%	\$13,870.3	6.8%	\$23,158.0	4.2%
Oregon	16,800	0.6%	\$783.1	0.4%	\$1,538.2	0.3%
Pennsylvania	100,700	3.9%	\$6,518.2	3.2%	\$13,168.9	2.4%
Rhode Island	4,100	0.2%	\$288.1	0.1%	\$612.0	0.1%
South Carolina	23,800	0.9%	\$710.2	0.3%	\$1,406.6	0.3%
South Dakota	9,100	0.4%	\$304.8	0.1%	\$546.4	0.1%
Tennessee	34,500	1.3%	\$1,263.4	0.6%	\$2,600.2	0.5%
Texas	619,000	23.9%	\$75,459.0	37.1%	\$192,087.3	34.9%
Utah	23,600	0.9%	\$1,501.0	0.7%	\$4,126.0	0.7%
Vermont	6,100	0.2%	\$206.4	0.1%	\$426.5	0.1%
Virginia	47,000	1.8%	\$1,660.5	0.8%	\$3,450.5	0.6%
Washington	26,700	1.0%	\$1,568.5	0.8%	\$6,819.6	1.2%
West Virginia	35,900	1.4%	\$1,609.6	0.8%	\$2,331.5	0.4%
Wisconsin	32,100	1.2%	\$1,151.8	0.6%	\$2,132.3	0.4%
Wyoming	32,900	1.3%	\$2,657.4	1.3%	\$9,028.7	1.6%
U.S. Total	2,590,700	100%	\$203,590.8	100%	\$551,017.8	100%

Source: PwC calculations using the IMPLAN modeling system (2011 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of pay roll 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, 2011
(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	619,000	23.9%	\$75,459.0	37.1%	\$192,087.3	34.9%
California	182,800	7.1%	\$21,725.4	10.7%	\$69,466.0	12.6%
Oklahoma	149,300	5.8%	\$13,870.3	6.8%	\$23,158.0	4.2%
Louisiana	130,300	5.0%	\$10,912.4	5.4%	\$52,267.4	9.5%
Pennsylvania	100,700	3.9%	\$6,518.2	3.2%	\$13,168.9	2.4%
Ohio	77,000	3.0%	\$3,875.9	1.9%	\$13,859.4	2.5%
Florida	72,000	2.8%	\$2,708.5	1.3%	\$5,269.9	1.0%
Colorado	69,700	2.7%	\$6,312.5	3.1%	\$12,482.1	2.3%
Illinois	65,200	2.5%	\$3,895.6	1.9%	\$13,642.1	2.5%
New York	63,200	2.4%	\$4,000.5	2.0%	\$8,271.1	1.5%
Kansas	56,900	2.2%	\$2,937.2	1.4%	\$5,856.0	1.1%
Michigan	53,000	2.0%	\$2,385.9	1.2%	\$4,924.2	0.9%
Virginia	47,000	1.8%	\$1,660.5	0.8%	\$3,450.5	0.6%
North Carolina	44,700	1.7%	\$1,831.1	0.9%	\$3,847.8	0.7%
Georgia	42,600	1.6%	\$1,650.8	0.8%	\$3,718.7	0.7%
Indiana	39,600	1.5%	\$2,168.1	1.1%	\$8,910.0	1.6%
New Mexico	39,200	1.5%	\$2,322.3	1.1%	\$6,554.3	1.2%
Missouri	38,200	1.5%	\$1,521.8	0.7%	\$3,065.1	0.6%
Mississippi	37,700	1.5%	\$2,110.7	1.0%	\$5,123.2	0.9%
Minnesota	36,300	1.4%	\$1,415.6	0.7%	\$6,328.7	1.1%
West Virginia	35,900	1.4%	\$1,609.6	0.8%	\$2,331.5	0.4%
New Jersey	34,500	1.3%	\$2,869.1	1.4%	\$7,639.3	1.4%
Tennessee	34,500	1.3%	\$1,263.4	0.6%	\$2,600.2	0.5%
Alabama	33,900	1.3%	\$1,787.6	0.9%	\$6,111.6	1.1%
Arkansas	33,800	1.3%	\$1,686.3	0.8%	\$3,990.4	0.7%
Kentucky	33,400	1.3%	\$1,340.9	0.7%	\$3,291.4	0.6%
Wyoming	32,900	1.3%	\$2,657.4	1.3%	\$9,028.7	1.6%
Wisconsin	32,100	1.2%	\$1,151.8	0.6%	\$2,132.3	0.4%
North Dakota	27,900	1.1%	\$2,155.3	1.1%	\$3,944.4	0.7%
Arizona	27,500	1.1%	\$1,240.5	0.6%	\$2,543.4	0.5%
Massachusetts	26,700	1.0%	\$1,697.0	0.8%	\$3,818.0	0.7%
Washington	26,700	1.0%	\$1,568.5	0.8%	\$6,819.6	1.2%
Iowa	24,500	0.9%	\$768.8	0.4%	\$1,256.2	0.2%
South Carolina	23,800	0.9%	\$710.2	0.3%	\$1,406.6	0.3%
Utah	23,600	0.9%	\$1,501.0	0.7%	\$4,126.0	0.7%
Alaska	18,700	0.7%	\$2,241.0	1.1%	\$15,691.6	2.8%
Maryland	17,900	0.7%	\$804.0	0.4%	\$1,632.2	0.3%
Oregon	16,800	0.6%	\$783.1	0.4%	\$1,538.2	0.3%
Connecticut	15,900	0.6%	\$1,048.5	0.5%	\$2,409.3	0.4%
Montana	15,500	0.6%	\$923.9	0.5%	\$2,693.6	0.5%
Nevada	14,500	0.6%	\$705.8	0.3%	\$1,538.3	0.3%
Nebraska	14,300	0.6%	\$1,210.9	0.6%	\$2,264.1	0.4%
Maine	12,400	0.5%	\$386.0	0.2%	\$1,081.5	0.2%
South Dakota	9,100	0.4%	\$304.8	0.1%	\$546.4	0.1%
Idaho	9,000	0.3%	\$299.6	0.1%	\$532.6	0.1%
New Hampshire	8,700	0.3%	\$392.1	0.2%	\$849.7	0.2%
Vermont	6,100	0.2%	\$206.4	0.1%	\$426.5	0.1%
Hawaii	4,700	0.2%	\$254.9	0.1%	\$947.5	0.2%
Delaware	4,500	0.2%	\$286.5	0.1%	\$848.9	0.2%
Rhode Island	4,100	0.2%	\$288.1	0.1%	\$612.0	0.1%
District of Columbia	2,100	0.1%	\$165.5	0.1%	\$915.1	0.2%
U.S. Total	2,590,700	100%	\$203,590.8	100%	\$551,017.8	100%

Source: PwC calculations using the IMPLAN modeling system (2011 database).

Details may not add to totals due to rounding.

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

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

B. Indirect and Induced Impacts

The oil and natural gas industry purchases intermediate inputs from a variety of other US industries, supporting jobs in these industries and spurring additional rounds of input purchases by these industries. Other economic impacts are generated by the personal spending of employees and business owners in the oil and natural gas industry and out of the additional income in the supply chain to the industry. Additional economic impact is generated by shareholder spending out of dividends received from oil and natural gas companies. 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.

The oil and natural gas industry also purchases capital goods from a variety of US suppliers, which has a similar multiplier effect on the rest of the US economy. Based on data from the Census Bureau and US Department of Commerce, PwC estimates that the oil and natural gas industry invested \$177 billion in new equipment and structures in 2011.

PwC quantified the indirect and induced impacts of 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 nearly three jobs elsewhere in the US economy in 2011. That is, in addition to the 2.6 million direct jobs in the oil and natural gas industry, 7.2 million additional jobs were supported in the US economy through the indirect and induced impacts of the industry. The industry's purchase of intermediate inputs from other US suppliers and payment of dividends to shareholders supported more than 5.8 million indirect and induced jobs in other industries across the country in 2011, and its capital investment supported 1.4 million additional indirect and induced jobs across the US economy. Combined, the oil and natural gas industry directly or indirectly supported 9.8 million jobs in the US economy in 2011. The service sector accounts for the largest number of indirect and induced jobs attributable to the oil and natural gas industry's spending (3.5 million) in 2011, followed by Wholesale and Retail Trade (1.0 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 \$394 billion and its estimated national indirect and induced value added was \$658 billion in 2011.

Table 6.– The Direct, Indirect, and Induced Impact of the Oil and Natural Gas Industry to the US Economy, 2011

Sector Description	Employment*	Labor Income (\$ million)**	Value Added (\$ million)
Direct Impact of the Oil and Natural Gas Industry	2,590,700	\$203,591	\$551,018
Indirect and Induced Impact on Other Industries	7,242,600	\$394,024	\$658,372
Operational Impact	5,854,500	\$311,777	\$522,535
Agriculture	84,700	\$2,591	\$3,978
Mining	13,700	\$1,064	\$2,749
Utilities	24,600	\$3,256	\$12,950
Construction	430,000	\$23,762	\$25,822
Manufacturing	380,200	\$26,826	\$46,883
Wholesale and retail trade	777,600	\$33,179	\$54,430
Transportation and warehousing	228,900	\$11,869	\$16,159
Information	101,700	\$10,432	\$20,710
Finance, insurance, real estate, rental and leasing	721,200	\$37,435	\$144,867
Services	2,829,100	\$142,602	\$172,764
Other	262,700	\$18,761	\$21,221
Capital Investment Impact	1,388,100	\$82,247	\$135,837
Agriculture	17,400	\$592	\$876
Mining	3,700	\$282	\$699
Utilities	4,000	\$525	\$2,165
Construction	20,900	\$1,170	\$1,390
Manufacturing	221,800	\$17,941	\$28,886
Wholesale and retail trade	218,000	\$11,497	\$19,450
Transportation and warehousing	57,600	\$3,073	\$4,342
Information	35,200	\$3,810	\$7,950
Finance, insurance, real estate, rental and leasing	155,000	\$8,091	\$26,553
Services	640,500	\$34,270	\$42,575
Other	13,900	\$997	\$953
Total Economic Impact	9,833,200	\$597,615	\$1,209,389

Source: PwC calculations using the IMPLAN modeling system (2011 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 details on the operational economic impacts of the oil and natural gas industry at the state level. As previously discussed, the state-level impacts exclude the economic impacts from capital investment in the oil and natural gas industry because capital expenditure data is not available at the state level.

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 2011, the five states with the largest combined indirect and induced employment effect generated by the oil and natural gas industry were, in order: Texas, California, Louisiana, Pennsylvania, and Oklahoma. These five states accounted for 45.5 percent of the oil and natural gas industry's national combined indirect and induced employment, 45.4 percent of the oil and natural gas industry's national combined indirect and

induced labor income, and 45.4 percent of the oil and natural gas industry's national combined indirect and induced value added in 2011.

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 2011 were, in order: Wyoming (20.4 percent), Oklahoma (16.8 percent), Louisiana (16.2 percent), Texas (13.6 percent), and North Dakota (12.0 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 2011 were, in order: Oklahoma (22.9 percent), Wyoming (21.3 percent), Louisiana (19.4 percent), Texas (18.7 percent), and North Dakota (13.1 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 2011 were, in order: Louisiana (35.5 percent), Alaska (34.7 percent), Wyoming (32.9 percent), Texas (23.3 percent), and Oklahoma (23.1 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, 2011 (Sorted Alphabetically)

State	Employment*		Labor Income**		Value Added	
	Amount	Percent of U.S. Total	(\$ Million)	Percent of U.S. Total	(\$ Million)	Percent of U.S. Total
Alabama	69,400	1.2%	\$3,116.3	1.0%	\$5,216.2	1.0%
Alaska	37,900	0.6%	\$2,260.7	0.7%	\$3,585.4	0.7%
Arizona	69,600	1.2%	\$3,413.9	1.1%	\$6,473.2	1.2%
Arkansas	58,800	1.0%	\$2,534.0	0.8%	\$4,072.4	0.8%
California	610,400	10.4%	\$37,158.2	11.9%	\$61,979.1	11.9%
Colorado	143,400	2.4%	\$7,775.0	2.5%	\$13,329.3	2.6%
Connecticut	43,400	0.7%	\$3,111.9	1.0%	\$5,273.7	1.0%
Delaware	11,600	0.2%	\$670.9	0.2%	\$1,116.7	0.2%
District of Columbia	11,700	0.2%	\$1,261.1	0.4%	\$1,787.4	0.3%
Florida	214,800	3.7%	\$10,210.1	3.3%	\$17,884.0	3.4%
Georgia	99,000	1.7%	\$5,114.2	1.6%	\$9,183.6	1.8%
Hawaii	15,700	0.3%	\$781.4	0.3%	\$1,219.7	0.2%
Idaho	18,000	0.3%	\$741.4	0.2%	\$1,264.3	0.2%
Illinois	198,600	3.4%	\$11,849.0	3.8%	\$19,665.8	3.8%
Indiana	96,700	1.7%	\$4,530.9	1.5%	\$7,685.6	1.5%
Iowa	40,500	0.7%	\$1,799.2	0.6%	\$3,162.7	0.6%
Kansas	91,400	1.6%	\$4,273.8	1.4%	\$7,046.8	1.3%
Kentucky	61,400	1.0%	\$2,713.1	0.9%	\$4,576.4	0.9%
Louisiana	282,300	4.8%	\$13,301.0	4.3%	\$21,658.0	4.1%
Maine	16,400	0.3%	\$764.3	0.2%	\$1,289.0	0.2%
Maryland	57,500	1.0%	\$3,386.0	1.1%	\$5,452.6	1.0%
Massachusetts	79,500	1.4%	\$5,420.9	1.7%	\$8,820.9	1.7%
Michigan	129,000	2.2%	\$6,421.9	2.1%	\$10,837.0	2.1%
Minnesota	85,800	1.5%	\$4,602.5	1.5%	\$7,976.9	1.5%
Mississippi	60,100	1.0%	\$2,415.4	0.8%	\$3,932.2	0.8%
Missouri	80,600	1.4%	\$4,005.4	1.3%	\$6,745.8	1.3%
Montana	27,600	0.5%	\$1,085.4	0.3%	\$1,853.1	0.4%
Nebraska	32,900	0.6%	\$1,476.6	0.5%	\$2,458.2	0.5%
Nevada	34,100	0.6%	\$1,726.9	0.6%	\$3,001.6	0.6%
New Hampshire	16,200	0.3%	\$860.6	0.3%	\$1,400.7	0.3%
New Jersey	109,400	1.9%	\$7,254.6	2.3%	\$12,236.3	2.3%
New Mexico	66,400	1.1%	\$3,027.9	1.0%	\$4,719.4	0.9%
New York	207,400	3.5%	\$16,419.0	5.3%	\$26,925.8	5.2%
North Carolina	101,500	1.7%	\$4,932.5	1.6%	\$8,631.5	1.7%
North Dakota	36,100	0.6%	\$1,676.1	0.5%	\$2,630.6	0.5%
Ohio	178,100	3.0%	\$8,868.4	2.8%	\$14,585.2	2.8%
Oklahoma	215,100	3.7%	\$9,427.5	3.0%	\$15,844.0	3.0%
Oregon	43,700	0.7%	\$2,028.0	0.7%	\$3,488.8	0.7%
Pennsylvania	238,300	4.1%	\$13,032.3	4.2%	\$21,485.5	4.1%
Rhode Island	11,000	0.2%	\$646.3	0.2%	\$1,038.0	0.2%
South Carolina	43,900	0.7%	\$1,923.9	0.6%	\$3,266.2	0.6%
South Dakota	13,300	0.2%	\$552.2	0.2%	\$912.7	0.2%
Tennessee	77,000	1.3%	\$3,822.7	1.2%	\$6,318.3	1.2%
Texas	1,319,700	22.5%	\$68,626.3	22.0%	\$116,258.7	22.2%
Utah	56,000	1.0%	\$2,590.6	0.8%	\$4,250.7	0.8%
Vermont	8,400	0.1%	\$360.6	0.1%	\$615.7	0.1%
Virginia	94,600	1.6%	\$5,554.7	1.8%	\$9,010.1	1.7%
Washington	77,700	1.3%	\$4,339.9	1.4%	\$7,185.2	1.4%
West Virginia	44,500	0.8%	\$2,029.0	0.7%	\$3,424.5	0.7%
Wisconsin	71,200	1.2%	\$3,405.4	1.1%	\$5,769.2	1.1%
Wyoming	47,100	0.8%	\$2,477.3	0.8%	\$3,990.0	0.8%
U.S. Total	5,854,500	100.0%	\$311,777.2	100.0%	\$522,534.5	100.0%

Source: PwC calculations using the IMPLAN modeling system (2011 database).

Details may not add to totals due to rounding.

* Employment is defined as the number of pay roll 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, 2011 (Sorted by Employment Impact)

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	1,319,700	22.5%	\$68,626.3	22.0%	\$116,258.7	22.2%
California	610,400	10.4%	\$37,158.2	11.9%	\$61,979.1	11.9%
Louisiana	282,300	4.8%	\$13,301.0	4.3%	\$21,658.0	4.1%
Pennsylvania	238,300	4.1%	\$13,032.3	4.2%	\$21,485.5	4.1%
Oklahoma	215,100	3.7%	\$9,427.5	3.0%	\$15,844.0	3.0%
Florida	214,800	3.7%	\$10,210.1	3.3%	\$17,884.0	3.4%
New York	207,400	3.5%	\$16,419.0	5.3%	\$26,925.8	5.2%
Illinois	198,600	3.4%	\$11,849.0	3.8%	\$19,665.8	3.8%
Ohio	178,100	3.0%	\$8,868.4	2.8%	\$14,585.2	2.8%
Colorado	143,400	2.4%	\$7,775.0	2.5%	\$13,329.3	2.6%
Michigan	129,000	2.2%	\$6,421.9	2.1%	\$10,837.0	2.1%
New Jersey	109,400	1.9%	\$7,254.6	2.3%	\$12,236.3	2.3%
North Carolina	101,500	1.7%	\$4,932.5	1.6%	\$8,631.5	1.7%
Georgia	99,000	1.7%	\$5,114.2	1.6%	\$9,183.6	1.8%
Indiana	96,700	1.7%	\$4,530.9	1.5%	\$7,685.6	1.5%
Virginia	94,600	1.6%	\$5,554.7	1.8%	\$9,010.1	1.7%
Kansas	91,400	1.6%	\$4,273.8	1.4%	\$7,046.8	1.3%
Minnesota	85,800	1.5%	\$4,602.5	1.5%	\$7,976.9	1.5%
Missouri	80,600	1.4%	\$4,005.4	1.3%	\$6,745.8	1.3%
Massachusetts	79,500	1.4%	\$5,420.9	1.7%	\$8,820.9	1.7%
Washington	77,700	1.3%	\$4,339.9	1.4%	\$7,185.2	1.4%
Tennessee	77,000	1.3%	\$3,822.7	1.2%	\$6,318.3	1.2%
Wisconsin	71,200	1.2%	\$3,405.4	1.1%	\$5,769.2	1.1%
Arizona	69,600	1.2%	\$3,413.9	1.1%	\$6,473.2	1.2%
Alabama	69,400	1.2%	\$3,116.3	1.0%	\$5,216.2	1.0%
New Mexico	66,400	1.1%	\$3,027.9	1.0%	\$4,719.4	0.9%
Kentucky	61,400	1.0%	\$2,713.1	0.9%	\$4,576.4	0.9%
Mississippi	60,100	1.0%	\$2,415.4	0.8%	\$3,932.2	0.8%
Arkansas	58,800	1.0%	\$2,534.0	0.8%	\$4,072.4	0.8%
Maryland	57,500	1.0%	\$3,386.0	1.1%	\$5,452.6	1.0%
Utah	56,000	1.0%	\$2,590.6	0.8%	\$4,250.7	0.8%
Wyoming	47,100	0.8%	\$2,477.3	0.8%	\$3,990.0	0.8%
West Virginia	44,500	0.8%	\$2,029.0	0.7%	\$3,424.5	0.7%
South Carolina	43,900	0.7%	\$1,923.9	0.6%	\$3,266.2	0.6%
Oregon	43,700	0.7%	\$2,028.0	0.7%	\$3,488.8	0.7%
Connecticut	43,400	0.7%	\$3,111.9	1.0%	\$5,273.7	1.0%
Iowa	40,500	0.7%	\$1,799.2	0.6%	\$3,162.7	0.6%
Alaska	37,900	0.6%	\$2,260.7	0.7%	\$3,585.4	0.7%
North Dakota	36,100	0.6%	\$1,676.1	0.5%	\$2,630.6	0.5%
Nevada	34,100	0.6%	\$1,726.9	0.6%	\$3,001.6	0.6%
Nebraska	32,900	0.6%	\$1,476.6	0.5%	\$2,458.2	0.5%
Montana	27,600	0.5%	\$1,085.4	0.3%	\$1,853.1	0.4%
Idaho	18,000	0.3%	\$741.4	0.2%	\$1,264.3	0.2%
Maine	16,400	0.3%	\$764.3	0.2%	\$1,289.0	0.2%
New Hampshire	16,200	0.3%	\$860.6	0.3%	\$1,400.7	0.3%
Hawaii	15,700	0.3%	\$781.4	0.3%	\$1,219.7	0.2%
South Dakota	13,300	0.2%	\$552.2	0.2%	\$912.7	0.2%
District of Columbia	11,700	0.2%	\$1,261.1	0.4%	\$1,787.4	0.3%
Delaware	11,600	0.2%	\$670.9	0.2%	\$1,116.7	0.2%
Rhode Island	11,000	0.2%	\$646.3	0.2%	\$1,038.0	0.2%
Vermont	8,400	0.1%	\$360.6	0.1%	\$615.7	0.1%
U.S. Total	5,854,500	100.0%	\$311,777.2	100.0%	\$522,534.5	100.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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, 2011 (Sorted Alphabetically)

State	Direct Employment	Indirect Employment	Induced Employment	Total Contribution	Total Contribution as a % of State Total Employment
Alabama	33,900	30,200	39,200	103,300	4.2%
Alaska	18,700	18,300	19,600	56,600	11.9%
Arizona	27,500	25,500	44,100	97,100	3.0%
Arkansas	33,800	27,100	31,600	92,500	5.9%
California	182,800	235,500	374,900	793,200	4.1%
Colorado	69,700	61,700	81,700	213,100	6.7%
Connecticut	15,900	13,100	30,400	59,400	2.7%
Delaware	4,500	4,100	7,500	16,100	3.0%
District of Columbia	2,100	4,000	7,600	13,700	1.7%
Florida	72,000	77,700	137,100	286,800	2.9%
Georgia	42,600	33,500	65,500	141,600	2.7%
Hawaii	4,700	5,700	10,000	20,500	2.3%
Idaho	9,000	6,700	11,300	27,000	3.1%
Illinois	65,200	81,800	116,800	263,700	3.6%
Indiana	39,600	40,500	56,300	136,400	3.8%
Iowa	24,500	14,700	25,900	65,100	3.3%
Kansas	56,900	47,300	44,100	148,300	8.1%
Kentucky	33,400	26,900	34,500	94,700	4.0%
Louisiana	130,300	151,300	131,000	412,600	16.2%
Maine	12,400	5,500	10,900	28,800	3.6%
Maryland	17,900	17,900	39,500	75,400	2.2%
Massachusetts	26,700	24,100	55,500	106,300	2.5%
Michigan	53,000	51,800	77,200	182,000	3.6%
Minnesota	36,300	32,900	52,900	122,100	3.5%
Mississippi	37,700	29,500	30,600	97,800	6.6%
Missouri	38,200	29,200	51,500	118,800	3.4%
Montana	15,500	13,900	13,700	43,100	6.7%
Nebraska	14,300	10,700	22,300	47,200	3.8%
Nevada	14,500	12,600	21,500	48,600	3.2%
New Hampshire	8,700	5,200	10,900	24,900	3.0%
New Jersey	34,500	38,800	70,600	143,900	2.9%
New Mexico	39,200	34,000	32,400	105,600	9.9%
New York	63,200	64,800	142,600	270,600	2.4%
North Carolina	44,700	36,000	65,500	146,100	2.8%
North Dakota	27,900	17,200	18,800	64,000	12.0%
Ohio	77,000	75,100	103,000	255,100	3.9%
Oklahoma	149,300	102,800	112,200	364,300	16.8%
Oregon	16,800	14,600	29,100	60,400	2.8%
Pennsylvania	100,700	97,200	141,100	339,000	4.7%
Rhode Island	4,100	3,200	7,700	15,100	2.5%
South Carolina	23,800	15,300	28,600	67,700	2.9%
South Dakota	9,100	5,000	8,300	22,500	3.9%
Tennessee	34,500	28,900	48,100	111,500	3.2%
Texas	619,000	602,700	717,000	1,938,700	13.6%
Utah	23,600	24,700	31,300	79,600	4.9%
Vermont	6,100	2,900	5,600	14,600	3.6%
Virginia	47,000	35,900	58,700	141,600	3.0%
Washington	26,700	26,900	50,700	104,300	2.8%
West Virginia	35,900	22,400	22,100	80,400	8.9%
Wisconsin	32,100	25,700	45,400	103,300	3.0%
Wyoming	32,900	27,200	19,900	80,000	20.4%
U.S. Total	2,590,700	2,440,300	3,414,200	8,445,200	4.9%

