



GOVERNOR'S COUNCIL FOR WORKFORCE AND ECONOMIC DEVELOPMENT

EDUCATION

ECONOMIC DEVELOPMENT

EMPLOYMENT

STATE OF OKLAHOMA

2005 OIL & GAS CLUSTER ANALYSIS

DEFINITION OF INDUSTRY

The oil and gas industry consists of exploration and extraction, transmission and distribution of oil and natural gas, manufacturing of drilling and pumping machinery and equipment, field production machinery and derricks, and support services such as well surveying, cementing wells, acidizing and chemically treating wells.

SIGNIFICANCE AND HIGHLIGHTS

Oklahoma's oil and gas industry consists of over 3,000 establishments accounting for over 3% of the state's total employment. The majority (94%) of those establishments are small-sized (less than 50 employees), followed by medium-sized establishments (5%) and large-sized establishments (less than 1%). The distribution of employment among the three types of establishments is as follows: 27% of those employed in the industry work in small-sized establishments; 41% work in medium-sized establishments; and 31% work in large-sized establishments. Total employment in the industry increased by almost 6% between 2002 and 2004. The state's location quotient for the industry in 2004 increased by 19% from 4.4 in 2002 to 5.25 in 2004.

DATA SOURCES

Data used for this analysis was obtained from the Oklahoma Employment Security Commission and included filings of Oklahoma employers as of March 2004.

CLUSTER STATISTICS

Employer Units	3,129
Number of Jobs	44,561
Percent of Total Oklahoma Employment	3.15%
Net Employment Change between 2002 and 2004	5.6%
Average Annual Wages	\$69,492
Location Quotient	5.25
Change in Location Quotient 2002-2004	+19%

TOP FIVE INDUSTRIES IN THE OIL & GAS CLUSTER

The top five industry segments employ 37,416 or 88% of a total of 44,561 employees in the industry.

NAICS	Industry	Employment	Percent of Cluster
211111	Crude Petroleum and Natural Gas Extraction	13,733	32.3%
213112	Support Activities for Oil and Gas Operations	11,110	26.1%
333132	Oil and Gas Field Machinery and Equipment Manufacturing	4,869	11.4%
221210	Natural Gas Distribution	4,418	10.4%
213111	Drilling Oil and Gas Wells	4,138	9.7%

(D) = Data suppressed for disclosure reasons.

TOP EMPLOYERS IN THE OIL & GAS CLUSTER

Company Name	Employee Range
Halliburton Energy Services, Inc.	1,000 - 5,000
Conoco Phillips Services, Inc.	1,000 - 5,000
ONEOK, Inc.	1,000 - 5,000
Oklahoma Gas and Electric Co.	1,000 - 5,000
Phillips Petroleum Company	1,000 - 5,000

