Employment Trends during COVID-19

Michael Dalton
Bureau of Labor Statistics

9/21/20
Pandemic
Pandemic

There’s a pandemic happening
New Sources of Labor Market Data
New Sources of Labor Market Data

Fun interactive website from Opportunity Insights
New Sources of Labor Market Data

Fun interactive website from Opportunity Insights

But.....

Is this really necessary?
What’s the value of this new data?

- Timely!
  - BLS monthly data is available within 3 weeks of collection
What’s the value of this new data?

- **Timely!**
  - BLS monthly data is available within 3 weeks of collection

- **Large samples!**
  - The Current Employment Statistics survey (CES) collects monthly from ~600,000 worksites
What’s the value of this new data?

- Timely!
  - BLS monthly data is available within 3 weeks of collection

- Large samples!
  - The Current Employment Statistics survey (CES) collects monthly from ~600,000 worksites

- You can get more detail with the data!
  - But is it representative?
Getting Creative with the Standard

- Current Employment Statistics survey (CES)
  - The other survey in the Employment Situation
  - Monthly
  - Large sample (~600,000 worksites)
  - Longitudinal
  - Can be linked to other BLS information
    - Other establishments in same firm
    - Employment and wages in previous years
Longitudinal CES

- Tracking establishments month to month in the CES
  - Never really been done before in research
Longitudinal CES

- Tracking establishments month to month in the CES
  - Never really been done before in research

- This allows identifying for an establishment
  - Possible closures
  - Employment relative to pre-pandemic level
How is COVID-19 Affecting Employment Locally?

- There is obviously a broad economic effect

- But is the local spread directly impacting employment?
Strategy

- Using # of cases from NYTimes at county
  - Group counties by # of cases in past 4 weeks
Strategy

- Using # of cases from NYTimes at county
  - Group counties by # of cases in past 4 weeks

- Employment from CES
  - For establishments in each county group, what happened to employment since February?
Overall Results

Figure 3. Average percent change in employment, by number of confirmed coronavirus disease 2019 cases, from February to reference period.

Percent change

<table>
<thead>
<tr>
<th></th>
<th>Apr 2019</th>
<th>May 2019</th>
<th>Jun 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-124</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>125-199</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200-299</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number of new cases per 100,000 residents as of reference period.
Leisure and Hospitality

Figure 4. Average percent change in employment and number of confirmed coronavirus disease 2019 cases, by industry, from February to reference period

Choose an industry: Leisure and hospitality

Percent change

- 25%
- 0%
- 25%
- 50%
- 75%
- 100%

Number of cases per 100,000 residents as of reference period
Construction

Figure 4. Average percent change in employment and number of confirmed coronavirus disease 2019 cases, by industry, from February to reference period

Choose an industry: Construction

Percent change

-25%
-50%
-75%
-100%
0%
25%

Number of cases per 100,000 residents as of reference period
Transportation and Warehousing

Figure 4. Average percent change in employment and number of confirmed coronavirus disease 2019 cases, by industry, from February to reference period

Choose an industry: 

Percent change

Table 1. Number of cases per 100,000 residents as of reference period

<table>
<thead>
<tr>
<th>Number of cases</th>
<th>Apr 2019</th>
<th>May 2019</th>
<th>Jun 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-124</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>125-199</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200-299</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of cases</th>
<th>Apr 2020</th>
<th>May 2020</th>
<th>Jun 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-124</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>125-199</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200-299</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number of cases per 100,000 residents as of reference period
Finance and Insurance

Figure 4. Average percent change in employment and number of confirmed coronavirus disease 2019 cases, by industry, from February to reference period

Choose an industry: Finance and insurance

Percent change

- Apr 2019
- May 2019
- Jun 2019
- Apr 2020
- May 2020
- Jun 2020

Number of cases per 100,000 residents as of reference period
Spread of COVID-19 as of 8/14
Leisure and Hospitality

Virus Spread as of 8/14

Employment Change for August 2020
Construction

Virus Spread as of 8/14

Employment Change for August 2020
Transportation and Warehousing

Virus Spread as of 8/14

Employment Change for August 2020
Health Care

Virus Spread as of 8/14

Employment Change for August 2020
Changing Gears: Employer Size

- Paycheck Protection Program targets loans / grants to small businesses
  - Primarily under 500 employment
Changing Gears: Employer Size

- Paycheck Protection Program targets loans / grants to small businesses
  - Primarily under 500 employment

- Federal Reserve’s Lending Programs target bond buying to large companies
  - Secondary Credit Facilities
Changing Gears: Employer Size

- Paycheck Protection Program targets loans / grants to small businesses
  - Primarily under 500 employment
- Federal Reserve’s Lending Programs target bond buying to large companies
  - Secondary Credit Facilities
- What has happened to employment at different size classes?
Estimating Employment Change by Size Class

- Change in employment for continuing employers
- Reported closures
- Nonresponse closure adjustment
Each Component of Employment Change, by size class

Size 1-9

Size 100-499

Size 10-49

Size 500+

Size 50-99
Combining Components

Overall Employment Change since February

Business Size Groups:
- 1-9
- 10-49
- 50-99
- 100-499
- 500+

February 2020: -25%
March 2020: -20%
April 2020: -15%
May 2020: -10%
June 2020: -5%
July 2020: 0%
August 2020: Overall employment change since February.
Same idea, but Wage Class instead of Size Class

Overall Employment Change since February, by wage class

<table>
<thead>
<tr>
<th>Month</th>
<th>&lt;20k</th>
<th>20k-40k</th>
<th>40k-60k</th>
<th>60k-80k</th>
<th>80k+</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

-40% -35% -30% -25% -20% -15% -10% -5% 0%
Comparisons to Private Data Size Class

Dalton, Handwerker, Loewenstein (2020) using CES data

Cajner et al (2020) using ADP data
Comparisons to Private Data
Wage Class

Dalton, Loewenstein, Piccone, Polivka (2020) using CES data

Overall Employment Change since February, by wage class

Cajner et al (2020) using ADP data
Last thing!

- New survey put together by BLS
- The **Business Response Survey (BRS)**
  - Online Survey with sample of 600,000
Last thing!

- New survey put together by BLS
- The **Business Response Survey (BRS)**
  - Online Survey with sample of 600,000
  - Topics
    - Telework
    - Federal assistance
    - Health insurance
    - Experiences
    - Pay decisions
Last thing!

- New survey put together by BLS
- The Business Response Survey (BRS)
  - Online Survey with sample of 600,000
  - Topics
    - Telework
    - Federal assistance
    - Health insurance
    - Experiences
    - Pay decisions
  - First release in October!
Contact Information

Michael Dalton
Research Economist
ERPDS
www.bls.gov
202-691-7403
dalton.michael@bls.gov