

OIL AND GAS IN CALIFORNIA:

THE INDUSTRY AND ITS ECONOMIC CONTRIBUTION

in 2012



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OIL AND GAS IN CALIFORNIA: THE INDUSTRY AND ITS ECONOMIC CONTRIBUTION IN 2012

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The LAEDC Economic and Policy Analysis Group provides objective economic and policy research for public agencies and private firms. The group focuses on economic impact studies, regional industry analyses, economic forecasts and issue studies, particularly in workforce development, labor market analysis, transportation and infrastructure.

Every reasonable effort has been made to ensure that the data contained herein reflect the most accurate and timely information possible and they are believed to be reliable.

The report is provided solely for informational purposes and is not to be construed as providing advice, recommendations, endorsements, representations or warranties of any kind whatsoever.

Executive Summary

The oil and gas industry makes a significant contribution to the Californian economy. Extraction, production, refining and petroleum products manufacturing result in highly tradable products both consumed domestically and exported, producing high revenues, high wage jobs and significant fiscal revenues for all levels of government.

In this report, the Economic and Policy Analysis Group of the Los Angeles County Economic Development Corporation (LAEDC) conducts an industry contribution analysis of the oil and gas industry in California in 2012. The findings are as follows.

Total Economic Contribution

The total economic contribution of the oil and gas industry in California, which includes indirect and induced activity, is presented in Exhibit ES-1.



Exhibit ES-1

Total Economic Contribution of Oil and Gas Industry California 2012

Employment (jobs):			
Direct	188,500		
TOTAL		468,000	
<i>Percent of California Total Employment</i>			<i>2.3%</i>
Labor income (\$ millions):			
Direct	\$ 23,480		
TOTAL		\$ 39,880	
<i>Percent of California Total Labor Income</i>			<i>3.1%</i>
Value added (\$ millions):			
Direct	\$ 85,120		
TOTAL		\$ 112,850	
<i>Percent of California Total GDP</i>			<i>5.4%</i>

Source: Estimates by LAEDC

- ▶ 468,000 direct, indirect and induced jobs
- ▶ \$40 billion in total labor income
- ▶ \$113 billion in value added, accounting for 5.4 percent of state GDP.

Total Fiscal Contribution

The industry brings significant fiscal revenues to local, state and federal governments, as summarized in Exhibit ES-2.

Exhibit ES-2

Fiscal Contribution of Oil and Gas Industry California 2012

Type of Tax	State and Local (\$ millions)	Federal (\$ millions)	Total Tax Revenues (\$ millions)
Sales and excise taxes	\$ 14,650	\$ 4,030	18,680
Property taxes	3,760	-	3,760
Personal income taxes	1,060	3,000	4,060
Corporate profits taxes	990	4,150	5,140
All other taxes	1,100	3,810	4,910
TOTAL TAX REVENUES	\$ 21,550	\$ 14,990	\$ 36,540

Source: Estimates by LAEDC

- ▶ \$21.6 billion in state and local tax revenues
- ▶ \$15 billion in federal taxes
- ▶ \$18.7 billion in sales and excise taxes
- ▶ \$5 billion in corporate profits taxes.

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1 Introduction

The oil and gas industry makes a significant contribution to the U.S economy. Operating in a global market, demand, supply and prices are influenced by what takes place worldwide, not just nationally. National extraction, production, refining and petroleum products manufacturing result in highly tradable products consumed domestically and exported to satiate global demand. As a result, the oil and gas industry is associated with high revenues and high wage jobs.

Finite natural resources, both fossil fuels are heavily regulated as their extraction, production and refining has consequences for the environment and depletion of these resources could be calamitous for the energy needs of future generations. Taxes are levied on the industry in a variety of ways to mitigate these risks, resulting in public revenues that are larger than observed in other industries.

In this report, the Economic and Policy Analysis Group of the Los Angeles County Economic Development Corporation (LAEDC) estimates the economic and fiscal contribution of the oil and gas industry in California in 2012. The report is presented in four parts.

This introductory section provides a short description of the industry definition and methodology used in the analysis.

Section 2 provides an economic overview of the oil and gas industry in general and a discussion of the public revenues attributed to the industry and the consumption of its products. The section concludes with an analysis of the industry's total economic and fiscal contribution to the state of California.

Section 3 provides details at the sub-regional and Section 4 provides county-level contributions for most counties in California.

Detailed industry descriptions as referenced in the text can be found in the Appendix. ❖



Oil and Gas Industry Definition

The North American Industry Classification System (NAICS) was created to track economic activity for businesses at the establishment level. Each establishment is grouped according to its primary activity. The thirteen NAICS codes included in the definition of the oil and gas industry used in this report are listed in Exhibit 1-1. These are described in detail in the Appendix. ❖

Exhibit 1-1
Oil and Gas Industry Definition

NAICS	Industry
211	Oil and gas extraction
213111	Drilling oil and gas wells
213112	Support activities for oil and gas operations
2212	Natural gas distribution
23712	Oil and gas pipeline and related structures construction
32411	Petroleum refineries
324191	Petroleum lubricating oil and grease manufacturing
32511	Petrochemical manufacturing
333132	Oil and gas field machinery and equipment manufacturing
4247	Petroleum and petroleum products merchant wholesalers
447	Gasoline stations
45431	Fuel dealers
486	Pipeline transportation

Source: LAEDC

The Sub-Regions of California

For purposes of exposition, California is divided into four sub-regions, which are shown in Exhibit 1-2 and defined below.

Exhibit 1-2
California Sub-Regions



Source: ESRI

Southern California

This sub-region includes the following six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino and San Diego.

San Francisco Bay Area

This sub-region includes the following nine counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma.

Central Coast

This sub-region includes the following four counties: Monterey, San Luis Obispo, Santa Barbara and Ventura.

Central Valley/Northern California

This sub-region includes the following sixteen counties: Butte, Colusa, Fresno, Glenn, Kern, Kings, Merced, Sacramento, San Joaquin, Shasta, Stanislaus, Sutter, Tehama, Tulare, Yolo and Yuba.

The remaining 23 counties are left in Rest of State. ❖

Contribution Analysis Methodology

Economic contribution analysis is used to describe that portion of a region's economy that can be attributed to an existing industry.

The primary economic contribution to California's economy of the oil and gas industry is the expenditure of hundreds of millions of dollars towards goods and services from regional vendors. This injection of funds circulates from the initial recipients to the owners and employees of establishments that help supply the goods and services that the industry purchases.

The industry also spends billions of dollars every year for the wages and benefits of its employees and contract workers. These workers, as well as the employees of all the industry's suppliers, spend a portion of their incomes on groceries, rent, vehicle expenses, healthcare, entertainment, and so on. The recirculation of the original expenditures multiplies the initial spending through these indirect and induced effects.

The extent to which the initial expenditures multiply is estimated using economic models that depict the relationships between industries (such as oil production and its suppliers) and among different economic agents (such as industries and their employees).

These models are built upon actual data of expenditure patterns that are reported to the U.S. Bureau of Labor Statistics, the U.S. Census Bureau and the Bureau of Economic Analysis of the U.S. Department of Commerce. Data is regionalized so that it reflects and incorporates local conditions such as prevailing wages rates, expenditure patterns, and resource availability and costs.

The magnitude of the multiplying effect differs from one region to another depending on the extent to which the local region can fill the demand for all rounds of supplying needs. For example, the automobile manufacturing industry has high multipliers in Detroit and Indiana since these regions have deep and wide supplier networks, while the same industry multiplier in Phoenix is quite small. In another example, the jobs multiplier for the construction industry is higher in, say, Arkansas, than in California because the same amount of spending will purchase fewer workers in Los Angeles than in Little Rock.

Multipliers can also differ from year to year as relative material and labor costs change and as the production "recipe" of industries change. For example, the IT

revolution significantly reduced the job multiplier of many industries (such as manufacturing, accounting, architecture and publishing) as computers replaced administrative and production workers.

The metrics used to determine the value of the economic contribution are employment, labor income, value-added and the value of output. *Employment* includes full-time, part-time, permanent and seasonal employees and the self-employed, and is measured on a job-count basis regardless of the number of hours worked. *Labor income* includes all income received by both payroll employees and the self-employed, including wages and benefits such as health insurance and pension plan contributions. *Value-added* is the measure of the contribution to GDP made by the industry, and consists of compensation of employees, taxes on production and gross operating surplus. *Output* is the value of the goods and services produced. For most industries, this is simply the revenues generated through sales; for others, in particular retail industries, output is the value of the services supplied.

Estimates are developed using software and data from IMPLAN Group, LLC which traces inter-industry transactions resulting from an increase in demand in a given region. The economic region of interest is the state of California, and the activity is reported for 2012, the most recent year for which a complete set of data is available. Estimates for labor income and output are

expressed in 2012 dollars to maintain consistency with the reported industry activity.

The total estimated economic contribution includes *direct*, *indirect* and *induced* effects.

Direct activity includes the materials purchased and the employees hired by the industry itself. *Indirect effects* are those which stem from the employment and business revenues motivated by the purchases made by the industry and any of its suppliers. *Induced effects* are those generated by the spending of employees whose wages are sustained by both direct and indirect spending.

Contribution analysis differs from economic impact analysis in that linkages between the component industries as described below are removed so that indirect activity is not double-counted as also part of direct activity.

The correspondence between the identified NAICS and sectors used in IMPLAN are straightforward, with a few exceptions. Several IMPLAN sectors (32, 36, 319, and 331) include activities of NAICS unrelated to the oil and gas industry. Direct activity related to the oil and gas industry for these sectors was based on specific isolated employment estimates. ❖

2 The Oil and Gas Industry in California

The oil and gas industry makes a significant contribution to the U.S. economy. Operating in a global market, demand, supply and prices are influenced by what takes place worldwide, not just nationally. Extraction, production, refining and related manufacturing result in highly tradable products consumed domestically and exported to satiate global demand. As a result, the oil and gas industry is associated with high revenues and high wage jobs.

As finite natural resources, fossil fuels are heavily regulated as their extraction, production and refining has consequences for the environment and depletion of these resources could be calamitous for the energy needs of future generations. Taxes are levied on the industry in a variety of ways to mitigate these risks, resulting in public revenues that are larger than observed in other industries.

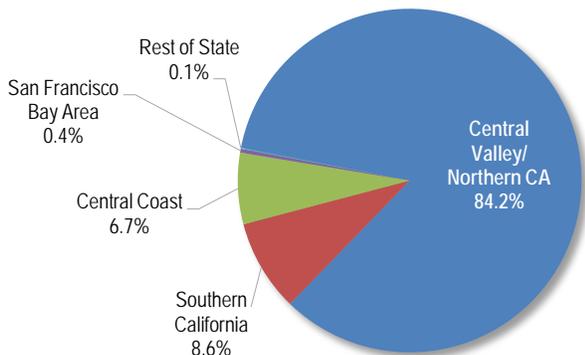


Production Activity

According to the Division of Oil, Gas and Geothermal Resources of the California Department of Conservation (DOGGR), almost 4,680 new wells were drilled in 2012, bringing the total to 210,000, with 570 companies operating the 88,500 wells that are currently active.

Active wells are distributed across the state, but the majority of them are located in the Central Valley/Northern California sub-region, as shown in Exhibit 2-1.

Exhibit 2-1
Active Wells in CA by Sub-Region 2012

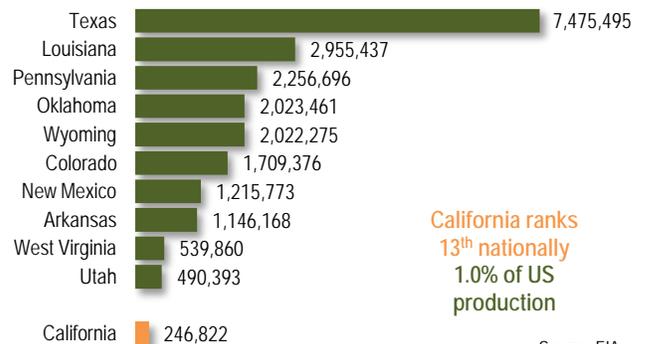


Source: CA Dept of Conservation, DOGGR

Natural Gas

Natural gas production in the U.S. totaled 23.8 trillion cubic feet in 2012. California produced 246.8 billion cubic feet, accounting for one percent of total U.S. production. Out of the 32 natural gas producing states nationwide, California ranks thirteenth. Exhibit 2-2 displays the highest ten ranking states and California according to their total natural gas production in 2012.

Exhibit 2-2
Natural Gas Production 2012
(Cubic feet in millions)



California ranks
13th nationally
1.0% of US
production

Source: EIA

The distribution of California natural gas production in 2012 according to sub-region is shown in Exhibit 2-3.

The distribution of California crude oil production in 2012 according to sub-region is shown in Exhibit 2-5.

Exhibit 2-3

Gas Production by Sub-Region 2012
(cubic feet in millions)

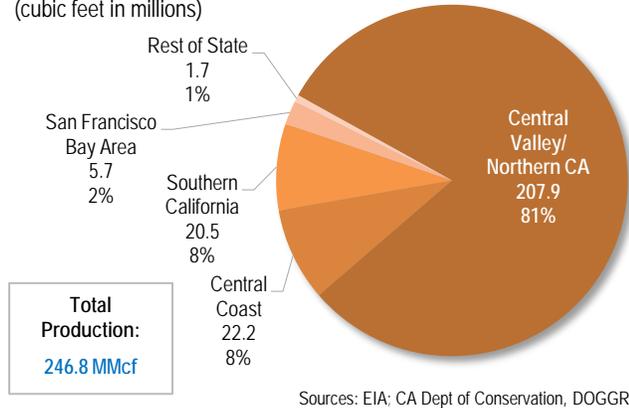
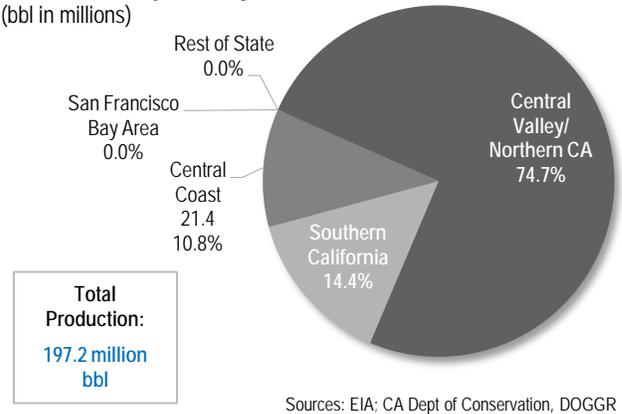


Exhibit 2-5

Oil Production by Sub-Region 2012
(bbl in millions)



While natural gas production activity occurs throughout the state, the Central Valley/Northern California sub-region accounted for over two-thirds of total California production, followed by The Central Coast and Southern California, each producing an additional eight percent.

Similar to natural gas production, the Central Valley/Northern California sub-region also accounted for over two-thirds of total California oil production in 2012. The second and third largest producing sub-regions were Southern California and the Central Coast, with 14 percent and 11 percent respectively. ❖

Crude Oil

U.S. oil field production totaled just less than 2.4 billion barrels in 2012. Exhibit 2-4 shows the highest oil producing states in the nation ranked according to their crude oil production in 2012. California produced 197.2 million barrels, representing 8.3 percent of total national production. Out of the 31 oil producing states nationwide, California ranks third.

Refining Activity

Petroleum refining is a component industry with a large presence in California. At the end of December 2012, annual operable atmospheric crude oil distillation capacity in California was nearly 2.0 million barrels per calendar day (BPCD), representing 11 percent of total U.S. capacity (17.8 million BPCD).