INDUSTRY LOCATION QUOTIENTS

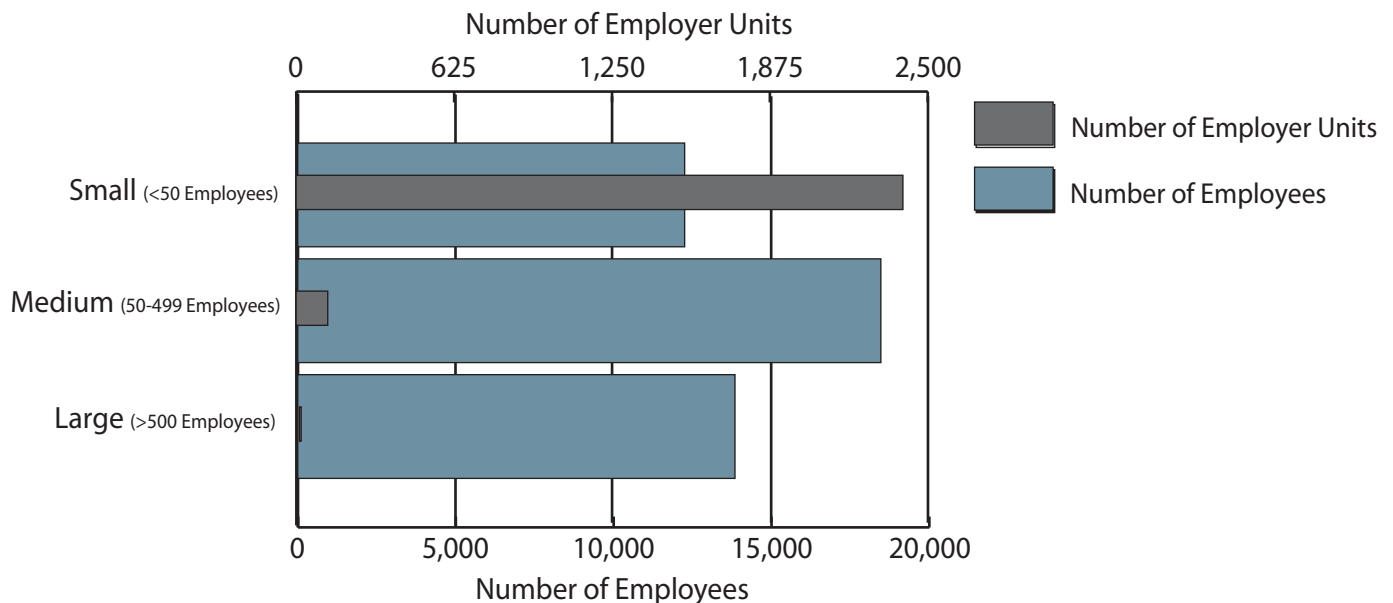
NAICS	Industry	Location Quotient	LQ Change
211111	Crude Petroleum and Natural Gas Extraction	11.72	-16.11%
333132	Oil and Gas Field Machinery and Equipment Manufacturing	11.61	-28.16%
324199	All Other Petroleum and Coal Products Manufacturing	10.77	53.86%
213112	Support Activities for Oil and Gas Operations	8.9	-7.39%
213111	Drilling Oil and Gas Wells	7.51	21.92%
221210	Natural Gas Distribution	3.67	-20.04%
211112	Natural Gas Liquid Extraction	3.49	-48.60%
237120	Oil and Gas Pipeline and Related Structures Construction	2.08	51.82%
324110	Petroleum Refineries	1.8	-28.85%

INDUSTRY LOCATION QUOTIENTS (CONTINUED)