Source: PwC calculations using the IMPLAN modeling system (2011 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, 2011 (Sorted by Employment Share)

State	Direct Employment	Indirect Employment	Induced Employment	Total Contribution	Total Contribution as a % of State Total Employment
Wyoming	32,900	27,200	19,900	80,000	20.4%
Oklahoma	149,300	102,800	112,200	364,300	16.8%
Louisiana	130,300	151,300	131,000	412,600	16.2%
Texas	619,000	602,700	717,000	1,938,700	13.6%
North Dakota	27,900	17,200	18,800	64,000	12.0%
Alaska	18,700	18,300	19,600	56,600	11.9%
New Mexico	39,200	34,000	32,400	105,600	9.9%
West Virginia	35,900	22,400	22,100	80,400	8.9%
Kansas	56,900	47,300	44,100	148,300	8.1%
Montana	15,500	13,900	13,700	43,100	6.7%
Colorado	69,700	61,700	81,700	213,100	6.7%
Mississippi	37,700	29,500	30,600	97,800	6.6%
Arkansas	33,800	27,100	31,600	92,500	5.9%
Utah	23,600	24,700	31,300	79,600	4.9%
Pennsylvania	100,700	97,200	141,100	339,000	4.7%
Alabama	33,900	30,200	39,200	103,300	4.2%
California	182,800	235,500	374,900	793,200	4.1%
Kentucky	33,400	26,900	34,500	94,700	4.0%
Ohio	77,000	75,100	103,000	255,100	3.9%
South Dakota	9,100	5,000	8,300	22,500	3.9%
Nebraska	14,300	10,700	22,300	47,200	3.8%
Indiana	39,600	40,500	56,300	136,400	3.8%
Illinois	65,200	81,800	116,800	263,700	3.6%
Maine	12,400	5,500	10,900	28,800	3.6%
Michigan	53,000	51,800	77,200	182,000	3.6%
Vermont	6,100	2,900	5,600	14,600	3.6%
Minnesota	36,300	32,900	52,900	122,100	3.5%
Missouri	38,200	29,200	51,500	118,800	3.4%
Iowa	24,500	14,700	25,900	65,100	3.3%
Nevada	14,500	12,600	21,500	48,600	3.2%
Tennessee	34,500	28,900	48,100	111,500	3.2%
Idaho	9,000	6,700	11,300	27,000	3.1%
Arizona	27,500	25,500	44,100	97,100	3.0%
Wisconsin	32,100	25,700	45,400	103,300	3.0%
Delaware	4,500	4,100	7,500	16,100	3.0%
Virginia	47,000	35,900	58,700	141,600	3.0%
New Hampshire	8,700	5,200	10,900	24,900	3.0%
Florida	72,000	77,700	137,100	286,800	2.9%
New Jersey	34,500	38,800	70,600	143,900	2.9%
South Carolina	23,800	15,300	28,600	67,700	2.9%
North Carolina	44,700	36,000	65,500	146,100	2.8%
Oregon	16,800	14,600	29,100	60,400	2.8%
Washington	26,700	26,900	50,700	104,300	2.8%
Georgia	42,600	33,500	65,500	141,600	2.7%
Connecticut	15,900	13,100	30,400	59,400	2.7%
Rhode Island	4,100	3,200	7,700	15,100	2.5%
Massachusetts	26,700	24,100	55,500	106,300	2.5%
New York	63,200	64,800	142,600	270,600	2.4%
Hawaii	4,700	5,700	10,000	20,500	2.3%
Maryland	17,900	17,900	39,500	75,400	2.2%
District of Columbia	2,100	4,000	7,600	13,700	1.7%
U.S. Total	2,590,700	2,440,300	3,414,200	8,445,200	4.9%

Source: PwC calculations using the IMPLAN modeling system (2011 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, 2011 (in \$ Millions, Sorted Alphabetically)

State	Direct Labor Income	Indirect Labor Income	Induced Labor Income	Total Contribution	Total Contribution as a % of State Total Labor Income
Alabama	\$1,788	\$1,561	\$1,556	\$4,904	4.2%
Alaska	\$2,241	\$1,294	\$967	\$4,502	12.6%
Arizona	\$1,241	\$1,463	\$1,951	\$4,654	3.0%
Arkansas	\$1,686	\$1,357	\$1,177	\$4,220	6.3%
California	\$21,725	\$17,162	\$19,996	\$58,884	4.9%
Colorado	\$6,313	\$4,036	\$3,739	\$14,088	8.1%
Connecticut	\$1,049	\$1,211	\$1,901	\$4,160	2.8%
Delaware	\$286	\$297	\$374	\$957	3.2%
District of Columbia	\$166	\$560	\$701	\$1,427	1.3%
Florida	\$2,709	\$4,343	\$5,867	\$12,919	2.8%
Georgia	\$1,651	\$2,076	\$3,039	\$6,765	2.5%
Hawaii	\$255	\$337	\$445	\$1,036	2.0%
Idaho	\$300	\$321	\$420	\$1,041	2.9%
Illinois	\$3,896	\$5,882	\$5,967	\$15,745	3.8%
Indiana	\$2,168	\$2,233	\$2,298	\$6,699	4.1%
Iowa	\$769	\$760	\$1,039	\$2,568	3.0%
Kansas	\$2,937	\$2,529	\$1,745	\$7,211	8.6%
Kentucky	\$1,341	\$1,383	\$1,330	\$4,054	3.8%
Louisiana	\$10,912	\$8,109	\$5,192	\$24,213	19.4%
Maine	\$386	\$306	\$459	\$1,150	3.2%
Maryland	\$804	\$1,340	\$2,046	\$4,190	1.9%
Massachusetts	\$1,697	\$2,129	\$3,292	\$7,118	2.6%
Michigan	\$2,386	\$3,095	\$3,327	\$8,808	3.5%
Minnesota	\$1,416	\$2,157	\$2,446	\$6,018	3.4%
Mississippi	\$2,111	\$1,319	\$1,096	\$4,526	7.4%
Missouri	\$1,522	\$1,784	\$2,221	\$5,527	3.3%
Montana	\$924	\$616	\$470	\$2,009	7.7%
Nebraska	\$1,211	\$577	\$899	\$2,687	4.7%
Nevada	\$706	\$774	\$953	\$2,433	3.2%
New Hampshire	\$392	\$331	\$530	\$1,253	2.8%
New Jersey	\$2,869	\$3,237	\$4,018	\$10,124	3.3%
New Mexico	\$2,322	\$1,780	\$1,248	\$5,350	10.3%
New York	\$4,000	\$6,805	\$9,614	\$20,419	2.7%
North Carolina	\$1,831	\$2,120	\$2,812	\$6,764	2.6%
North Dakota	\$2,155	\$942	\$735	\$3,831	13.1%
Ohio	\$3,876	\$4,473	\$4,395	\$12,744	4.1%
Oklahoma	\$13,870	\$5,140	\$4,287	\$23,298	22.9%
Oregon	\$783	\$829	\$1,199	\$2,811	2.8%
Pennsylvania	\$6,518	\$6,403	\$6,630	\$19,550	5.1%
Rhode Island	\$288	\$244	\$403	\$934	2.8%
South Carolina	\$710	\$799	\$1,125	\$2,634	2.4%
South Dakota	\$305	\$232	\$320	\$857	3.5%
Tennessee	\$1,263	\$1,639	\$2,184	\$5,086	3.0%
Texas	\$75,459	\$36,805	\$31,821	\$144,085	18.7%
Utah	\$1,501	\$1,339	\$1,252	\$4,092	5.3%
Vermont	\$206	\$142	\$218	\$567	3.1%
Virginia	\$1,661	\$2,638	\$2,917	\$7,215	2.5%
Washington	\$1,569	\$1,829	\$2,511	\$5,908	2.7%
West Virginia	\$1,610	\$1,211	\$818	\$3,639	8.8%
Wisconsin	\$1,152	\$1,489	\$1,917	\$4,557	2.9%
Wyoming	\$2,657	\$1,640	\$837	\$5,135	21.3%
U.S. Total	\$203,591	\$153,075	\$158,702	\$515,368	5.4%

Source: PwC calculations using the IMPLAN modeling system (2011 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, 2011 (in \$ Millions, Sorted by Labor Income Share)

State	Direct Labor Income	Indirect Labor Income	Induced Labor Income	Total Contribution	Total Contribution as a % of State Total Labor Income
Oklahoma	\$13,870	\$5,140	\$4,287	\$23,298	22.9%
Wyoming	\$2,657	\$1,640	\$837	\$5,135	21.3%
Louisiana	\$10,912	\$8,109	\$5,192	\$24,213	19.4%
Texas	\$75,459	\$36,805	\$31,821	\$144,085	18.7%
North Dakota	\$2,155	\$942	\$735	\$3,831	13.1%
Alaska	\$2,241	\$1,294	\$967	\$4,502	12.6%
New Mexico	\$2,322	\$1,780	\$1,248	\$5,350	10.3%
West Virginia	\$1,610	\$1,211	\$818	\$3,639	8.8%
Kansas	\$2,937	\$2,529	\$1,745	\$7,211	8.6%
Colorado	\$6,313	\$4,036	\$3,739	\$14,088	8.1%
Montana	\$924	\$616	\$470	\$2,009	7.7%
Mississippi	\$2,111	\$1,319	\$1,096	\$4,526	7.4%
Arkansas	\$1,686	\$1,357	\$1,177	\$4,220	6.3%
Utah	\$1,501	\$1,339	\$1,252	\$4,092	5.3%
Pennsylvania	\$6,518	\$6,403	\$6,630	\$19,550	5.1%
California	\$21,725	\$17,162	\$19,996	\$58,884	4.9%
Nebraska	\$1,211	\$577	\$899	\$2,687	4.7%
Alabama	\$1,788	\$1,561	\$1,556	\$4,904	4.2%
Indiana	\$2,168	\$2,233	\$2,298	\$6,699	4.1%
Ohio	\$3,876	\$4,473	\$4,395	\$12,744	4.1%
Illinois	\$3,896	\$5,882	\$5,967	\$15,745	3.8%
Kentucky	\$1,341	\$1,383	\$1,330	\$4,054	3.8%
Michigan	\$2,386	\$3,095	\$3,327	\$8,808	3.5%
South Dakota	\$305	\$232	\$320	\$857	3.5%
Minnesota	\$1,416	\$2,157	\$2,446	\$6,018	3.4%
Missouri	\$1,522	\$1,784	\$2,221	\$5,527	3.3%
New Jersey	\$2,869	\$3,237	\$4,018	\$10,124	3.3%
Nevada	\$706	\$774	\$953	\$2,433	3.2%
Delaware	\$286	\$297	\$374	\$957	3.2%
Maine	\$386	\$306	\$459	\$1,150	3.2%
Vermont	\$206	\$142	\$218	\$567	3.1%
Tennessee	\$1,263	\$1,639	\$2,184	\$5,086	3.0%
Iowa	\$769	\$760	\$1,039	\$2,568	3.0%
Arizona	\$1,241	\$1,463	\$1,951	\$4,654	3.0%
Wisconsin	\$1,152	\$1,489	\$1,917	\$4,557	2.9%
Idaho	\$300	\$321	\$420	\$1,041	2.9%
Connecticut	\$1,049	\$1,211	\$1,901	\$4,160	2.8%
Florida	\$2,709	\$4,343	\$5,867	\$12,919	2.8%
New Hampshire	\$392	\$331	\$530	\$1,253	2.8%
Oregon	\$783	\$829	\$1,199	\$2,811	2.8%
Rhode Island	\$288	\$244	\$403	\$934	2.8%
New York	\$4,000	\$6,805	\$9,614	\$20,419	2.7%
Washington	\$1,569	\$1,829	\$2,511	\$5,908	2.7%
North Carolina	\$1,831	\$2,120	\$2,812	\$6,764	2.6%
Massachusetts	\$1,697	\$2,129	\$3,292	\$7,118	2.6%
Georgia	\$1,651	\$2,076	\$3,039	\$6,765	2.5%
Virginia	\$1,661	\$2,638	\$2,917	\$7,215	2.5%
South Carolina	\$710	\$799	\$1,125	\$2,634	2.4%
Hawaii	\$255	\$337	\$445	\$1,036	2.0%
Maryland	\$804	\$1,340	\$2,046	\$4,190	1.9%
District of Columbia	\$166	\$560	\$701	\$1,427	1.3%
U.S. Total	\$203,591	\$153,075	\$158,702	\$515,368	5.4%

Source: PwC calculations using the IMPLAN modeling system (2011 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, 2011 (in \$ Millions, Sorted Alphabetically)

State	Direct Value Added	Indirect Value Added	Induced Value Added	Total Contribution	Total Contribution as a % of State GDP
Alabama	\$6,112	\$2,525	\$2,691	\$11,328	6.4%
Alaska	\$15,692	\$1,880	\$1,705	\$19,277	34.7%
Arizona	\$2,543	\$3,036	\$3,437	\$9,017	3.4%
Arkansas	\$3,990	\$2,047	\$2,026	\$8,063	7.8%
California	\$69,466	\$27,787	\$34,192	\$131,445	6.7%
Colorado	\$12,482	\$6,780	\$6,549	\$25,811	9.1%
Connecticut	\$2,409	\$2,091	\$3,183	\$7,683	3.3%
Delaware	\$849	\$495	\$621	\$1,966	4.1%
District of Columbia	\$915	\$782	\$1,006	\$2,703	1.9%
Florida	\$5,270	\$7,661	\$10,223	\$23,154	3.1%
Georgia	\$3,719	\$3,723	\$5,460	\$12,902	3.0%
Hawaii	\$947	\$487	\$733	\$2,167	2.9%
Idaho	\$533	\$541	\$724	\$1,797	3.1%
Illinois	\$13,642	\$9,491	\$10,174	\$33,308	5.1%
Indiana	\$8,910	\$3,721	\$3,965	\$16,596	6.3%
Iowa	\$1,256	\$1,299	\$1,863	\$4,419	3.1%
Kansas	\$5,856	\$4,020	\$3,026	\$12,903	9.5%
Kentucky	\$3,291	\$2,188	\$2,388	\$7,868	4.6%
Louisiana	\$52,267	\$12,688	\$8,970	\$73,925	35.5%
Maine	\$1,082	\$508	\$781	\$2,370	4.2%
Maryland	\$1,632	\$2,050	\$3,403	\$7,085	2.2%
Massachusetts	\$3,818	\$3,419	\$5,402	\$12,639	2.9%
Michigan	\$4,924	\$5,196	\$5,641	\$15,761	4.1%
Minnesota	\$6,329	\$3,742	\$4,235	\$14,306	5.0%
Mississippi	\$5,123	\$2,041	\$1,891	\$9,055	9.4%
Missouri	\$3,065	\$2,918	\$3,828	\$9,811	3.8%
Montana	\$2,694	\$1,015	\$838	\$4,547	10.8%
Nebraska	\$2,264	\$953	\$1,505	\$4,722	5.4%
Nevada	\$1,538	\$1,344	\$1,657	\$4,540	3.8%
New Hampshire	\$850	\$518	\$882	\$2,250	3.3%
New Jersey	\$7,639	\$5,361	\$6,875	\$19,876	4.0%
New Mexico	\$6,554	\$2,554	\$2,166	\$11,274	14.2%
New York	\$8,271	\$11,148	\$15,778	\$35,197	3.0%
North Carolina	\$3,848	\$3,483	\$5,149	\$12,479	3.0%
North Dakota	\$3,944	\$1,397	\$1,234	\$6,575	12.3%
Ohio	\$13,859	\$7,048	\$7,537	\$28,445	5.7%
Oklahoma	\$23,158	\$8,283	\$7,561	\$39,002	23.1%
Oregon	\$1,538	\$1,402	\$2,087	\$5,027	3.0%
Pennsylvania	\$13,169	\$10,266	\$11,220	\$34,654	5.8%
Rhode Island	\$612	\$385	\$653	\$1,650	3.2%
South Carolina	\$1,407	\$1,300	\$1,966	\$4,673	2.8%
South Dakota	\$546	\$380	\$533	\$1,459	3.9%
Tennessee	\$2,600	\$2,663	\$3,656	\$8,918	3.4%
Texas	\$192,087	\$60,235	\$56,023	\$308,346	23.2%
Utah	\$4,126	\$2,111	\$2,140	\$8,377	6.9%
Vermont	\$427	\$236	\$380	\$1,042	3.6%
Virginia	\$3,451	\$4,055	\$4,955	\$12,461	2.9%
Washington	\$6,820	\$2,834	\$4,351	\$14,005	4.0%
West Virginia	\$2,332	\$1,976	\$1,449	\$5,756	8.7%
Wisconsin	\$2,132	\$2,484	\$3,285	\$7,901	3.1%
Wyoming	\$9,029	\$2,501	\$1,489	\$13,019	32.9%
U.S. Total	\$551,018	\$249,049	\$273,485	\$1,073,552	7.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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, 2011 (in \$ Millions, Sorted by Value Added Share)

State	Direct Value Added	Indirect Value Added	Induced Value Added	Total Contribution	Total Contribution as a % of State GDP
Louisiana	\$52,267	\$12,688	\$8,970	\$73,925	35.5%
Alaska	\$15,692	\$1,880	\$1,705	\$19,277	34.7%
Wyoming	\$9,029	\$2,501	\$1,489	\$13,019	32.9%
Texas	\$192,087	\$60,235	\$56,023	\$308,346	23.2%
Oklahoma	\$23,158	\$8,283	\$7,561	\$39,002	23.1%
New Mexico	\$6,554	\$2,554	\$2,166	\$11,274	14.2%
North Dakota	\$3,944	\$1,397	\$1,234	\$6,575	12.3%
Montana	\$2,694	\$1,015	\$838	\$4,547	10.8%
Kansas	\$5,856	\$4,020	\$3,026	\$12,903	9.5%
Mississippi	\$5,123	\$2,041	\$1,891	\$9,055	9.4%
Colorado	\$12,482	\$6,780	\$6,549	\$25,811	9.1%
West Virginia	\$2,332	\$1,976	\$1,449	\$5,756	8.7%
Arkansas	\$3,990	\$2,047	\$2,026	\$8,063	7.8%
Utah	\$4,126	\$2,111	\$2,140	\$8,377	6.9%
California	\$69,466	\$27,787	\$34,192	\$131,445	6.7%
Alabama	\$6,112	\$2,525	\$2,691	\$11,328	6.4%
Indiana	\$8,910	\$3,721	\$3,965	\$16,596	6.3%
Pennsylvania	\$13,169	\$10,266	\$11,220	\$34,654	5.8%
Ohio	\$13,859	\$7,048	\$7,537	\$28,445	5.7%
Nebraska	\$2,264	\$953	\$1,505	\$4,722	5.4%
Illinois	\$13,642	\$9,491	\$10,174	\$33,308	5.1%
Minnesota	\$6,329	\$3,742	\$4,235	\$14,306	5.0%
Kentucky	\$3,291	\$2,188	\$2,388	\$7,868	4.6%
Maine	\$1,082	\$508	\$781	\$2,370	4.2%
Delaware	\$849	\$495	\$621	\$1,966	4.1%
Michigan	\$4,924	\$5,196	\$5,641	\$15,761	4.1%
Washington	\$6,820	\$2,834	\$4,351	\$14,005	4.0%
New Jersey	\$7,639	\$5,361	\$6,875	\$19,876	4.0%
South Dakota	\$546	\$380	\$533	\$1,459	3.9%
Nevada	\$1,538	\$1,344	\$1,657	\$4,540	3.8%
Missouri	\$3,065	\$2,918	\$3,828	\$9,811	3.8%
Vermont	\$427	\$236	\$380	\$1,042	3.6%
Arizona	\$2,543	\$3,036	\$3,437	\$9,017	3.4%
Tennessee	\$2,600	\$2,663	\$3,656	\$8,918	3.4%
Connecticut	\$2,409	\$2,091	\$3,183	\$7,683	3.3%
New Hampshire	\$850	\$518	\$882	\$2,250	3.3%
Rhode Island	\$612	\$385	\$653	\$1,650	3.2%
Florida	\$5,270	\$7,661	\$10,223	\$23,154	3.1%
Wisconsin	\$2,132	\$2,484	\$3,285	\$7,901	3.1%
Iowa	\$1,256	\$1,299	\$1,863	\$4,419	3.1%
Idaho	\$533	\$541	\$724	\$1,797	3.1%
Oregon	\$1,538	\$1,402	\$2,087	\$5,027	3.0%
North Carolina	\$3,848	\$3,483	\$5,149	\$12,479	3.0%
New York	\$8,271	\$11,148	\$15,778	\$35,197	3.0%
Georgia	\$3,719	\$3,723	\$5,460	\$12,902	3.0%
Massachusetts	\$3,818	\$3,419	\$5,402	\$12,639	2.9%
Hawaii	\$947	\$487	\$733	\$2,167	2.9%
Virginia	\$3,451	\$4,055	\$4,955	\$12,461	2.9%
South Carolina	\$1,407	\$1,300	\$1,966	\$4,673	2.8%
Maryland	\$1,632	\$2,050	\$3,403	\$7,085	2.2%
District of Columbia	\$915	\$782	\$1,006	\$2,703	1.9%
U.S. Total	\$551,018	\$249,049	\$273,485	\$1,073,552	7.1%

Source: PwC calculations using the IMPLAN modeling system (2011 database).

Details may not add to totals due to rounding.

V. Wages, Capital Spending, and Dividends from the Oil and Natural Gas Industry

As shown in the previous section, the US oil and natural gas industry's direct labor income in 2011 is estimated to be \$203.6 billion and capital expenditures are estimated to be \$176.7 billion in 2011.⁷ One measure of the industry's total "spend" is the sum of the industry labor income, capital expenditures, and dividend payments.

Total dividends paid by the industry were obtained from S&P's Compustat North America® database for US-headquartered companies in the oil and natural gas industry.⁸ Excluding distributions from Master Limited Partnerships and other pass-through entities,⁹ PwC estimates that the industry paid out a total of \$32.0 billion in dividends in 2011, including dividends paid to individuals, retirement plans, foreign shareholders, and other businesses.

Using this measure of total "spend" (consisting of the estimated direct labor income, capital expenditures, and dividend payments), the industry's total "spend" amounted to \$410.3 billion in 2011.