Exhibit 2-4

Crude Oil Production 2012
(Thousands of barrels)

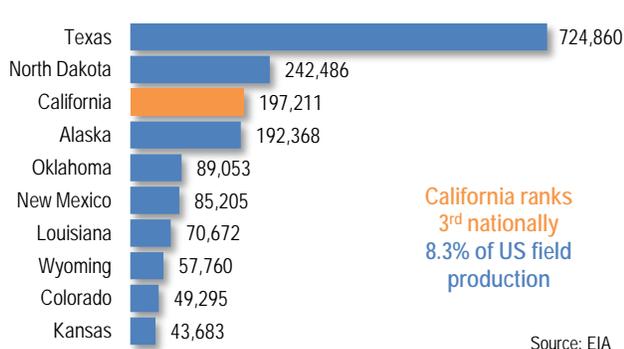
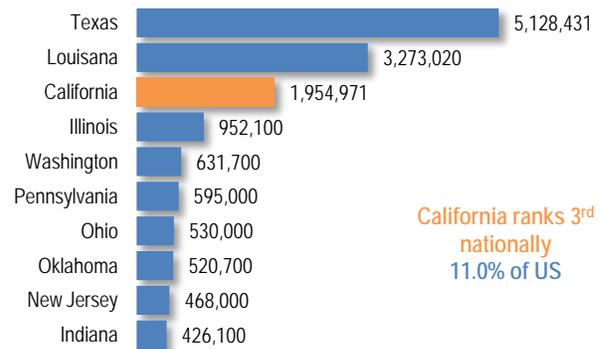


Exhibit 2-6

Crude Oil Distillation Capacity 2012
Annual Operable Atmospheric (BPCD)



Refineries in California are located largely within two sub-regions: Southern California (primarily Los Angeles County) and the San Francisco Bay Area. Refining capacity has been decreasing over the years due to the closure of older and smaller refining operations that found compliance with the state's strict environmental regulations to be cost prohibitive. This is also limiting the permitting of new facilities, and therefore any potential increase in oil refining capacity in the future in California appears highly unlikely.

Exhibit 2-7 compares the number of refineries in California from 1982 to 2012. There were 16 operating refineries in 2012, less than half of the number operating in 1982.

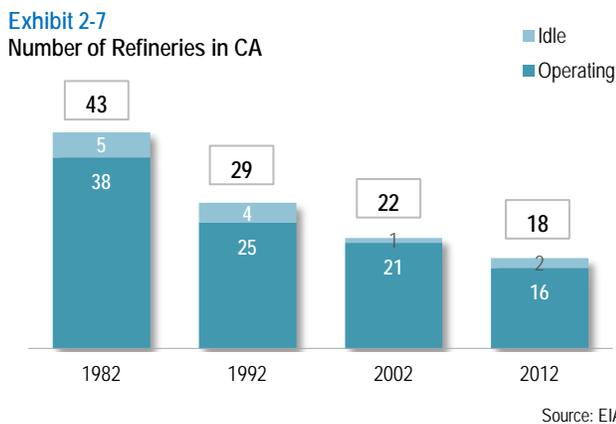
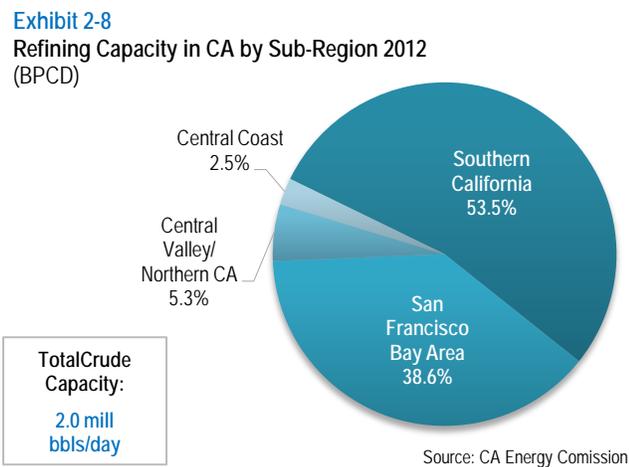
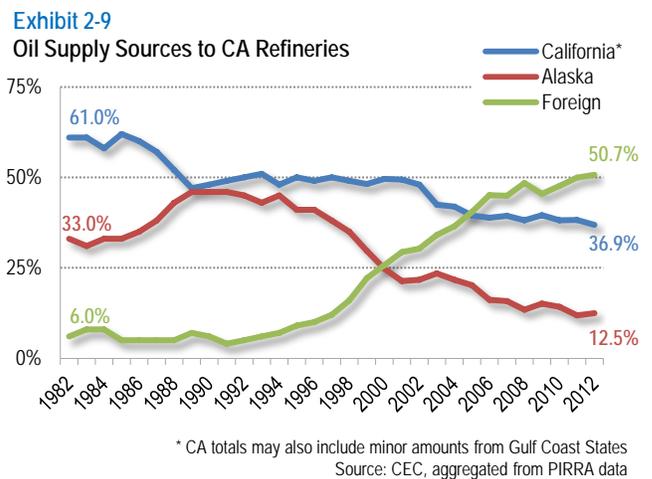


Exhibit 2-8 displays the crude oil refining capacity in California by sub-region as of December 2012. Total statewide refining capacity was approximately 2.0 million barrels per calendar day. Southern California accounts for more than half, and the San Francisco Bay Area accounts for another 40 percent of total refining capacity.



The requirements for fuel consumed in California are highly specific. In order to meet demand, California refineries operate at or near maximum capacity and import crude oil sourced from Alaska and outside the U.S. Production volumes from domestic sources have been declining over the years, leading to increasing amounts of foreign crude being delivered to marine terminals in the San Pedro and San Francisco ports to supplement local crude supply.

Exhibit 2-9 shows the total supply of crude oil to petroleum refineries in California by source from 1982 through 2012. In 2012, crude oil from foreign sources represented just over half the oil supplied to refineries in the state.



The specificity of the requirements for fuel and the growing reliance upon foreign crude oil sources leave consumers at the pump in California vulnerable to short-term fluctuations in oil prices and supply shocks resulting from unplanned disruptions during refinery outages. ❖

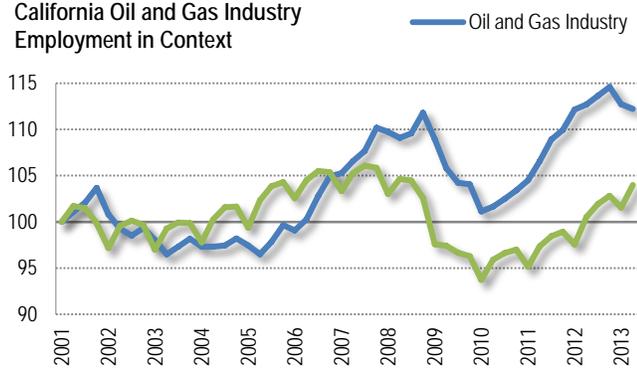
Industry Employment Trends

The oil and gas industry has proven itself to be valuable to the state's economy in that its employment has been more stable than other private industries as a whole. While it does react to contractions in the economy, the magnitude of these reactions are milder than those experienced by other private industries.

Exhibit 2-10 displays the private payroll employment in the oil and gas industry and for all other private industries in California, indexed to 2001 employment

levels. Values of 100 mean that the employment level is equal to that seen in the base year (2001).

Exhibit 2-10
California Oil and Gas Industry
Employment in Context



Source: CA EDD; Estimates by LAEDC

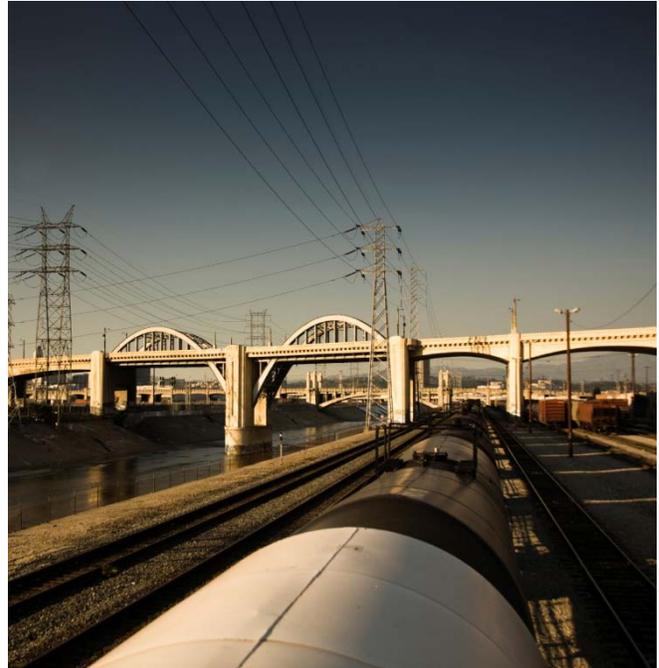
The great recession caused private employment levels to dip below that of the base year, rebounding and posting only minor gains in the past two years. In contrast, the oil and gas industry exhibits more resilience and employment stability over the most recent recession compared to all other private industry in the state.

Another feature of the oil and gas industry is the higher annual wages paid in most component industry, as shown in Exhibit 2-11. With the exception of fuel dealers, wages in each of the component industries listed exceed the average annual wage in the state.

Exhibit 2-11
Oil and Gas Industry Wages
California 2012

NAICS	Industry	Ave Annual Wage
211	Oil and gas extraction	\$ 235,946
213111	Drilling oil and gas wells	93,731
213112	Support activities for oil and gas operations	80,390
2212	Natural gas distribution	111,009
23712	Oil and gas pipeline construction	66,364
32411	Petroleum refineries	185,488
324191	Petroleum lubricating oil and grease mfg	65,693
333132	Oil and gas field machinery and eqmt mfg	74,610
4247	Petroleum and petroleum prods wholesalers	74,970
45431	Fuel dealers	47,946
486	Pipeline transportation	101,326
Oil and Gas Industry		\$ 118,643
All other private industries		55,830
All private industries in CA		\$ 56,295

Note: Excludes non-employers and independent contractors
Source: CA EDD; Estimates by LAEDC



The industry operates in close geographic proximity to wherever reserves are found—often in rural areas that have challenges in attracting and sustaining other industries. Oil and gas industries provide employment opportunities with higher than average wages, translating into larger indirect and induced effects that ripple throughout the economy. ❖

Direct Economic Activity

Direct activity associated with the oil and gas industry is the direct contribution to the economy of the industry in terms of employment, labor income and value added.

Direct employment of the oil and gas industry includes all individuals whose employment is directly related to business establishments with activities that fall within the NAICS codes included in the industry definition. Measured on a job-count basis regardless of the number of hours worked, it includes full-time, part-time, permanent and seasonal employees and the self-employed.

Exhibit 2-12 displays the estimated direct employment associated with each component industry in the oil and gas industry in California in 2012.

Exhibit 2-12
Oil and Gas Industry Employment
California 2012

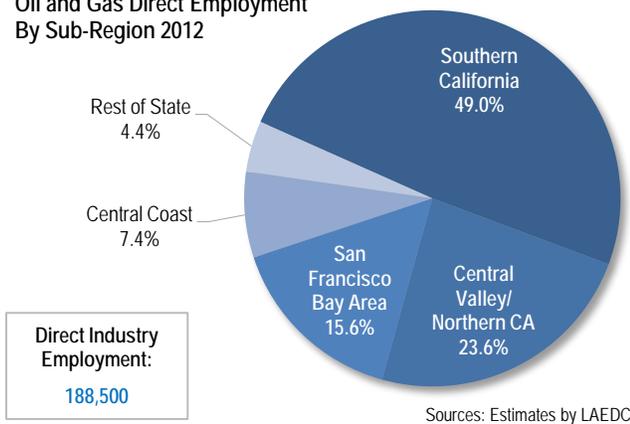
NAICS	Industry	Direct Employment
211	Oil and gas extraction	45,840
213111	Drilling oil and gas wells	3,620
213112	Support activities for oil and gas operations	10,060
2212	Natural gas distribution	32,670
23712	Oil and gas pipeline construction	11,710
32411	Petroleum refineries	12,760
324191	Petroleum lubricating oil and grease mfg	700
32511	Petrochemical manufacturing	10
333132	Oil and gas field machinery and eqmt mfg	1,920
4247	Petroleum and petroleum prods wholesalers	7,130
447	Gasoline stations	56,230
45431	Fuel dealers	3,140
486	Pipeline transportation	2,750
Oil and Gas Industry Employment		188,500
<i>Percent of California Total Employment</i>		<i>0.9%</i>

Note: Includes non-employers and independent contractors
Source: Estimates by LAEDC

The oil and gas industry in California provided 188,500 jobs in 2012, including independent contractors and payroll employees. Approximately 25 percent was in oil and gas extraction, seventeen percent in gas distribution and almost 30 percent in retail gasoline stations. Taken together, the industry accounted for just less than 1 percent of all employment in California.

Exhibit 2-13 shows the distribution of estimated direct oil and gas industry employment by sub-region in 2012.

Exhibit 2-13
Oil and Gas Direct Employment
By Sub-Region 2012



While the number of wells and both gas and oil production levels are highest in the Central Valley/

Northern California region, almost half of all industry employment is in Southern California, where a large consumer market provides significant employment in retail gas stations.

Labor income in the oil and gas industry is the value of all earnings received by both payroll employees and the self-employed, including benefits such as health insurance and pension plan contributions. Total labor payments by industry are presented in Exhibit 2-14.

Exhibit 2-14
Oil and Gas Industry Labor Income
California 2012

NAICS	Industry	Labor Income (\$ millions)
211	Oil and gas extraction	\$ 3,920
213111	Drilling oil and gas wells	380
213112	Support activities for oil and gas operations	890
2212	Natural gas distribution	5,480
23712	Oil and gas pipeline construction	800
32411	Petroleum refineries	4,390
324191	Petroleum lubricating oil and grease mfg	100
333132	Oil and gas field machinery and eqmt mfg	180
4247	Petroleum and petroleum prods wholesalers	590
447	Gasoline stations	4,100
45431	Fuel dealers	100
486	Pipeline transportation	2,520
Oil and Gas Industry Labor Income		\$ 23,480
<i>Percent of California Total Labor Income</i>		<i>1.8%</i>

Note: Includes non-employers and independent contractors
Source: Estimates by LAEDC

More than 23 percent of the labor income in the industry was earned by natural gas distribution workers, 17 percent by workers at refineries, and seventeen percent each by oil and gas extraction workers and retail gas station workers. The total labor income paid by the oil and gas industry accounted for 1.8 percent of all labor income in California. ❖

Total Economic Contribution

The total economic contribution of the oil and gas industry in California includes indirect and induced activity in addition to the direct activity already identified. These direct, indirect and induced effects combined result in a considerable contribution to the California economy, which is presented in Exhibit 2-15.

Exhibit 2-15

Total Economic Contribution of Oil and Gas Industry California 2012

Employment (jobs):			
Direct		188,500	
Indirect		102,280	
Induced		177,240	
TOTAL			468,000
<i>Percent of California Total Employment</i>			<i>2.3%</i>
Labor income (\$ millions):			
Direct	\$	23,480	
Indirect		7,110	
Induced		9,290	
TOTAL			\$ 39,880
<i>Percent of California Total Labor Income</i>			<i>3.1%</i>
Value added (\$ millions):			
Direct	\$	85,120	
Indirect		11,390	
Induced		16,340	
TOTAL			\$ 112,850
<i>Percent of California Total GDP</i>			<i>5.4%</i>
Output (\$ millions):			
Direct	\$	220,290	
Indirect		18,290	
Induced		25,570	
TOTAL			\$ 264,140
<i>Percent of California Total Output</i>			<i>7.7%</i>

Source: Estimates by LAEDC

It is estimated that the activities related to the oil and gas industry in California in 2012 generated value added equaling \$112.9 billion in California, approximately 5.4 percent of the state's GDP of \$2.1 trillion. The industry contributed 468,000 jobs, or 2.3 percent of the state total, with labor income of almost \$40 billion, exceeding 3 percent of all labor income earned in the state.

Industry Distribution

The total economic contribution is achieved through activity occurring across a wide range of industry sectors via indirect and induced effects. The distribution of the total employment, labor income and value added contribution among industry sectors is presented in Exhibit 2-16.

Of the 468,000 jobs supported, approximately 20 percent were in the retail trade sector (which includes gas stations) and 13 percent in the mining sector (which includes much of the oil and gas industry). However,

virtually all industry sectors receive a positive economic impact from the oil and gas industry, including health and social services, accommodation and food services, manufacturing and construction.

Exhibit 2-16

Total Economic Contribution of Oil and Gas Industry By Sector California 2012

	Jobs	Labor Income (\$ millions)	Value Added (\$ millions)
Ag, forestry, fish & hunting	1,430	\$ 92	\$ 120
Mining	59,730	5,198	20,000
Utilities	33,350	5,593	12,800
Construction	26,320	1,815	1,980
Manufacturing	26,720	5,511	44,570
Wholesale trade	20,010	1,654	2,990
Retail trade	90,950	5,455	8,810
Transportation and warehousing	13,920	3,158	1,630
Information	4,650	578	1,150
Finance and insurance	21,950	1,816	3,060
Real estate and rental	12,490	343	5,040
Professional, scientific technical	27,430	2,363	3,220
Management of companies	5,920	728	840
Administrative and waste services	24,020	920	1,140
Educational services	7,980	343	410
Health and social services	33,270	2,109	2,390
Arts, entertainment and recreation	7,970	275	380
Accommodation and food services	25,410	666	970
Other services	20,800	894	1,030
Government	3,710	331	300
Total	468,000	\$ 39,880	\$ 112,850

Source: Estimates by LAEDC

A description of the industry sectors is provided in the Appendix. ❖

Public Revenues

The oil and gas industry faces a high tax burden, incurred by both businesses operating within the industry and by consumers. The production, refining, distribution, retail and consumption of oil and gas all face taxes levied by local, state and federal governments.