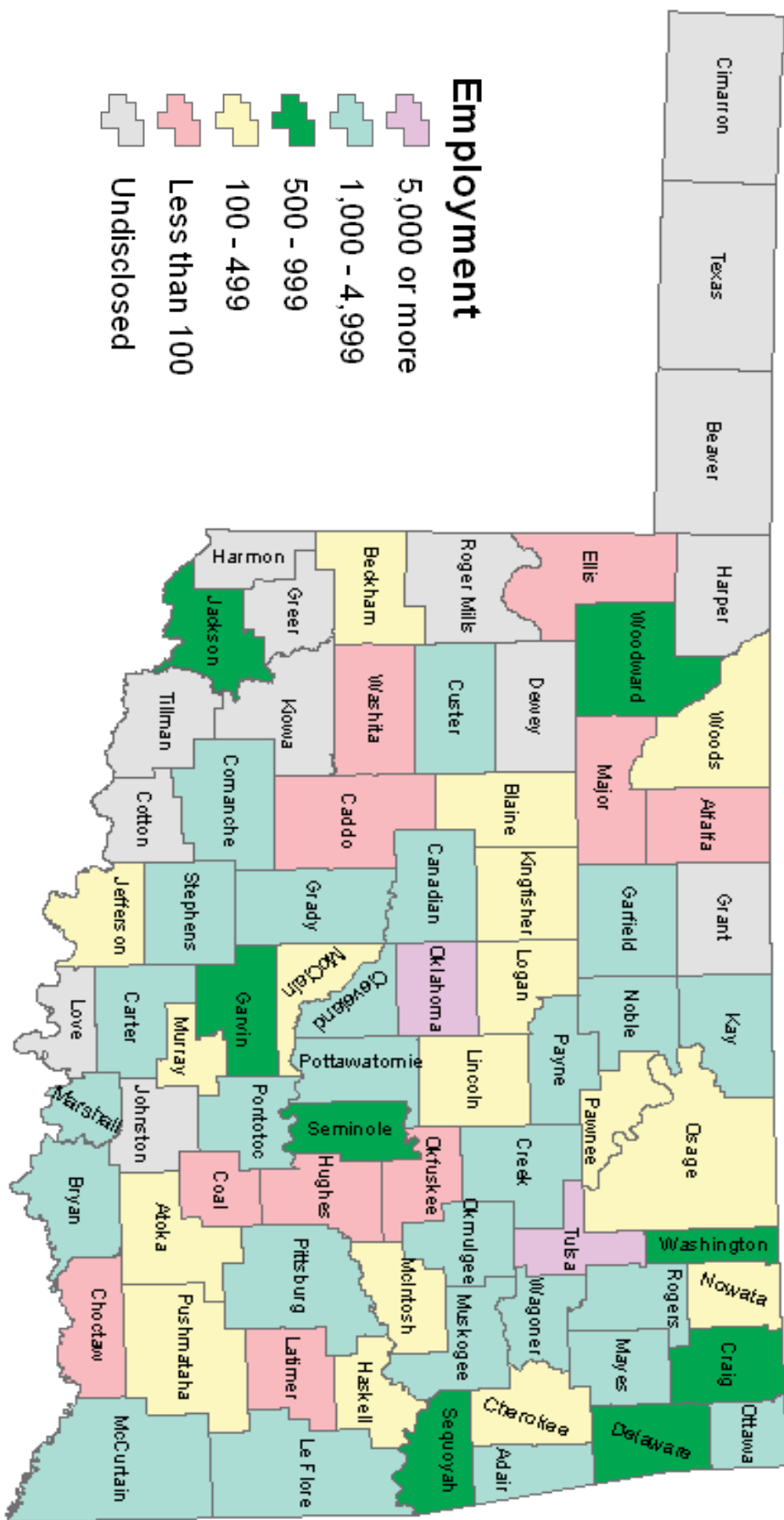
NAICS	Industry	Location Quotient	LQ Change
221112	Fossil Fuel Electric Power Generation	1.73	-31.08%
324191	Petroleum Lubricating Oil and Grease Manufacturing	1.4	15.70%
325120	Industrial Gas Manufacturing	0.37	15.63%
335311	Power, Distribution, and Specialty Transformer Manufacturing	0.15	36.36%

DISTRIBUTION OF EMPLOYER UNITS & JOBS BY EMPLOYER SIZE (MARCH 2004)