Another source for the industry's annual capital expenditures is a survey published annually by the *Oil & Gas Journal*, which puts the industry's 2011 US capital expenditures at \$292.0 billion.¹⁰ If this estimate of the industry's capital expenditures is used for the purpose of computing the industry's total "spend" as defined above, the industry's total "spend" was \$527.6 billion in 2011.

⁷ The Census Bureau defines capital expenditures to include "all capitalized costs" incurred during the year for structures and equipment "chargeable to asset accounts, and for which depreciation and amortization accounts are ordinarily maintained."

⁸ The measure of dividends used includes cash dividends from all classes of common stock, cash paid in lieu of fractional shares, liquidation payments to shareholders and other cash distributions to shareholders. It also includes dividends paid to US shareholders out of income from US operations by foreign corporations. It does not include the dollar value of stock dividends or dividends paid or accrued on preferred stock.

⁹ Distributions from pass-through entities are included as proprietors' income in PwC's estimate of direct labor income.

¹⁰ *Oil & Gas Journal*, March 5, 2012, available at: www.ogj.com/articles/print/vol-110/issue-3/general-interest/special-report-capital/oil-liquids-rich.html.

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

The Economic Impact of the Oil and Natural Gas Industry in Alabama, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	33,926			33,926	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		8,976	18,787	27,764	
<i>Finance, insurance, real estate, rental and leasing</i>		6,559	5,975	12,535	
<i>Wholesale and retail trade</i>		1,829	7,005	8,834	
<i>Manufacturing</i>		4,255	2,968	7,222	
<i>Construction</i>		4,618	652	5,270	
<i>Transportation and warehousing</i>		1,771	1,015	2,787	
<i>Information</i>		1,077	1,113	2,190	
<i>Agriculture</i>		319	1,094	1,413	
<i>Utilities</i>		255	203	458	
<i>Mining</i>		274	70	344	
<i>Other</i>		232	303	536	
Total Operational Impact on Employment	33,926	30,166	39,186	103,278	4.2%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,787.6			\$1,787.6	1.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$385.0	\$698.7	\$1,083.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$383.2	\$248.1	\$631.3	
<i>Manufacturing</i>		\$261.2	\$159.9	\$421.1	
<i>Wholesale and retail trade</i>		\$89.8	\$235.8	\$325.6	
<i>Construction</i>		\$219.9	\$31.4	\$251.3	
<i>Information</i>		\$66.3	\$64.9	\$131.2	
<i>Transportation and warehousing</i>		\$80.1	\$45.7	\$125.8	
<i>Utilities</i>		\$30.9	\$24.0	\$54.9	
<i>Agriculture</i>		\$9.8	\$27.4	\$37.2	
<i>Mining</i>		\$24.0	\$6.2	\$30.2	
<i>Other</i>		\$10.4	\$13.6	\$24.0	
Total Operational Impact on Labor Income	\$1,787.6	\$1,560.6	\$1,555.7	\$4,903.9	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	\$6,111.6			\$6,111.6	3.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$691.0	\$757.9	\$1,448.9	
<i>Services</i>		\$447.0	\$808.6	\$1,255.6	
<i>Manufacturing</i>		\$472.7	\$267.1	\$739.8	
<i>Wholesale and retail trade</i>		\$151.3	\$373.0	\$524.3	
<i>Information</i>		\$207.9	\$214.9	\$422.8	
<i>Construction</i>		\$238.0	\$37.9	\$275.9	
<i>Utilities</i>		\$126.4	\$97.4	\$223.8	
<i>Transportation and warehousing</i>		\$111.7	\$63.5	\$175.2	
<i>Mining</i>		\$52.0	\$13.4	\$65.4	
<i>Agriculture</i>		\$10.4	\$35.7	\$46.1	
<i>Other</i>		\$16.6	\$21.8	\$38.4	
Total Operational Impact on Value Added	\$6,111.6	\$2,525.0	\$2,691.2	\$11,327.8	6.4%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Alaska, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	18,745			18,745	3.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		5,350	10,390	15,741	
<i>Finance, insurance, real estate, rental and leasing</i>		4,778	2,516	7,294	
<i>Wholesale and retail trade</i>		970	4,075	5,045	
<i>Construction</i>		4,568	210	4,779	
<i>Transportation and warehousing</i>		1,271	844	2,115	
<i>Information</i>		621	445	1,066	
<i>Manufacturing</i>		217	616	832	
<i>Utilities</i>		161	94	255	
<i>Mining</i>		202	47	249	
<i>Agriculture</i>		27	107	134	
<i>Other</i>		137	219	356	
Total Operational Impact on Employment	18,745	18,303	19,563	56,612	11.9%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,241.0			\$2,241.0	6.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$311.8	\$476.0	\$787.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$375.1	\$160.0	\$535.1	
<i>Construction</i>		\$360.9	\$16.7	\$377.5	
<i>Wholesale and retail trade</i>		\$46.1	\$158.4	\$204.5	
<i>Transportation and warehousing</i>		\$89.0	\$56.1	\$145.1	
<i>Information</i>		\$46.9	\$32.4	\$79.3	
<i>Manufacturing</i>		\$14.4	\$30.5	\$44.9	
<i>Utilities</i>		\$17.8	\$10.2	\$28.0	
<i>Mining</i>		\$15.0	\$3.4	\$18.4	
<i>Agriculture</i>		\$5.0	\$5.3	\$10.3	
<i>Other</i>		\$11.5	\$18.2	\$29.7	
Total Operational Impact on Labor Income	\$2,241.0	\$1,293.5	\$967.1	\$4,501.6	12.6%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$15,691.6			\$15,691.6	28.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$615.0	\$563.2	\$1,178.3	
<i>Services</i>		\$381.3	\$571.8	\$953.1	
<i>Construction</i>		\$383.6	\$20.7	\$404.3	
<i>Wholesale and retail trade</i>		\$75.4	\$249.4	\$324.7	
<i>Information</i>		\$145.5	\$108.2	\$253.7	
<i>Transportation and warehousing</i>		\$105.2	\$66.5	\$171.7	
<i>Utilities</i>		\$71.9	\$39.7	\$111.6	
<i>Mining</i>		\$60.6	\$14.3	\$74.9	
<i>Manufacturing</i>		\$19.2	\$38.2	\$57.4	
<i>Agriculture</i>		\$4.9	\$5.6	\$10.6	
<i>Other</i>		\$17.4	\$27.7	\$45.1	
Total Operational Impact on Value Added	\$15,691.6	\$1,880.1	\$1,705.3	\$19,277.0	34.7%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Arizona, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	27,508			27,508	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		8,353	21,872	30,225	
<i>Finance, insurance, real estate, rental and leasing</i>		7,688	9,471	17,159	
<i>Wholesale and retail trade</i>		1,170	7,489	8,658	
<i>Manufacturing</i>		2,104	1,327	3,431	
<i>Construction</i>		2,930	404	3,334	
<i>Transportation and warehousing</i>		1,406	1,222	2,627	
<i>Information</i>		1,057	1,268	2,324	
<i>Agriculture</i>		140	609	749	
<i>Mining</i>		449	113	562	
<i>Utilities</i>		132	152	285	
<i>Other</i>		77	185	262	
Total Operational Impact on Employment	27,508	25,506	44,111	97,125	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	\$1,240.5			\$1,240.5	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$414.1	\$932.7	\$1,346.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$461.8	\$387.5	\$849.3	
<i>Wholesale and retail trade</i>		\$72.0	\$320.7	\$392.7	
<i>Manufacturing</i>		\$138.6	\$86.2	\$224.7	
<i>Construction</i>		\$164.1	\$22.5	\$186.6	
<i>Information</i>		\$74.5	\$80.8	\$155.2	
<i>Transportation and warehousing</i>		\$67.7	\$58.0	\$125.7	
<i>Mining</i>		\$39.8	\$10.3	\$50.1	
<i>Utilities</i>		\$18.0	\$19.9	\$37.9	
<i>Agriculture</i>		\$7.1	\$21.0	\$28.1	
<i>Other</i>		\$5.1	\$11.6	\$16.7	
Total Operational Impact on Labor Income	\$1,240.5	\$1,462.7	\$1,951.1	\$4,654.4	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	\$2,543.4			\$2,543.4	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,419.1	\$1,090.8	\$2,509.9	
<i>Services</i>		\$491.1	\$1,112.8	\$1,603.9	
<i>Wholesale and retail trade</i>		\$123.3	\$529.6	\$652.9	
<i>Information</i>		\$218.6	\$252.6	\$471.2	
<i>Manufacturing</i>		\$231.7	\$159.8	\$391.5	
<i>Mining</i>		\$190.2	\$50.7	\$240.9	
<i>Construction</i>		\$176.3	\$28.2	\$204.5	
<i>Transportation and warehousing</i>		\$93.2	\$79.3	\$172.5	
<i>Utilities</i>		\$73.8	\$78.5	\$152.2	
<i>Agriculture</i>		\$11.0	\$36.9	\$47.8	
<i>Other</i>		\$7.8	\$18.0	\$25.8	
Total Operational Impact on Value Added	\$2,543.4	\$3,036.2	\$3,437.1	\$9,016.6	3.4%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Arkansas, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	33,795			33,795	2.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		7,989	15,799	23,789	
<i>Finance, insurance, real estate, rental and leasing</i>		5,571	4,024	9,595	
<i>Wholesale and retail trade</i>		1,562	5,799	7,360	
<i>Construction</i>		5,580	461	6,041	
<i>Manufacturing</i>		3,162	2,170	5,332	
<i>Transportation and warehousing</i>		1,600	979	2,579	
<i>Information</i>		922	803	1,726	
<i>Agriculture</i>		382	1,227	1,609	
<i>Utilities</i>		183	136	319	
<i>Mining</i>		92	23	115	
<i>Other</i>		<u>103</u>	<u>186</u>	<u>289</u>	
Total Operational Impact on Employment	33,795	27,146	31,607	92,549	5.9%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,686.3			\$1,686.3	2.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$397.8	\$560.0	\$957.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$303.9	\$147.2	\$451.1	
<i>Manufacturing</i>		\$191.3	\$111.8	\$303.1	
<i>Wholesale and retail trade</i>		\$73.9	\$197.6	\$271.6	
<i>Construction</i>		\$225.5	\$18.9	\$244.4	
<i>Transportation and warehousing</i>		\$73.2	\$43.7	\$116.9	
<i>Information</i>		\$53.0	\$44.8	\$97.7	
<i>Agriculture</i>		\$9.3	\$30.7	\$39.9	
<i>Utilities</i>		\$20.3	\$14.0	\$34.4	
<i>Mining</i>		\$4.9	\$1.2	\$6.2	
<i>Other</i>		<u>\$3.9</u>	<u>\$7.0</u>	<u>\$10.9</u>	
Total Operational Impact on Labor Income	\$1,686.3	\$1,357.0	\$1,177.0	\$4,220.3	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	\$3,990.4			\$3,990.4	3.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$461.5	\$645.7	\$1,107.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$537.0	\$529.3	\$1,066.3	
<i>Manufacturing</i>		\$303.4	\$187.7	\$491.1	
<i>Wholesale and retail trade</i>		\$123.3	\$310.7	\$434.1	
<i>Information</i>		\$165.2	\$148.0	\$313.2	
<i>Construction</i>		\$242.5	\$23.8	\$266.2	
<i>Transportation and warehousing</i>		\$99.8	\$58.6	\$158.4	
<i>Utilities</i>		\$82.7	\$55.2	\$137.9	
<i>Agriculture</i>		\$13.5	\$52.4	\$65.9	
<i>Mining</i>		\$11.5	\$2.9	\$14.4	
<i>Other</i>		<u>\$6.4</u>	<u>\$11.4</u>	<u>\$17.8</u>	
Total Operational Impact on Value Added	\$3,990.4	\$2,046.8	\$2,025.6	\$8,062.7	7.8%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in California, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	182,777			182,777	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		77,290	182,153	259,444	
<i>Finance, insurance, real estate, rental and leasing</i>		64,002	71,723	135,725	
<i>Wholesale and retail trade</i>		17,890	68,667	86,556	
<i>Manufacturing</i>		20,206	16,865	37,071	
<i>Construction</i>		29,205	3,788	32,993	
<i>Transportation and warehousing</i>		13,354	10,457	23,811	
<i>Information</i>		10,020	11,863	21,883	
<i>Agriculture</i>		1,761	7,069	8,830	
<i>Utilities</i>		759	679	1,438	
<i>Mining</i>		311	78	389	
<i>Other</i>		748	1,545	2,294	
Total Operational Impact on Employment	182,777	235,546	374,887	793,210	4.1%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$21,725.4			\$21,725.4	1.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$4,733.7	\$8,619.6	\$13,353.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$5,344.8	\$4,190.3	\$9,535.1	
<i>Wholesale and retail trade</i>		\$1,146.3	\$3,076.4	\$4,222.7	
<i>Manufacturing</i>		\$1,603.2	\$1,249.6	\$2,852.9	
<i>Information</i>		\$1,324.6	\$1,383.9	\$2,708.5	
<i>Construction</i>		\$1,931.6	\$253.9	\$2,185.5	
<i>Transportation and warehousing</i>		\$775.8	\$603.5	\$1,379.3	
<i>Agriculture</i>		\$96.2	\$375.2	\$471.5	
<i>Utilities</i>		\$116.3	\$96.9	\$213.2	
<i>Mining</i>		\$19.1	\$4.7	\$23.8	
<i>Other</i>		\$70.2	\$142.2	\$212.4	
Total Operational Impact on Labor Income	\$21,725.4	\$17,161.8	\$19,996.4	\$58,883.6	4.9%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$69,466.0			\$69,466.0	3.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$10,648.8	\$10,889.5	\$21,538.4	
<i>Services</i>		\$5,601.8	\$10,407.3	\$16,009.1	
<i>Wholesale and retail trade</i>		\$1,949.2	\$5,016.5	\$6,965.7	
<i>Information</i>		\$2,829.5	\$3,246.0	\$6,075.5	
<i>Manufacturing</i>		\$2,844.6	\$2,293.8	\$5,138.4	
<i>Construction</i>		\$2,074.7	\$317.8	\$2,392.5	
<i>Transportation and warehousing</i>		\$1,095.8	\$888.7	\$1,984.5	
<i>Utilities</i>		\$467.6	\$369.3	\$836.9	
<i>Agriculture</i>		\$123.8	\$536.6	\$660.5	
<i>Mining</i>		\$45.7	\$11.5	\$57.1	
<i>Other</i>		\$105.8	\$214.7	\$320.5	
Total Operational Impact on Value Added	\$69,466.0	\$27,787.4	\$34,191.7	\$131,445.1	6.7%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Colorado, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	69,673			69,673	2.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		17,324	39,415	56,739	
<i>Finance, insurance, real estate, rental and leasing</i>		18,878	16,455	35,334	
<i>Wholesale and retail trade</i>		3,636	15,943	19,579	
<i>Construction</i>		12,138	928	13,066	
<i>Manufacturing</i>		3,452	2,542	5,994	
<i>Transportation and warehousing</i>		2,698	2,046	4,744	
<i>Information</i>		2,223	2,277	4,501	
<i>Agriculture</i>		281	1,255	1,536	
<i>Utilities</i>		352	250	602	
<i>Mining</i>		415	87	503	
<i>Other</i>		277	550	827	
Total Operational Impact on Employment	69,673	61,675	81,748	213,097	6.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$6,312.5			\$6,312.5	3.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,121.2	\$1,668.8	\$2,790.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,257.6	\$770.7	\$2,028.3	
<i>Wholesale and retail trade</i>		\$215.0	\$639.4	\$854.4	
<i>Construction</i>		\$645.8	\$50.1	\$695.9	
<i>Information</i>		\$298.4	\$234.5	\$532.9	
<i>Manufacturing</i>		\$236.4	\$162.0	\$398.3	
<i>Transportation and warehousing</i>		\$153.2	\$112.3	\$265.6	
<i>Utilities</i>		\$43.4	\$29.6	\$73.0	
<i>Mining</i>		\$39.3	\$8.2	\$47.5	
<i>Agriculture</i>		\$7.6	\$28.7	\$36.3	
<i>Other</i>		\$17.9	\$34.9	\$52.8	
Total Operational Impact on Labor Income	\$6,312.5	\$4,035.7	\$3,739.3	\$14,087.6	8.1%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$12,482.1			\$12,482.1	4.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$2,848.9	\$2,118.2	\$4,967.1	
<i>Services</i>		\$1,324.7	\$2,010.0	\$3,334.7	
<i>Wholesale and retail trade</i>		\$363.1	\$1,035.0	\$1,398.2	
<i>Information</i>		\$627.1	\$611.6	\$1,238.7	
<i>Construction</i>		\$688.1	\$62.1	\$750.1	
<i>Manufacturing</i>		\$380.7	\$290.3	\$671.0	
<i>Transportation and warehousing</i>		\$225.7	\$168.0	\$393.7	
<i>Utilities</i>		\$175.5	\$118.0	\$293.5	
<i>Mining</i>		\$106.0	\$23.2	\$129.1	
<i>Agriculture</i>		\$12.5	\$58.9	\$71.4	
<i>Other</i>		\$27.6	\$54.1	\$81.7	
Total Operational Impact on Value Added	\$12,482.1	\$6,779.9	\$6,549.3	\$25,811.3	9.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Connecticut, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	15,932			15,932	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,007	15,378	19,386	
<i>Finance, insurance, real estate, rental and leasing</i>		3,881	6,572	10,453	
<i>Wholesale and retail trade</i>		508	4,728	5,236	
<i>Manufacturing</i>		2,594	1,292	3,886	
<i>Transportation and warehousing</i>		696	771	1,467	
<i>Information</i>		608	840	1,448	
<i>Construction</i>		627	389	1,016	
<i>Agriculture</i>		35	160	195	
<i>Utilities</i>		44	75	119	
<i>Mining</i>		33	8	41	
<i>Other</i>		49	149	199	
Total Operational Impact on Employment	15,932	13,082	30,363	59,378	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	\$1,048.5			\$1,048.5	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$458.1	\$620.8	\$1,078.9	
<i>Services</i>		\$305.7	\$758.6	\$1,064.3	
<i>Manufacturing</i>		\$240.0	\$132.0	\$372.0	
<i>Wholesale and retail trade</i>		\$39.7	\$214.7	\$254.5	
<i>Information</i>		\$77.1	\$84.1	\$161.1	
<i>Transportation and warehousing</i>		\$33.7	\$38.3	\$72.0	
<i>Construction</i>		\$42.8	\$25.7	\$68.4	
<i>Utilities</i>		\$7.5	\$12.5	\$20.0	
<i>Agriculture</i>		\$0.8	\$3.3	\$4.1	
<i>Mining</i>		\$1.6	\$0.4	\$2.0	
<i>Other</i>		\$3.8	\$10.8	\$14.6	
Total Operational Impact on Labor Income	\$1,048.5	\$1,210.9	\$1,901.0	\$4,160.4	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	\$2,409.3			\$2,409.3	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$980.4	\$1,328.4	\$2,308.8	
<i>Services</i>		\$360.1	\$879.2	\$1,239.2	
<i>Manufacturing</i>		\$375.0	\$237.6	\$612.6	
<i>Wholesale and retail trade</i>		\$69.8	\$364.0	\$433.8	
<i>Information</i>		\$169.2	\$215.0	\$384.2	
<i>Transportation and warehousing</i>		\$49.3	\$55.5	\$104.8	
<i>Utilities</i>		\$30.4	\$48.7	\$79.1	
<i>Construction</i>		\$47.1	\$31.5	\$78.5	
<i>Agriculture</i>		\$1.2	\$5.8	\$7.0	
<i>Mining</i>		\$2.7	\$0.7	\$3.4	
<i>Other</i>		\$5.8	\$16.5	\$22.3	
Total Operational Impact on Value Added	\$2,409.3	\$2,091.0	\$3,182.7	\$7,683.0	3.3%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Delaware, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	4,528			4,528	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		1,547	3,660	5,207	
<i>Finance, insurance, real estate, rental and leasing</i>		1,106	1,657	2,763	
<i>Wholesale and retail trade</i>		272	1,234	1,507	
<i>Manufacturing</i>		315	330	645	
<i>Transportation and warehousing</i>		296	179	476	
<i>Construction</i>		310	113	423	
<i>Information</i>		156	210	366	
<i>Agriculture</i>		14	61	75	
<i>Utilities</i>		38	29	67	
<i>Mining</i>		12	2	13	
<i>Other</i>		23	23	45	
Total Operational Impact on Employment	4,528	4,089	7,498	16,115	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	\$286.5			\$286.5	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$96.4	\$160.9	\$257.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$104.0	\$106.1	\$210.1	
<i>Wholesale and retail trade</i>		\$16.5	\$44.1	\$60.6	
<i>Manufacturing</i>		\$25.0	\$22.7	\$47.7	
<i>Information</i>		\$14.4	\$17.3	\$31.7	
<i>Construction</i>		\$18.8	\$6.3	\$25.1	
<i>Transportation and warehousing</i>		\$14.8	\$8.1	\$22.9	
<i>Utilities</i>		\$5.1	\$3.7	\$8.8	
<i>Agriculture</i>		\$0.9	\$3.2	\$4.1	
<i>Mining</i>		\$0.3	\$0.1	\$0.4	
<i>Other</i>		\$1.1	\$1.2	\$2.3	
Total Operational Impact on Labor Income	\$286.5	\$297.3	\$373.6	\$957.4	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	\$848.9			\$848.9	1.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$203.6	\$221.5	\$425.2	
<i>Services</i>		\$113.4	\$191.7	\$305.2	
<i>Information</i>		\$44.1	\$55.7	\$99.8	
<i>Wholesale and retail trade</i>		\$28.0	\$70.5	\$98.5	
<i>Manufacturing</i>		\$40.5	\$40.1	\$80.6	
<i>Utilities</i>		\$20.7	\$14.1	\$34.9	
<i>Transportation and warehousing</i>		\$20.2	\$11.1	\$31.3	
<i>Construction</i>		\$20.6	\$8.1	\$28.7	
<i>Agriculture</i>		\$2.0	\$6.5	\$8.5	
<i>Mining</i>		\$0.5	\$0.1	\$0.6	
<i>Other</i>		\$1.8	\$1.8	\$3.6	
Total Operational Impact on Value Added	\$848.9	\$495.3	\$621.4	\$1,965.6	4.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in the District of Columbia, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of District Total
Direct Operational Impact of the Oil and Natural Gas Industry	2,055			2,055	0.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		1,501	4,885	6,386	
<i>Finance, insurance, real estate, rental and leasing</i>		1,784	1,871	3,655	
<i>Information</i>		263	245	508	
<i>Wholesale and retail trade</i>		51	343	394	
<i>Transportation and warehousing</i>		175	182	357	
<i>Construction</i>		180	50	230	
<i>Manufacturing</i>		18	17	36	
<i>Utilities</i>		14	19	33	
<i>Mining</i>		16	2	18	
<i>Agriculture</i>		1	1	2	
<i>Other</i>		13	26	40	
Total Operational Impact on Employment	2,055	4,017	7,641	13,713	1.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of District Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$165.5			\$165.5	0.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$188.5	\$399.5	\$588.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$300.0	\$233.1	\$533.2	
<i>Information</i>		\$32.7	\$28.5	\$61.2	
<i>Transportation and warehousing</i>		\$14.4	\$14.7	\$29.2	
<i>Wholesale and retail trade</i>		\$4.2	\$15.6	\$19.8	
<i>Construction</i>		\$14.6	\$3.6	\$18.2	
<i>Utilities</i>		\$1.7	\$2.3	\$4.0	
<i>Manufacturing</i>		\$2.3	\$1.6	\$3.8	
<i>Mining</i>		\$0.2	\$0.0	\$0.3	
<i>Agriculture</i>		\$0.0	\$0.0	\$0.1	
<i>Other</i>		\$1.2	\$2.2	\$3.4	
Total Operational Impact on Labor Income	\$165.5	\$559.9	\$701.2	\$1,426.6	1.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of District Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$915.1			\$915.1	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$450.1	\$434.9	\$885.0	
<i>Services</i>		\$205.0	\$439.0	\$643.9	
<i>Information</i>		\$71.1	\$64.5	\$135.6	
<i>Transportation and warehousing</i>		\$19.4	\$20.2	\$39.7	
<i>Wholesale and retail trade</i>		\$7.4	\$27.1	\$34.5	
<i>Construction</i>		\$15.6	\$4.2	\$19.8	
<i>Utilities</i>		\$7.0	\$9.4	\$16.5	
<i>Manufacturing</i>		\$4.0	\$2.8	\$6.8	
<i>Mining</i>		\$0.3	\$0.1	\$0.4	
<i>Agriculture</i>		\$0.1	\$0.1	\$0.2	
<i>Other</i>		\$1.8	\$3.4	\$5.2	
Total Operational Impact on Value Added	\$915.1	\$781.8	\$1,005.6	\$2,702.6	1.9%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Florida, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	71,983			71,983	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		25,608	70,104	95,712	
<i>Finance, insurance, real estate, rental and leasing</i>		22,508	27,250	49,758	
<i>Wholesale and retail trade</i>		4,005	23,234	27,239	
<i>Construction</i>		11,235	1,584	12,820	
<i>Transportation and warehousing</i>		4,619	3,949	8,568	
<i>Manufacturing</i>		4,937	3,541	8,478	
<i>Information</i>		3,379	4,302	7,681	
<i>Agriculture</i>		561	2,009	2,570	
<i>Utilities</i>		347	336	683	
<i>Mining</i>		146	39	185	
<i>Other</i>		341	771	1,112	
Total Operational Impact on Employment	71,983	77,688	137,118	286,789	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	\$2,708.5			\$2,708.5	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,305.5	\$2,832.7	\$4,138.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,376.3	\$1,188.3	\$2,564.6	
<i>Wholesale and retail trade</i>		\$226.5	\$911.8	\$1,138.2	
<i>Construction</i>		\$539.2	\$73.2	\$612.4	
<i>Information</i>		\$275.9	\$301.9	\$577.7	
<i>Manufacturing</i>		\$314.0	\$220.2	\$534.2	
<i>Transportation and warehousing</i>		\$212.7	\$181.1	\$393.7	
<i>Agriculture</i>		\$19.0	\$63.1	\$82.0	
<i>Utilities</i>		\$41.2	\$38.4	\$79.6	
<i>Mining</i>		\$8.3	\$2.2	\$10.5	
<i>Other</i>		\$24.8	\$53.9	\$78.7	
Total Operational Impact on Labor Income	\$2,708.5	\$4,343.3	\$5,866.8	\$12,918.6	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	\$5,269.9			\$5,269.9	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$3,382.8	\$3,307.2	\$6,690.0	
<i>Services</i>		\$1,570.7	\$3,448.2	\$5,018.9	
<i>Wholesale and retail trade</i>		\$386.3	\$1,480.9	\$1,867.1	
<i>Information</i>		\$710.9	\$879.9	\$1,590.8	
<i>Manufacturing</i>		\$482.3	\$422.7	\$905.0	
<i>Construction</i>		\$578.8	\$93.7	\$672.5	
<i>Transportation and warehousing</i>		\$297.4	\$257.1	\$554.5	
<i>Utilities</i>		\$168.2	\$153.2	\$321.4	
<i>Agriculture</i>		\$27.0	\$92.0	\$119.0	
<i>Mining</i>		\$19.0	\$5.1	\$24.1	
<i>Other</i>		\$38.0	\$82.8	\$120.8	
Total Operational Impact on Value Added	\$5,269.9	\$7,661.3	\$10,222.7	\$23,154.0	3.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Georgia, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	42,638			42,638	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		11,918	31,431	43,349	
<i>Finance, insurance, real estate, rental and leasing</i>		8,663	11,723	20,386	
<i>Wholesale and retail trade</i>		1,743	11,361	13,104	
<i>Manufacturing</i>		4,720	4,286	9,006	
<i>Transportation and warehousing</i>		2,426	2,108	4,534	
<i>Information</i>		1,715	2,238	3,953	
<i>Construction</i>		1,499	740	2,239	
<i>Agriculture</i>		326	941	1,267	
<i>Utilities</i>		189	259	448	
<i>Mining</i>		167	43	210	
<i>Other</i>		<u>136</u>	<u>359</u>	495	
Total Operational Impact on Employment	42,638	33,502	65,490	141,630	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	\$1,650.8			\$1,650.8	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$595.2	\$1,232.0	\$1,827.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$618.4	\$610.9	\$1,229.3	
<i>Wholesale and retail trade</i>		\$119.7	\$477.2	\$596.9	
<i>Manufacturing</i>		\$293.9	\$269.6	\$563.4	
<i>Information</i>		\$196.6	\$215.5	\$412.1	
<i>Transportation and warehousing</i>		\$123.6	\$107.9	\$231.5	
<i>Construction</i>		\$75.7	\$35.0	\$110.7	
<i>Agriculture</i>		\$14.5	\$45.0	\$59.5	
<i>Utilities</i>		\$20.6	\$28.2	\$48.8	
<i>Mining</i>		\$11.6	\$2.9	\$14.5	
<i>Other</i>		<u>\$5.8</u>	<u>\$14.4</u>	\$20.2	
Total Operational Impact on Labor Income	\$1,650.8	\$2,075.5	\$3,038.7	\$6,765.0	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	\$3,718.7			\$3,718.7	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,462.0	\$1,609.6	\$3,071.6	
<i>Services</i>		\$697.4	\$1,441.9	\$2,139.3	
<i>Information</i>		\$491.4	\$612.4	\$1,103.8	
<i>Manufacturing</i>		\$464.3	\$603.7	\$1,068.0	
<i>Wholesale and retail trade</i>		\$206.4	\$785.9	\$992.3	
<i>Transportation and warehousing</i>		\$182.9	\$162.3	\$345.1	
<i>Utilities</i>		\$85.2	\$114.5	\$199.7	
<i>Construction</i>		\$83.2	\$43.4	\$126.6	
<i>Agriculture</i>		\$17.2	\$57.1	\$74.3	
<i>Mining</i>		\$24.0	\$6.2	\$30.2	
<i>Other</i>		<u>\$9.3</u>	<u>\$23.3</u>	\$32.7	
Total Operational Impact on Value Added	\$3,718.7	\$3,723.3	\$5,460.3	\$12,902.3	3.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Hawaii, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	4,730			4,730	0.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		2,175	5,167	7,341	
<i>Finance, insurance, real estate, rental and leasing</i>		1,250	1,479	2,730	
<i>Wholesale and retail trade</i>		372	1,574	1,946	
<i>Transportation and warehousing</i>		1,066	870	1,936	
<i>Information</i>		246	283	529	
<i>Construction</i>		376	135	511	
<i>Manufacturing</i>		142	210	352	
<i>Agriculture</i>		47	205	252	
<i>Utilities</i>		44	41	85	
<i>Mining</i>		12	3	16	
<i>Other</i>		19	28	46	
Total Operational Impact on Employment	4,730	5,749	9,995	20,473	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	\$254.9			\$254.9	0.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$113.0	\$225.5	\$338.5	
<i>Transportation and warehousing</i>		\$77.3	\$59.0	\$136.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$67.8	\$57.5	\$125.3	
<i>Wholesale and retail trade</i>		\$17.2	\$55.7	\$72.9	
<i>Construction</i>		\$30.1	\$9.9	\$40.0	
<i>Information</i>		\$16.1	\$17.2	\$33.3	
<i>Manufacturing</i>		\$6.6	\$8.1	\$14.8	
<i>Utilities</i>		\$5.0	\$4.6	\$9.6	
<i>Agriculture</i>		\$1.2	\$5.0	\$6.2	
<i>Mining</i>		\$1.0	\$0.3	\$1.3	
<i>Other</i>		\$1.4	\$2.0	\$3.4	
Total Operational Impact on Labor Income	\$254.9	\$336.8	\$444.7	\$1,036.4	2.0%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$947.5			\$947.5	1.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$140.8	\$281.1	\$421.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$117.3	\$193.8	\$311.2	
