
Impacts of the Oil and Natural Gas Industry on the US Economy in 2021

April 2023

Prepared for

**American Petroleum
Institute**



Table of Contents

Executive Summary	ES-1
I. Introduction	1
II. Industry Definition	3
III. Economic Impact of the Oil and Natural Gas Industry	6
A. National Results	6
B. State Results	10
C. Congressional District Results	19
IV. Wages, Capital Spending, and Dividends from the Oil and Natural Gas Industry	22
Appendix A: Direct Impact by Detailed Sector	A-1
Appendix B: Detailed Results by State	B-1
Appendix C: Detailed Results by Congressional District	C-1
Appendix D: Data Sources and Methodology	D-1

Impacts of the Oil and Natural Gas Industry on the US Economy in 2021

Executive Summary

This report explores the economic impact of the oil and natural gas industry in the United States. These impacts are the result of three channels: direct impacts from the employment and production within the oil and natural gas industry; indirect impacts through the industry's purchases of intermediate and capital goods from a variety of other US industries; and induced impacts from the personal purchases of employees and business owners both within the oil and natural gas industry and its supply chain, as well as from the personal spending by shareholders out of the dividends received from oil and natural gas companies.¹

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 at the national, state, and congressional district level.² This report provides PwC's economic impact estimates for 2021.

The report's findings show that the US oil and natural gas industry has a widespread economic impact throughout all sectors of the economy. Combining the industry's direct, indirect, and induced impacts, the industry's total impact amounted to 10.8 million full-time and part-time jobs and accounted for 5.4 percent of total US employment in 2021 (see **Table ES-1**, below).

Table ES-1.– Total Operational and Capital Investment Impacts of the Oil and Natural Gas Industry on the US Economy, 2021

Item	Direct Impacts	Indirect and Induced Impacts		Total Impacts	Percent of US Total
		Operational Impacts	Capital Investment Impacts		
Employment (millions)*	2.3	7.1	1.4	10.8	5.4%
Labor Income (\$ billions)**	278.5	526.9	103.3	\$908.7	6.4%
Value Added (\$ billions)	773.6	844.5	156.0	\$1,774.1	7.6%

Source: PwC calculations using the IMPLAN modeling system. Details may not add up 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.

At the national level, each direct job in the oil and natural gas industry supported an additional 3.8 jobs elsewhere in the US economy in 2021 (for a multiplier of 4.8). Counting direct, indirect, and induced impacts, the industry's total impact on labor income (including proprietors'

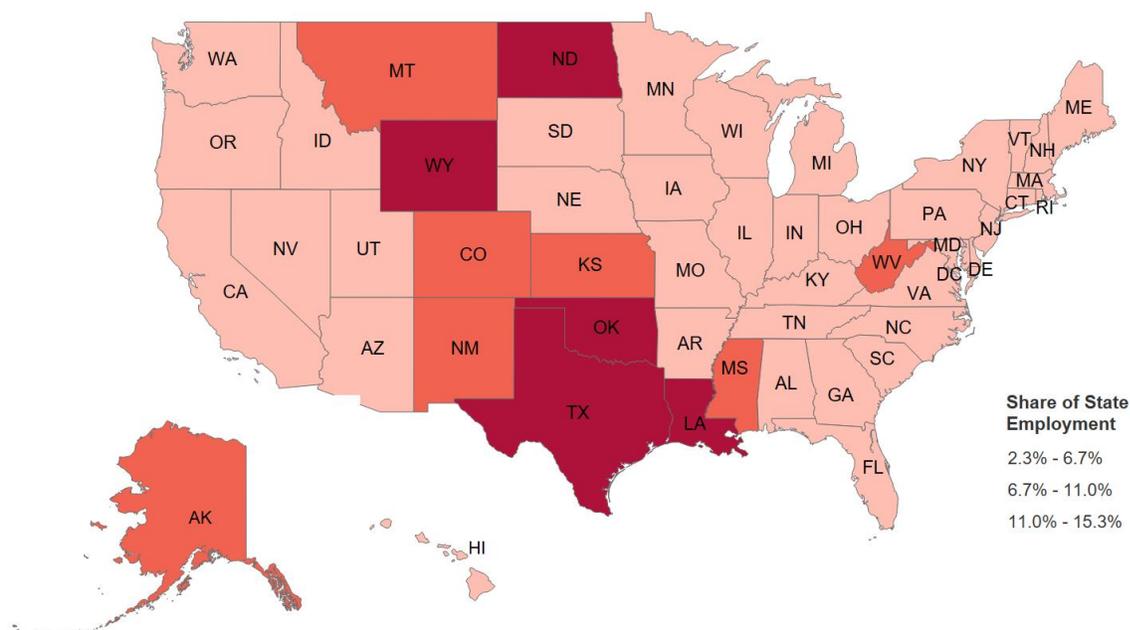
¹ These economic impacts represent the entire *backward linkages* of the US oil and natural gas industry to its suppliers. They do not capture *forward linkages* (i.e., the economic impact on production in sectors that use oil and natural gas as an input).

² Value added refers to the additional value created at a particular stage of production. It is a measure of the overall importance of an industry and represents the industry's portion of 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).

income) was \$908.7 billion, or 6.4 percent of the US national labor income in 2021. The industry's total impact on US GDP was nearly \$1.8 trillion, accounting for 7.6 percent of the national total in 2021.

The economic impact of the oil and natural gas industry can be seen across the United States. The states with the largest direct employment effects are Texas, California, Oklahoma, Pennsylvania, and Louisiana, each with more than 90,000 jobs directly attributable to the oil and gas industry. In 30 states the industry directly and indirectly supported at least 100,000 jobs in 2021. Texas alone had 2.5 million jobs directly and indirectly supported by the industry, and California had over 1 million jobs directly and indirectly supported by the industry. The share of state employment supported by the oil and natural gas industry (including direct, indirect, and induced impacts) ranges from 2.3 percent in the District of Columbia to 15.3 percent in Oklahoma (see **Figure ES-1**, below).

Figure ES-1. Share of Employment Directly and Indirectly Supported by the Oil and Natural Gas Industry, 2021



Source: PwC calculations.

At the congressional district level, the number of jobs directly provided by the oil and natural gas industry was at least 1,000 in all but 11 districts and exceeded 5,000 in 121 congressional districts in 2021. Including direct, indirect, and induced effects, the industry supported more than 10,000 jobs in all but four congressional districts in 2021.

These results were calculated using the IMPLAN model, an input-output model based on government data.

Impacts of the Oil and Natural Gas Industry on the US Economy in 2021

I. Introduction

The American Petroleum Institute engaged PwC to quantify the economic impacts of the US oil and natural gas industry on the national economy in terms of employment, labor income, and value added.³ This report presents PwC's economic impact estimates for 2021.⁴

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.⁵

- **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 attributable to its operating and capital expenditures.⁶
- **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 and from the personal spending by shareholders out of the dividends received from oil and natural gas companies.

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

The main data source for the industry's direct jobs, labor income, and value added is the *State Annual Personal Income and Employment* data set published by the US Bureau of Economic Analysis ("BEA").

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 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 has prepared several prior economic impact studies for the American Petroleum Institute, with the most recent being *Economic Impacts of the Oil and Natural Gas Industry on the US Economy in 2019* (July 2021).

⁵ These economic impacts represent all of the *backward linkages* of the oil and natural gas industry to its suppliers. They do not capture *forward linkages* (i.e., the economic impact on production in sectors that use oil and natural gas as an input).

⁶ Operating expenditures are the costs of noncapital inputs (such as materials, rent, and utilities) for a company to run its business operations on a daily basis. Capital expenditures are the amounts that companies use to purchase major physical goods or services that will have a productive life of more than one year.

We have developed the estimates of the industry’s indirect and induced economic impacts using customized input-output models for each study area based on the IMPLAN input-output economic modeling system.⁷

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 economic impacts at the national, state, and congressional district level in 2021. **Section IV** presents a composite measure of the industry’s total US “spend” – i.e., its direct economic contribution from the industry’s expenditures on labor and capital and its payment of dividends to US households and retirement plans. Detailed results by sector, by state, and by congressional district and an overview of the methodology are provided in the appendices.

⁷ 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 multiple 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 Code	Description
211	Oil and gas extraction (including NGL extraction)
213111	Drilling oil and gas wells
213112	Support activities for oil and gas operations
2212	Natural gas distribution (private and public)
23712	Oil and gas pipeline and related structures construction
32411	Petroleum refineries
32412	Asphalt paving, roofing and saturated materials manufacturing
324191	Petroleum lubricating oil and grease manufacturing
4247	Petroleum and petroleum products merchant wholesalers
44711, 44719	Gasoline stations
45431	Fuel dealers
486	Pipeline transportation

NAICS Code 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 Code 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, drilling, re-drilling, and directional drilling.

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

NAICS Code 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. Economic Impact of the Oil and Natural Gas Industry

This section presents the estimated economic impact of the oil and natural gas industry at the national, state, and congressional district level.

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 labor and proprietor's income earned either directly or indirectly from the oil and natural gas industry's spending and from dividends received from publicly traded oil and natural gas companies).

To quantify these linkages, we rely on the IMPLAN model, an input-output (I-O) model based on government data. For this analysis, we have separately quantified the indirect and induced impacts of the oil and natural gas industry's **operational** and **capital spending**. Operating expenditures are the costs of noncapital inputs (such as materials, rent, and utilities) for a company to run its business operations on a daily basis. Capital expenditures are the amounts that companies use to invest in major physical goods or services that have a productive life of more than one year.

A. National Results

The economic activity of the industry is measured using three separate metrics: employment, labor income, and value added, as defined below.

- **Employment:** The number of payroll and self-employed jobs (including part-time jobs), averaged over the year.
- **Labor income:** The wages and salaries and benefits paid to employees and proprietors' income for the self-employed.
- **Value added:** The total output of each sector less the associated value of intermediate inputs. The sum of the value added across all sectors in the economy is GDP.⁸ An industry's value added represents its contribution to GDP.

Table 2, below, shows the direct impact of the US oil and natural gas industry on the US economy in terms of employment, labor income (including wages and salaries and benefits as well as proprietors' income), and value added. In 2021, the oil and natural gas industry directly provided 2.3 million jobs for American workers, paid \$278.5 billion in wages and salaries and benefits and proprietors' income, and generated \$773.6 billion in GDP. The industry's direct national impact on the US jobs, labor income, and value added ranged from 1.1 percent to 3.3 percent in 2021 (see **Appendix A** for a breakout of the industry's direct impact by detailed subsector).

⁸ Value added differs from gross output (or sales) because it excludes the value of intermediate goods that are embedded in the final sales of each industry.

Table 2. Direct Impact of the Oil and Natural Gas Industry on the US Economy, 2021

	Employment ⁽¹⁾ (millions of jobs)	Labor Income ⁽²⁾ (\$ billions)	Value Added (\$ billions)
The US Oil and Natural Gas Industry's Direct Impact	2.3	\$278.5	\$773.6
As a percent of the US economy	1.1%	1.9%	3.3%

Source: Estimates based on 2021 employment data from the US Bureau of Economic Analysis and supplemented by data from the US Bureau of Labor Statistics and US Census Bureau and 2021 input-output relationships from the IMPLAN modeling system.

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

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

As shown in **Table 3**, below, the US oil and natural gas industry's total economic impact (including direct, indirect, and induced impacts from both operational and capital spending) ranged between 5.4 percent and 7.6 percent of all US jobs, labor income, and value added in 2021.

Table 3.- Total Impact of the Oil and Natural Gas Industry on the US Economy, 2021

Item	Amount	Percent of US Total
Operational Impact		
Employment (millions of jobs)*	9.4	4.7%
Labor Income (\$ billions)**	\$805.4	5.6%
Value Added (\$ billions)	\$1,618.1	6.9%
Capital Investment Impact		
Employment (millions of jobs)*	1.4	0.7%
Labor Income (\$ billions)**	\$103.3	0.7%
Value Added (\$ billions)	\$156.0	0.7%
Total Impact		
Employment (millions of jobs)*	10.8	5.4%
Labor Income (\$ billions)**	\$908.7	6.4%
Value Added (\$ billions)	\$1,774.1	7.6%

Source: PwC calculations using the IMPLAN modeling system.

Note: Details may not add up 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.

Employment

PwC estimates that the US oil and natural gas industry's *operations* directly or indirectly supported 9.4 million full- and part-time jobs in the national economy in 2021. 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 10.8 million full-time and part-time jobs in 2021, accounting for 5.4 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

operations, capital investment, and household spending out of dividend payments is estimated to be \$908.7 billion, or 6.4 percent of total US labor income in 2021.

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 \$1.6 trillion of value added in the national economy in 2021, and its *capital investment* added an additional \$156.0 billion of value added. Combining both operational and capital investment impacts, the industry's total value-added impact at the national level was nearly \$1.8 trillion, accounting for 7.6 percent of US GDP in 2021.

Distribution of Indirect and Induced Activity

The indirect and induced economic activity occurs across a broad range of other industries. For employment, 54.8 percent of the indirect and induced impact attributable to the industry's operational expenditures is in the services sector. Another 11.9 percent is in the finance, insurance, real estate, rental, and leasing sector. The indirect and induced impact on employment attributable to the industry's capital expenditures is mostly concentrated in services, construction, and wholesale and retail trade (see **Table 4a**, below).

For labor income, 52.8 percent of the indirect and induced impact attributable to the industry's operational expenditures is in the services sector, and another 12.7 percent is in the finance, insurance, real estate, rental, and leasing sector. The indirect and induced impact to labor income attributable to the industry's capital expenditures is mostly concentrated in services, construction, wholesale and retail trade, and manufacturing (see **Table 4b**, below).

For value added, the services sector accounted for 39.6 percent of the indirect and induced impact attributable to the industry's operational expenditures. Finance, real estate, rental, and leasing accounted for another 24.1 percent. The indirect and induced impact to value added attributable to the industry's capital expenditures is mostly concentrated in services, finance, real estate, rental, and leasing, wholesale and retail trade, manufacturing, and construction (see **Table 4c**, below).

Table 4a. Distribution of Indirect and Induced Activity Generated by the US Oil and Natural Gas Industry, 2021: Employment

Industry Impacted	Indirect and Induced Impacts	
	Operational	Capital
Total (in thousands)	7,104	1,387
Agriculture, forestry and fishing	1.2%	0.9%
Mining	0.2%	0.1%
Utilities	0.6%	0.2%
Construction	2.4%	19.1%
Manufacturing	4.7%	9.5%
Wholesale and retail trade	10.5%	15.8%
Transportation and warehousing	10.0%	5.4%
Information	1.7%	1.6%
Finance, insurance, real estate, rental and leasing	11.9%	8.8%
Services	54.8%	38.2%
Other	1.9%	0.3%
Total	100%	100%

Source: PwC calculations using the IMPLAN modeling system and data from US Census Bureau. Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

Table 4b. Distribution of Indirect and Induced Activity Generated by the US Oil and Natural Gas Industry, 2021: Labor Income

Industry Impacted	Indirect and Induced Impacts	
	Operational	Capital
Total (\$ billions)	\$526.9	\$103.3
Agriculture, forestry and fishing	0.7%	0.5%
Mining	0.2%	0.2%
Utilities	1.6%	0.6%
Construction	2.3%	18.2%
Manufacturing	5.6%	11.9%
Wholesale and retail trade	9.1%	14.3%
Transportation and warehousing	8.3%	4.5%
Information	4.1%	3.9%
Finance, insurance, real estate, rental and leasing	12.7%	9.4%
Services	52.8%	36.1%
Other	2.3%	0.4%
Total	100%	100%

Source: PwC calculations using the IMPLAN modeling system and data from US Census Bureau. Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 4c. Distribution of Indirect and Induced Activity Generated by the US Oil and Natural Gas Industry, 2021: Value Added

Industry Impacted	Indirect and Induced Impacts	
	Operational	Capital
Total (\$ billions)	\$844.5	\$156.0
Agriculture, forestry and fishing	0.6%	0.5%
Mining	0.4%	0.4%
Utilities	3.0%	1.2%
Construction	1.8%	12.9%
Manufacturing	7.1%	13.6%
Wholesale and retail trade	10.1%	14.9%
Transportation and warehousing	6.0%	3.5%
Information	5.5%	5.6%
Finance, insurance, real estate, rental and leasing	24.1%	18.2%
Services	39.6%	28.9%
Other	1.9%	0.5%
Total	100%	100%

Source: PwC calculations using the IMPLAN modeling system and data from US Census Bureau.

B. State Results

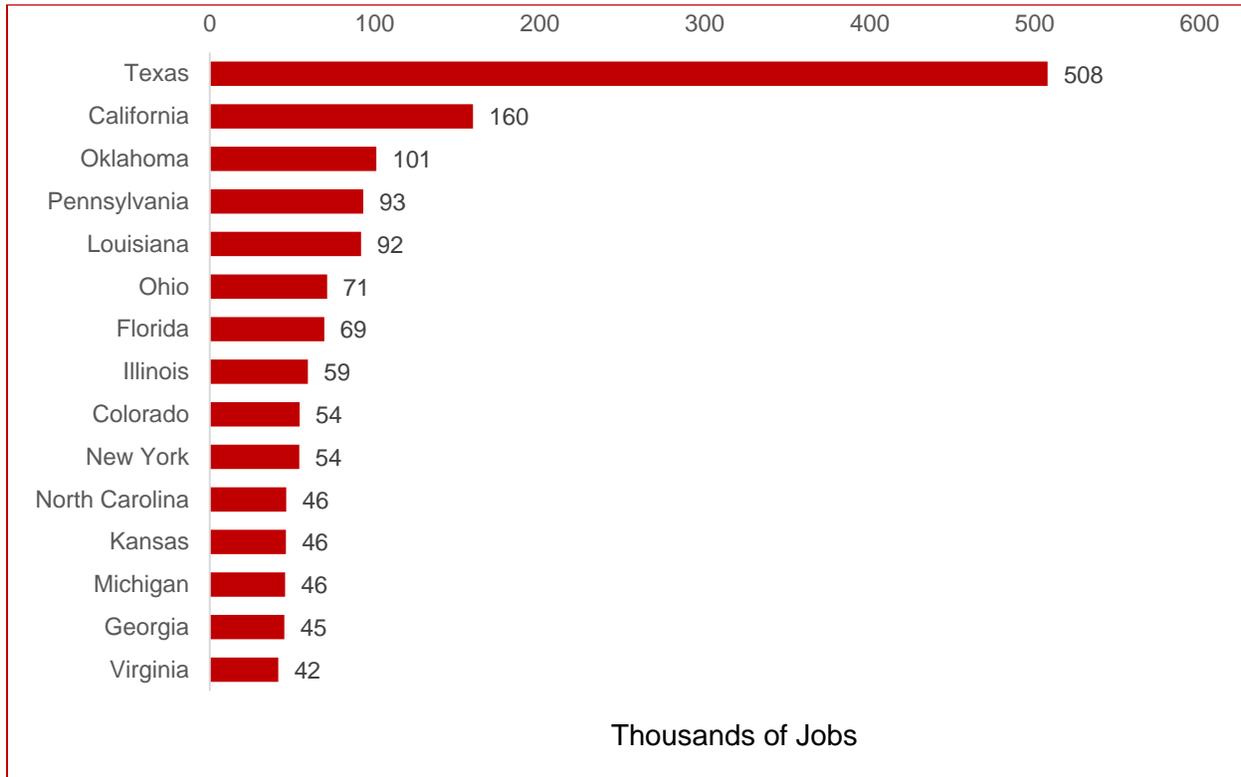
The economic impact of the oil and natural gas industry at the state level reflects the indirect and induced effects attributable to direct activity within each state's borders, as well as indirect and induced activity within a state that is attributable to direct activity in other states.⁹

The economic impact of the oil and natural gas industry varies from state to state, depending on factors such as each state's population, natural resources, industry mix, wage structure, spending and saving patterns, and connections to other economies. In terms of direct impact of the oil and natural gas industry, **Figures 1, 2, and 3**, below, present employment, labor income, and value added for the top 15 states ranked by direct impacts (details for all states are available in **Appendix B**).

The figures indicate that Texas ranks substantially above all other states in terms of direct impacts of the oil and natural gas industry, with 507,800 jobs, \$100.9 billion of labor income, and \$244.1 billion of value added contributed in 2021. Other states with exceptionally large direct impacts include California, Oklahoma, Pennsylvania, and Louisiana, each with more than 90,000 jobs directly attributable to the oil and natural gas industry. These states have vast oil and natural gas deposits on and off shore that have led to substantial upstream and downstream operations.

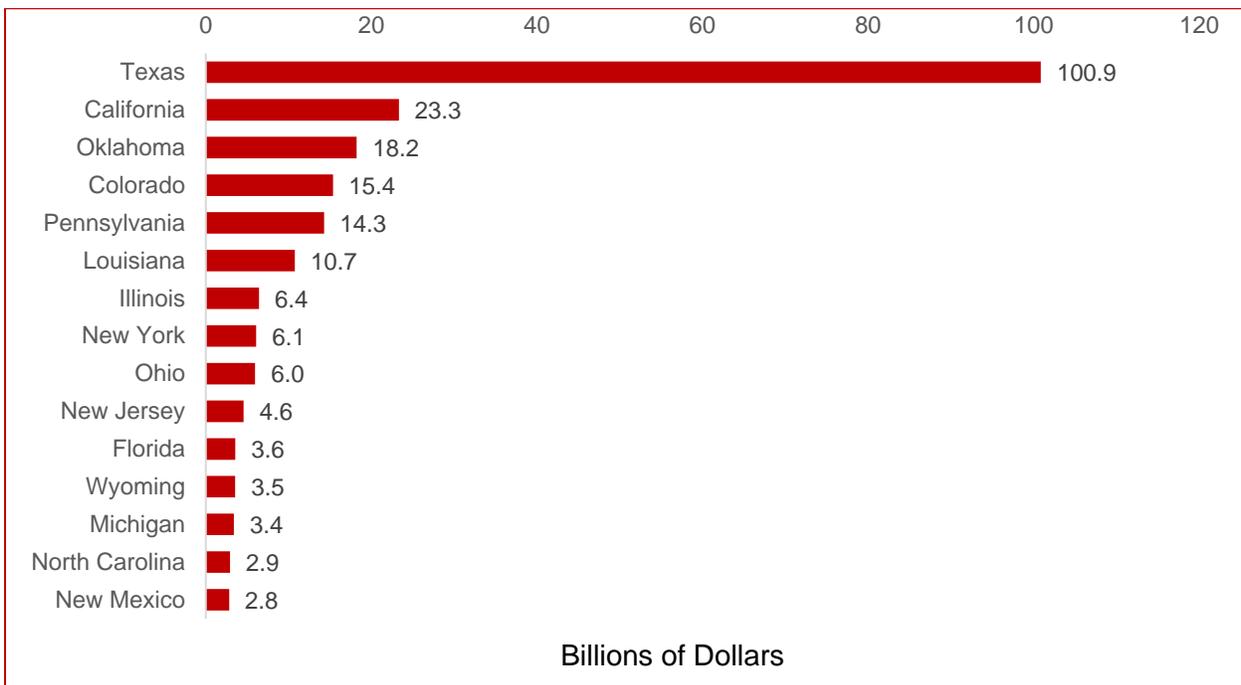
⁹ We have allocated the indirect and induced effects by industry attributable to direct activity in other states based on the overall level of economic activity of that industry in each state.

Figure 1. The Oil and Natural Gas Industry’s Direct Impact: Top 15 States by Direct Employment, 2021



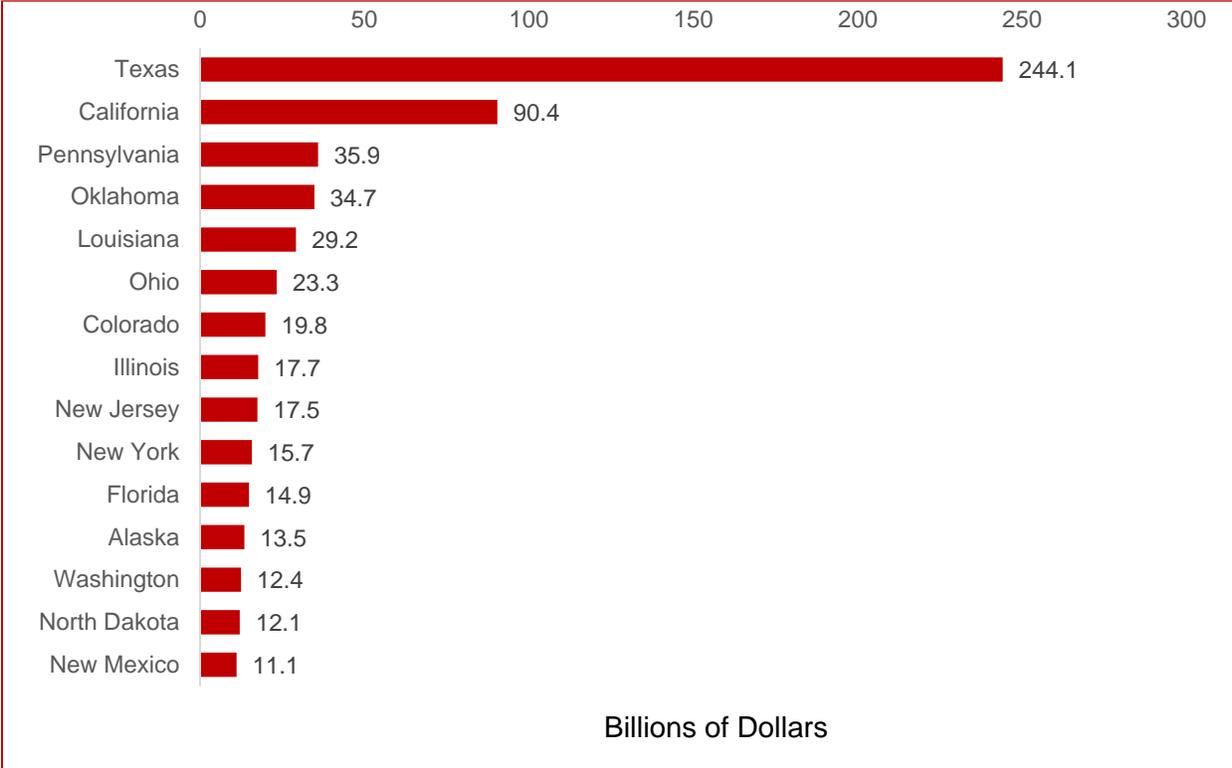
Source: PwC calculations based on the IMPLAN model. See Appendix B for underlying figures.

Figure 2. The Oil and Natural Gas Industry’s Direct Impact: Top 15 States by Direct Labor Income, 2021



Source: PwC calculations based on the IMPLAN model. See Appendix B for underlying figures.

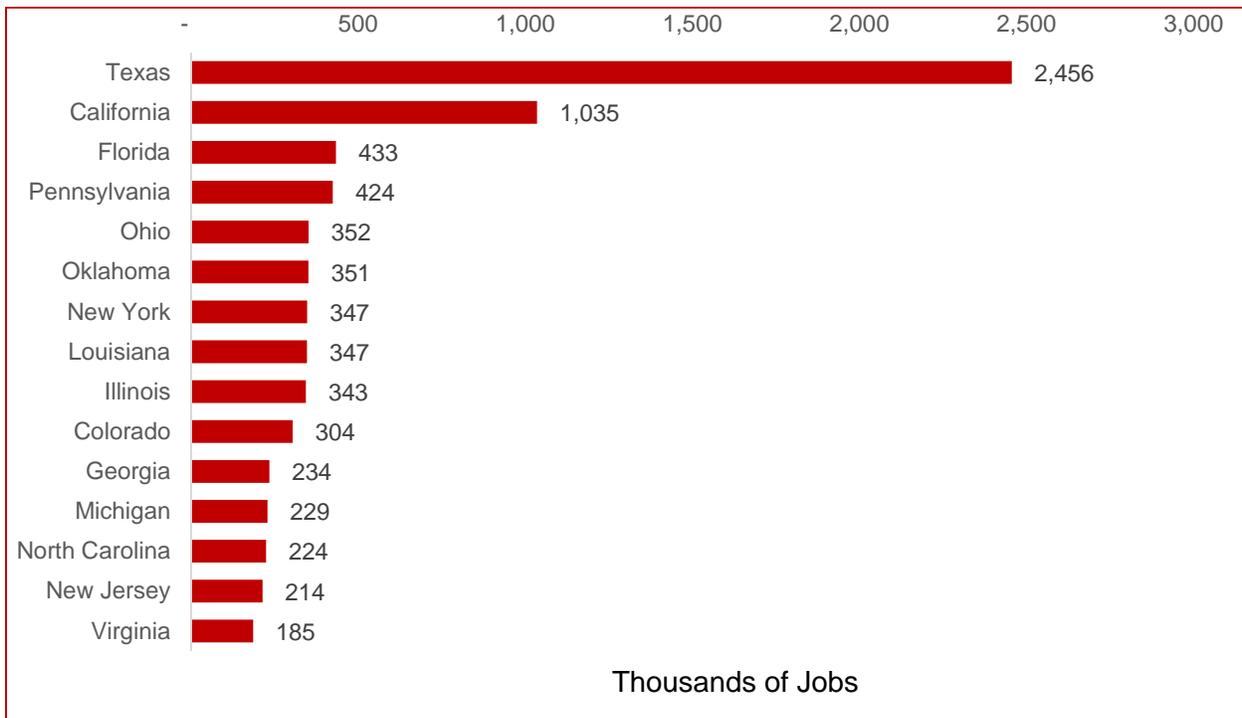
Figure 3. The Oil and Natural Gas Industry’s Direct Impact: Top 15 States by Direct Value Added, 2021



Source: PwC calculations based on the IMPLAN model. See Appendix B for underlying figures.

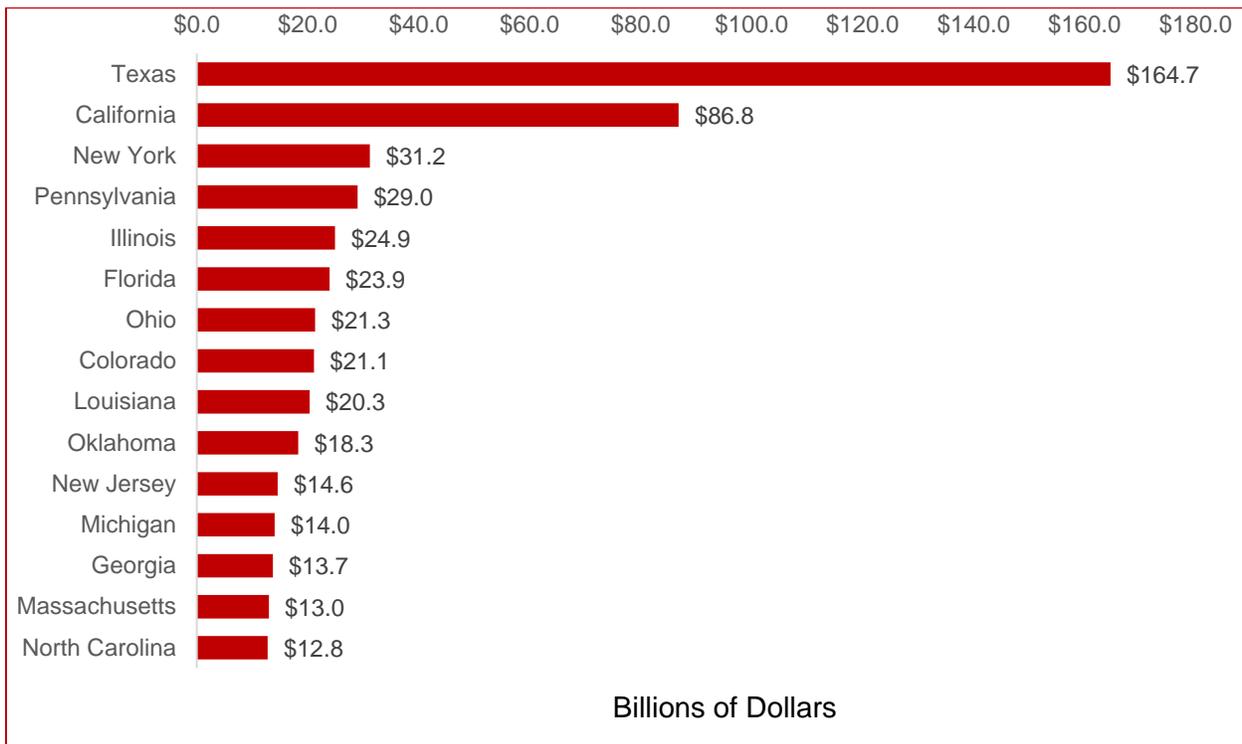
Figures 4 through **9**, below, present the total impact of the oil and natural gas industry by state, including direct, indirect, and induced impacts. Looking at the top 15 states in terms of total employment attributable to the oil and natural gas industry, **Figure 4**, below, indicates that Texas ranks highest by this measure as well, followed by California, Florida, and Pennsylvania. These states also rank high in terms of labor income and value added attributable to the oil and natural gas industry (see **Figures 5** and **6**, below). These states have the highest amounts of activities directly or indirectly attributable to the oil and natural gas industry in part because they also are among the largest economies in the country.

