

What we know about the 2019 and 2020 labor market: comparing labor supply and demand

By Kenneth Robertson

The labor market is dynamic: each month millions of jobs are gained and lost. How can measures of job demand and job supply help inform us about the labor market?

The Job Openings and Labor Turnover Survey (JOLTS) provides data on job openings, hires, and separations at the national and regional level. Job openings data, or measures of labor demand, are defined as all positions that are open (not filled) on the last business day of the month.¹

The Current Population Survey (CPS) produces a wide range of data, including measures that can be used as a gauge of labor supply for the nation.² To be counted as unemployed, a person must have actively looked for work in the prior 4 weeks and is currently available for work. Persons who were not working and were waiting to be recalled to a job from which they had been temporarily laid off are also included as unemployed. The number of experienced unemployed, those who had a job and became unemployed, provide a measure of the available supply of experienced workers. Unemployed persons are classified according to their last job. This **Beyond the Numbers** article examines how these statistics, the demand for and supply of labor, work together to tell us more about the labor market.³

Job openings and experienced unemployed, by industry

One way to look at labor supply and labor demand is simply to look at the number of job openings and the number of people looking for work. This can tell us which industries experienced labor shortages or surpluses, and how acute these are in the broader economy. The data used in this article are annual averages from 2019 and 2020. Note that data are also available from each survey on a monthly basis, allowing similar analyses on a more concurrent basis. The data for 2020 reflect the effects of the coronavirus (COVID-19) pandemic and efforts to contain it.

Table 1. Job openings and experienced unemployed, by industry, annual averages (in thousands), 2019–20

Industry	Job openings		Experienced unemployed	
	2019	2020	2019	2020
Mining and logging	27	17	24	85
Construction	318	259	435	838
Manufacturing	437	413	468	1,026
Wholesale trade	212	169	97	192
Retail trade	784	681	706	1,456
Transportation, warehousing, and utilities	322	290	256	688
Information	141	109	89	186
Finance and insurance	268	242	145	218
Real estate and rental and leasing	104	79	71	170
Professional and business services	1,272	1,157	647	1,176
Educational services	121	99	180	405
Health care and social assistance	1,186	1,093	441	988
Arts, entertainment, and recreation	121	103	141	586
Accommodation and food services	875	693	605	1,958