<i>Transportation and warehousing</i>		\$82.0	\$63.4	\$145.4	
<i>Wholesale and retail trade</i>		\$29.1	\$87.7	\$116.8	
<i>Information</i>		\$48.8	\$53.7	\$102.5	
<i>Construction</i>		\$32.6	\$11.9	\$44.6	
<i>Utilities</i>		\$20.6	\$18.4	\$38.9	
<i>Manufacturing</i>		\$9.9	\$13.1	\$23.0	
<i>Agriculture</i>		\$1.4	\$5.8	\$7.2	
<i>Mining</i>		\$2.5	\$0.7	\$3.2	
<i>Other</i>		\$2.1	\$3.1	\$5.1	
Total Operational Impact on Value Added	\$947.5	\$487.1	\$732.6	\$2,167.2	2.9%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Idaho, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	8,989			8,989	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		2,051	5,252	7,303	
<i>Finance, insurance, real estate, rental and leasing</i>		1,722	1,973	3,696	
<i>Wholesale and retail trade</i>		316	1,871	2,187	
<i>Manufacturing</i>		723	619	1,343	
<i>Construction</i>		739	136	875	
<i>Transportation and warehousing</i>		461	367	828	
<i>Agriculture</i>		172	654	826	
<i>Information</i>		302	337	638	
<i>Mining</i>		125	29	153	
<i>Utilities</i>		22	31	54	
<i>Other</i>		25	56	81	
Total Operational Impact on Employment	8,989	6,658	11,325	26,972	3.1%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$299.6			\$299.6	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$88.5	\$182.7	\$271.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$91.0	\$66.7	\$157.7	
<i>Wholesale and retail trade</i>		\$14.8	\$61.4	\$76.1	
<i>Manufacturing</i>		\$39.8	\$32.7	\$72.5	
<i>Agriculture</i>		\$9.2	\$32.6	\$41.8	
<i>Construction</i>		\$32.1	\$6.0	\$38.1	
<i>Transportation and warehousing</i>		\$18.9	\$14.9	\$33.8	
<i>Information</i>		\$15.1	\$15.6	\$30.7	
<i>Mining</i>		\$8.0	\$1.8	\$9.8	
<i>Utilities</i>		\$2.5	\$3.2	\$5.7	
<i>Other</i>		\$1.2	\$2.7	\$3.9	
Total Operational Impact on Labor Income	\$299.6	\$321.1	\$420.2	\$1,041.0	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	\$532.6			\$532.6	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$192.2	\$198.7	\$390.8	
<i>Services</i>		\$103.7	\$214.2	\$317.9	
<i>Wholesale and retail trade</i>		\$25.4	\$103.4	\$128.8	
<i>Manufacturing</i>		\$66.3	\$57.5	\$123.8	
<i>Information</i>		\$45.0	\$49.2	\$94.1	
<i>Agriculture</i>		\$10.7	\$50.4	\$61.0	
<i>Transportation and warehousing</i>		\$25.3	\$19.7	\$45.0	
<i>Construction</i>		\$34.9	\$7.7	\$42.6	
<i>Mining</i>		\$25.2	\$6.3	\$31.4	
<i>Utilities</i>		\$10.1	\$12.5	\$22.6	
<i>Other</i>		\$1.9	\$4.2	\$6.2	
Total Operational Impact on Value Added	\$532.6	\$540.6	\$723.7	\$1,796.9	3.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Illinois, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	65,175			65,175	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		26,023	58,505	84,527	
<i>Finance, insurance, real estate, rental and leasing</i>		19,129	20,604	39,733	
<i>Wholesale and retail trade</i>		5,898	20,397	26,295	
<i>Manufacturing</i>		11,318	6,268	17,586	
<i>Construction</i>		9,883	1,263	11,146	
<i>Transportation and warehousing</i>		5,289	3,917	9,206	
<i>Information</i>		2,895	3,431	6,326	
<i>Agriculture</i>		374	1,635	2,009	
<i>Utilities</i>		419	326	745	
<i>Mining</i>		295	71	366	
<i>Other</i>		<u>243</u>	<u>369</u>	613	
Total Operational Impact on Employment	65,175	81,766	116,786	263,727	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	\$3,895.6			\$3,895.6	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,612.7	\$2,555.1	\$4,167.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,746.1	\$1,399.0	\$3,145.1	
<i>Manufacturing</i>		\$862.8	\$458.5	\$1,321.3	
<i>Wholesale and retail trade</i>		\$382.1	\$865.5	\$1,247.6	
<i>Construction</i>		\$626.6	\$77.0	\$703.6	
<i>Information</i>		\$256.7	\$279.2	\$535.9	
<i>Transportation and warehousing</i>		\$280.6	\$197.9	\$478.6	
<i>Utilities</i>		\$61.9	\$47.0	\$108.9	
<i>Agriculture</i>		\$14.2	\$59.6	\$73.8	
<i>Mining</i>		\$23.8	\$5.8	\$29.6	
<i>Other</i>		<u>\$14.7</u>	<u>\$22.2</u>	\$36.8	
Total Operational Impact on Labor Income	\$3,895.6	\$5,882.3	\$5,966.7	\$15,744.6	3.8%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$13,642.1			\$13,642.1	2.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$3,287.3	\$3,378.1	\$6,665.4	
<i>Services</i>		\$1,864.2	\$2,968.7	\$4,832.9	
<i>Manufacturing</i>		\$1,516.0	\$797.8	\$2,313.7	
<i>Wholesale and retail trade</i>		\$651.0	\$1,418.1	\$2,069.1	
<i>Information</i>		\$759.2	\$879.1	\$1,638.3	
<i>Construction</i>		\$673.3	\$97.3	\$770.6	
<i>Transportation and warehousing</i>		\$385.1	\$272.8	\$657.9	
<i>Utilities</i>		\$253.2	\$189.6	\$442.7	
<i>Agriculture</i>		\$29.0	\$126.0	\$155.0	
<i>Mining</i>		\$50.3	\$12.6	\$63.0	
<i>Other</i>		<u>\$22.8</u>	<u>\$34.4</u>	\$57.3	
Total Operational Impact on Value Added	\$13,642.1	\$9,491.4	\$10,174.4	\$33,307.9	5.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Indiana, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	39,628			39,628	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		12,177	27,904	40,081	
<i>Finance, insurance, real estate, rental and leasing</i>		7,436	7,754	15,190	
<i>Manufacturing</i>		8,561	4,982	13,542	
<i>Wholesale and retail trade</i>		2,804	9,835	12,639	
<i>Construction</i>		4,354	729	5,083	
<i>Transportation and warehousing</i>		2,927	1,841	4,768	
<i>Information</i>		1,210	1,312	2,522	
<i>Agriculture</i>		312	1,372	1,684	
<i>Utilities</i>		279	215	495	
<i>Mining</i>		244	62	306	
<i>Other</i>		183	245	428	
Total Operational Impact on Employment	39,628	40,487	56,251	136,366	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	\$2,168.1			\$2,168.1	1.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$532.7	\$1,054.5	\$1,587.2	
<i>Manufacturing</i>		\$629.4	\$331.3	\$960.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$410.8	\$313.7	\$724.5	
<i>Wholesale and retail trade</i>		\$139.0	\$326.4	\$465.4	
<i>Construction</i>		\$242.1	\$38.7	\$280.8	
<i>Transportation and warehousing</i>		\$144.3	\$89.3	\$233.6	
<i>Information</i>		\$68.0	\$69.5	\$137.4	
<i>Utilities</i>		\$32.7	\$24.3	\$57.0	
<i>Agriculture</i>		\$8.5	\$37.2	\$45.6	
<i>Mining</i>		\$18.7	\$4.8	\$23.6	
<i>Other</i>		\$6.5	\$8.7	\$15.1	
Total Operational Impact on Labor Income	\$2,168.1	\$2,232.6	\$2,298.3	\$6,699.1	4.1%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$8,910.0			\$8,910.0	3.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$857.9	\$1,023.3	\$1,881.2	
<i>Services</i>		\$630.5	\$1,245.3	\$1,875.8	
<i>Manufacturing</i>		\$1,116.0	\$563.0	\$1,679.0	
<i>Wholesale and retail trade</i>		\$235.3	\$529.4	\$764.7	
<i>Information</i>		\$211.6	\$228.2	\$439.8	
<i>Transportation and warehousing</i>		\$206.4	\$129.3	\$335.7	
<i>Construction</i>		\$262.3	\$47.9	\$310.3	
<i>Utilities</i>		\$132.8	\$95.9	\$228.6	
<i>Agriculture</i>		\$16.4	\$77.9	\$94.3	
<i>Mining</i>		\$40.9	\$10.6	\$51.5	
<i>Other</i>		\$10.6	\$14.2	\$24.8	
Total Operational Impact on Value Added	\$8,910.0	\$3,720.7	\$3,964.9	\$16,595.7	6.3%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Iowa, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	24,542			24,542	1.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,473	11,986	16,459	
<i>Finance, insurance, real estate, rental and leasing</i>		3,026	3,605	6,631	
<i>Wholesale and retail trade</i>		745	4,234	4,979	
<i>Manufacturing</i>		2,764	2,052	4,817	
<i>Agriculture</i>		340	1,756	2,096	
<i>Transportation and warehousing</i>		1,131	870	2,002	
<i>Information</i>		714	881	1,594	
<i>Construction</i>		1,242	258	1,500	
<i>Utilities</i>		86	87	172	
<i>Mining</i>		76	20	96	
<i>Other</i>		56	114	169	
Total Operational Impact on Employment	24,542	14,653	25,861	65,057	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	\$768.8			\$768.8	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$181.1	\$401.0	\$582.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$164.1	\$169.0	\$333.0	
<i>Manufacturing</i>		\$179.3	\$120.9	\$300.2	
<i>Wholesale and retail trade</i>		\$38.4	\$142.3	\$180.7	
<i>Information</i>		\$52.1	\$58.8	\$110.9	
<i>Agriculture</i>		\$16.7	\$79.0	\$95.7	
<i>Transportation and warehousing</i>		\$48.9	\$38.7	\$87.6	
<i>Construction</i>		\$63.2	\$12.7	\$76.0	
<i>Utilities</i>		\$9.5	\$9.4	\$18.9	
<i>Mining</i>		\$4.0	\$1.1	\$5.1	
<i>Other</i>		\$3.0	\$6.0	\$9.0	
Total Operational Impact on Labor Income	\$768.8	\$760.3	\$1,038.9	\$2,568.0	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	\$1,256.2			\$1,256.2	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$354.5	\$476.1	\$830.7	
<i>Services</i>		\$212.2	\$469.6	\$681.9	
<i>Manufacturing</i>		\$284.5	\$192.7	\$477.2	
<i>Information</i>		\$157.6	\$189.2	\$346.8	
<i>Wholesale and retail trade</i>		\$65.6	\$233.2	\$298.8	
<i>Agriculture</i>		\$32.4	\$182.6	\$215.0	
<i>Transportation and warehousing</i>		\$69.3	\$53.7	\$122.9	
<i>Construction</i>		\$69.3	\$15.9	\$85.2	
<i>Utilities</i>		\$38.9	\$37.8	\$76.7	
<i>Mining</i>		\$10.5	\$2.8	\$13.3	
<i>Other</i>		\$4.7	\$9.5	\$14.2	
Total Operational Impact on Value Added	\$1,256.2	\$1,299.5	\$1,863.3	\$4,419.0	3.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Kansas, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	56,941			56,941	3.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		13,386	21,567	34,953	
<i>Finance, insurance, real estate, rental and leasing</i>		11,803	6,907	18,710	
<i>Wholesale and retail trade</i>		3,678	8,980	12,658	
<i>Construction</i>		10,150	504	10,654	
<i>Manufacturing</i>		3,609	2,011	5,619	
<i>Transportation and warehousing</i>		2,112	1,110	3,222	
<i>Information</i>		1,575	1,224	2,799	
<i>Agriculture</i>		277	1,318	1,595	
<i>Utilities</i>		369	158	528	
<i>Mining</i>		59	15	74	
<i>Other</i>		234	348	583	
Total Operational Impact on Employment	56,941	47,252	44,143	148,336	8.1%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,937.2			\$2,937.2	3.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$674.4	\$819.5	\$1,493.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$637.6	\$274.2	\$911.8	
<i>Construction</i>		\$511.7	\$25.4	\$537.1	
<i>Wholesale and retail trade</i>		\$181.5	\$309.0	\$490.5	
<i>Manufacturing</i>		\$241.8	\$108.6	\$350.4	
<i>Information</i>		\$98.3	\$77.0	\$175.2	
<i>Transportation and warehousing</i>		\$113.2	\$53.9	\$167.2	
<i>Utilities</i>		\$46.6	\$19.6	\$66.2	
<i>Agriculture</i>		\$12.2	\$44.9	\$57.1	
<i>Mining</i>		\$3.0	\$0.8	\$3.7	
<i>Other</i>		\$8.3	\$12.4	\$20.7	
Total Operational Impact on Labor Income	\$2,937.2	\$2,528.6	\$1,745.3	\$7,211.1	8.6%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$5,856.0			\$5,856.0	4.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,279.0	\$855.2	\$2,134.2	
<i>Services</i>		\$776.0	\$947.4	\$1,723.4	
<i>Wholesale and retail trade</i>		\$304.5	\$494.9	\$799.4	
<i>Information</i>		\$319.1	\$261.7	\$580.7	
<i>Construction</i>		\$548.3	\$31.8	\$580.1	
<i>Manufacturing</i>		\$404.7	\$170.5	\$575.2	
<i>Utilities</i>		\$190.3	\$79.5	\$269.8	
<i>Transportation and warehousing</i>		\$159.3	\$76.1	\$235.4	
<i>Agriculture</i>		\$18.2	\$87.2	\$105.4	
<i>Mining</i>		\$7.3	\$1.9	\$9.2	
<i>Other</i>		\$13.7	\$20.3	\$34.0	
Total Operational Impact on Value Added	\$5,856.0	\$4,020.3	\$3,026.5	\$12,902.8	9.5%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Kentucky, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	33,374			33,374	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		7,784	16,490	24,274	
<i>Finance, insurance, real estate, rental and leasing</i>		5,382	4,745	10,127	
<i>Wholesale and retail trade</i>		1,610	5,820	7,431	
<i>Manufacturing</i>		3,817	2,507	6,324	
<i>Construction</i>		4,219	443	4,662	
<i>Transportation and warehousing</i>		1,643	1,185	2,828	
<i>Agriculture</i>		349	1,744	2,093	
<i>Information</i>		905	950	1,855	
<i>Mining</i>		892	203	1,095	
<i>Utilities</i>		147	102	249	
<i>Other</i>		<u>170</u>	<u>266</u>	435	
Total Operational Impact on Employment	33,374	26,918	34,454	94,746	4.0%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,340.9			\$1,340.9	1.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$353.7	\$613.7	\$967.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$286.7	\$193.0	\$479.7	
<i>Manufacturing</i>		\$233.5	\$133.8	\$367.4	
<i>Wholesale and retail trade</i>		\$78.6	\$199.1	\$277.7	
<i>Construction</i>		\$187.0	\$19.5	\$206.5	
<i>Transportation and warehousing</i>		\$83.4	\$59.4	\$142.7	
<i>Information</i>		\$51.9	\$51.0	\$102.8	
<i>Mining</i>		\$70.2	\$16.6	\$86.8	
<i>Agriculture</i>		\$16.2	\$23.7	\$39.9	
<i>Utilities</i>		\$14.9	\$9.9	\$24.8	
<i>Other</i>		<u>\$6.8</u>	<u>\$10.6</u>	\$17.4	
Total Operational Impact on Labor Income	\$1,340.9	\$1,382.8	\$1,330.3	\$4,054.0	3.8%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,291.4			\$3,291.4	1.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$544.2	\$614.3	\$1,158.5	
<i>Services</i>		\$409.3	\$711.9	\$1,121.2	
<i>Manufacturing</i>		\$387.8	\$332.6	\$720.4	
<i>Wholesale and retail trade</i>		\$131.9	\$316.6	\$448.5	
<i>Information</i>		\$157.1	\$164.0	\$321.1	
<i>Construction</i>		\$202.1	\$24.1	\$226.2	
<i>Transportation and warehousing</i>		\$123.0	\$88.9	\$212.0	
<i>Mining</i>		\$141.9	\$34.8	\$176.6	
<i>Utilities</i>		\$60.6	\$39.7	\$100.3	
<i>Agriculture</i>		\$19.3	\$44.1	\$63.3	
<i>Other</i>		<u>\$11.1</u>	<u>\$17.2</u>	\$28.3	
Total Operational Impact on Value Added	\$3,291.4	\$2,188.2	\$2,388.2	\$7,867.8	4.6%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Louisiana, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	130,316			130,316	5.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		48,518	69,383	117,901	
<i>Finance, insurance, real estate, rental and leasing</i>		34,602	19,943	54,544	
<i>Wholesale and retail trade</i>		11,962	27,552	39,514	
<i>Construction</i>		35,200	1,972	37,172	
<i>Transportation and warehousing</i>		7,705	3,198	10,903	
<i>Manufacturing</i>		6,321	2,742	9,063	
<i>Information</i>		4,185	2,962	7,147	
<i>Agriculture</i>		773	1,784	2,557	
<i>Utilities</i>		1,100	503	1,603	
<i>Mining</i>		83	17	100	
<i>Other</i>		830	980	1,828	
Total Operational Impact on Employment	130,316	151,288	131,045	412,649	16.2%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$10,912.4			\$10,912.4	8.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$2,182.5	\$2,719.7	\$4,902.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$2,002.5	\$772.2	\$2,774.7	
<i>Construction</i>		\$1,957.0	\$106.0	\$2,063.0	
<i>Wholesale and retail trade</i>		\$571.4	\$939.5	\$1,510.9	
<i>Manufacturing</i>		\$527.1	\$175.1	\$702.2	
<i>Transportation and warehousing</i>		\$420.1	\$159.0	\$579.1	
<i>Information</i>		\$240.8	\$168.7	\$409.5	
<i>Utilities</i>		\$132.4	\$55.1	\$187.5	
<i>Agriculture</i>		\$21.2	\$38.4	\$59.5	
<i>Mining</i>		\$6.4	\$1.3	\$7.7	
<i>Other</i>		\$47.9	\$56.6	\$104.5	
Total Operational Impact on Labor Income	\$10,912.4	\$8,109.3	\$5,191.7	\$24,213.4	19.4%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$52,267.4			\$52,267.4	25.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$4,143.7	\$2,738.0	\$6,881.7	
<i>Services</i>		\$2,583.4	\$3,197.2	\$5,780.7	
<i>Wholesale and retail trade</i>		\$946.6	\$1,462.9	\$2,409.5	
<i>Construction</i>		\$2,069.9	\$129.8	\$2,199.7	
<i>Manufacturing</i>		\$1,014.3	\$326.2	\$1,340.4	
<i>Information</i>		\$727.9	\$535.4	\$1,263.2	
<i>Transportation and warehousing</i>		\$553.9	\$215.8	\$769.7	
<i>Utilities</i>		\$533.5	\$214.8	\$748.3	
<i>Agriculture</i>		\$26.6	\$58.6	\$85.2	
<i>Mining</i>		\$13.5	\$2.9	\$16.4	
<i>Other</i>		\$74.8	\$88.4	\$163.1	
Total Operational Impact on Value Added	\$52,267.4	\$12,688.0	\$8,970.0	\$73,925.4	35.5%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Maine, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	12,370			12,370	1.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		1,722	5,709	7,432	
<i>Finance, insurance, real estate, rental and leasing</i>		1,305	1,525	2,830	
<i>Wholesale and retail trade</i>		234	1,859	2,093	
<i>Manufacturing</i>		784	608	1,392	
<i>Transportation and warehousing</i>		552	363	915	
<i>Construction</i>		481	183	664	
<i>Information</i>		233	286	519	
<i>Agriculture</i>		134	296	430	
<i>Utilities</i>		26	27	52	
<i>Mining</i>		16	4	20	
<i>Other</i>		16	39	55	
Total Operational Impact on Employment	12,370	5,503	10,900	28,772	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	\$386.0			\$386.0	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$76.8	\$216.2	\$292.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$95.5	\$89.9	\$185.4	
<i>Manufacturing</i>		\$54.0	\$39.6	\$93.6	
<i>Wholesale and retail trade</i>		\$11.6	\$61.6	\$73.2	
<i>Transportation and warehousing</i>		\$22.5	\$14.6	\$37.1	
<i>Information</i>		\$15.0	\$16.7	\$31.7	
<i>Construction</i>		\$19.5	\$7.2	\$26.7	
<i>Agriculture</i>		\$4.2	\$7.2	\$11.4	
<i>Utilities</i>		\$2.8	\$2.9	\$5.7	
<i>Mining</i>		\$3.0	\$0.8	\$3.8	
<i>Other</i>		\$0.8	\$1.9	\$2.8	
Total Operational Impact on Labor Income	\$386.0	\$305.6	\$458.6	\$1,150.2	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	\$1,081.5			\$1,081.5	1.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$188.9	\$246.5	\$435.4	
<i>Services</i>		\$91.2	\$252.6	\$343.7	
<i>Manufacturing</i>		\$90.0	\$72.7	\$162.7	
<i>Wholesale and retail trade</i>		\$20.4	\$103.2	\$123.6	
<i>Information</i>		\$42.6	\$52.3	\$94.9	
<i>Transportation and warehousing</i>		\$29.4	\$18.9	\$48.3	
<i>Construction</i>		\$21.4	\$9.0	\$30.4	
<i>Utilities</i>		\$11.4	\$11.4	\$22.8	
<i>Agriculture</i>		\$4.2	\$9.4	\$13.5	
<i>Mining</i>		\$7.2	\$2.0	\$9.2	
<i>Other</i>		\$1.3	\$3.1	\$4.4	
Total Operational Impact on Value Added	\$1,081.5	\$508.0	\$781.0	\$2,370.5	4.2%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Maryland, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	17,923			17,923	0.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		6,000	20,482	26,482	
<i>Finance, insurance, real estate, rental and leasing</i>		6,194	8,268	14,462	
<i>Wholesale and retail trade</i>		787	5,931	6,717	
<i>Manufacturing</i>		1,528	1,203	2,731	
<i>Transportation and warehousing</i>		1,216	1,185	2,401	
<i>Information</i>		813	1,157	1,971	
<i>Construction</i>		1,089	697	1,786	
<i>Agriculture</i>		75	308	383	
<i>Utilities</i>		94	126	220	
<i>Mining</i>		76	14	90	
<i>Other</i>		74	177	251	
Total Operational Impact on Employment	17,923	17,946	39,549	75,418	2.2%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$804.0			\$804.0	0.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$394.4	\$979.7	\$1,374.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$523.5	\$505.3	\$1,028.8	
<i>Wholesale and retail trade</i>		\$51.1	\$237.8	\$288.9	
<i>Manufacturing</i>		\$118.6	\$90.5	\$209.2	
<i>Information</i>		\$85.0	\$95.3	\$180.3	
<i>Construction</i>		\$82.7	\$46.3	\$129.0	
<i>Transportation and warehousing</i>		\$58.9	\$53.4	\$112.3	
<i>Utilities</i>		\$14.8	\$20.0	\$34.8	
<i>Agriculture</i>		\$1.3	\$5.6	\$6.9	
<i>Mining</i>		\$5.1	\$0.9	\$6.0	
<i>Other</i>		\$4.8	\$10.9	\$15.7	
Total Operational Impact on Labor Income	\$804.0	\$1,340.3	\$2,045.6	\$4,190.0	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	\$1,632.2			\$1,632.2	0.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$871.1	\$1,238.2	\$2,109.2	
<i>Services</i>		\$453.1	\$1,133.0	\$1,586.2	
<i>Wholesale and retail trade</i>		\$87.7	\$378.5	\$466.1	
<i>Information</i>		\$199.8	\$258.9	\$458.7	
<i>Manufacturing</i>		\$183.7	\$146.4	\$330.1	
<i>Transportation and warehousing</i>		\$84.1	\$77.1	\$161.2	
<i>Construction</i>		\$91.0	\$57.0	\$148.0	
<i>Utilities</i>		\$60.7	\$80.7	\$141.4	
<i>Agriculture</i>		\$2.9	\$14.2	\$17.1	
<i>Mining</i>		\$8.5	\$1.6	\$10.1	
<i>Other</i>		\$7.5	\$16.9	\$24.4	
Total Operational Impact on Value Added	\$1,632.2	\$2,050.0	\$3,402.5	\$7,084.8	2.2%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Massachusetts, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	26,724			26,724	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		7,929	29,441	37,369	
<i>Finance, insurance, real estate, rental and leasing</i>		7,677	10,663	18,340	
<i>Wholesale and retail trade</i>		996	8,345	9,342	
<i>Manufacturing</i>		3,497	2,381	5,878	
<i>Transportation and warehousing</i>		1,574	1,796	3,370	
<i>Information</i>		1,278	1,706	2,984	
<i>Construction</i>		885	658	1,543	
<i>Agriculture</i>		58	243	301	
<i>Utilities</i>		66	108	174	
<i>Mining</i>		40	10	50	
<i>Other</i>		<u>51</u>	<u>145</u>	<u>196</u>	
Total Operational Impact on Employment	26,724	24,051	55,497	106,272	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	\$1,697.0			\$1,697.0	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$574.8	\$1,461.7	\$2,036.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$877.2	\$926.1	\$1,803.2	
<i>Manufacturing</i>		\$289.1	\$197.2	\$486.3	
<i>Wholesale and retail trade</i>		\$77.0	\$359.0	\$436.0	
<i>Information</i>		\$129.0	\$159.1	\$288.1	
<i>Transportation and warehousing</i>		\$101.1	\$114.7	\$215.8	
<i>Construction</i>		\$63.2	\$41.0	\$104.2	
<i>Utilities</i>		\$10.4	\$16.8	\$27.2	
<i>Agriculture</i>		\$1.7	\$8.0	\$9.7	
<i>Mining</i>		\$2.1	\$0.6	\$2.7	
<i>Other</i>		<u>\$3.0</u>	<u>\$8.1</u>	<u>\$11.2</u>	
Total Operational Impact on Labor Income	\$1,697.0	\$2,128.6	\$3,292.4	\$7,117.9	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	\$3,818.0			\$3,818.0	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,510.9	\$1,971.9	\$3,482.8	
<i>Services</i>		\$673.7	\$1,694.2	\$2,368.0	
<i>Information</i>		\$376.2	\$486.9	\$863.1	
<i>Manufacturing</i>		\$446.1	\$328.0	\$774.1	
<i>Wholesale and retail trade</i>		\$133.4	\$594.2	\$727.7	
<i>Transportation and warehousing</i>		\$155.3	\$185.3	\$340.6	
<i>Construction</i>		\$70.0	\$50.9	\$120.9	
<i>Utilities</i>		\$42.4	\$66.9	\$109.3	
<i>Agriculture</i>		\$1.8	\$9.4	\$11.2	
<i>Mining</i>		\$4.5	\$1.2	\$5.7	
<i>Other</i>		<u>\$4.7</u>	<u>\$12.7</u>	<u>\$17.5</u>	
Total Operational Impact on Value Added	\$3,818.0	\$3,419.3	\$5,401.6	\$12,638.9	2.9%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Michigan, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	53,044			53,044	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		15,334	39,248	54,582	
<i>Finance, insurance, real estate, rental and leasing</i>		12,556	12,936	25,491	
<i>Wholesale and retail trade</i>		2,465	12,850	15,314	
<i>Manufacturing</i>		9,275	5,497	14,773	
<i>Construction</i>		7,239	888	8,126	
<i>Transportation and warehousing</i>		2,286	1,804	4,090	
<i>Information</i>		1,646	1,960	3,606	
<i>Agriculture</i>		356	1,326	1,682	
<i>Utilities</i>		299	271	570	
<i>Mining</i>		143	39	182	
<i>Other</i>		186	394	579	
Total Operational Impact on Employment	53,044	51,785	77,211	182,040	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	\$2,385.9			\$2,385.9	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$838.5	\$1,506.5	\$2,345.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$804.1	\$564.9	\$1,369.0	
<i>Manufacturing</i>		\$661.5	\$435.1	\$1,096.5	
<i>Wholesale and retail trade</i>		\$131.8	\$466.6	\$598.4	
<i>Construction</i>		\$357.0	\$42.9	\$399.9	
<i>Information</i>		\$113.3	\$124.8	\$238.1	
<i>Transportation and warehousing</i>		\$114.1	\$88.5	\$202.6	
<i>Utilities</i>		\$42.0	\$37.7	\$79.7	
<i>Agriculture</i>		\$10.1	\$35.0	\$45.1	
<i>Mining</i>		\$11.9	\$3.2	\$15.1	
<i>Other</i>		\$10.6	\$21.9	\$32.5	
Total Operational Impact on Labor Income	\$2,385.9	\$3,094.9	\$3,327.1	\$8,807.8	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	\$4,924.2			\$4,924.2	1.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,845.8	\$1,602.1	\$3,448.0	
<i>Services</i>		\$978.9	\$1,764.5	\$2,743.3	
<i>Manufacturing</i>		\$1,009.0	\$685.2	\$1,694.2	
<i>Wholesale and retail trade</i>		\$221.5	\$746.7	\$968.2	
<i>Information</i>		\$347.5	\$400.3	\$747.9	
<i>Construction</i>		\$387.7	\$54.6	\$442.3	
<i>Utilities</i>		\$171.5	\$153.0	\$324.5	
<i>Transportation and warehousing</i>		\$161.4	\$126.4	\$287.8	
<i>Agriculture</i>		\$14.0	\$63.1	\$77.1	
<i>Mining</i>		\$41.6	\$11.3	\$52.9	
<i>Other</i>		\$16.6	\$34.2	\$50.8	
Total Operational Impact on Value Added	\$4,924.2	\$5,195.6	\$5,641.4	\$15,761.3	4.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Minnesota, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	36,341			36,341	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		11,708	26,360	38,068	
<i>Finance, insurance, real estate, rental and leasing</i>		7,267	8,750	16,017	
<i>Wholesale and retail trade</i>		2,335	8,703	11,039	
<i>Manufacturing</i>		4,875	3,209	8,084	
<i>Transportation and warehousing</i>		2,058	1,508	3,566	
<i>Construction</i>		2,482	650	3,132	
<i>Information</i>		1,247	1,527	2,774	
<i>Agriculture</i>		382	1,716	2,098	
<i>Utilities</i>		200	170	370	
<i>Mining</i>		210	55	266	
<i>Other</i>		164	225	389	
Total Operational Impact on Employment	36,341	32,929	52,875	122,146	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	\$1,415.6			\$1,415.6	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$710.0	\$1,062.0	\$1,772.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$530.2	\$491.8	\$1,022.0	
<i>Manufacturing</i>		\$357.3	\$223.2	\$580.6	
<i>Wholesale and retail trade</i>		\$155.3	\$342.5	\$497.8	
<i>Information</i>		\$93.6	\$105.9	\$199.4	
<i>Construction</i>		\$140.8	\$34.8	\$175.6	
<i>Transportation and warehousing</i>		\$98.3	\$70.6	\$168.9	
<i>Agriculture</i>		\$17.6	\$76.1	\$93.8	
<i>Utilities</i>		\$24.9	\$21.0	\$45.9	
<i>Mining</i>		\$19.2	\$5.1	\$24.3	
<i>Other</i>		\$9.4	\$12.9	\$22.2	
Total Operational Impact on Labor Income	\$1,415.6	\$2,156.6	\$2,445.9	\$6,018.2	3.4%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$6,328.7			\$6,328.7	2.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,303.1	\$1,346.4	\$2,649.4	
<i>Services</i>		\$831.0	\$1,230.4	\$2,061.4	
<i>Manufacturing</i>		\$547.4	\$354.8	\$902.2	
<i>Wholesale and retail trade</i>		\$266.4	\$571.0	\$837.4	
<i>Information</i>		\$279.4	\$334.3	\$613.7	
<i>Transportation and warehousing</i>		\$146.0	\$108.4	\$254.4	
<i>Construction</i>		\$152.3	\$41.1	\$193.4	
<i>Utilities</i>		\$102.0	\$85.3	\$187.2	
<i>Agriculture</i>		\$24.0	\$122.5	\$146.6	
<i>Mining</i>		\$76.3	\$20.4	\$96.7	
<i>Other</i>		\$14.6	\$20.1	\$34.7	
Total Operational Impact on Value Added	\$6,328.7	\$3,742.4	\$4,234.5	\$14,305.7	5.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Mississippi, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	37,681			37,681	2.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		9,156	15,298	24,454	
<i>Finance, insurance, real estate, rental and leasing</i>		5,880	4,076	9,956	
<i>Wholesale and retail trade</i>		2,264	5,806	8,070	
