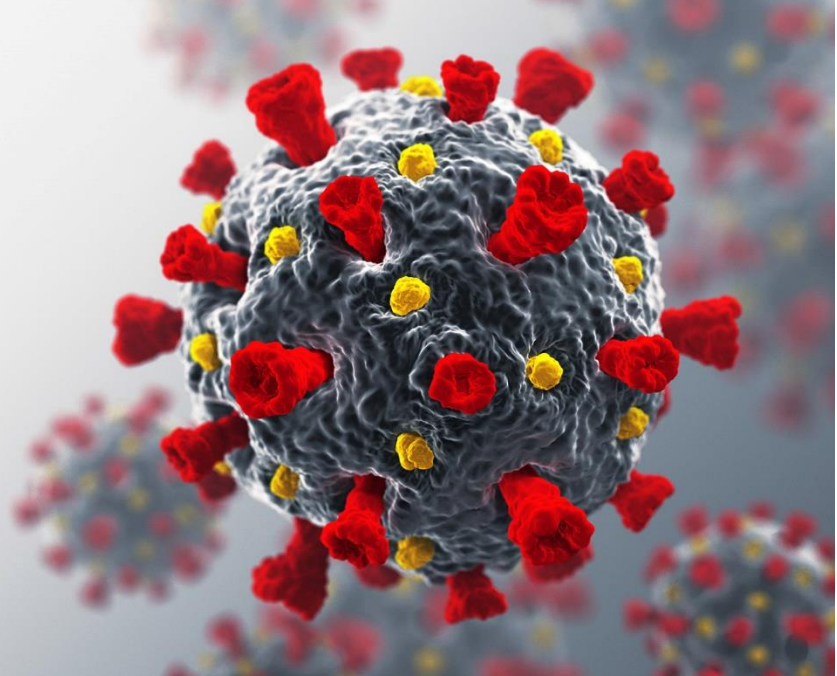


To: Clients
From: Philip Jordan
Vice-President, BW Research Partnership
Date: November 23, 2020

MEMORANDUM

Fossil Fuel Employment Initial Impacts from the
COVID-19 Economic Crisis, March-October 2020



INTRODUCTION

Over the past few months, the COVID-19 pandemic has fueled historic job losses in the United States. These losses peaked in April, the first week of April nearly matched the historic weekly high with 6.62 million additional initial unemployment claims. Initial unemployment claims for April totaled 23.1 million, while the impact of the COVID-19 pandemic on the US workforce from March through May totaled about 35 million before experiencing tepid growth from June through October. The insured unemployment rate rose more than 11 percentage points from March through May, reaching 15.6 percent, which is the highest recorded rate since BLS began tracking this data in 1948.

At the same time, oil markets continued a decline that started with an early 2020 demand drop, followed by disagreements over production cuts among OPEC+ nations. COVID-19 related reductions to economic activity have further exacerbated oil's price decline, however historically large production cuts of 9.7 million barrels per day have appeared to help oil prices recover, potentially staving off further turmoil in U.S. oil production.¹

While workers in industries like food services and hospitality were hit first and hardest, negative impacts are now being felt throughout the economy. Energy-related workers – defined in the U.S. Energy and Employment Report² (an effort led by the National Association of State Energy Officials, the Energy Futures Initiative, and BW Research Partnership) as those working in electricity generation, fuels, transmission, distribution, storage, energy efficiency, and motor vehicles – were also significantly impacted, as the industry shed an estimated 1.36 million jobs at the peak of the pandemic; this total surpasses nearly all industry-wide growth measured since the first US Energy and Employment Report five years ago.

A closer examination of fossil fuel workers finds that the industry **shed an estimated 117,600 jobs from March through October**, representing a nearly 16 percent drop in employment. Unfortunately, this only captures the initial impacts of the COVID-19 crisis and does not include many temporarily furloughed or underemployed workers.

¹ <https://www.bloomberg.com/news/articles/2020-05-16/opec-dazzles-oil-market-with-swift-delivery-of-new-supply-cuts>

² <http://usenergyjobs.org>

IMPACTS

Fossil fuels employment was on a steady decline through the first two months of the COVID-induced economic downturn, losing about 7 percent of total employment in each of March and April before briefly leveling out in May, dropping only a half percent. Despite energy job growth from June through August, fossil fuel employment continued to decrease, dropping an additional 12,500 jobs. September marked the first month of slight rebound for fossil jobs with 2,000 added jobs. This slight growth continued through October, regaining 1,500 jobs.

The unemployment data shows that economic impacts have affected all fossil fuel sectors but have not been evenly distributed across industries.

- Fuels, the largest fossil fuel sector, had the most job losses through October, shedding about 113,400 jobs or 19 percent. This represents 96 percent of all fossil fuel job losses since March.
- Transmission, distribution, and storage employment dropped 7 percent of their workforce through October, representing 3,600 jobs.
- Electric power generation employment, meanwhile, is mostly flat, losing more than 600 jobs, or less than 1 percent of its workforce, through October. This is primarily due to the more stable employment in the utility sector.
- Oil lost the most workers of the fossil fuels, shedding 69,400 jobs or 17 percent of pre-COVID-19 employment. Most job losses were in extraction activities.
- Gas and coal employment both declined more than 13 percent since March – representing 35,900 jobs and 12,300 jobs, respectively.

Texas had the largest number of layoffs, losing 40,000 jobs or 14 percent of its fossil fuel workforce to the COVID-19 employment drop. Louisiana lost 12,200 jobs, or 25 percent of its fossil fuel employment while Oklahoma dropped 19 percent, or 10,800 fossil jobs. Kentucky and Pennsylvania also both lost more than a quarter of their fossil fuel workforce, shedding 3,000 jobs and 8,900 jobs, respectively. For more information about fossil fuel job losses by each state, see Appendix A: State Fossil Fuel Job Losses, March-October 2020.