Ad Valorem:

In California, ad valorem taxes are locally assessed and administered by each county. The state of California dictates that ad valorem taxes have a one percent maximum; however, individual counties have the option to add to this rate to satisfy local voter-approved debt. In the case of oil and gas industry, the market value of the

mineral property interest is assessed by estimating the market value of proved reserves volumes.

Production:

While other states levy a severance tax on oil production, the state of California does not. Instead, the state imposes a small assessment on oil and gas production in order to support the Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR).

State and Local Excise Taxes:

Excise taxes are levied on the purchase of certain goods and are paid by the end user at the time of sale. California imposes an excise tax on both natural gas and oil sales. The state excise tax levied on natural gas consumption in California varies among the different private utility gas distributors in the state and with the type of customer (residential, commercial, industrial, etc.), while excises taxes levied on the purchase of fuel varies by fuel type.

Federal Excise Tax:

The federal government levies an excise tax on fuel consumption in addition to those levied by the State of California. The federal excise tax applied to the purchase of fuel (from point of sale, terminal, refinery or from outside of the U.S.) also varies by fuel type, including gasoline, aviation gasoline, diesel and jet fuel. Compressed natural gas used as a fuel for motor vehicles is also subject to a federal excise tax.

Sales Tax:

Sales tax is levied on the sale of gasoline by both state and local governments; the purchaser incurs the tax burden at the point of sale. State and local (county and city) sales tax rates are usually bundled together. The total rate varies from county to county (and even different areas within the same county), based upon voter approved measures specific to that geography. Diesel fuel sales in California are subject to an additional sales tax levied by the state.

Federal Lease and Royalty Payments:

Oil and gas operations involved in extraction may enter into a mineral lease with the federal government to obtain the right to explore, drill, extract, remove, and dispose of oil and gas deposits on federally owned lands. Leases are purchased, bonus lease payments are paid, rental rates apply and once production is underway the lessees are subject to royalty fees.

State Public Lease and Royalty Payments:

The State Lands Commission's Mineral Resources Management Division is charged with the management

and administration of oil and gas, geothermal and other mineral resources on state-owned public lands in California. In addition to initial bonus lease payments, lease rent and royalties apply. They have 26 state tidelands oil and gas leases, only eight of which are not producing. Royalty payments on their leases are determined by several methods: price based sliding scale on oil royalty, sliding rate scale, net profits share and fixed royalty rates.

Other State and Local Taxes and Fees:

Additional taxes and fees relevant to the oil and gas industry in California include the following:

International Fuel Tax Agreement (IFTA) tax rates in California on diesel fuel in 2012 were \$0.305 per gallon purchased, to be redistributed among jurisdictions according to miles travelled in each. Miles travelled are reported by the commercial carrier in quarterly reports.

The *Underground Storage Tank Fee* funds programs to accelerate the cleanup of leaking underground petroleum storage tanks in California.

The *Oil Spill Prevention and Administration Fee* applies to crude oil and petroleum products received at marine terminals or moved through pipelines through marine waters in California.

The *Oil Spill Response Fee* applies to petroleum products received at marine terminals, moving through marine pipelines, or received at California refineries. The fee has not been applicable since the fund reached its \$50 million maximum in 1991. However, in the event that this fund is accessed, it would once again apply. ❖

Total Fiscal Contribution

Given this background, the economic activity associated with the oil and gas industry in California in 2012 is estimated to have generated \$21.5 billion in state and local taxes and almost \$15 billion in federal tax revenues. The disaggregation of taxes by type is shown in Exhibit 2-17.

Of state and local government revenues, almost \$15 billion was earned from sales and excise taxes (including those paid on the consumption of oil and gas products), \$3.8 billion was earned from property taxes paid by households and businesses and more than \$2 billion was earned from personal and corporate income taxes.

Exhibit 2-17

**Fiscal Contribution of Oil and Gas Industry
California 2012**

State and Local Taxes (\$ millions):

Sales and excise taxes	\$ 14,650
Property taxes	3,760
Personal income taxes	1,060
Corporate profits taxes	990
Social insurance	110
Other taxes	780
Fees, fines and permits	210
Total State and Local Taxes	\$ 21,550

Federal Taxes (\$ millions):

Excise taxes	\$ 3,300
Personal income taxes	3,000
Corporate profits taxes	4,150
Social insurance	3,440
Other taxes	290
Fees, fines and permits	80
Total Federal Taxes	\$ 14,990

Source: Estimates by LAEDC

Of federal taxes, \$3.3 billion in taxes was earned in excise taxes, \$3.0 billion from personal income taxes, \$4.25 billion in taxes on corporate profits and \$3.4 billion in social insurance payments. ❖

3 California's Oil and Gas Industry by Sub-Region

The oil and gas industry is widespread across the state. However, concentrations of activity are evident.

In this section, the industry is analyzed in four sub-regional geographies depicted in Exhibit 3-1: Southern California, the Central Coast, the San Francisco Bay Area, and Central Valley/Northern California.

These four sub-regions account for 35 counties and more than ninety percent of the direct employment in the industry. The remaining counties are summarized in a Rest of State sub-region.

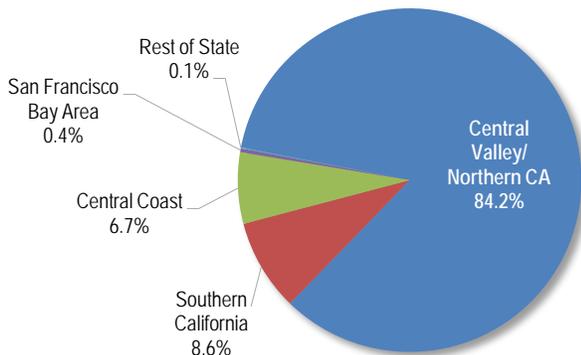
Production activity occurs across the state, but the majority is located in the Central Valley/Northern California sub-region. According to the Division of Oil, Gas and Geothermal Resources of the California Department of Conservation (DOGGR), almost 4,680 new wells were drilled in 2012, bringing the total to 210,000, with 570 companies operating the 55,000 wells that are currently active.

Exhibit 3-1
California Sub-Regions



Source: ESRI

Exhibit 3-2
Active Wells in CA by Sub-Region 2012



Source: CA Dept of Conservation, DOGGR

Approximately 78 percent of all active wells are in Kern County, which accounts for almost 72 percent of oil production and more than 63 percent of all gas production in the state. Los Angeles County is a distant second, with less than seven percent of active wells, twelve percent of oil production and seven percent of gas production.

Employment in oil and gas extraction, well drilling and support activities for oil and gas operations are related to the concentration of well activity and consequently is mostly found in the counties of Kern and Los Angeles.

Downstream activity of the industry is concentrated in the Southern California sub-region, where more than half of the refining capacity is located, and in the San Francisco Bay Area, with almost 40 percent of the state's refining capacity.

Large industry segments related to trade, such as natural gas distribution and gasoline stations, depend on delivery to residents and businesses, thus their employment is distributed proportionally to the resident population. As such, the Southern California sub-region has the largest share of employment in these component industries.

Direct activity and economic and fiscal contributions of each sub-region are presented in the following pages. ❖

Southern California Sub-Region

The Southern California sub-region consists of the six counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and San Diego.

Exhibit 3-3
Southern California Sub-Region



Source: ESRI

Exhibit 3-4
Direct Employment of Oil and Gas Industry
Southern California Sub-Region 2012

	Employment
211 Oil and gas extraction	22,175
213111 Drilling oil and gas wells	820
213112 Support activities for oil and gas operations	2,418
2212 Natural gas distribution	20,304
23712 Oil and gas pipeline construction	5,694
32411 Petroleum refineries	4,080
324191 Petroleum lubricating oil and grease mfg	389
32511 Petrochemical manufacturing	11
333132 Oil and gas field machinery and eqmt mfg	897
4247 Petroleum and petroleum prods wholesalers	2,816
447 Gasoline stations	28,313
45431 Fuel dealers	909
486 Pipeline transportation	1,322
TOTAL DIRECT EMPLOYMENT	90,150
<i>Percent of California Industry Employment</i>	<i>47.8%</i>

Exhibit 3-5
Total Economic and Fiscal Contribution of Oil and Gas Industry
Southern California Sub-Region 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	90,150	\$ 10,110	\$ 34,820	\$ 86,840
Indirect	44,180	2,920	4,820	7,710
Induced	77,890	3,920	6,960	10,730
TOTAL CONTRIBUTION	212,220	\$ 16,960	\$ 46,600	\$ 105,280
<i>Percent of Total CA Contribution</i>	<i>45.3%</i>	<i>42.5%</i>	<i>41.3%</i>	<i>39.9%</i>
<i>Percent of Sub-Region Total</i>	<i>1.9%</i>	<i>2.6%</i>	<i>4.3%</i>	<i>6.0%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 7,387.7	\$ 1,946.6	\$ 9,334.3
Property taxes	1,828.0	-	1,828.0
Personal income taxes	453.2	1,286.8	1,739.9
Corporate profits taxes	338.3	1,632.7	2,021.1
Social insurance taxes	43.1	1,482.1	1,525.1
Other taxes	377.5	148.1	525.6
Fees, fines and permits	92.0	42.4	134.4
TOTAL TAX REVENUES	\$ 10,569.8	\$ 6,538.7	\$ 17,108.4

Central Coast Sub-Region

The Central Coast sub-region consists of the four counties of Monterey, San Luis Obispo, Santa Barbara and Ventura.

Exhibit 3-6
Central Coast Sub-Region



Source: ESRI

Exhibit 3-7
Direct Employment of Oil and Gas Industry
Central Coast Sub-Region 2012

	Employment
211 Oil and gas extraction	6,453
213111 Drilling oil and gas wells	501
213112 Support activities for oil and gas operations	901
2212 Natural gas distribution	1,086
23712 Oil and gas pipeline construction	427
32411 Petroleum refineries	156
324191 Petroleum lubricating oil and grease mfg	3
32511 Petrochemical manufacturing	-
333132 Oil and gas field machinery and eqmt mfg	357
4247 Petroleum and petroleum prods wholesalers	358
447 Gasoline stations	3,081
45431 Fuel dealers	196
486 Pipeline transportation	44
TOTAL DIRECT EMPLOYMENT	13,560
<i>Percent of California Industry Employment</i>	<i>7.2%</i>

Exhibit 3-8
Total Economic and Fiscal Contribution of Oil and Gas Industry
Central Coast Sub-Region 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	13,560	\$ 1,110	\$ 4,130	\$ 7,530
Indirect	4,940	280	510	800
Induced	5,710	250	490	700
TOTAL CONTRIBUTION	24,210	\$ 1,640	\$ 5,130	\$ 9,030
<i>Percent of Total CA Contribution</i>	<i>5.2%</i>	<i>4.1%</i>	<i>4.5%</i>	<i>3.4%</i>
<i>Percent of Sub-Region Total</i>	<i>2.3%</i>	<i>2.8%</i>	<i>5.2%</i>	<i>5.8%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 727.7	\$ 193.3	\$ 921.0
Property taxes	213.9	-	213.9
Personal income taxes	43.6	124.0	167.3
Corporate profits taxes	45.8	192.4	238.2
Social insurance taxes	4.7	139.5	144.2
Other taxes	43.7	16.3	60.1
Fees, fines and permits	9.4	4.7	14.1
TOTAL TAX REVENUES	\$ 1,088.7	\$ 670.0	\$ 1,758.7

San Francisco Bay Area Sub-Region

The San Francisco Bay Area sub-region consists of the nine counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma.

Exhibit 3-9
San Francisco Bay Area Sub-Region



Source: ESRI

Exhibit 3-10
Direct Employment of Oil and Gas Industry
San Francisco Bay Area Sub-Region 2012

	Employment
211 Oil and gas extraction	-
213111 Drilling oil and gas wells	202
213112 Support activities for oil and gas operations	877
2212 Natural gas distribution	7,483
23712 Oil and gas pipeline construction	990
32411 Petroleum refineries	7,574
324191 Petroleum lubricating oil and grease mfg	112
32511 Petrochemical manufacturing	-
333132 Oil and gas field machinery and eqmt mfg	43
4247 Petroleum and petroleum prods wholesalers	1,171
447 Gasoline stations	9,593
45431 Fuel dealers	365
486 Pipeline transportation	286
TOTAL DIRECT EMPLOYMENT	28,700
<i>Percent of California Industry Employment</i>	<i>15.2%</i>

Exhibit 3-11
Total Economic and Fiscal Contribution of Oil and Gas Industry
San Francisco Bay Area Sub-Region 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	28,700	\$ 6,230	\$ 30,610	\$ 95,060
Indirect	19,640	1,640	2,390	3,530
Induced	28,720	1,760	2,970	4,350
TOTAL CONTRIBUTION	77,050	\$ 9,630	\$ 35,960	\$ 102,930
<i>Percent of Total CA Contribution</i>	<i>16.5%</i>	<i>24.2%</i>	<i>31.9%</i>	<i>39.0%</i>
<i>Percent of Sub-Region Total</i>	<i>1.7%</i>	<i>2.6%</i>	<i>6.1%</i>	<i>10.4%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 2,673.7	\$ 653.5	\$ 3,327.2
Property taxes	770.8	-	770.8
Personal income taxes	244.6	694.7	939.3
Corporate profits taxes	380.8	1,601.3	1,982.1
Social insurance taxes	18.9	815.8	834.7
Other taxes	161.8	51.6	213.4
Fees, fines and permits	46.3	14.8	61.1
TOTAL TAX REVENUES	\$ 4,296.9	\$ 3,831.5	\$ 8,128.5

Central Valley/Northern California Sub-Region

The Central Valley/Northern California sub-region consists of the sixteen counties of Butte, Colusa, Fresno, Glenn, Kern, Kings, Merced, Sacramento, San Joaquin, Shasta, Stanislaus, Sutter, Tehama, Tulare, Yolo and Yuba.

Exhibit 3-12
Central Valley / Northern California Sub-Region



Source: ESRI

Exhibit 3-13
Direct Employment of Oil and Gas Industry
Central Valley/Northern California Sub-Region 2012

	Employment
211 Oil and gas extraction	11,789
213111 Drilling oil and gas wells	1,563
213112 Support activities for oil and gas operations	5,806
2212 Natural gas distribution	2,642
23712 Oil and gas pipeline construction	4,549
32411 Petroleum refineries	908
324191 Petroleum lubricating oil and grease mfg	188
32511 Petrochemical manufacturing	
333132 Oil and gas field machinery and eqmt mfg	547
4247 Petroleum and petroleum prods wholesalers	2,235
447 Gasoline stations	11,314
45431 Fuel dealers	774
486 Pipeline transportation	1,062
TOTAL DIRECT EMPLOYMENT	43,380
<i>Percent of California Industry Employment</i>	<i>23.0%</i>

Exhibit 3-14
Total Economic and Fiscal Contribution of Oil and Gas Industry
Central Valley/Northern California Sub-Region 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	43,380	\$ 4,700	\$ 11,950	\$ 25,010
Indirect	15,740	850	1,410	2,330
Induced	26,500	1,110	2,210	3,410
TOTAL CONTRIBUTION	85,620	\$ 6,660	\$ 15,570	\$ 30,750
<i>Percent of Total CA Contribution</i>	<i>18.3%</i>	<i>16.7%</i>	<i>13.8%</i>	<i>11.6%</i>
<i>Percent of Sub-Region Total</i>	<i>3.0%</i>	<i>4.4%</i>	<i>6.3%</i>	<i>7.3%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 2,371.5	\$ 666.1	\$ 3,037.7
Property taxes	609.7	-	609.7
Personal income taxes	161.0	457.2	618.2
Corporate profits taxes	114.3	480.7	595.0
Social insurance taxes	32.9	554.9	587.8
Other taxes	126.4	47.8	174.2
Fees, fines and permits	32.1	13.7	45.8
TOTAL TAX REVENUES	\$ 3,447.9	\$ 2,220.4	\$ 5,668.3

Rest of State

The Rest of State consists of the remaining twenty-three states that have not been included in the four sub-regions above.

