



US Econobytes: Is payroll employment overstating job gains?

Analysis of more comprehensive job measures suggests that discrepancies through Q2 2022 are not large.

February 2023

Jonathan Millar

+1 212 526 4876

jonathan.millar@barclays.com

BCI, US

Marc Giannoni

+1 212 526 9373

marc.giannoni@barclays.com

BCI, US

Pooja Sriram

+1 212 526 0713

pooja.sriram@barclays.com

BCI, US

Colin Johanson

+1 212 526 8536

colin.johanson@barclays.com

BCI, US

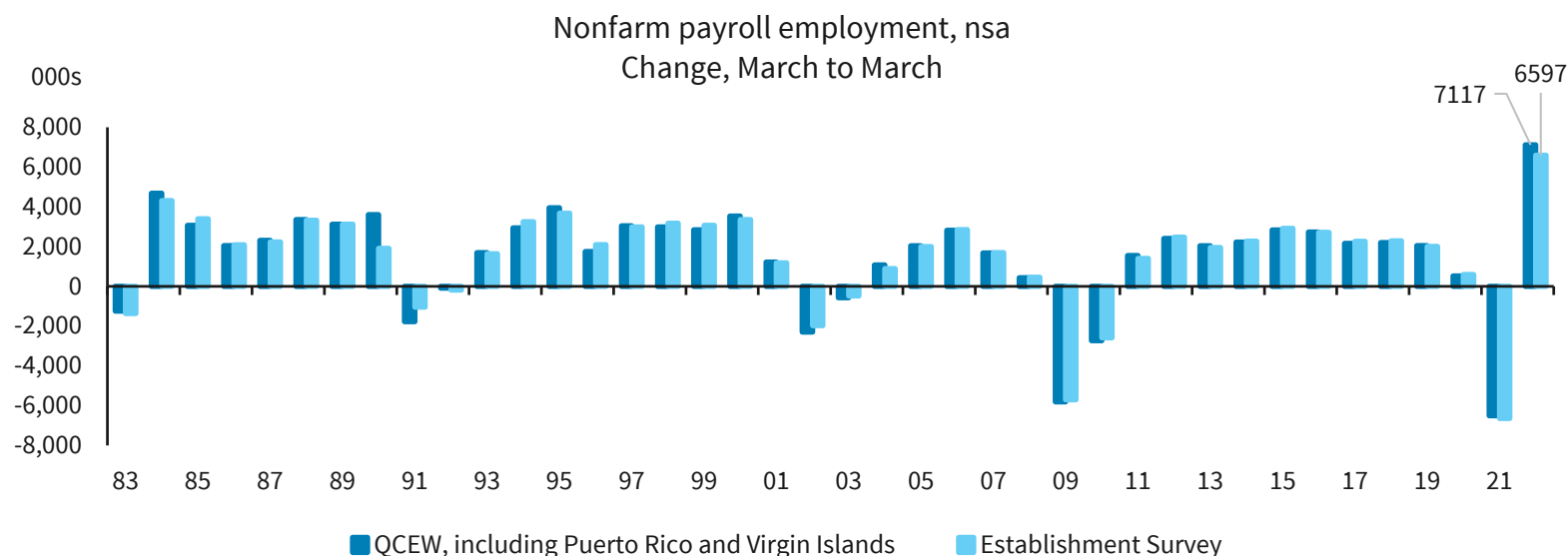
Job growth estimates for Q2 22 differ substantially

- According to the payroll survey, the number of US jobs increased nearly 1.1mn in Q2 22...
- ...but some alternative benchmarks tell a very different story:
 - Aggregated “early benchmark” estimates of state-level employment from the Philadelphia Fed imply that employment rose just 10.5k in Q2 22.
 - The latest estimates from the Business Employment Dynamics (BDM) Survey show a 287k *decline* in private employment in Q2 22.
- Do these discrepancies tell us that the official estimates wildly overstate payroll employment?
 - Looking at the details, we conclude that the official numbers likely overstate the change in NFP employment in that quarter, but only by about 450k.
 - Moreover, the numbers imply that the employment *levels* at end-Q2 would be little changed after accounting for this week’s benchmark revision.

Quarterly Census of Employment and Wages

- Both the BDM and the early benchmark estimates from the Philadelphia Fed derive from the same source: The Quarterly Census of Employment and Wages (QCEW).
- The QCEW is formed using tax records from state unemployment (UI) programs.
 - Since nearly all employers are required to participate in UI, this is close to a complete Census count, covering about 97% of overall employees.
 - Some workers fall outside of this coverage, most notably railway workers and employees of state and local governments.
 - Although QCEW data are accurate, they lack timeliness, as estimates are released five months after the quarter has ended.
- Since these counts are so accurate, the BLS uses them at the beginning of each year to “benchmark” the level of nonfarm payroll employment (NFP).
 - This corrects for measurement errors that arise from births and deaths of establishments, sampling variation, and other influences.
 - The benchmarking aligns the level of covered NFP employment in March of the preceding year to the QCEW count.

