Analyzing Near-Current Employment Changes by Employer Characteristics using the Quarterly Census of Employment and Wages and Current Employment Statistics

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The U.S. Bureau of Labor Statistics (BLS) Current Employment Statistics (CES) survey is one of the longest running and most relied-upon sources of current data on the U.S. labor market. Meanwhile, BLS's Quarterly Census of Employment and Wages (QCEW) program, linked into the Business Employment Dynamics (BED), publishes estimates of gross job gains and losses in much greater detail than the CES data, though with a time lag of several additional months. In ordinary times, employment change by employer size or average wage can be studied with BED data, and the time lag for these data to become available is only a minor inconvenience that is outweighed by the expanded detail not available with CES estimates. However, this past year and a half has been no ordinary time.

There has been tremendous public interest during the pandemic recession in how economic disruptions are disproportionately affecting small businesses, in part because pre-pandemic trends show increasing market domination by large businesses. In this environment, we developed new methods using existing CES microdata to produce near-current estimates of employment changes for the private sector by pre-pandemic employer size and employer average wage groups (as measured in the QCEW). These methods involved estimating group-specific pre-pandemic rates of closures among CES non-responders using QCEW records.

By employer size, we found that for employers with 1 to 9 employees, the largest component of employment change since February 2020 is closings (either temporary or permanent). For employers with 10 or more employees, the largest component of employment change since February 2020 was within employers that continued to report nonzero employment to the survey, rather than within those reporting zero employment or from imputed closures from survey nonrespondents. In percentage terms, the greatest overall employment losses shifted to larger and larger employers each month from March through July 2020. However, in later months large multi-unit employers recovered employment faster than smaller employers. By November 2020, businesses with less than 500 employees before the pandemic had lost 5.6% of their pre-pandemic employment (about 42% of which could be attributed to closures), while larger businesses with multiple establishments had lost only 1.4% of pre-pandemic employment. Within the retail sector, smaller employers lost more employment than larger employers.

By employer wage levels, we found that establishments paying the lowest pre-pandemic average wage levels (less than $20,000 per worker per year) had the steepest declines in employment and experienced the most persistent losses. We disentangle the extent to which the employment changes for low-wage workers are due to these workers being concentrated within a few low wage sectors of the economy versus the pandemic affecting low-wage workers in a number of sectors across the economy. Our results indicate that the experience of low-wage workers is not entirely due to these workers being concentrated in low wage sectors—for many sectors, the lowest wage quintiles in that sector also has had the worst employment outcomes. From April 2020 to May 2021, between 23% and 46% of the decline in employment among the lowest wage establishments was due to within-industry changes.

In this presentation, we summarize and extend research previously published or released as

1) "Employment changes by employer size during the COVID-19 pandemic: a look at the Current Employment Statistics survey microdata," by Michael Dalton, Elizabeth Weber Handwerker, and Mark Loewenstein, *Monthly Labor Review,* October 2020.
2) "An Update on Employment changes by employer size during the COVID-19 pandemic: a look at the Current Employment Statistics survey microdata," by Michael Dalton, Elizabeth Weber Handwerker, and Mark Loewenstein, BLS Working Paper 532, December 16, 2020.
3) "The K-Shaped Recovery: Examining the Diverging Fortunes of Workers in the Recovery from the COVID-19 Pandemic using Business and Household Survey Microdata," by Michael Dalton, Jeffrey A. Groen, Mark A. Loewenstein, David S. Piccone Jr., and Anne E. Polivka, BLS Working Paper 536, updated July 2021. Forthcoming in *Journal of Economic Inequality.*

We compare CES-based estimates (analogous to our earlier work) of employment changes in 2020 with estimates based on the more comprehensive QCEW microdata now available for the same period. We find that the CES-based estimates of employment change by average wage level are very similar to estimates based on QCEW microdata. By size category, the CES-based estimates of employment change are close to estimates based on QCEW microdata for single-establishment employers with pre-pandemic employment of less than 50 employees and for multi-establishment employers, both small and large. However, for single-establishment employers with pre-pandemic employment of 50 or more employees, the QCEW estimates show greater employment losses than the CES-based estimates.

Despite the remarkable increase in new business formations noted in other datasets (such as the Census Bureau's Business Formation Statistics), employment in establishments less than a year old was about 3% of overall employment measured in the QCEW in December 2020—similar to recent years prior to the pandemic.

We also show the results of extending our analyses with additional months of CES data through June 2021. We find that by June 2021, employment recovery was fastest for the very smallest employers (single establishments with fewer than 10 employees in 2019) and the very largest employers (multi-establishment businesses with 500 or more employees in 2019). Single-establishment businesses with 500 or more employees in 2019—which recovered more of their employment during the summer and fall of 2020 than businesses that began the pandemic with 20-499 employees—fell behind these smaller employers in employment recovery during the spring of 2021. By wage level, we see that the rate of recovery of establishments with lower pre-pandemic average wages increased in 2021. This led to increased convergence of employment recovery for employers of different pre-pandemic wage levels.