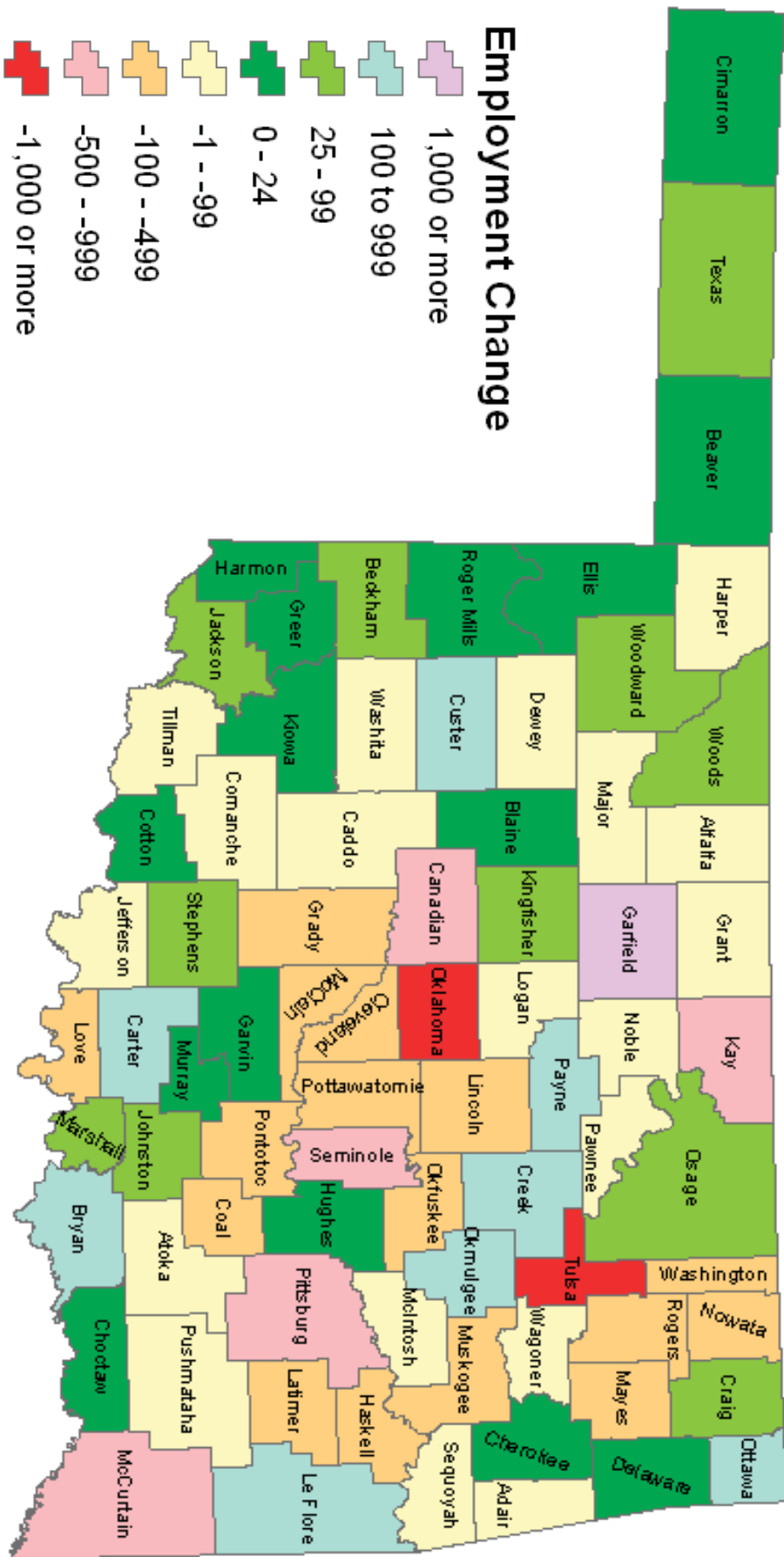
Range	Employer Units	Employees
Small (<50 employees)	2,401	12,253
Medium (50-500 employees)	127	18,458
Large (>500 employees)	9	13,845