Figure 4. The Oil and Natural Gas Industry’s Total Impact: Top 15 States by Total Employment Impact, 2021



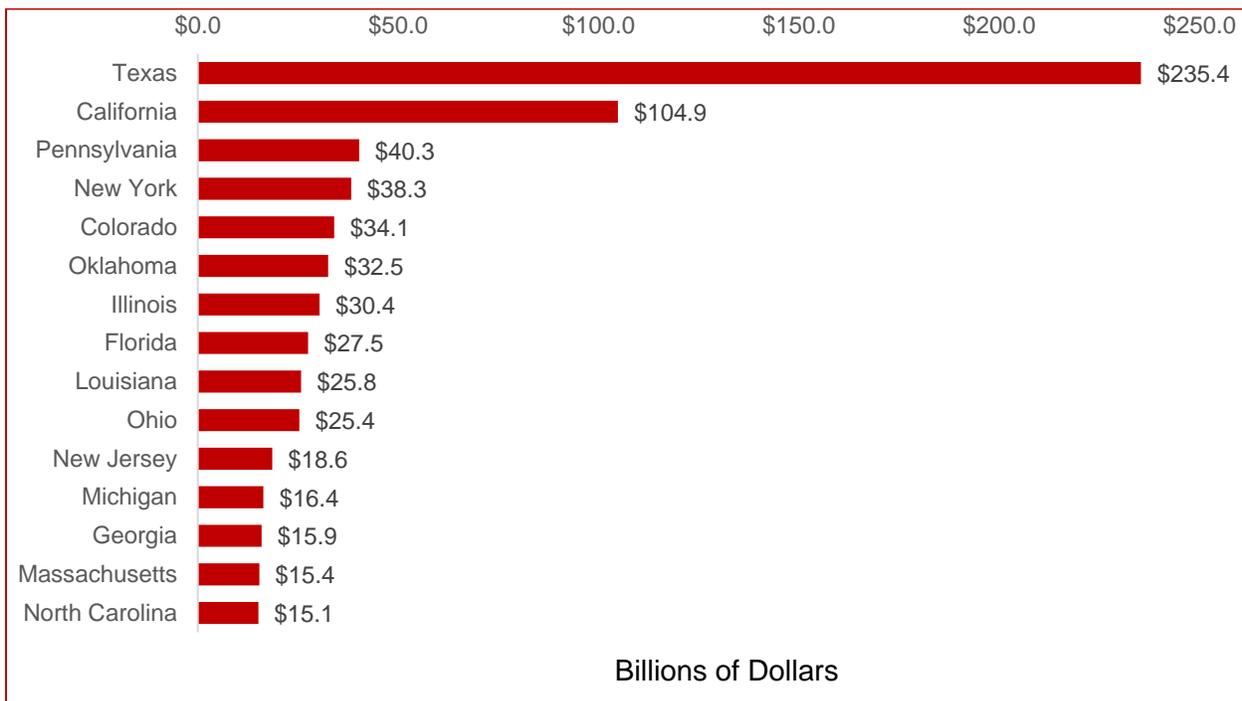
Source: PwC calculations based on the IMPLAN model. See Appendix B for underlying figures.

Figure 5. The Oil and Natural Gas Industry’s Total Impact: Top 15 States by Total Labor Income Impact, 2021



Source: PwC calculations based on the IMPLAN model. See Appendix B for underlying figures.

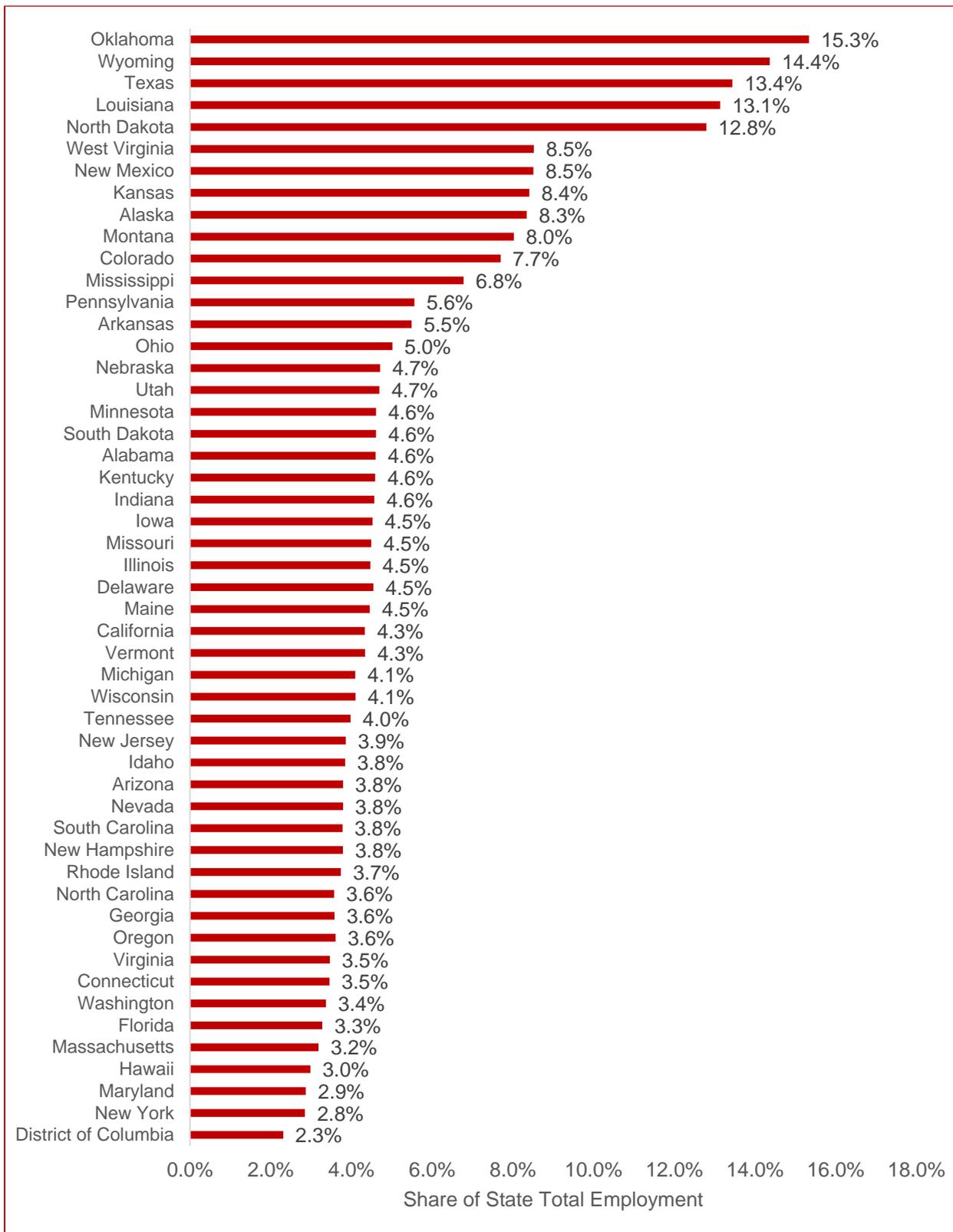
Figure 6. The Oil and Natural Gas Industry’s Total Impact: Top 15 States by Total Value Added Impact, 2021



Source: PwC calculations based on the IMPLAN model. See Appendix B for underlying figures.

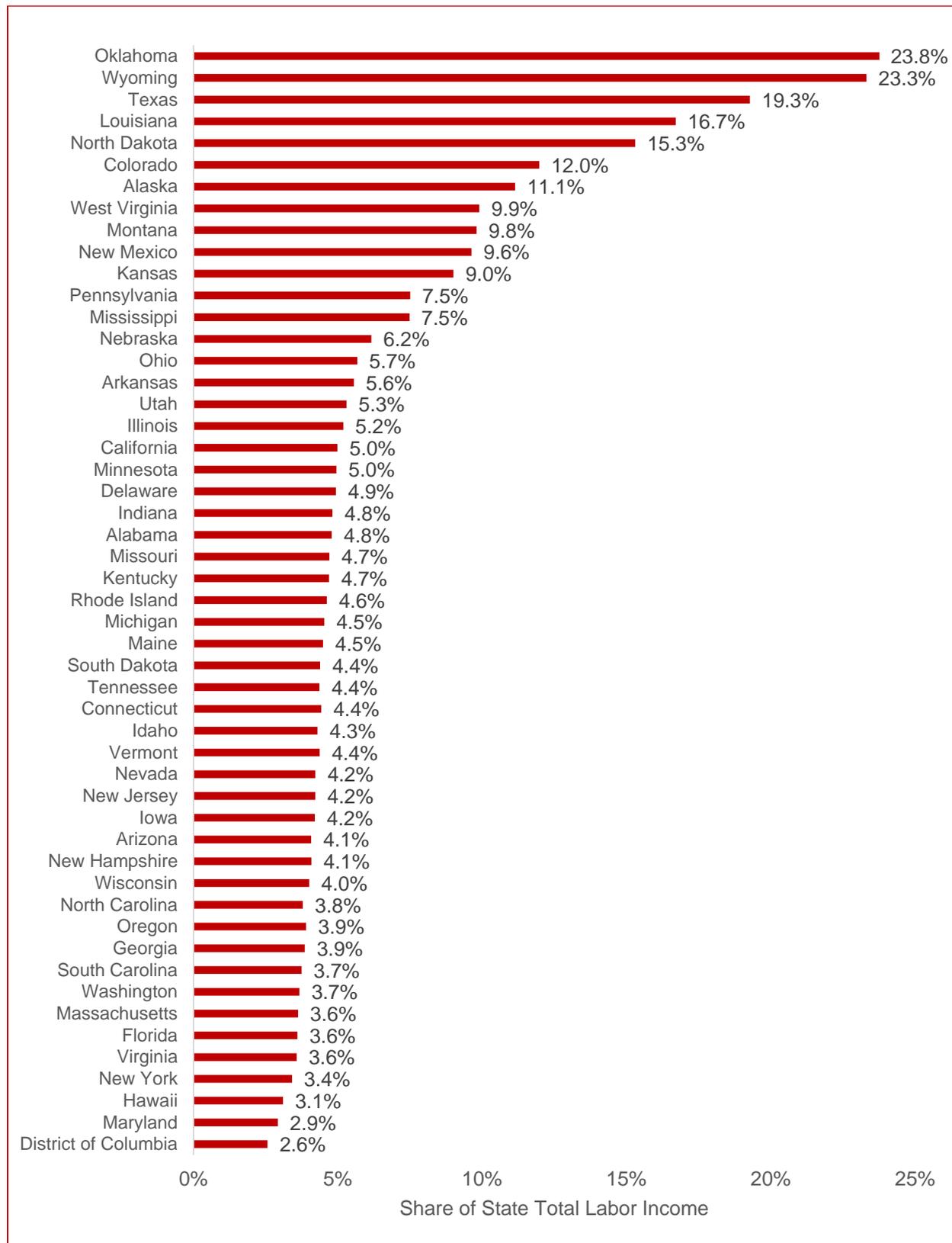
Looking at all states in terms of the share of state employment directly and indirectly attributable to the oil and natural gas industry, **Figure 7**, below, indicates that Oklahoma ranks highest, followed by Wyoming, Texas, Louisiana, and North Dakota. In each of these states, the oil and natural gas industry directly and indirectly contributed more than 10 percent of state employment in 2021. These states also rank high in terms of the share of state labor income and value added directly and indirectly attributable to the oil and natural gas industry (see **Figures 8 and 9**, below). These states, which have large oil and natural gas deposits, produce much of the country's domestic energy supply. The District of Columbia, New York, and Maryland are three study areas with the smallest shares of economic activity attributable to the oil and natural gas industry.

Figure 7. The Oil and Natural Gas Industry’s Total Employment Impact as a Share of State Employment, 2021



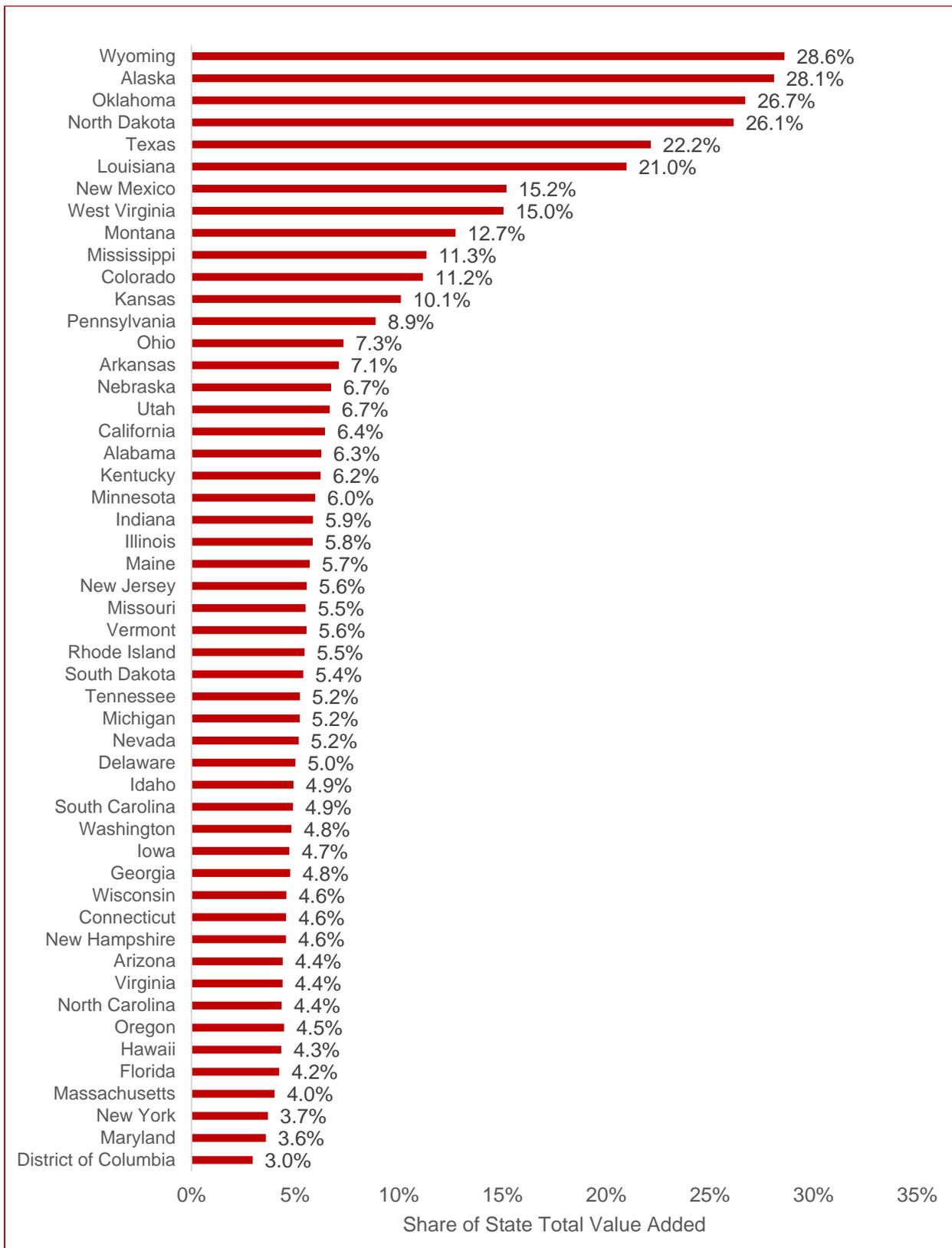
Source: PwC calculations based on the IMPLAN model. See Appendix B for underlying figures.

Figure 8. The Oil and Natural Gas Industry’s Total Labor Income Impact as a Share of State Labor Income, 2021



Source: PwC calculations based on the IMPLAN model. See Appendix B for underlying figures.

Figure 9. The Oil and Natural Gas Industry’s Total Value-Added Impact as a Share of State GDP, 2021



Source: PwC calculations based on the IMPLAN model. See Appendix B for underlying figures.

C. Congressional District Results

The economic impact of the oil and natural gas industry at the congressional district level reflects the indirect and induced effects attributable to direct activity within each congressional district's borders, as well as indirect and induced activity within a congressional district that is attributable to direct activity in other congressional districts.¹⁰

The oil and natural gas industry's activity varies considerably across congressional districts. The number of jobs directly attributable to the oil and natural gas industry was at least 1,000 in all but 11 districts and exceeded 5,000 in 121 congressional districts in 2021. Direct employment is especially pronounced in districts in Texas, Oklahoma, and Louisiana with significant oil and gas extraction activities.

Table 5, below, presents employment, labor income, and value added for the top 15 congressional districts ranked by direct employment. Nine of the top 15 districts in terms of the oil and natural gas industry's direct employment are in Texas, home to the two of America's largest oil fields (the Permian Basin and the Eagle Ford).

Leading all districts in direct employment is Texas's 11th Congressional District, which encompasses all or part of 29 counties in west central Texas, stretching from the Permian Basin through the Hill Country to the outer fringes of Dallas-Fort Worth, including the top crude oil producing county of Midland. Texas's 7th Congressional District includes portions of Harris, Fort Bend, and Brazoria counties, which are all located within the Gulf Coast region of Texas. Texas's 38th Congressional District, the newest addition after the 2020 Census Redistricting, stretches from the Energy Corridor in western Harris County northwards to Cypress and Tomball. It includes the Houston suburbs of Jersey Village, Cypress, Tomball, Katy, and Klein. The Memorial Villages and a portion of the city of Houston are also located within the district.

Oklahoma's 3rd Congressional District includes Oklahoma City and many of its suburbs and is home to the Anadarko Basin and the Arbuckle-Simpson Aquifer, which are known for oil and gas production. Oklahoma's 5th Congressional District is located in Central Oklahoma and includes parts of Oklahoma, Pottawatomie, and Seminole counties, as well as the eastern portion of Canadian County.

North Dakota's At-Large District covers the majority of the Bakken region, another key oil-producing basin in the country.

Louisiana's 3rd Congressional District covers the southwestern and south-central portion of the state. Many of the nation's largest oil fields are found in the federal Outer Continental Shelf ("OCS") off the Louisiana coast, with a large share of federal OCS production in the Gulf of Mexico coming onshore in Louisiana.

Direct employment in the top 15 congressional districts for the oil and natural gas industry was 428,660 in 2021, or about 19.0 percent of direct employment nationwide in the oil and natural gas industry.

In terms of total impacts (including indirect, indirect, and induced impacts), the oil and natural gas industry supported more than 10,000 jobs in all but four congressional districts in 2021.

¹⁰ We have allocated the indirect and induced effects by industry attributable to direct activity in other congressional districts within a state based on the overall level of economic activity of that industry in each congressional district in the state.

**Table 5. The Oil and Natural Gas Industry's Direct Impact, 2021:
Top 15 Congressional Districts, Ranked by Employment**

Rank	CD	Employment ⁽¹⁾		Labor Income ⁽²⁾		Value Added	
		Amount (Jobs)	Share of US ⁽³⁾	Amount (\$ Million)	Share of US ⁽³⁾	Amount (\$ Million)	Share of US ⁽³⁾
1	TX-11	65,590	2.9%	\$17,350	6.2%	\$36,670	4.7%
2	TX-7	46,440	2.1%	\$8,942	3.2%	\$18,860	2.4%
3	TX-38	31,580	1.4%	\$5,726	2.1%	\$24,012	3.1%
4	OK-3	29,430	1.3%	\$2,519	0.9%	\$7,200	0.9%
5	ND-1 (At-Large)	27,150	1.2%	\$2,661	1.0%	\$12,086	1.6%
6	LA-3	27,140	1.2%	\$2,613	0.9%	\$6,777	0.9%
7	OK-5	26,990	1.2%	\$8,793	3.2%	\$13,742	1.8%
8	TX-23	24,750	1.1%	\$3,687	1.3%	\$10,389	1.3%
9	TX-29	23,960	1.1%	\$6,503	2.3%	\$12,991	1.7%
10	TX-27	23,180	1.0%	\$4,596	1.7%	\$12,856	1.7%
11	OK-1	21,630	1.0%	\$5,066	1.8%	\$9,377	1.2%
12	TX-19	20,510	0.9%	\$2,136	0.8%	\$6,940	0.9%
13	TX-36	20,460	0.9%	\$4,255	1.5%	\$12,663	1.6%
14	WY-1 (At-Large)	20,340	0.9%	\$3,548	1.3%	\$8,332	1.1%
15	TX-13	19,510	0.9%	\$2,361	0.8%	\$12,001	1.6%

Source: PwC calculations based on the IMPLAN model.

(1) Employment is defined as the number of direct, indirect, and induced payroll and self-employed jobs, including part-time jobs.

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

(3) Share of US refers to the share of the US oil and natural gas industry's direct impact at the national level.

Table 6, below, presents employment, labor income, and value added for the top 15 congressional districts ranked by total employment impact, reflecting the oil and natural gas industry's direct, indirect, and induced impacts. Many of the same congressional districts that rank high in terms of direct employment also rank high in terms of total employment directly and indirectly attributable to the oil and natural gas industry. Total industry-supported employment in the top 15 congressional districts was 1.3 million in 2021, or 11.8 percent of total industry-supported employment nationwide.

Details for all congressional districts are available in **Appendix C**.

**Table 6. The Oil and Natural Gas Industry’s Total Impact, 2021:
Top 15 Congressional Districts, Ranked by Employment**

Rank	CD	Employment ⁽¹⁾		Labor Income ⁽²⁾		Value Added	
		Amount (Jobs)	Share of US ⁽³⁾	Amount (\$ Million)	Share of US ⁽³⁾	Amount (\$ Million)	Share of US ⁽³⁾
1	TX-11	128,250	1.2%	\$22,293	2.5%	\$45,748	2.6%
2	TX-7	111,050	1.0%	\$14,770	1.6%	\$27,708	1.6%
3	TX-38	98,060	0.9%	\$10,685	1.2%	\$32,965	1.9%
4	OK-5	86,340	0.8%	\$12,796	1.4%	\$20,356	1.1%
5	LA-3	84,080	0.8%	\$5,853	0.6%	\$11,963	0.7%
6	TX-13	83,650	0.8%	\$6,142	0.7%	\$18,568	1.0%
7	TX-27	83,260	0.8%	\$8,154	0.9%	\$19,178	1.1%
8	OK-1	79,650	0.7%	\$9,084	1.0%	\$15,491	0.9%
9	OK-3	79,280	0.7%	\$4,913	0.5%	\$11,171	0.6%
10	TX-26	77,070	0.7%	\$5,584	0.6%	\$10,220	0.6%
11	TX-19	75,400	0.7%	\$5,051	0.6%	\$11,402	0.6%
12	ND-1 (At-Large)	72,460	0.7%	\$5,580	0.6%	\$16,618	0.9%
13	TX-12	71,030	0.7%	\$7,728	0.9%	\$13,589	0.8%
14	TX-23	70,210	0.7%	\$6,507	0.7%	\$14,959	0.8%
15	TX-1	69,210	0.6%	\$5,787	0.6%	\$11,441	0.6%

Source: PwC calculations based on the IMPLAN model.

(1) Employment is defined as the number of direct, indirect, and induced payroll and self-employed jobs, including part-time jobs.

(2) Labor income is defined as wages and salaries and benefits as well as proprietors’ income.

(3) Share of US refers to the share of the oil and natural gas industry’s total impact at the national level.

IV. 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 2021 is estimated to be \$279 billion.

Based on data from the US Census Bureau’s *Annual Capital Expenditure Survey*, the industry’s capital expenditures are estimated to be \$159 billion in 2021.¹¹

Total dividends paid by publicly traded companies in the industry were obtained from S&P’s *Capital IQ*® database. The measure of dividends used includes cash dividends paid to US shareholders from all classes of common stock out of income from US operations by publicly traded US corporations in the oil and natural gas industry. It also includes dividends paid to US shareholders out of income from US operations by publicly traded foreign corporations in the industry.¹² Excluding distributions from Master Limited Partnerships and other pass-through entities,¹³ PwC estimates that the publicly traded companies in the industry paid out a total of \$33 billion in dividends in 2021 to US households and retirement plans.¹⁴

One measure of the industry’s total “spend” is the sum of the industry’s expenditures on labor and capital and its payments of dividends. Using this measure, the industry’s total US “spend” amounted to \$471 billion in 2021, as shown in **Table 7**, below.

Table 7. The Oil and Natural Gas Industry’s Total US Spend in 2021
(Billions of dollars)

Labor Income	Capital Spending	Dividend Payout	Total Spend
\$279	\$159	\$33	\$471

Sources: PwC calculations based on the IMPLAN model, the US Census Bureau’s *Annual Capital Expenditure Survey*, and S&P’s *Capital IQ*® database.

¹¹ 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.”

¹² 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 does not include the dollar value of stock dividends or dividends paid or accrued on preferred stock.

¹³ Distributions from pass-through entities are included as proprietors’ income in PwC’s estimate of direct labor income.

¹⁴ Additionally, the publicly traded companies in the industry paid out \$4 billion to US finance and insurance companies and other businesses.

Appendix A: Direct Impact by Detailed Sector

Table A-1. Direct Impact of the Oil and Natural Gas Industry on the US Economy by Subsector, 2021

NAICS Code	Subsector Description	Employment ⁽¹⁾ (000's)	Labor Income ⁽²⁾ (\$ billions)	Value Added (\$ billions)
211	Oil and gas extraction (including NGL extraction)	428	\$79	\$239
213111	Drilling oil and gas wells	44	\$5	\$6
213112	Support activities for oil and gas operations	210	\$21	\$26
2212	Natural gas distribution	129	\$26	\$76
23712	Oil and gas pipeline and related structures construction	137	\$14	\$16
32411	Petroleum refineries	64	\$19	\$112
32412	Asphalt paving, roofing and saturated materials manufacturing	29	\$6	\$11
324191	Petroleum lubricating oil and grease manufacturing	12	\$2	\$5
4247	Petroleum and petroleum products merchant wholesalers	100	\$11	\$153
44711, 44719	Gasoline stations	980	\$46	\$76
45431	Fuel dealers	76	\$5	\$9
486	Pipeline transportation	49	\$43	\$45
	Total US Oil and Natural Gas Industry	2,258	\$279	\$774

Source: Estimates based on 2021 employment data from the US Bureau of Economic Analysis and supplemented by data from the US Bureau of Labor Statistics and US Census Bureau and 2021 input-output relationships from the IMPLAN modeling system.

Note: Details may not add up to totals due to rounding.

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

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

Appendix B: Detailed Results by State

Table B-1. The Oil and Natural Gas Industry's Economic Impact by State, 2021
(Thousands of jobs; Billions of dollars)

State	Employment		Labor Income		Value Added	
	Direct	Total	Direct	Total	Direct	Total
US Total	2,258	10,750	\$278.5	\$908.7	\$773.6	\$1,774.1
Alabama	32	126	\$1.9	\$7.5	\$6.6	\$15.9
Alaska	12	37	\$2.1	\$3.7	\$13.5	\$16.1
Arizona	28	154	\$1.9	\$10.6	\$4.5	\$18.5
Arkansas	25	92	\$1.1	\$5.1	\$3.9	\$10.6
California	160	1035	\$23.3	\$104.9	\$90.4	\$217.1
Colorado	54	304	\$15.4	\$34.1	\$19.8	\$48.7
Connecticut	14	79	\$2.2	\$8.2	\$4.2	\$13.6
Delaware	6	28	\$0.5	\$2.0	\$1.0	\$4.1
District of Columbia	2	20	\$0.5	\$2.9	\$1.1	\$4.5
Florida	69	433	\$3.6	\$27.5	\$14.9	\$53.1
Georgia	45	234	\$2.6	\$15.9	\$10.8	\$32.9
Hawaii	4	25	\$0.3	\$1.8	\$1.5	\$3.9
Idaho	10	43	\$0.7	\$2.7	\$1.6	\$4.7
Illinois	59	343	\$6.4	\$30.4	\$17.7	\$55.3
Indiana	37	180	\$2.5	\$12.3	\$8.5	\$24.2
Iowa	28	93	\$1.1	\$5.2	\$3.0	\$10.2
Kansas	46	161	\$2.6	\$10.6	\$6.9	\$19.3
Kentucky	28	117	\$1.4	\$6.9	\$6.0	\$14.8
Louisiana	92	347	\$10.7	\$25.8	\$29.2	\$54.3
Maine	11	38	\$0.6	\$2.2	\$1.7	\$4.4
Maryland	18	107	\$1.2	\$8.1	\$4.9	\$15.9
Massachusetts	25	152	\$2.7	\$15.4	\$6.7	\$25.7
Michigan	46	229	\$3.4	\$16.4	\$9.6	\$29.9
Minnesota	39	170	\$2.6	\$13.0	\$8.7	\$24.6
Mississippi	31	109	\$2.0	\$5.9	\$7.9	\$14.4
Missouri	42	170	\$2.3	\$10.8	\$6.1	\$19.7
Montana	14	57	\$1.2	\$3.7	\$3.7	\$7.5
Nebraska	14	63	\$2.0	\$5.1	\$4.5	\$9.9
Nevada	14	71	\$1.1	\$4.9	\$3.7	\$10.1
New Hampshire	8	34	\$0.6	\$2.8	\$1.2	\$4.5
New Jersey	37	214	\$4.6	\$18.6	\$17.5	\$38.0
New Mexico	36	93	\$2.8	\$6.0	\$11.1	\$16.6
New York	54	347	\$6.1	\$38.3	\$15.7	\$70.1
North Carolina	46	224	\$2.9	\$15.1	\$8.0	\$28.8
North Dakota	27	72	\$2.7	\$5.6	\$12.1	\$16.6
Ohio	71	352	\$6.0	\$25.4	\$23.3	\$55.5
Oklahoma	101	351	\$18.2	\$32.5	\$34.7	\$57.5
Oregon	17	92	\$1.4	\$7.0	\$3.6	\$12.2
Pennsylvania	93	424	\$14.3	\$40.3	\$35.9	\$75.0
Rhode Island	5	24	\$0.6	\$2.0	\$1.4	\$3.6
South Carolina	27	110	\$1.1	\$6.2	\$4.8	\$13.2
South Dakota	9	29	\$0.4	\$1.7	\$1.2	\$3.3
Tennessee	36	169	\$2.7	\$12.2	\$7.6	\$22.4
Texas	508	2456	\$100.9	\$235.4	\$244.1	\$454.5
Utah	20	105	\$1.6	\$7.2	\$5.8	\$15.0
Vermont	5	18	\$0.3	\$1.1	\$0.8	\$2.1
Virginia	42	185	\$2.5	\$13.7	\$8.6	\$26.6
Washington	24	154	\$2.2	\$14.4	\$12.4	\$32.7
West Virginia	25	73	\$1.9	\$4.8	\$8.1	\$12.9
Wisconsin	38	151	\$1.8	\$9.4	\$4.7	\$16.9
Wyoming	20	59	\$3.5	\$5.7	\$8.3	\$11.9

Source: PwC calculations based on the IMPLAN model.

Note: Details may not add up to totals due to rounding.