Exhibit 3-15
Rest of State



Source: ESR

Exhibit 3-16
Direct Employment of Oil and Gas Industry
Rest of State 2012

	Employment
211 Oil and gas extraction	439
213111 Drilling oil and gas wells	528
213112 Support activities for oil and gas operations	58
2212 Natural gas distribution	,141
23712 Oil and gas pipeline construction	52
32411 Petroleum refineries	42
324191 Petroleum lubricating oil and grease mfg	5
32511 Petrochemical manufacturing	-
333132 Oil and gas field machinery and eqmt mfg	51
4247 Petroleum and petroleum prods wholesalers	549
447 Gasoline stations	3,929
45431 Fuel dealers	896
486 Pipeline transportation	369
TOTAL DIRECT EMPLOYMENT	8,060
<i>Percent of California Industry Employment</i>	<i>4.3%</i>

Exhibit 3-17
Total Economic and Fiscal Contribution of Oil and Gas Industry
Rest of State 2012

	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	8,060	\$ 700	\$ 1,300	\$ 3,020
Indirect	2,250	100	170	280
Induced	3,180	120	260	390
TOTAL CONTRIBUTION	13,490	\$ 920	\$ 1,730	\$ 3,690
<i>Percent of Total CA Contribution</i>	<i>2.9%</i>	<i>2.3%</i>	<i>1.5%</i>	<i>1.4%</i>
<i>Percent of Sub-Region Total</i>	<i>1.6%</i>	<i>2.4%</i>	<i>2.6%</i>	<i>3.3%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 614.7	\$ 173.0	\$ 787.7
Property taxes	122.9	-	122.9
Personal income taxes	23.0	65.4	88.4
Corporate profits taxes	7.7	32.3	39.9
Social insurance taxes	3.2	74.8	78.0
Other taxes	25.0	8.6	33.6
Fees, fines and permits	5.1	2.5	7.6
TOTAL TAX REVENUES	\$ 801.6	\$ 356.5	\$ 1,158.0

4 California's Oil and Gas Industry by County

California is comprised of 58 individual counties. Oil and gas industry activity varies from county to county. This section identifies the direct activity of the oil and gas industry in each county and then estimates their economic and fiscal contribution.

Exhibit 4-1 identifies the direct industry employment, the total economic contribution and the total fiscal contribution of each county. Counties asterisked (*) are detailed in the following pages, in alphabetical order. ❖

Exhibit 4-1
Oil and Gas Industry Total Economic and Fiscal Contribution by County
California 2012

County	Direct Employment	Total Employment	Total Economic Contribution		Total Fiscal Contribution (\$ millions)
			Total Labor Income (\$ millions)	Total Value Added (\$ millions)	
Alameda County *	4,389	8,038	699.2	2,204.0	980.2
Alpine County	0	0	0	0	0
Amador County	258	366	27.1	59.0	31.6
Butte County *	726	1,319	95.4	188.5	126.9
Calaveras County	226	337	25.3	51.4	26.6
Colusa County *	385	507	31.4	67.5	35.9
Contra Costa County *	14,417	46,627	6,216.3	28,312.4	4,491.1
Del Norte County	139	181	9.1	16.8	11.8
El Dorado County *	704	1,046	66.3	170.9	106.0
Fresno County *	1,924	2,982	170.5	338.8	400.6
Glenn County *	255	347	28.0	59.6	29.7
Humboldt County *	881	1,660	138.5	321.4	131.8
Imperial County *	1,460	1,836	69.8	119.0	91.9
Inyo County	130	160	7.1	16.7	19.8
Kern County *	25,923	47,706	3,958.1	10,725.3	2,446.0
Kings County *	352	478	38.7	70.6	64.4
Lake County	506	758	51.8	143.2	53.8
Lassen County	119	139	3.8	11.7	10.4
Los Angeles County *	48,715	103,982	8,846.9	29,017.0	8,726.2
Madera County *	741	1,026	57.3	192.9	96.7
Marin County *	834	1,326	140.4	310.4	163.4
Mariposa County	57	72	2.2	6.1	7.8
Mendocino County *	658	1,060	77.7	154.3	86.1
Merced County	2,157	2,888	127.9	252.6	207.1
Modoc County	107	126	5.1	11.8	4.8
Mono County	99	126	5.7	19.3	7.0
Monterey County *	1,087	1,651	135.6	242.4	197.2
Napa County *	448	694	55.1	85.6	75.0
Nevada County	439	655	35.1	93.4	59.4
Orange County *	12,356	22,915	2,097.2	4,781.9	2,187.2
Placer County *	1,151	2,051	169.2	249.7	234.8
Plumas County	190	272	19.2	48.1	19.0
Riverside County *	6,831	11,267	721.9	2,330.6	1,325.7
Sacramento County *	3,466	6,590	585.5	642.4	692.0
San Benito County	197	268	18.8	34.4	26.7
San Bernardino County *	7,472	11,705	861.2	2,183.1	1,414.4
San Diego County *	13,337	25,105	2,200.2	4,655.4	2,519.1
San Francisco County *	4,123	7,432	1,195.2	2,223.7	686.6

Exhibit 4-1 (cont'd)

County	Direct Employment	----- Total Economic Contribution -----			Total Fiscal Contribution (\$ millions)
		Total Employment	Total Labor Income (\$ millions)	Total Value Added (\$ millions)	
San Joaquin County *	2,030	3,592	334.1	551.7	447.9
San Luis Obispo County *	1,685	3,314	233.1	863.7	268.0
San Mateo County *	1,442	1,860	146.6	269.3	334.9
Santa Barbara County *	3,414	6,341	502.0	1,204.6	408.3
Santa Clara County *	3,076	4,297	328.7	749.3	780.8
Santa Cruz County	475	718	54.5	92.2	116.7
Shasta County *	1,093	1,925	142.6	286.7	172.7
Sierra County	8	9	.2	0.5	248.0
Siskiyou County	351	469	22.5	44.0	43.5
Solano County *	2,794	5,688	510.7	2,517.8	584.0
Sonoma County *	2,165	3,688	276.5	616.3	368.7
Stanislaus County *	1,436	2,262	152.0	311.1	279.2
Sutter County *	435	802	62.7	139.4	65.0
Tehama County *	580	767	48.4	100.4	76.8
Trinity County	49	63	5.5	8.5	3.9
Tulare County *	1,469	2,650	317.3	505.1	263.6
Tuolumne County	245	347	21.2	42.3	28.5
Ventura County *	7,375	12,469	739.5	2,735.7	862.9
Yolo County *	928	1,543	101.9	440.2	154.1
Yuba County *	206	266	19.8	34.1	33.1

Source: Estimates by LAEDC

Fiscal contributions may not sum to the aggregate state level fiscal contribution since some tax revenues cannot be estimated at the county level with any accuracy. The estimates provided at the county level are therefore likely to be conservative.

Additionally, county-level economic contributions may not add to sub-regional contributions because estimates are produced at defined geographic levels, which do not account for spill-over impacts between counties. Such spill-over effects are captured in state level impacts and in the sub-regional impacts. ❖

Alameda County

Exhibit 4-2**Direct Activity of Oil and Gas Industry
Alameda County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	392	\$ 14.8
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	14	0.3
2212	Natural gas distribution	1,321	261.2
23712	Oil and gas pipeline construction	196	16.9
32411	Petroleum refineries	276	56.4
324191	Petroleum lubricating oil and grease mfg	35	6.1
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	20	1.8
4247	Petroleum and petroleum prods wholesalers	101	9.1
447	Gasoline stations	2,000	120.8
45431	Fuel dealers	33	0.7
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		4,389	\$ 488.1

Exhibit 4-3**Total Economic and Fiscal Contribution of Oil and Gas Industry
Alameda County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	4,389	\$ 488.1	\$ 1,846.0	\$ 5,079.9
Indirect	1,320	91.8	143.9	211.2
Induced	2,329	119.3	214.2	306.7
TOTAL CONTRIBUTION	8,038	\$ 699.2	\$ 2,204.0	\$ 5,597.8
<i>Percent of Total CA Contribution</i>	<i>1.7%</i>	<i>1.8%</i>	<i>2.0%</i>	<i>2.1%</i>
<i>Percent of County Total</i>	<i>0.9%</i>	<i>1.2%</i>	<i>2.4%</i>	<i>3.7%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 492.9	\$ 127.7	\$ 620.6
Property taxes	90.8	-	90.8
Personal income taxes	18.7	53.2	72.0
Corporate profits taxes	19.8	83.4	103.2
Social insurance taxes	1.9	60.4	62.3
Other taxes	18.6	6.7	25.3
Fees, fines and permits	4.0	1.9	6.0
TOTAL TAX REVENUES	\$ 646.8	\$ 333.3	\$ 980.2

Source: Estimates by LAEDC

Butte County

Exhibit 4-4

Direct Activity of Oil and Gas Industry Butte County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	14	\$ 0.4
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	256	37.8
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	42	2.3
447	Gasoline stations	326	29.3
45431	Fuel dealers	78	3.3
486	Pipeline transportation	10	0.8
TOTAL DIRECT ACTIVITY		726	\$ 73.8

Exhibit 4-5

Total Economic and Fiscal Contribution of Oil and Gas Industry Butte County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	726	\$ 73.8	\$ 145.0	\$ 348.3
Indirect	161	6.1	11.9	19.0
Induced	433	15.5	31.6	48.0
TOTAL CONTRIBUTION	1,319	\$ 95.4	\$ 188.5	\$ 415.3
<i>Percent of Total CA Contribution</i>	<i>0.3%</i>	<i>0.2%</i>	<i>0.2%</i>	<i>0.2%</i>
<i>Percent of County Total</i>	<i>1.3%</i>	<i>2.2%</i>	<i>2.6%</i>	<i>3.3%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 66.9	\$ 19.2	\$ 86.1
Property taxes	14.5	-	14.5
Personal income taxes	2.0	5.7	7.7
Corporate profits taxes	0.9	3.6	4.4
Social insurance taxes	0.7	8.7	9.1
Other taxes	2.9	1.3	4.2
Fees, fines and permits	0.5	0.4	0.9
TOTAL TAX REVENUES	\$ 88.0	\$ 38.9	\$ 126.9

Source: Estimates by LAEDC

Colusa County

Exhibit 4-6**Direct Activity of Oil and Gas Industry
Colusa County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	13	\$ 0.6
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	3	0.4
2212	Natural gas distribution	60	8.6
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	217	15.4
447	Gasoline stations	79	1.7
45431	Fuel dealers	13	0.2
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		385	\$ 26.9

Exhibit 4-7**Total Economic and Fiscal Contribution of Oil and Gas Industry
Colusa County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	385	\$ 26.9	\$ 58.8	\$ 121.3
Indirect	56	2.1	3.4	5.6
Induced	66	2.4	5.3	8.1
TOTAL CONTRIBUTION	507	\$ 31.4	\$ 67.5	\$ 135.0
<i>Percent of Total CA Contribution</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>4.2%</i>	<i>5.2%</i>	<i>7.0%</i>	<i>5.6%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 15.2	\$ 3.8	\$ 18.9
Property taxes	6.7	-	6.7
Personal income taxes	0.9	2.7	3.6
Corporate profits taxes	0.3	1.3	1.5
Social insurance taxes	0.2	2.9	3.1
Other taxes	1.3	0.4	1.7
Fees, fines and permits	0.2	0.1	0.4
TOTAL TAX REVENUES	\$ 24.8	\$ 11.1	\$ 35.9

Source: Estimates by LAEDC

Contra Costa County

Exhibit 4-8

**Direct Activity of Oil and Gas Industry
Contra Costa County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	3,140	\$ 476.9
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	690	86.2
2212	Natural gas distribution	1,649	415.1
23712	Oil and gas pipeline construction	231	19.3
32411	Petroleum refineries	6,595	2,676.8
324191	Petroleum lubricating oil and grease mfg	77	10.4
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	15	0.9
4247	Petroleum and petroleum prods wholesalers	362	32.7
447	Gasoline stations	1,384	84.9
45431	Fuel dealers	138	2.7
486	Pipeline transportation	135	507.9
TOTAL DIRECT ACTIVITY		14,417	\$ 4,313.8

Exhibit 4-9

**Total Economic and Fiscal Contribution of Oil and Gas Industry
Contra Costa County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	14,417	\$ 4,313.8	\$ 29,105.3	\$ 77,716.7
Indirect	14,004	984.3	1,477.4	2,262.1
Induced	18,206	948.2	1,729.8	2,489.4
TOTAL CONTRIBUTION	46,627	\$ 6,216.3	\$ 28,312.4	\$ 82,468.1
<i>Percent of Total CA Contribution</i>	<i>10.0%</i>	<i>15.6%</i>	<i>25.1%</i>	<i>31.2%</i>
<i>Percent of County Total</i>	<i>9.7%</i>	<i>19.3%</i>	<i>39.3%</i>	<i>55.2%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 776.2	\$ 149.2	\$ 925.4
Property taxes	442.6	-	442.6
Personal income taxes	176.3	500.7	677.0
Corporate profits taxes	328.1	1,379.4	1,707.5
Social insurance taxes	14.3	563.2	577.4
Other taxes	94.6	27.2	121.8
Fees, fines and permits	31.6	7.8	39.4
TOTAL TAX REVENUES	\$ 1,863.7	\$ 2,627.4	\$ 4,491.1

Source: Estimates by LAEDC

El Dorado County

Exhibit 4-10
Direct Activity of Oil and Gas Industry
El Dorado County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	57	\$ 1.8
213111	Drilling oil and gas wells	37	3.0
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	44	4.6
23712	Oil and gas pipeline construction	40	2.2
32411	Petroleum refineries	14	3.8
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	22	1.2
447	Gasoline stations	340	33.0
45431	Fuel dealers	150	3.2
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		704	\$ 52.8

Exhibit 4-11
Total Economic and Fiscal Contribution of Oil and Gas Industry
El Dorado County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	704	\$ 52.8	\$ 142.5	\$ 313.0
Indirect	146	5.9	12.2	19.2
Induced	196	7.5	16.1	23.9
TOTAL CONTRIBUTION	1,046	\$ 66.3	\$ 170.9	\$ 356.1
<i>Percent of Total CA Contribution</i>	<i>0.2%</i>	<i>0.2%</i>	<i>0.2%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>1.2%</i>	<i>1.8%</i>	<i>2.4%</i>	<i>3.2%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 58.3	\$ 16.4	\$ 74.8
Property taxes	9.1	-	
Personal income taxes	1.9	5.3	
Corporate profits taxes	1.3	5.4	6.6
Social insurance taxes	0.2	5.2	5.4
Other taxes	1.9	0.6	2.4
Fees, fines and permits	0.4	0.2	0.6
TOTAL TAX REVENUES	\$ 73.0	\$ 33.0	\$ 106.0

Source: Estimates by LAEDC

Fresno County

Exhibit 4-12**Direct Activity of Oil and Gas Industry
Fresno County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	213	\$ 21.2
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	58	3.1
2212	Natural gas distribution	4	0.5
23712	Oil and gas pipeline construction	86	5.4
32411	Petroleum refineries	2	0.9
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	225	15.3
447	Gasoline stations	1,198	73.2
45431	Fuel dealers	109	1.8
486	Pipeline transportation	30	3.4
TOTAL DIRECT ACTIVITY		1,924	\$ 124.9

Exhibit 4-13**Total Economic and Fiscal Contribution of Oil and Gas Industry
Fresno County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	1,924	\$ 124.9	\$ 252.4	\$ 371.1
Indirect	410	19.2	33.3	51.6
Induced	648	26.4	53.2	77.6
TOTAL CONTRIBUTION	2,982	\$ 170.5	\$ 338.8	\$ 500.3
<i>Percent of Total CA Contribution</i>	<i>0.6%</i>	<i>0.4%</i>	<i>0.3%</i>	<i>0.2%</i>
<i>Percent of County Total</i>	<i>0.7%</i>	<i>0.8%</i>	<i>0.9%</i>	<i>0.8%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 255.8	\$ 74.7	\$ 330.5
Property taxes	22.4	-	22.4
Personal income taxes	4.2	11.9	16.0
Corporate profits taxes	1.7	7.2	8.9
Social insurance taxes	0.6	14.3	14.9
Other taxes	4.6	1.9	6.5
Fees, fines and permits	0.9	0.6	1.5
TOTAL TAX REVENUES	\$ 290.1	\$ 110.5	\$ 400.6

Source: Estimates by LAEDC

Glenn County

Exhibit 4-14**Direct Activity of Oil and Gas Industry
Glenn County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	32	\$ 5.2
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	50	3.7
2212	Natural gas distribution	60	7.8
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	10	0.6
447	Gasoline stations	99	7.9
45431	Fuel dealers	3	0.0
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		255	\$ 25.1