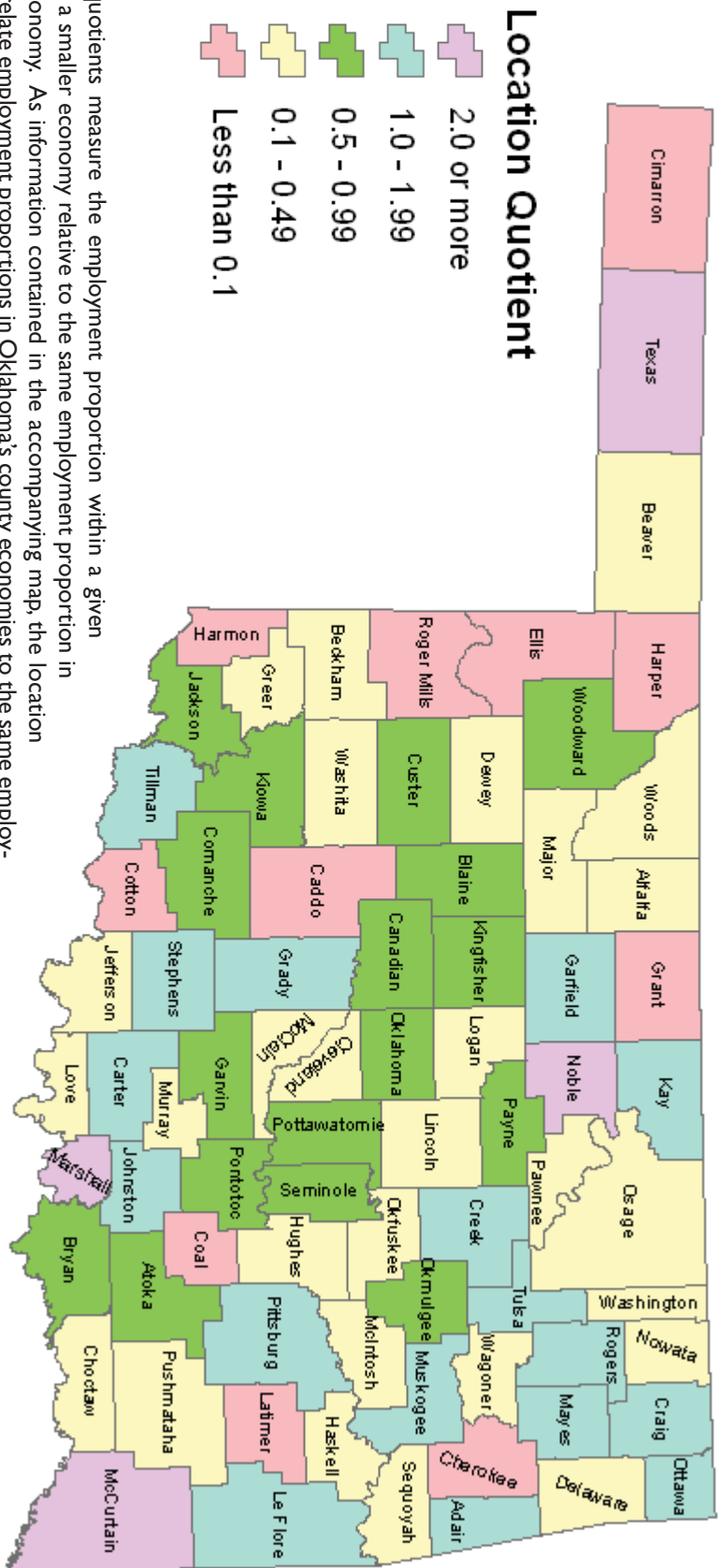
TOTAL OIL & GAS CLUSTER EMPLOYMENT BY COUNTY



OIL & GAS CLUSTER EMPLOYMENT CHANGE 2002-2004



OIL & GAS CLUSTER COUNTY LOCATION QUOTIENTS



Location quotients measure the employment proportion within a given industry in a smaller economy relative to the same employment proportion in a larger economy. As information contained in the accompanying map, the location quotients relate employment proportions in Oklahoma's county economies to the same employment proportion in the state economy. As information contained in the "Industry Location Quotients" table, total Oklahoma industry employment information was compared to total national industry employment data.

Location quotients greater than 1.0 indicate that employment in a given industry is more concentrated in the county economy when compared to the state economy. Conversely, location quotients less than 1.0 indicate that industry employment is less concentrated in the county economy when compared to the state economy. Location quotients equal to 1.0 indicate that the employment proportions within a given industry are equal in the county and the state economies.

In the Oil & Gas cluster, Oklahoma County's location quotient equals 4.06. This indicates that the proportion of people employed in the Oil & Gas cluster in Oklahoma County is 406% of the Oil & Gas employment proportion in the state as a whole. Conversely, Mayes County's location quotient equals 0.17, which indicates that the proportion of people employed in the Oil & Gas cluster in Mayes County is 17% of the Oil & Gas employment proportion in the state as a whole.

From the "Industry Location Quotients" table, the location quotient for the Crude Petroleum and Natural Gas Extraction (NAICS 211111) equaled 11.72 which indicates that the proportion of people employed in this industry in Oklahoma is 1,172% of the same national proportion

The most current national data available to compute location quotients is from the U.S. Bureau of Labor Statistics for 2004.