The BLS Employment Situation report shows us that in the overall economy, racial and ethnic minorities, women, young workers, and those with less educational attainment are currently suffering higher unemployment rates.³ While oil, gas, and coal jobs continued to shed during June's job bump, Hispanic and Latino energy workers were hit the hardest, as 34 percent of derrick operators, rotary drill operators, and roustabouts in the US are Hispanic/Latino, compared to the energy industry as a whole being about 14 percent Hispanic/Latino.^{4,5} A stimulus program built to provide job security to these displaced fossil workers across the energy industry is necessary to promote a rapid and more equitable economic recovery.

³ <https://www.bls.gov/news.release/empsit.nr0.htm>

⁴ Emsi, Occupation Table with SOCs 47-5011, 47-5012, and 47-5071. Datarun 2020.2 – Employees.

⁵ <https://www.usenergyjobs.org>

METHODOLOGY

Employment change by industry monthly from February to October 2020 allows us to evaluate differences in COVID-19 related employment impacts between industries. The Bureau of Labor Statistics provides this data in Table B-1 “Employees on nonfarm payrolls by industry sector and selected industry detail,” from its Employment Situation news release. Since this data is based on surveys conducted in the second week of each month, it does not capture accurate total job losses for the whole month. For that information, we look to the Department of Labor’s Unemployment Insurance Weekly Claims data. By totaling initial claims for all weeks in each month, we get a better picture of how many Americans are jobless. While this is not a perfect count, it allows for a more accurate, up-to-date estimate and illustrates the difference in impacts among states.

Industry employment change premiums are created by taking the percent change in employment of each industry over the national percent change in employment, then subtracting one (1). State employment change premiums are made the same way. These state and industry premiums are combined evenly and applied to the national percent change in employment. BLS Local Area Unemployment Statistics (LAUS) also provides monthly employment data by high level industry and state in Table 4 “Employees on nonfarm payrolls by state and selected industry sector,” which is then weighted and applied to the industry-state job loss rates. These final industry-state job loss rates are applied to the industry breakdown within each energy sector (electric power generation, fuels, transmission, distribution, and storage, energy efficiency, and motor vehicles) for each state to produce final energy employment loss estimates. Energy employment data broken out by sector, industry, and state is derived from the 2020 US Energy and Employment Report (USEER). For more information on the 2020 USEER methodology, please visit <http://usenergyjobs.org>.

The fossil fuel industry comprises three of the five previously listed sectors: electric power generation, fuels, and transmission, distribution, and storage – not including energy efficiency and motor vehicles. Electric power generation includes detailed technologies such as natural gas, oil, and coal. Fuels include natural gas, oil, and coal. Transmission, distribution, and storage includes traditional transmission and distribution of electricity, natural gas, oil, and coal. For a more detailed explanation of all five energy sectors, please visit <http://usenergyjobs.org>.

ABOUT BW RESEARCH

BW Research is a full-service applied research firm that is focused on supporting our clients with economic & workforce research, customer & community research, as well as strategic planning and evaluation services. For more information and analysis on economic impacts related to COVID-19, please visit: <http://bwresearch.com/covid>

APPENDIX A: STATE FOSSIL FUEL JOB LOSSES, MARCH-OCTOBER 2020

| State | Total FF Jobs Lost | Percent Decline | State | Total FF Jobs Lost | Percent Decline |
|----------------------|--------------------|-----------------|-----------------|--------------------|-----------------|
| Alabama | 1,017 | 11.8% | Montana | 888 | 17.5% |
| Alaska | 2,787 | 25.2% | Nebraska | 58 | 8.2% |
| Arizona | 143 | 3.3% | Nevada | 30 | 1.9% |
| Arkansas | 426 | 9.5% | New Hampshire | 4 | 0.8% |
| California | 5,149 | 14.2% | New Jersey | 276 | 6.3% |
| Colorado | 3,668 | 12.8% | New Mexico | 6,048 | 25.3% |
| Connecticut | 19 | 1.3% | New York | 105 | 1.6% |
| Delaware | 62 | 5.6% | North Carolina | 143 | 5.6% |
| District of Columbia | 0 | 0.0% | North Dakota | 4,735 | 21.1% |
| Florida | 217 | 2.4% | Ohio | 2,576 | 17.1% |
| Georgia | 256 | 8.1% | Oklahoma | 10,804 | 18.7% |
| Hawaii | 77 | 15.7% | Oregon | 18 | 1.3% |
| Idaho | 18 | 5.8% | Pennsylvania | 8,917 | 26.5% |
| Illinois | 1,127 | 9.6% | Rhode Island | 2 | 0.6% |
| Indiana | 949 | 13.4% | South Carolina | 55 | 2.1% |
| Iowa | 47 | 3.1% | South Dakota | 9 | 3.3% |
| Kansas | 1,207 | 13.8% | Tennessee | 112 | 3.4% |
| Kentucky | 3,004 | 29.2% | Texas | 39,968 | 13.7% |
| Louisiana | 12,241 | 24.6% | Utah | 695 | 9.3% |
| Maine | 12 | 2.5% | Vermont | 3 | 9.6% |
| Maryland | 88 | 4.1% | Virginia | 588 | 9.4% |
| Massachusetts | 27 | 1.9% | Washington | 442 | 11.5% |
| Michigan | 879 | 12.7% | West Virginia | 3,639 | 16.3% |
| Minnesota | 233 | 6.1% | Wisconsin | 46 | 2.4% |
| Mississippi | 949 | 11.3% | Wyoming | 2,718 | 13.5% |
| Missouri | 90 | 4.9% | US TOTAL | 117,572 | 15.5% |