Exhibit 4-15**Total Economic and Fiscal Contribution of Oil and Gas Industry
Glenn County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	255	\$ 25.1	\$ 52.7	\$ 108.3
Indirect	31	1.0	2.0	3.8
Induced	61	1.9	4.9	7.4
TOTAL CONTRIBUTION	347	\$ 28.0	\$ 59.6	\$ 119.5
<i>Percent of Total CA Contribution</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>2.7%</i>	<i>4.9%</i>	<i>5.8%</i>	<i>5.9%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 13.6	\$ 3.6	\$ 17.2
Property taxes	4.1	-	4.1
Personal income taxes	0.7	2.0	2.7
Corporate profits taxes	0.3	1.4	1.7
Social insurance taxes	0.1	2.6	2.7
Other taxes	0.8	0.2	1.0
Fees, fines and permits	0.2	0.1	0.2
TOTAL TAX REVENUES	\$ 19.9	\$ 9.8	\$ 29.7

Source: Estimates by LAEDC

Humboldt County

Exhibit 4-16**Direct Activity of Oil and Gas Industry
Humboldt County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	9	\$ 0.3
213111	Drilling oil and gas wells	4	0.4
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	316	68.5
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	22	3.9
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	7	0.3
447	Gasoline stations	448	36.7
45431	Fuel dealers	68	1.3
486	Pipeline transportation	8	0.6
TOTAL DIRECT ACTIVITY		881	\$ 111.9

Exhibit 4-17**Total Economic and Fiscal Contribution of Oil and Gas Industry
Humboldt County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	881	\$ 111.9	\$ 263.1	\$ 674.7
Indirect	195	7.0	15.3	24.8
Induced	585	19.6	43.0	66.2
TOTAL CONTRIBUTION	1,660	\$ 138.5	\$ 321.4	\$ 765.8
<i>Percent of Total CA Contribution</i>	<i>0.4%</i>	<i>0.3%</i>	<i>0.3%</i>	<i>0.3%</i>
<i>Percent of County Total</i>	<i>2.5%</i>	<i>5.1%</i>	<i>6.5%</i>	<i>9.1%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 56.7	\$ 16.0	\$ 72.7
Property taxes	18.2	-	18.2
Personal income taxes	2.8	7.9	10.7
Corporate profits taxes	2.1	8.8	10.9
Social insurance taxes	0.7	12.1	12.8
Other taxes	3.7	1.7	5.3
Fees, fines and permits	0.7	0.5	1.1
TOTAL TAX REVENUES	\$ 84.8	\$ 47.0	\$ 131.8

Source: Estimates by LAEDC

Imperial County

Exhibit 4-18**Direct Activity of Oil and Gas Industry
Imperial County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	3	\$ 0.9
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	874	19.8
2212	Natural gas distribution	121	12.9
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	57	3.4
447	Gasoline stations	396	20.1
45431	Fuel dealers	-	-
486	Pipeline transportation	10	1.2
TOTAL DIRECT ACTIVITY		1,460	\$ 57.3

Exhibit 4-19**Total Economic and Fiscal Contribution of Oil and Gas Industry
Imperial County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	1,460	\$ 57.3	\$ 92.2	\$ 285.9
Indirect	193	7.1	13.4	23.5
Induced	183	5.3	13.3	20.0
TOTAL CONTRIBUTION	1,836	\$ 69.8	\$ 119.0	\$ 329.4
<i>Percent of Total CA Contribution</i>	<i>0.4%</i>	<i>0.2%</i>	<i>0.1%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>2.4%</i>	<i>1.9%</i>	<i>2.0%</i>	<i>3.1%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 49.6	\$ 13.6	\$ 62.3
Property taxes	11.6	-	11.6
Personal income taxes	1.7	4.7	6.3
Corporate profits taxes	0.3	1.2	1.5
Social insurance taxes	0.4	5.0	5.3
Other taxes	2.3	1.2	3.2
Fees, fines and permits	0.4	-	0.7
TOTAL TAX REVENUES	\$ 66.3	\$ 25.7	\$ 91.9

Source: Estimates by LAEDC

Kern County

Exhibit 4-20

Direct Activity of Oil and Gas Industry Kern County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	9,272	\$ 1,042.6
213111	Drilling oil and gas wells	1,455	155.8
213112	Support activities for oil and gas operations	5,514	540.5
2212	Natural gas distribution	691	138.2
23712	Oil and gas pipeline construction	4,400	295.1
32411	Petroleum refineries	874	218.5
324191	Petroleum lubricating oil and grease mfg	2	0.1
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	458	42.0
4247	Petroleum and petroleum prods wholesalers	364	27.4
447	Gasoline stations	2,427	187.5
45431	Fuel dealers	104	1.6
486	Pipeline transportation	363	309.9
TOTAL DIRECT ACTIVITY		25,923	\$ 2,959.2

Exhibit 4-21

Total Economic and Fiscal Contribution of Oil and Gas Industry Kern County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	25,923	\$ 2,959.2	\$ 8,945.4	\$ 19,202.8
Indirect	9,074	516.7	758.5	1,240.6
Induced	12,709	482.2	1,021.4	1,497.1
TOTAL CONTRIBUTION	47,706	\$ 3,958.1	\$ 10,725.3	\$ 21,940.4
<i>Percent of Total CA Contribution</i>	<i>10.2%</i>	<i>9.9%</i>	<i>9.5%</i>	<i>8.3%</i>
<i>Percent of County Total</i>	<i>12.6%</i>	<i>18.8%</i>	<i>28.6%</i>	<i>33.6%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 612.7	\$ 159.1	\$ 771.8
Property taxes	307.6	-	307.6
Personal income taxes	99.6	282.9	382.6
Corporate profits taxes	93.1	391.6	484.7
Social insurance taxes	14.0	368.3	382.3
Other taxes	64.7	26.1	90.7
Fees, fines and permits	18.8	7.5	26.2
TOTAL TAX REVENUES	\$ 1,210.5	\$ 1,235.5	\$ 2,446.0

Source: Estimates by LAEDC

Kings County

Exhibit 2-22**Direct Activity of Oil and Gas Industry
Kings County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	1	\$ -
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	69	9.2
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	29	1.9
447	Gasoline stations	239	22.5
45431	Fuel dealers	12	0.2
486	Pipeline transportation	2	0.2
TOTAL DIRECT ACTIVITY		352	\$ 34.0

Exhibit 4-23**Total Economic and Fiscal Contribution of Oil and Gas Industry
Kings County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	352	\$ 34.0	\$ 60.5	\$ 118.5
Indirect	24	1.0	2.1	3.1
Induced	101	3.7	8.0	12.2
TOTAL CONTRIBUTION	478	\$ 38.7	\$ 70.6	\$ 133.8
<i>Percent of Total CA Contribution</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>0.8%</i>	<i>1.2%</i>	<i>1.8%</i>	<i>1.3%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 38.1	\$ 10.9	\$ 49.0
Property taxes	5.8	-	5.8
Personal income taxes	1.0	2.7	3.7
Corporate profits taxes	0.3	1.1	1.4
Social insurance taxes	0.1	2.7	2.8
Other taxes	1.2	0.3	1.4
Fees, fines and permits	0.2	0.1	0.3
TOTAL TAX REVENUES	\$ 46.7	\$ 17.3	\$ 64.4

Source: Estimates by LAEDC

Los Angeles County

Exhibit 4-24

**Direct Activity of Oil and Gas Industry
Los Angeles County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	17,156	\$ 1,568.0
213111	Drilling oil and gas wells	687	109.5
213112	Support activities for oil and gas operations	1,108	99.1
2212	Natural gas distribution	7,936	1,150.3
23712	Oil and gas pipeline construction	2,693	169.1
32411	Petroleum refineries	3,399	944.7
324191	Petroleum lubricating oil and grease mfg	389	43.7
32511	Petrochemical manufacturing	8	0.7
333132	Oil and gas field machinery and eqmt mfg	729	63.9
4247	Petroleum and petroleum prods wholesalers	1,442	108.9
447	Gasoline stations	12,212	924.6
45431	Fuel dealers	309	8.0
486	Pipeline transportation	747	512.2
TOTAL DIRECT ACTIVITY		48,715	\$ 5,702.6

Exhibit 4-25

**Total Economic and Fiscal Contribution of Oil and Gas Industry
Los Angeles County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	48,715	\$ 5,702.6	\$ 23,577.6	\$ 59,540.6
Indirect	22,009	1,480.4	2,457.8	3,721.9
Induced	33,259	1,663.9	2,981.6	4,386.0
TOTAL CONTRIBUTION	103,982	\$ 8,846.9	\$ 29,017.0	\$ 67,648.5
<i>Percent of Total CA Contribution</i>	22.2%	22.2%	25.7%	25.6%
<i>Percent of County Total</i>	1.9%	2.6%	5.1%	6.5%

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 3,444.4	\$ 873.0	\$ 4,317.5
Property taxes	943.5	-	943.5
Personal income taxes	229.4	654.5	880.9
Corporate profits taxes	276.6	1,163.0	1,439.6
Social insurance taxes	22.9	781.0	803.9
Other taxes	194.6	77.3	271.9
Fees, fines and permits	46.8	22.2	69.0
TOTAL TAX REVENUES	\$ 5,158.3	\$ 3,568.0	\$ 8,726.2

Source: Estimates by LAEDC

Madera County

Exhibit 4-26**Direct Activity of Oil and Gas Industry
Madera County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	4	\$ 0.2
213111	Drilling oil and gas wells	318	6.6
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	40	5.1
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	65	4.1
447	Gasoline stations	258	29.2
45431	Fuel dealers	56	1.0
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		741	\$ 46.1

Exhibit 4-27**Total Economic and Fiscal Contribution of Oil and Gas Industry
Madera County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	741	\$ 46.1	\$ 170.6	\$ 312.1
Indirect	136	5.2	10.0	16.5
Induced	149	6.0	12.4	18.2
TOTAL CONTRIBUTION	1,026	\$ 57.3	\$ 192.9	\$ 346.8
<i>Percent of Total CA Contribution</i>	<i>0.2%</i>	<i>0.1%</i>	<i>0.2%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>1.7%</i>	<i>2.0%</i>	<i>4.1%</i>	<i>4.0%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 51.5	\$ 15.8	\$ 67.3
Property taxes	8.2	-	8.2
Personal income taxes	1.4	3.9	5.3
Corporate profits taxes	1.8	7.6	9.3
Social insurance taxes	0.2	3.8	4.0
Other taxes	1.7	0.5	2.1
Fees, fines and permits	0.3	0.1	0.4
TOTAL TAX REVENUES	\$ 65.0	\$ 31.7	\$ 96.7

Source: Estimates by LAEDC

Marin County

Exhibit 4-28
Direct Activity of Oil and Gas Industry
Marin County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	300	\$ 19.2
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	4	0.3
2212	Natural gas distribution	173	23.3
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	5	0.4
447	Gasoline stations	340	66.4
45431	Fuel dealers	12	0.4
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		834	\$ 110.0

Exhibit 4-29
Total Economic and Fiscal Contribution of Oil and Gas Industry
Marin County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	834	\$ 110.0	\$ 256.3	\$ 429.2
Indirect	201	14.8	26.2	37.5
Induced	291	15.6	27.9	39.5
TOTAL CONTRIBUTION	1,326	\$ 140.4	\$ 310.4	\$ 506.2
<i>Percent of Total CA Contribution</i>	<i>0.3%</i>	<i>0.4%</i>	<i>0.3%</i>	<i>0.2%</i>
<i>Percent of County Total</i>	<i>0.7%</i>	<i>1.3%</i>	<i>1.7%</i>	<i>1.9%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 87.2	\$ 22.2	\$ 109.4
Property taxes	15.8	-	15.8
Personal income taxes	4.1	11.7	15.8
Corporate profits taxes	1.5	6.4	7.9
Social insurance taxes	0.2	9.3	9.5
Other taxes	3.3	0.8	4.1
Fees, fines and permits	0.8	0.2	1.0
TOTAL TAX REVENUES	\$ 112.9	\$ 50.6	\$ 163.4

Source: Estimates by LAEDC

Mendocino County

Exhibit 4-30**Direct Activity of Oil and Gas Industry
Mendocino County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	11	\$ 0.2
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	160	25.2
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	129	5.9
447	Gasoline stations	287	31.3
45431	Fuel dealers	71	1.9
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		658	\$ 64.5

Exhibit 4-31**Total Economic and Fiscal Contribution of Oil and Gas Industry
Mendocino County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	658	\$ 64.5	\$ 124.6	\$ 257.6
Indirect	111	3.6	8.7	14.2
Induced	292	9.5	21.0	32.6
TOTAL CONTRIBUTION	1,060	\$ 77.7	\$ 154.3	\$ 304.3
<i>Percent of Total CA Contribution</i>	<i>0.2%</i>	<i>0.2%</i>	<i>0.1%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>2.3%</i>	<i>4.2%</i>	<i>4.8%</i>	<i>5.2%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 42.1	\$ 12.4	\$ 54.5
Property taxes	11.4	-	11.4
Personal income taxes	1.7	4.8	6.5
Corporate profits taxes	0.6	2.7	3.4
Social insurance taxes	0.3	6.6	6.8
Other taxes	2.3	1.1	3.4
Fees, fines and permits	0.4	0.3	0.7
TOTAL TAX REVENUES	\$ 58.8	\$ 28.0	\$ 86.8

Source: Estimates by LAEDC

Merced County

Exhibit 4-32

**Direct Activity of Oil and Gas Industry
Merced County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	1,413	\$ 47.0
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	4	0.6
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	55	10.6
447	Gasoline stations	632	5.7
45431	Fuel dealers	53	4.4
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		2,157	\$ 96.3

Exhibit 4-33

**Total Economic and Fiscal Contribution of Oil and Gas Industry
Merced County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	2,157	\$ 96.3	\$ 189.4	\$ 388.2
Indirect	364	18.3	33.9	57.0
Induced	366	13.3	29.3	43.3
TOTAL CONTRIBUTION	2,888	\$ 127.9	\$ 252.6	\$ 488.5
<i>Percent of Total CA Contribution</i>	<i>0.6%</i>	<i>0.3%</i>	<i>0.2%</i>	<i>0.2%</i>
<i>Percent of County Total</i>	<i>3.1%</i>	<i>2.9%</i>	<i>3.4%</i>	<i>3.2%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 109.1	\$ 32.0	\$ 141.2
Property taxes	32.2	-	32.2
Personal income taxes	3.1	8.9	12.1
Corporate profits taxes	0.6	2.7	3.3
Social insurance taxes	0.3	7.8	8.2
Other taxes	6.4	2.2	8.6
Fees, fines and permits	0.9	0.6	1.6
TOTAL TAX REVENUES	\$ 152.8	\$ 54.3	\$ 207.1

Source: Estimates by LAEDC

Monterey County

Exhibit 4-34**Direct Activity of Oil and Gas Industry
Monterey County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	121	\$ 17.4
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	92	6.9
2212	Natural gas distribution	26	3.5
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	114	10.3
447	Gasoline stations	708	70.7
45431	Fuel dealers	25	1.0
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		1,087	\$ 109.7

Exhibit 4-35**Total Economic and Fiscal Contribution of Oil and Gas Industry
Monterey County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	1,087	\$ 109.7	\$ 191.4	\$ 257.4
Indirect	161	8.1	16.6	24.4
Induced	402	17.8	34.3	49.0
TOTAL CONTRIBUTION	1,651	\$ 135.6	\$ 242.4	\$ 330.8
<i>Percent of Total CA Contribution</i>	<i>0.4%</i>	<i>0.3%</i>	<i>0.2%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>0.8%</i>	<i>1.1%</i>	<i>1.3%</i>	<i>1.2%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 114.5	\$ 34.6	\$ 149.1
Property taxes	13.5	-	13.5
Personal income taxes	3.6	10.2	13.8
Corporate profits taxes	1.1	4.7	5.8
Social insurance taxes	0.3	10.0	10.3
Other taxes	2.8	0.9	3.7
Fees, fines and permits	0.7	0.3	1.0
TOTAL TAX REVENUES	\$ 136.6	\$ 60.6	\$ 197.2

Source: Estimates by LAEDC

Napa County

Exhibit 4-36
Direct Activity of Oil and Gas Industry
Napa County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	59	\$ 1.7
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	37	1.8
2212	Natural gas distribution	29	3.5
23712	Oil and gas pipeline construction	52	3.4
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	6	0.5
447	Gasoline stations	236	31.7
45431	Fuel dealers	28	0.9
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		448	\$ 43.5