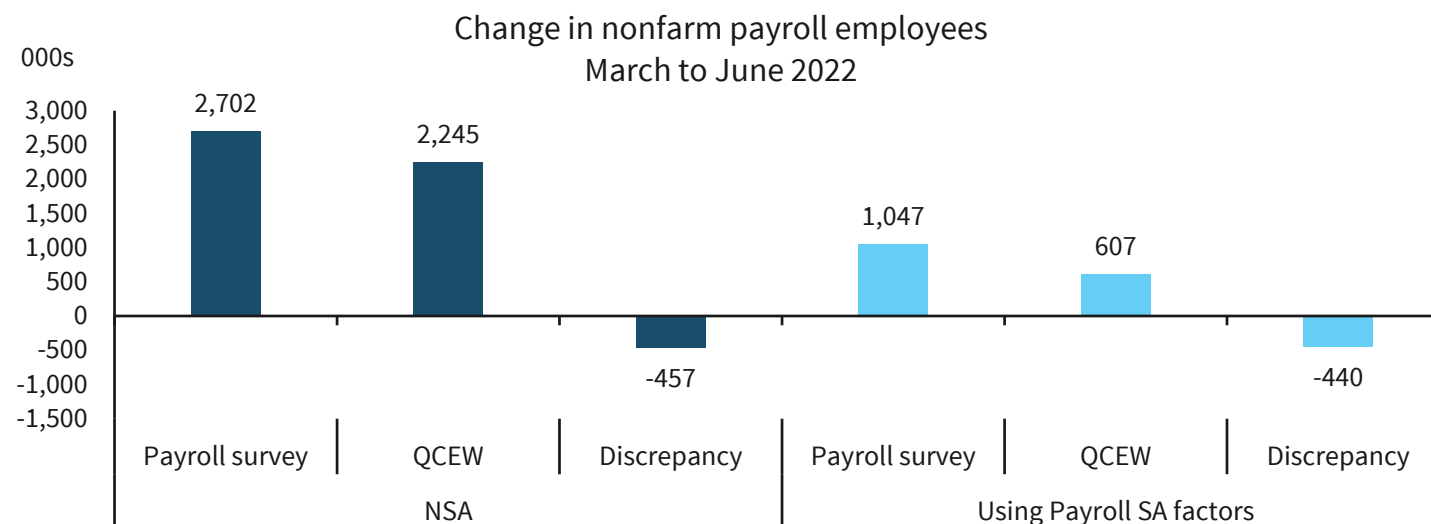
Quarterly Census of Employment and Wages



Source: Bureau of Labor Statistics, Haver Analytics

- The benchmarking process ensures that twelve-month changes in NSA employment from payrolls and QCEW align closely, *each March*.
- With this week's January 2023 release, the NSA level of payroll employment in March 2022 will be boosted roughly 500k (0.3%), eliminating the prevailing discrepancy.
- This revision will be gradually incorporated in estimates from Apr 21 through Mar 22. NSA levels from Apr 2022 onward will be boosted by the level revision.

What does the QCEW tell us about Q2 2022 employment?



Source: Bureau of Labor Statistics, Haver Analytics

- Q2 22 QCEW estimates are published, but will not factor into this week's benchmark revisions.
- Those estimates imply that payrolls overstated job gains during Q2 by about 460k, on an NSA basis. If we apply the seasonal factors from December's payroll report, this implies an overstatement of about 440k in SA terms.
- This would downgrade average monthly job gains during Q2 from about 350k to about 200k, essentially undoing the level benchmark revision at end-Q1.
- These will be reflected in the benchmark revision *next year*, cumulated alongside whatever misses (upside or downside) that are shown in the upcoming QCEW estimates for Q3 and Q4 22, as well as Q1 23.

