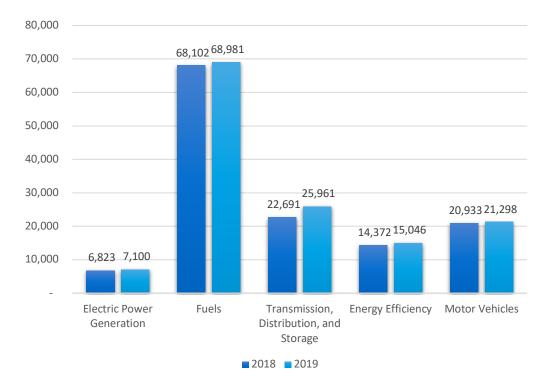
Oklahoma

ENERGY AND EMPLOYMENT — 2020

Overview

Oklahoma has a high concentration of energy employment, with 102,042 Traditional Energy workers statewide (representing 3.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 7,100 are in Electric Power Generation, 68,981 are in Fuels, and 25,961 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Oklahoma is 6.3 percent of total state employment (compared to 2.3 percent of national employment). Oklahoma has an additional 15,046 jobs in Energy Efficiency (0.6 percent of all U.S. Energy Efficiency jobs) and 21,298 jobs in Motor Vehicles (0.8 percent of all U.S. Motor Vehicle jobs).

Figure OK-1.
Employment by Major Energy Technology Application



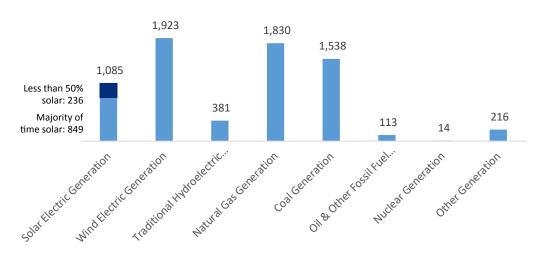
Overall, Traditional Energy jobs grew by 4.5 percent since the 2019 report, increasing by 4,426 jobs over the period. Energy Efficiency jobs added 674 jobs (4.7 percent) and motor vehicles added 365 jobs (1.7 percent).

Breakdown by Technology Applications

ELECTRIC POWER GENERATION

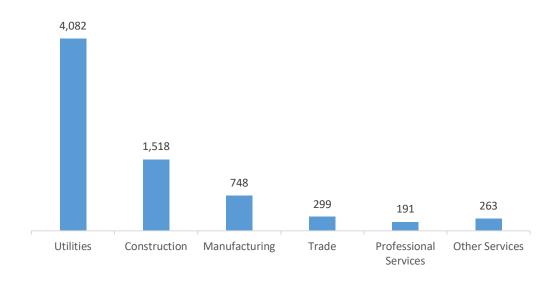
Electric Power Generation employs 7,100 workers in Oklahoma, 0.8 percent of the national total and adding 277 jobs over the past year (4.1 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 3,481 jobs (up 3.2 percent), followed by wind at 1,923 jobs (up 1.1 percent).

Figure OK-2.
Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 57.5 percent of jobs. Construction is next with 21.4 percent.

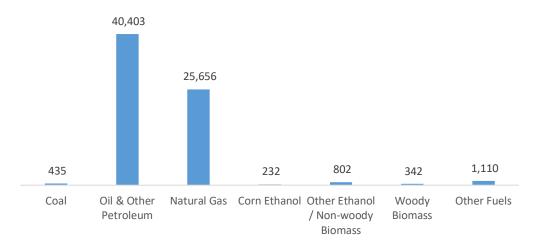
Figure OK-3.
Electric Power Generation by Industry Sector



FUELS

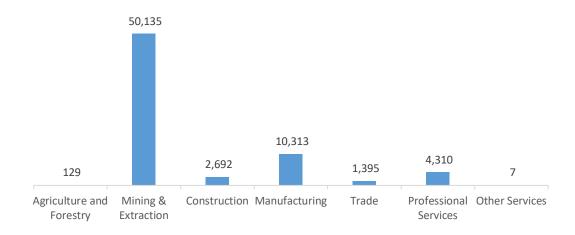
Fuels employs 68,981 workers in Oklahoma, 6.0 percent of the national total, up 1.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure OK-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 72.7 percent of Fuels jobs in Oklahoma.