Exhibit 4-37
Total Economic and Fiscal Contribution of Oil and Gas Industry
Napa County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	448	\$ 43.5	\$ 64.4	\$ 106.8
Indirect	90	4.4	7.7	12.0
Induced	156	7.2	13.5	19.5
TOTAL CONTRIBUTION	694	\$ 55.1	\$ 85.6	\$ 138.3
<i>Percent of Total CA Contribution</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>0.7%</i>	<i>1.0%</i>	<i>1.0%</i>	<i>0.9%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 44.4	\$ 13.3	\$ 57.7
Property taxes	5.0	-	5.0
Personal income taxes	1.5	4.2	5.6
Corporate profits taxes	0.2	1.0	1.2
Social insurance taxes	0.1	3.4	3.5
Other taxes	1.0	0.5	1.6
Fees, fines and permits	0.3	0.2	0.4
TOTAL TAX REVENUES	\$ 52.5	\$ 22.5	\$ 75.0

Source: Estimates by LAEDC

Orange County

Exhibit 4-38**Direct Activity of Oil and Gas Industry
Orange County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	2,361	\$ 125.9
213111	Drilling oil and gas wells	76	5.9
213112	Support activities for oil and gas operations	257	21.5
2212	Natural gas distribution	1,584	230.8
23712	Oil and gas pipeline construction	2,468	214.3
32411	Petroleum refineries	360	135.1
324191	Petroleum lubricating oil and grease mfg	21	3.1
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	154	18.3
4247	Petroleum and petroleum prods wholesalers	349	34.0
447	Gasoline stations	4,278	331.0
45431	Fuel dealers	183	5.1
486	Pipeline transportation	266	351.3
TOTAL DIRECT ACTIVITY		12,356	\$ 1,476.2

Exhibit 4-39**Total Economic and Fiscal Contribution of Oil and Gas Industry
Orange County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	12,356	\$ 1,476.2	\$ 3,732.0	\$ 8,490.9
Indirect	4,063	286.1	449.1	656.6
Induced	6,496	334.9	600.8	861.1
TOTAL CONTRIBUTION	22,915	\$ 2,097.2	\$ 4,781.9	\$ 10,008.6
<i>Percent of Total CA Contribution</i>	4.9%	5.3%	4.2%	3.8%
<i>Percent of County Total</i>	1.2%	1.7%	2.5%	3.2%

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 1,074.1	\$ 295.1	\$ 1,369.2
Property taxes	182.0	-	182.0
Personal income taxes	57.7	163.9	221.6
Corporate profits taxes	34.5	145.0	179.5
Social insurance taxes	3.0	163.4	166.5
Other taxes	38.2	14.9	53.1
Fees, fines and permits	10.9	4.3	15.2
TOTAL TAX REVENUES	\$ 1,400.5	\$ 786.7	\$ 2,187.2

Source: Estimates by LAEDC

Placer County

Exhibit 4-40

Direct Activity of Oil and Gas Industry Placer County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	127	\$ 4.0
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	36	1.2
2212	Natural gas distribution	27	3.6
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	6	1.4
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	105	8.0
447	Gasoline stations	747	100.9
45431	Fuel dealers	58	0.9
486	Pipeline transportation	45	5.7
TOTAL DIRECT ACTIVITY		1,151	\$ 125.7

Exhibit 4-41

Total Economic and Fiscal Contribution of Oil and Gas Industry Placer County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	1,151	\$ 125.7	\$ 170.2	\$ 309.5
Indirect	312	16.8	27.9	42.5
Induced	588	26.7	51.6	74.8
TOTAL CONTRIBUTION	2,051	\$ 169.2	\$ 249.7	\$ 426.8
<i>Percent of Total CA Contribution</i>	<i>0.4%</i>	<i>0.4%</i>	<i>0.2%</i>	<i>0.2%</i>
<i>Percent of County Total</i>	<i>1.1%</i>	<i>1.7%</i>	<i>1.5%</i>	<i>1.5%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 139.8	\$ 40.9	\$ 180.7
Property taxes	15.5	-	15.5
Personal income taxes	4.7	13.2	17.9
Corporate profits taxes	0.6	2.7	3.3
Social insurance taxes	0.2	11.6	11.8
Other taxes	3.2	1.2	4.4
Fees, fines and permits	0.9	0.3	1.2
TOTAL TAX REVENUES	\$ 165.0	\$ 69.8	\$ 234.8

Source: Estimates by LAEDC

Riverside County

Exhibit 4-42**Direct Activity of Oil and Gas Industry
Riverside County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	1,897	\$ 54.6
213111	Drilling oil and gas wells	40	1.6
213112	Support activities for oil and gas operations	64	1.8
2212	Natural gas distribution	1,168	124.7
23712	Oil and gas pipeline construction	43	2.3
32411	Petroleum refineries	121	25.9
324191	Petroleum lubricating oil and grease mfg	66	5.2
32511	Petrochemical manufacturing	3	0.2
333132	Oil and gas field machinery and eqmt mfg	5	0.6
4247	Petroleum and petroleum prods wholesalers	220	12.5
447	Gasoline stations	3,073	183.4
45431	Fuel dealers	111	1.6
486	Pipeline transportation	20	134.2
TOTAL DIRECT ACTIVITY		6,831	\$ 548.4

Exhibit 4-43**Total Economic and Fiscal Contribution of Oil and Gas Industry
Riverside County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	6,831	\$ 548.4	\$ 1,982.8	\$ 4,197.2
Indirect	1,780	76.8	141.4	230.4
Induced	2,657	96.8	206.3	301.2
TOTAL CONTRIBUTION	11,267	\$ 721.9	\$ 2,330.6	\$ 4,728.8
<i>Percent of Total CA Contribution</i>	2.4%	1.8%	2.1%	1.8%
<i>Percent of County Total</i>	1.4%	2.0%	3.4%	4.3%

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 731.3	\$ 207.8	\$ 939.1
Property taxes	117.8	-	117.8
Personal income taxes	17.1	48.7	65.8
Corporate profits taxes	20.3	85.3	105.6
Social insurance taxes	2.3	54.8	57.1
Other taxes	23.7	9.6	33.4
Fees, fines and permits	4.2	2.8	7.0
TOTAL TAX REVENUES	\$ 916.7	\$ 409.0	\$ 1,325.7

Source: Estimates by LAEDC

Sacramento County

Exhibit 4-44**Direct Activity of Oil and Gas Industry
Sacramento County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	263	\$ 14.2
213111	Drilling oil and gas wells	46	2.9
213112	Support activities for oil and gas operations	5	0.2
2212	Natural gas distribution	40	7.3
23712	Oil and gas pipeline construction	26	1.7
32411	Petroleum refineries	17	8.8
324191	Petroleum lubricating oil and grease mfg	8	1.3
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	6	0.4
4247	Petroleum and petroleum prods wholesalers	386	28.1
447	Gasoline stations	2,010	151.5
45431	Fuel dealers	87	1.5
486	Pipeline transportation	573	214.3
TOTAL DIRECT ACTIVITY		3,466	\$ 432.2

Exhibit 4-45**Total Economic and Fiscal Contribution of Oil and Gas Industry
Sacramento County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	3,466	\$ 432.2	\$ 365.0	\$ 801.8
Indirect	1,072	59.0	94.1	142.2
Induced	2,052	94.3	183.3	269.1
TOTAL CONTRIBUTION	6,590	\$ 585.5	\$ 642.4	\$ 1,213.1
<i>Percent of Total CA Contribution</i>	<i>1.4%</i>	<i>1.5%</i>	<i>0.6%</i>	<i>0.5%</i>
<i>Percent of County Total</i>	<i>0.8%</i>	<i>1.2%</i>	<i>0.9%</i>	<i>1.1%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 417.7	\$ 117.8	\$ 535.5
Property taxes	48.3	-	48.3
Personal income taxes	14.0	40.0	53.9
Corporate profits taxes	(1.1)	(4.6)	(5.7)
Social insurance taxes	3.1	39.4	42.6
Other taxes	10.1	3.6	13.7
Fees, fines and permits	2.7	1.0	3.8
TOTAL TAX REVENUES	\$ 494.8	\$ 197.2	\$ 692.0

Source: Estimates by LAEDC

San Bernardino County

Exhibit 4-46**Direct Activity of Oil and Gas Industry
San Bernardino County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	40	\$ 1.0
213111	Drilling oil and gas wells	5	0.3
213112	Support activities for oil and gas operations	39	1.8
2212	Natural gas distribution	2,396	275.4
23712	Oil and gas pipeline construction	467	26.1
32411	Petroleum refineries	193	13.1
324191	Petroleum lubricating oil and grease mfg		
32511	Petrochemical manufacturing		
333132	Oil and gas field machinery and eqmt mfg	7	0.7
4247	Petroleum and petroleum prods wholesalers	288	18.1
447	Gasoline stations	3,720	178.9
45431	Fuel dealers	136	2.7
486	Pipeline transportation	179	180.9
TOTAL DIRECT ACTIVITY		7,472	\$ 699.0

Exhibit 4-47**Total Economic and Fiscal Contribution of Oil and Gas Industry
San Bernardino County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	7,472	\$ 699.0	\$ 1,854.2	\$ 5,262.9
Indirect	1,302	51.6	99.8	145.4
Induced	2,931	110.6	229.0	327.9
TOTAL CONTRIBUTION	11,705	\$ 861.2	\$ 2,183.1	\$ 5,736.1
<i>Percent of Total CA Contribution</i>	2.5%	2.2%	1.9%	2.2%
<i>Percent of County Total</i>	1.4%	2.1%	3.1%	4.7%

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 769.0	\$ 225.4	\$ 994.4
Property taxes	138.0	-	138.0
Personal income taxes	21.0	59.6	80.6
Corporate profits taxes	14.9	62.7	77.6
Social insurance taxes	2.7	72.5	75.2
Other taxes	27.9	12.2	40.0
Fees, fines and permits	5.1	3.5	8.6
TOTAL TAX REVENUES	\$ 978.5	\$ 435.9	\$ 1,414.4

Source: Estimates by LAEDC

San Diego County

Exhibit 4-48

Direct Activity of Oil and Gas Industry San Diego County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	718	\$ 29.2
213111	Drilling oil and gas wells	12	0.6
213112	Support activities for oil and gas operations	77	4.6
2212	Natural gas distribution	7,139	1,227.1
23712	Oil and gas pipeline construction	20	1.4
32411	Petroleum refineries	7	2.9
324191	Petroleum lubricating oil and grease mfg	13	1.9
32511	Petrochemical manufacturing		
333132	Oil and gas field machinery and eqmt mfg	2	0.2
4247	Petroleum and petroleum prods wholesalers	460	39.5
447	Gasoline stations	4,635	285.9
45431	Fuel dealers	170	4.3
486	Pipeline transportation	84	6.5
TOTAL DIRECT ACTIVITY		13,337	\$ 1,604.0

Exhibit 4-49

Total Economic and Fiscal Contribution of Oil and Gas Industry San Diego County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	13,337	\$ 1,604.0	\$ 3,574.9	\$ 9,091.0
Indirect	3,344	200.6	354.2	526.8
Induced	8,425	395.6	726.4	1,077.2
TOTAL CONTRIBUTION	25,105	\$ 2,200.2	\$ 4,655.4	\$ 10,695.0
<i>Percent of Total CA Contribution</i>	5.4%	5.5%	4.1%	4.0%
<i>Percent of County Total</i>	1.4%	1.9%	2.5%	4.3%

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 1,204.6	\$ 310.3	\$ 1,514.9
Property taxes	332.8	-	332.8
Personal income taxes	57.4	163.0	220.4
Corporate profits taxes	24.8	104.2	129.0
Social insurance taxes	5.7	203.8	209.5
Other taxes	67.5	24.7	92.2
Fees, fines and permits	13.2	7.1	20.3
TOTAL TAX REVENUES	\$ 1,706.1	\$ 813.0	\$ 2,519.1

Source: Estimates by LAEDC

San Francisco County

Exhibit 4-50**Direct Activity of Oil and Gas Industry
San Francisco County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	362	\$ 33.0
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	25	1.2
2212	Natural gas distribution	2,642	743.7
23712	Oil and gas pipeline construction	18	1.9
32411	Petroleum refineries	78	30.2
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	103	11.5
447	Gasoline stations	777	82.5
45431	Fuel dealers	3	0.3
486	Pipeline transportation	116	7.0
TOTAL DIRECT ACTIVITY		4,123	\$ 911.2

Exhibit 4-51**Total Economic and Fiscal Contribution of Oil and Gas Industry
San Francisco County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	4,123	\$ 911.2	\$ 1,785.3	\$ 4,446.1
Indirect	1,205	132.4	192.5	254.5
Induced	2,104	151.6	245.9	339.5
TOTAL CONTRIBUTION	7,432	\$ 1,195.2	\$ 2,223.7	\$ 5,040.1
<i>Percent of Total CA Contribution</i>	<i>1.6%</i>	<i>3.0%</i>	<i>2.0%</i>	<i>1.9%</i>
<i>Percent of County Total</i>	<i>1.0%</i>	<i>1.6%</i>	<i>2.1%</i>	<i>3.5%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 231.4	\$ 46.2	\$ 277.7
Property taxes	117.1	-	117.1
Personal income taxes	24.0	68.1	92.1
Corporate profits taxes	11.4	47.9	59.3
Social insurance taxes	3.1	98.9	102.1
Other taxes	23.9	7.2	31.1
Fees, fines and permits	5.2	2.1	7.2
TOTAL TAX REVENUES	\$ 416.2	\$ 270.4	\$ 686.6

Source: Estimates by LAEDC

San Joaquin County

Exhibit 4-52
Direct Activity of Oil and Gas Industry
San Joaquin County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	89	\$ 3.3
213111	Drilling oil and gas wells	5	0.2
213112	Support activities for oil and gas operations	9	0.3
2212	Natural gas distribution	329	41.6
23712	Oil and gas pipeline construction	15	1.0
32411	Petroleum refineries	9	3.5
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	149	9.7
447	Gasoline stations	1,244	87.6
45431	Fuel dealers	110	1.7
486	Pipeline transportation	71	122.0
TOTAL DIRECT ACTIVITY		2,030	\$ 270.9

Exhibit 4-53
Total Economic and Fiscal Contribution of Oil and Gas Industry
San Joaquin County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	2,030	\$ 270.9	\$ 422.4	\$ 790.3
Indirect	338	15.0	29.1	43.9
Induced	1,224	48.3	100.3	147.2
TOTAL CONTRIBUTION	3,592	\$ 334.1	\$ 551.7	\$ 981.4
<i>Percent of Total CA Contribution</i>	<i>0.8%</i>	<i>0.8%</i>	<i>0.5%</i>	<i>0.4%</i>
<i>Percent of County Total</i>	<i>1.3%</i>	<i>2.5%</i>	<i>2.4%</i>	<i>2.4%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 257.3	\$ 79.9	\$ 337.3
Property taxes	33.0	-	33.0
Personal income taxes	8.2	23.2	31.4
Corporate profits taxes	2.0	8.5	10.6
Social insurance taxes	0.7	22.9	23.6
Other taxes	6.8	2.9	9.7
Fees, fines and permits	1.7	0.8	2.5
TOTAL TAX REVENUES	\$ 309.7	\$ 138.2	\$ 448.0

Source: Estimates by LAEDC

San Luis Obispo County

Exhibit 4-54

**Direct Activity of Oil and Gas Industry
San Luis Obispo County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	126	\$ 6.4
213111	Drilling oil and gas wells	8	0.3
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	262	39.0
23712	Oil and gas pipeline construction	314	19.1
32411	Petroleum refineries	152	40.5
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	93	10.4
4247	Petroleum and petroleum prods wholesalers	85	24.8
447	Gasoline stations	539	43.6
45431	Fuel dealers	79	1.6
486	Pipeline transportation	27	1.8
TOTAL DIRECT ACTIVITY		1,685	\$ 167.4

Exhibit 4-55

**Total Economic and Fiscal Contribution of Oil and Gas Industry
San Luis Obispo County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	1,685	\$ 167.4	\$ 733.4	\$ 2,215.3
Indirect	754	32.4	60.0	95.3
Induced	875	33.2	70.3	102.8
TOTAL CONTRIBUTION	3,314	\$ 233.1	\$ 863.7	\$ 2,413.4
<i>Percent of Total CA Contribution</i>	<i>0.7%</i>	<i>0.6%</i>	<i>0.8%</i>	<i>0.9%</i>
<i>Percent of County Total</i>	<i>2.2%</i>	<i>3.3%</i>	<i>6.2%</i>	<i>10.4%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 110.1	\$ 32.6	\$ 142.7
Property taxes	26.7	-	26.7
Personal income taxes	5.4	15.3	20.7
Corporate profits taxes	8.7	36.6	45.4
Social insurance taxes	1.0	21.0	22.0
Other taxes	5.5	3.0	8.4
Fees, fines and permits	1.2	0.8	2.0
TOTAL TAX REVENUES	\$ 158.6	\$ 109.4	\$ 268.0