Table B-2. The Oil and Natural Gas Industry's Total Economic Impact as a Share of State Total, 2021
(Percentage of State Total)

State	Industry Supported Total Employment / State Total Employment	Industry Supported Total Labor Income / State Total Labor Income	Industry Supported Total Value Added / State Total GDP
Alabama	4.6%	4.8%	6.3%
Alaska	8.3%	11.1%	28.1%
Arizona	3.8%	4.1%	4.4%
Arkansas	5.5%	5.6%	7.1%
California	4.3%	5.0%	6.4%
Colorado	7.7%	12.0%	11.2%
Connecticut	3.5%	4.4%	4.6%
Delaware	4.5%	4.9%	5.0%
District of Columbia	2.3%	2.6%	3.0%
Florida	3.3%	3.6%	4.2%
Georgia	3.6%	3.9%	4.8%
Hawaii	3.0%	3.1%	4.3%
Idaho	3.8%	4.3%	4.9%
Illinois	4.5%	5.2%	5.8%
Indiana	4.6%	4.8%	5.9%
Iowa	4.5%	4.2%	4.7%
Kansas	8.4%	9.0%	10.1%
Kentucky	4.6%	4.7%	6.2%
Louisiana	13.1%	16.7%	21.0%
Maine	4.5%	4.5%	5.7%
Maryland	2.9%	2.9%	3.6%
Massachusetts	3.2%	3.6%	4.0%
Michigan	4.1%	4.5%	5.2%
Minnesota	4.6%	5.0%	6.0%
Mississippi	6.8%	7.5%	11.3%
Missouri	4.5%	4.7%	5.5%
Montana	8.0%	9.8%	12.7%
Nebraska	4.7%	6.2%	6.7%
Nevada	3.8%	4.2%	5.2%
New Hampshire	3.8%	4.1%	4.6%
New Jersey	3.9%	4.2%	5.6%
New Mexico	8.5%	9.6%	15.2%
New York	2.8%	3.4%	3.7%
North Carolina	3.6%	3.8%	4.4%
North Dakota	12.8%	15.3%	26.1%
Ohio	5.0%	5.7%	7.3%
Oklahoma	15.3%	23.8%	26.7%
Oregon	3.6%	3.9%	4.5%
Pennsylvania	5.6%	7.5%	8.9%
Rhode Island	3.7%	4.6%	5.5%
South Carolina	3.8%	3.7%	4.9%
South Dakota	4.6%	4.4%	5.4%
Tennessee	4.0%	4.4%	5.2%
Texas	13.4%	19.3%	22.2%
Utah	4.7%	5.3%	6.7%
Vermont	4.3%	4.4%	5.6%
Virginia	3.5%	3.6%	4.4%
Washington	3.4%	3.7%	4.8%
West Virginia	8.5%	9.9%	15.0%
Wisconsin	4.1%	4.0%	4.6%
Wyoming	14.4%	23.3%	28.6%

Source: PwC calculations based on the IMPLAN model.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-3. The Economic Impact of the Oil and Natural Gas Industry in Alabama, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	31,880			31,880	1.2%
Indirect/Induced Impacts on Other Industries					
Services		19,360	23,920	43,280	
Wholesale and retail trade		3,850	6,970	10,820	
Finance, insurance, real estate, rental and leasing		4,570	5,180	9,750	
Transportation and warehousing		7,590	2,100	9,690	
Manufacturing		5,590	3,580	9,170	
Construction		5,260	370	5,630	
Government		1,020	720	1,740	
Agriculture		390	1,050	1,440	
Information		720	600	1,320	
Utilities		600	310	910	
Mining		210	30	240	
Total Impact on Employment	31,880	49,150	44,830	125,860	4.6%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,880			\$1,880	1.2%
Indirect/Induced Impacts on Other Industries					
Services		\$1,128	\$1,178	\$2,306	
Manufacturing		\$468	\$254	\$722	
Wholesale and retail trade		\$298	\$323	\$621	
Finance, insurance, real estate, rental and leasing		\$310	\$274	\$583	
Transportation and warehousing		\$419	\$121	\$539	
Construction		\$316	\$23	\$339	
Utilities		\$110	\$55	\$165	
Government		\$83	\$60	\$143	
Information		\$66	\$54	\$120	
Agriculture		\$13	\$28	\$41	
Mining		\$23	\$4	\$26	
Total Impact on Labor Income	\$1,880	\$3,233	\$2,373	\$7,486	4.8%
Value Added (\$ Millions)					
Industry Direct Impact	\$6,603			\$6,603	2.6%
Indirect/Induced Impacts on Other Industries					
Services		\$1,309	\$1,412	\$2,721	
Finance, insurance, real estate, rental and leasing		\$986	\$1,169	\$2,155	
Manufacturing		\$854	\$443	\$1,297	
Wholesale and retail trade		\$478	\$543	\$1,021	
Transportation and warehousing		\$505	\$158	\$663	
Utilities		\$297	\$150	\$447	
Construction		\$356	\$30	\$386	
Government		\$139	\$103	\$242	
Information		\$125	\$106	\$231	
Mining		\$72	\$11	\$83	
Agriculture		\$18	\$53	\$71	
Total Impact on Value Added	\$6,603	\$5,138	\$4,178	\$15,918	6.3%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-4. The Economic Impact of the Oil and Natural Gas Industry in Alaska, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	12,220			12,220	2.8%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		4,830	8,500	13,330	
<i>Wholesale and retail trade</i>		810	2,320	3,130	
<i>Finance, insurance, real estate, rental and leasing</i>		1,460	1,500	2,960	
<i>Transportation and warehousing</i>		1,080	500	1,580	
<i>Construction</i>		1,360	110	1,470	
<i>Manufacturing</i>		180	370	550	
<i>Information</i>		180	190	370	
<i>Government</i>		120	210	330	
<i>Agriculture</i>		40	260	300	
<i>Utilities</i>		210	80	290	
<i>Mining</i>		240	40	280	
Total Impact on Employment	12,220	10,510	14,080	36,820	8.3%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,053			\$2,053	6.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$345	\$539	\$884	
<i>Wholesale and retail trade</i>		\$54	\$115	\$169	
<i>Finance, insurance, real estate, rental and leasing</i>		\$88	\$80	\$168	
<i>Construction</i>		\$116	\$10	\$126	
<i>Transportation and warehousing</i>		\$83	\$39	\$122	
<i>Utilities</i>		\$32	\$13	\$45	
<i>Government</i>		\$15	\$25	\$41	
<i>Information</i>		\$17	\$18	\$35	
<i>Manufacturing</i>		\$9	\$24	\$34	
<i>Mining</i>		\$20	\$4	\$24	
<i>Agriculture</i>		\$2	\$10	\$12	
Total Impact on Labor Income	\$2,053	\$783	\$878	\$3,713	11.1%
Value Added (\$ Millions)					
Industry Direct Impact	\$13,472			\$13,472	23.5%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$409	\$637	\$1,046	
<i>Finance, insurance, real estate, rental and leasing</i>		\$251	\$411	\$662	
<i>Wholesale and retail trade</i>		\$88	\$176	\$265	
<i>Construction</i>		\$138	\$14	\$151	
<i>Transportation and warehousing</i>		\$102	\$48	\$150	
<i>Utilities</i>		\$73	\$29	\$102	
<i>Mining</i>		\$69	\$12	\$81	
<i>Information</i>		\$36	\$40	\$77	
<i>Manufacturing</i>		\$14	\$31	\$45	
<i>Government</i>		\$17	\$28	\$44	
<i>Agriculture</i>		\$2	\$16	\$18	
Total Impact on Value Added	\$13,472	\$1,197	\$1,443	\$16,113	28.1%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-5. The Economic Impact of the Oil and Natural Gas Industry in Arizona, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	28,440			28,440	0.7%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		25,480	37,580	63,060	
<i>Finance, insurance, real estate, rental and leasing</i>		6,380	9,410	15,790	
<i>Wholesale and retail trade</i>		4,450	9,770	14,220	
<i>Transportation and warehousing</i>		8,050	3,810	11,860	
<i>Construction</i>		6,360	540	6,900	
<i>Manufacturing</i>		3,470	2,480	5,950	
<i>Information</i>		1,470	1,790	3,260	
<i>Government</i>		750	1,030	1,780	
<i>Agriculture</i>		260	890	1,150	
<i>Utilities</i>		530	310	840	
<i>Mining</i>		490	90	580	
Total Impact on Employment	28,440	57,690	67,700	153,840	3.8%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,851			\$1,851	0.7%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,889	\$2,208	\$4,097	
<i>Finance, insurance, real estate, rental and leasing</i>		\$502	\$580	\$1,082	
<i>Wholesale and retail trade</i>		\$380	\$566	\$947	
<i>Transportation and warehousing</i>		\$398	\$199	\$597	
<i>Manufacturing</i>		\$356	\$204	\$560	
<i>Information</i>		\$230	\$257	\$487	
<i>Construction</i>		\$427	\$37	\$464	
<i>Utilities</i>		\$107	\$62	\$169	
<i>Government</i>		\$72	\$95	\$166	
<i>Mining</i>		\$57	\$11	\$68	
<i>Agriculture</i>		\$13	\$53	\$67	
Total Impact on Labor Income	\$1,851	\$4,431	\$4,273	\$10,555	4.1%
Value Added (\$ Millions)					
Industry Direct Impact	\$4,515			\$4,515	1.1%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$2,226	\$2,646	\$4,872	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,340	\$2,058	\$3,398	
<i>Wholesale and retail trade</i>		\$567	\$986	\$1,553	
<i>Manufacturing</i>		\$638	\$375	\$1,013	
<i>Transportation and warehousing</i>		\$510	\$293	\$803	
<i>Information</i>		\$364	\$406	\$770	
<i>Construction</i>		\$505	\$55	\$560	
<i>Utilities</i>		\$302	\$177	\$478	
<i>Government</i>		\$100	\$134	\$234	
<i>Mining</i>		\$193	\$35	\$228	
<i>Agriculture</i>		\$16	\$63	\$79	
Total Impact on Value Added	\$4,515	\$6,761	\$7,228	\$18,504	4.4%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-6. The Economic Impact of the Oil and Natural Gas Industry in Arkansas, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	24,610			24,610	1.5%
Indirect/Induced Impacts on Other Industries					
Services		15,970	16,720	32,690	
Wholesale and retail trade		2,580	4,600	7,180	
Finance, insurance, real estate, rental and leasing		3,480	3,290	6,770	
Transportation and warehousing		5,040	1,450	6,490	
Manufacturing		2,920	2,620	5,540	
Construction		3,610	250	3,860	
Agriculture		380	1,350	1,730	
Government		1,050	530	1,580	
Information		500	350	850	
Utilities		400	150	550	
Mining		120	20	140	
Total Impact on Employment	24,610	36,060	31,330	92,000	5.5%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,078			\$1,078	1.2%
Indirect/Induced Impacts on Other Industries					
Services		\$1,091	\$855	\$1,946	
Transportation and warehousing		\$311	\$91	\$402	
Wholesale and retail trade		\$177	\$207	\$384	
Manufacturing		\$219	\$164	\$382	
Finance, insurance, real estate, rental and leasing		\$197	\$159	\$356	
Construction		\$188	\$13	\$202	
Government		\$73	\$38	\$111	
Information		\$48	\$33	\$81	
Utilities		\$58	\$22	\$80	
Agriculture		\$11	\$29	\$40	
Mining		\$8	\$1	\$9	
Total Impact on Labor Income	\$1,078	\$2,380	\$1,613	\$5,071	5.6%
Value Added (\$ Millions)					
Industry Direct Impact	\$3,897			\$3,897	2.6%
Indirect/Induced Impacts on Other Industries					
Services		\$1,316	\$1,044	\$2,360	
Finance, insurance, real estate, rental and leasing		\$666	\$692	\$1,358	
Manufacturing		\$471	\$312	\$783	
Wholesale and retail trade		\$351	\$405	\$757	
Transportation and warehousing		\$394	\$118	\$512	
Utilities		\$198	\$78	\$276	
Construction		\$208	\$17	\$224	
Information		\$93	\$65	\$158	
Government		\$95	\$51	\$146	
Agriculture		\$18	\$60	\$78	
Mining		\$18	\$3	\$21	
Total Impact on Value Added	\$3,897	\$3,828	\$2,844	\$10,569	7.1%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-7. The Economic Impact of the Oil and Natural Gas Industry in California, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	159,550			159,550	0.7%
Indirect/Induced Impacts on Other Industries					
Services		184,530	267,220	451,750	
Finance, insurance, real estate, rental and leasing		36,880	58,750	95,630	
Wholesale and retail trade		30,370	63,810	94,180	
Transportation and warehousing		63,230	28,980	92,210	
Construction		43,260	3,320	46,580	
Manufacturing		24,160	21,570	45,730	
Information		9,470	12,490	21,960	
Agriculture		2,680	9,660	12,340	
Government		5,750	6,100	11,850	
Utilities		1,930	920	2,850	
Mining		570	80	650	
Total Impact on Employment	159,550	402,830	472,880	1,035,260	4.3%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$23,333			\$23,333	1.1%
Indirect/Induced Impacts on Other Industries					
Services		\$20,183	\$18,257	\$38,440	
Finance, insurance, real estate, rental and leasing		\$4,213	\$5,429	\$9,642	
Transportation and warehousing		\$4,834	\$2,481	\$7,315	
Wholesale and retail trade		\$2,932	\$4,241	\$7,173	
Information		\$3,222	\$3,801	\$7,023	
Manufacturing		\$2,833	\$2,114	\$4,947	
Construction		\$3,609	\$278	\$3,886	
Government		\$728	\$758	\$1,485	
Agriculture		\$174	\$645	\$819	
Utilities		\$505	\$234	\$739	
Mining		\$59	\$8	\$67	
Total Impact on Labor Income	\$23,333	\$43,290	\$38,247	\$104,870	5.0%
Value Added (\$ Millions)					
Industry Direct Impact	\$90,383			\$90,383	2.7%
Indirect/Induced Impacts on Other Industries					
Services		\$23,910	\$22,510	\$46,420	
Finance, insurance, real estate, rental and leasing		\$10,014	\$16,096	\$26,110	
Wholesale and retail trade		\$4,783	\$7,756	\$12,539	
Information		\$5,715	\$6,798	\$12,513	
Manufacturing		\$4,945	\$4,897	\$9,842	
Transportation and warehousing		\$5,916	\$3,898	\$9,814	
Construction		\$4,196	\$375	\$4,572	
Government		\$969	\$1,021	\$1,991	
Utilities		\$1,093	\$514	\$1,607	
Agriculture		\$229	\$884	\$1,114	
Mining		\$197	\$27	\$224	
Total Impact on Value Added	\$90,383	\$61,968	\$64,778	\$217,129	6.4%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-8. The Economic Impact of the Oil and Natural Gas Industry in Colorado, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	54,420			54,420	1.4%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		53,780	83,810	137,590	
<i>Finance, insurance, real estate, rental and leasing</i>		11,980	24,190	36,170	
<i>Wholesale and retail trade</i>		6,500	23,260	29,760	
<i>Transportation and warehousing</i>		7,700	7,590	15,290	
<i>Construction</i>		8,600	1,410	10,010	
<i>Manufacturing</i>		3,800	3,530	7,330	
<i>Information</i>		2,220	3,630	5,850	
<i>Government</i>		1,070	2,440	3,510	
<i>Agriculture</i>		300	2,040	2,340	
<i>Utilities</i>		650	400	1,050	
<i>Mining</i>		340	60	400	
Total Impact on Employment	54,420	96,940	152,380	303,730	7.7%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$15,360			\$15,360	5.4%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$5,527	\$5,068	\$10,596	
<i>Finance, insurance, real estate, rental and leasing</i>		\$928	\$1,463	\$2,391	
<i>Wholesale and retail trade</i>		\$607	\$1,349	\$1,956	
<i>Transportation and warehousing</i>		\$467	\$499	\$967	
<i>Information</i>		\$296	\$464	\$760	
<i>Construction</i>		\$645	\$109	\$753	
<i>Manufacturing</i>		\$339	\$278	\$617	
<i>Government</i>		\$99	\$218	\$317	
<i>Utilities</i>		\$122	\$76	\$198	
<i>Agriculture</i>		\$12	\$87	\$99	
<i>Mining</i>		\$36	\$7	\$43	
Total Impact on Labor Income	\$15,360	\$9,078	\$9,617	\$34,056	12.0%
Value Added (\$ Millions)					
Industry Direct Impact	\$19,848			\$19,848	4.5%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$6,258	\$6,221	\$12,479	
<i>Finance, insurance, real estate, rental and leasing</i>		\$2,086	\$5,003	\$7,089	
<i>Wholesale and retail trade</i>		\$976	\$2,262	\$3,238	
<i>Information</i>		\$583	\$918	\$1,501	
<i>Transportation and warehousing</i>		\$625	\$815	\$1,440	
<i>Manufacturing</i>		\$565	\$531	\$1,095	
<i>Construction</i>		\$731	\$143	\$874	
<i>Utilities</i>		\$350	\$219	\$569	
<i>Government</i>		\$121	\$265	\$386	
<i>Agriculture</i>		\$13	\$102	\$115	
<i>Mining</i>		\$78	\$15	\$93	
Total Impact on Value Added	\$19,848	\$12,385	\$16,494	\$48,726	11.2%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-9. The Economic Impact of the Oil and Natural Gas Industry in Connecticut, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	14,310			14,310	0.6%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		10,660	21,860	32,520	
<i>Finance, insurance, real estate, rental and leasing</i>		2,780	5,880	8,660	
<i>Wholesale and retail trade</i>		2,340	5,000	7,340	
<i>Transportation and warehousing</i>		3,550	1,890	5,440	
<i>Manufacturing</i>		3,410	1,500	4,910	
<i>Construction</i>		2,990	280	3,270	
<i>Information</i>		520	630	1,150	
<i>Government</i>		290	410	700	
<i>Agriculture</i>		70	230	300	
<i>Utilities</i>		160	100	260	
<i>Mining</i>		40	10	50	
Total Impact on Employment	14,310	26,820	37,800	78,930	3.5%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,234			\$2,234	1.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,098	\$1,589	\$2,688	
<i>Finance, insurance, real estate, rental and leasing</i>		\$427	\$695	\$1,123	
<i>Wholesale and retail trade</i>		\$255	\$347	\$602	
<i>Manufacturing</i>		\$397	\$148	\$545	
<i>Transportation and warehousing</i>		\$209	\$119	\$329	
<i>Construction</i>		\$256	\$24	\$280	
<i>Information</i>		\$103	\$124	\$228	
<i>Utilities</i>		\$52	\$32	\$84	
<i>Government</i>		\$33	\$46	\$79	
<i>Agriculture</i>		\$2	\$6	\$8	
<i>Mining</i>		***	***	***	
Total Impact on Labor Income	\$2,234	\$2,832	\$3,132	\$8,198	4.4%
Value Added (\$ Millions)					
Industry Direct Impact	\$4,188			\$4,188	1.4%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,224	\$1,864	\$3,089	
<i>Finance, insurance, real estate, rental and leasing</i>		\$976	\$1,861	\$2,837	
<i>Wholesale and retail trade</i>		\$388	\$585	\$973	
<i>Manufacturing</i>		\$618	\$272	\$890	
<i>Information</i>		\$280	\$308	\$588	
<i>Transportation and warehousing</i>		\$246	\$167	\$413	
<i>Construction</i>		\$241	\$26	\$266	
<i>Utilities</i>		\$138	\$87	\$226	
<i>Government</i>		\$53	\$73	\$125	
<i>Agriculture</i>		\$2	\$8	\$11	
<i>Mining</i>		\$9	\$1	\$10	
Total Impact on Value Added	\$4,188	\$4,175	\$5,252	\$13,614	4.6%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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. *** Less than \$0.5 million.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-10. The Economic Impact of the Oil and Natural Gas Industry in Delaware, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	5,890			5,890	1.0%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		4,560	6,050	10,610	
<i>Transportation and warehousing</i>		2,100	520	2,620	
<i>Finance, insurance, real estate, rental and leasing</i>		950	1,610	2,560	
<i>Wholesale and retail trade</i>		830	1,500	2,330	
<i>Construction</i>		1,570	90	1,660	
<i>Manufacturing</i>		380	440	820	
<i>Information</i>		290	390	680	
<i>Government</i>		130	110	240	
<i>Utilities</i>		110	40	150	
<i>Agriculture</i>		20	80	100	
<i>Mining</i>		**	**	**	
Total Impact on Employment	5,890	10,960	10,830	27,680	4.5%
Labor Income*** (\$ Millions)					
Industry Direct Impact	\$466			\$466	1.1%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$278	\$350	\$628	
<i>Finance, insurance, real estate, rental and leasing</i>		\$136	\$136	\$272	
<i>Transportation and warehousing</i>		\$130	\$29	\$159	
<i>Wholesale and retail trade</i>		\$65	\$78	\$143	
<i>Construction</i>		\$118	\$7	\$125	
<i>Information</i>		\$42	\$54	\$95	
<i>Manufacturing</i>		\$38	\$32	\$70	
<i>Utilities</i>		\$21	\$7	\$28	
<i>Government</i>		\$12	\$10	\$22	
<i>Agriculture</i>		\$2	\$8	\$10	
<i>Mining</i>		****	****	****	
Total Impact on Labor Income	\$466	\$842	\$711	\$2,019	4.9%
Value Added (\$ Millions)					
Industry Direct Impact	\$981			\$981	1.2%
Indirect/Induced Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$517	\$628	\$1,145	
<i>Services</i>		\$427	\$432	\$859	
<i>Information</i>		\$105	\$135	\$239	
<i>Wholesale and retail trade</i>		\$93	\$112	\$205	
<i>Transportation and warehousing</i>		\$152	\$35	\$187	
<i>Manufacturing</i>		\$98	\$75	\$173	
<i>Construction</i>		\$137	\$9	\$146	
<i>Utilities</i>		\$68	\$24	\$91	
<i>Government</i>		\$15	\$13	\$28	
<i>Agriculture</i>		\$3	\$11	\$14	
<i>Mining</i>		\$1	****	\$1	
Total Impact on Value Added	\$981	\$1,616	\$1,474	\$4,071	5.0%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs. ** Less than 5 jobs.

*** Labor income is defined as wages and salaries and benefits as well as proprietors' income. **** Less than \$0.5 million.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-11. The Economic Impact of the Oil and Natural Gas Industry in the District of Columbia, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	2,450			2,450	0.3%
Indirect/Induced Impacts on Other Industries					
Services		4,540	7,070	11,610	
Finance, insurance, real estate, rental and leasing		1,200	1,290	2,490	
Transportation and warehousing		590	450	1,040	
Wholesale and retail trade		420	530	950	
Information		250	300	550	
Construction		490	30	520	
Government		110	240	350	
Manufacturing		30	60	90	
Utilities		40	10	50	
Agriculture		**	**	**	
Mining		**	**	**	
Total Impact on Employment	2,450	7,650	9,990	20,100	2.3%
Labor Income*** (\$ Millions)					
Industry Direct Impact	\$464			\$464	0.4%
Indirect/Induced Impacts on Other Industries					
Services		\$663	\$764	\$1,427	
Finance, insurance, real estate, rental and leasing		\$264	\$215	\$479	
Transportation and warehousing		\$70	\$62	\$132	
Information		\$61	\$68	\$129	
Wholesale and retail trade		\$67	\$42	\$109	
Government		\$29	\$50	\$78	
Construction		\$43	\$3	\$46	
Utilities		\$10	\$4	\$14	
Manufacturing		\$3	\$5	\$8	
Agriculture		****	****	****	
Mining		****	****	****	
Total Impact on Labor Income	\$464	\$1,209	\$1,213	\$2,886	2.6%
Value Added (\$ Millions)					
Industry Direct Impact	\$1,135			\$1,135	0.7%
Indirect/Induced Impacts on Other Industries					
Services		\$735	\$908	\$1,644	
Finance, insurance, real estate, rental and leasing		\$493	\$478	\$971	
Information		\$129	\$143	\$272	
Wholesale and retail trade		\$83	\$64	\$147	
Transportation and warehousing		\$68	\$77	\$145	
Government		\$43	\$75	\$119	
Construction		\$47	\$4	\$50	
Utilities		\$32	\$12	\$44	
Manufacturing		\$6	\$7	\$13	
Agriculture		****	****	****	
Mining		****	****	****	
Total Impact on Value Added	\$1,135	\$1,636	\$1,769	\$4,540	3.0%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs. ** Less than 5 jobs.

*** Labor income is defined as wages and salaries and benefits as well as proprietors' income. **** Less than \$0.5 million.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-12. The Economic Impact of the Oil and Natural Gas Industry in Florida, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	69,340			69,340	0.5%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		73,110	112,700	185,810	
<i>Finance, insurance, real estate, rental and leasing</i>		17,250	30,920	48,170	
<i>Wholesale and retail trade</i>		14,640	29,470	44,110	
<i>Transportation and warehousing</i>		20,790	11,320	32,110	
<i>Construction</i>		20,790	1,660	22,450	
<i>Manufacturing</i>		8,370	6,460	14,830	
<i>Information</i>		3,180	3,910	7,090	
<i>Government</i>		1,840	2,090	3,930	
<i>Agriculture</i>		930	2,730	3,660	
<i>Utilities</i>		980	570	1,550	
<i>Mining</i>		290	40	330	
Total Impact on Employment	69,340	162,180	201,870	433,400	3.3%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$3,550			\$3,550	0.5%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$5,501	\$6,361	\$11,862	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,394	\$1,852	\$3,245	
<i>Wholesale and retail trade</i>		\$1,219	\$1,727	\$2,946	
<i>Transportation and warehousing</i>		\$1,016	\$562	\$1,578	
<i>Construction</i>		\$1,262	\$103	\$1,365	
<i>Manufacturing</i>		\$679	\$447	\$1,126	
<i>Information</i>		\$462	\$520	\$983	
<i>Government</i>		\$178	\$198	\$376	
<i>Utilities</i>		\$208	\$117	\$325	
<i>Agriculture</i>		\$39	\$115	\$154	
<i>Mining</i>		\$20	\$2	\$23	
Total Impact on Labor Income	\$3,550	\$11,978	\$12,005	\$27,533	3.6%
Value Added (\$ Millions)					
Industry Direct Impact	\$14,893			\$14,893	1.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$6,420	\$7,761	\$14,181	
<i>Finance, insurance, real estate, rental and leasing</i>		\$3,299	\$6,467	\$9,765	
<i>Wholesale and retail trade</i>		\$1,941	\$3,042	\$4,984	
<i>Manufacturing</i>		\$1,222	\$855	\$2,077	
<i>Transportation and warehousing</i>		\$1,250	\$792	\$2,042	
<i>Construction</i>		\$1,509	\$156	\$1,664	
<i>Information</i>		\$756	\$859	\$1,615	
<i>Utilities</i>		\$729	\$418	\$1,147	
<i>Government</i>		\$234	\$264	\$498	
<i>Agriculture</i>		\$45	\$136	\$181	
<i>Mining</i>		\$78	\$10	\$88	
Total Impact on Value Added	\$14,893	\$17,484	\$20,759	\$53,136	4.2%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-13. The Economic Impact of the Oil and Natural Gas Industry in Georgia, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	45,180			45,180	0.7%
Indirect/Induced Impacts on Other Industries					
Services		38,280	54,990	93,270	
Wholesale and retail trade		8,080	14,690	22,770	
Transportation and warehousing		14,080	6,240	20,320	
Finance, insurance, real estate, rental and leasing		7,440	11,640	19,080	
Manufacturing		7,320	6,490	13,810	
Construction		9,520	720	10,240	
Information		1,990	2,410	4,400	
Agriculture		580	1,500	2,080	
Government		720	1,050	1,770	
Utilities		620	350	970	
Mining		240	40	280	
Total Impact on Employment	45,180	88,870	100,120	234,170	3.6%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,589			\$2,589	0.6%
Indirect/Induced Impacts on Other Industries					
Services		\$2,925	\$3,067	\$5,992	
Finance, insurance, real estate, rental and leasing		\$790	\$843	\$1,633	
Wholesale and retail trade		\$735	\$839	\$1,574	
Transportation and warehousing		\$743	\$351	\$1,094	
Manufacturing		\$592	\$468	\$1,060	
Information		\$403	\$469	\$872	
Construction		\$602	\$47	\$649	
Utilities		\$124	\$69	\$193	
Government		\$72	\$97	\$169	
Agriculture		\$24	\$57	\$81	
Mining		\$29	\$4	\$33	
Total Impact on Labor Income	\$2,589	\$7,038	\$6,312	\$15,939	3.9%
Value Added (\$ Millions)					
Industry Direct Impact	\$10,798			\$10,798	1.6%
Indirect/Induced Impacts on Other Industries					
Services		\$3,376	\$3,679	\$7,056	
Finance, insurance, real estate, rental and leasing		\$2,361	\$3,134	\$5,495	
Wholesale and retail trade		\$1,184	\$1,471	\$2,655	
Manufacturing		\$1,090	\$928	\$2,018	
Information		\$740	\$864	\$1,604	
Transportation and warehousing		\$940	\$524	\$1,464	
Construction		\$741	\$74	\$814	
Utilities		\$382	\$216	\$598	
Government		\$90	\$124	\$214	
Agriculture		\$29	\$79	\$108	
Mining		\$79	\$12	\$91	
Total Impact on Value Added	\$10,798	\$11,013	\$11,105	\$32,915	4.8%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-14. The Economic Impact of the Oil and Natural Gas Industry in Hawaii, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	4,120			4,120	0.5%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		4,200	7,210	11,410	
<i>Wholesale and retail trade</i>		790	1,860	2,650	
<i>Finance, insurance, real estate, rental and leasing</i>		940	1,390	2,330	
<i>Construction</i>		1,480	100	1,580	
<i>Transportation and warehousing</i>		970	510	1,480	
<i>Manufacturing</i>		200	370	570	
<i>Agriculture</i>		80	330	410	
<i>Government</i>		160	210	370	
<i>Information</i>		130	170	300	
<i>Utilities</i>		80	50	130	
<i>Mining</i>		10	**	10	
Total Impact on Employment	4,120	9,050	12,210	25,370	3.0%
Labor Income*** (\$ Millions)					
Industry Direct Impact	\$319			\$319	0.6%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$303	\$457	\$760	
<i>Finance, insurance, real estate, rental and leasing</i>		\$74	\$93	\$166	
<i>Wholesale and retail trade</i>		\$57	\$102	\$159	
<i>Construction</i>		\$131	\$9	\$140	
<i>Transportation and warehousing</i>		\$59	\$30	\$89	
<i>Information</i>		\$21	\$24	\$44	
<i>Government</i>		\$19	\$25	\$44	
<i>Manufacturing</i>		\$18	\$20	\$39	
<i>Utilities</i>		\$14	\$9	\$24	
<i>Agriculture</i>		\$2	\$8	\$10	
<i>Mining</i>		\$1	****	\$2	
Total Impact on Labor Income	\$319	\$702	\$777	\$1,798	3.1%
Value Added (\$ Millions)					
Industry Direct Impact	\$1,525			\$1,525	1.7%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$372	\$604	\$976	
<i>Finance, insurance, real estate, rental and leasing</i>		\$229	\$412	\$640	
<i>Wholesale and retail trade</i>		\$90	\$171	\$261	
<i>Construction</i>		\$149	\$12	\$161	
<i>Transportation and warehousing</i>		\$73	\$36	\$108	
<i>Information</i>		\$35	\$42	\$77	
<i>Utilities</i>		\$45	\$30	\$75	
<i>Manufacturing</i>		\$25	\$27	\$52	
<i>Government</i>		\$23	\$29	\$52	
<i>Agriculture</i>		\$2	\$9	\$11	
<i>Mining</i>		\$5	\$1	\$6	
Total Impact on Value Added	\$1,525	\$1,048	\$1,371	\$3,944	4.3%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs. ** Less than 5 jobs.