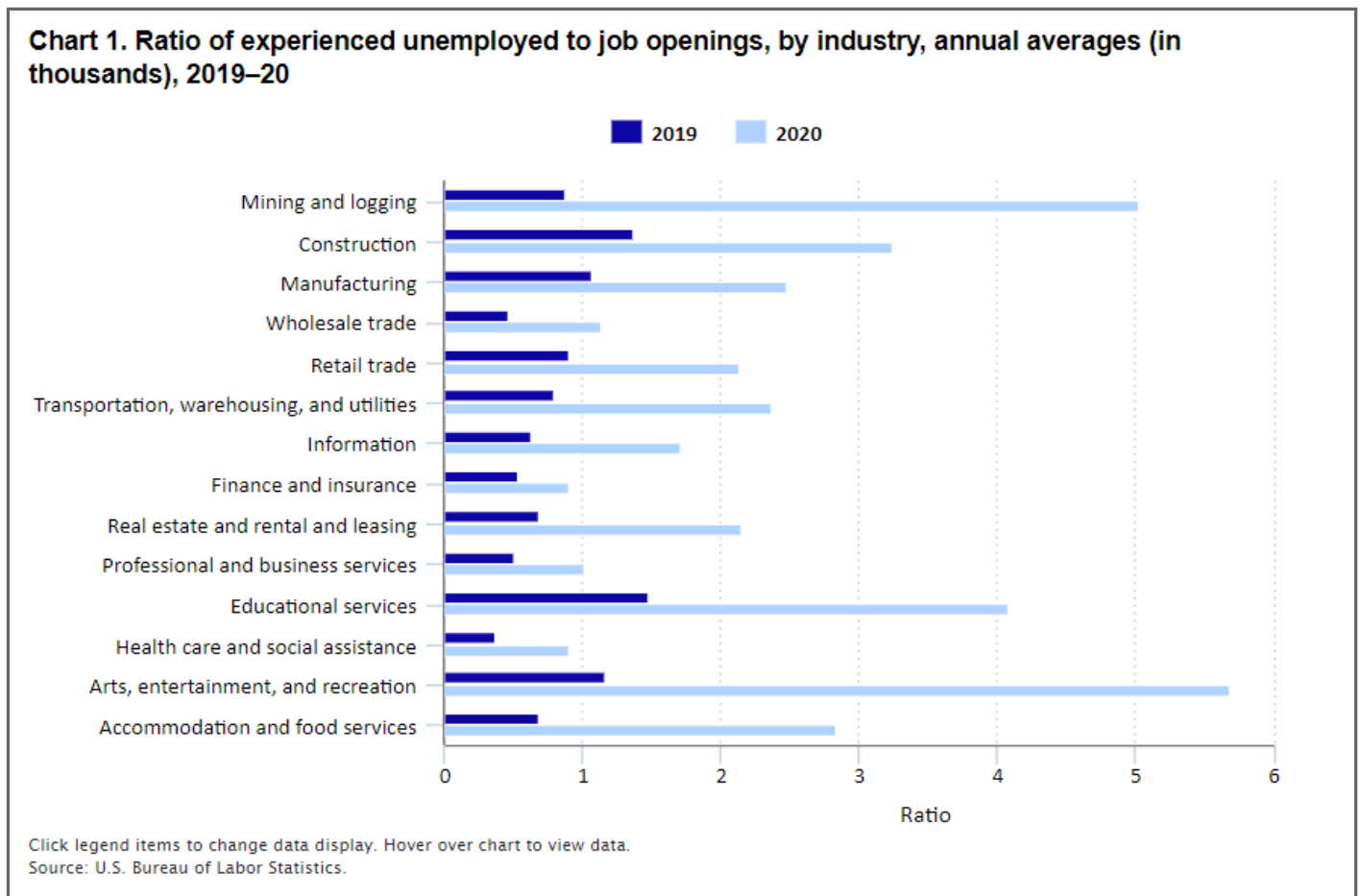
Source: U.S. Bureau of Labor Statistics.

In 2019, 10 of 14 industries had more job openings than experienced unemployed. In those 10 industries, the demand for labor exceeded the available supply of experienced labor. In 2019, annual average job openings were largest in professional and business services (1,272,000), healthcare and social assistance (1,186,000), and accommodation and food services (875,000). These three industries had only about half that number of experienced unemployed.⁴ Professional and business services had 647,000 experienced unemployed, healthcare and social assistance had 441,000, and accommodation and food services had 605,000. Cumulatively, these

industries had an annual average of 3,334,000 job openings and 1,693,000 experienced unemployed workers. When comparing the number of job openings and experienced unemployed workers, these data tell us that in 2019, there were significant job opportunities in these industries. A few industries in 2019 had more experienced unemployed on average than job openings. These industries were construction (435,000 experienced unemployed and 318,000 job openings); educational services (180,000 and 121,000), manufacturing (468,000 and 437,000); and arts, entertainment, and recreation (141,000 and 121,000). Finding a job in industries where the supply of experienced unemployed labor exceeds the demand for labor is likely more challenging than when the reverse is true.

Ratio of experienced unemployed to job openings

We can also examine these measures over time to determine if the demand or supply of labor for industries has changed as the economy has changed. To facilitate this analysis, we can look at the measures as a ratio (experienced unemployed to job openings). A ratio greater than 1 indicates that the supply of experienced unemployed workers exceeds the demand for labor. A ratio less than 1 indicates that the supply of experienced unemployed workers is less than the demand for labor. This article looks at these ratios at two points in time—2019 and 2020.



