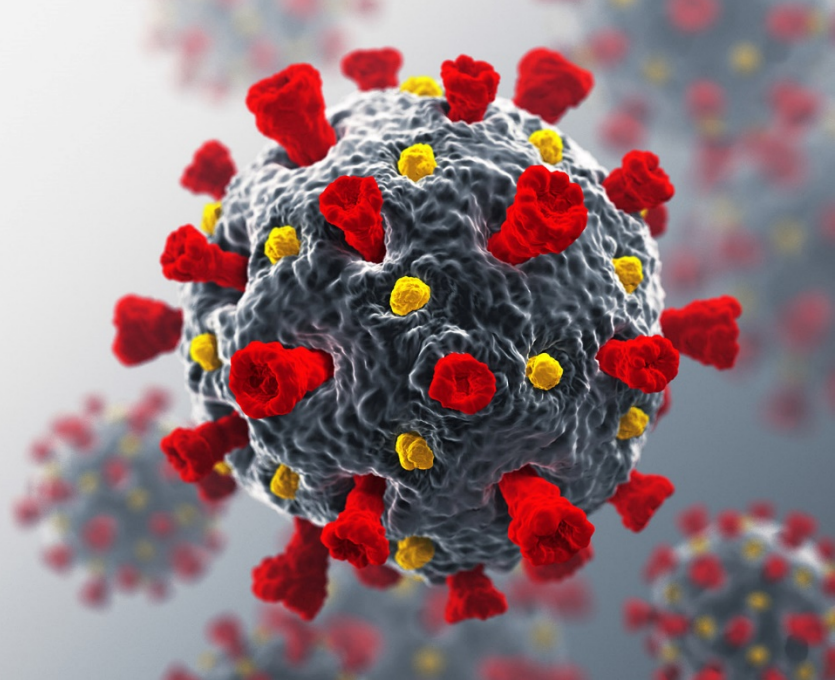


To: Clients
From: Philip Jordan
Vice-President, BW Research Partnership
Date: August 21, 2020

MEMORANDUM

Fossil Fuel Employment Initial Impacts from the
COVID-19 Economic Crisis, March-July 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 a slight rebound in June and July. 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 118,000 jobs through March, April, May, June, and July**, representing a 15.5 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 in June, fossil fuel employment continued to decrease, dropping more than 1 percent. While energy job growth stagnated in July, fossil fuels dropped an additional 1,300 jobs or 0.2 percent. Demand for energy has fallen sharply and petroleum and other fuel storage is near capacity as Americans stay home and out of their cars, and factories close due to physical isolation and decreased demand.³ As a result, energy companies continued furloughs and layoffs, which has increased unemployment filings among fossil fuel workers.

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 July, shedding about 111,600 jobs or 19 percent. This represents 95 percent of all fossil fuel job losses over the last five months.
- Transmission, distribution, and storage employment dropped 11 percent of their workforce through July, representing 5,400 jobs.
- Electric power generation employment, meanwhile, is mostly flat, losing about 1,000 jobs, or only 1 percent of its workforce, through July. 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 declined 14 and 13 percent, respectively, since March – representing 36,400 jobs and 12,100 jobs, respectively.

These estimates are all quite conservative and do not reflect underemployment or temporary unemployment. In addition, based on continued oil and gas production declines through July, it is expected that fossil fuel employment will continue to decline through August and will continue to decline through the near future, though at the lower rate of decline seen over the last two months.

Texas had the largest number of layoffs, losing 39,900 jobs or about 14 percent of its fossil fuel workforce to this initial employment drop. Louisiana lost 12,300 jobs, or 25 percent of its fossil fuel employment while Oklahoma dropped 19 percent, or 10,700 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.

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.⁴ 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

³ <https://www.cfr.org/blog/oil-ground-zero-running-out-storage>; <https://www.eia.gov/outlooks/steo/>

⁴ <https://www.bls.gov/news.release/empsit.nr0.htm>

14 percent Hispanic/Latino.^{5,6} 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.

METHODOLOGY

Employment change by industry monthly from February to July 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>

⁵ Emsi, Occupation Table with SOCs 47-5011, 47-5012, and 47-5071. Datarun 2020.2 – Employees.

⁶ <https://www.usenergyjobs.org>

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

State	Total FF Jobs Lost	Percent Decline	State	Total FF Jobs Lost	Percent Decline
Alabama	1,031	12.0%	Montana	899	17.7%
Alaska	2,756	25.0%	Nebraska	63	8.9%
Arizona	165	3.8%	Nevada	34	2.2%
Arkansas	437	9.8%	New Hampshire	5	1.0%
California	5,349	14.7%	New Jersey	309	7.1%
Colorado	3,568	12.4%	New Mexico	5,894	24.6%
Connecticut	30	2.0%	New York	153	2.3%
Delaware	71	6.4%	North Carolina	175	6.8%
District of Columbia	0	0.0%	North Dakota	4,648	20.7%
Florida	259	2.9%	Ohio	2,657	17.6%
Georgia	275	8.7%	Oklahoma	10,727	18.6%
Hawaii	84	17.0%	Oregon	27	1.9%
Idaho	19	6.1%	Pennsylvania	8,945	26.6%
Illinois	1,205	10.2%	Rhode Island	5	1.5%
Indiana	969	13.7%	South Carolina	65	2.5%
Iowa	61	4.1%	South Dakota	12	4.3%
Kansas	1,233	14.1%	Tennessee	138	4.2%
Kentucky	3,023	29.4%	Texas	39,883	13.7%
Louisiana	12,287	24.7%	Utah	696	9.3%
Maine	16	3.4%	Vermont	4	11.8%
Maryland	95	4.5%	Virginia	593	9.5%
Massachusetts	42	3.0%	Washington	480	12.5%
Michigan	935	13.5%	West Virginia	3,575	16.0%
Minnesota	274	7.1%	Wisconsin	60	3.2%
Mississippi	994	11.9%	Wyoming	2,683	13.3%
Missouri	102	5.6%	US TOTAL	118,007	15.5%