*** Labor income is defined as wages and salaries and benefits as well as proprietors' income. **** Less than \$0.5 million.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-15. The Economic Impact of the Oil and Natural Gas Industry in Idaho, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	10,400			10,400	0.9%
Indirect/Induced Impacts on Other Industries					
Services		6,250	9,310	15,560	
Wholesale and retail trade		1,260	2,660	3,920	
Finance, insurance, real estate, rental and leasing		1,560	2,120	3,680	
Construction		2,270	180	2,450	
Manufacturing		1,260	1,190	2,450	
Transportation and warehousing		1,410	740	2,150	
Agriculture		290	1,000	1,290	
Government		300	280	580	
Information		240	230	470	
Utilities		100	60	160	
Mining		130	20	150	
Total Impact on Employment	10,400	15,060	17,780	43,240	3.8%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$732			\$732	1.2%
Indirect/Induced Impacts on Other Industries					
Services		\$400	\$467	\$868	
Wholesale and retail trade		\$93	\$151	\$245	
Manufacturing		\$106	\$87	\$193	
Finance, insurance, real estate, rental and leasing		\$91	\$100	\$191	
Construction		\$126	\$10	\$137	
Transportation and warehousing		\$77	\$42	\$119	
Agriculture		\$19	\$82	\$100	
Information		\$27	\$25	\$53	
Government		\$22	\$21	\$44	
Utilities		\$15	\$8	\$23	
Mining		\$10	\$2	\$12	
Total Impact on Labor Income	\$732	\$987	\$997	\$2,716	4.3%
Value Added (\$ Millions)					
Industry Direct Impact	\$1,622			\$1,622	1.7%
Indirect/Induced Impacts on Other Industries					
Services		\$487	\$575	\$1,062	
Finance, insurance, real estate, rental and leasing		\$273	\$421	\$694	
Wholesale and retail trade		\$146	\$240	\$386	
Manufacturing		\$155	\$155	\$310	
Transportation and warehousing		\$102	\$57	\$159	
Construction		\$134	\$13	\$147	
Agriculture		\$18	\$77	\$95	
Information		\$47	\$43	\$91	
Utilities		\$51	\$28	\$78	
Government		\$29	\$28	\$57	
Mining		\$32	\$6	\$38	
Total Impact on Value Added	\$1,622	\$1,474	\$1,644	\$4,739	4.9%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-16. The Economic Impact of the Oil and Natural Gas Industry in Illinois, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	59,480			59,480	0.8%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		59,910	83,080	142,990	
<i>Wholesale and retail trade</i>		11,040	20,940	31,980	
<i>Finance, insurance, real estate, rental and leasing</i>		12,280	19,370	31,650	
<i>Transportation and warehousing</i>		21,600	9,400	31,000	
<i>Manufacturing</i>		12,200	8,360	20,560	
<i>Construction</i>		13,190	920	14,110	
<i>Information</i>		2,260	2,590	4,850	
<i>Government</i>		1,170	1,360	2,530	
<i>Agriculture</i>		440	1,730	2,170	
<i>Utilities</i>		1,100	450	1,550	
<i>Mining</i>		350	40	390	
Total Impact on Employment	59,480	135,550	148,230	343,260	4.5%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$6,428			\$6,428	1.1%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$5,857	\$5,462	\$11,319	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,453	\$1,937	\$3,390	
<i>Wholesale and retail trade</i>		\$1,096	\$1,380	\$2,476	
<i>Transportation and warehousing</i>		\$1,436	\$580	\$2,017	
<i>Manufacturing</i>		\$1,173	\$823	\$1,996	
<i>Construction</i>		\$965	\$69	\$1,034	
<i>Information</i>		\$390	\$422	\$812	
<i>Utilities</i>		\$300	\$123	\$423	
<i>Government</i>		\$122	\$141	\$263	
<i>Agriculture</i>		\$41	\$162	\$203	
<i>Mining</i>		\$37	\$5	\$42	
Total Impact on Labor Income	\$6,428	\$12,871	\$11,103	\$30,401	5.2%
Value Added (\$ Millions)					
Industry Direct Impact	\$17,672			\$17,672	1.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$6,592	\$6,710	\$13,302	
<i>Finance, insurance, real estate, rental and leasing</i>		\$3,724	\$5,600	\$9,324	
<i>Wholesale and retail trade</i>		\$1,810	\$2,525	\$4,336	
<i>Manufacturing</i>		\$1,966	\$1,647	\$3,613	
<i>Transportation and warehousing</i>		\$1,757	\$789	\$2,546	
<i>Information</i>		\$697	\$778	\$1,475	
<i>Construction</i>		\$1,136	\$95	\$1,232	
<i>Utilities</i>		\$810	\$335	\$1,145	
<i>Government</i>		\$149	\$174	\$322	
<i>Agriculture</i>		\$54	\$218	\$272	
<i>Mining</i>		\$63	\$8	\$71	
Total Impact on Value Added	\$17,672	\$18,759	\$18,879	\$55,310	5.8%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-17. The Economic Impact of the Oil and Natural Gas Industry in Indiana, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	37,340			37,340	0.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		28,190	38,140	66,330	
<i>Manufacturing</i>		10,950	6,750	17,700	
<i>Transportation and warehousing</i>		12,430	3,920	16,350	
<i>Wholesale and retail trade</i>		5,280	9,870	15,150	
<i>Finance, insurance, real estate, rental and leasing</i>		5,330	6,760	12,090	
<i>Construction</i>		8,180	500	8,680	
<i>Government</i>		1,250	800	2,050	
<i>Agriculture</i>		350	1,450	1,800	
<i>Information</i>		950	840	1,790	
<i>Utilities</i>		620	260	880	
<i>Mining</i>		230	30	260	
Total Impact on Employment	37,340	73,770	69,330	180,440	4.6%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,509			\$2,509	1.0%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,947	\$2,147	\$4,094	
<i>Manufacturing</i>		\$949	\$579	\$1,528	
<i>Finance, insurance, real estate, rental and leasing</i>		\$485	\$614	\$1,099	
<i>Transportation and warehousing</i>		\$788	\$235	\$1,023	
<i>Wholesale and retail trade</i>		\$398	\$486	\$884	
<i>Construction</i>		\$551	\$35	\$586	
<i>Information</i>		\$99	\$85	\$184	
<i>Government</i>		\$90	\$60	\$150	
<i>Utilities</i>		\$100	\$42	\$142	
<i>Agriculture</i>		\$25	\$97	\$123	
<i>Mining</i>		\$20	\$3	\$23	
Total Impact on Labor Income	\$2,509	\$5,453	\$4,383	\$12,345	4.8%
Value Added (\$ Millions)					
Industry Direct Impact	\$8,511			\$8,511	2.1%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$2,311	\$2,618	\$4,929	
<i>Manufacturing</i>		\$1,783	\$1,340	\$3,123	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,168	\$1,805	\$2,973	
<i>Wholesale and retail trade</i>		\$624	\$847	\$1,471	
<i>Transportation and warehousing</i>		\$979	\$305	\$1,284	
<i>Construction</i>		\$645	\$48	\$693	
<i>Utilities</i>		\$355	\$150	\$505	
<i>Information</i>		\$159	\$142	\$301	
<i>Government</i>		\$121	\$82	\$204	
<i>Agriculture</i>		\$33	\$133	\$166	
<i>Mining</i>		\$43	\$6	\$49	
Total Impact on Value Added	\$8,511	\$8,222	\$7,477	\$24,210	5.9%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-18. The Economic Impact of the Oil and Natural Gas Industry in Iowa, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	28,010			28,010	1.4%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		11,250	16,040	27,290	
<i>Manufacturing</i>		4,090	3,140	7,230	
<i>Wholesale and retail trade</i>		2,370	4,810	7,180	
<i>Finance, insurance, real estate, rental and leasing</i>		3,100	3,930	7,030	
<i>Transportation and warehousing</i>		5,380	1,590	6,970	
<i>Construction</i>		3,430	240	3,670	
<i>Agriculture</i>		370	2,210	2,580	
<i>Information</i>		650	490	1,140	
<i>Government</i>		630	380	1,010	
<i>Utilities</i>		300	130	430	
<i>Mining</i>		100	20	120	
Total Impact on Employment	28,010	31,670	32,980	92,660	4.5%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,097			\$1,097	0.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$724	\$805	\$1,529	
<i>Manufacturing</i>		\$366	\$249	\$615	
<i>Finance, insurance, real estate, rental and leasing</i>		\$208	\$237	\$445	
<i>Transportation and warehousing</i>		\$324	\$101	\$425	
<i>Wholesale and retail trade</i>		\$167	\$224	\$391	
<i>Construction</i>		\$223	\$16	\$239	
<i>Agriculture</i>		\$21	\$109	\$130	
<i>Information</i>		\$71	\$54	\$125	
<i>Government</i>		\$49	\$31	\$81	
<i>Utilities</i>		\$47	\$20	\$66	
<i>Mining</i>		\$8	\$1	\$9	
Total Impact on Labor Income	\$1,097	\$2,207	\$1,848	\$5,152	4.2%
Value Added (\$ Millions)					
Industry Direct Impact	\$3,019			\$3,019	1.4%
Indirect/Induced Impacts on Other Industries					
<i>Finance, insurance, real estate, rental and leasing</i>		\$800	\$1,058	\$1,858	
<i>Services</i>		\$855	\$981	\$1,836	
<i>Manufacturing</i>		\$715	\$459	\$1,174	
<i>Wholesale and retail trade</i>		\$271	\$368	\$639	
<i>Transportation and warehousing</i>		\$404	\$144	\$548	
<i>Agriculture</i>		\$40	\$243	\$283	
<i>Construction</i>		\$244	\$21	\$266	
<i>Utilities</i>		\$178	\$77	\$255	
<i>Information</i>		\$124	\$95	\$219	
<i>Government</i>		\$68	\$45	\$113	
<i>Mining</i>		\$29	\$5	\$34	
Total Impact on Value Added	\$3,019	\$3,730	\$3,494	\$10,243	4.7%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-19. The Economic Impact of the Oil and Natural Gas Industry in Kansas, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	46,160			46,160	2.4%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		32,560	27,310	59,870	
<i>Finance, insurance, real estate, rental and leasing</i>		7,610	6,410	14,020	
<i>Wholesale and retail trade</i>		4,390	7,620	12,010	
<i>Transportation and warehousing</i>		7,810	2,290	10,100	
<i>Manufacturing</i>		3,330	2,300	5,630	
<i>Construction</i>		5,170	380	5,550	
<i>Government</i>		1,880	1,090	2,970	
<i>Agriculture</i>		290	1,680	1,970	
<i>Information</i>		910	670	1,580	
<i>Utilities</i>		560	150	710	
<i>Mining</i>		160	20	180	
Total Impact on Employment	46,160	64,680	49,920	160,760	8.4%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,586			\$2,586	2.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$2,542	\$1,450	\$3,992	
<i>Finance, insurance, real estate, rental and leasing</i>		\$858	\$430	\$1,287	
<i>Wholesale and retail trade</i>		\$361	\$353	\$714	
<i>Transportation and warehousing</i>		\$495	\$131	\$626	
<i>Manufacturing</i>		\$268	\$173	\$441	
<i>Construction</i>		\$324	\$24	\$348	
<i>Government</i>		\$128	\$76	\$204	
<i>Information</i>		\$105	\$79	\$184	
<i>Utilities</i>		\$92	\$25	\$117	
<i>Agriculture</i>		\$17	\$87	\$103	
<i>Mining</i>		\$10	\$1	\$11	
Total Impact on Labor Income	\$2,586	\$5,200	\$2,828	\$10,614	9.0%
Value Added (\$ Millions)					
Industry Direct Impact	\$6,917			\$6,917	3.6%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$3,070	\$1,756	\$4,826	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,686	\$1,313	\$2,999	
<i>Wholesale and retail trade</i>		\$640	\$640	\$1,281	
<i>Transportation and warehousing</i>		\$667	\$194	\$861	
<i>Manufacturing</i>		\$426	\$339	\$765	
<i>Information</i>		\$235	\$205	\$440	
<i>Construction</i>		\$382	\$31	\$414	
<i>Utilities</i>		\$292	\$81	\$373	
<i>Government</i>		\$157	\$94	\$252	
<i>Agriculture</i>		\$23	\$135	\$158	
<i>Mining</i>		\$40	\$5	\$44	
Total Impact on Value Added	\$6,917	\$7,618	\$4,793	\$19,327	10.1%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-20. The Economic Impact of the Oil and Natural Gas Industry in Kentucky, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	28,280			28,280	1.1%
Indirect/Induced Impacts on Other Industries					
Services		18,280	22,210	40,490	
Transportation and warehousing		7,730	2,560	10,290	
Wholesale and retail trade		3,240	6,200	9,440	
Finance, insurance, real estate, rental and leasing		4,090	4,400	8,490	
Manufacturing		4,860	3,380	8,240	
Construction		4,790	310	5,100	
Agriculture		450	1,910	2,360	
Government		1,270	720	1,990	
Information		760	600	1,360	
Utilities		420	170	590	
Mining		270	50	320	
Total Impact on Employment	28,280	46,160	42,500	116,940	4.6%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,376			\$1,376	0.9%
Indirect/Induced Impacts on Other Industries					
Services		\$1,140	\$1,202	\$2,342	
Manufacturing		\$405	\$271	\$675	
Transportation and warehousing		\$502	\$173	\$675	
Finance, insurance, real estate, rental and leasing		\$277	\$266	\$543	
Wholesale and retail trade		\$227	\$293	\$519	
Construction		\$291	\$19	\$311	
Government		\$100	\$59	\$158	
Information		\$72	\$56	\$129	
Utilities		\$63	\$25	\$88	
Agriculture		\$16	\$61	\$77	
Mining		\$23	\$4	\$26	
Total Impact on Labor Income	\$1,376	\$3,115	\$2,428	\$6,920	4.7%
Value Added (\$ Millions)					
Industry Direct Impact	\$6,000			\$6,000	2.5%
Indirect/Induced Impacts on Other Industries					
Services		\$1,319	\$1,423	\$2,741	
Finance, insurance, real estate, rental and leasing		\$815	\$1,002	\$1,817	
Manufacturing		\$690	\$591	\$1,280	
Wholesale and retail trade		\$403	\$521	\$924	
Transportation and warehousing		\$578	\$208	\$786	
Construction		\$311	\$24	\$335	
Utilities		\$223	\$89	\$312	
Information		\$132	\$108	\$240	
Government		\$124	\$75	\$199	
Agriculture		\$18	\$77	\$96	
Mining		\$40	\$7	\$46	
Total Impact on Value Added	\$6,000	\$4,652	\$4,124	\$14,777	6.2%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-21. The Economic Impact of the Oil and Natural Gas Industry in Louisiana, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	91,720			91,720	3.5%
Indirect/Induced Impacts on Other Industries					
Services		62,150	72,270	134,420	
Finance, insurance, real estate, rental and leasing		15,150	15,090	30,240	
Wholesale and retail trade		9,090	19,020	28,110	
Transportation and warehousing		18,980	4,270	23,250	
Construction		16,460	1,050	17,510	
Manufacturing		5,800	2,280	8,080	
Government		3,600	2,270	5,870	
Information		2,020	1,610	3,630	
Utilities		1,440	390	1,830	
Agriculture		450	1,340	1,790	
Mining		230	20	250	
Total Impact on Employment	91,720	135,380	119,610	346,710	13.1%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$10,748			\$10,748	7.0%
Indirect/Induced Impacts on Other Industries					
Services		\$3,751	\$3,553	\$7,303	
Finance, insurance, real estate, rental and leasing		\$1,006	\$694	\$1,700	
Wholesale and retail trade		\$702	\$848	\$1,550	
Transportation and warehousing		\$1,217	\$229	\$1,446	
Construction		\$1,021	\$65	\$1,086	
Manufacturing		\$635	\$178	\$813	
Government		\$280	\$177	\$456	
Information		\$169	\$133	\$302	
Utilities		\$215	\$58	\$273	
Agriculture		\$17	\$47	\$64	
Mining		\$20	\$2	\$22	
Total Impact on Labor Income	\$10,748	\$9,033	\$5,982	\$25,763	16.7%
Value Added (\$ Millions)					
Industry Direct Impact	\$29,165			\$29,165	11.3%
Indirect/Induced Impacts on Other Industries					
Services		\$4,241	\$4,129	\$8,370	
Finance, insurance, real estate, rental and leasing		\$2,622	\$3,065	\$5,687	
Wholesale and retail trade		\$1,285	\$1,494	\$2,779	
Manufacturing		\$2,236	\$429	\$2,666	
Transportation and warehousing		\$1,473	\$279	\$1,753	
Construction		\$1,272	\$87	\$1,359	
Utilities		\$944	\$254	\$1,198	
Information		\$340	\$266	\$606	
Government		\$329	\$209	\$538	
Agriculture		\$19	\$61	\$80	
Mining		\$54	\$5	\$59	
Total Impact on Value Added	\$29,165	\$14,816	\$10,279	\$54,260	21.0%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-22. The Economic Impact of the Oil and Natural Gas Industry in Maine, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	11,340			11,340	1.3%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		5,000	8,270	13,270	
<i>Wholesale and retail trade</i>		950	2,070	3,020	
<i>Finance, insurance, real estate, rental and leasing</i>		1,110	1,480	2,590	
<i>Transportation and warehousing</i>		1,520	510	2,030	
<i>Manufacturing</i>		1,040	840	1,880	
<i>Construction</i>		1,590	130	1,720	
<i>Agriculture</i>		180	440	620	
<i>Information</i>		260	200	460	
<i>Government</i>		240	200	440	
<i>Utilities</i>		80	40	120	
<i>Mining</i>		40	**	40	
Total Impact on Employment	11,340	12,010	14,180	37,530	4.5%
Labor Income*** (\$ Millions)					
Industry Direct Impact	\$604			\$604	1.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$336	\$479	\$815	
<i>Wholesale and retail trade</i>		\$71	\$104	\$175	
<i>Finance, insurance, real estate, rental and leasing</i>		\$73	\$86	\$159	
<i>Manufacturing</i>		\$79	\$61	\$140	
<i>Transportation and warehousing</i>		\$88	\$29	\$116	
<i>Construction</i>		\$89	\$8	\$97	
<i>Information</i>		\$28	\$23	\$51	
<i>Government</i>		\$20	\$17	\$37	
<i>Agriculture</i>		\$6	\$17	\$23	
<i>Utilities</i>		\$11	\$5	\$16	
<i>Mining</i>		\$2	****	\$2	
Total Impact on Labor Income	\$604	\$803	\$828	\$2,236	4.5%
Value Added (\$ Millions)					
Industry Direct Impact	\$1,739			\$1,739	2.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$408	\$593	\$1,001	
<i>Finance, insurance, real estate, rental and leasing</i>		\$275	\$424	\$698	
<i>Wholesale and retail trade</i>		\$106	\$180	\$286	
<i>Manufacturing</i>		\$124	\$114	\$239	
<i>Transportation and warehousing</i>		\$109	\$40	\$150	
<i>Construction</i>		\$86	\$8	\$94	
<i>Information</i>		\$47	\$37	\$84	
<i>Utilities</i>		\$50	\$23	\$73	
<i>Government</i>		\$25	\$22	\$47	
<i>Agriculture</i>		\$6	\$19	\$25	
<i>Mining</i>		\$7	\$1	\$8	
Total Impact on Value Added	\$1,739	\$1,244	\$1,462	\$4,445	5.7%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs. ** Less than 5 jobs.

*** Labor income is defined as wages and salaries and benefits as well as proprietors' income. **** Less than \$0.5 million.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-23. The Economic Impact of the Oil and Natural Gas Industry in Maryland, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	18,030			18,030	0.5%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		18,300	28,570	46,870	
<i>Wholesale and retail trade</i>		3,490	6,310	9,800	
<i>Transportation and warehousing</i>		6,030	3,130	9,160	
<i>Finance, insurance, real estate, rental and leasing</i>		3,240	5,720	8,960	
<i>Construction</i>		6,230	410	6,640	
<i>Manufacturing</i>		1,880	1,750	3,630	
<i>Information</i>		700	850	1,550	
<i>Government</i>		300	580	880	
<i>Agriculture</i>		110	440	550	
<i>Utilities</i>		320	170	490	
<i>Mining</i>		60	10	70	
Total Impact on Employment	18,030	40,660	47,940	106,630	2.9%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,153			\$1,153	0.4%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,712	\$1,857	\$3,569	
<i>Finance, insurance, real estate, rental and leasing</i>		\$317	\$465	\$781	
<i>Wholesale and retail trade</i>		\$300	\$362	\$662	
<i>Transportation and warehousing</i>		\$328	\$182	\$510	
<i>Construction</i>		\$449	\$31	\$480	
<i>Manufacturing</i>		\$179	\$147	\$326	
<i>Information</i>		\$136	\$146	\$282	
<i>Utilities</i>		\$99	\$52	\$151	
<i>Government</i>		\$51	\$83	\$134	
<i>Agriculture</i>		\$5	\$15	\$20	
<i>Mining</i>		\$4	\$1	\$5	
Total Impact on Labor Income	\$1,153	\$3,580	\$3,341	\$8,074	2.9%
Value Added (\$ Millions)					
Industry Direct Impact	\$4,950			\$4,950	1.1%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,979	\$2,240	\$4,220	
<i>Finance, insurance, real estate, rental and leasing</i>		\$884	\$1,674	\$2,558	
<i>Wholesale and retail trade</i>		\$484	\$629	\$1,113	
<i>Transportation and warehousing</i>		\$404	\$260	\$663	
<i>Manufacturing</i>		\$327	\$326	\$653	
<i>Construction</i>		\$558	\$49	\$607	
<i>Information</i>		\$248	\$271	\$519	
<i>Utilities</i>		\$242	\$130	\$372	
<i>Government</i>		\$87	\$143	\$230	
<i>Agriculture</i>		\$6	\$25	\$31	
<i>Mining</i>		\$10	\$2	\$12	
Total Impact on Value Added	\$4,950	\$5,229	\$5,749	\$15,927	3.6%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-24. The Economic Impact of the Oil and Natural Gas Industry in Massachusetts, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	24,880			24,880	0.5%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		24,650	45,060	69,710	
<i>Finance, insurance, real estate, rental and leasing</i>		5,540	9,500	15,040	
<i>Wholesale and retail trade</i>		4,640	9,400	14,040	
<i>Transportation and warehousing</i>		5,390	3,950	9,340	
<i>Manufacturing</i>		4,250	3,150	7,400	
<i>Construction</i>		6,680	520	7,200	
<i>Information</i>		1,020	1,230	2,250	
<i>Government</i>		180	520	700	
<i>Agriculture</i>		120	410	530	
<i>Utilities</i>		320	200	520	
<i>Mining</i>		60	10	70	
Total Impact on Employment	24,880	52,850	73,950	151,680	3.2%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,707			\$2,707	0.6%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$3,063	\$3,474	\$6,537	
<i>Finance, insurance, real estate, rental and leasing</i>		\$841	\$1,198	\$2,039	
<i>Wholesale and retail trade</i>		\$527	\$683	\$1,211	
<i>Manufacturing</i>		\$481	\$317	\$798	
<i>Transportation and warehousing</i>		\$380	\$328	\$708	
<i>Construction</i>		\$602	\$49	\$650	
<i>Information</i>		\$202	\$226	\$428	
<i>Utilities</i>		\$102	\$62	\$164	
<i>Government</i>		\$28	\$62	\$90	
<i>Agriculture</i>		\$5	\$18	\$23	
<i>Mining</i>		\$5	\$1	\$6	
Total Impact on Labor Income	\$2,707	\$6,236	\$6,417	\$15,361	3.6%
Value Added (\$ Millions)					
Industry Direct Impact	\$6,663			\$6,663	1.0%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$3,617	\$4,170	\$7,787	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,864	\$3,101	\$4,964	
<i>Wholesale and retail trade</i>		\$722	\$1,057	\$1,779	
<i>Manufacturing</i>		\$764	\$640	\$1,404	
<i>Transportation and warehousing</i>		\$555	\$586	\$1,141	
<i>Information</i>		\$343	\$387	\$730	
<i>Construction</i>		\$592	\$55	\$647	
<i>Utilities</i>		\$254	\$157	\$410	
<i>Government</i>		\$53	\$115	\$168	
<i>Agriculture</i>		\$2	\$15	\$17	
<i>Mining</i>		\$9	\$1	\$10	
Total Impact on Value Added	\$6,663	\$8,774	\$10,284	\$25,721	4.0%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-25. The Economic Impact of the Oil and Natural Gas Industry in Michigan, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	45,640			45,640	0.8%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		38,440	53,200	91,640	
<i>Wholesale and retail trade</i>		6,950	13,390	20,340	
<i>Manufacturing</i>		12,510	7,670	20,180	
<i>Finance, insurance, real estate, rental and leasing</i>		7,590	11,320	18,910	
<i>Transportation and warehousing</i>		9,710	4,170	13,880	
<i>Construction</i>		8,380	720	9,100	
<i>Information</i>		1,760	1,820	3,580	
<i>Agriculture</i>		520	1,660	2,180	
<i>Government</i>		820	1,000	1,820	
<i>Utilities</i>		710	390	1,100	
<i>Mining</i>		180	30	210	
Total Impact on Employment	45,640	87,590	95,350	228,570	4.1%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$3,395			\$3,395	0.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$3,100	\$3,138	\$6,238	
<i>Manufacturing</i>		\$1,127	\$660	\$1,787	
<i>Wholesale and retail trade</i>		\$601	\$739	\$1,340	
<i>Finance, insurance, real estate, rental and leasing</i>		\$554	\$689	\$1,244	
<i>Transportation and warehousing</i>		\$570	\$248	\$818	
<i>Construction</i>		\$559	\$49	\$608	
<i>Information</i>		\$208	\$210	\$417	
<i>Utilities</i>		\$163	\$87	\$250	
<i>Government</i>		\$75	\$90	\$165	
<i>Agriculture</i>		\$21	\$68	\$89	
<i>Mining</i>		\$16	\$3	\$19	
Total Impact on Labor Income	\$3,395	\$6,995	\$5,980	\$16,370	4.5%
Value Added (\$ Millions)					
Industry Direct Impact	\$9,619			\$9,619	1.7%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$3,572	\$3,696	\$7,268	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,623	\$2,692	\$4,315	
<i>Manufacturing</i>		\$1,861	\$1,211	\$3,072	
<i>Wholesale and retail trade</i>		\$940	\$1,244	\$2,184	
<i>Transportation and warehousing</i>		\$681	\$338	\$1,019	
<i>Information</i>		\$347	\$347	\$694	
<i>Construction</i>		\$582	\$59	\$642	
<i>Utilities</i>		\$409	\$221	\$630	
<i>Government</i>		\$102	\$123	\$225	
<i>Agriculture</i>		\$29	\$101	\$130	
<i>Mining</i>		\$65	\$12	\$77	
Total Impact on Value Added	\$9,619	\$10,211	\$10,043	\$29,873	5.2%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-26. The Economic Impact of the Oil and Natural Gas Industry in Minnesota, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	38,870			38,870	1.1%
Indirect/Induced Impacts on Other Industries					
Services		24,910	39,170	64,080	
Wholesale and retail trade		5,030	9,780	14,810	
Finance, insurance, real estate, rental and leasing		5,790	8,780	14,570	
Transportation and warehousing		8,090	3,270	11,360	
Manufacturing		6,600	4,320	10,920	
Construction		7,880	480	8,360	
Agriculture		410	1,870	2,280	
Government		1,110	810	1,920	
Information		930	910	1,840	
Utilities		710	270	980	
Mining		290	50	340	
Total Impact on Employment	38,870	61,770	69,710	170,350	4.6%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,578			\$2,578	1.0%
Indirect/Induced Impacts on Other Industries					
Services		\$2,269	\$2,519	\$4,789	
Finance, insurance, real estate, rental and leasing		\$539	\$714	\$1,253	
Wholesale and retail trade		\$491	\$606	\$1,097	
Manufacturing		\$612	\$378	\$991	
Transportation and warehousing		\$557	\$215	\$772	
Construction		\$630	\$40	\$669	
Information		\$142	\$132	\$275	
Utilities		\$130	\$50	\$180	
Government		\$94	\$71	\$164	
Agriculture		\$27	\$121	\$148	
Mining		\$37	\$6	\$43	
Total Impact on Labor Income	\$2,578	\$5,528	\$4,853	\$12,959	5.0%
Value Added (\$ Millions)					
Industry Direct Impact	\$8,691			\$8,691	2.1%
Indirect/Induced Impacts on Other Industries					
Services		\$2,670	\$2,990	\$5,661	
Finance, insurance, real estate, rental and leasing		\$1,447	\$2,296	\$3,743	
Wholesale and retail trade		\$743	\$988	\$1,732	
Manufacturing		\$916	\$592	\$1,508	
Transportation and warehousing		\$708	\$323	\$1,031	
Construction		\$719	\$53	\$772	
Utilities		\$352	\$136	\$489	
Information		\$245	\$235	\$480	
Government		\$122	\$94	\$217	
Agriculture		\$32	\$163	\$195	
Mining		\$89	\$15	\$104	
Total Impact on Value Added	\$8,691	\$8,045	\$7,886	\$24,622	6.0%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-27. The Economic Impact of the Oil and Natural Gas Industry in Mississippi, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	30,710			30,710	1.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		18,620	18,310	36,930	
<i>Transportation and warehousing</i>		8,090	1,560	9,650	
<i>Finance, insurance, real estate, rental and leasing</i>		4,440	3,420	7,860	
<i>Wholesale and retail trade</i>		2,680	5,160	7,840	
<i>Construction</i>		5,320	280	5,600	
<i>Manufacturing</i>		3,330	1,990	5,320	
<i>Government</i>		1,230	610	1,840	
<i>Agriculture</i>		370	1,030	1,400	
<i>Information</i>		630	390	1,020	
<i>Utilities</i>		660	200	860	
<i>Mining</i>		100	10	110	
Total Impact on Employment	30,710	45,460	32,950	109,120	6.8%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,996			\$1,996	2.5%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$874	\$784	\$1,658	
<i>Transportation and warehousing</i>		\$458	\$85	\$543	
<i>Manufacturing</i>		\$252	\$118	\$370	
<i>Wholesale and retail trade</i>		\$155	\$202	\$358	
<i>Finance, insurance, real estate, rental and leasing</i>		\$219	\$130	\$349	
<i>Construction</i>		\$262	\$14	\$276	
<i>Government</i>		\$84	\$44	\$128	
<i>Utilities</i>		\$83	\$26	\$109	
<i>Information</i>		\$44	\$27	\$71	
<i>Agriculture</i>		\$17	\$41	\$58	
<i>Mining</i>		\$6	\$1	\$6	
Total Impact on Labor Income	\$1,996	\$2,453	\$1,473	\$5,922	7.5%
Value Added (\$ Millions)					
Industry Direct Impact	\$7,920			\$7,920	6.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,048	\$949	\$1,998	
<i>Finance, insurance, real estate, rental and leasing</i>		\$769	\$719	\$1,488	
<i>Transportation and warehousing</i>		\$580	\$110	\$690	
<i>Wholesale and retail trade</i>		\$288	\$363	\$651	
<i>Manufacturing</i>		\$430	\$195	\$625	
<i>Utilities</i>		\$282	\$89	\$371	
<i>Construction</i>		\$268	\$16	\$283	
<i>Information</i>		\$93	\$63	\$156	
<i>Government</i>		\$101	\$54	\$155	
<i>Agriculture</i>		\$20	\$59	\$79	
<i>Mining</i>		\$12	\$1	\$13	
Total Impact on Value Added	\$7,920	\$3,890	\$2,618	\$14,428	11.3%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-28. The Economic Impact of the Oil and Natural Gas Industry in Missouri, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	41,510			41,510	1.1%
Indirect/Induced Impacts on Other Industries					
Services		25,800	37,060	62,860	
Finance, insurance, real estate, rental and leasing		6,750	8,330	15,080	
Wholesale and retail trade		5,140	9,510	14,650	
Transportation and warehousing		8,330	3,110	11,440	
Manufacturing		5,390	3,940	9,330	
Construction		5,880	490	6,370	
Agriculture		500	2,240	2,740	
Information		1,270	1,210	2,480	
Government		1,120	910	2,030	
Utilities		520	240	760	
Mining		220	30	250	
Total Impact on Employment	41,510	60,920	67,090	169,520	4.5%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,326			\$2,326	1.0%
Indirect/Induced Impacts on Other Industries					
Services		\$1,970	\$2,102	\$4,072	
Finance, insurance, real estate, rental and leasing		\$525	\$537	\$1,062	
Wholesale and retail trade		\$416	\$482	\$899	
Manufacturing		\$423	\$300	\$724	
Transportation and warehousing		\$461	\$175	\$636	
Construction		\$384	\$33	\$417	
Information		\$149	\$133	\$283	
Government		\$88	\$73	\$161	
Utilities		\$82	\$38	\$120	
Agriculture		\$22	\$79	\$101	
Mining		\$23	\$3	\$26	
Total Impact on Labor Income	\$2,326	\$4,543	\$3,957	\$10,826	4.7%
Value Added (\$ Millions)					
Industry Direct Impact	\$6,109			\$6,109	1.7%
Indirect/Induced Impacts on Other Industries					
Services		\$2,338	\$2,548	\$4,885	
Finance, insurance, real estate, rental and leasing		\$1,529	\$1,847	\$3,377	
Wholesale and retail trade		\$654	\$838	\$1,492	
Manufacturing		\$729	\$609	\$1,338	
Transportation and warehousing		\$593	\$247	\$840	
Information		\$262	\$249	\$511	
Construction		\$415	\$42	\$458	
Utilities		\$231	\$108	\$339	
Government		\$109	\$92	\$202	
Agriculture		\$23	\$93	\$116	
Mining		\$64	\$9	\$74	
Total Impact on Value Added	\$6,109	\$6,947	\$6,684	\$19,740	5.5%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-29. The Economic Impact of the Oil and Natural Gas Industry in Montana, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	13,740			13,740	1.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		9,820	11,570	21,390	
<i>Finance, insurance, real estate, rental and leasing</i>		2,420	2,690	5,110	
<i>Wholesale and retail trade</i>		1,710	3,240	4,950	
<i>Transportation and warehousing</i>		3,170	680	3,850	
<i>Construction</i>		3,390	200	3,590	
<i>Agriculture</i>		210	850	1,060	
<i>Manufacturing</i>		560	440	1,000	
<i>Government</i>		640	340	980	
<i>Information</i>		320	250	570	
<i>Utilities</i>		290	80	370	
<i>Mining</i>		280	40	320	
Total Impact on Employment	13,740	22,800	20,370	56,910	8.0%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,226			\$1,226	3.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$590	\$578	\$1,168	
<i>Finance, insurance, real estate, rental and leasing</i>		\$144	\$122	\$266	
<i>Wholesale and retail trade</i>		\$114	\$151	\$265	
<i>Transportation and warehousing</i>		\$219	\$44	\$263	
<i>Construction</i>		\$200	\$12	\$212	
<i>Government</i>		\$47	\$26	\$73	
<i>Manufacturing</i>		\$37	\$23	\$60	
<i>Agriculture</i>		\$10	\$45	\$55	
<i>Information</i>		\$31	\$24	\$54	
<i>Utilities</i>		\$40	\$11	\$51	
<i>Mining</i>		\$32	\$5	\$37	
Total Impact on Labor Income	\$1,226	\$1,464	\$1,040	\$3,730	9.8%
Value Added (\$ Millions)					
Industry Direct Impact	\$3,674			\$3,674	6.3%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$669	\$700	\$1,369	
<i>Finance, insurance, real estate, rental and leasing</i>		\$402	\$497	\$899	
<i>Wholesale and retail trade</i>		\$179	\$214	\$393	
<i>Transportation and warehousing</i>		\$303	\$64	\$367	
<i>Construction</i>		\$218	\$14	\$233	
<i>Utilities</i>		\$117	\$31	\$147	
<i>Information</i>		\$58	\$45	\$103	
<i>Manufacturing</i>		\$59	\$35	\$94	
<i>Government</i>		\$58	\$32	\$90	
<i>Mining</i>		\$50	\$8	\$58	
<i>Agriculture</i>		\$8	\$42	\$50	
Total Impact on Value Added	\$3,674	\$2,121	\$1,681	\$7,476	12.7%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-30. The Economic Impact of the Oil and Natural Gas Industry in Nebraska, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	14,230			14,230	1.1%
Indirect/Induced Impacts on Other Industries					
Services		8,370	15,220	23,590	
Wholesale and retail trade		1,380	4,320	5,700	
Finance, insurance, real estate, rental and leasing		2,040	3,520	5,560	
Transportation and warehousing		2,680	1,450	4,130	
Manufacturing		1,560	1,750	3,310	
Construction		2,210	210	2,420	
Agriculture		240	1,370	1,610	
Information		440	490	930	
Government		390	360	750	
Utilities		240	140	380	
Mining		40	10	50	
Total Impact on Employment	14,230	19,570	28,850	62,650	4.7%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,967			\$1,967	2.4%
Indirect/Induced Impacts on Other Industries					
Services		\$601	\$842	\$1,443	
Finance, insurance, real estate, rental and leasing		\$145	\$195	\$341	
Wholesale and retail trade		\$108	\$200	\$308	
Transportation and warehousing		\$190	\$105	\$295	
Manufacturing		\$125	\$135	\$261	
Agriculture		\$24	\$126	\$150	
Construction		\$129	\$13	\$142	
Information		\$52	\$57	\$108	
Government		\$31	\$29	\$61	
Utilities		\$38	\$22	\$60	
Mining		\$3	\$1	\$3	
Total Impact on Labor Income	\$1,967	\$1,446	\$1,724	\$5,138	6.2%
Value Added (\$ Millions)					
Industry Direct Impact	\$4,480			\$4,480	3.1%
Indirect/Induced Impacts on Other Industries					
Services		\$705	\$994	\$1,699	
Finance, insurance, real estate, rental and leasing		\$468	\$820	\$1,289	
Wholesale and retail trade		\$177	\$355	\$531	
Transportation and warehousing		\$327	\$187	\$514	
Manufacturing		\$220	\$270	\$490	
Agriculture		\$36	\$205	\$241	
Information		\$93	\$103	\$196	
Construction		\$152	\$19	\$170	
Utilities		\$100	\$57	\$157	
Government		\$39	\$36	\$75	
Mining		\$7	\$2	\$9	
Total Impact on Value Added	\$4,480	\$2,323	\$3,047	\$9,851	6.7%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-31. The Economic Impact of the Oil and Natural Gas Industry in Nevada, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	14,400			14,400	0.8%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		11,390	17,530	28,920	
<i>Transportation and warehousing</i>		4,660	2,060	6,720	
<i>Finance, insurance, real estate, rental and leasing</i>		2,560	3,970	6,530	
<i>Wholesale and retail trade</i>		1,980	4,140	6,120	
<i>Construction</i>		3,270	230	3,500	
<i>Manufacturing</i>		1,180	970	2,150	
<i>Information</i>		510	580	1,090	
<i>Government</i>		340	330	670	
<i>Mining</i>		540	100	640	
<i>Utilities</i>		130	60	190	
<i>Agriculture</i>		40	140	180	
Total Impact on Employment	14,400	26,590	30,120	71,120	3.8%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,121			\$1,121	1.0%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$850	\$1,059	\$1,909	
<i>Wholesale and retail trade</i>		\$165	\$242	\$408	
<i>Transportation and warehousing</i>		\$242	\$102	\$344	
<i>Finance, insurance, real estate, rental and leasing</i>		\$160	\$177	\$337	
<i>Construction</i>		\$242	\$18	\$259	
<i>Information</i>		\$100	\$102	\$202	
<i>Manufacturing</i>		\$101	\$75	\$176	
<i>Mining</i>		\$63	\$12	\$75	
<i>Government</i>		\$36	\$35	\$71	
<i>Utilities</i>		\$25	\$12	\$36	
<i>Agriculture</i>		\$2	\$7	\$9	
Total Impact on Labor Income	\$1,121	\$1,985	\$1,841	\$4,947	4.2%
Value Added (\$ Millions)					
Industry Direct Impact	\$3,662			\$3,662	1.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,070	\$1,421	\$2,491	
<i>Finance, insurance, real estate, rental and leasing</i>		\$556	\$842	\$1,398	
<i>Wholesale and retail trade</i>		\$247	\$418	\$665	
<i>Transportation and warehousing</i>		\$285	\$133	\$418	
<i>Construction</i>		\$337	\$32	\$370	
<i>Information</i>		\$169	\$178	\$347	
<i>Manufacturing</i>		\$159	\$127	\$286	
<i>Mining</i>		\$173	\$32	\$205	
<i>Utilities</i>		\$83	\$40	\$122	
<i>Government</i>		\$45	\$44	\$88	
<i>Agriculture</i>		\$2	\$9	\$12	
Total Impact on Value Added	\$3,662	\$3,126	\$3,276	\$10,063	5.2%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-32. The Economic Impact of the Oil and Natural Gas Industry in New Hampshire, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	8,380			8,380	0.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		4,910	7,750	12,660	
<i>Wholesale and retail trade</i>		1,300	2,310	3,610	
<i>Finance, insurance, real estate, rental and leasing</i>		1,020	1,690	2,710	
<i>Manufacturing</i>		1,500	740	2,240	
<i>Construction</i>		1,430	120	1,550	
<i>Transportation and warehousing</i>		1,030	520	1,550	
<i>Information</i>		190	200	390	
<i>Government</i>		110	130	240	
<i>Agriculture</i>		70	140	210	
<i>Utilities</i>		70	40	110	
<i>Mining</i>		30	**	30	
Total Impact on Employment	8,380	11,660	13,640	33,680	3.8%
Labor Income*** (\$ Millions)					
Industry Direct Impact	\$559			\$559	0.8%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$563	\$580	\$1,144	
<i>Wholesale and retail trade</i>		\$154	\$158	\$312	
<i>Finance, insurance, real estate, rental and leasing</i>		\$103	\$151	\$254	
<i>Manufacturing</i>		\$141	\$60	\$201	
<i>Construction</i>		\$119	\$10	\$129	
<i>Transportation and warehousing</i>		\$47	\$36	\$83	
<i>Information</i>		\$32	\$31	\$63	
<i>Utilities</i>		\$15	\$8	\$22	
<i>Government</i>		\$10	\$12	\$22	
<i>Agriculture</i>		\$2	\$3	\$5	
<i>Mining</i>		\$2	****	\$2	
Total Impact on Labor Income	\$559	\$1,188	\$1,048	\$2,795	4.1%
Value Added (\$ Millions)					
Industry Direct Impact	\$1,242			\$1,242	1.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$632	\$699	\$1,331	
<i>Finance, insurance, real estate, rental and leasing</i>		\$272	\$496	\$769	
<i>Wholesale and retail trade</i>		\$192	\$225	\$417	
<i>Manufacturing</i>		\$197	\$91	\$287	
<i>Transportation and warehousing</i>		\$90	\$67	\$157	
<i>Construction</i>		\$110	\$10	\$121	
<i>Information</i>		\$47	\$47	\$94	
<i>Utilities</i>		\$48	\$25	\$73	
<i>Government</i>		\$18	\$21	\$40	
<i>Mining</i>		\$6	\$1	\$7	
<i>Agriculture</i>		\$2	\$4	\$6	
Total Impact on Value Added	\$1,242	\$1,615	\$1,686	\$4,544	4.6%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs. ** Less than 5 jobs.