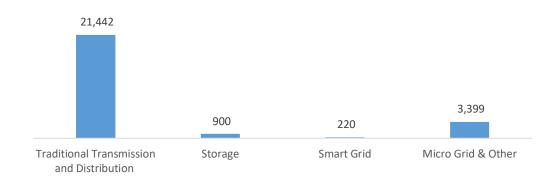
Figure OK-5.
Fuels Employment by Industry Sector



TRANSMISSION, DISTRIBUTION AND STORAGE

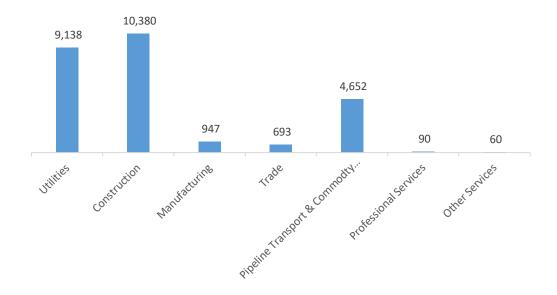
Transmission, Distribution, and Storage employs 25,961 workers in Oklahoma, 1.9 percent of the national total, up 14.4 percent or 3,270 jobs since the 2018 report.

Figure OK-6.
Transmission, Distribution and Storage Employment by Detailed Technology



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Oklahoma, with 40.0 percent of such jobs statewide.

Figure OK-7.
Transmission, Distribution and Storage Employment by Industry Sector

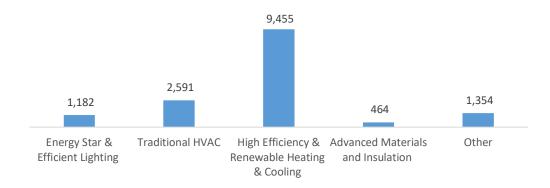


ENERGY EFFICIENCY

The 15,046 Energy Efficiency jobs in Oklahoma represent 0.6 percent of all U.S. Energy Efficiency jobs, adding 674 jobs (4.7 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

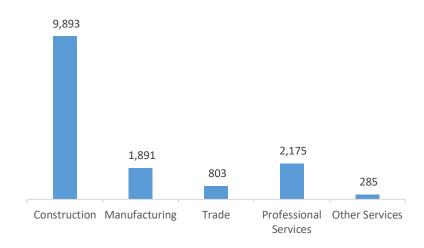
Figure OK-8.

Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

Figure OK-9.
Energy Efficiency Employment by Industry Sector

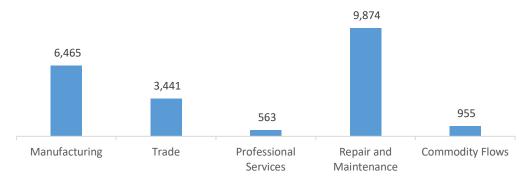


MOTOR VEHICLES

Motor Vehicle employment accounts for 21,298 jobs in Oklahoma, up 365 jobs over the past year (1.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure OK-10.

Motor Vehicle Employment by Industry Sector



Workforce Characteristics

EMPLOYER GROWTH

Employers in Oklahoma are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.2 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 737 jobs in Energy Efficiency (4.9 percent) and Motor Vehicles employers expect to add 712 jobs (3.3 percent) over the next year.

Table OK-1
Projected Growth by Major Technology Application.

| Technology | State Projected Growth Next 12 Months (percent) | U.S. Projected Growth Next 12 Months (percent) |
|--|--|---|
| Electric Power Generation | 3.4 | 4.8 |
| Electric Power Transmission, Distribution, and Storage | 2.1 | 3.5 |
| Energy Efficiency | 4.9 | 3.0 |
| Fuels | 3.5 | 1.7 |
| Motor Vehicles | 3.3 | 3.1 |

HIRING DIFFICULTY

Over the last year, 35.3 percent of energy-related employers in Oklahoma hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table OK-2
Hiring Difficulty by Major Technology Application.

| Technology | Very Difficult (percent) | Somewhat Difficult (percent) | Not at All Difficult (percent) |
|--|-----------------------------|---------------------------------|--------------------------------------|
| Electric Power Generation | 21.7 | 62.1 | 16.2 |
| Electric Power Transmission, Distribution, and Storage | 31.7 | 62.1 | 6.2 |
| Energy Efficiency | 47.9 | 33.2 | 18.9 |
| Fuels | 38.9 | 38.9 | 22.2 |
| Motor Vehicles | 38.1 | 52.7 | 9.2 |

Employers in Oklahoma gave the following as the top three reasons for their reported difficulty:

- 1. Difficulty finding industry-specific knowledge, skills, and interest
- 2. Insufficient qualifications (certifications or education)
- 3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

- 1. Technician or mechanical support \$21.58 median hourly wage
- 2. Sales, marketing, or customer service \$33.88 median hourly wage
- 3. Engineers/scientists \$41.32 median hourly wage