ECONOMIC OVERVIEW: THE OIL & GAS INDUSTRY in SOUTHERN CALIFORNIA

CHRISTINE COOPER, Ph.D.
LOS ANGELES COUNTY ECONOMIC DEVELOPMENT CORPORATION
How big are we?

USA
Largest Economy in the World $15.6 Trillion GDP

California
9th Largest Economy $2.05 Trillion GDP

Southern California
16th Largest Economy $937.6 Billion GDP

Los Angeles County
20th Largest Economy $577.5 Billion GDP
TOP 10: Crude Oil Production

Thousands of barrels

- Texas: 78,275
- North Dakota: 25,114
- California: 16,449
- Alaska: 15,977
- Oklahoma: 9,953
- New Mexico: 8,669
- Louisiana: 6,288
- Wyoming: 5,354
- Colorado: 4,883
- Kansas: 4,040

California ranks 3rd nationally
8.8% of US production
Top 10: Nat Gas Production

<table>
<thead>
<tr>
<th>State</th>
<th>Cubic feet in millions (Mmcf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>7,112,863</td>
</tr>
<tr>
<td>Louisiana</td>
<td>3,029,206</td>
</tr>
<tr>
<td>Wyoming</td>
<td>2,159,422</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>1,888,870</td>
</tr>
<tr>
<td>Colorado</td>
<td>1,637,576</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>1,310,592</td>
</tr>
<tr>
<td>New Mexico</td>
<td>1,237,303</td>
</tr>
<tr>
<td>Arkansas</td>
<td>1,072,212</td>
</tr>
<tr>
<td>Utah</td>
<td>457,525</td>
</tr>
<tr>
<td>West Virginia</td>
<td>394,125</td>
</tr>
<tr>
<td>California</td>
<td>250,177</td>
</tr>
</tbody>
</table>

California ranks 13th nationally
1.1% of US production
TOP 10: Refining Capacity

- **Texas**: 4,754,681
- **Louisiana**: 3,273,020
- **California**: 1,625,200
- **Illinois**: 930,100
- **Washington**: 631,700
- **Pennsylvania**: 595,000
- **Ohio**: 530,000
- **Oklahoma**: 508,700
- **New Jersey**: 468,000
- **Mississippi**: 364,000

California ranks 3rd nationally with 9.7% of US capacity.
Southern California
Los Angeles Metro Area
Los Angeles County
Orange County
Riverside County
San Bernardino County
Ventura County
Population: 21 Million

Southern California
Los Angeles Metro Area
San Diego County
Population: 21 Million

California
Population: 38 Million

LA County
be a state, it
d be larger
in 43 other
es in the U.S.
Petroleum Consumption

California ranks 2nd nationally
9.3% of US consumption
A Petroleum Consumption

California:
2.9 million barrels consumed in 2011

- Transportation: 545,146 barrels (84.8%)
- Industrial: 76,822 barrels (11.9%)
- Commercial: 10,765 barrels (1.7%)
- Residential: 8,274 barrels (1.3%)
- Electric Power: 1,912 barrels (0.3%)
Texas: 26 billion barrels consumed in 2011

Texas accounted for 45.0% of U.S. industrial petroleum consumption

- Transportation: 497,284 (39.6%)
- Industrial: 746,508 (59.4%)
- Commercial: 6,800 (0.5%)
- Residential: 4,935 (0.4%)
- Electric Power: 1,912 (0.3%)
### Domestic exports
- Industry: $53 billion (35.6%)
- Households: $24 billion (16.1%)
- Government: $4 billion (2.7%)
- Foreign exports: $17 billion (11.4%)
- Domestic exports: $53 billion (35.6%)

**California:**
- $150 billion in 2011

**A Refined Petrol Products**
California:

$51 billion in 2011

- Refineries: 33.4%
- Transportation & Warehousing: 19.7%
- Manufacturing: 10.7%
- Construction: 7.0%
- Natural Resources: 7.1%
- Buildings: 6.3%
- Government: 3.8%
- Utilities: 1.4%
- All Other: 10.7%
SoCal Industry Consumers

SoCal5: $17 billion in 2011

- Refineries: 25.2%
- Transportation & Warehousing: 24.5%
- Manufacturing: 15.0%
- Construction: 7.5%
- Nat Res: 2.2%
- Buildings: 7.0%
- Govt: 4.1%
- Utilities: 1.8%
- All Other: 12.8%
ANUFACTURING CENTERS

Salary Manufacturing Jobs (thousands) by Metro Area – 2012

- So Cal: LA-5 + SD: 733
- LA-5: 640
- Los Angeles County: 366
- NY-Northern NJ: 358
- DFW: 257
- Houston: 243
- Detroit: 219
- Boston: 194
- Seattle: 184
- Philadelphia: 183
- Minneapolis-St. Paul: 181
- Dallas MD: 167
- New York MD: 161
- Orange County: 158
- San Jose: 158
WHAT IS OIL & GAS?