<i>Construction</i>		5,925	448	6,372	
<i>Manufacturing</i>		2,411	1,787	4,198	
<i>Transportation and warehousing</i>		2,044	892	2,937	
<i>Information</i>		908	751	1,659	
<i>Agriculture</i>		373	1,144	1,518	
<i>Utilities</i>		283	162	445	
<i>Mining</i>		47	11	58	
<i>Other</i>		<u>208</u>	<u>213</u>	420	
Total Operational Impact on Employment	37,681	29,499	30,589	97,768	6.6%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,110.7			\$2,110.7	3.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$377.1	\$538.7	\$915.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$266.3	\$129.5	\$395.8	
<i>Wholesale and retail trade</i>		\$98.0	\$184.6	\$282.6	
<i>Construction</i>		\$258.6	\$20.1	\$278.7	
<i>Manufacturing</i>		\$131.5	\$89.2	\$220.8	
<i>Transportation and warehousing</i>		\$88.3	\$37.4	\$125.7	
<i>Information</i>		\$51.7	\$40.4	\$92.1	
<i>Agriculture</i>		\$10.8	\$34.2	\$45.0	
<i>Utilities</i>		\$28.2	\$14.5	\$42.7	
<i>Mining</i>		\$2.3	\$0.5	\$2.8	
<i>Other</i>		<u>\$6.6</u>	<u>\$6.8</u>	\$13.4	
Total Operational Impact on Labor Income	\$2,110.7	\$1,319.3	\$1,096.1	\$4,526.1	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	\$5,123.2			\$5,123.2	5.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$453.4	\$638.2	\$1,091.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$513.4	\$505.5	\$1,018.9	
<i>Wholesale and retail trade</i>		\$163.2	\$289.2	\$452.4	
<i>Manufacturing</i>		\$212.6	\$138.2	\$350.8	
<i>Construction</i>		\$276.7	\$24.1	\$300.8	
<i>Information</i>		\$159.3	\$134.5	\$293.8	
<i>Transportation and warehousing</i>		\$121.5	\$51.3	\$172.7	
<i>Utilities</i>		\$114.1	\$56.8	\$170.9	
<i>Agriculture</i>		\$11.7	\$41.2	\$52.9	
<i>Mining</i>		\$4.1	\$0.9	\$5.0	
<i>Other</i>		<u>\$11.0</u>	<u>\$11.4</u>	\$22.4	
Total Operational Impact on Value Added	\$5,123.2	\$2,040.9	\$1,891.3	\$9,055.3	9.4%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Missouri, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	38,179			38,179	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		9,655	25,326	34,981	
<i>Finance, insurance, real estate, rental and leasing</i>		6,992	8,422	15,414	
<i>Wholesale and retail trade</i>		1,389	8,517	9,907	
<i>Manufacturing</i>		4,080	2,762	6,842	
<i>Transportation and warehousing</i>		1,969	1,619	3,588	
<i>Construction</i>		2,860	603	3,463	
<i>Information</i>		1,400	1,677	3,077	
<i>Agriculture</i>		417	2,038	2,455	
<i>Utilities</i>		134	157	291	
<i>Mining</i>		176	44	220	
<i>Other</i>		<u>122</u>	<u>291</u>	413	
Total Operational Impact on Employment	38,179	29,195	51,455	118,828	3.4%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,521.8			\$1,521.8	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$551.3	\$1,017.5	\$1,568.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$458.1	\$399.6	\$857.7	
<i>Manufacturing</i>		\$257.2	\$167.9	\$425.1	
<i>Wholesale and retail trade</i>		\$77.6	\$313.6	\$391.2	
<i>Information</i>		\$143.7	\$143.2	\$286.9	
<i>Construction</i>		\$152.8	\$31.6	\$184.4	
<i>Transportation and warehousing</i>		\$99.3	\$80.2	\$179.6	
<i>Agriculture</i>		\$7.1	\$31.5	\$38.6	
<i>Utilities</i>		\$15.9	\$18.1	\$34.0	
<i>Mining</i>		\$15.2	\$4.0	\$19.2	
<i>Other</i>		<u>\$6.1</u>	<u>\$13.9</u>	\$20.0	
Total Operational Impact on Labor Income	\$1,521.8	\$1,784.3	\$2,221.1	\$5,527.1	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	\$3,065.1			\$3,065.1	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$942.3	\$1,087.6	\$2,029.9	
<i>Services</i>		\$642.2	\$1,189.7	\$1,832.0	
<i>Manufacturing</i>		\$424.5	\$322.4	\$746.9	
<i>Information</i>		\$332.4	\$387.6	\$720.0	
<i>Wholesale and retail trade</i>		\$133.5	\$519.4	\$652.9	
<i>Transportation and warehousing</i>		\$140.7	\$113.3	\$254.0	
<i>Construction</i>		\$164.9	\$38.5	\$203.3	
<i>Utilities</i>		\$65.1	\$71.9	\$137.0	
<i>Agriculture</i>		\$12.2	\$62.3	\$74.5	
<i>Mining</i>		\$50.1	\$13.5	\$63.6	
<i>Other</i>		<u>\$9.6</u>	<u>\$22.1</u>	\$31.7	
Total Operational Impact on Value Added	\$3,065.1	\$2,917.6	\$3,828.3	\$9,810.9	3.8%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Montana, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	15,505			15,505	2.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,220	6,910	11,130	
<i>Finance, insurance, real estate, rental and leasing</i>		3,735	2,312	6,047	
<i>Wholesale and retail trade</i>		996	2,424	3,421	
<i>Construction</i>		2,524	189	2,713	
<i>Transportation and warehousing</i>		763	334	1,097	
<i>Information</i>		492	375	867	
<i>Manufacturing</i>		535	300	834	
<i>Agriculture</i>		193	605	798	
<i>Mining</i>		242	53	295	
<i>Utilities</i>		141	66	207	
<i>Other</i>		96	83	179	
Total Operational Impact on Employment	15,505	13,937	13,651	43,093	6.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$923.9			\$923.9	3.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$168.5	\$243.4	\$411.9	
<i>Finance, insurance, real estate, rental and leasing</i>		\$153.2	\$65.3	\$218.5	
<i>Construction</i>		\$111.3	\$8.5	\$119.8	
<i>Wholesale and retail trade</i>		\$42.2	\$76.0	\$118.2	
<i>Transportation and warehousing</i>		\$42.9	\$16.7	\$59.5	
<i>Information</i>		\$26.4	\$19.5	\$45.9	
<i>Manufacturing</i>		\$26.9	\$12.9	\$39.8	
<i>Mining</i>		\$20.3	\$4.5	\$24.8	
<i>Utilities</i>		\$17.2	\$7.4	\$24.6	
<i>Agriculture</i>		\$4.6	\$13.2	\$17.8	
<i>Other</i>		\$2.4	\$2.1	\$4.5	
Total Operational Impact on Labor Income	\$923.9	\$615.9	\$469.5	\$2,009.3	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	\$2,693.6			\$2,693.6	6.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$297.7	\$239.2	\$536.8	
<i>Services</i>		\$200.0	\$291.3	\$491.3	
<i>Wholesale and retail trade</i>		\$70.6	\$120.0	\$190.6	
<i>Information</i>		\$81.9	\$64.5	\$146.4	
<i>Construction</i>		\$117.7	\$10.2	\$127.9	
<i>Utilities</i>		\$69.1	\$29.3	\$98.4	
<i>Mining</i>		\$68.3	\$15.7	\$84.1	
<i>Transportation and warehousing</i>		\$57.0	\$22.4	\$79.3	
<i>Manufacturing</i>		\$41.9	\$19.8	\$61.7	
<i>Agriculture</i>		\$6.6	\$22.1	\$28.6	
<i>Other</i>		\$4.2	\$3.7	\$7.8	
Total Operational Impact on Value Added	\$2,693.6	\$1,015.0	\$838.1	\$4,546.7	10.8%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Nebraska, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	14,280			14,280	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		3,383	10,586	13,969	
<i>Finance, insurance, real estate, rental and leasing</i>		2,614	3,494	6,108	
<i>Wholesale and retail trade</i>		515	4,047	4,562	
<i>Manufacturing</i>		1,161	1,283	2,444	
<i>Transportation and warehousing</i>		869	787	1,656	
<i>Construction</i>		1,287	269	1,556	
<i>Agriculture</i>		202	1,012	1,214	
<i>Information</i>		538	629	1,167	
<i>Mining</i>		33	9	42	
<i>Utilities</i>		6	9	15	
<i>Other</i>		43	127	169	
Total Operational Impact on Employment	14,280	10,651	22,252	47,184	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	\$1,210.9			\$1,210.9	2.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$163.5	\$383.9	\$547.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$148.4	\$151.9	\$300.3	
<i>Wholesale and retail trade</i>		\$25.0	\$131.6	\$156.6	
<i>Manufacturing</i>		\$65.8	\$69.5	\$135.4	
<i>Construction</i>		\$72.1	\$14.9	\$87.0	
<i>Transportation and warehousing</i>		\$46.5	\$40.4	\$86.9	
<i>Information</i>		\$37.0	\$40.4	\$77.3	
<i>Agriculture</i>		\$13.4	\$57.7	\$71.1	
<i>Utilities</i>		\$1.4	\$1.8	\$3.2	
<i>Mining</i>		\$2.1	\$0.6	\$2.7	
<i>Other</i>		\$2.3	\$6.4	\$8.6	
Total Operational Impact on Labor Income	\$1,210.9	\$577.4	\$899.2	\$2,687.4	4.7%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,264.1			\$2,264.1	2.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$334.7	\$425.7	\$760.4	
<i>Services</i>		\$189.5	\$443.6	\$633.1	
<i>Wholesale and retail trade</i>		\$42.7	\$214.9	\$257.6	
<i>Information</i>		\$103.0	\$120.4	\$223.4	
<i>Manufacturing</i>		\$100.7	\$97.8	\$198.5	
<i>Agriculture</i>		\$21.5	\$108.4	\$129.9	
<i>Transportation and warehousing</i>		\$69.5	\$58.2	\$127.8	
<i>Construction</i>		\$77.2	\$18.1	\$95.3	
<i>Utilities</i>		\$5.2	\$6.6	\$11.9	
<i>Mining</i>		\$5.2	\$1.4	\$6.6	
<i>Other</i>		\$3.5	\$10.1	\$13.6	
Total Operational Impact on Value Added	\$2,264.1	\$952.8	\$1,505.4	\$4,722.2	5.4%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Nevada, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	14,534			14,534	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,414	11,300	15,714	
<i>Finance, insurance, real estate, rental and leasing</i>		3,412	4,370	7,782	
<i>Wholesale and retail trade</i>		540	3,475	4,015	
<i>Transportation and warehousing</i>		954	861	1,814	
<i>Construction</i>		1,431	189	1,620	
<i>Manufacturing</i>		743	469	1,213	
<i>Information</i>		422	496	918	
<i>Mining</i>		616	132	747	
<i>Agriculture</i>		18	90	108	
<i>Utilities</i>		50	49	98	
<i>Other</i>		16	41	57	
Total Operational Impact on Employment	14,534	12,614	21,471	48,620	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	\$705.8			\$705.8	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$253.9	\$513.1	\$767.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$184.9	\$141.8	\$326.7	
<i>Wholesale and retail trade</i>		\$29.2	\$138.2	\$167.5	
<i>Transportation and warehousing</i>		\$61.2	\$55.0	\$116.2	
<i>Construction</i>		\$95.7	\$12.2	\$107.8	
<i>Information</i>		\$38.2	\$39.1	\$77.3	
<i>Manufacturing</i>		\$45.9	\$28.8	\$74.8	
<i>Mining</i>		\$56.2	\$12.6	\$68.8	
<i>Utilities</i>		\$6.3	\$6.1	\$12.3	
<i>Agriculture</i>		\$1.1	\$3.9	\$4.9	
<i>Other</i>		\$1.0	\$2.4	\$3.3	
Total Operational Impact on Labor Income	\$705.8	\$773.6	\$953.3	\$2,432.7	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	\$1,538.3			\$1,538.3	1.3%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$324.2	\$666.8	\$991.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$390.5	\$430.5	\$821.0	
<i>Wholesale and retail trade</i>		\$49.8	\$230.5	\$280.4	
<i>Mining</i>		\$194.7	\$49.0	\$243.7	
<i>Information</i>		\$109.6	\$119.6	\$229.2	
<i>Transportation and warehousing</i>		\$73.5	\$66.6	\$140.1	
<i>Construction</i>		\$102.3	\$14.9	\$117.2	
<i>Manufacturing</i>		\$70.5	\$44.0	\$114.5	
<i>Utilities</i>		\$25.8	\$24.6	\$50.4	
<i>Agriculture</i>		\$1.6	\$7.3	\$8.9	
<i>Other</i>		\$1.5	\$3.7	\$5.2	
Total Operational Impact on Value Added	\$1,538.3	\$1,344.2	\$1,657.4	\$4,539.9	3.8%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in New Hampshire, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	8,711			8,711	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		1,573	5,479	7,052	
<i>Finance, insurance, real estate, rental and leasing</i>		1,316	1,880	3,196	
<i>Wholesale and retail trade</i>		226	2,046	2,272	
<i>Manufacturing</i>		1,142	587	1,729	
<i>Transportation and warehousing</i>		350	317	668	
<i>Construction</i>		323	160	483	
<i>Information</i>		184	258	442	
<i>Agriculture</i>		47	109	156	
<i>Utilities</i>		25	34	59	
<i>Mining</i>		18	4	22	
<i>Other</i>		20	57	77	
Total Operational Impact on Employment	8,711	5,224	10,931	24,866	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	\$392.1			\$392.1	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$86.3	\$236.4	\$322.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$93.6	\$104.3	\$197.9	
<i>Manufacturing</i>		\$74.2	\$40.0	\$114.2	
<i>Wholesale and retail trade</i>		\$15.1	\$83.1	\$98.3	
<i>Transportation and warehousing</i>		\$18.6	\$16.8	\$35.4	
<i>Information</i>		\$15.0	\$17.8	\$32.9	
<i>Construction</i>		\$16.7	\$8.2	\$24.9	
<i>Agriculture</i>		\$3.9	\$14.3	\$18.2	
<i>Utilities</i>		\$3.5	\$4.7	\$8.2	
<i>Mining</i>		\$2.8	\$0.7	\$3.5	
<i>Other</i>		\$1.2	\$3.3	\$4.5	
Total Operational Impact on Labor Income	\$392.1	\$330.9	\$529.7	\$1,252.7	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	\$849.7			\$849.7	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$171.0	\$276.6	\$447.6	
<i>Services</i>		\$99.4	\$272.6	\$372.0	
<i>Manufacturing</i>		\$112.5	\$64.7	\$177.2	
<i>Wholesale and retail trade</i>		\$26.7	\$140.7	\$167.4	
<i>Information</i>		\$39.0	\$52.0	\$91.0	
<i>Transportation and warehousing</i>		\$26.2	\$24.7	\$51.0	
<i>Utilities</i>		\$14.1	\$18.9	\$33.0	
<i>Construction</i>		\$18.4	\$10.1	\$28.5	
<i>Agriculture</i>		\$3.9	\$15.6	\$19.5	
<i>Mining</i>		\$5.1	\$1.4	\$6.5	
<i>Other</i>		\$1.9	\$5.1	\$7.0	
Total Operational Impact on Value Added	\$849.7	\$518.2	\$882.4	\$2,250.3	3.3%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in New Jersey, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	34,479			34,479	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		13,229	34,520	47,749	
<i>Finance, insurance, real estate, rental and leasing</i>		11,073	14,829	25,902	
<i>Wholesale and retail trade</i>		2,634	12,047	14,681	
<i>Manufacturing</i>		4,507	3,037	7,545	
<i>Transportation and warehousing</i>		2,811	2,488	5,299	
<i>Information</i>		1,568	2,074	3,643	
<i>Construction</i>		2,564	801	3,365	
<i>Agriculture</i>		73	309	382	
<i>Utilities</i>		136	146	282	
<i>Mining</i>		49	12	61	
<i>Other</i>		184	352	536	
Total Operational Impact on Employment	34,479	38,830	70,615	143,924	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	\$2,869.1			\$2,869.1	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$997.8	\$1,690.1	\$2,688.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,021.7	\$966.7	\$1,988.4	
<i>Wholesale and retail trade</i>		\$205.4	\$618.0	\$823.4	
<i>Manufacturing</i>		\$449.2	\$289.5	\$738.7	
<i>Information</i>		\$182.5	\$206.0	\$388.5	
<i>Transportation and warehousing</i>		\$151.5	\$130.1	\$281.5	
<i>Construction</i>		\$185.1	\$56.5	\$241.6	
<i>Utilities</i>		\$24.1	\$25.0	\$49.1	
<i>Agriculture</i>		\$2.0	\$8.1	\$10.2	
<i>Mining</i>		\$3.5	\$0.9	\$4.4	
<i>Other</i>		\$14.3	\$26.6	\$40.9	
Total Operational Impact on Labor Income	\$2,869.1	\$3,237.1	\$4,017.5	\$10,123.7	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	\$7,639.3			\$7,639.3	1.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,984.3	\$2,293.3	\$4,277.6	
<i>Services</i>		\$1,174.1	\$1,986.0	\$3,160.1	
<i>Manufacturing</i>		\$825.2	\$562.5	\$1,387.7	
<i>Wholesale and retail trade</i>		\$354.0	\$1,029.1	\$1,383.1	
<i>Information</i>		\$482.1	\$599.3	\$1,081.4	
<i>Transportation and warehousing</i>		\$210.5	\$183.9	\$394.4	
<i>Construction</i>		\$201.4	\$71.2	\$272.7	
<i>Utilities</i>		\$96.2	\$94.4	\$190.6	
<i>Agriculture</i>		\$3.2	\$13.1	\$16.3	
<i>Mining</i>		\$8.0	\$2.0	\$10.0	
<i>Other</i>		\$21.8	\$40.7	\$62.4	
Total Operational Impact on Value Added	\$7,639.3	\$5,360.9	\$6,875.4	\$19,875.5	4.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in New Mexico, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	39,208			39,208	3.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		10,320	17,297	27,617	
<i>Finance, insurance, real estate, rental and leasing</i>		10,252	5,222	15,474	
<i>Wholesale and retail trade</i>		1,882	6,280	8,163	
<i>Construction</i>		7,254	432	7,687	
<i>Transportation and warehousing</i>		1,406	735	2,141	
<i>Information</i>		1,130	853	1,983	
<i>Manufacturing</i>		984	665	1,649	
<i>Agriculture</i>		112	515	627	
<i>Utilities</i>		233	137	370	
<i>Mining</i>		272	57	329	
<i>Other</i>		125	207	332	
Total Operational Impact on Employment	39,208	33,970	32,400	105,579	9.9%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,322.3			\$2,322.3	4.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$491.3	\$638.2	\$1,129.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$592.3	\$206.2	\$798.5	
<i>Construction</i>		\$351.1	\$20.5	\$371.6	
<i>Wholesale and retail trade</i>		\$75.5	\$204.1	\$279.6	
<i>Transportation and warehousing</i>		\$84.2	\$39.8	\$123.9	
<i>Information</i>		\$58.9	\$43.5	\$102.4	
<i>Manufacturing</i>		\$59.3	\$35.8	\$95.1	
<i>Agriculture</i>		\$13.4	\$33.2	\$46.7	
<i>Utilities</i>		\$25.1	\$13.4	\$38.6	
<i>Mining</i>		\$23.2	\$4.9	\$28.1	
<i>Other</i>		\$5.3	\$8.7	\$14.0	
Total Operational Impact on Labor Income	\$2,322.3	\$1,779.7	\$1,248.2	\$5,350.1	10.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$6,554.3			\$6,554.3	8.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$872.6	\$666.2	\$1,538.8	
<i>Services</i>		\$583.0	\$765.7	\$1,348.8	
<i>Wholesale and retail trade</i>		\$125.8	\$327.2	\$453.0	
<i>Construction</i>		\$373.4	\$25.6	\$399.1	
<i>Information</i>		\$186.7	\$138.5	\$325.3	
<i>Manufacturing</i>		\$110.2	\$71.7	\$181.9	
<i>Transportation and warehousing</i>		\$109.8	\$51.1	\$160.9	
<i>Utilities</i>		\$101.9	\$52.4	\$154.3	
<i>Mining</i>		\$72.0	\$15.5	\$87.5	
<i>Agriculture</i>		\$9.8	\$37.5	\$47.3	
<i>Other</i>		\$8.5	\$14.0	\$22.6	
Total Operational Impact on Value Added	\$6,554.3	\$2,553.8	\$2,165.5	\$11,273.6	14.2%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in New York, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	63,184			63,184	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		20,967	73,862	94,829	
<i>Finance, insurance, real estate, rental and leasing</i>		20,344	29,230	49,574	
<i>Wholesale and retail trade</i>		3,041	20,824	23,866	
<i>Manufacturing</i>		6,994	4,967	11,962	
<i>Transportation and warehousing</i>		3,878	4,771	8,648	
<i>Information</i>		3,707	4,911	8,618	
<i>Construction</i>		4,896	1,731	6,627	
<i>Agriculture</i>		217	943	1,160	
<i>Utilities</i>		314	421	735	
<i>Mining</i>		174	48	222	
<i>Other</i>		<u>317</u>	<u>847</u>	<u>1,164</u>	
Total Operational Impact on Employment	63,184	64,848	142,555	270,587	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	\$4,000.5			\$4,000.5	0.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$3,097.7	\$3,439.0	\$6,536.7	
<i>Services</i>		\$1,633.3	\$3,611.5	\$5,244.8	
<i>Information</i>		\$705.6	\$720.6	\$1,426.1	
<i>Wholesale and retail trade</i>		\$215.3	\$972.4	\$1,187.6	
<i>Manufacturing</i>		\$507.3	\$360.0	\$867.3	
<i>Construction</i>		\$352.1	\$113.8	\$465.9	
<i>Transportation and warehousing</i>		\$208.6	\$241.2	\$449.7	
<i>Utilities</i>		\$44.4	\$60.0	\$104.5	
<i>Agriculture</i>		\$7.3	\$29.5	\$36.8	
<i>Mining</i>		\$8.6	\$2.3	\$10.9	
<i>Other</i>		<u>\$25.2</u>	<u>\$63.3</u>	<u>\$88.5</u>	
Total Operational Impact on Labor Income	\$4,000.5	\$6,805.3	\$9,613.7	\$20,419.4	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	\$8,271.1			\$8,271.1	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$5,783.7	\$6,634.5	\$12,418.2	
<i>Services</i>		\$1,904.3	\$4,268.4	\$6,172.7	
<i>Information</i>		\$1,334.9	\$1,600.7	\$2,935.7	
<i>Wholesale and retail trade</i>		\$372.3	\$1,614.4	\$1,986.8	
<i>Manufacturing</i>		\$828.8	\$786.7	\$1,615.6	
<i>Transportation and warehousing</i>		\$293.9	\$341.4	\$635.3	
<i>Construction</i>		\$380.7	\$140.9	\$521.6	
<i>Utilities</i>		\$183.0	\$243.4	\$426.4	
<i>Agriculture</i>		\$7.6	\$44.5	\$52.1	
<i>Mining</i>		\$20.6	\$5.7	\$26.3	
<i>Other</i>		<u>\$38.3</u>	<u>\$96.7</u>	<u>\$135.1</u>	
Total Operational Impact on Value Added	\$8,271.1	\$11,148.2	\$15,777.5	\$35,196.8	3.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in North Carolina, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	44,671			44,671	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		12,210	32,571	44,781	
<i>Finance, insurance, real estate, rental and leasing</i>		7,980	10,428	18,408	
<i>Wholesale and retail trade</i>		1,802	10,795	12,597	
<i>Manufacturing</i>		6,140	5,099	11,239	
<i>Construction</i>		3,376	848	4,224	
<i>Transportation and warehousing</i>		2,187	1,729	3,917	
<i>Information</i>		1,587	2,128	3,715	
<i>Agriculture</i>		306	1,274	1,580	
<i>Utilities</i>		135	154	289	
<i>Mining</i>		127	33	160	
<i>Other</i>		170	394	564	
Total Operational Impact on Employment	44,671	36,021	65,454	146,146	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	\$1,831.1			\$1,831.1	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$654.0	\$1,236.7	\$1,890.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$500.0	\$462.2	\$962.2	
<i>Manufacturing</i>		\$420.3	\$321.8	\$742.1	
<i>Wholesale and retail trade</i>		\$99.8	\$393.5	\$493.4	
<i>Information</i>		\$149.8	\$185.6	\$335.4	
<i>Construction</i>		\$154.0	\$37.7	\$191.7	
<i>Transportation and warehousing</i>		\$98.4	\$80.8	\$179.2	
<i>Agriculture</i>		\$14.1	\$57.4	\$71.5	
<i>Utilities</i>		\$16.1	\$17.9	\$34.0	
<i>Mining</i>		\$6.5	\$1.7	\$8.2	
<i>Other</i>		\$7.5	\$16.7	\$24.2	
Total Operational Impact on Labor Income	\$1,831.1	\$2,120.4	\$2,812.1	\$6,763.6	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	\$3,847.8			\$3,847.8	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$938.1	\$1,326.7	\$2,264.9	
<i>Services</i>		\$764.6	\$1,445.5	\$2,210.1	
<i>Manufacturing</i>		\$710.0	\$785.3	\$1,495.3	
<i>Information</i>		\$479.6	\$612.0	\$1,091.6	
<i>Wholesale and retail trade</i>		\$170.2	\$634.2	\$804.4	
<i>Transportation and warehousing</i>		\$140.9	\$117.5	\$258.4	
<i>Construction</i>		\$167.7	\$47.3	\$215.0	
<i>Utilities</i>		\$66.0	\$71.7	\$137.7	
<i>Agriculture</i>		\$14.3	\$76.2	\$90.5	
<i>Mining</i>		\$19.4	\$5.1	\$24.5	
<i>Other</i>		\$12.0	\$26.9	\$39.0	
Total Operational Impact on Value Added	\$3,847.8	\$3,483.0	\$5,148.5	\$12,479.2	3.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in North Dakota, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	27,937			27,937	5.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		6,130	9,995	16,126	
<i>Finance, insurance, real estate, rental and leasing</i>		4,398	2,487	6,885	
<i>Wholesale and retail trade</i>		1,000	4,012	5,012	
<i>Construction</i>		2,445	230	2,675	
<i>Transportation and warehousing</i>		994	410	1,404	
<i>Manufacturing</i>		968	358	1,326	
<i>Information</i>		807	496	1,304	
<i>Agriculture</i>		205	658	863	
<i>Mining</i>		172	26	199	
<i>Utilities</i>		102	86	188	
<i>Other</i>		24	64	88	
Total Operational Impact on Employment	27,937	17,246	18,822	64,006	12.0%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,155.3			\$2,155.3	7.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$282.8	\$367.5	\$650.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$223.5	\$81.9	\$305.3	
<i>Wholesale and retail trade</i>		\$48.8	\$128.3	\$177.2	
<i>Construction</i>		\$144.8	\$12.9	\$157.7	
<i>Transportation and warehousing</i>		\$78.4	\$32.5	\$110.9	
<i>Manufacturing</i>		\$72.5	\$26.7	\$99.2	
<i>Information</i>		\$47.8	\$27.3	\$75.0	
<i>Agriculture</i>		\$14.4	\$43.2	\$57.6	
<i>Utilities</i>		\$11.5	\$9.6	\$21.2	
<i>Mining</i>		\$16.1	\$2.4	\$18.5	
<i>Other</i>		\$0.9	\$2.2	\$3.1	
Total Operational Impact on Labor Income	\$2,155.3	\$941.5	\$734.6	\$3,831.4	13.1%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$3,944.4			\$3,944.4	7.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$329.4	\$426.9	\$756.4	
<i>Finance, insurance, real estate, rental and leasing</i>		\$377.5	\$320.3	\$697.7	
<i>Wholesale and retail trade</i>		\$82.6	\$207.3	\$289.9	
<i>Information</i>		\$135.5	\$87.0	\$222.5	
<i>Construction</i>		\$156.2	\$16.6	\$172.8	
<i>Manufacturing</i>		\$121.0	\$40.8	\$161.8	
<i>Transportation and warehousing</i>		\$105.1	\$42.7	\$147.9	
<i>Utilities</i>		\$46.9	\$38.9	\$85.7	
<i>Agriculture</i>		\$14.7	\$45.2	\$59.9	
<i>Mining</i>		\$26.7	\$4.3	\$31.0	
<i>Other</i>		\$1.4	\$3.7	\$5.1	
Total Operational Impact on Value Added	\$3,944.4	\$1,397.0	\$1,233.6	\$6,575.1	12.3%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Ohio, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	77,025			77,025	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		23,328	53,792	77,120	
<i>Finance, insurance, real estate, rental and leasing</i>		16,592	15,897	32,489	
<i>Manufacturing</i>		13,612	6,785	20,397	
<i>Wholesale and retail trade</i>		3,048	16,983	20,031	
<i>Construction</i>		10,152	1,227	11,379	
<i>Transportation and warehousing</i>		4,448	2,974	7,422	
<i>Information</i>		2,370	2,526	4,896	
<i>Agriculture</i>		401	1,682	2,083	
<i>Utilities</i>		354	273	627	
<i>Mining</i>		308	66	374	
<i>Other</i>		457	799	1,256	
Total Operational Impact on Employment	77,025	75,070	103,004	255,098	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	\$3,875.9			\$3,875.9	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,306.4	\$2,089.8	\$3,396.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,028.3	\$764.1	\$1,792.3	
<i>Manufacturing</i>		\$1,010.7	\$486.8	\$1,497.5	
<i>Wholesale and retail trade</i>		\$139.1	\$583.1	\$722.1	
<i>Construction</i>		\$516.5	\$61.9	\$578.3	
<i>Transportation and warehousing</i>		\$222.6	\$145.6	\$368.3	
<i>Information</i>		\$154.5	\$154.8	\$309.3	
<i>Utilities</i>		\$44.4	\$33.5	\$77.9	
<i>Agriculture</i>		\$8.8	\$35.7	\$44.5	
<i>Mining</i>		\$21.7	\$4.6	\$26.3	
<i>Other</i>		\$20.5	\$35.2	\$55.7	
Total Operational Impact on Labor Income	\$3,875.9	\$4,473.4	\$4,395.1	\$12,744.4	4.1%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$13,859.4			\$13,859.4	2.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$2,067.6	\$2,301.2	\$4,368.9	
<i>Services</i>		\$1,517.6	\$2,425.0	\$3,942.6	
<i>Manufacturing</i>		\$1,615.3	\$800.7	\$2,416.0	
<i>Wholesale and retail trade</i>		\$233.0	\$956.6	\$1,189.7	
<i>Information</i>		\$472.4	\$498.7	\$971.1	
<i>Construction</i>		\$559.6	\$78.4	\$638.0	
<i>Transportation and warehousing</i>		\$311.0	\$205.3	\$516.3	
<i>Utilities</i>		\$180.7	\$134.7	\$315.4	
<i>Agriculture</i>		\$15.0	\$70.4	\$85.5	
<i>Mining</i>		\$43.0	\$9.8	\$52.8	
<i>Other</i>		\$32.7	\$56.4	\$89.2	
Total Operational Impact on Value Added	\$13,859.4	\$7,047.9	\$7,537.3	\$28,444.7	5.7%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Oklahoma, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	149,258			149,258	6.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		30,824	57,507	88,331	
<i>Finance, insurance, real estate, rental and leasing</i>		28,729	16,723	45,452	
<i>Wholesale and retail trade</i>		6,566	23,382	29,948	
<i>Construction</i>		22,242	1,283	23,525	
<i>Manufacturing</i>		4,994	3,392	8,387	
<i>Information</i>		3,689	2,758	6,446	
<i>Transportation and warehousing</i>		3,894	2,187	6,081	
<i>Agriculture</i>		628	3,513	4,141	
<i>Utilities</i>		790	439	1,229	
<i>Mining</i>		125	28	154	
<i>Other</i>		347	1,008	1,355	
Total Operational Impact on Employment	149,258	102,830	112,221	364,308	16.8%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$13,870.3			\$13,870.3	13.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,606.4	\$2,203.8	\$3,810.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,361.9	\$578.8	\$1,940.8	
<i>Wholesale and retail trade</i>		\$304.9	\$839.8	\$1,144.8	
<i>Construction</i>		\$928.3	\$54.6	\$983.0	
<i>Manufacturing</i>		\$329.4	\$178.3	\$507.7	
<i>Information</i>		\$258.7	\$169.4	\$428.2	
<i>Transportation and warehousing</i>		\$215.1	\$114.1	\$329.1	
<i>Utilities</i>		\$90.3	\$48.6	\$138.9	
<i>Agriculture</i>		\$23.5	\$54.6	\$78.1	