*** Labor income is defined as wages and salaries and benefits as well as proprietors' income. **** Less than \$0.5 million.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-33. The Economic Impact of the Oil and Natural Gas Industry in New Jersey, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	36,910			36,910	0.7%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		34,300	53,590	87,890	
<i>Finance, insurance, real estate, rental and leasing</i>		8,850	15,060	23,910	
<i>Wholesale and retail trade</i>		7,000	14,210	21,210	
<i>Transportation and warehousing</i>		13,330	6,420	19,750	
<i>Construction</i>		8,240	680	8,920	
<i>Manufacturing</i>		4,370	4,290	8,660	
<i>Information</i>		1,400	1,750	3,150	
<i>Government</i>		920	1,010	1,930	
<i>Utilities</i>		430	210	640	
<i>Agriculture</i>		140	450	590	
<i>Mining</i>		110	10	120	
Total Impact on Employment	36,910	79,080	97,690	213,680	3.9%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$4,567			\$4,567	1.0%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$3,611	\$2,983	\$6,594	
<i>Finance, insurance, real estate, rental and leasing</i>		\$957	\$938	\$1,895	
<i>Wholesale and retail trade</i>		\$750	\$817	\$1,568	
<i>Transportation and warehousing</i>		\$914	\$355	\$1,269	
<i>Manufacturing</i>		\$490	\$527	\$1,018	
<i>Construction</i>		\$721	\$41	\$762	
<i>Information</i>		\$276	\$255	\$530	
<i>Government</i>		\$105	\$79	\$184	
<i>Utilities</i>		\$103	\$40	\$143	
<i>Mining</i>		\$30	\$3	\$33	
<i>Agriculture</i>		\$7	\$18	\$25	
Total Impact on Labor Income	\$4,567	\$7,964	\$6,055	\$18,587	4.2%
Value Added (\$ Millions)					
Industry Direct Impact	\$17,456			\$17,456	2.6%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$4,274	\$3,552	\$7,826	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,933	\$2,592	\$4,526	
<i>Wholesale and retail trade</i>		\$1,167	\$1,418	\$2,585	
<i>Manufacturing</i>		\$740	\$941	\$1,681	
<i>Transportation and warehousing</i>		\$1,022	\$446	\$1,468	
<i>Information</i>		\$459	\$425	\$885	
<i>Construction</i>		\$728	\$47	\$775	
<i>Utilities</i>		\$326	\$129	\$455	
<i>Government</i>		\$138	\$106	\$245	
<i>Mining</i>		\$38	\$3	\$41	
<i>Agriculture</i>		\$9	\$23	\$31	
Total Impact on Value Added	\$17,456	\$10,833	\$9,684	\$37,974	5.6%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-34. The Economic Impact of the Oil and Natural Gas Industry in New Mexico, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	35,610			35,610	3.3%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		12,810	17,080	29,890	
<i>Finance, insurance, real estate, rental and leasing</i>		4,540	3,040	7,580	
<i>Wholesale and retail trade</i>		2,290	4,520	6,810	
<i>Transportation and warehousing</i>		3,160	940	4,100	
<i>Construction</i>		3,240	260	3,500	
<i>Manufacturing</i>		810	620	1,430	
<i>Government</i>		620	520	1,140	
<i>Agriculture</i>		170	810	980	
<i>Information</i>		460	350	810	
<i>Utilities</i>		330	110	440	
<i>Mining</i>		180	30	210	
Total Impact on Employment	35,610	28,610	28,290	92,510	8.5%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,819			\$2,819	4.5%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$815	\$840	\$1,655	
<i>Finance, insurance, real estate, rental and leasing</i>		\$276	\$148	\$423	
<i>Wholesale and retail trade</i>		\$137	\$190	\$327	
<i>Transportation and warehousing</i>		\$188	\$53	\$241	
<i>Construction</i>		\$182	\$15	\$197	
<i>Government</i>		\$56	\$47	\$103	
<i>Manufacturing</i>		\$49	\$34	\$83	
<i>Information</i>		\$41	\$31	\$72	
<i>Utilities</i>		\$42	\$15	\$57	
<i>Agriculture</i>		\$6	\$35	\$41	
<i>Mining</i>		\$17	\$3	\$20	
Total Impact on Labor Income	\$2,819	\$1,809	\$1,411	\$6,038	9.6%
Value Added (\$ Millions)					
Industry Direct Impact	\$11,093			\$11,093	10.1%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,082	\$1,076	\$2,159	
<i>Finance, insurance, real estate, rental and leasing</i>		\$729	\$761	\$1,490	
<i>Wholesale and retail trade</i>		\$231	\$307	\$538	
<i>Transportation and warehousing</i>		\$265	\$74	\$339	
<i>Construction</i>		\$213	\$19	\$232	
<i>Government</i>		\$118	\$102	\$221	
<i>Utilities</i>		\$131	\$46	\$177	
<i>Manufacturing</i>		\$86	\$61	\$148	
<i>Information</i>		\$76	\$64	\$140	
<i>Mining</i>		\$60	\$9	\$69	
<i>Agriculture</i>		\$6	\$35	\$40	
Total Impact on Value Added	\$11,093	\$2,996	\$2,555	\$16,644	15.2%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-35. The Economic Impact of the Oil and Natural Gas Industry in New York, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	54,240			54,240	0.4%
Indirect/Induced Impacts on Other Industries					
Services		50,060	102,600	152,660	
Finance, insurance, real estate, rental and leasing		14,170	28,120	42,290	
Wholesale and retail trade		10,700	21,470	32,170	
Transportation and warehousing		12,400	9,740	22,140	
Construction		14,450	1,050	15,500	
Manufacturing		7,520	6,670	14,190	
Information		3,380	4,630	8,010	
Government		960	1,640	2,600	
Agriculture		420	1,300	1,720	
Utilities		870	580	1,450	
Mining		280	40	320	
Total Impact on Employment	54,240	115,210	177,840	347,290	2.8%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$6,087			\$6,087	0.5%
Indirect/Induced Impacts on Other Industries					
Services		\$6,195	\$7,975	\$14,170	
Finance, insurance, real estate, rental and leasing		\$2,969	\$4,668	\$7,637	
Wholesale and retail trade		\$1,072	\$1,588	\$2,661	
Information		\$1,201	\$1,435	\$2,636	
Transportation and warehousing		\$841	\$735	\$1,576	
Construction		\$1,206	\$89	\$1,295	
Manufacturing		\$715	\$552	\$1,267	
Utilities		\$292	\$185	\$476	
Government		\$154	\$237	\$391	
Agriculture		\$18	\$59	\$77	
Mining		\$13	\$2	\$15	
Total Impact on Labor Income	\$6,087	\$14,676	\$17,524	\$38,287	3.4%
Value Added (\$ Millions)					
Industry Direct Impact	\$15,735			\$15,735	0.8%
Indirect/Induced Impacts on Other Industries					
Finance, insurance, real estate, rental and leasing		\$7,831	\$12,434	\$20,265	
Services		\$7,159	\$9,669	\$16,829	
Information		\$2,363	\$2,856	\$5,220	
Wholesale and retail trade		\$1,587	\$2,723	\$4,310	
Manufacturing		\$1,147	\$1,128	\$2,275	
Transportation and warehousing		\$1,097	\$1,087	\$2,184	
Construction		\$1,351	\$122	\$1,473	
Utilities		\$741	\$480	\$1,221	
Government		\$189	\$290	\$479	
Agriculture		\$23	\$79	\$102	
Mining		\$43	\$6	\$49	
Total Impact on Value Added	\$15,735	\$23,530	\$30,877	\$70,142	3.7%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-36. The Economic Impact of the Oil and Natural Gas Industry in North Carolina, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	46,370			46,370	0.7%
Indirect/Induced Impacts on Other Industries					
Services		34,420	51,210	85,630	
Wholesale and retail trade		7,550	14,390	21,940	
Finance, insurance, real estate, rental and leasing		7,400	11,360	18,760	
Transportation and warehousing		11,760	4,850	16,610	
Manufacturing		8,440	7,140	15,580	
Construction		10,260	770	11,030	
Information		1,390	1,530	2,920	
Agriculture		500	1,720	2,220	
Government		900	1,200	2,100	
Utilities		530	280	810	
Mining		150	30	180	
Total Impact on Employment	46,370	83,310	94,480	224,160	3.6%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,930			\$2,930	0.7%
Indirect/Induced Impacts on Other Industries					
Services		\$2,704	\$2,913	\$5,617	
Finance, insurance, real estate, rental and leasing		\$668	\$833	\$1,500	
Wholesale and retail trade		\$645	\$771	\$1,416	
Manufacturing		\$713	\$510	\$1,223	
Transportation and warehousing		\$619	\$307	\$925	
Construction		\$628	\$49	\$676	
Information		\$170	\$180	\$350	
Government		\$87	\$111	\$198	
Utilities		\$120	\$63	\$183	
Agriculture		\$21	\$82	\$103	
Mining		\$7	\$1	\$8	
Total Impact on Labor Income	\$2,930	\$6,381	\$5,818	\$15,129	3.8%
Value Added (\$ Millions)					
Industry Direct Impact	\$8,029			\$8,029	1.2%
Indirect/Induced Impacts on Other Industries					
Services		\$3,279	\$3,573	\$6,851	
Finance, insurance, real estate, rental and leasing		\$2,142	\$3,034	\$5,176	
Manufacturing		\$1,325	\$1,473	\$2,799	
Wholesale and retail trade		\$963	\$1,280	\$2,243	
Transportation and warehousing		\$777	\$477	\$1,254	
Construction		\$691	\$65	\$756	
Information		\$317	\$344	\$661	
Utilities		\$389	\$206	\$595	
Government		\$107	\$137	\$244	
Agriculture		\$26	\$118	\$145	
Mining		\$47	\$8	\$54	
Total Impact on Value Added	\$8,029	\$10,063	\$10,716	\$28,809	4.4%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-37. The Economic Impact of the Oil and Natural Gas Industry in North Dakota, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	27,150			27,150	4.8%
Indirect/Induced Impacts on Other Industries					
Services		10,440	12,450	22,890	
Finance, insurance, real estate, rental and leasing		4,180	2,810	6,990	
Wholesale and retail trade		1,800	3,720	5,520	
Transportation and warehousing		2,290	870	3,160	
Construction		2,090	160	2,250	
Government		690	520	1,210	
Manufacturing		720	410	1,130	
Agriculture		160	720	880	
Information		450	290	740	
Utilities		310	110	420	
Mining		110	20	130	
Total Impact on Employment	27,150	23,240	22,070	72,460	12.8%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,661			\$2,661	7.3%
Indirect/Induced Impacts on Other Industries					
Services		\$674	\$678	\$1,352	
Finance, insurance, real estate, rental and leasing		\$274	\$145	\$419	
Wholesale and retail trade		\$154	\$175	\$329	
Transportation and warehousing		\$170	\$63	\$234	
Construction		\$141	\$11	\$153	
Agriculture		\$18	\$77	\$95	
Manufacturing		\$60	\$31	\$91	
Government		\$51	\$39	\$90	
Information		\$44	\$28	\$72	
Utilities		\$52	\$18	\$70	
Mining		\$12	\$2	\$14	
Total Impact on Labor Income	\$2,661	\$1,651	\$1,268	\$5,580	15.3%
Value Added (\$ Millions)					
Industry Direct Impact	\$12,086			\$12,086	19.0%
Indirect/Induced Impacts on Other Industries					
Services		\$789	\$800	\$1,589	
Finance, insurance, real estate, rental and leasing		\$680	\$508	\$1,188	
Wholesale and retail trade		\$253	\$264	\$517	
Transportation and warehousing		\$229	\$95	\$324	
Construction		\$182	\$16	\$198	
Utilities		\$132	\$46	\$178	
Manufacturing		\$115	\$52	\$168	
Information		\$75	\$48	\$123	
Agriculture		\$20	\$86	\$106	
Government		\$58	\$45	\$102	
Mining		\$34	\$5	\$39	
Total Impact on Value Added	\$12,086	\$2,567	\$1,965	\$16,618	26.1%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-38. The Economic Impact of the Oil and Natural Gas Industry in Ohio, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	71,160			71,160	1.0%
Indirect/Induced Impacts on Other Industries					
Services		61,600	80,880	142,480	
Wholesale and retail trade		10,550	20,730	31,280	
Finance, insurance, real estate, rental and leasing		11,710	15,880	27,590	
Transportation and warehousing		20,000	7,510	27,510	
Manufacturing		16,260	9,160	25,420	
Construction		12,740	1,000	13,740	
Information		2,270	2,200	4,470	
Government		1,810	1,650	3,460	
Agriculture		580	2,280	2,860	
Utilities		900	370	1,270	
Mining		260	30	290	
Total Impact on Employment	71,160	138,670	141,700	351,530	5.0%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$5,953			\$5,953	1.3%
Indirect/Induced Impacts on Other Industries					
Services		\$4,875	\$4,693	\$9,567	
Manufacturing		\$1,399	\$735	\$2,134	
Wholesale and retail trade		\$883	\$1,108	\$1,991	
Finance, insurance, real estate, rental and leasing		\$845	\$930	\$1,775	
Transportation and warehousing		\$1,298	\$474	\$1,772	
Construction		\$902	\$72	\$974	
Information		\$264	\$248	\$511	
Government		\$163	\$151	\$313	
Utilities		\$162	\$67	\$229	
Agriculture		\$27	\$82	\$109	
Mining		\$21	\$3	\$24	
Total Impact on Labor Income	\$5,953	\$10,838	\$8,562	\$25,354	5.7%
Value Added (\$ Millions)					
Industry Direct Impact	\$23,305			\$23,305	3.1%
Indirect/Induced Impacts on Other Industries					
Services		\$5,644	\$5,643	\$11,287	
Finance, insurance, real estate, rental and leasing		\$3,509	\$4,425	\$7,934	
Manufacturing		\$2,356	\$1,504	\$3,860	
Wholesale and retail trade		\$1,415	\$1,991	\$3,406	
Transportation and warehousing		\$1,526	\$628	\$2,154	
Construction		\$972	\$89	\$1,061	
Information		\$537	\$516	\$1,053	
Utilities		\$542	\$226	\$768	
Government		\$228	\$214	\$442	
Agriculture		\$36	\$121	\$157	
Mining		\$68	\$9	\$77	
Total Impact on Value Added	\$23,305	\$16,832	\$15,366	\$55,503	7.3%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-39. The Economic Impact of the Oil and Natural Gas Industry in Oklahoma, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	100,980			100,980	4.4%
Indirect/Induced Impacts on Other Industries					
Services		54,570	73,540	128,110	
Finance, insurance, real estate, rental and leasing		19,530	17,560	37,090	
Wholesale and retail trade		8,130	22,620	30,750	
Transportation and warehousing		12,420	5,660	18,080	
Government		5,550	5,220	10,770	
Construction		7,950	1,270	9,220	
Manufacturing		4,430	2,440	6,870	
Information		2,190	1,910	4,100	
Agriculture		410	2,780	3,190	
Utilities		1,120	460	1,580	
Mining		330	50	380	
Total Impact on Employment	100,980	116,640	133,520	351,150	15.3%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$18,224			\$18,224	13.3%
Indirect/Induced Impacts on Other Industries					
Services		\$3,601	\$3,780	\$7,381	
Finance, insurance, real estate, rental and leasing		\$1,095	\$721	\$1,816	
Wholesale and retail trade		\$585	\$957	\$1,542	
Transportation and warehousing		\$678	\$312	\$989	
Government		\$415	\$403	\$818	
Construction		\$443	\$74	\$517	
Manufacturing		\$342	\$162	\$504	
Information		\$200	\$171	\$371	
Utilities		\$156	\$66	\$222	
Agriculture		\$10	\$67	\$76	
Mining		\$53	\$8	\$61	
Total Impact on Labor Income	\$18,224	\$7,577	\$6,720	\$32,522	23.8%
Value Added (\$ Millions)					
Industry Direct Impact	\$34,748			\$34,748	16.1%
Indirect/Induced Impacts on Other Industries					
Services		\$4,226	\$4,559	\$8,786	
Finance, insurance, real estate, rental and leasing		\$2,708	\$3,129	\$5,838	
Wholesale and retail trade		\$1,017	\$1,605	\$2,622	
Transportation and warehousing		\$928	\$460	\$1,388	
Government		\$551	\$536	\$1,088	
Manufacturing		\$572	\$303	\$874	
Information		\$375	\$350	\$725	
Utilities		\$483	\$205	\$688	
Construction		\$484	\$86	\$570	
Agriculture		\$9	\$85	\$94	
Mining		\$81	\$13	\$94	
Total Impact on Value Added	\$34,748	\$11,435	\$11,331	\$57,514	26.7%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-40. The Economic Impact of the Oil and Natural Gas Industry in Oregon, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	17,170			17,170	0.7%
Indirect/Induced Impacts on Other Industries					
Services		13,810	22,650	36,460	
Wholesale and retail trade		2,990	6,170	9,160	
Finance, insurance, real estate, rental and leasing		3,000	4,510	7,510	
Manufacturing		3,820	2,750	6,570	
Transportation and warehousing		4,140	2,260	6,400	
Construction		3,960	320	4,280	
Agriculture		580	1,670	2,250	
Information		530	590	1,120	
Government		450	540	990	
Utilities		200	110	310	
Mining		100	20	120	
Total Impact on Employment	17,170	33,570	41,580	92,320	3.6%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,397			\$1,397	0.8%
Indirect/Induced Impacts on Other Industries					
Services		\$1,204	\$1,430	\$2,635	
Wholesale and retail trade		\$256	\$351	\$607	
Manufacturing		\$368	\$212	\$580	
Finance, insurance, real estate, rental and leasing		\$252	\$301	\$553	
Transportation and warehousing		\$262	\$161	\$423	
Construction		\$313	\$26	\$339	
Information		\$74	\$79	\$153	
Agriculture		\$32	\$79	\$111	
Government		\$51	\$59	\$109	
Utilities		\$40	\$22	\$63	
Mining		\$6	\$1	\$7	
Total Impact on Labor Income	\$1,397	\$2,860	\$2,721	\$6,978	3.9%
Value Added (\$ Millions)					
Industry Direct Impact	\$3,553			\$3,553	1.3%
Indirect/Induced Impacts on Other Industries					
Services		\$1,435	\$1,748	\$3,183	
Finance, insurance, real estate, rental and leasing		\$657	\$1,133	\$1,790	
Manufacturing		\$671	\$396	\$1,067	
Wholesale and retail trade		\$359	\$525	\$884	
Transportation and warehousing		\$336	\$248	\$584	
Construction		\$324	\$31	\$355	
Information		\$128	\$136	\$264	
Utilities		\$128	\$71	\$200	
Government		\$65	\$77	\$142	
Agriculture		\$33	\$82	\$115	
Mining		\$16	\$3	\$18	
Total Impact on Value Added	\$3,553	\$4,152	\$4,449	\$12,154	4.5%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-41. The Economic Impact of the Oil and Natural Gas Industry in Pennsylvania, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	93,060			93,060	1.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		62,410	110,330	172,740	
<i>Finance, insurance, real estate, rental and leasing</i>		15,020	23,240	38,260	
<i>Wholesale and retail trade</i>		11,180	26,070	37,250	
<i>Transportation and warehousing</i>		20,040	10,080	30,120	
<i>Manufacturing</i>		13,560	8,650	22,210	
<i>Construction</i>		14,430	1,340	15,770	
<i>Government</i>		2,670	2,370	5,040	
<i>Information</i>		2,080	2,490	4,570	
<i>Agriculture</i>		560	1,910	2,470	
<i>Utilities</i>		1,010	530	1,540	
<i>Mining</i>		560	90	650	
Total Impact on Employment	93,060	143,530	187,110	423,700	5.6%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$14,285			\$14,285	2.7%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$5,785	\$7,345	\$13,130	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,306	\$1,658	\$2,963	
<i>Wholesale and retail trade</i>		\$1,043	\$1,485	\$2,528	
<i>Transportation and warehousing</i>		\$1,299	\$672	\$1,971	
<i>Manufacturing</i>		\$1,218	\$750	\$1,968	
<i>Information</i>		\$629	\$656	\$1,285	
<i>Construction</i>		\$1,108	\$108	\$1,216	
<i>Government</i>		\$252	\$235	\$487	
<i>Utilities</i>		\$198	\$105	\$303	
<i>Agriculture</i>		\$25	\$73	\$98	
<i>Mining</i>		\$46	\$7	\$53	
Total Impact on Labor Income	\$14,285	\$12,908	\$13,093	\$40,286	7.5%
Value Added (\$ Millions)					
Industry Direct Impact	\$35,895			\$35,895	4.3%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$6,533	\$8,511	\$15,045	
<i>Finance, insurance, real estate, rental and leasing</i>		\$3,277	\$5,676	\$8,953	
<i>Wholesale and retail trade</i>		\$1,569	\$2,429	\$3,997	
<i>Manufacturing</i>		\$2,099	\$1,480	\$3,579	
<i>Transportation and warehousing</i>		\$1,460	\$860	\$2,320	
<i>Information</i>		\$1,006	\$1,159	\$2,166	
<i>Construction</i>		\$1,135	\$125	\$1,259	
<i>Utilities</i>		\$609	\$327	\$936	
<i>Government</i>		\$332	\$312	\$643	
<i>Agriculture</i>		\$30	\$100	\$131	
<i>Mining</i>		\$91	\$15	\$106	
Total Impact on Value Added	\$35,895	\$18,141	\$20,994	\$75,030	8.9%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-42. The Economic Impact of the Oil and Natural Gas Industry in Rhode Island, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	4,520			4,520	0.7%
Indirect/Induced Impacts on Other Industries					
Services		3,880	6,670	10,550	
Finance, insurance, real estate, rental and leasing		1,030	1,430	2,460	
Wholesale and retail trade		740	1,370	2,110	
Manufacturing		800	560	1,360	
Transportation and warehousing		840	440	1,280	
Construction		900	80	980	
Information		140	150	290	
Government		70	110	180	
Utilities		50	30	80	
Agriculture		10	60	70	
Mining		20	**	20	
Total Impact on Employment	4,520	8,480	10,910	23,900	3.7%
Labor Income*** (\$ Millions)					
Industry Direct Impact	\$593			\$593	1.4%
Indirect/Induced Impacts on Other Industries					
Services		\$319	\$407	\$727	
Finance, insurance, real estate, rental and leasing		\$90	\$105	\$195	
Wholesale and retail trade		\$71	\$82	\$153	
Manufacturing		\$67	\$42	\$109	
Construction		\$68	\$6	\$74	
Transportation and warehousing		\$43	\$22	\$65	
Information		\$16	\$18	\$34	
Government		\$9	\$12	\$20	
Utilities		\$7	\$4	\$11	
Agriculture		\$0	\$2	\$2	
Mining		\$1	****	\$1	
Total Impact on Labor Income	\$593	\$691	\$700	\$1,984	4.6%
Value Added (\$ Millions)					
Industry Direct Impact	\$1,442			\$1,442	2.2%
Indirect/Induced Impacts on Other Industries					
Services		\$371	\$503	\$873	
Finance, insurance, real estate, rental and leasing		\$242	\$368	\$611	
Wholesale and retail trade		\$104	\$135	\$240	
Manufacturing		\$99	\$67	\$166	
Transportation and warehousing		\$48	\$28	\$76	
Construction		\$68	\$7	\$75	
Information		\$30	\$32	\$62	
Utilities		\$34	\$18	\$51	
Government		\$13	\$18	\$31	
Mining		\$3	****	\$4	
Agriculture		\$1	\$3	\$3	
Total Impact on Value Added	\$1,442	\$1,012	\$1,179	\$3,634	5.5%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs. ** Less than 5 jobs.