OIL & GAS INDUSTRIES

211111 **CRUDE PETROLEUM AND NATURAL GAS EXTRACTION.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN THE EXPLORATION, DEVELOPMENT, AND/OR PRODUCTION OF PETROLEUM OR NATURAL GAS.

211112 **NATURAL GAS LIQUID EXTRACTION.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN THE RECOVERY OF LIQUID HYDROCARBONS FROM OIL AND GAS FIELD GASES.

213111 **DRILLING OIL AND GAS WELLS.** THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN DRILLING OIL AND GAS WELLS FOR OTHERS ON A CONTRACT OR FEE BASIS.

213112 **SUPPORT ACTIVITIES FOR OIL AND GAS OPERATIONS.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN PERFORMING SUPPORT SERVICES SUCH AS EXPLORATION, WELL SURVEYING, CEMENTING WELLS, ACIDIZING AND CHEMICALLY TREATING WELLS, AND CLEANING OUT WELLS.

221112 **FOSSIL FUEL ELECTRIC POWER GENERATION.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN OPERATING FOSSIL FUEL POWERED ELECTRIC POWER GENERATION FACILITIES. THE ELECTRIC ENERGY PRODUCED IN THESE ESTABLISHMENTS IS SOLD TO ELECTRIC POWER TRANSMISSION SYSTEMS.

221210 **NATURAL GAS DISTRIBUTION.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN OPERATING GAS DISTRIBUTION SYSTEMS, AS WELL AS GAS MARKETERS, GAS BROKERS AND ESTABLISHMENTS ENGAGED IN TRANSMITTING GAS TO FINAL CONSUMERS.

237120 **OIL AND GAS PIPELINE AND RELATED STRUCTURES CONSTRUCTION.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN THE CONSTRUCTION OF OIL AND GAS LINES, MAINS, REFINERIES, AND STORAGE TANKS. THE WORK MAY INCLUDE NEW WORK, RECONSTRUCTION, REHABILITATION AND REPAIR.

324110 **PETROLEUM REFINERIES.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN REFINING CRUDE PETROLEUM INTO REFINED PETROLEUM. PETROLEUM REFINING INVOLVES ONE OR MORE OF THE FOLLOWING ACTIVITIES: FRACTIONATION, STRAIGHT DISTILLATION OF CRUDE OIL, AND CRACKING.

324191 **PETROLEUM LUBRICATING OIL AND GREASE MANUFACTURING.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS ENGAGED IN BLENDING OR COMPOUNDING REFINED PETROLEUM TO MAKE LUBRICATING OILS AND GREASES AND/OR REFINING USED PETROLEUM LUBRICATING OILS.

325110 **PETROCHEMICAL MANUFACTURING.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN MANUFACTURING ACYCLIC HYDROCARBONS SUCH AS ETHYLENE, PROPYLENE, AND BUTYLENES MADE FROM REFINED PETROLEUM.

325120 **INDUSTRIAL GAS MANUFACTURING.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN MANUFACTURING INDUSTRIAL ORGANIC AND INORGANIC GASES IN COMPRESSED, LIQUID AND SOLID FORMS.

324199 **ALL OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN MANUFACTURING PETROLEUM PRODUCTS (EXCEPT ASPHALT, PAVING, ROOFING, AND SATURATED MATERIALS AND LUBRICATING OILS AND GREASES) FROM REFINED PETROLEUM AND COAL PRODUCTS MADE IN COKE OVENS NOT INTEGRATED WITH A STEEL MILL.

333132 **OIL AND GAS FIELD MACHINERY AND EQUIPMENT MANUFACTURING.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN MANUFACTURING DRILLING MACHINERY AND EQUIPMENT, FIELD PRODUCTION MACHINERY AND EQUIPMENT, DERRICKS AND WATER WELL DRILLING MACHINERY.

335311 **POWER, DISTRIBUTION, AND SPECIALTY TRANSFORMER MANUFACTURING.**

THIS INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN MANUFACTURING POWER, DISTRIBUTION, AND SPECIALTY TRANSFORMERS (EXCEPT ELECTRONIC).