<i>Mining</i>		\$6.1	\$1.4	\$7.4	
<i>Other</i>		\$15.4	\$44.0	\$59.4	
Total Operational Impact on Labor Income	\$13,870.3	\$5,140.1	\$4,287.4	\$23,297.9	22.9%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$23,158.0			\$23,158.0	13.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$2,949.3	\$2,254.8	\$5,204.2	
<i>Services</i>		\$1,868.0	\$2,577.3	\$4,445.3	
<i>Wholesale and retail trade</i>		\$507.8	\$1,348.1	\$1,855.9	
<i>Information</i>		\$711.4	\$529.6	\$1,241.0	
<i>Construction</i>		\$987.4	\$70.6	\$1,058.0	
<i>Manufacturing</i>		\$549.7	\$274.6	\$824.3	
<i>Utilities</i>		\$363.1	\$192.2	\$555.3	
<i>Transportation and warehousing</i>		\$280.0	\$147.5	\$427.5	
<i>Agriculture</i>		\$27.8	\$92.1	\$119.9	
<i>Mining</i>		\$14.1	\$3.3	\$17.5	
<i>Other</i>		\$24.6	\$70.4	\$95.1	
Total Operational Impact on Value Added	\$23,158.0	\$8,283.3	\$7,560.6	\$39,001.9	23.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Oregon, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	16,791			16,791	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,811	14,347	19,157	
<i>Finance, insurance, real estate, rental and leasing</i>		3,738	4,842	8,579	
<i>Wholesale and retail trade</i>		693	4,714	5,407	
<i>Manufacturing</i>		2,457	1,729	4,186	
<i>Transportation and warehousing</i>		961	895	1,855	
<i>Agriculture</i>		436	1,307	1,743	
<i>Information</i>		613	773	1,386	
<i>Construction</i>		688	262	950	
<i>Mining</i>		88	23	111	
<i>Utilities</i>		37	50	86	
<i>Other</i>		53	137	190	
Total Operational Impact on Employment	16,791	14,574	29,077	60,442	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	\$783.1			\$783.1	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$249.6	\$552.6	\$802.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$211.7	\$196.2	\$407.9	
<i>Manufacturing</i>		\$161.9	\$106.0	\$267.9	
<i>Wholesale and retail trade</i>		\$44.5	\$184.7	\$229.2	
<i>Information</i>		\$44.2	\$50.5	\$94.6	
<i>Transportation and warehousing</i>		\$48.2	\$45.7	\$93.9	
<i>Construction</i>		\$40.8	\$14.6	\$55.4	
<i>Agriculture</i>		\$14.7	\$29.9	\$44.7	
<i>Utilities</i>		\$5.1	\$6.8	\$11.9	
<i>Mining</i>		\$3.7	\$0.9	\$4.7	
<i>Other</i>		\$4.5	\$11.0	\$15.5	
Total Operational Impact on Labor Income	\$783.1	\$829.0	\$1,199.0	\$2,811.2	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	\$1,538.2			\$1,538.2	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$473.6	\$584.5	\$1,058.1	
<i>Services</i>		\$297.2	\$669.7	\$966.9	
<i>Manufacturing</i>		\$261.7	\$197.8	\$459.5	
<i>Wholesale and retail trade</i>		\$76.8	\$304.5	\$381.3	
<i>Information</i>		\$120.9	\$147.3	\$268.1	
<i>Transportation and warehousing</i>		\$72.1	\$70.2	\$142.3	
<i>Agriculture</i>		\$18.8	\$48.1	\$67.0	
<i>Construction</i>		\$45.0	\$18.8	\$63.8	
<i>Utilities</i>		\$20.8	\$27.1	\$47.9	
<i>Mining</i>		\$8.2	\$2.2	\$10.4	
<i>Other</i>		\$6.8	\$16.7	\$23.5	
Total Operational Impact on Value Added	\$1,538.2	\$1,401.9	\$2,086.9	\$5,027.0	3.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Pennsylvania, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	100,716			100,716	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		30,833	73,247	104,080	
<i>Finance, insurance, real estate, rental and leasing</i>		24,170	22,131	46,300	
<i>Wholesale and retail trade</i>		5,768	25,498	31,266	
<i>Manufacturing</i>		13,858	7,311	21,169	
<i>Construction</i>		11,158	1,805	12,963	
<i>Transportation and warehousing</i>		6,374	4,629	11,003	
<i>Information</i>		3,076	3,434	6,510	
<i>Agriculture</i>		455	1,798	2,253	
<i>Mining</i>		752	181	934	
<i>Utilities</i>		445	407	852	
<i>Other</i>		330	610	940	
Total Operational Impact on Employment	100,716	97,219	141,051	338,986	4.7%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$6,518.2			\$6,518.2	1.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$1,853.5	\$3,191.6	\$5,045.0	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,792.9	\$1,241.3	\$3,034.2	
<i>Manufacturing</i>		\$951.3	\$485.4	\$1,436.7	
<i>Wholesale and retail trade</i>		\$338.4	\$956.3	\$1,294.7	
<i>Construction</i>		\$667.2	\$106.9	\$774.0	
<i>Information</i>		\$333.0	\$294.3	\$627.2	
<i>Transportation and warehousing</i>		\$324.9	\$218.7	\$543.5	
<i>Utilities</i>		\$66.2	\$58.4	\$124.6	
<i>Mining</i>		\$49.0	\$11.8	\$60.8	
<i>Agriculture</i>		\$10.2	\$35.3	\$45.4	
<i>Other</i>		\$16.3	\$29.7	\$46.0	
Total Operational Impact on Labor Income	\$6,518.2	\$6,402.7	\$6,629.6	\$19,550.5	5.1%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$13,168.9			\$13,168.9	2.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$3,511.1	\$3,428.7	\$6,939.7	
<i>Services</i>		\$2,147.8	\$3,723.6	\$5,871.4	
<i>Manufacturing</i>		\$1,681.6	\$882.1	\$2,563.6	
<i>Wholesale and retail trade</i>		\$577.6	\$1,577.5	\$2,155.1	
<i>Information</i>		\$773.0	\$813.3	\$1,586.3	
<i>Construction</i>		\$719.9	\$132.9	\$852.7	
<i>Transportation and warehousing</i>		\$443.0	\$300.0	\$743.0	
<i>Utilities</i>		\$268.1	\$229.6	\$497.7	
<i>Mining</i>		\$105.7	\$26.3	\$132.0	
<i>Agriculture</i>		\$12.3	\$59.0	\$71.2	
<i>Other</i>		\$25.7	\$47.0	\$72.8	
Total Operational Impact on Value Added	\$13,168.9	\$10,265.6	\$11,219.9	\$34,654.3	5.8%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Rhode Island, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	4,120			4,120	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		1,094	4,302	5,396	
<i>Finance, insurance, real estate, rental and leasing</i>		851	1,324	2,175	
<i>Wholesale and retail trade</i>		121	1,056	1,177	
<i>Manufacturing</i>		612	416	1,028	
<i>Information</i>		202	282	484	
<i>Transportation and warehousing</i>		191	204	395	
<i>Construction</i>		135	81	217	
<i>Agriculture</i>		8	33	41	
<i>Utilities</i>		6	10	17	
<i>Mining</i>		7	2	9	
<i>Other</i>		5	15	21	
Total Operational Impact on Employment	4,120	3,232	7,726	15,077	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	\$288.1			\$288.1	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$90.9	\$222.4	\$313.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$66.4	\$72.5	\$138.9	
<i>Manufacturing</i>		\$38.6	\$24.7	\$63.3	
<i>Wholesale and retail trade</i>		\$7.5	\$40.8	\$48.3	
<i>Information</i>		\$19.9	\$24.3	\$44.3	
<i>Transportation and warehousing</i>		\$10.0	\$9.9	\$19.9	
<i>Construction</i>		\$8.2	\$4.6	\$12.8	
<i>Utilities</i>		\$0.9	\$1.4	\$2.3	
<i>Agriculture</i>		\$0.3	\$0.9	\$1.2	
<i>Mining</i>		\$0.4	\$0.1	\$0.5	
<i>Other</i>		\$0.4	\$1.1	\$1.5	
Total Operational Impact on Labor Income	\$288.1	\$243.6	\$402.7	\$934.4	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	\$612.0			\$612.0	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$107.8	\$262.8	\$370.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$118.8	\$184.5	\$303.3	
<i>Information</i>		\$55.8	\$72.3	\$128.1	
<i>Manufacturing</i>		\$61.2	\$38.9	\$100.1	
<i>Wholesale and retail trade</i>		\$13.0	\$66.0	\$79.0	
<i>Transportation and warehousing</i>		\$13.6	\$13.9	\$27.5	
<i>Construction</i>		\$9.1	\$6.0	\$15.2	
<i>Utilities</i>		\$3.7	\$5.6	\$9.3	
<i>Agriculture</i>		\$0.4	\$1.3	\$1.7	
<i>Mining</i>		\$0.7	\$0.2	\$0.9	
<i>Other</i>		\$0.6	\$1.7	\$2.3	
Total Operational Impact on Value Added	\$612.0	\$384.7	\$653.3	\$1,650.0	3.2%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in South Carolina, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	23,849			23,849	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		4,800	13,861	18,662	
<i>Finance, insurance, real estate, rental and leasing</i>		3,400	4,763	8,163	
<i>Manufacturing</i>		3,465	2,325	5,791	
<i>Wholesale and retail trade</i>		613	4,831	5,445	
<i>Transportation and warehousing</i>		1,154	812	1,967	
<i>Information</i>		553	741	1,293	
<i>Construction</i>		875	376	1,251	
<i>Agriculture</i>		189	546	735	
<i>Utilities</i>		114	150	264	
<i>Mining</i>		41	11	52	
<i>Other</i>		<u>87</u>	<u>188</u>	<u>275</u>	
Total Operational Impact on Employment	23,849	15,293	28,604	67,746	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	\$710.2			\$710.2	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$203.4	\$498.7	\$702.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$183.2	\$184.0	\$367.2	
<i>Manufacturing</i>		\$224.3	\$140.9	\$365.1	
<i>Wholesale and retail trade</i>		\$31.4	\$163.9	\$195.3	
<i>Information</i>		\$41.0	\$49.0	\$90.0	
<i>Transportation and warehousing</i>		\$49.7	\$35.8	\$85.6	
<i>Construction</i>		\$41.9	\$16.6	\$58.5	
<i>Utilities</i>		\$12.3	\$16.0	\$28.2	
<i>Agriculture</i>		\$5.5	\$12.2	\$17.7	
<i>Mining</i>		\$2.4	\$0.6	\$3.0	
<i>Other</i>		<u>\$3.6</u>	<u>\$7.6</u>	<u>\$11.2</u>	
Total Operational Impact on Labor Income	\$710.2	\$798.7	\$1,125.3	\$2,634.2	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	\$1,406.6			\$1,406.6	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$345.1	\$569.9	\$914.9	
<i>Services</i>		\$246.3	\$595.9	\$842.2	
<i>Manufacturing</i>		\$353.2	\$222.2	\$575.4	
<i>Wholesale and retail trade</i>		\$53.1	\$257.7	\$310.8	
<i>Information</i>		\$119.8	\$153.5	\$273.3	
<i>Transportation and warehousing</i>		\$67.2	\$48.4	\$115.7	
<i>Utilities</i>		\$50.7	\$64.9	\$115.6	
<i>Construction</i>		\$46.3	\$20.7	\$67.0	
<i>Agriculture</i>		\$6.5	\$18.9	\$25.4	
<i>Mining</i>		\$6.1	\$1.7	\$7.8	
<i>Other</i>		<u>\$5.9</u>	<u>\$12.3</u>	<u>\$18.1</u>	
Total Operational Impact on Value Added	\$1,406.6	\$1,300.2	\$1,966.0	\$4,672.8	2.8%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in South Dakota, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	9,148			9,148	1.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		1,446	3,932	5,377	
<i>Finance, insurance, real estate, rental and leasing</i>		1,150	1,238	2,388	
<i>Wholesale and retail trade</i>		275	1,405	1,680	
<i>Manufacturing</i>		554	436	990	
<i>Construction</i>		849	111	960	
<i>Agriculture</i>		128	604	733	
<i>Transportation and warehousing</i>		310	223	533	
<i>Information</i>		235	253	488	
<i>Utilities</i>		36	31	67	
<i>Mining</i>		41	10	51	
<i>Other</i>		18	38	56	
Total Operational Impact on Employment	9,148	5,041	8,281	22,471	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	\$304.8			\$304.8	1.2%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$60.7	\$140.0	\$200.7	
<i>Finance, insurance, real estate, rental and leasing</i>		\$48.0	\$41.2	\$89.2	
<i>Wholesale and retail trade</i>		\$13.0	\$45.8	\$58.8	
<i>Manufacturing</i>		\$31.2	\$22.2	\$53.4	
<i>Agriculture</i>		\$8.9	\$38.0	\$46.9	
<i>Construction</i>		\$37.2	\$4.8	\$42.1	
<i>Information</i>		\$13.8	\$13.9	\$27.7	
<i>Transportation and warehousing</i>		\$13.4	\$9.6	\$23.0	
<i>Utilities</i>		\$3.4	\$2.9	\$6.2	
<i>Mining</i>		\$2.2	\$0.6	\$2.8	
<i>Other</i>		\$0.5	\$1.0	\$1.4	
Total Operational Impact on Labor Income	\$304.8	\$232.2	\$319.9	\$857.0	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	\$546.4			\$546.4	1.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$109.0	\$132.1	\$241.0	
<i>Services</i>		\$71.1	\$163.3	\$234.4	
<i>Wholesale and retail trade</i>		\$22.2	\$75.3	\$97.4	
<i>Information</i>		\$42.4	\$46.3	\$88.8	
<i>Manufacturing</i>		\$45.9	\$30.0	\$75.9	
<i>Agriculture</i>		\$10.7	\$52.3	\$62.9	
<i>Construction</i>		\$40.0	\$6.0	\$46.0	
<i>Transportation and warehousing</i>		\$18.4	\$12.8	\$31.2	
<i>Utilities</i>		\$13.6	\$11.4	\$25.0	
<i>Mining</i>		\$6.0	\$1.5	\$7.5	
<i>Other</i>		\$0.8	\$1.7	\$2.5	
Total Operational Impact on Value Added	\$546.4	\$380.1	\$532.6	\$1,459.0	3.9%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Tennessee, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	34,461			34,461	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		8,970	23,579	32,549	
<i>Finance, insurance, real estate, rental and leasing</i>		6,231	7,291	13,521	
<i>Wholesale and retail trade</i>		1,513	8,126	9,639	
<i>Manufacturing</i>		5,107	3,488	8,595	
<i>Transportation and warehousing</i>		2,287	1,898	4,185	
<i>Construction</i>		3,013	564	3,576	
<i>Information</i>		1,101	1,370	2,471	
<i>Agriculture</i>		347	1,402	1,749	
<i>Mining</i>		190	42	231	
<i>Utilities</i>		46	47	93	
<i>Other</i>		<u>143</u>	<u>261</u>	404	
Total Operational Impact on Employment	34,461	28,947	48,068	111,475	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	\$1,263.4			\$1,263.4	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$443.8	\$1,035.8	\$1,479.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$399.9	\$358.6	\$758.5	
<i>Manufacturing</i>		\$323.9	\$221.0	\$544.9	
<i>Wholesale and retail trade</i>		\$85.2	\$316.8	\$402.0	
<i>Transportation and warehousing</i>		\$148.6	\$118.7	\$267.2	
<i>Construction</i>		\$144.4	\$27.5	\$171.9	
<i>Information</i>		\$70.1	\$82.3	\$152.4	
<i>Mining</i>		\$10.8	\$2.4	\$13.2	
<i>Agriculture</i>		\$2.7	\$6.6	\$9.3	
<i>Utilities</i>		\$4.1	\$4.0	\$8.1	
<i>Other</i>		<u>\$5.6</u>	<u>\$10.0</u>	\$15.6	
Total Operational Impact on Labor Income	\$1,263.4	\$1,638.9	\$2,183.8	\$5,086.1	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	\$2,600.2			\$2,600.2	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$839.5	\$1,010.4	\$1,849.9	
<i>Services</i>		\$521.8	\$1,207.4	\$1,729.2	
<i>Manufacturing</i>		\$519.5	\$407.4	\$926.9	
<i>Wholesale and retail trade</i>		\$145.2	\$510.3	\$655.5	
<i>Information</i>		\$205.5	\$253.5	\$459.1	
<i>Transportation and warehousing</i>		\$210.2	\$168.8	\$379.0	
<i>Construction</i>		\$157.4	\$33.9	\$191.3	
<i>Mining</i>		\$31.8	\$7.6	\$39.4	
<i>Utilities</i>		\$16.2	\$15.5	\$31.8	
<i>Agriculture</i>		\$6.4	\$24.7	\$31.1	
<i>Other</i>		<u>\$9.1</u>	<u>\$16.3</u>	\$25.4	
Total Operational Impact on Value Added	\$2,600.2	\$2,662.6	\$3,655.8	\$8,918.5	3.4%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Texas, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	618,974			618,974	4.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		171,299	348,509	519,808	
<i>Finance, insurance, real estate, rental and leasing</i>		165,857	124,645	290,502	
<i>Wholesale and retail trade</i>		46,235	156,665	202,900	
<i>Construction</i>		131,494	8,885	140,379	
<i>Manufacturing</i>		31,458	22,256	53,714	
<i>Transportation and warehousing</i>		30,032	18,322	48,354	
<i>Information</i>		16,626	16,307	32,933	
<i>Agriculture</i>		2,381	13,986	16,367	
<i>Utilities</i>		4,100	2,745	6,845	
<i>Mining</i>		811	166	977	
<i>Other</i>		2,411	4,535	6,945	
Total Operational Impact on Employment	618,974	602,704	717,021	1,938,700	13.6%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$75,459.0			\$75,459.0	9.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$8,605.6	\$14,311.9	\$22,917.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$11,495.1	\$6,045.7	\$17,540.8	
<i>Wholesale and retail trade</i>		\$2,869.8	\$6,464.5	\$9,334.3	
<i>Construction</i>		\$7,386.6	\$517.6	\$7,904.2	
<i>Manufacturing</i>		\$2,670.2	\$1,497.9	\$4,168.1	
<i>Information</i>		\$1,385.9	\$1,244.3	\$2,630.2	
<i>Transportation and warehousing</i>		\$1,520.8	\$872.5	\$2,393.3	
<i>Utilities</i>		\$633.3	\$389.7	\$1,022.9	
<i>Agriculture</i>		\$75.7	\$258.5	\$334.2	
<i>Mining</i>		\$51.0	\$10.3	\$61.3	
<i>Other</i>		\$111.2	\$208.3	\$319.5	
Total Operational Impact on Labor Income	\$75,459.0	\$36,805.0	\$31,821.2	\$144,085.3	18.7%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$192,087.3			\$192,087.3	14.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$23,600.9	\$18,188.0	\$41,788.9	
<i>Services</i>		\$9,995.5	\$16,650.2	\$26,645.7	
<i>Wholesale and retail trade</i>		\$4,833.1	\$10,363.4	\$15,196.5	
<i>Construction</i>		\$7,871.2	\$632.7	\$8,503.9	
<i>Information</i>		\$4,001.2	\$3,928.1	\$7,929.4	
<i>Manufacturing</i>		\$4,950.9	\$2,818.7	\$7,769.6	
<i>Utilities</i>		\$2,495.9	\$1,477.1	\$3,973.0	
<i>Transportation and warehousing</i>		\$2,127.9	\$1,229.6	\$3,357.5	
<i>Agriculture</i>		\$73.9	\$381.8	\$455.8	
<i>Mining</i>		\$107.4	\$22.1	\$129.5	
<i>Other</i>		\$177.1	\$331.8	\$508.9	
Total Operational Impact on Value Added	\$192,087.3	\$60,235.2	\$56,023.5	\$308,346.0	23.2%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Utah, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	23,560			23,560	1.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		7,981	14,646	22,627	
<i>Finance, insurance, real estate, rental and leasing</i>		6,810	6,661	13,470	
<i>Wholesale and retail trade</i>		1,754	5,604	7,358	
<i>Manufacturing</i>		2,368	1,501	3,868	
<i>Construction</i>		2,865	364	3,229	
<i>Transportation and warehousing</i>		1,374	823	2,197	
<i>Information</i>		980	1,029	2,009	
<i>Agriculture</i>		83	428	510	
<i>Mining</i>		324	67	391	
<i>Utilities</i>		100	72	172	
<i>Other</i>		<u>87</u>	<u>125</u>	213	
Total Operational Impact on Employment	23,560	24,725	31,320	79,605	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	\$1,501.0			\$1,501.0	1.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$373.4	\$554.2	\$927.6	
<i>Finance, insurance, real estate, rental and leasing</i>		\$336.6	\$220.2	\$556.8	
<i>Wholesale and retail trade</i>		\$92.1	\$211.5	\$303.6	
<i>Manufacturing</i>		\$153.7	\$87.3	\$241.0	
<i>Transportation and warehousing</i>		\$128.9	\$80.0	\$208.9	
<i>Construction</i>		\$153.8	\$19.5	\$173.3	
<i>Information</i>		\$56.6	\$54.6	\$111.2	
<i>Mining</i>		\$26.1	\$5.1	\$31.2	
<i>Utilities</i>		\$12.6	\$8.5	\$21.1	
<i>Agriculture</i>		\$1.3	\$5.4	\$6.7	
<i>Other</i>		<u>\$3.8</u>	<u>\$5.5</u>	\$9.3	
Total Operational Impact on Labor Income	\$1,501.0	\$1,338.8	\$1,251.7	\$4,091.5	5.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$4,126.0			\$4,126.0	3.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$629.9	\$626.1	\$1,256.1	
<i>Services</i>		\$437.1	\$647.1	\$1,084.2	
<i>Wholesale and retail trade</i>		\$156.9	\$356.8	\$513.7	
<i>Manufacturing</i>		\$270.7	\$148.0	\$418.7	
<i>Information</i>		\$157.9	\$160.1	\$317.9	
<i>Transportation and warehousing</i>		\$160.7	\$101.1	\$261.8	
<i>Construction</i>		\$166.2	\$24.5	\$190.7	
<i>Mining</i>		\$70.5	\$15.3	\$85.8	
<i>Utilities</i>		\$51.1	\$34.0	\$85.1	
<i>Agriculture</i>		\$3.7	\$18.1	\$21.8	
<i>Other</i>		<u>\$6.1</u>	<u>\$8.8</u>	\$14.9	
Total Operational Impact on Value Added	\$4,126.0	\$2,110.8	\$2,139.9	\$8,376.7	6.9%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Vermont, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	6,124			6,124	1.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		890	2,995	3,885	
<i>Finance, insurance, real estate, rental and leasing</i>		781	793	1,574	
<i>Wholesale and retail trade</i>		107	881	988	
<i>Manufacturing</i>		416	317	733	
<i>Transportation and warehousing</i>		222	162	385	
<i>Construction</i>		242	71	314	
<i>Information</i>		120	145	265	
<i>Agriculture</i>		27	148	175	
<i>Utilities</i>		21	24	45	
<i>Mining</i>		21	6	27	
<i>Other</i>		<u>11</u>	<u>27</u>	38	
Total Operational Impact on Employment	6,124	2,860	5,570	14,554	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	\$206.4			\$206.4	1.1%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$33.7	\$107.4	\$141.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$39.3	\$32.5	\$71.8	
<i>Manufacturing</i>		\$24.7	\$17.3	\$41.9	
<i>Wholesale and retail trade</i>		\$5.2	\$30.0	\$35.2	
<i>Transportation and warehousing</i>		\$9.5	\$7.1	\$16.6	
<i>Information</i>		\$7.4	\$8.3	\$15.8	
<i>Agriculture</i>		\$6.3	\$7.0	\$13.3	
<i>Construction</i>		\$10.1	\$3.0	\$13.2	
<i>Utilities</i>		\$2.7	\$3.1	\$5.8	
<i>Mining</i>		\$2.6	\$0.7	\$3.2	
<i>Other</i>		<u>\$0.8</u>	<u>\$2.0</u>	<u>\$2.8</u>	
Total Operational Impact on Labor Income	\$206.4	\$142.3	\$218.3	\$567.0	3.1%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$426.5			\$426.5	1.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$74.7	\$103.4	\$178.1	
<i>Services</i>		\$40.2	\$126.2	\$166.5	
<i>Manufacturing</i>		\$40.8	\$33.0	\$73.8	
<i>Wholesale and retail trade</i>		\$9.2	\$50.7	\$59.9	
<i>Information</i>		\$22.5	\$26.7	\$49.2	
<i>Utilities</i>		\$11.1	\$12.8	\$23.9	
<i>Transportation and warehousing</i>		\$13.0	\$9.6	\$22.6	
<i>Construction</i>		\$11.2	\$4.0	\$15.2	
<i>Agriculture</i>		\$6.0	\$8.9	\$14.9	
<i>Mining</i>		\$5.8	\$1.6	\$7.4	
<i>Other</i>		<u>\$1.2</u>	<u>\$3.0</u>	<u>\$4.2</u>	
Total Operational Impact on Value Added	\$426.5	\$235.6	\$380.0	\$1,042.2	3.6%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Virginia, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	46,979			46,979	1.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		11,323	28,968	40,290	
<i>Finance, insurance, real estate, rental and leasing</i>		11,134	11,832	22,966	
<i>Wholesale and retail trade</i>		1,397	9,389	10,786	
<i>Manufacturing</i>		3,368	2,502	5,870	
<i>Construction</i>		4,178	922	5,100	
<i>Transportation and warehousing</i>		2,122	1,651	3,773	
<i>Information</i>		1,431	1,751	3,182	
<i>Agriculture</i>		264	1,042	1,307	
<i>Mining</i>		337	79	415	
<i>Utilities</i>		139	142	282	
<i>Other</i>		203	448	651	
Total Operational Impact on Employment	46,979	35,895	58,725	141,599	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	\$1,660.5			\$1,660.5	0.6%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$795.3	\$1,303.8	\$2,099.1	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,019.4	\$780.4	\$1,799.8	
<i>Wholesale and retail trade</i>		\$80.3	\$346.0	\$426.3	
<i>Manufacturing</i>		\$218.7	\$151.8	\$370.4	
<i>Information</i>		\$130.0	\$147.1	\$277.1	
<i>Construction</i>		\$227.3	\$47.4	\$274.7	
<i>Transportation and warehousing</i>		\$100.4	\$78.8	\$179.2	
<i>Mining</i>		\$32.0	\$7.8	\$39.8	
<i>Utilities</i>		\$19.2	\$19.3	\$38.5	
<i>Agriculture</i>		\$4.1	\$10.2	\$14.3	
<i>Other</i>		\$11.4	\$24.1	\$35.5	
Total Operational Impact on Labor Income	\$1,660.5	\$2,638.0	\$2,916.7	\$7,215.2	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	\$3,450.5			\$3,450.5	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,739.7	\$1,734.8	\$3,474.4	
<i>Services</i>		\$932.3	\$1,525.4	\$2,457.7	
<i>Information</i>		\$365.6	\$442.4	\$807.9	
<i>Wholesale and retail trade</i>		\$137.3	\$560.8	\$698.0	
<i>Manufacturing</i>		\$320.2	\$359.2	\$679.4	
<i>Construction</i>		\$244.7	\$57.3	\$302.0	
<i>Transportation and warehousing</i>		\$145.2	\$116.0	\$261.2	
<i>Utilities</i>		\$78.8	\$78.4	\$157.2	
<i>Mining</i>		\$66.9	\$16.9	\$83.8	
<i>Agriculture</i>		\$6.7	\$26.1	\$32.8	
<i>Other</i>		\$17.8	\$37.9	\$55.7	
Total Operational Impact on Value Added	\$3,450.5	\$4,055.1	\$4,955.0	\$12,460.6	2.9%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Washington, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	26,666			26,666	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		9,155	24,795	33,949	
<i>Finance, insurance, real estate, rental and leasing</i>		6,706	8,862	15,568	
<i>Wholesale and retail trade</i>		2,219	8,731	10,950	
<i>Manufacturing</i>		2,980	2,273	5,253	
<i>Transportation and warehousing</i>		2,213	1,832	4,045	
<i>Information</i>		1,146	1,497	2,643	
<i>Agriculture</i>		489	1,756	2,245	
<i>Construction</i>		1,537	530	2,067	
<i>Mining</i>		144	31	175	
<i>Utilities</i>		68	60	128	
<i>Other</i>		<u>278</u>	<u>370</u>	<u>648</u>	
Total Operational Impact on Employment	26,666	26,935	50,736	104,338	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	\$1,568.5			\$1,568.5	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$541.7	\$1,088.5	\$1,630.2	
<i>Finance, insurance, real estate, rental and leasing</i>		\$480.9	\$442.0	\$922.9	
<i>Wholesale and retail trade</i>		\$146.5	\$391.2	\$537.7	
<i>Transportation and warehousing</i>		\$170.6	\$165.6	\$336.2	
<i>Manufacturing</i>		\$195.0	\$137.2	\$332.2	
<i>Information</i>		\$132.6	\$148.1	\$280.7	
<i>Construction</i>		\$104.5	\$34.1	\$138.6	
<i>Agriculture</i>		\$22.2	\$70.3	\$92.5	
<i>Utilities</i>		\$7.9	\$6.7	\$14.6	
<i>Mining</i>		\$8.0	\$1.7	\$9.7	
<i>Other</i>		<u>\$19.0</u>	<u>\$25.4</u>	<u>\$44.4</u>	
Total Operational Impact on Labor Income	\$1,568.5	\$1,829.0	\$2,510.8	\$5,908.4	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	\$6,819.6			\$6,819.6	1.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$794.4	\$1,234.5	\$2,028.9	
<i>Services</i>		\$643.5	\$1,294.3	\$1,937.8	
<i>Wholesale and retail trade</i>		\$254.4	\$678.3	\$932.7	
<i>Information</i>		\$337.6	\$418.9	\$756.4	
<i>Transportation and warehousing</i>		\$288.2	\$305.6	\$593.8	
<i>Manufacturing</i>		\$294.6	\$218.6	\$513.2	
<i>Construction</i>		\$113.9	\$43.9	\$157.8	
<i>Agriculture</i>		\$25.7	\$87.1	\$112.7	
<i>Utilities</i>		\$32.1	\$25.8	\$57.9	
<i>Mining</i>		\$20.9	\$4.6	\$25.5	
<i>Other</i>		<u>\$29.3</u>	<u>\$39.1</u>	<u>\$68.3</u>	
Total Operational Impact on Value Added	\$6,819.6	\$2,834.5	\$4,350.7	\$14,004.8	4.0%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in West Virginia, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	35,925			35,925	4.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		5,809	11,840	17,649	
<i>Finance, insurance, real estate, rental and leasing</i>		4,663	2,493	7,156	
<i>Wholesale and retail trade</i>		1,364	4,478	5,842	
<i>Construction</i>		5,455	298	5,753	
<i>Manufacturing</i>		1,850	753	2,603	
<i>Transportation and warehousing</i>		971	482	1,453	
<i>Mining</i>		1,058	249	1,307	
<i>Information</i>		697	516	1,213	
<i>Agriculture</i>		216	680	896	
<i>Utilities</i>		181	112	293	
<i>Other</i>		110	190	309	
Total Operational Impact on Employment	35,925	22,374	22,102	80,401	8.9%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$1,609.6			\$1,609.6	3.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$278.8	\$431.5	\$710.3	
<i>Finance, insurance, real estate, rental and leasing</i>		\$249.6	\$92.0	\$341.6	
<i>Construction</i>		\$287.6	\$15.2	\$302.8	
<i>Wholesale and retail trade</i>		\$53.8	\$135.9	\$189.7	
<i>Manufacturing</i>		\$123.0	\$43.1	\$166.2	
<i>Mining</i>		\$96.9	\$23.3	\$120.2	
<i>Information</i>		\$46.9	\$30.5	\$77.4	
<i>Transportation and warehousing</i>		\$46.7	\$22.5	\$69.2	
<i>Utilities</i>		\$21.0	\$12.4	\$33.3	
<i>Agriculture</i>		\$2.6	\$5.0	\$7.6	
<i>Other</i>		\$3.8	\$6.9	\$10.7	
Total Operational Impact on Labor Income	\$1,609.6	\$1,210.6	\$818.4	\$3,638.6	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	\$2,331.5			\$2,331.5	3.5%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$559.2	\$384.3	\$943.4	
<i>Services</i>		\$322.4	\$504.2	\$826.6	
<i>Construction</i>		\$304.4	\$18.2	\$322.6	
<i>Manufacturing</i>		\$222.2	\$84.4	\$306.6	
<i>Wholesale and retail trade</i>		\$89.0	\$214.3	\$303.3	
<i>Mining</i>		\$196.1	\$48.4	\$244.4	
<i>Information</i>		\$122.4	\$93.8	\$216.1	
<i>Utilities</i>		\$85.4	\$48.7	\$134.1	
<i>Transportation and warehousing</i>		\$64.6	\$31.5	\$96.0	
<i>Agriculture</i>		\$3.9	\$9.8	\$13.7	
<i>Other</i>		\$6.3	\$11.4	\$17.7	
Total Operational Impact on Value Added	\$2,331.5	\$1,975.8	\$1,448.7	\$5,756.1	8.7%