*** Labor income is defined as wages and salaries and benefits as well as proprietors' income. **** Less than \$0.5 million.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-43. The Economic Impact of the Oil and Natural Gas Industry in South Carolina, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	26,630			26,630	0.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		16,230	22,780	39,010	
<i>Wholesale and retail trade</i>		3,370	6,290	9,660	
<i>Manufacturing</i>		5,120	3,340	8,460	
<i>Finance, insurance, real estate, rental and leasing</i>		3,530	4,900	8,430	
<i>Transportation and warehousing</i>		5,830	2,010	7,840	
<i>Construction</i>		4,380	340	4,720	
<i>Government</i>		1,230	620	1,850	
<i>Information</i>		750	740	1,490	
<i>Agriculture</i>		300	700	1,000	
<i>Utilities</i>		400	230	630	
<i>Mining</i>		90	10	100	
Total Impact on Employment	26,630	41,220	41,950	109,800	3.8%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,054			\$1,054	0.6%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,015	\$1,117	\$2,132	
<i>Manufacturing</i>		\$432	\$252	\$684	
<i>Wholesale and retail trade</i>		\$250	\$298	\$547	
<i>Finance, insurance, real estate, rental and leasing</i>		\$247	\$267	\$514	
<i>Transportation and warehousing</i>		\$310	\$115	\$425	
<i>Construction</i>		\$268	\$21	\$289	
<i>Information</i>		\$132	\$120	\$252	
<i>Government</i>		\$101	\$53	\$154	
<i>Utilities</i>		\$60	\$34	\$94	
<i>Agriculture</i>		\$9	\$15	\$24	
<i>Mining</i>		\$8	\$1	\$9	
Total Impact on Labor Income	\$1,054	\$2,831	\$2,294	\$6,178	3.7%
Value Added (\$ Millions)					
Industry Direct Impact	\$4,839			\$4,839	1.8%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,187	\$1,376	\$2,564	
<i>Finance, insurance, real estate, rental and leasing</i>		\$702	\$1,106	\$1,809	
<i>Manufacturing</i>		\$808	\$455	\$1,262	
<i>Wholesale and retail trade</i>		\$420	\$522	\$942	
<i>Transportation and warehousing</i>		\$370	\$154	\$525	
<i>Information</i>		\$180	\$169	\$349	
<i>Construction</i>		\$312	\$31	\$343	
<i>Utilities</i>		\$196	\$113	\$310	
<i>Government</i>		\$126	\$69	\$196	
<i>Agriculture</i>		\$12	\$27	\$40	
<i>Mining</i>		\$27	\$4	\$32	
Total Impact on Value Added	\$4,839	\$4,342	\$4,028	\$13,209	4.9%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-44. The Economic Impact of the Oil and Natural Gas Industry in South Dakota, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	9,470			9,470	1.5%
Indirect/Induced Impacts on Other Industries					
Services		3,570	5,360	8,930	
Wholesale and retail trade		790	1,480	2,270	
Finance, insurance, real estate, rental and leasing		1,010	1,220	2,230	
Manufacturing		840	680	1,520	
Construction		1,080	80	1,160	
Transportation and warehousing		810	330	1,140	
Agriculture		150	770	920	
Information		230	210	440	
Government		260	180	440	
Utilities		90	40	130	
Mining		40	10	50	
Total Impact on Employment	9,470	8,870	10,350	28,700	4.6%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$405			\$405	1.0%
Indirect/Induced Impacts on Other Industries					
Services		\$227	\$300	\$527	
Finance, insurance, real estate, rental and leasing		\$72	\$75	\$147	
Wholesale and retail trade		\$58	\$72	\$130	
Manufacturing		\$77	\$49	\$126	
Agriculture		\$18	\$91	\$110	
Information		\$41	\$36	\$77	
Construction		\$68	\$5	\$74	
Transportation and warehousing		\$44	\$18	\$63	
Government		\$18	\$13	\$31	
Utilities		\$12	\$5	\$17	
Mining		\$3	\$1	\$4	
Total Impact on Labor Income	\$405	\$639	\$666	\$1,709	4.4%
Value Added (\$ Millions)					
Industry Direct Impact	\$1,174			\$1,174	1.9%
Indirect/Induced Impacts on Other Industries					
Finance, insurance, real estate, rental and leasing		\$303	\$334	\$637	
Services		\$272	\$358	\$630	
Wholesale and retail trade		\$90	\$117	\$207	
Manufacturing		\$100	\$65	\$164	
Agriculture		\$20	\$107	\$127	
Information		\$67	\$59	\$126	
Transportation and warehousing		\$55	\$24	\$79	
Construction		\$66	\$6	\$72	
Utilities		\$44	\$20	\$64	
Government		\$22	\$16	\$38	
Mining		\$8	\$1	\$9	
Total Impact on Value Added	\$1,174	\$1,046	\$1,107	\$3,327	5.4%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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 B-45. The Economic Impact of the Oil and Natural Gas Industry in Tennessee, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	36,220			36,220	0.9%
Indirect/Induced Impacts on Other Industries					
Services		24,580	39,040	63,620	
Transportation and warehousing		10,510	4,430	14,940	
Wholesale and retail trade		4,750	10,000	14,750	
Finance, insurance, real estate, rental and leasing		4,930	7,610	12,540	
Manufacturing		7,080	5,080	12,160	
Construction		6,990	550	7,540	
Information		1,210	1,300	2,510	
Agriculture		460	1,680	2,140	
Government		460	880	1,340	
Utilities		620	340	960	
Mining		190	30	220	
Total Impact on Employment	36,220	61,780	70,940	168,940	4.0%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,697			\$2,697	1.0%
Indirect/Induced Impacts on Other Industries					
Services		\$1,897	\$2,497	\$4,393	
Manufacturing		\$607	\$419	\$1,026	
Transportation and warehousing		\$689	\$310	\$998	
Wholesale and retail trade		\$391	\$561	\$953	
Finance, insurance, real estate, rental and leasing		\$404	\$542	\$945	
Construction		\$533	\$43	\$576	
Information		\$141	\$147	\$287	
Utilities		\$100	\$54	\$154	
Government		\$40	\$70	\$111	
Agriculture		\$9	\$17	\$26	
Mining		\$19	\$3	\$21	
Total Impact on Labor Income	\$2,697	\$4,830	\$4,662	\$12,189	4.4%
Value Added (\$ Millions)					
Industry Direct Impact	\$7,569			\$7,569	1.8%
Indirect/Induced Impacts on Other Industries					
Services		\$2,221	\$3,022	\$5,243	
Finance, insurance, real estate, rental and leasing		\$1,149	\$1,864	\$3,013	
Manufacturing		\$1,056	\$894	\$1,950	
Wholesale and retail trade		\$636	\$988	\$1,625	
Transportation and warehousing		\$832	\$408	\$1,240	
Construction		\$509	\$45	\$555	
Information		\$252	\$271	\$523	
Utilities		\$240	\$132	\$372	
Government		\$54	\$94	\$148	
Mining		\$57	\$9	\$66	
Agriculture		\$13	\$39	\$52	
Total Impact on Value Added	\$7,569	\$7,020	\$7,766	\$22,355	5.2%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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 B-46. The Economic Impact of the Oil and Natural Gas Industry in Texas, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	507,850			507,850	2.8%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		427,590	609,390	1,036,980	
<i>Finance, insurance, real estate, rental and leasing</i>		111,300	159,840	271,140	
<i>Wholesale and retail trade</i>		54,110	176,610	230,720	
<i>Transportation and warehousing</i>		101,240	56,580	157,820	
<i>Construction</i>		65,180	9,350	74,530	
<i>Manufacturing</i>		41,960	25,890	67,850	
<i>Information</i>		16,850	22,680	39,530	
<i>Government</i>		15,590	20,920	36,510	
<i>Agriculture</i>		2,210	15,530	17,740	
<i>Utilities</i>		8,610	4,300	12,910	
<i>Mining</i>		2,120	310	2,430	
Total Impact on Employment	507,850	846,750	1,101,390	2,455,990	13.4%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$100,858			\$100,858	8.3%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$37,055	\$33,043	\$70,098	
<i>Finance, insurance, real estate, rental and leasing</i>		\$8,981	\$9,732	\$18,713	
<i>Wholesale and retail trade</i>		\$4,931	\$9,297	\$14,228	
<i>Transportation and warehousing</i>		\$5,861	\$2,988	\$8,848	
<i>Manufacturing</i>		\$4,679	\$2,009	\$6,687	
<i>Construction</i>		\$4,541	\$647	\$5,188	
<i>Information</i>		\$2,102	\$2,676	\$4,778	
<i>Government</i>		\$1,301	\$1,705	\$3,005	
<i>Utilities</i>		\$1,584	\$777	\$2,360	
<i>Agriculture</i>		\$54	\$309	\$363	
<i>Mining</i>		\$246	\$37	\$284	
Total Impact on Labor Income	\$100,858	\$71,333	\$63,220	\$235,411	19.3%
Value Added (\$ Millions)					
Industry Direct Impact	\$244,095			\$244,095	11.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$41,686	\$38,756	\$80,442	
<i>Finance, insurance, real estate, rental and leasing</i>		\$19,794	\$31,184	\$50,979	
<i>Wholesale and retail trade</i>		\$9,163	\$16,443	\$25,606	
<i>Manufacturing</i>		\$11,077	\$4,220	\$15,297	
<i>Transportation and warehousing</i>		\$7,120	\$4,107	\$11,227	
<i>Information</i>		\$3,840	\$5,449	\$9,290	
<i>Utilities</i>		\$4,386	\$2,161	\$6,547	
<i>Construction</i>		\$5,069	\$784	\$5,852	
<i>Government</i>		\$1,613	\$2,117	\$3,730	
<i>Mining</i>		\$718	\$109	\$827	
<i>Agriculture</i>		\$73	\$541	\$613	
Total Impact on Value Added	\$244,095	\$104,540	\$105,871	\$454,506	22.2%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-47. The Economic Impact of the Oil and Natural Gas Industry in Utah, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	19,780			19,780	0.9%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		18,950	21,830	40,780	
<i>Finance, insurance, real estate, rental and leasing</i>		4,290	6,120	10,410	
<i>Wholesale and retail trade</i>		2,980	6,610	9,590	
<i>Transportation and warehousing</i>		6,060	2,290	8,350	
<i>Construction</i>		5,470	360	5,830	
<i>Manufacturing</i>		2,590	2,230	4,820	
<i>Information</i>		1,040	1,160	2,200	
<i>Government</i>		790	600	1,390	
<i>Agriculture</i>		140	550	690	
<i>Utilities</i>		300	100	400	
<i>Mining</i>		280	50	330	
Total Impact on Employment	19,780	42,900	41,910	104,590	4.7%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,559			\$1,559	1.2%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,331	\$1,152	\$2,483	
<i>Finance, insurance, real estate, rental and leasing</i>		\$311	\$310	\$621	
<i>Wholesale and retail trade</i>		\$245	\$373	\$618	
<i>Transportation and warehousing</i>		\$412	\$180	\$592	
<i>Construction</i>		\$382	\$26	\$408	
<i>Manufacturing</i>		\$202	\$162	\$365	
<i>Information</i>		\$121	\$129	\$250	
<i>Government</i>		\$64	\$49	\$113	
<i>Utilities</i>		\$79	\$28	\$107	
<i>Mining</i>		\$27	\$4	\$31	
<i>Agriculture</i>		\$4	\$22	\$26	
Total Impact on Labor Income	\$1,559	\$3,177	\$2,435	\$7,171	5.3%
Value Added (\$ Millions)					
Industry Direct Impact	\$5,752			\$5,752	2.6%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,567	\$1,401	\$2,969	
<i>Finance, insurance, real estate, rental and leasing</i>		\$933	\$1,211	\$2,145	
<i>Wholesale and retail trade</i>		\$366	\$609	\$974	
<i>Transportation and warehousing</i>		\$536	\$283	\$818	
<i>Manufacturing</i>		\$378	\$296	\$675	
<i>Construction</i>		\$505	\$42	\$547	
<i>Information</i>		\$245	\$260	\$506	
<i>Utilities</i>		\$229	\$82	\$311	
<i>Government</i>		\$85	\$67	\$152	
<i>Mining</i>		\$129	\$21	\$150	
<i>Agriculture</i>		\$4	\$26	\$30	
Total Impact on Value Added	\$5,752	\$4,979	\$4,298	\$15,029	6.7%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-48. The Economic Impact of the Oil and Natural Gas Industry in Vermont, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	5,480			5,480	1.3%
Indirect/Induced Impacts on Other Industries					
Services		2,630	4,220	6,850	
Wholesale and retail trade		390	920	1,310	
Finance, insurance, real estate, rental and leasing		550	670	1,220	
Manufacturing		490	460	950	
Construction		760	60	820	
Transportation and warehousing		590	220	810	
Agriculture		90	230	320	
Information		120	80	200	
Government		70	80	150	
Utilities		50	30	80	
Mining		30	**	30	
Total Impact on Employment	5,480	5,770	6,990	18,230	4.3%
Labor Income*** (\$ Millions)					
Industry Direct Impact	\$275			\$275	1.1%
Indirect/Induced Impacts on Other Industries					
Services		\$185	\$234	\$418	
Finance, insurance, real estate, rental and leasing		\$38	\$41	\$80	
Wholesale and retail trade		\$27	\$47	\$74	
Manufacturing		\$38	\$32	\$70	
Construction		\$44	\$4	\$48	
Transportation and warehousing		\$33	\$14	\$47	
Information		\$12	\$8	\$20	
Utilities		\$10	\$5	\$16	
Government		\$6	\$7	\$14	
Agriculture		\$2	\$7	\$10	
Mining		\$2	****	\$2	
Total Impact on Labor Income	\$275	\$398	\$400	\$1,073	4.4%
Value Added (\$ Millions)					
Industry Direct Impact	\$789			\$789	2.1%
Indirect/Induced Impacts on Other Industries					
Services		\$222	\$292	\$514	
Finance, insurance, real estate, rental and leasing		\$125	\$192	\$317	
Wholesale and retail trade		\$42	\$79	\$121	
Manufacturing		\$56	\$45	\$101	
Transportation and warehousing		\$40	\$20	\$60	
Construction		\$42	\$4	\$46	
Utilities		\$26	\$13	\$40	
Information		\$21	\$14	\$35	
Government		\$8	\$9	\$17	
Agriculture		\$3	\$10	\$12	
Mining		\$8	\$1	\$9	
Total Impact on Value Added	\$789	\$592	\$679	\$2,060	5.6%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up to totals due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs. ** Less than 5 jobs.

*** Labor income is defined as wages and salaries and benefits as well as proprietors' income. **** Less than \$0.5 million.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-49. The Economic Impact of the Oil and Natural Gas Industry in Virginia, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	41,520			41,520	0.8%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		31,670	43,000	74,670	
<i>Wholesale and retail trade</i>		5,460	10,260	15,720	
<i>Finance, insurance, real estate, rental and leasing</i>		5,480	8,400	13,880	
<i>Transportation and warehousing</i>		9,170	4,300	13,470	
<i>Construction</i>		8,420	600	9,020	
<i>Manufacturing</i>		5,330	3,440	8,770	
<i>Information</i>		1,640	1,890	3,530	
<i>Government</i>		1,230	1,270	2,500	
<i>Agriculture</i>		360	1,140	1,500	
<i>Utilities</i>		370	190	560	
<i>Mining</i>		250	40	290	
Total Impact on Employment	41,520	69,390	74,520	185,430	3.5%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,473			\$2,473	0.6%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$3,303	\$2,814	\$6,117	
<i>Wholesale and retail trade</i>		\$487	\$532	\$1,020	
<i>Finance, insurance, real estate, rental and leasing</i>		\$435	\$532	\$967	
<i>Transportation and warehousing</i>		\$547	\$264	\$811	
<i>Manufacturing</i>		\$450	\$239	\$689	
<i>Construction</i>		\$550	\$40	\$591	
<i>Information</i>		\$250	\$269	\$519	
<i>Government</i>		\$141	\$144	\$285	
<i>Utilities</i>		\$82	\$40	\$122	
<i>Agriculture</i>		\$11	\$25	\$37	
<i>Mining</i>		\$20	\$3	\$23	
Total Impact on Labor Income	\$2,473	\$6,276	\$4,904	\$13,653	3.6%
Value Added (\$ Millions)					
Industry Direct Impact	\$8,599			\$8,599	1.4%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$3,864	\$3,455	\$7,319	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,440	\$2,276	\$3,716	
<i>Wholesale and retail trade</i>		\$774	\$968	\$1,742	
<i>Manufacturing</i>		\$790	\$754	\$1,545	
<i>Information</i>		\$487	\$530	\$1,018	
<i>Transportation and warehousing</i>		\$657	\$339	\$996	
<i>Construction</i>		\$659	\$61	\$720	
<i>Utilities</i>		\$289	\$144	\$433	
<i>Government</i>		\$198	\$205	\$403	
<i>Mining</i>		\$51	\$7	\$58	
<i>Agriculture</i>		\$14	\$42	\$56	
Total Impact on Value Added	\$8,599	\$9,224	\$8,782	\$26,606	4.4%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-50. The Economic Impact of the Oil and Natural Gas Industry in Washington, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	24,410			24,410	0.5%
Indirect/Induced Impacts on Other Industries					
Services		23,550	36,520	60,070	
Wholesale and retail trade		5,270	10,770	16,040	
Transportation and warehousing		8,730	4,750	13,480	
Finance, insurance, real estate, rental and leasing		4,410	7,900	12,310	
Construction		9,150	580	9,730	
Manufacturing		4,010	3,370	7,380	
Agriculture		760	2,510	3,270	
Information		1,360	1,710	3,070	
Government		1,670	1,220	2,890	
Utilities		530	230	760	
Mining		180	20	200	
Total Impact on Employment	24,410	59,620	69,580	153,610	3.4%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$2,233			\$2,233	0.6%
Indirect/Induced Impacts on Other Industries					
Services		\$2,524	\$2,492	\$5,016	
Transportation and warehousing		\$913	\$729	\$1,642	
Wholesale and retail trade		\$520	\$1,038	\$1,558	
Finance, insurance, real estate, rental and leasing		\$405	\$586	\$991	
Information		\$387	\$446	\$833	
Construction		\$781	\$50	\$831	
Manufacturing		\$367	\$257	\$624	
Government		\$181	\$135	\$316	
Agriculture		\$46	\$158	\$204	
Utilities		\$102	\$44	\$146	
Mining		\$17	\$2	\$19	
Total Impact on Labor Income	\$2,233	\$6,243	\$5,936	\$14,412	3.7%
Value Added (\$ Millions)					
Industry Direct Impact	\$12,443			\$12,443	1.8%
Indirect/Induced Impacts on Other Industries					
Services		\$3,114	\$3,171	\$6,285	
Finance, insurance, real estate, rental and leasing		\$1,262	\$2,372	\$3,634	
Transportation and warehousing		\$1,458	\$1,499	\$2,956	
Wholesale and retail trade		\$819	\$1,789	\$2,608	
Information		\$709	\$843	\$1,552	
Manufacturing		\$678	\$464	\$1,141	
Construction		\$888	\$67	\$955	
Utilities		\$325	\$142	\$467	
Government		\$229	\$175	\$404	
Agriculture		\$44	\$147	\$191	
Mining		\$32	\$4	\$36	
Total Impact on Value Added	\$12,443	\$9,557	\$10,670	\$32,670	4.8%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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 B-51. The Economic Impact of the Oil and Natural Gas Industry in West Virginia, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	25,460			25,460	3.0%
Indirect/Induced Impacts on Other Industries					
Services		12,210	13,720	25,930	
Wholesale and retail trade		1,950	3,410	5,360	
Finance, insurance, real estate, rental and leasing		3,170	2,090	5,260	
Transportation and warehousing		2,790	800	3,590	
Construction		2,190	170	2,360	
Manufacturing		1,260	650	1,910	
Government		510	430	940	
Agriculture		190	620	810	
Information		380	230	610	
Mining		460	80	540	
Utilities		250	100	350	
Total Impact on Employment	25,460	25,370	22,290	73,120	8.5%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,884			\$1,884	3.9%
Indirect/Induced Impacts on Other Industries					
Services		\$807	\$727	\$1,534	
Finance, insurance, real estate, rental and leasing		\$202	\$108	\$309	
Wholesale and retail trade		\$127	\$137	\$264	
Transportation and warehousing		\$173	\$47	\$220	
Manufacturing		\$113	\$53	\$165	
Construction		\$132	\$10	\$143	
Government		\$37	\$32	\$69	
Mining		\$50	\$9	\$60	
Utilities		\$41	\$17	\$58	
Information		\$32	\$19	\$51	
Agriculture		\$3	\$3	\$6	
Total Impact on Labor Income	\$1,884	\$1,717	\$1,161	\$4,762	9.9%
Value Added (\$ Millions)					
Industry Direct Impact	\$8,132			\$8,132	9.5%
Indirect/Induced Impacts on Other Industries					
Services		\$862	\$839	\$1,701	
Finance, insurance, real estate, rental and leasing		\$572	\$542	\$1,114	
Wholesale and retail trade		\$220	\$239	\$459	
Manufacturing		\$217	\$110	\$327	
Mining		\$248	\$45	\$293	
Transportation and warehousing		\$213	\$60	\$273	
Construction		\$166	\$15	\$181	
Utilities		\$120	\$49	\$168	
Information		\$63	\$39	\$102	
Government		\$51	\$44	\$95	
Agriculture		\$4	\$8	\$12	
Total Impact on Value Added	\$8,132	\$2,735	\$1,989	\$12,856	15.0%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-52. The Economic Impact of the Oil and Natural Gas Industry in Wisconsin, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	38,410			38,410	1.0%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		18,900	30,890	49,790	
<i>Manufacturing</i>		9,930	6,380	16,310	
<i>Wholesale and retail trade</i>		4,110	8,300	12,410	
<i>Finance, insurance, real estate, rental and leasing</i>		4,590	6,470	11,060	
<i>Transportation and warehousing</i>		7,470	2,920	10,390	
<i>Construction</i>		5,540	410	5,950	
<i>Agriculture</i>		540	1,980	2,520	
<i>Government</i>		810	720	1,530	
<i>Information</i>		790	710	1,500	
<i>Utilities</i>		340	160	500	
<i>Mining</i>		140	20	160	
Total Impact on Employment	38,410	53,150	58,970	150,530	4.1%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$1,751			\$1,751	0.7%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,384	\$1,792	\$3,176	
<i>Manufacturing</i>		\$821	\$499	\$1,320	
<i>Finance, insurance, real estate, rental and leasing</i>		\$339	\$429	\$768	
<i>Wholesale and retail trade</i>		\$312	\$425	\$737	
<i>Transportation and warehousing</i>		\$462	\$207	\$669	
<i>Construction</i>		\$402	\$30	\$432	
<i>Information</i>		\$90	\$78	\$168	
<i>Government</i>		\$69	\$62	\$131	
<i>Agriculture</i>		\$26	\$94	\$119	
<i>Utilities</i>		\$64	\$31	\$95	
<i>Mining</i>		\$11	\$2	\$13	
Total Impact on Labor Income	\$1,751	\$3,980	\$3,649	\$9,380	4.0%
Value Added (\$ Millions)					
Industry Direct Impact	\$4,653			\$4,653	1.3%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$1,657	\$2,191	\$3,848	
<i>Finance, insurance, real estate, rental and leasing</i>		\$1,074	\$1,616	\$2,690	
<i>Manufacturing</i>		\$1,282	\$844	\$2,126	
<i>Wholesale and retail trade</i>		\$482	\$718	\$1,200	
<i>Transportation and warehousing</i>		\$593	\$325	\$919	
<i>Construction</i>		\$420	\$37	\$458	
<i>Information</i>		\$171	\$154	\$325	
<i>Utilities</i>		\$203	\$98	\$301	
<i>Government</i>		\$86	\$79	\$164	
<i>Agriculture</i>		\$31	\$127	\$159	
<i>Mining</i>		\$26	\$4	\$30	
Total Impact on Value Added	\$4,653	\$6,025	\$6,195	\$16,874	4.6%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up 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.

Impacts of the Oil and Natural Gas Industry on the US Economy

Table B-53. The Economic Impact of the Oil and Natural Gas Industry in Wyoming, 2021

Sector Description	Direct	Indirect	Induced	Total	As a % of State Total
Employment*					
Industry Direct Impact	20,340			20,340	5.0%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		8,070	9,690	17,760	
<i>Finance, insurance, real estate, rental and leasing</i>		3,200	3,440	6,640	
<i>Wholesale and retail trade</i>		1,430	3,190	4,620	
<i>Transportation and warehousing</i>		2,780	590	3,370	
<i>Construction</i>		2,380	190	2,570	
<i>Government</i>		700	500	1,200	
<i>Manufacturing</i>		380	190	570	
<i>Agriculture</i>		100	450	550	
<i>Information</i>		260	210	470	
<i>Mining</i>		330	50	380	
<i>Utilities</i>		240	70	310	
Total Impact on Employment	20,340	19,870	18,570	58,780	14.4%
Labor Income** (\$ Millions)					
Industry Direct Impact	\$3,548			\$3,548	14.6%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$485	\$445	\$931	
<i>Finance, insurance, real estate, rental and leasing</i>		\$153	\$121	\$274	
<i>Transportation and warehousing</i>		\$195	\$40	\$235	
<i>Wholesale and retail trade</i>		\$86	\$124	\$210	
<i>Construction</i>		\$142	\$12	\$154	
<i>Government</i>		\$57	\$43	\$100	
<i>Utilities</i>		\$41	\$13	\$54	
<i>Mining</i>		\$44	\$7	\$51	
<i>Manufacturing</i>		\$30	\$10	\$40	
<i>Information</i>		\$22	\$18	\$40	
<i>Agriculture</i>		\$3	\$18	\$21	
Total Impact on Labor Income	\$3,548	\$1,259	\$852	\$5,660	23.3%
Value Added (\$ Millions)					
Industry Direct Impact	\$8,332			\$8,332	20.1%
Indirect/Induced Impacts on Other Industries					
<i>Services</i>		\$567	\$551	\$1,118	
<i>Finance, insurance, real estate, rental and leasing</i>		\$389	\$510	\$899	
<i>Transportation and warehousing</i>		\$317	\$64	\$381	
<i>Wholesale and retail trade</i>		\$154	\$206	\$360	
<i>Construction</i>		\$193	\$18	\$211	
<i>Utilities</i>		\$106	\$34	\$140	
<i>Mining</i>		\$116	\$19	\$135	
<i>Government</i>		\$68	\$52	\$119	
<i>Manufacturing</i>		\$58	\$20	\$78	
<i>Information</i>		\$41	\$35	\$76	
<i>Agriculture</i>		\$3	\$18	\$21	
Total Impact on Value Added	\$8,332	\$2,012	\$1,527	\$11,871	28.6%

Source: PwC calculations based on the IMPLAN modeling system (2021 database). Details may not add up to totals due to rounding.