Source: Estimates by LAEDC

San Mateo County

Exhibit 4-56
Direct Activity of Oil and Gas Industry
San Mateo County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	125	\$ 5.9
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	18	2.5
23712	Oil and gas pipeline construction	19	1.8
32411	Petroleum refineries	16	7.8
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	4	0.5
4247	Petroleum and petroleum prods wholesalers	28	3.1
447	Gasoline stations	1,221	96.6
45431	Fuel dealers	3	0.2
486	Pipeline transportation	8	0.8
TOTAL DIRECT ACTIVITY		1,442	\$ 119.1

Exhibit 4-57
Total Economic and Fiscal Contribution of Oil and Gas Industry
San Mateo County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	1,442	\$ 119.1	\$ 223.4	\$ 410.4
Indirect	169	12.8	20.1	28.0
Induced	249	14.6	25.8	35.9
TOTAL CONTRIBUTION	1,860	\$ 146.6	\$ 269.3	\$ 474.3
<i>Percent of Total CA Contribution</i>	<i>0.4%</i>	<i>0.4%</i>	<i>0.2%</i>	<i>0.2%</i>
<i>Percent of County Total</i>	<i>0.4%</i>	<i>0.3%</i>	<i>0.4%</i>	<i>0.4%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 220.9	\$ 61.0	\$ 281.9
Property taxes	17.1	-	17.1
Personal income taxes	3.7	10.4	14.0
Corporate profits taxes	1.2	5.2	6.4
Social insurance taxes	0.1	9.8	9.8
Other taxes	3.5	1.1	4.6
Fees, fines and permits	0.8	0.3	1.1
TOTAL TAX REVENUES	\$ 247.2	\$ 87.7	\$ 334.9

Source: Estimates by LAEDC

Santa Barbara County

Exhibit 4-58**Direct Activity of Oil and Gas Industry
Santa Barbara County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	1,386	\$ 95.7
213111	Drilling oil and gas wells	184	22.8
213112	Support activities for oil and gas operations	530	51.7
2212	Natural gas distribution	230	25.2
23712	Oil and gas pipeline construction	45	2.9
32411	Petroleum refineries	4	1.4
324191	Petroleum lubricating oil and grease mfg	3	0.3
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	115	11.3
4247	Petroleum and petroleum prods wholesalers	36	2.9
447	Gasoline stations	829	84.0
45431	Fuel dealers	40	1.1
486	Pipeline transportation	13	50.3
TOTAL DIRECT ACTIVITY		3,414	\$ 349.5

Exhibit 4-59**Total Economic and Fiscal Contribution of Oil and Gas Industry
Santa Barbara County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	3,414	\$ 349.5	\$ 933.9	\$ 1,502.3
Indirect	1,253	76.6	129.2	200.9
Induced	1,674	75.9	141.5	204.7
TOTAL CONTRIBUTION	6,341	\$ 502.0	\$ 1,204.6	\$ 1,907.9
<i>Percent of Total CA Contribution</i>	1.4%	1.3%	1.1%	0.7%
<i>Percent of County Total</i>	2.5%	3.6%	5.3%	5.4%

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 163.6	\$ 41.2	\$ 204.7
Property taxes	48.6	-	48.6
Personal income taxes	13.1	37.1	50.1
Corporate profits taxes	8.5	35.9	44.5
Social insurance taxes	1.6	41.8	43.4
Other taxes	10.1	3.3	13.4
Fees, fines and permits	2.6	0.9	3.5
TOTAL TAX REVENUES	\$ 248.1	\$ 160.2	\$ 408.3

Source: Estimates by LAEDC

Santa Clara County

Exhibit 4-60

Direct Activity of Oil and Gas Industry Santa Clara County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	415	\$ 16.7
213111	Drilling oil and gas wells	11	1.0
213112	Support activities for oil and gas operations	95	6.7
2212	Natural gas distribution	37	10.3
23712	Oil and gas pipeline construction	66	5.7
32411	Petroleum refineries	40	37.0
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	16	1.6
4247	Petroleum and petroleum prods wholesalers	346	46.2
447	Gasoline stations	2,009	112.8
45431	Fuel dealers	36	4.3
486	Pipeline transportation	5	0.3
TOTAL DIRECT ACTIVITY		3,076	\$ 242.6

Exhibit 4-61

Total Economic and Fiscal Contribution of Oil and Gas Industry Santa Clara County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	3,076	\$ 242.6	\$ 608.4	\$ 1,091.8
Indirect	532	44.9	70.5	99.2
Induced	689	41.2	70.4	98.3
TOTAL CONTRIBUTION	4,297	\$ 328.7	\$ 749.3	\$ 1,289.3
<i>Percent of Total CA Contribution</i>	<i>0.9%</i>	<i>0.8%</i>	<i>0.7%</i>	<i>0.5%</i>
<i>Percent of County Total</i>	<i>0.4%</i>	<i>0.3%</i>	<i>0.4%</i>	<i>0.4%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 508.7	\$ 140.2	\$ 648.9
Property taxes	38.4	-	38.4
Personal income taxes	8.0	22.7	30.7
Corporate profits taxes	5.0	21.2	26.2
Social insurance taxes	0.3	23.6	23.9
Other taxes	7.9	2.5	10.3
Fees, fines and permits	1.7	0.7	2.4
TOTAL TAX REVENUES	\$ 570.1	\$ 210.8	\$ 780.8

Source: Estimates by LAEDC

Shasta County

Exhibit 4-62**Direct Activity of Oil and Gas Industry
Shasta County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	61	\$ 1.7
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	363	61.2
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	71	3.7
447	Gasoline stations	556	43.2
45431	Fuel dealers	42	1.0
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		1,093	\$ 110.8

Exhibit 4-63**Total Economic and Fiscal Contribution of Oil and Gas Industry
Shasta County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	1,093	\$ 110.8	\$ 221.3	\$ 507.7
Indirect	204	7.8	17.5	27.0
Induced	628	24.0	47.9	71.1
TOTAL CONTRIBUTION	1,925	\$ 142.6	\$ 286.7	\$ 605.9
<i>Percent of Total CA Contribution</i>	<i>0.4%</i>	<i>0.4%</i>	<i>0.3%</i>	<i>0.2%</i>
<i>Percent of County Total</i>	<i>2.3%</i>	<i>3.9%</i>	<i>4.6%</i>	<i>6.1%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 86.1	\$ 24.6	\$ 110.6
Property taxes	21.7	-	21.7
Personal income taxes	3.2	9.1	12.3
Corporate profits taxes	1.4	5.7	7.1
Social insurance taxes	0.5	13.1	13.6
Other taxes	4.4	1.8	6.1
Fees, fines and permits	0.8	0.5	1.3
TOTAL TAX REVENUES	\$ 118.0	\$ 54.7	\$ 172.7

Source: Estimates by LAEDC

Solano County

Exhibit 4-64

**Direct Activity of Oil and Gas Industry
Solano County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	70	\$ 3.8
213111	Drilling oil and gas wells	191	15.3
213112	Support activities for oil and gas operations	12	0.8
2212	Natural gas distribution	536	101.5
23712	Oil and gas pipeline construction	407	31.3
32411	Petroleum refineries	570	176.6
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	9	0.8
4247	Petroleum and petroleum prods wholesalers	107	7.4
447	Gasoline stations	836	43.5
45431	Fuel dealers	27	0.5
486	Pipeline transportation	30	2.7
TOTAL DIRECT ACTIVITY		2,794	\$ 384.2

Exhibit 4-65

**Total Economic and Fiscal Contribution of Oil and Gas Industry
Solano County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	2,794	\$ 384.2	\$ 2,278.1	\$ 7,204.3
Indirect	1,207	58.3	100.0	158.4
Induced	1,687	68.2	139.7	203.7
TOTAL CONTRIBUTION	5,688	\$ 510.7	\$ 2,517.8	\$ 7,566.5
<i>Percent of Total CA Contribution</i>	<i>1.2%</i>	<i>1.3%</i>	<i>2.2%</i>	<i>2.9%</i>
<i>Percent of County Total</i>	<i>3.4%</i>	<i>5.3%</i>	<i>13.7%</i>	<i>22.2%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 201.8	\$ 52.6	\$ 254.2
Property taxes	57.9	-	57.9
Personal income taxes	12.9	36.6	49.5
Corporate profits taxes	29.0	122.1	151.2
Social insurance taxes	1.8	49.3	51.1
Other taxes	11.9	4.2	16.1
Fees, fines and permits	2.7	1.2	3.9
TOTAL TAX REVENUES	\$ 317.9	\$ 266.1	\$ 584.0

Source: Estimates by LAEDC

Sonoma County

Exhibit 4-66**Direct Activity of Oil and Gas Industry
Sonoma County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	119	\$ 3.8
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	1,059	145.3
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	113	8.6
447	Gasoline stations	789	49.8
45431	Fuel dealers	85	2.3
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		2,165	\$ 209.8

Exhibit 4-67**Total Economic and Fiscal Contribution of Oil and Gas Industry
Sonoma County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	2,165	\$ 209.8	\$ 486.6	\$ 1,292.5
Indirect	481	22.7	44.2	66.0
Induced	1,043	44.1	85.5	126.7
TOTAL CONTRIBUTION	3,688	\$ 276.5	\$ 616.3	\$ 1,485.2
<i>Percent of Total CA Contribution</i>	<i>0.8%</i>	<i>0.7%</i>	<i>0.5%</i>	<i>0.6%</i>
<i>Percent of County Total</i>	<i>1.4%</i>	<i>2.1%</i>	<i>2.7%</i>	<i>3.8%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 182.1	\$ 48.7	\$ 230.8
Property taxes	49.7	-	49.7
Personal income taxes	7.0	19.8	26.8
Corporate profits taxes	3.2	13.6	16.9
Social insurance taxes	0.8	26.3	27.1
Other taxes	10.0	4.4	14.4
Fees, fines and permits	1.8	1.3	3.0
TOTAL TAX REVENUES	\$ 254.6	\$ 114.1	\$ 368.7

Source: Estimates by LAEDC

Stanislaus County

Exhibit 4-68**Direct Activity of Oil and Gas Industry
Stanislaus County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	11	\$ 0.3
213111	Drilling oil and gas wells	6	0.3
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	288	49.7
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	2	2.3
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	304	20.2
447	Gasoline stations	758	44.9
45431	Fuel dealers	68	0.9
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		1,436	\$ 118.7

Exhibit 4-69**Total Economic and Fiscal Contribution of Oil and Gas Industry
Stanislaus County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	1,436	\$ 118.7	\$ 224.0	\$ 506.6
Indirect	241	9.7	19.8	29.1
Induced	585	23.7	47.3	69.1
TOTAL CONTRIBUTION	2,262	\$ 152.0	\$ 311.1	\$ 604.8
<i>Percent of Total CA Contribution</i>	<i>0.5%</i>	<i>0.4%</i>	<i>0.3%</i>	<i>0.2%</i>
<i>Percent of County Total</i>	<i>1.1%</i>	<i>1.4%</i>	<i>1.7%</i>	<i>1.8%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 163.0	\$ 48.0	\$ 211.0
Property taxes	24.1	-	24.1
Personal income taxes	3.7	10.6	14.3
Corporate profits taxes	1.5	6.3	7.8
Social insurance taxes	0.5	13.3	13.8
Other taxes	4.9	2.0	6.8
Fees, fines and permits	0.9	0.6	1.5
TOTAL TAX REVENUES	\$ 198.6	\$ 80.6	\$ 279.2

Source: Estimates by LAEDC

Sutter County

Exhibit 4-70**Direct Activity of Oil and Gas Industry
Sutter County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	156	\$ 11.3
213111	Drilling oil and gas wells	18	1.8
213112	Support activities for oil and gas operations	64	5.0
2212	Natural gas distribution	-	-
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	11	0.9
447	Gasoline stations	173	30.4
45431	Fuel dealers	14	0.2
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		435	\$ 49.5

Exhibit 4-71**Total Economic and Fiscal Contribution of Oil and Gas Industry
Sutter County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	435	\$ 49.5	\$ 112.4	\$ 149.6
Indirect	125	4.8	9.3	16.6
Induced	242	8.4	17.8	26.6
TOTAL CONTRIBUTION	802	\$ 62.7	\$ 139.4	\$ 192.7
<i>Percent of Total CA Contribution</i>	<i>0.2%</i>	<i>0.2%</i>	<i>0.1%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>1.9%</i>	<i>3.5%</i>	<i>4.6%</i>	<i>3.6%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 32.1	\$ 9.2	\$ 41.3
Property taxes	5.7	-	5.7
Personal income taxes	1.6	4.5	6.0
Corporate profits taxes	1.0	4.1	5.0
Social insurance taxes	0.1	4.7	4.9
Other taxes	1.2	0.4	1.6
Fees, fines and permits	0.3	0.1	0.4
TOTAL TAX REVENUES	\$ 42.0	\$ 23.0	\$ 65.0

Source: Estimates by LAEDC

Tehama County

Exhibit 4-72**Direct Activity of Oil and Gas Industry
Tehama County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	98	\$ 2.2
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	109	19.7
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	25	1.1
447	Gasoline stations	312	18.3
45431	Fuel dealers	36	0.8
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		580	\$ 42.1

Exhibit 4-73**Total Economic and Fiscal Contribution of Oil and Gas Industry
Tehama County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	580	\$ 42.1	\$ 86.6	\$ 186.2
Indirect	69	2.4	4.6	8.0
Induced	118	3.9	9.3	14.0
TOTAL CONTRIBUTION	767	\$ 48.4	\$ 100.4	\$ 208.2
<i>Percent of Total CA Contribution</i>	<i>0.2%</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>
<i>Percent of County Total</i>	<i>3.3%</i>	<i>5.1%</i>	<i>6.3%</i>	<i>6.9%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 39.9	\$ 14.0	\$ 53.9
Property taxes	9.4	-	9.4
Personal income taxes	0.9	2.6	3.5
Corporate profits taxes	0.4	1.8	2.2
Social insurance taxes	0.2	4.5	4.7
Other taxes	1.9	0.6	2.5
Fees, fines and permits	0.3	0.2	0.5
TOTAL TAX REVENUES	\$ 53.1	\$ 23.7	\$ 76.8

Source: Estimates by LAEDC

Tulare County

Exhibit 4-74**Direct Activity of Oil and Gas Industry
Tulare County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	40	\$ 1.8
213111	Drilling oil and gas wells	24	0.5
213112	Support activities for oil and gas operations	-	-
2212	Natural gas distribution	347	45.1
23712	Oil and gas pipeline construction	21	1.1
32411	Petroleum refineries	5	1.8
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	219	14.9
447	Gasoline stations	793	103
45431	Fuel dealers	19	0.2
486	Pipeline transportation	1	107.9
TOTAL DIRECT ACTIVITY		1,469	\$ 276.0

Exhibit 4-75**Total Economic and Fiscal Contribution of Oil and Gas Industry
Tulare County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	1,469	\$ 276.0	\$ 419.7	\$ 758.9
Indirect	239	9.5	16.1	25.5
Induced	942	31.8	69.3	102.7
TOTAL CONTRIBUTION	2,650	\$ 317.3	\$ 505.1	\$ 887.2
<i>Percent of Total CA Contribution</i>	<i>0.6%</i>	<i>0.8%</i>	<i>0.4%</i>	<i>0.3%</i>
<i>Percent of County Total</i>	<i>1.4%</i>	<i>3.6%</i>	<i>3.7%</i>	<i>3.3%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 130.6	\$ 36.1	\$ 166.7
Property taxes	27.4	-	27.4
Personal income taxes	8.0	22.6	30.5
Corporate profits taxes	1.8	7.7	9.6
Social insurance taxes	0.7	19.2	19.9
Other taxes	5.7	1.7	7.4
Fees, fines and permits	1.5	0.5	2.0
TOTAL TAX REVENUES	\$ 175.8	\$ 87.8	\$ 263.6

Source: Estimates by LAEDC

Ventura County

Exhibit 4-76

Direct Activity of Oil and Gas Industry Ventura County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	4,820	\$ 274.0
213111	Drilling oil and gas wells	309	42.6
213112	Support activities for oil and gas operations	280	23.4
2212	Natural gas distribution	569	57.1
23712	Oil and gas pipeline construction	68	3.9
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	148	14.0
4247	Petroleum and petroleum prods wholesalers	123	11.3
447	Gasoline stations	1,005	57.0
45431	Fuel dealers	50	1.3
486	Pipeline transportation	4	0.5
TOTAL DIRECT ACTIVITY		7,375	\$ 484.9