- Extraction and drilling operations
- Field machinery manufacturing
- Pipeline construction and support
- Refineries
- Petrochemicals
- Natural gas distribution
- Wholesalers
A Oil & Gas Employment

Total Employment: 66,200

Southern California
- Los Angeles: 18,538 (19.4%)
- Orange County: 5,324 (5.6%)

Other California
- Kern: 13,810 (14.4%)

Contra Costa
- 13,131 (13.7%)

Ventura
- 1,593 (1.7%)

Riverside
- 935 (1.0%)

San Bernardino
- 3,002 (3.1%)

Barbara: 03 (0.0%)
## SoCal Oil & Gas Wages

### Southern California 2012

<table>
<thead>
<tr>
<th>Industry</th>
<th>Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and Gas Extraction</td>
<td>$200,000</td>
</tr>
<tr>
<td>Petroleum Refineries</td>
<td>$131,100</td>
</tr>
<tr>
<td>Drilling Oil and Gas Wells</td>
<td>$123,600</td>
</tr>
<tr>
<td>Pipeline Transportation</td>
<td>$105,700</td>
</tr>
<tr>
<td>Support Activities for Oil and Gas Operations</td>
<td>$87,300</td>
</tr>
<tr>
<td>Petroleum and Petroleum Products</td>
<td>$83,800</td>
</tr>
<tr>
<td>Petroleum Lubricating Oil and Grease</td>
<td>$75,400</td>
</tr>
<tr>
<td>Oil and Gas Field Machinery and Related</td>
<td>$70,100</td>
</tr>
<tr>
<td>Oil and Gas Pipeline and Related</td>
<td>$67,100</td>
</tr>
<tr>
<td>Total Private, All Industries</td>
<td>$51,700</td>
</tr>
<tr>
<td>Fuel Dealers</td>
<td>$47,700</td>
</tr>
</tbody>
</table>
## &G Industry Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Annual average wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executives</td>
<td>$222,830</td>
</tr>
<tr>
<td>Natural Sciences Managers</td>
<td>$184,230</td>
</tr>
<tr>
<td>Lawyers</td>
<td>$178,160</td>
</tr>
<tr>
<td>Engineering Managers</td>
<td>$171,450</td>
</tr>
<tr>
<td>Marketing Managers</td>
<td>$171,230</td>
</tr>
<tr>
<td>Petroleum Engineers</td>
<td>$161,050</td>
</tr>
<tr>
<td>Physicists</td>
<td>$160,960</td>
</tr>
<tr>
<td>Financial Managers</td>
<td>$151,670</td>
</tr>
<tr>
<td><strong>Annual Average Wage</strong></td>
<td><strong>$200,000</strong></td>
</tr>
<tr>
<td>Occupation</td>
<td>Annual average wage</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Lawyers</td>
<td>$ 207,370</td>
</tr>
<tr>
<td>Chief Executives</td>
<td>$ 198,690</td>
</tr>
<tr>
<td>Mining and Geological Engineers</td>
<td>$ 171,000</td>
</tr>
<tr>
<td>Engineering Managers</td>
<td>$ 167,950</td>
</tr>
<tr>
<td>Geoscientists</td>
<td>$ 155,830</td>
</tr>
<tr>
<td>Computer and Information Systems Managers</td>
<td>$ 154,060</td>
</tr>
<tr>
<td>General Manager</td>
<td>$ 140,820</td>
</tr>
<tr>
<td>Financial Managers</td>
<td>$ 138,890</td>
</tr>
<tr>
<td><strong>Annual Average Wage</strong></td>
<td><strong>$ 131,100</strong></td>
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<tr>
<td>Construction Managers</td>
<td>$103,140</td>
</tr>
<tr>
<td>Computer Support</td>
<td>$51,460</td>
</tr>
<tr>
<td>Electronic Engineering Technicians</td>
<td>$63,000</td>
</tr>
<tr>
<td>Electro-Mechanical Technicians</td>
<td>$49,130</td>
</tr>
<tr>
<td>Mechanical Engineering Technicians</td>
<td>$55,210</td>
</tr>
<tr>
<td>Geological Engineering Technicians</td>
<td>$56,340</td>
</tr>
<tr>
<td>Environmental Science and Protection Technicians</td>
<td>$52,550</td>
</tr>
<tr>
<td>Legal Assistants</td>
<td>$57,760</td>
</tr>
</tbody>
</table>
Employment Trends

Performance Mixed Across Oil & Gas Industries

Selected Industries

- Oil and Gas Extraction
- Support Activities for Oil and Gas Operations
- Oil and Gas Pipeline Construction
- Petroleum Refineries
- Petroleum Merchant Wholesalers
- Fuel Dealers
- Pipeline Transportation
Employment Trends (LA/OC)

Oil and Gas Industries

Indexed Growth (2001=100)

- Oil and Gas Pipeline Construction
- Support Activities for Oil and Gas Operations
- Pipeline Transportation
- Total, All Private Industries

2001 to 2012
Employment Trends (LA/OC)

Vulnerable Oil and Gas Industries

2001 to 2012
Indexed Growth (2001=100)

- Total, All Private Industries
- Fuel Dealers
- Oil and Gas Extraction
- Petroleum Merchant Wholesalers
- Petroleum Refineries
Employment Trends (LA/OC)

Select Oil and Gas Industries vs. Total, All Private Industries

Indexed Growth (2001=100)

2001 to 2012

Overall Oil and Gas Industries Perform Better
Thank You