Source: PwC calculations using the IMPLAN modeling system (2011 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 Impact of the Oil and Natural Gas Industry in Wisconsin, 2011

Employment*					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	32,116			32,116	0.9%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		7,668	21,706	29,374	
<i>Manufacturing</i>		7,566	4,446	12,012	
<i>Finance, insurance, real estate, rental and leasing</i>		4,886	6,755	11,642	
<i>Wholesale and retail trade</i>		1,082	7,208	8,291	
<i>Transportation and warehousing</i>		1,706	1,524	3,230	
<i>Information</i>		960	1,300	2,259	
<i>Agriculture</i>		354	1,634	1,988	
<i>Construction</i>		1,198	441	1,638	
<i>Utilities</i>		110	139	250	
<i>Mining</i>		88	24	112	
<i>Other</i>		<u>109</u>	<u>255</u>	364	
Total Operational Impact on Employment	32,116	25,727	45,432	103,275	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	\$1,151.8			\$1,151.8	0.7%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$393.9	\$830.0	\$1,223.9	
<i>Manufacturing</i>		\$501.4	\$286.1	\$787.5	
<i>Finance, insurance, real estate, rental and leasing</i>		\$284.0	\$302.8	\$586.9	
<i>Wholesale and retail trade</i>		\$60.2	\$249.5	\$309.6	
<i>Transportation and warehousing</i>		\$82.6	\$73.0	\$155.7	
<i>Information</i>		\$62.9	\$79.7	\$142.6	
<i>Construction</i>		\$69.1	\$23.8	\$92.9	
<i>Agriculture</i>		\$8.6	\$38.1	\$46.7	
<i>Utilities</i>		\$14.1	\$17.8	\$31.9	
<i>Mining</i>		\$5.7	\$1.5	\$7.3	
<i>Other</i>		<u>\$6.3</u>	<u>\$14.1</u>	\$20.4	
Total Operational Impact on Labor Income	\$1,151.8	\$1,488.8	\$1,916.5	\$4,557.1	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	\$2,132.3			\$2,132.3	0.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$668.8	\$867.0	\$1,535.8	
<i>Services</i>		\$461.0	\$961.4	\$1,422.4	
<i>Manufacturing</i>		\$769.9	\$466.7	\$1,236.6	
<i>Wholesale and retail trade</i>		\$103.8	\$423.8	\$527.6	
<i>Information</i>		\$193.6	\$255.5	\$449.1	
<i>Transportation and warehousing</i>		\$117.8	\$104.3	\$222.1	
<i>Utilities</i>		\$58.1	\$72.3	\$130.4	
<i>Construction</i>		\$76.2	\$29.5	\$105.6	
<i>Agriculture</i>		\$12.5	\$79.4	\$91.9	
<i>Mining</i>		\$12.4	\$3.3	\$15.7	
<i>Other</i>		<u>\$0.8</u>	<u>\$22.1</u>	\$22.9	
Total Operational Impact on Value Added	\$2,132.3	\$2,483.9	\$3,285.3	\$7,901.5	3.1%