Comparing the ratios of experienced unemployed workers with job openings for 2019 and 2020, we can clearly see the data are from two vastly different economic periods. The 2019 data reflect a strong economy—closely matched numbers of job openings and people competing for them. Meanwhile, the 2020 data are from an

economy in severe distress, reflecting the impact of the COVID-19 pandemic. The ratio of experienced unemployed workers to job openings is larger in every single industry in 2020 than it was in 2019—indicating high competition among workers for the available jobs. This tells us that the relationship between job openings and the number of experienced unemployed dramatically changed for the worse across the entire U.S. economy from 2019 to 2020.

Let's look a bit closer at the changes from 2019 to 2020. Even though employment is low, the mining and logging industry had one of the largest proportional increases in the number of experienced unemployed workers. This change coincided with a glut in oil reserves and a corresponding decline in employment in support activities for mining, as international and domestic travel abated due to the COVID-19 pandemic. Accommodation and food services also suffered a large increase in the average number of experienced unemployed workers, from 605,000 in 2019 to 1,958,000 in 2020, while the average job openings declined from 875,000 to 693,000. These changes correspond to the reduction in travel and the state shutdowns and seating restrictions at restaurants and bars to combat the pandemic. Arts, entertainment, and recreation experienced a modest decline in job openings, from 121,000 to 103,000 during this time, while the number of experienced unemployed workers increased from 141,000 to 586,000. Retail trade endured a large increase in experienced unemployed from 706,000 in 2019 to 1,456,000 in 2020, while the job openings in the industry declined from 784,000 to 681,000. Similar stories can be told about nearly every industry between 2019 and 2020, as the demand for labor declined by about 13 percent across the economy, while the supply of experienced labor increased by a staggering 132 percent. (See table 1.)

Conclusion

This article has illustrated the value in putting data from several sources together. Analyses such as this can enhance our understanding of the labor market. These data highlight the huge increases in the number of experienced unemployed per job opening by industry from 2019 to 2020. The largest increase in the number of experienced unemployed, by far, was from the accommodation and food services industry. The job openings data are from JOLTS and are not seasonally adjusted. The unemployment data used are from the CPS.

Note that the industry assigned to the experienced unemployed is based on the last job held. The industry of the last job will not always be the industry that an unemployed person is looking for reemployment in. Also note that new entrants to the labor market are also competing for jobs with the experienced unemployed. They add to the labor supply but are not counted in the measures presented in this article since they are not experienced unemployed.⁵ In 2019, new entrants were 9.8 percent of the total unemployed; in 2020, they were 4.1 percent of the total unemployed.

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NOTES

¹ A job is "open" only if it meets all three of the following conditions:

1. A specific position exists and there is work available for that position. The position can be full-time or part-time, and it can be permanent, short-term, or seasonal.
2. The job could start within 30 days, whether or not the establishment finds a suitable candidate during that time.
3. There is active recruiting for workers from outside the establishment location that has the opening.

² The Current Population Survey provides information on the labor force, employment, and unemployment. The survey is conducted monthly for the U.S. Bureau of Labor Statistics by the U.S. Census Bureau using a nationally representative sample of about 60,000 eligible households in all 50 states and the District of Columbia.

³ Note that the reference period for experienced unemployed is for the week that includes the 12th day of the month, whereas the reference period for job openings is the last business day of the month. The reference period difference may cause comparability issues during periods of substantial economic change.

⁴ These data are for private wage and salary workers.

⁵ Only experienced unemployed have a known industry of prior employment in the Current Population Survey. Therefore, new entrants to the labor market cannot be placed into a specific industry in order to compare labor supply with the demand. They can, however, be included in an all industry measure; this measure is available and updated on a monthly basis in the JOLTS charts. See <https://www.bls.gov/charts/job-openings-and-labor-turnover/unemp-per-job-opening.htm#>.

**SUGGESTED
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