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

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

Appendix C: Detailed Results by Congressional District

Table C-1. Economic Impact of the Oil and Natural Gas Industry in Alabama, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Alabama	31,880	125,860	4.6%	\$1,880	\$7,486	4.8%	\$6,603	\$15,918	6.3%
AL-1	6,000	23,680	6.0%	\$360	\$1,379	6.4%	\$2,344	\$4,495	12.9%
AL-2	3,780	15,130	4.1%	\$191	\$813	4.1%	\$573	\$1,641	4.7%
AL-3	4,690	16,340	4.4%	\$219	\$803	4.5%	\$703	\$1,606	5.5%
AL-4	4,970	17,150	4.4%	\$220	\$835	4.4%	\$678	\$1,693	5.4%
AL-5	2,360	14,750	3.5%	\$148	\$990	3.6%	\$327	\$1,611	3.9%
AL-6	3,260	18,000	4.1%	\$215	\$1,209	4.4%	\$679	\$2,223	4.9%
AL-7	6,810	20,820	5.8%	\$528	\$1,457	6.4%	\$1,299	\$2,648	7.0%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-2. Economic Impact of the Oil and Natural Gas Industry in Alaska, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Alaska	12,220	36,820	8.3%	\$2,053	\$3,713	11.1%	\$13,472	\$16,113	28.1%
AK-1 (At-Large)	12,220	36,820	8.3%	\$2,053	\$3,713	11.1%	\$13,472	\$16,113	28.1%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-3. Economic Impact of the Oil and Natural Gas Industry in Arizona, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Arizona	28,440	153,840	3.8%	\$1,851	\$10,555	4.1%	\$4,515	\$18,504	4.4%
AZ-1	5,280	22,760	4.3%	\$181	\$1,275	4.2%	\$270	\$2,277	4.4%
AZ-2	4,640	17,150	4.5%	\$343	\$1,110	4.7%	\$816	\$2,024	5.4%
AZ-3	3,250	17,530	4.0%	\$266	\$1,233	4.4%	\$1,033	\$2,504	5.5%
AZ-4	2,070	18,330	3.3%	\$111	\$1,068	3.7%	\$382	\$2,028	4.1%
AZ-5	1,160	14,740	3.1%	\$60	\$1,095	3.4%	\$163	\$1,843	3.5%
AZ-6	3,000	16,340	3.9%	\$254	\$1,308	4.5%	\$422	\$2,020	4.4%
AZ-7	2,940	15,340	3.7%	\$274	\$1,223	4.1%	\$566	\$1,994	4.2%
AZ-8	2,050	14,440	3.4%	\$112	\$963	3.6%	\$249	\$1,580	3.5%
AZ-9	4,050	17,210	4.0%	\$251	\$1,281	4.2%	\$614	\$2,234	4.7%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-4. Economic Impact of the Oil and Natural Gas Industry in Arkansas, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Arkansas	24,610	92,000	5.5%	\$1,078	\$5,071	5.6%	\$3,897	\$10,569	7.1%
AR-1	5,100	17,850	4.4%	\$190	\$818	4.3%	\$597	\$1,783	5.4%
AR-2	7,750	29,560	6.8%	\$338	\$1,803	7.0%	\$1,159	\$3,500	8.5%
AR-3	3,930	21,540	4.8%	\$196	\$1,329	4.8%	\$854	\$2,739	6.3%
AR-4	7,830	23,050	5.9%	\$353	\$1,122	6.1%	\$1,287	\$2,547	8.2%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-5. Economic Impact of the Oil and Natural Gas Industry in California, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
California	159,550	1,035,260	4.3%	\$23,333	\$104,870	5.0%	\$90,383	\$217,129	6.4%
CA-1	3,230	17,050	4.1%	\$221	\$1,046	3.9%	\$966	\$2,162	5.1%
CA-2	1,980	20,520	3.9%	\$263	\$1,847	4.4%	\$868	\$3,685	5.6%
CA-3	2,510	17,900	4.1%	\$190	\$1,343	4.1%	\$748	\$2,396	4.4%
CA-4	2,120	18,770	3.7%	\$179	\$1,267	3.7%	\$839	\$2,405	4.5%
CA-5	2,310	17,600	3.8%	\$228	\$1,392	3.9%	\$774	\$2,636	4.5%
CA-6	1,540	16,700	3.6%	\$142	\$1,304	3.5%	\$583	\$2,203	4.0%
CA-7	1,660	16,050	3.6%	\$178	\$1,334	3.6%	\$844	\$2,332	4.3%
CA-8	4,790	28,180	6.3%	\$705	\$2,290	7.6%	\$4,382	\$6,589	13.3%
CA-9	1,680	15,770	3.8%	\$151	\$1,110	3.8%	\$874	\$2,188	4.8%
CA-10	2,070	23,310	5.0%	\$266	\$1,791	5.6%	\$10,884	\$13,662	27.5%
CA-11	840	24,710	4.2%	\$138	\$2,626	5.0%	\$250	\$4,691	5.4%
CA-12	1,010	21,470	4.4%	\$234	\$4,829	5.1%	\$338	\$8,584	6.1%
CA-13	2,570	14,910	3.8%	\$276	\$1,393	3.7%	\$1,329	\$2,791	4.9%
CA-14	1,440	19,690	3.9%	\$284	\$3,880	4.4%	\$590	\$6,686	4.1%
CA-15	1,080	19,430	4.0%	\$151	\$2,234	4.4%	\$549	\$3,582	4.5%
CA-16	1,190	16,970	3.8%	\$83	\$1,227	4.1%	\$400	\$2,063	4.5%
CA-17	1,240	19,890	4.1%	\$203	\$5,546	5.3%	\$1,300	\$8,176	4.9%
CA-18	1,600	17,660	3.9%	\$281	\$3,229	4.2%	\$972	\$4,899	4.1%
CA-19	1,830	18,500	3.9%	\$308	\$2,636	4.5%	\$856	\$4,048	4.3%
CA-20	16,560	36,270	8.9%	\$1,342	\$2,890	9.3%	\$7,659	\$9,935	20.7%
CA-21	1,620	13,070	3.8%	\$169	\$937	3.8%	\$748	\$1,820	4.5%
CA-22	7,960	22,350	6.4%	\$663	\$1,550	6.7%	\$2,974	\$4,172	11.8%
CA-23	3,870	16,520	4.7%	\$527	\$1,378	5.5%	\$1,305	\$2,475	6.0%
CA-24	4,450	25,240	5.5%	\$675	\$2,260	6.8%	\$2,430	\$4,726	9.2%
CA-25	2,720	15,300	4.1%	\$387	\$1,315	4.5%	\$1,298	\$2,720	5.8%
CA-26	3,620	22,350	4.7%	\$541	\$2,014	5.6%	\$1,971	\$4,289	7.3%
CA-27	2,200	16,580	3.8%	\$274	\$1,487	4.2%	\$832	\$2,722	5.0%
CA-28	3,460	20,540	4.3%	\$773	\$2,412	5.7%	\$2,177	\$4,843	7.1%
CA-29	1,190	16,720	3.6%	\$167	\$1,475	3.9%	\$700	\$2,847	4.6%
CA-30	1,840	22,240	4.0%	\$359	\$2,415	5.0%	\$937	\$4,608	5.8%
CA-31	2,170	18,430	4.2%	\$232	\$1,248	4.4%	\$990	\$2,558	5.7%
CA-32	3,490	21,120	4.3%	\$604	\$2,184	5.7%	\$1,665	\$4,293	6.8%
CA-33	2,690	20,390	4.0%	\$546	\$2,188	4.7%	\$1,256	\$3,970	5.2%
CA-34	6,370	25,730	4.9%	\$1,432	\$3,173	7.3%	\$2,724	\$5,566	8.0%

(Continued on next page)

Table C-5. Economic Impact of the Oil and Natural Gas Industry in California, 2021, continued

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
CA-35	3,290	20,260	4.4%	\$381	\$1,523	4.8%	\$2,761	\$4,387	8.8%
CA-36	4,090	24,540	4.9%	\$533	\$1,829	6.3%	\$2,607	\$4,754	10.5%
CA-37	1,470	19,950	3.9%	\$256	\$2,089	4.5%	\$798	\$3,719	4.9%
CA-38	4,320	19,370	4.4%	\$878	\$2,046	6.1%	\$2,627	\$4,416	8.1%
CA-39	1,810	17,920	3.9%	\$355	\$1,616	4.4%	\$1,348	\$3,347	5.6%
CA-40	4,340	21,080	4.5%	\$623	\$2,037	5.5%	\$2,597	\$4,884	8.0%
CA-41	2,970	18,380	4.3%	\$303	\$1,219	4.6%	\$1,342	\$2,571	6.4%
CA-42	3,200	21,010	4.5%	\$339	\$1,448	4.9%	\$1,778	\$3,315	7.2%
CA-43	3,440	19,430	4.4%	\$757	\$2,099	5.6%	\$2,084	\$3,939	6.8%
CA-44	7,980	24,120	5.4%	\$1,631	\$2,941	8.0%	\$4,111	\$6,098	9.4%
CA-45	1,740	17,950	3.8%	\$318	\$1,767	4.2%	\$706	\$3,600	5.3%
CA-46	3,030	19,830	4.2%	\$737	\$2,109	5.5%	\$1,897	\$4,367	7.1%
CA-47	3,140	20,050	4.1%	\$487	\$1,935	4.9%	\$1,179	\$3,598	5.7%
CA-48	3,010	18,860	4.3%	\$771	\$2,112	5.8%	\$1,485	\$3,836	6.6%
CA-49	2,220	17,910	3.8%	\$358	\$1,768	4.1%	\$884	\$3,204	4.4%
CA-50	3,520	20,710	4.4%	\$630	\$2,000	5.6%	\$1,387	\$3,464	5.6%
CA-51	3,820	20,520	4.5%	\$652	\$1,928	5.7%	\$2,156	\$4,033	7.0%
CA-52	1,210	15,400	3.6%	\$150	\$1,157	3.5%	\$623	\$2,273	4.1%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-6. Economic Impact of the Oil and Natural Gas Industry in Colorado, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Colorado	54,420	303,730	7.7%	\$15,360	\$34,056	12.0%	\$19,848	\$48,726	11.2%
CO-1	14,540	54,800	10.4%	\$9,114	\$13,636	25.3%	\$9,620	\$15,454	19.7%
CO-2	2,940	33,140	6.2%	\$250	\$2,486	6.3%	\$478	\$3,550	5.8%
CO-3	12,070	46,810	10.1%	\$1,676	\$3,566	14.2%	\$2,311	\$5,611	14.1%
CO-4	6,580	39,310	7.3%	\$1,123	\$3,315	9.2%	\$1,937	\$6,535	11.5%
CO-5	2,130	27,370	6.4%	\$520	\$2,153	7.7%	\$637	\$2,741	6.7%
CO-6	3,230	32,850	6.7%	\$903	\$3,288	8.5%	\$1,264	\$6,001	9.9%
CO-7	3,300	30,810	6.4%	\$677	\$2,765	7.8%	\$1,149	\$4,006	7.2%
CO-8	9,620	38,640	8.1%	\$1,098	\$2,847	10.3%	\$2,452	\$4,828	11.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-7. Economic Impact of the Oil and Natural Gas Industry in Connecticut, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Connecticut	14,310	78,930	3.5%	\$2,234	\$8,198	4.4%	\$4,188	\$13,614	4.6%
CT-1	2,800	15,360	3.7%	\$546	\$1,714	5.0%	\$1,126	\$2,990	5.2%
CT-2	2,930	15,100	3.4%	\$260	\$1,159	3.8%	\$496	\$2,032	3.8%
CT-3	2,880	15,070	3.3%	\$576	\$1,508	4.6%	\$981	\$2,294	4.3%
CT-4	3,200	18,860	3.6%	\$626	\$2,592	4.8%	\$1,139	\$4,297	5.4%
CT-5	2,490	14,550	3.2%	\$227	\$1,225	3.7%	\$445	\$2,001	3.7%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-8. Economic Impact of the Oil and Natural Gas Industry in Delaware, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Delaware	5,890	27,680	4.5%	\$466	\$2,019	4.9%	\$981	\$4,071	5.0%
DE-1 (At-Large)	5,890	27,680	4.5%	\$466	\$2,019	4.9%	\$981	\$4,071	5.0%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-9. Economic Impact of the Oil and Natural Gas Industry in the District of Columbia, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
District of Columbia	2,450	20,100	2.3%	\$464	\$2,886	2.6%	\$1,135	\$4,540	3.0%
DC-1 (At-Large)	2,450	20,100	2.3%	\$464	\$2,886	2.6%	\$1,135	\$4,539	3.0%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-10. Economic Impact of the Oil and Natural Gas Industry in Florida, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Florida	69,340	433,400	3.3%	\$3,550	\$27,533	3.6%	\$14,893	\$53,136	4.2%
FL-1	6,320	28,170	6.7%	\$92	\$1,273	7.1%	\$82	\$2,092	6.5%
FL-2	3,780	14,760	3.3%	\$137	\$618	3.5%	\$346	\$1,116	3.5%
FL-3	3,470	14,600	3.6%	\$137	\$629	3.8%	\$599	\$1,354	4.4%
FL-4	2,870	15,090	3.5%	\$135	\$814	3.8%	\$512	\$1,766	4.6%
FL-5	2,780	15,590	3.4%	\$240	\$1,188	4.0%	\$610	\$2,146	4.6%
FL-6	2,350	13,320	3.1%	\$100	\$695	3.3%	\$248	\$1,233	3.5%
FL-7	2,130	14,810	3.2%	\$105	\$1,044	3.4%	\$200	\$1,516	3.1%
FL-8	2,500	13,610	3.2%	\$184	\$935	3.5%	\$713	\$1,917	4.6%
FL-9	2,290	15,060	3.1%	\$108	\$825	3.1%	\$461	\$1,498	3.4%
FL-10	2,430	15,880	3.5%	\$135	\$1,048	3.6%	\$542	\$1,769	3.9%
FL-11	2,120	13,310	3.1%	\$84	\$691	3.3%	\$172	\$1,180	3.3%
FL-12	1,570	11,640	2.8%	\$69	\$680	3.1%	\$146	\$1,035	2.7%
FL-13	1,960	14,520	3.3%	\$87	\$1,011	3.6%	\$316	\$1,604	3.5%
FL-14	2,770	17,510	3.5%	\$266	\$1,485	4.2%	\$1,297	\$3,099	5.4%
FL-15	2,310	14,590	3.2%	\$149	\$993	3.6%	\$521	\$1,724	3.7%
FL-16	1,670	14,530	3.1%	\$91	\$935	3.4%	\$331	\$2,053	4.5%
FL-17	1,530	11,990	2.9%	\$65	\$680	3.1%	\$154	\$1,142	3.1%
FL-18	4,050	17,390	3.9%	\$176	\$1,026	4.0%	\$1,245	\$2,542	6.1%
FL-19	2,360	15,100	3.4%	\$118	\$949	3.7%	\$321	\$1,733	4.2%
FL-20	1,830	13,980	2.9%	\$126	\$1,030	3.3%	\$512	\$1,805	3.5%
FL-21	1,960	14,900	3.1%	\$120	\$1,052	3.4%	\$537	\$1,993	3.9%
FL-22	1,560	15,330	3.0%	\$128	\$1,186	3.5%	\$399	\$1,884	3.6%
FL-23	1,620	15,950	2.9%	\$107	\$1,131	3.4%	\$668	\$2,186	4.0%
FL-24	1,650	15,000	2.9%	\$145	\$1,048	3.4%	\$826	\$2,358	4.7%
FL-25	1,690	15,750	2.8%	\$125	\$1,212	3.4%	\$503	\$2,427	4.2%
FL-26	4,990	18,250	3.6%	\$194	\$1,171	3.7%	\$2,104	\$3,817	7.3%
FL-27	1,480	17,990	3.0%	\$70	\$1,388	3.5%	\$314	\$2,678	4.5%
FL-28	1,310	14,800	2.6%	\$56	\$796	3.0%	\$214	\$1,472	3.4%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-11. Economic Impact of the Oil and Natural Gas Industry in Georgia, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Georgia	45,180	234,170	3.6%	\$2,589	\$15,939	3.9%	\$10,798	\$32,915	4.8%
GA-1	4,070	16,120	4.1%	\$203	\$915	3.9%	\$773	\$1,821	4.8%
GA-2	4,080	14,490	3.9%	\$138	\$745	3.5%	\$719	\$1,603	4.7%
GA-3	3,420	16,110	3.5%	\$170	\$840	3.7%	\$622	\$1,628	4.1%
GA-4	2,550	16,750	3.2%	\$153	\$1,084	3.6%	\$659	\$3,621	6.8%
GA-5	3,720	20,460	4.1%	\$463	\$2,281	4.8%	\$1,649	\$4,648	5.9%
GA-6	2,320	20,160	3.7%	\$258	\$2,137	4.4%	\$616	\$3,407	4.5%
GA-7	2,750	17,590	3.4%	\$221	\$1,368	3.9%	\$890	\$2,680	4.6%
GA-8	4,360	15,370	4.0%	\$129	\$714	3.6%	\$464	\$1,333	4.0%
GA-9	3,320	16,780	3.6%	\$175	\$908	3.7%	\$1,471	\$2,604	6.3%
GA-10	2,870	15,800	3.1%	\$103	\$784	3.2%	\$421	\$1,693	3.9%
GA-11	2,390	18,430	3.4%	\$165	\$1,504	3.8%	\$598	\$2,587	4.0%
GA-12	3,930	15,320	3.9%	\$125	\$780	3.5%	\$391	\$1,313	3.6%
GA-13	2,670	15,940	3.3%	\$170	\$1,092	3.6%	\$937	\$2,303	4.3%
GA-14	2,740	14,850	3.2%	\$115	\$787	3.3%	\$590	\$1,675	4.1%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-12. Economic Impact of the Oil and Natural Gas Industry in Hawaii, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Hawaii	4,120	25,370	3.0%	\$319	\$1,798	3.1%	\$1,525	\$3,944	4.3%
HI-1	1,500	12,460	2.9%	\$153	\$987	3.2%	\$668	\$2,004	4.2%
HI-2	2,620	12,910	3.0%	\$167	\$810	3.0%	\$857	\$1,940	4.5%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-13. Economic Impact of the Oil and Natural Gas Industry in Idaho, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Idaho	10,400	43,240	3.8%	\$732	\$2,716	4.3%	\$1,622	\$4,739	4.9%
ID-1	4,170	20,070	3.5%	\$289	\$1,195	3.9%	\$618	\$2,094	4.3%
ID-2	6,230	23,180	4.2%	\$441	\$1,519	4.6%	\$994	\$2,635	5.5%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-14. Economic Impact of the Oil and Natural Gas Industry in Illinois, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Illinois	59,480	343,260	4.5%	\$6,428	\$30,401	5.2%	\$17,672	\$55,310	5.8%
IL-1	2,160	15,230	3.7%	\$160	\$1,168	3.9%	\$446	\$1,905	3.9%
IL-2	2,760	14,900	3.8%	\$171	\$1,101	3.9%	\$535	\$1,877	4.0%
IL-3	1,740	17,820	3.8%	\$207	\$1,530	4.3%	\$680	\$2,580	4.5%
IL-4	2,140	15,900	3.9%	\$518	\$1,691	5.2%	\$1,399	\$3,127	5.9%
IL-5	1,030	21,740	4.0%	\$110	\$2,131	4.8%	\$323	\$3,204	4.6%
IL-6	2,190	18,890	4.1%	\$438	\$1,925	5.1%	\$1,258	\$3,377	5.8%
IL-7	3,360	23,940	4.9%	\$964	\$3,504	7.0%	\$2,353	\$5,736	7.7%
IL-8	1,620	18,320	3.9%	\$195	\$1,798	4.4%	\$725	\$3,074	4.6%
IL-9	1,010	18,020	3.8%	\$102	\$1,669	4.2%	\$224	\$2,475	4.0%
IL-10	1,460	18,190	3.9%	\$116	\$1,886	4.2%	\$459	\$3,276	4.2%
IL-11	2,520	19,790	4.2%	\$418	\$1,786	5.2%	\$905	\$2,955	5.3%
IL-12	14,160	39,570	9.7%	\$990	\$2,888	11.6%	\$4,473	\$7,619	19.1%
IL-13	3,950	19,060	4.6%	\$541	\$1,540	5.8%	\$831	\$3,739	8.7%
IL-14	4,410	22,040	4.6%	\$607	\$1,948	5.6%	\$1,047	\$3,022	5.4%
IL-15	6,150	21,030	4.6%	\$259	\$1,192	4.5%	\$569	\$3,015	7.0%
IL-16	6,160	22,650	5.1%	\$512	\$1,599	5.7%	\$909	\$2,500	5.4%
IL-17	2,660	16,180	3.9%	\$118	\$1,046	3.9%	\$538	\$1,828	3.9%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-15 Economic Impact of the Oil and Natural Gas Industry in Indiana, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Indiana	37,340	180,440	4.6%	\$2,509	\$12,345	4.8%	\$8,511	\$24,210	5.9%
IN-1	5,750	26,790	6.5%	\$699	\$2,048	8.1%	\$2,343	\$4,377	10.1%
IN-2	3,210	16,130	3.9%	\$153	\$1,067	3.9%	\$592	\$2,112	5.1%
IN-3	3,650	17,940	4.1%	\$175	\$1,102	4.1%	\$618	\$2,136	5.0%
IN-4	3,940	18,330	4.0%	\$204	\$1,079	4.1%	\$519	\$1,912	4.4%
IN-5	2,480	18,120	3.9%	\$135	\$1,393	4.1%	\$442	\$2,483	4.7%
IN-6	3,210	17,670	3.9%	\$148	\$1,025	4.0%	\$405	\$1,773	4.2%
IN-7	2,670	17,580	4.1%	\$317	\$1,774	4.4%	\$712	\$3,257	5.1%
IN-8	9,120	30,450	7.2%	\$497	\$1,854	7.2%	\$2,312	\$4,372	10.1%
IN-9	3,320	17,420	3.9%	\$180	\$1,005	4.0%	\$570	\$1,788	4.4%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-16. Economic Impact of the Oil and Natural Gas Industry in Iowa, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Iowa	28,010	92,660	4.5%	\$1,097	\$5,152	4.2%	\$3,019	\$10,243	4.7%
IA-1	5,930	20,820	4.1%	\$215	\$1,123	3.8%	\$505	\$2,143	4.1%
IA-2	7,410	23,370	4.7%	\$293	\$1,251	4.4%	\$993	\$2,706	5.4%
IA-3	6,000	23,330	4.5%	\$244	\$1,454	4.2%	\$671	\$2,697	4.2%
IA-4	8,670	25,140	4.8%	\$345	\$1,324	4.5%	\$851	\$2,697	5.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-17. Economic Impact of the Oil and Natural Gas Industry in Kansas, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Kansas	46,160	160,760	8.4%	\$2,586	\$10,614	9.0%	\$6,917	\$19,327	10.1%
KS-1	17,420	45,640	9.1%	\$688	\$2,356	8.8%	\$2,102	\$4,601	10.6%
KS-2	9,230	34,290	7.8%	\$375	\$1,902	7.9%	\$1,221	\$3,426	8.8%
KS-3	4,400	35,040	6.8%	\$539	\$3,264	8.2%	\$1,385	\$5,926	9.3%
KS-4	15,110	45,790	10.0%	\$983	\$3,092	11.4%	\$2,208	\$5,374	11.9%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-18. Economic Impact of the Oil and Natural Gas Industry in Kentucky, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Kentucky	28,280	116,940	4.6%	\$1,376	\$6,920	4.7%	\$6,000	\$14,777	6.2%
KY-1	5,140	17,900	4.4%	\$204	\$960	4.3%	\$666	\$1,820	5.4%
KY-2	4,780	18,650	4.2%	\$210	\$1,035	4.3%	\$759	\$2,140	5.4%
KY-3	2,670	17,070	3.8%	\$177	\$1,307	4.1%	\$782	\$2,715	5.2%
KY-4	3,720	18,570	4.0%	\$173	\$1,180	4.3%	\$668	\$2,300	5.1%
KY-5	8,120	24,790	7.6%	\$421	\$1,248	8.3%	\$1,978	\$3,169	13.1%
KY-6	3,870	19,960	4.3%	\$192	\$1,190	4.5%	\$1,149	\$2,632	6.1%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-19. Economic Impact of the Oil and Natural Gas Industry in Louisiana, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Louisiana	91,720	346,710	13.1%	\$10,748	\$25,763	16.7%	\$29,165	\$54,260	21.0%
LA-1	16,100	62,590	12.6%	\$3,083	\$6,012	19.3%	\$7,529	\$12,218	24.8%
LA-2	10,230	48,930	11.6%	\$1,351	\$3,918	14.2%	\$5,100	\$9,767	19.8%
LA-3	27,140	84,080	18.6%	\$2,613	\$5,853	22.9%	\$6,777	\$11,963	26.7%
LA-4	13,970	51,850	13.5%	\$1,214	\$3,291	15.8%	\$3,233	\$6,448	18.9%
LA-5	9,080	39,900	10.1%	\$874	\$2,456	12.2%	\$2,417	\$5,077	15.4%
LA-6	15,200	59,370	12.2%	\$1,612	\$4,233	14.7%	\$4,108	\$8,788	18.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-20. Economic Impact of the Oil and Natural Gas Industry in Maine, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Maine	11,340	37,530	4.5%	\$604	\$2,236	4.5%	\$1,739	\$4,445	5.7%
ME-1	4,760	19,010	4.2%	\$313	\$1,285	4.5%	\$1,012	\$2,667	6.0%
ME-2	6,580	18,520	4.7%	\$291	\$951	4.5%	\$728	\$1,778	5.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-21. Economic Impact of the Oil and Natural Gas Industry in Maryland, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Maryland	18,030	106,630	2.9%	\$1,153	\$8,074	2.9%	\$4,950	\$15,927	3.6%
MD-1	3,240	14,760	3.2%	\$145	\$810	3.1%	\$747	\$1,819	4.3%
MD-2	2,280	13,250	3.0%	\$118	\$1,001	2.9%	\$481	\$1,850	3.3%
MD-3	1,850	12,790	2.8%	\$118	\$1,086	2.9%	\$500	\$1,934	3.3%
MD-4	1,870	12,430	2.7%	\$128	\$879	2.7%	\$416	\$1,515	2.8%
MD-5	1,950	12,520	2.5%	\$111	\$833	2.5%	\$367	\$1,468	2.6%
MD-6	3,360	14,900	3.2%	\$217	\$1,175	3.2%	\$967	\$2,532	4.3%
MD-7	2,510	12,750	3.1%	\$254	\$1,072	3.4%	\$1,267	\$2,513	5.2%
MD-8	970	13,230	2.5%	\$63	\$1,217	2.8%	\$204	\$2,298	3.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-22. Economic Impact of the Oil and Natural Gas Industry in Massachusetts, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Massachusetts	24,880	151,680	3.2%	\$2,707	\$15,361	3.6%	\$6,663	\$25,721	4.0%
MA-1	3,920	16,800	3.8%	\$239	\$1,092	3.8%	\$593	\$1,869	4.3%
MA-2	3,270	17,030	3.3%	\$232	\$1,221	3.4%	\$706	\$2,265	4.1%
MA-3	2,020	15,210	3.0%	\$194	\$1,550	3.5%	\$411	\$2,290	3.3%
MA-4	2,690	17,400	3.2%	\$281	\$1,634	3.8%	\$648	\$2,631	4.1%
MA-5	2,540	16,330	3.0%	\$398	\$1,974	3.4%	\$1,464	\$3,797	4.4%
MA-6	2,330	17,040	3.1%	\$152	\$1,637	3.3%	\$319	\$2,540	3.3%
MA-7	1,310	14,580	2.8%	\$170	\$1,953	3.1%	\$387	\$2,908	3.1%
MA-8	3,380	19,040	3.4%	\$679	\$2,841	4.5%	\$1,335	\$4,778	5.1%
MA-9	3,420	18,260	3.2%	\$362	\$1,460	3.9%	\$800	\$2,642	4.5%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-23. Economic Impact of the Oil and Natural Gas Industry in Michigan, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Michigan	45,640	228,570	4.1%	\$3,395	\$16,370	4.5%	\$9,619	\$29,873	5.2%
MI-1	8,910	25,060	6.0%	\$388	\$1,279	5.9%	\$566	\$1,971	5.6%
MI-2	5,770	18,790	4.9%	\$327	\$1,175	5.0%	\$812	\$2,130	5.8%
MI-3	3,500	18,830	4.2%	\$251	\$1,353	4.7%	\$611	\$2,283	5.1%
MI-4	2,620	16,440	3.6%	\$129	\$978	3.9%	\$334	\$1,598	4.0%
MI-5	4,010	16,970	4.1%	\$306	\$1,108	4.6%	\$585	\$1,801	4.6%
MI-6	3,050	18,010	3.9%	\$293	\$1,297	4.5%	\$740	\$2,324	4.8%
MI-7	3,140	17,330	3.8%	\$159	\$1,146	3.9%	\$422	\$1,969	4.1%
MI-8	2,560	14,760	3.7%	\$145	\$1,005	3.9%	\$405	\$1,705	4.1%
MI-9	3,260	17,030	3.8%	\$114	\$1,205	3.7%	\$410	\$2,236	4.5%
MI-10	1,350	15,740	3.3%	\$75	\$1,022	3.6%	\$218	\$1,776	3.9%
MI-11	1,700	18,320	3.8%	\$287	\$1,780	4.8%	\$549	\$3,073	5.5%
MI-12	2,470	14,850	4.0%	\$374	\$1,344	5.0%	\$778	\$2,210	5.2%
MI-13	3,310	16,430	4.5%	\$547	\$1,677	5.9%	\$3,188	\$4,795	10.7%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-24. Economic Impact of the Oil and Natural Gas Industry in Minnesota, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Minnesota	38,870	170,350	4.6%	\$2,578	\$12,959	5.0%	\$8,691	\$24,622	6.0%
MN-1	5,800	20,560	4.4%	\$221	\$1,233	4.1%	\$444	\$1,961	4.3%
MN-2	5,000	28,310	5.8%	\$646	\$2,444	7.2%	\$3,878	\$6,958	12.1%
MN-3	5,190	22,380	4.9%	\$485	\$2,306	5.5%	\$911	\$3,474	5.3%
MN-4	1,990	16,490	3.8%	\$93	\$1,256	3.9%	\$405	\$2,131	4.3%
MN-5	2,760	19,970	4.2%	\$255	\$1,996	4.6%	\$896	\$3,252	4.9%
MN-6	4,330	20,040	4.1%	\$272	\$1,347	4.5%	\$625	\$2,453	5.1%
MN-7	6,750	21,310	4.6%	\$245	\$1,183	4.4%	\$703	\$2,187	5.2%
MN-8	7,050	21,290	5.1%	\$360	\$1,194	5.1%	\$828	\$2,206	5.7%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-25. Economic Impact of the Oil and Natural Gas Industry in Mississippi, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Mississippi	30,710	109,120	6.8%	\$1,996	\$5,922	7.5%	\$7,920	\$14,428	11.3%
MS-1	4,570	22,440	5.2%	\$261	\$1,130	5.6%	\$794	\$2,281	7.1%
MS-2	8,380	24,530	6.9%	\$464	\$1,275	7.2%	\$1,535	\$2,934	10.0%
MS-3	10,290	29,180	6.9%	\$627	\$1,565	7.6%	\$1,612	\$3,072	9.3%
MS-4	7,470	32,960	8.2%	\$644	\$1,953	9.6%	\$3,979	\$6,142	18.6%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-26. Economic Impact of the Oil and Natural Gas Industry in Missouri, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Missouri	41,510	169,520	4.5%	\$2,326	\$10,826	4.7%	\$6,109	\$19,740	5.5%
MO-1	6,290	23,960	5.5%	\$607	\$2,115	6.0%	\$1,631	\$4,108	7.5%
MO-2	3,610	19,880	4.1%	\$242	\$1,536	4.3%	\$646	\$3,035	5.5%
MO-3	3,960	19,060	3.8%	\$186	\$1,044	3.8%	\$544	\$2,005	4.5%
MO-4	5,430	19,480	4.1%	\$230	\$980	4.0%	\$484	\$1,603	4.3%
MO-5	5,630	26,510	5.6%	\$302	\$2,006	5.8%	\$721	\$3,163	5.9%
MO-6	5,880	20,320	4.2%	\$276	\$1,131	4.2%	\$697	\$2,085	4.8%
MO-7	4,870	20,480	4.5%	\$243	\$1,112	4.5%	\$721	\$1,997	5.3%
MO-8	5,840	19,840	4.3%	\$240	\$901	4.3%	\$665	\$1,745	5.2%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-27. Economic Impact of the Oil and Natural Gas Industry in Montana, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Montana	13,740	56,910	8.0%	\$1,226	\$3,730	9.8%	\$3,674	\$7,476	12.7%
MT-1	3,760	18,960	5.2%	\$296	\$1,288	5.9%	\$571	\$2,084	6.3%
MT-2	9,980	37,950	11.0%	\$930	\$2,442	15.2%	\$3,103	\$5,392	21.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-28. Economic Impact of the Oil and Natural Gas Industry in Nebraska, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Nebraska	14,230	62,650	4.7%	\$1,967	\$5,138	6.2%	\$4,480	\$9,851	6.7%
NE-1	3,170	18,450	4.0%	\$178	\$1,116	4.1%	\$482	\$1,994	4.2%
NE-2	3,370	20,360	4.9%	\$1,104	\$2,391	7.7%	\$2,516	\$4,591	8.5%
NE-3	7,700	23,850	5.3%	\$686	\$1,630	6.5%	\$1,482	\$3,266	7.4%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-29. Economic Impact of the Oil and Natural Gas Industry in Nevada, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Nevada	14,400	71,120	3.8%	\$1,121	\$4,947	4.2%	\$3,662	\$10,063	5.2%
NV-1	3,290	17,280	3.9%	\$265	\$1,154	4.4%	\$954	\$2,410	5.7%
NV-2	3,990	19,900	4.1%	\$369	\$1,554	4.8%	\$1,179	\$3,127	5.8%
NV-3	3,330	19,030	3.6%	\$255	\$1,279	4.0%	\$660	\$2,450	4.6%
NV-4	3,790	14,900	3.6%	\$232	\$960	3.7%	\$869	\$2,075	4.6%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-30. Economic Impact of the Oil and Natural Gas Industry in New Hampshire, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
New Hampshire	8,380	33,680	3.8%	\$559	\$2,795	4.1%	\$1,242	\$4,544	4.6%
NH-1	3,860	17,340	3.7%	\$297	\$1,522	4.2%	\$721	\$2,576	4.8%
NH-2	4,510	16,330	3.9%	\$262	\$1,273	4.0%	\$521	\$1,968	4.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-31. Economic Impact of the Oil and Natural Gas Industry in New Jersey, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
New Jersey	36,910	213,680	3.9%	\$4,567	\$18,587	4.2%	\$17,456	\$37,974	5.6%
NJ-1	3,220	18,840	4.4%	\$327	\$1,363	4.7%	\$2,248	\$3,670	8.0%
NJ-2	4,640	19,400	4.7%	\$446	\$1,300	5.1%	\$1,634	\$2,844	7.1%
NJ-3	3,870	18,630	4.0%	\$288	\$1,279	4.0%	\$2,175	\$3,558	7.0%
NJ-4	3,850	17,410	3.9%	\$401	\$1,277	4.3%	\$869	\$2,116	4.5%
NJ-5	2,560	18,060	3.5%	\$218	\$1,455	3.6%	\$673	\$2,604	4.3%
NJ-6	3,040	18,090	3.9%	\$317	\$1,538	4.2%	\$1,693	\$3,442	6.0%
NJ-7	4,420	20,410	4.1%	\$510	\$2,058	4.3%	\$2,745	\$5,012	6.9%
NJ-8	1,880	17,250	3.6%	\$298	\$1,712	4.0%	\$1,219	\$3,347	5.2%
NJ-9	2,500	17,140	3.6%	\$258	\$1,416	3.8%	\$1,753	\$3,645	6.2%
NJ-10	2,230	14,840	3.5%	\$371	\$1,361	3.9%	\$2,417	\$3,859	6.7%
NJ-11	2,060	16,940	3.5%	\$191	\$1,604	3.6%	\$555	\$2,632	3.9%
NJ-12	2,650	16,650	3.8%	\$943	\$2,223	5.6%	-\$525	\$1,245	2.0%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-32. Economic Impact of the Oil and Natural Gas Industry in New Mexico, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
New Mexico	35,610	92,510	8.5%	\$2,819	\$6,038	9.6%	\$11,093	\$16,644	15.2%
NM-1	3,970	22,440	5.7%	\$254	\$1,398	5.8%	\$1,108	\$2,973	7.7%
NM-2	13,880	30,530	8.9%	\$1,092	\$2,028	10.5%	\$4,341	\$6,133	16.8%
NM-3	17,760	39,540	11.2%	\$1,473	\$2,613	13.5%	\$5,644	\$7,539	22.0%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-33. Economic Impact of the Oil and Natural Gas Industry in New York, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
New York	54,240	347,290	2.8%	\$6,087	\$38,287	3.4%	\$15,735	\$70,142	3.7%
NY-1	2,070	13,040	2.6%	\$247	\$1,430	3.2%	\$613	\$2,596	3.5%
NY-2	2,000	13,070	2.5%	\$201	\$1,330	2.8%	\$878	\$2,727	3.4%
NY-3	2,140	14,600	2.8%	\$179	\$1,515	3.2%	\$560	\$3,289	4.1%
NY-4	1,780	13,690	2.5%	\$171	\$1,306	2.8%	\$600	\$2,817	3.6%
NY-5	390	9,850	2.1%	\$24	\$802	2.1%	\$60	\$1,230	2.0%
NY-6	600	10,880	2.3%	\$48	\$824	2.4%	\$119	\$1,479	2.7%
NY-7	1,780	15,280	2.9%	\$349	\$2,464	4.2%	\$860	\$4,348	4.2%
NY-8	620	10,650	2.2%	\$68	\$848	2.6%	\$213	\$1,511	2.6%
NY-9	590	10,010	2.2%	\$60	\$780	2.4%	\$125	\$1,238	2.3%
NY-10	1,480	16,170	3.5%	\$766	\$4,482	5.4%	\$2,054	\$8,644	5.7%
NY-11	810	10,800	2.4%	\$73	\$839	2.5%	\$301	\$1,439	2.7%
NY-12	520	17,010	3.4%	\$144	\$4,880	5.1%	\$686	\$8,889	5.1%
NY-13	220	8,820	2.3%	\$15	\$1,039	2.3%	\$36	\$1,581	1.8%
NY-14	540	9,650	2.2%	\$43	\$760	2.3%	\$220	\$1,398	2.6%
NY-15	500	8,600	2.1%	\$40	\$669	2.1%	\$233	\$1,128	2.3%
NY-16	1,410	12,750	2.5%	\$104	\$1,230	2.7%	\$524	\$3,098	4.2%
NY-17	1,940	14,030	2.8%	\$186	\$1,543	3.0%	\$523	\$3,186	3.8%
NY-18	3,250	14,060	2.9%	\$269	\$1,149	2.9%	\$662	\$2,118	3.2%
NY-19	4,050	14,710	3.0%	\$341	\$1,064	3.1%	\$843	\$1,999	3.4%
NY-20	2,610	13,310	2.9%	\$160	\$1,173	2.7%	\$616	\$2,081	2.9%
NY-21	4,590	14,510	3.4%	\$253	\$959	3.0%	\$678	\$1,702	3.2%
NY-22	2,530	12,350	2.9%	\$130	\$838	2.7%	\$443	\$1,487	2.8%
NY-23	7,190	25,770	5.9%	\$1,011	\$2,508	7.9%	-\$1,705	\$290	0.6%
NY-24	3,960	15,050	3.5%	\$267	\$1,138	3.2%	\$933	\$2,369	3.9%
NY-25	2,250	13,290	2.9%	\$161	\$1,063	2.9%	\$975	\$2,219	3.7%
NY-26	4,430	15,340	3.5%	\$777	\$1,651	4.9%	\$3,681	\$5,278	9.2%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-34. Economic Impact of the Oil and Natural Gas Industry in North Carolina, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
North Carolina	46,370	224,160	3.6%	\$2,930	\$15,129	3.8%	\$8,029	\$28,809	4.4%
NC-1	4,000	14,880	3.7%	\$239	\$1,040	3.7%	\$617	\$1,888	4.0%
NC-2	1,920	16,880	3.2%	\$120	\$1,229	3.8%	\$531	\$2,424	4.2%
NC-3	3,850	14,050	3.7%	\$205	\$771	3.6%	\$479	\$1,370	4.2%
NC-4	2,290	14,620	3.1%	\$187	\$1,269	3.4%	\$389	\$2,107	3.4%
NC-5	2,870	14,280	3.4%	\$168	\$876	3.5%	\$409	\$1,802	4.1%
NC-6	6,140	20,580	4.4%	\$260	\$1,211	4.5%	\$638	\$2,272	4.9%
NC-7	3,190	15,130	3.4%	\$180	\$860	3.5%	\$429	\$1,585	3.8%
NC-8	3,740	16,230	3.8%	\$254	\$1,126	4.0%	\$731	\$2,090	4.8%
NC-9	2,990	13,320	3.5%	\$218	\$948	3.7%	\$480	\$1,580	4.0%
NC-10	3,280	16,030	3.6%	\$192	\$930	3.8%	\$521	\$1,747	4.4%
NC-11	3,260	15,180	3.4%	\$171	\$790	3.5%	\$440	\$1,491	4.1%
NC-12	2,770	17,160	3.6%	\$301	\$1,726	4.0%	\$553	\$3,168	4.4%
NC-13	2,940	16,220	3.4%	\$174	\$1,057	3.7%	\$698	\$2,150	4.5%
NC-14	3,130	19,580	3.7%	\$258	\$1,295	4.3%	\$1,114	\$3,136	6.0%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-35. Economic Impact of the Oil and Natural Gas Industry in North Dakota, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
North Dakota	27,150	72,460	12.8%	\$2,661	\$5,580	15.3%	\$12,086	\$16,618	26.1%
ND-1 (At-Large)	27,150	72,460	12.8%	\$2,661	\$5,580	15.3%	\$12,086	\$16,618	26.1%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-36. Economic Impact of the Oil and Natural Gas Industry in Ohio, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Ohio	71,160	351,530	5.0%	\$5,953	\$25,354	5.7%	\$23,305	\$55,503	7.3%
OH-1	2,870	22,220	4.7%	\$285	\$1,891	5.3%	\$753	\$3,230	5.2%
OH-2	4,030	20,090	4.7%	\$732	\$1,961	6.5%	\$1,093	\$2,991	5.7%
OH-3	3,000	23,540	4.7%	\$231	\$1,806	5.0%	\$1,092	\$3,532	5.7%
OH-4	3,970	22,670	4.8%	\$431	\$1,637	5.9%	\$2,695	\$4,904	10.4%
OH-5	5,290	23,380	5.0%	\$254	\$1,383	5.0%	\$765	\$2,828	6.3%
OH-6	10,160	29,510	6.5%	\$459	\$1,504	6.6%	\$4,548	\$6,404	15.6%
OH-7	5,730	25,750	5.1%	\$380	\$1,591	5.7%	\$1,691	\$3,973	8.4%
OH-8	2,950	20,510	4.3%	\$200	\$1,352	4.6%	\$735	\$2,814	5.5%
OH-9	6,310	23,480	5.4%	\$708	\$1,961	6.6%	\$1,805	\$4,039	7.8%
OH-10	2,000	18,540	4.2%	\$171	\$1,340	4.5%	\$445	\$2,298	4.7%
OH-11	2,620	20,810	4.7%	\$287	\$1,755	5.4%	\$979	\$3,118	5.7%
OH-12	7,940	28,850	6.1%	\$792	\$2,270	7.5%	\$2,833	\$5,194	10.5%
OH-13	5,960	26,260	5.6%	\$353	\$1,652	6.1%	\$1,691	\$3,998	9.1%
OH-14	4,350	22,840	4.8%	\$272	\$1,554	5.2%	\$938	\$3,002	6.0%
OH-15	3,980	23,070	4.8%	\$398	\$1,698	5.6%	\$1,243	\$3,179	6.4%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-37. Economic Impact of the Oil and Natural Gas Industry in Oklahoma, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Oklahoma	100,980	351,150	15.3%	\$18,224	\$32,522	23.8%	\$34,748	\$57,514	26.7%
OK-1	21,630	79,650	17.3%	\$5,066	\$9,084	26.0%	\$9,377	\$15,491	29.0%
OK-2	9,680	47,120	11.0%	\$672	\$2,313	11.7%	\$1,813	\$4,406	13.4%
OK-3	29,430	79,280	16.9%	\$2,519	\$4,913	20.5%	\$7,200	\$11,171	27.6%
OK-4	13,250	58,760	12.9%	\$1,175	\$3,416	14.4%	\$2,616	\$6,091	16.5%
OK-5	26,990	86,340	18.2%	\$8,793	\$12,796	37.4%	\$13,742	\$20,356	39.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-38. Economic Impact of the Oil and Natural Gas Industry in Oregon, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Oregon	17,170	92,320	3.6%	\$1,397	\$6,978	3.9%	\$3,553	\$12,154	4.5%
OR-1	3,360	18,150	4.0%	\$439	\$1,836	4.6%	\$1,135	\$3,195	5.1%
OR-2	4,360	16,070	4.1%	\$269	\$1,014	4.2%	\$732	\$1,849	5.1%
OR-3	2,500	16,390	3.6%	\$253	\$1,463	3.9%	\$562	\$2,452	4.3%
OR-4	2,770	14,250	3.6%	\$165	\$899	3.6%	\$362	\$1,538	4.0%
OR-5	2,110	13,960	3.2%	\$162	\$1,036	3.4%	\$339	\$1,690	3.8%
OR-6	2,070	13,500	3.2%	\$109	\$730	3.3%	\$423	\$1,430	4.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-39. Economic Impact of the Oil and Natural Gas Industry in Pennsylvania, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Pennsylvania	93,060	423,700	5.6%	\$14,285	\$40,286	7.5%	\$35,895	\$75,030	8.9%
PA-1	2,430	22,720	4.5%	\$655	\$2,336	6.4%	\$1,054	\$3,747	6.3%
PA-2	1,300	15,900	4.1%	\$640	\$1,985	6.2%	\$666	\$2,501	5.1%
PA-3	1,140	20,160	4.5%	\$2,342	\$4,564	10.3%	\$3,230	\$6,294	10.1%
PA-4	2,980	23,740	4.8%	\$866	\$2,752	6.8%	\$1,075	\$4,103	6.0%
PA-5	2,700	23,830	4.9%	\$696	\$2,483	6.8%	\$2,265	\$5,042	8.9%
PA-6	3,580	25,800	5.2%	\$547	\$2,712	6.5%	\$1,468	\$5,282	8.3%
PA-7	3,390	23,020	5.1%	\$516	\$1,997	6.5%	\$1,263	\$3,369	7.1%
PA-8	3,870	21,590	5.1%	\$325	\$1,399	5.9%	\$947	\$2,502	6.7%
PA-9	7,970	25,910	6.3%	\$673	\$1,956	7.4%	\$2,402	\$4,201	10.1%
PA-10	4,480	23,560	5.4%	\$1,035	\$2,474	8.1%	\$1,535	\$3,608	7.8%
PA-11	3,760	23,000	4.7%	\$622	\$1,981	6.2%	\$1,132	\$3,214	6.6%
PA-12	5,220	25,570	5.4%	\$345	\$1,628	6.1%	\$2,663	\$4,657	10.6%
PA-13	5,370	21,930	5.2%	\$496	\$1,492	6.3%	\$885	\$2,324	6.3%
PA-14	14,100	35,540	8.3%	\$1,490	\$3,055	10.7%	\$5,936	\$8,326	17.0%
PA-15	11,650	31,700	7.8%	\$750	\$1,970	8.8%	\$3,878	\$5,635	14.8%
PA-16	7,020	25,240	6.2%	\$564	\$1,715	7.2%	\$2,119	\$3,839	10.3%
PA-17	12,130	34,480	7.5%	\$1,722	\$3,787	10.2%	\$3,375	\$6,384	11.0%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-40. Economic Impact of the Oil and Natural Gas Industry in Rhode Island, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Rhode Island	4,520	23,900	3.7%	\$593	\$1,984	4.6%	\$1,442	\$3,634	5.5%
RI-1	2,110	11,450	3.7%	\$270	\$965	4.4%	\$633	\$1,668	5.0%
RI-2	2,410	12,450	3.8%	\$324	\$1,019	4.8%	\$809	\$1,965	5.9%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-41. Economic Impact of the Oil and Natural Gas Industry in South Carolina, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
South Carolina	26,630	109,800	3.8%	\$1,054	\$6,178	3.7%	\$4,839	\$13,209	4.9%
SC-1	1,990	13,910	3.2%	\$73	\$858	3.2%	\$231	\$1,437	3.4%
SC-2	3,790	15,910	3.8%	\$157	\$911	3.7%	\$920	\$2,188	5.4%
SC-3	3,650	14,280	3.6%	\$123	\$718	3.5%	\$507	\$1,502	4.2%
SC-4	4,430	18,410	4.1%	\$236	\$1,156	4.3%	\$1,109	\$2,551	6.0%
SC-5	3,860	16,050	3.9%	\$163	\$952	4.0%	\$756	\$1,996	5.2%
SC-6	4,860	16,120	3.9%	\$178	\$904	3.7%	\$870	\$2,069	5.2%
SC-7	4,050	15,130	4.1%	\$125	\$679	3.7%	\$448	\$1,465	4.8%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-42. Economic Impact of the Oil and Natural Gas Industry in South Dakota, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
South Dakota	9,470	28,700	4.6%	\$405	\$1,709	4.4%	\$1,174	\$3,327	5.4%
SD-1 (At-Large)	9,470	28,700	4.6%	\$405	\$1,709	4.4%	\$1,174	\$3,327	5.4%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-43. Economic Impact of the Oil and Natural Gas Industry in Tennessee, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Tennessee	36,220	168,940	4.0%	\$2,697	\$12,189	4.4%	\$7,569	\$22,355	5.2%
TN-1	4,090	16,910	4.1%	\$271	\$1,000	4.4%	\$769	\$1,885	5.4%
TN-2	4,330	20,220	4.2%	\$246	\$1,375	4.4%	\$744	\$2,559	5.4%
TN-3	4,390	18,240	4.2%	\$286	\$1,274	4.3%	\$708	\$2,328	5.1%
TN-4	3,710	17,510	3.6%	\$241	\$1,105	3.9%	\$573	\$2,011	4.3%
TN-5	2,100	18,550	3.7%	\$350	\$1,926	4.3%	\$712	\$3,151	4.8%
TN-6	4,420	19,990	3.9%	\$297	\$1,246	4.2%	\$551	\$2,079	4.7%
TN-7	5,240	21,470	4.2%	\$369	\$1,610	4.5%	\$1,451	\$3,286	6.2%
TN-8	4,480	16,870	3.8%	\$268	\$1,051	4.0%	\$717	\$1,947	4.8%
TN-9	3,450	19,180	4.4%	\$369	\$1,603	5.0%	\$1,344	\$3,109	6.4%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-44. Economic Impact of the Oil and Natural Gas Industry in Texas, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Texas	507,850	2,455,990	13.4%	\$100,858	\$235,411	19.3%	\$244,095	\$454,506	22.2%
TX-1	17,640	69,210	15.7%	\$2,867	\$5,787	23.4%	\$6,300	\$11,441	27.8%
TX-2	10,460	54,170	11.7%	\$1,801	\$5,686	13.9%	\$3,592	\$9,784	14.1%
TX-3	2,850	65,590	12.2%	\$505	\$5,642	14.1%	\$875	\$8,232	12.5%
TX-4	4,300	62,180	11.4%	\$529	\$3,510	13.2%	\$1,818	\$6,849	15.2%
TX-5	3,440	49,650	10.4%	\$504	\$3,369	11.4%	\$1,201	\$5,370	10.9%
TX-6	8,100	52,360	11.2%	\$1,214	\$3,960	14.2%	\$2,457	\$6,668	13.9%
TX-7	46,440	111,050	19.3%	\$8,942	\$14,770	30.7%	\$18,860	\$27,708	36.5%
TX-8	5,940	57,070	11.1%	\$531	\$3,825	12.1%	\$957	\$6,243	11.8%
TX-9	13,520	57,900	12.6%	\$3,055	\$6,406	19.2%	\$8,268	\$12,865	24.8%
TX-10	9,620	58,770	12.2%	\$1,746	\$5,471	15.9%	\$3,082	\$8,304	15.1%
TX-11	65,590	128,250	27.1%	\$17,350	\$22,293	59.9%	\$36,670	\$45,748	69.7%
TX-12	16,050	71,030	13.3%	\$4,160	\$7,728	22.6%	\$7,917	\$13,589	23.5%
TX-13	19,510	83,650	16.8%	\$2,361	\$6,142	22.0%	\$12,001	\$18,568	39.1%
TX-14	19,250	69,020	15.7%	\$3,196	\$6,314	23.4%	\$12,394	\$18,733	30.8%
TX-15	10,500	56,800	13.6%	\$1,313	\$3,370	18.0%	\$3,433	\$6,779	23.3%
TX-16	2,980	44,410	11.3%	\$689	\$2,943	13.5%	\$1,428	\$4,609	13.8%
TX-17	5,980	49,880	11.0%	\$535	\$3,380	11.8%	\$1,544	\$5,636	11.8%
TX-18	12,710	56,610	12.5%	\$2,127	\$6,187	14.8%	\$3,442	\$9,572	13.4%
TX-19	20,510	75,400	16.1%	\$2,136	\$5,051	20.3%	\$6,940	\$11,402	27.2%
TX-20	2,650	44,910	10.1%	\$266	\$2,885	10.1%	\$591	\$4,442	9.8%
TX-21	4,720	59,900	11.7%	\$1,666	\$5,709	15.9%	\$2,315	\$8,430	14.7%
TX-22	7,150	59,800	10.8%	\$1,315	\$4,382	13.8%	\$1,704	\$6,890	13.1%
TX-23	24,750	70,210	16.3%	\$3,687	\$6,507	25.2%	\$10,389	\$14,959	35.0%
TX-24	8,340	68,190	13.5%	\$2,726	\$8,204	19.3%	\$4,743	\$12,536	18.6%
TX-25	13,700	66,330	12.8%	\$3,570	\$7,394	20.6%	\$6,339	\$12,036	21.2%
TX-26	7,220	77,070	12.6%	\$1,058	\$5,584	15.3%	\$2,073	\$10,220	16.8%
TX-27	23,180	83,260	18.2%	\$4,596	\$8,154	31.4%	\$12,856	\$19,178	39.7%
TX-28	13,930	58,010	13.7%	\$2,849	\$5,061	23.3%	\$6,146	\$9,773	27.4%
TX-29	23,960	60,230	15.2%	\$6,503	\$9,331	29.3%	\$12,991	\$16,932	30.0%
TX-30	5,860	52,670	11.3%	\$2,552	\$6,526	17.0%	\$4,266	\$9,887	15.6%