Source: PwC calculations using the IMPLAN modeling system (2011 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.

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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	32,933			32,933	8.4%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		7,497	9,870	17,366	
<i>Finance, insurance, real estate, rental and leasing</i>		6,931	3,327	10,258	
<i>Construction</i>		6,563	281	6,844	
<i>Wholesale and retail trade</i>		1,803	4,425	6,228	
<i>Transportation and warehousing</i>		1,484	525	2,009	
<i>Information</i>		840	472	1,313	
<i>Manufacturing</i>		928	295	1,223	
<i>Mining</i>		469	105	574	
<i>Agriculture</i>		184	318	503	
<i>Utilities</i>		259	103	362	
<i>Other</i>		206	221	427	
Total Operational Impact on Employment	32,933	27,164	19,943	80,040	20.4%
Labor Income** (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$2,657.4			\$2,657.4	11.0%
Indirect and Induced Operational Impacts on Other Industries					
<i>Services</i>		\$384.7	\$445.1	\$829.8	
<i>Finance, insurance, real estate, rental and leasing</i>		\$475.3	\$98.4	\$573.7	
<i>Construction</i>		\$383.1	\$16.1	\$399.2	
<i>Wholesale and retail trade</i>		\$83.3	\$150.8	\$234.1	
<i>Transportation and warehousing</i>		\$100.1	\$33.0	\$133.2	
<i>Manufacturing</i>		\$77.0	\$31.2	\$108.2	
<i>Information</i>		\$45.0	\$24.4	\$69.5	
<i>Mining</i>		\$46.1	\$10.6	\$56.7	
<i>Utilities</i>		\$31.0	\$11.9	\$42.8	
<i>Agriculture</i>		\$4.4	\$5.4	\$9.9	
<i>Other</i>		\$9.8	\$10.5	\$20.3	
Total Operational Impact on Labor Income	\$2,657.4	\$1,639.9	\$837.4	\$5,134.7	21.3%
Value Added (\$ Millions)					
Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Direct Operational Impact of the Oil and Natural Gas Industry	\$9,028.7			\$9,028.7	22.8%
Indirect and Induced Operational Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$860.7	\$414.6	\$1,275.4	
<i>Services</i>		\$457.9	\$535.2	\$993.1	
<i>Construction</i>		\$404.1	\$19.3	\$423.4	
<i>Wholesale and retail trade</i>		\$138.6	\$241.1	\$379.7	
<i>Information</i>		\$141.5	\$81.3	\$222.8	
<i>Utilities</i>		\$126.0	\$47.8	\$173.8	
<i>Manufacturing</i>		\$122.7	\$50.8	\$173.5	
<i>Transportation and warehousing</i>		\$127.4	\$42.2	\$169.6	
<i>Mining</i>		\$97.5	\$22.7	\$120.1	
<i>Agriculture</i>		\$9.4	\$17.0	\$26.4	
<i>Other</i>		\$15.5	\$16.7	\$32.2	
Total Operational Impact on Value Added	\$9,028.7	\$2,501.2	\$1,488.8	\$13,018.7	32.9%

Source: PwC calculations using the IMPLAN modeling system (2011 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.

Appendix B: 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 US oil and natural gas industry's direct employment, labor income, and value added impacts and its dividend and capital investment impacts. It then describes the development of the indirect and induced impact estimates.

Estimating the Direct Jobs, Labor Income and Value Added

This study uses data on employment, employee compensation, proprietors' income, and GDP by industry from the Bureau of Economic Analysis' *Regional Economic Accounts* and data on employment and wages and salaries from the Bureau of Labor Statistics *Quarterly Census of Employment and Wages* to develop our estimates of the direct economic impact of the oil and natural gas industry.

PwC's employment estimates include both full-time and part-time workers as well as self-employed business owners. The *State Annual Personal Income and Employment* data set published by the US Bureau of Economic Analysis ("BEA") is the only source on total employment including self-employed individuals by industry. In cases where there is a one-to-one correspondence between the subsectors of the oil and natural gas industry as defined by PwC and the BEA sectors, we use the BEA data without any further adjustment. This is the case for three NAICS codes: NAICS 211 (Oil and gas extraction), NAICS 447 (Gasoline stations), and NAICS 486 (Pipeline transportation).

For the remaining subsectors for the oil and natural gas industry, which are more disaggregated compared to the BEA data, PwC obtained each subsector's paid employment from the US Bureau of Labor Statistics ("BLS"). PwC then estimated total self employment for the more aggregated industry using the BEA data and allocated across the subsectors according to each industry's share of paid employment. For example, self employment was estimated for NAICS sector 213 (Support Activities for Mining) and was then allocated across five sub-industries including 213111 (Drilling Oil and Gas Wells) and 213112 (Support Activities for Oil and Gas Operations). In a limited number of cases, data from the Census Bureau's *Nonemployer Statistics* was used to allocate self employment across subsectors.¹¹ Direct employment was separately estimated for the US as a whole and for each of the 50 states and the District of Columbia. The state-level estimates were then scaled to match the national level estimates.

A similar methodology was used to estimate labor income for industries where there wasn't a one-to-one correspondence between the subsectors of the oil and natural gas industry as defined by PwC and the BEA sectors. Labor income was estimated as the

¹¹ A nonemployer is a business without paid employees. Most nonemployers are self-employed individuals operating small unincorporated businesses, which may or may not be the owner's principal source of income.

sum of employee compensation (i.e., wages and salaries and fringe benefits) and proprietors' income.

GDP by subsector was estimated by allocating GDP for the aggregated industry to each subsector based on each subsector's share of direct labor income and data from the IMPLAN model.

Estimating Capital Investment Impact

To quantify the industry's capital investment impact, PwC estimated their capital expenditures for 2011 based on data from the Census Bureau and the Bureau of Economic Analysis. For the impact analysis, capital spending was then translated into purchases of capital assets by type through the use of the so-called "capital flow matrix" from the US Department of Commerce.

Estimating Dividend Impact

PwC obtained data on common stock dividend payments by companies in the US oil and natural gas industry. Dividend payments were allocated between households, foreign shareholders, retirement plans, governments, and other businesses using data from the Federal Reserve Board's *Flow of Funds Accounts*. Dividends paid to households by the oil and natural gas industry were allocated by income group and across the 50 states and the District of Columbia using tax return data published by the IRS's Statistics of Income Division.

Dividends paid to pension plans and other retirement accounts were allocated across income group based on data on retirement assets by income quintile obtained from the 2007 *Survey of Consumer Finances*, conducted by the Federal Reserve. The data were then allocated across the 50 states and the District of Columbia using data on the distribution of assets in 401(k) and thrift savings accounts from the *Survey of Income and Program Participation* conducted by the US Census Bureau. These data were combined with the data on dividends paid directly to households by the oil and natural gas industry to derive our estimates of total dividends paid by the industry to residents in each state.

To quantify the economic impact resulting from the dividend payments of the US oil and natural gas industry, PwC first converted dividend payments into additional household consumption expenditures. For dividends paid directly to households, after-tax dividend income was estimated by income class based on average tax rates on dividend income. The additional consumption from dividends received from the oil and natural gas industry was estimated using published estimates of the marginal propensity to consume by income quintile.¹² Similarly, the additional consumption resulting from

¹² The marginal propensity to consume ("MPC") is a measure of the additional consumption resulting from the last dollar of income earned. The MPCs used for this study were estimated as one minus the marginal propensity to save reported in Table 9 of Karen E. Dynan, Jonathan Skinner, and Stephen P. Zeldes, "Do the Rich Save More?" *Journal of Political Economy*, 2004, Vol. 112, No. 2, pgs. 397-443. The estimated MPCs ranged from a high of 0.93 in the lower income levels to 0.75 in the top income quintile.

dividend payments by the oil and natural gas industry to retirement accounts was estimated based on published estimates of the marginal propensity to consume out of wealth.¹³

Estimating the Indirect and Induced Economic Impacts

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

The IMPLAN model is 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 into the model.¹⁴

For a given direct impact in a state, IMPLAN state models capture only the indirect and induced effects within that state, excluding the indirect and induced effects crossing state borders (“cross-state spillover effects”). PwC estimated and allocated the cross-state indirect and induced employment, 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.

¹³ A review of the literature suggests that each additional dollar of financial wealth increases consumption between two and five cents (see, for example, the literature review in Sherif Khalifa, Ousmane Seck, and Elwin Tobing, “Financial Wealth Effect: Evidence from Threshold Estimation,” September 26, 2010). To be conservative we have assumed an MPC out of wealth of 0.02 for all income groups.

¹⁴ 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 estimates that are mapped to the oil and natural gas industry are removed.