

Wages, Benefits, and Change

A Supplemental Report to the Annual U.S. Energy and Employment Report

The National Association of State Energy Officials (NASEO), the Energy Futures Initiative, and BW Research Partnership are pleased to release *Wages, Benefits, & Change, A Supplemental Report to the Annual U.S. Energy & Employment Report (Wage Report)*.



The Wage Report adds new data and analysis to the portfolio of annual U.S. Energy & Employment Reports (USEERs) and the 5-Year Energy & Employment Report (5-Year Report). This supplemental report focuses on wages and benefits for U.S. energy jobs.

The analyses presented in the Wage Report synthesize data from the 2020 USEER, the 5-Year Report, the 2018 and 2019 supplemental wage surveys, and research and analysis by BW Research Partnership on the impacts of COVID-19 on energy sector employment.

Key Findings

- ➔ At the end of 2019, the five major energy technology sectors – Electric Power Generation; Fuels; Transmission, Distribution, and Storage; Energy Efficiency; and Motor Vehicles – employed **more than 8.27 million workers, accounting for 5.4 percent of all jobs in the United States**.
- ➔ Between 2015 and 2019, these sectors created about **915,000 new jobs, almost 11 percent of all employment growth in the nation**. During this period, energy jobs in the U.S. grew at almost twice the rate of the overall economy.
- ➔ **The median hourly wage for all energy workers in the U.S. is \$25.60 – 34 percent higher than the national median hourly wage of \$19.14**. In general, energy sector employees across all energy technology sectors and nearly all energy industry segments earn higher hourly wages compared to the national median and other sectors of the economy.
- ➔ **Wages for all energy industry crosscuts are higher than national wages**, ranging from a premium of 27 percent to 105 percent above national median wages.
- ➔ **Few energy jobs pay below the national median**; these jobs earn less because they fall within broader industry or occupational groups that also earn below the national median.
- ➔ **While the energy sector was impacted by the COVID-19 pandemic, the energy industry lost fewer jobs compared to other sectors** of the economy, such as Tourism, Hospitality, and Recreation, Information and Communications, Retail, and Building and Design.
- ➔ Over the last two decades, U.S. energy production has trended away from coal and towards natural gas, petroleum, and renewables. Employment changes for this period mirror this trend: **coal fuels sector employment declined by 18 percent; petroleum and natural gas fuels employment grew by almost 9 percent; solar and wind power generation employment grew by 22 percent**.
- ➔ **Shifts in dominant fuel sources and energy technologies are creating new geographic concentrations of energy jobs across the nation**, particularly in the electric power generation and fuels technology sectors.
- ➔ **Energy efficiency jobs are unique in that they are ubiquitous** across the U.S. – in every one of the 3,000+ counties except for six.
- ➔ **Energy workers in the examined occupations are more likely to receive healthcare and retirement benefits** compared to national private-sector averages.

Considerations for Policymakers

→ The data presented in this report offer a valuable opportunity for a deeper understanding of the role of energy jobs in the U.S. economy and the lives of workers. It is important to **understand that wages, job quality, and opportunity are based on a variety of factors, including qualifications, experience, and training, as well as technology and industry.**

→ To support economic recovery and address energy transition impacts on communities, policymakers at all levels should **prioritize workforce funding and programming to support the continued development and expansion of pipelines to gainful energy careers**, particularly for disadvantaged communities and workers.

→ The Department of Energy should consider leading an effort to **provide more granular detail on the skill competencies of energy occupations** to mirror the level of detail available from O*NET for standard occupations across the U.S. economy.

→ **U.S. State Energy Program funds, which are overseen by the State Energy Offices and distributed through the U.S. Department of Energy, provide flexible resources directly to states to advance governors' energy policy priorities**, including in workforce, just transition, and other important initiatives related to energy technology-based economic development.

→ The U.S. Department of Labor's Registered Apprenticeship program could be refined to **include more pre-apprenticeship and apprenticeship funding**, which would support longer development pipelines while offering workers the opportunity to learn and earn.

→ Policymakers at the federal, state and local levels can use the trends and findings presented in this report as a springboard to **examine the impacts of and potential responses to energy and workforce transitions** at the local and state level.

→ The Department of Energy should consider engaging states to **explore pathways to increase certification and licensure reciprocity for skilled energy labor.**

→ State Energy Offices can **use energy employment, wages, and benefits data to understand the geographic, industrial, and occupational implications** of various energy policy mechanisms and investment strategies.

→ Unionization is typically indicative of job quality for energy workers yet federal unionization data varies widely. To address this important issue, the National Economic Council should **consider convening relevant stakeholders to establish protocols and methodologies** for gathering more granular, accurate, and reliable data on unionization rates in the energy sector.

→ **Deeper investigation is required for a comprehensive understanding of the profiles of the jobs that will be created, lost, and changed**, including the accessibility of these energy jobs, wages and benefits, and opportunities for worker mobility and advancement. The study should identify job growth, advancement, and accessibility (both geographic and qualifications) to enable the development of education and training programs, job crosswalk opportunities, impacts on workers and communities, and local, state, and federal policies. This research and analysis of the impact of the pandemic and energy transition can further ensure the contribution of energy jobs toward a just and equitable transition future for all U.S. workers.

