



# PETROLEUM REFINING & CHEMICAL PRODUCTS

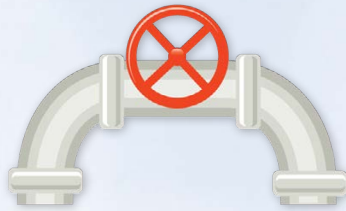
Texas leads the nation in petroleum refining and chemical products production, and is a global leader in the closely related petrochemical industry. Texas entered the global petroleum production and refining industry in 1901, when the Spindletop oilfield began production with a gusher that made headlines around the world.

## ExxonMobil

Irving, Texas is home to oil, gas, and chemical giant ExxonMobil, which is second on the 2013 Fortune 500.



The average yearly wage in Texas' refining and chemical manufacturing industry is \$95,000.



Texas is home to 33 energy-related companies on the Fortune 1000 list. Houston, "The Energy Capital of the World," is home to more than 5,000 energy-related firms.



With 100,000 workers, Texas is home to the largest petrochemical cluster in the world.



Texas' 27 refineries lead the nation in both crude oil production and refining. With over 5.1 million barrels a day, Texas has 28.8 percent of the nation's total capacity.



Houston alone accounts for over 40 percent of the nation's base petrochemical capacity.

## Education, Research, and Development

Texas universities and other educational institutions are heavily invested in research and development (R&D). In 2012, state expenditures for R&D at higher educational institutions exceeded \$3.7 billion, according to the Texas Higher Education Coordinating Board.

### Petroleum Refining & Chemical Products Education and R&D Programs

- ★ Rice University - George R. Brown School of Engineering and the Department of Biochemistry and Cell Biology
- ★ Texas A&M University - Mary Kay O'Conner Process Safety Center
- ★ The University of Texas at Austin - Cockrell School of Engineering
- ★ The University of Texas at Tyler - The Center for Petroleum Security Research

## Industry Private Workforce Averages

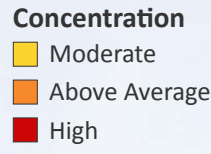
Texas' superior workforce, vibrant economy, and excellent business climate, along with the state's central location, relatively low production costs, and incentive funding have lured many U.S. and foreign business to expand or relocate in Texas.

| Industry                         | Industry Code | Firms | Jobs   | Annual Wage |
|----------------------------------|---------------|-------|--------|-------------|
| Petroleum Refineries             | 32411         | 162   | 21,503 | \$ 137,523  |
| Basic Chemical Mfg               | 3251          | 424   | 31,770 | \$ 111,569  |
| Petrochemical Mfg                | 32511         | 77    | 15,496 | \$ 113,294  |
| Resin, Rubber & Synthetic Fibers | 3252          | 133   | 9,246  | \$ 110,419  |
| Agricultural Chemical Mfg        | 3253          | 110   | 3,096  | \$ 85,477   |
| Paint, Coating & Adhesive Mfg    | 3255          | 146   | 5,467  | \$ 67,678   |
| Cleaning Compound & Toiletry Mfg | 3256          | 160   | 5,240  | \$ 67,693   |
| Other Chemical Preparation Mfg   | 3259          | 281   | 8,828  | \$ 82,946   |
| Plastics Product Mfg             | 3261          | 679   | 33,025 | \$ 48,273   |

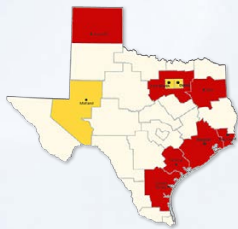
Source: U.S. Bureau of Labor Statistics (2012)

## Regional Industry Workforce Concentration

The maps below identify the regions with above-average workforce concentrations in each industry relative to the size of the local labor force. Industry clusters can lead to the development of a skilled labor force, as well as attract business expansions or relocations to that region.



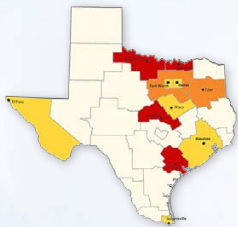
Petroleum Product Manufacturing



Chemical Manufacturing



Paint, Coating & Adhesive Manufacturing



Plastics Manufacturing

## Select Companies in Texas

**ExxonMobil**

**ExxonMobil**  
Chemical



**EASTMAN**