(continued on next page)

Table C-44. Economic Impact of the Oil and Natural Gas Industry in Texas, 2021, continued

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
TX-31	2,580	50,760	10.5%	\$161	\$3,846	11.1%	\$333	\$5,243	10.1%
TX-32	7,140	63,180	12.3%	\$2,273	\$7,577	15.8%	\$4,689	\$12,325	16.0%
TX-33	4,580	50,080	11.0%	\$726	\$4,284	12.3%	\$1,710	\$6,624	11.4%
TX-34	3,920	36,300	9.8%	\$182	\$1,566	9.3%	\$494	\$2,612	9.8%
TX-35	3,750	55,560	11.3%	\$715	\$4,539	13.5%	\$1,595	\$6,989	12.7%
TX-36	20,460	66,380	15.2%	\$4,255	\$7,567	24.1%	\$12,663	\$18,384	30.8%
TX-37	2,980	62,090	10.3%	\$470	\$3,778	11.5%	\$1,005	\$5,982	11.1%
TX-38	31,580	98,060	19.2%	\$5,726	\$10,685	30.3%	\$24,012	\$32,965	45.6%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-45. Economic Impact of the Oil and Natural Gas Industry in Utah, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Utah	19,780	104,590	4.7%	\$1,559	\$7,171	5.3%	\$5,752	\$15,029	6.7%
UT-1	3,660	24,060	4.2%	\$187	\$1,380	4.4%	\$2,268	\$4,319	8.3%
UT-2	6,430	30,480	5.5%	\$754	\$2,396	6.9%	\$1,950	\$4,561	7.8%
UT-3	7,220	29,540	5.2%	\$453	\$1,895	5.7%	\$1,160	\$3,691	6.7%
UT-4	2,460	20,510	3.9%	\$165	\$1,501	4.2%	\$373	\$2,458	4.1%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-46. Economic Impact of the Oil and Natural Gas Industry in Vermont, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Vermont	5,480	18,230	4.3%	\$275	\$1,073	4.4%	\$789	\$2,060	5.6%
VT-1 (At-Large)	5,480	18,230	4.3%	\$275	\$1,073	4.4%	\$789	\$2,060	5.6%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-47. Economic Impact of the Oil and Natural Gas Industry in Virginia, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Virginia	41,520	185,430	3.5%	\$2,473	\$13,653	3.6%	\$8,599	\$26,606	4.4%
VA-1	2,800	16,040	3.0%	\$141	\$950	3.2%	\$721	\$2,196	4.5%
VA-2	3,510	15,740	3.4%	\$187	\$972	3.3%	\$946	\$2,394	5.0%
VA-3	3,090	14,050	3.4%	\$170	\$960	3.3%	\$641	\$1,762	3.9%
VA-4	4,640	17,220	3.8%	\$313	\$1,219	3.9%	\$1,092	\$2,686	4.9%
VA-5	4,570	16,980	3.5%	\$192	\$875	3.4%	\$591	\$1,971	4.5%
VA-6	5,330	19,060	4.0%	\$273	\$1,022	4.0%	\$1,183	\$2,448	5.8%
VA-7	2,830	15,400	3.1%	\$188	\$1,177	3.3%	\$593	\$2,217	3.6%
VA-8	1,840	15,390	2.9%	\$229	\$1,896	3.3%	\$750	\$3,173	3.8%
VA-9	8,140	21,620	5.3%	\$291	\$1,015	5.1%	\$729	\$1,896	5.6%
VA-10	2,960	18,060	3.2%	\$240	\$1,725	3.6%	\$547	\$2,734	3.9%
VA-11	1,800	15,870	3.0%	\$250	\$1,843	3.6%	\$806	\$3,129	4.2%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-48. Economic Impact of the Oil and Natural Gas Industry in Washington, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Washington	24,410	153,610	3.4%	\$2,233	\$14,412	3.7%	\$12,443	\$32,670	4.8%
WA-1	1,260	14,430	2.9%	\$101	\$1,887	3.5%	\$264	\$3,158	3.2%
WA-2	5,210	21,500	4.6%	\$813	\$2,017	5.9%	\$5,747	\$7,950	13.0%
WA-3	2,310	14,900	3.3%	\$120	\$996	3.3%	\$485	\$2,005	3.9%
WA-4	2,820	14,420	3.6%	\$178	\$920	3.6%	\$1,056	\$2,115	5.2%
WA-5	2,750	15,460	3.6%	\$176	\$1,010	3.7%	\$1,153	\$2,733	6.2%
WA-6	2,450	13,690	3.3%	\$232	\$1,000	3.5%	\$1,155	\$2,616	5.9%
WA-7	1,110	17,530	3.1%	\$120	\$2,528	3.7%	\$554	\$4,198	3.5%
WA-8	2,400	14,160	3.1%	\$144	\$1,286	3.2%	\$552	\$2,425	3.3%
WA-9	2,510	15,500	3.3%	\$263	\$1,908	3.6%	\$1,286	\$3,887	4.0%
WA-10	1,590	12,010	2.9%	\$85	\$861	2.8%	\$191	\$1,584	3.3%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-49. Economic Impact of the Oil and Natural Gas Industry in West Virginia, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
West Virginia	25,460	73,120	8.5%	\$1,884	\$4,762	9.9%	\$8,132	\$12,856	15.0%
WV-1	13,190	34,100	8.7%	\$1,061	\$2,397	10.2%	\$3,840	\$5,933	14.4%
WV-2	12,270	39,020	8.3%	\$822	\$2,364	9.6%	\$4,292	\$6,923	15.6%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-50. Economic Impact of the Oil and Natural Gas Industry in Wisconsin, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Wisconsin	38,410	150,530	4.1%	\$1,751	\$9,380	4.0%	\$4,653	\$16,874	4.6%
WI-1	2,990	15,740	3.6%	\$125	\$969	3.5%	\$315	\$1,612	3.7%
WI-2	4,250	18,880	3.8%	\$179	\$1,292	3.7%	\$426	\$2,252	3.9%
WI-3	6,810	21,400	4.6%	\$243	\$1,110	4.2%	\$508	\$1,862	4.5%
WI-4	1,620	13,910	3.5%	\$93	\$1,079	3.6%	\$344	\$1,901	4.1%
WI-5	4,230	18,570	3.9%	\$242	\$1,291	4.0%	\$559	\$2,196	4.4%
WI-6	5,880	19,740	4.3%	\$278	\$1,184	4.2%	\$630	\$2,150	4.8%
WI-7	7,190	22,080	4.7%	\$299	\$1,178	4.5%	\$783	\$2,210	5.4%
WI-8	5,430	20,200	4.4%	\$292	\$1,276	4.5%	\$1,089	\$2,691	6.1%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

Note: Details may not add up to totals due to rounding.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Table C-51. Economic Impact of the Oil and Natural Gas Industry in Wyoming, 2021

State / Congressional District	Employment (Jobs) ⁽¹⁾			Labor Income (\$Million) ⁽²⁾			Value Added (\$Million)		
	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District	Direct	Total ⁽³⁾	Total as a % of State / District
Wyoming	20,340	58,780	14.4%	\$3,548	\$5,660	23.3%	\$8,332	\$11,871	28.6%
WY-1 (At-Large)	20,340	58,780	14.4%	\$3,548	\$5,660	23.3%	\$8,332	\$11,871	28.6%

Source: PwC calculations using the IMPLAN model and data from the Census Bureau and the Bureau of Labor Statistics.

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

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

(3) Total impact includes direct, indirect, and induced impacts. Direct impacts are those occurring directly within the oil and natural gas industry. Indirect impacts are those occurring within other businesses as part of the supply chain to the oil and natural gas industry. Induced impacts are those arising from household spending of income earned from the oil and natural gas industry or its supply chain.

Appendix D: 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 capital investment and dividend impacts. It then describes the development of the indirect and induced impact estimates.

Estimating the Direct Jobs, Labor Income and Value Added

PwC's employment estimates for the oil and natural gas industry 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 on employment, labor income and GDP without any further adjustment. This is the case for three NAICS codes: NAICS Code 211 (Oil and gas extraction), NAICS Code 447 (Gasoline stations), and NAICS Code 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 subsector's share of paid employment. For example, self-employment was estimated for NAICS sector 213 (Support Activities for Mining) and then allocated across its five subsectors 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.¹⁵

Direct employment was separately estimated for the US as a whole, each of the 50 states and the District of Columbia, and each Congressional District. The state-level estimates were then scaled to match the national level estimates, and the Congressional District-level estimates were also scaled to match the state-level estimates.

A similar methodology was used to estimate labor income and GDP for sectors where there was not a one-to-one correspondence between the subsectors of the oil and natural gas industry (as defined in this report) and the BEA sectors.

Estimating Capital Investment Impact

PwC estimated the oil and natural gas industry's capital expenditures for 2021 based on data from the Census Bureau and the BEA. For the impact analysis, the industry's capital spending was translated into purchases of capital assets by type through the use of the so-called "capital flow matrix" from the BEA.

¹⁵ 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.

Estimating Dividend Impact

PwC obtained data on common stock dividend payments by publicly traded companies in the US oil and natural gas industry.¹⁶ Dividend payments were allocated among (1) US households, (2) foreign shareholders, (3) retirement plans, (4) governments, and (5) other businesses using data from the Federal Reserve Board's *Financial Accounts of the United States*.

For the purpose of estimating the industry's dividend impact, only dividends paid by publicly traded companies in the oil and natural gas industry to US households and retirement plans are considered. Dividends paid to US households were allocated by income group and across the 50 states and the District of Columbia using tax return data published by the Internal Revenue Service (IRS)'s Statistics of Income Division.

Dividends paid to pension plans and other retirement accounts were allocated across income groups based on data on retirement assets by income quintile obtained from the 2019 *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 US households by publicly traded companies in the oil and natural gas industry to derive our estimates of total dividends paid by publicly traded companies in the industry to residents in each state.

To quantify the economic impact resulting from these dividend payments, PwC first converted them 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 paid directly to households was estimated using published estimates of the marginal propensity to consume out of after-tax dividend income.¹⁷ Similarly, the additional consumption resulting from dividends paid to retirement accounts was estimated based on published estimates of the marginal propensity to consume out of wealth.¹⁸ This estimate is done at the national and state level.

At the congressional district level, PwC obtained data on qualified dividends by zip code from the IRS. These zip code level data are then mapped to each congressional district. The state-level estimates on the additional consumption from after-tax dividends are allocated to each congressional district based on the distribution of qualified dividends at the district level.

¹⁶ The measure of dividends used includes cash dividends from all classes of common stock out of income from US operations by publicly traded US corporations in the oil and natural gas industry. It also includes dividends paid to US shareholders out of income from US operations by foreign corporations in the industry. It does not include the dollar value of stock dividends or dividends paid or accrued on preferred stock.

¹⁷ The marginal propensity to consume out of dividend income is a measure of the additional consumption resulting from the last dollar of dividend income earned. The MPCs used for this study were based on Malcolm Baker, Stefan Nagel, and Jeffrey Wurgler, "The Effects of Dividends on Consumption" *Brookings Papers on Economic Activity*, 2007, pgs. 213-291. Using two micro data sets the authors estimated pre-tax MPCs ranging from 0.25 to 0.77. Using the authors' midpoint estimate of 0.4, PwC estimated the after-tax MPC for each income group as the pre-tax MPC divided by one minus the marginal effective tax rate on dividend income.

¹⁸ A review of the literature suggests that each additional dollar of financial wealth increases consumption between two and six cents. To be conservative we have assumed an MPC out of wealth of 0.028 for all income groups (based on Gabriel Chodorow-Reich, Plamen T. Nenov, and Alp Simsek, "Stock Market Wealth and the Real Economy: A Local Labor Market Approach," working paper, June 7, 2019).

Estimating the Indirect and Induced Economic Impacts

The initial round of output, income, and employment generated by the operations of the oil and natural gas industry leads to successive rounds of re-spending in the chain of production and through the personal consumption spending of industry and supplier employees. Such indirect and induced economic impacts can be measured using various approaches. The most common is multiplier analysis. In broad terms, a multiplier is an index that indicates the overall change in the level of economic activity that results from a given initial change. It effectively adds up all the successive rounds of re-spending, based on a number of assumptions that are embedded in the method of estimation.

There are different methods available for calculating multipliers. The method used in this report is *input-output* analysis. It is the most commonly used approach in regional economic impact studies. The input-output model developed by IMPLAN is a well-known input-output model for regional economic studies in the United States and is widely used by government, academics and private-sector researchers.¹⁹

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 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.²⁰

For this study, PwC built customized IMPLAN input-output models for the national economy, each state and the District of Columbia, and each Congressional District to calculate the oil and natural gas industry’s *indirect* and *induced* economic impact on each study area in terms of employment, labor income, and value added.

Because IMPLAN regional models capture only the indirect and induced effects within a study area, the indirect and induced effects crossing state borders (“cross-state spillover effects”) are not captured by the IMPLAN state models. PwC quantified the cross-state “spillover effects” and allocated them proportionally to each state. The state indirect and induced effects reported throughout this study include such allocation of the cross-state spillover effects. Similar modeling was performed at the congressional district level to capture cross-district spillover effects.

¹⁹ More information on IMPLAN is available at www.implan.com.

²⁰ 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.

This document has been prepared pursuant to an engagement between PricewaterhouseCoopers LLP and its Client. As to all other parties, it is for general information purposes only, and should not be used as a substitute for consultation with professional advisors.

© 2023 PricewaterhouseCoopers LLP. All rights reserved. PwC refers to the United States member firm, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see www.pwc.com/structure for further details.