Exhibit 4-77

Total Economic and Fiscal Contribution of Oil and Gas Industry Ventura County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	7,375	\$ 484.9	\$ 2,266.6	\$ 3,549.3
Indirect	2,709	153.1	268.8	426.6
Induced	2,385	101.4	200.4	289.9
TOTAL CONTRIBUTION	12,469	\$ 739.5	\$ 2,735.7	\$ 4,265.8
<i>Percent of Total CA Contribution</i>	2.7%	1.9%	2.4%	1.6%
<i>Percent of County Total</i>	3.0%	3.1%	6.5%	6.9%

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 335.6	\$ 85.1	\$ 420.7
Property taxes	121.6	-	121.6
Personal income taxes	20.2	57.3	77.5
Corporate profits taxes	26.2	110.4	136.6
Social insurance taxes	1.6	63.7	65.3
Other taxes	24.6	9.2	33.9
Fees, fines and permits	4.7	2.6	7.4
TOTAL TAX REVENUES	\$ 534.5	\$ 328.4	\$ 862.9

Source: Estimates by LAEDC

Yolo County

Exhibit 4-78**Direct Activity of Oil and Gas Industry
Yolo County 2012**

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	112	\$ 3.6
213111	Drilling oil and gas wells	9	0.6
213112	Support activities for oil and gas operations	93	4.9
2212	Natural gas distribution	3	0.4
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	179	21.6
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	83	5.0
4247	Petroleum and petroleum prods wholesalers	93	6.4
447	Gasoline stations	335	29.0
45431	Fuel dealers	13	0.3
486	Pipeline transportation	7	0.8
TOTAL DIRECT ACTIVITY		928	\$ 72.6

Exhibit 4-79**Total Economic and Fiscal Contribution of Oil and Gas Industry
Yolo County 2012**

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	928	\$ 72.6	\$ 389.1	\$ 631.4
Indirect	341	18.0	27.9	46.8
Induced	274	11.2	23.2	34.3
TOTAL CONTRIBUTION	1,543	\$ 101.9	\$ 440.2	\$ 712.5
<i>Percent of Total CA Contribution</i>	<i>0.3%</i>	<i>0.3%</i>	<i>0.4%</i>	<i>0.3%</i>
<i>Percent of County Total</i>	<i>1.3%</i>	<i>1.5%</i>	<i>4.3%</i>	<i>4.3%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 74.5	\$ 23.9	\$ 98.4
Property taxes	9.9	-	9.9
Personal income taxes	2.2	6.2	8.4
Corporate profits taxes	4.9	20.5	25.4
Social insurance taxes	0.8	7.7	8.4
Other taxes	2.0	0.8	2.9
Fees, fines and permits	0.5	0.2	0.7
TOTAL TAX REVENUES	\$ 94.8	\$ 59.3	\$ 154.1

Source: Estimates by LAEDC

Yuba County

Exhibit 4-80
Direct Activity of Oil and Gas Industry
Yuba County 2012

		Employment	Labor Income (\$ millions)
211	Oil and gas extraction	3	\$ 0.1
213111	Drilling oil and gas wells	-	-
213112	Support activities for oil and gas operations	10	0.2
2212	Natural gas distribution	14	3.4
23712	Oil and gas pipeline construction	-	-
32411	Petroleum refineries	-	-
324191	Petroleum lubricating oil and grease mfg	-	-
32511	Petrochemical manufacturing	-	-
333132	Oil and gas field machinery and eqmt mfg	-	-
4247	Petroleum and petroleum prods wholesalers	35	2.9
447	Gasoline stations	132	10.2
45431	Fuel dealers	13	0.4
486	Pipeline transportation	-	-
TOTAL DIRECT ACTIVITY		206	\$ 17.2

Exhibit 4-81
Total Economic and Fiscal Contribution of Oil and Gas Industry
Yuba County 2012

ECONOMIC CONTRIBUTION	Employment	Labor Income (\$ millions)	Value Added (\$ millions)	Output (\$ millions)
Direct	206	\$ 17.2	\$ 29.0	\$ 45.7
Indirect	20	0.9	1.5	2.4
Induced	40	1.7	3.7	5.4
TOTAL CONTRIBUTION	266	\$ 19.8	\$ 34.1	\$ 53.5
<i>Percent of Total CA Contribution</i>	<i>0.1%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>
<i>Percent of County Total</i>	<i>1.0%</i>	<i>1.1%</i>	<i>1.3%</i>	<i>1.5%</i>

FISCAL CONTRIBUTION	State and Local (\$ millions)	Federal (\$ millions)	Total Taxes (\$ millions)
Sales and excise taxes	\$ 20.2	\$ 5.8	\$ 26.0
Property taxes	2.7	-	2.7
Personal income taxes	0.4	1.2	1.6
Corporate profits taxes	0.1	0.5	0.6
Social insurance taxes	0.1	1.2	1.3
Other taxes	0.5	0.1	0.7
Fees, fines and permits	0.1	0.0	0.1
TOTAL TAX REVENUES	\$ 24.2	\$ 8.9	\$ 33.1

Source: Estimates by LAEDC

Appendix

Oil and Gas Industries

NAICS 211: Oil and gas extraction

Establishments within this industry subsector operate and/or develop oil and gas field properties, either on their own account or for others on a contract or fee basis. Activities 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.

NAICS 213111: Drilling oil and gas wells

Establishments in this U.S. industry are primarily engaged in drilling oil and gas wells for others on a contract or fee basis. This industry includes contractors that specialize in spudding in, drilling in, re-drilling, and directional drilling.

NAICS 213112: Support activities for oil and gas operations

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

NAICS 2212: Natural gas distribution

Establishments in this industry are: primarily engaged in: operating gas distribution systems (e.g., mains, meters); known as gas marketers that buy gas from the well and sell it to a distribution system; known as gas brokers or agents that arrange the sale of gas over gas distribution systems operated by others; and those primarily engaged in transmitting and distributing gas to

final consumers. Only privately owned establishments are included in this report.

NAICS 23712: Oil and gas pipeline and related structures construction

Establishments in this industry include those 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 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 industry.

NAICS 32411: Petroleum refineries

Establishments in this industry are primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities: (1) fractionation; (2) straight distillation of crude oil; and (3) cracking.

NAICS 324191: Petroleum lubricating oil and grease manufacturing

Establishments in this U.S. industry are primarily engaged in blending or compounding refined petroleum to make lubricating oils and greases and/or re-refining used petroleum lubricating oils.

NAICS 32511: Petrochemical manufacturing

Establishments in this industry are primarily engaged in manufacturing acyclic (i.e., aliphatic) hydrocarbons such as ethylene, propylene, and butylenes made from refined petroleum or liquid hydrocarbons and/or manufacturing cyclic aromatic hydrocarbons such as benzene, toluene, styrene, xylene, ethyl benzene, and cumene made from refined petroleum or liquid hydrocarbons.

NAICS 333132: Oil and gas field machinery and equipment manufacturing

This U.S. industry is comprised of establishments primarily engaged in (1) manufacturing oil and gas field machinery and equipment, such as oil and gas field drilling machinery and equipment; oil and gas field production machinery and equipment; and oil and gas

field derricks and (2) manufacturing water well drilling machinery.

NAICS 4247: Petroleum and petroleum products merchant wholesalers

Establishments in this industry group are primarily engaged in the Petroleum Bulk Stations and Terminals industry, with bulk liquid storage facilities primarily engaged in the merchant wholesale distribution of crude, petroleum and petroleum products, including liquefied petroleum gas, or the Petroleum and Petroleum Products Merchant Wholesalers industry, the merchant wholesale distribution of petroleum and petroleum products (except from bulk liquid storage facilities).

NAICS 447: Gasoline stations

Establishments in this subsector retail automotive fuels (e.g., gasoline, diesel fuel, gasohol, alternative fuels) and automotive oils or retail these products in combination with convenience store items. These establishments have specialized equipment for the storage and dispensing of automotive fuels.

NAICS 45431: Fuel dealers

Establishments in this industry are primarily engaged in retailing heating oil, liquefied petroleum (LP) gas, and other fuels via direct selling.

NAICS 486: Pipeline transportation

Industries in this subsector use transmission pipelines to transport products, such as crude oil, natural gas, refined petroleum products, and slurry. Industries are identified based on the products transported (i.e., pipeline transportation of crude oil, natural gas, refined petroleum products, and other products). The Pipeline Transportation of Natural Gas industry 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. ❖

Description of NAICS Industry Sectors

The industry sectors used in this report are established by the North American Industry Classification System (NAICS). NAICS divides the economy into twenty sectors, and groups industries within these sectors according to production criteria. Listed below is a short description of each sector as taken from the sourcebook, *North American Industry Classification System*, published by the U.S. Office of Management and Budget (2012).

Agriculture, Forestry, Fishing and Hunting: Activities of this sector are growing crops, raising animals, harvesting timber, and harvesting fish and other animals from farms, ranches, or the animals' natural habitats.

Mining: Activities of this sector are extracting naturally-occurring mineral solids, such as coal and ore; liquid minerals, such as crude petroleum; and gases, such as natural gas; and beneficiating (e.g., crushing, screening, washing and flotation) and other preparation at the mine site, or as part of mining activity.

Utilities: Activities of this sector are generating, transmitting, and/or distributing electricity, gas, steam, and water and removing sewage through a permanent infrastructure of lines, mains, and pipes.

Construction: Activities of this sector are erecting buildings and other structures (including additions); heavy construction other than buildings; and alterations, reconstruction, installation, and maintenance and repairs.

Manufacturing: Activities of this sector are the mechanical, physical, or chemical transformation of material, substances, or components into new products.

Wholesale Trade: Activities of this sector are selling or arranging for the purchase or sale of goods for resale; capital or durable non-consumer goods; and raw and intermediate materials and supplies used in production, and providing services incidental to the sale of the merchandise.

Retail Trade: Activities of this sector are retailing merchandise generally in small quantities to the general public and providing services incidental to the sale of the merchandise.

Transportation and Warehousing: Activities of this sector are providing transportation of passengers and cargo, warehousing and storing goods, scenic and sightseeing transportation, and supporting these activities.

Information: Activities of this sector are distributing information and cultural products, providing the means to transmit or distribute these products as data or communications, and processing data.

Finance and Insurance: Activities of this sector involve the creation, liquidation, or change of ownership of financial assets (financial transactions) and/or facilitating financial transactions.

Real Estate and Rental and Leasing: Activities of this sector are renting, leasing, or otherwise allowing the use of tangible or intangible assets (except copyrighted works), and providing related services.

Professional, Scientific, and Technical Services: Activities of this sector are performing professional, scientific, and technical services for the operations of other organizations.

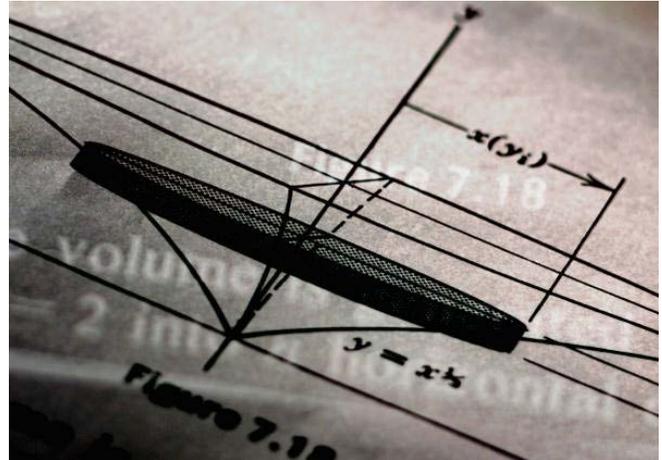
Management of Companies and Enterprises: Activities of this sector are the holding of securities of companies and enterprises, for the purpose of owning controlling interest or influencing their management decision, or administering, overseeing, and managing other establishments of the same company or enterprise and normally undertaking the strategic or organizational planning and decision-making of the company or enterprise.

Administrative and Support and Waste Management and Remediation Services: Activities of this sector are performing routine support activities for the day-to-day operations of other organizations, such as: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

Educational Services: Activities of this sector are providing instruction and training in a wide variety of subjects. Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home through correspondence, television, or other means.

Health Care and Social Assistance: Activities of this sector are operating or providing health care and social assistance for individuals.

Arts, Entertainment and Recreation: Activities of this sector are operating facilities or providing services to meet varied cultural, entertainment, and recreational interests of their patrons, such as: (1) producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) preserving and exhibiting objects and sites of historical, cultural, or educational interest; and (3) operating facilities or providing services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.



Accommodation and Food Services: Activities of this sector are providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.

Other Services (except Public Administration): Activities of this sector are providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grant-making, advocacy, and providing dry-cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services. ❖

Study Authors

Christine Cooper, Ph.D.

Vice President, Economic and Policy Analysis

Dr. Cooper leads the Economic and Policy Analysis Group whose work involves research in regional issues such as economic impact studies, regional industry analysis and forecasts, workforce development analysis, and issue studies related to the *L.A. County Strategic Plan for Economic Development*. Her fields of expertise include development economics, environmental economics, regional analysis and urban sustainability.

Prior to joining the LAEDC, Dr. Cooper was a co-founder of a start-up company in Hong Kong concentrating on equity transactions software and computer accessories manufacturing, which expanded production into the

special economic zone of Shenzhen, China and distributed products throughout the United States and Asia. With her business partner, she also established the first authorized Apple Computer retailer in China. She has been a lecturer at California State University, Long Beach and at the Pepperdine Graziadio School of Business and Management.

Dr. Cooper is a citizen of the United States and Canada. She earned a Bachelor of Arts in Economics from Carleton University in Ottawa, Canada, and a Ph.D. in Economics from the University of Southern California. With funding from the National Science Foundation, she earned a Graduate Certificate in Environmental Sciences, Policy and Engineering. Her current research includes industry cluster determination and performance in the regional economy, commuting and job allocation patterns, and workforce development issues.

Shannon M. Sedgwick

Associate Economist

In her current capacity as an Associate Economist at the LAEDC, Ms. Sedgwick develops subject-specific information and data interpretation for economic impact, demographic, transportation, industry and issue studies. She performs research, data collection and organization, analysis and report preparation. Her work focuses on demographics, industry clusters and workforce development in the form of occupational analysis. Ms. Sedgwick is also proficient at conducting geospatial analysis and has experience working with IMPLAN.

Ms. Sedgwick joined the LAEDC team in June of 2008 as an Economic Research Assistant for the Kyser Center for Economic Research. In that role she assisted both Economic Research and the Consulting Practice of the LAEDC with data collection and research, managing multiple data sets covering the State of California, Southern California, its counties and their sub-regions. In addition to writing sections of LAEDC's Economic Forecasts, she was responsible for the *Business Scan* containing a collection of Los Angeles County economic indicators; the annual *L.A. Stats*, containing the most frequently requested statistics for Los Angeles and its surrounding counties; and was a regular contributor to the weekly economic newsletter, *e-Edge*.

Before joining the LAEDC, Ms. Sedgwick managed an industrial and steel supply company located in the Inland Empire. There she identified and targeted a diverse customer base, and analyzed product and

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A Southern California native, Ms. Sedgwick received her Bachelor of Arts in Economics from the University of Southern California (USC) with a minor in Architecture. She has been a member of the national and the Los Angeles Chapter of the National Association for Business Economics (NABE) since 2008.

Somjita Mitra, Ph.D.

Economist

Somjita Mitra joined the Economic and Policy Analysis Group as an Economist in June 2013. She is involved in planning, designing and conducting research and analysis for consulting clients and local businesses and governments, as well as for LAEDC's internal departments. Her focus is in regional analysis, economic impact studies and the industrial and occupational structure of local economies.

Before joining the LAEDC, Dr. Mitra was an Economist for a local economic research and litigation consulting company evaluating economic damages, estimating lost profits, identifying key economic issues and developing necessary analytical and empirical frameworks. Prior to this, Dr. Mitra was a Project Director for a consumer research firm in Los Angeles where she managed projects that identified and analyzed key market issues for small, local firms as well as multinational corporations.

Dr. Mitra received her Bachelor of Arts in Economics and Political Science from the University of California, Los Angeles and her Master of Arts in Politics, Economics and Business as well as her Ph.D. in Economics from Claremont Graduate University. Dr. Mitra enjoys volunteering in the local community and is actively involved in both women's welfare and animal rescue organizations. ❖

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