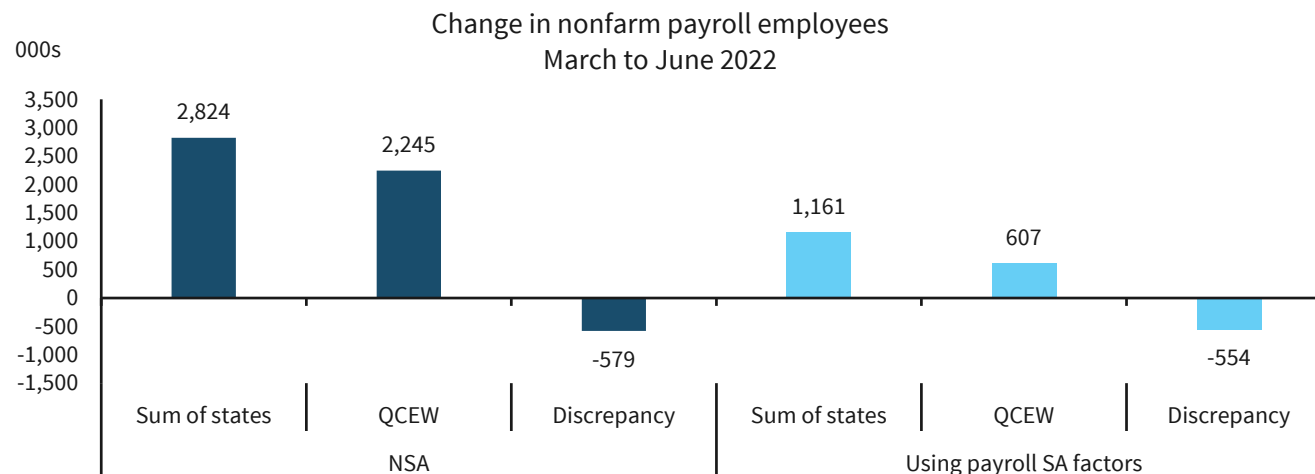
What does the Philly Fed's “early benchmark” tell us?



Source: Bureau of Labor Statistics, Haver Analytics

- The establishment survey also produces monthly estimates of payroll employment at the state and local levels. These apply different sample weights and are “neither designed nor intended” to aggregate to the national total.
- The BLS also uses the QCEW to benchmark its monthly state and local employment estimates. As with the national estimates, the benchmarking aligns the March estimate, on an NSA basis, with those from the QCEW.
- Since QCEW counts sum to the national total, benchmarking also ensures some consistency between national and state estimates. The QCEW also helps rectify measurement uncertainty, which is more acute at the state and local levels.
- Reflecting this improved accuracy, the Philadelphia Fed releases quarterly “early benchmark” estimates for states following each QCEW release during the year.

What does the Philly Fed's “early benchmark” tell us?

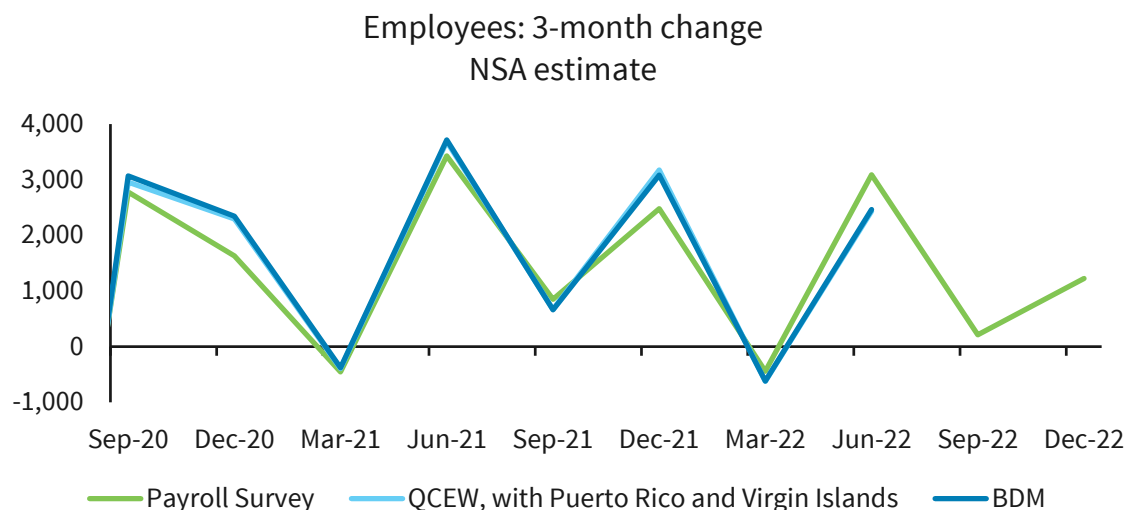


Source: Bureau of Labor Statistics, Haver Analytics

- Before benchmarking, the sum of the state estimates suggests a *seasonally adjusted* increase of nearly 1.13mn during Q2, or 1.12mn when one excludes Puerto Rico and the Virgin Islands.
- The Philly Fed's early benchmark estimate, which excludes Puerto Rico and the Virgin Islands, suggests a *seasonally adjusted* increase of just 10.5k.
- **But this low estimate seems to derive mostly from applying state-level seasonal adjustments that are inconsistent with the national ones:** In NSA terms, the implied revision is only slightly larger (-579k) than our earlier estimate for the national survey, and only because the pre-benchmarked state total is higher (+2.8mn vs +2.7mn).

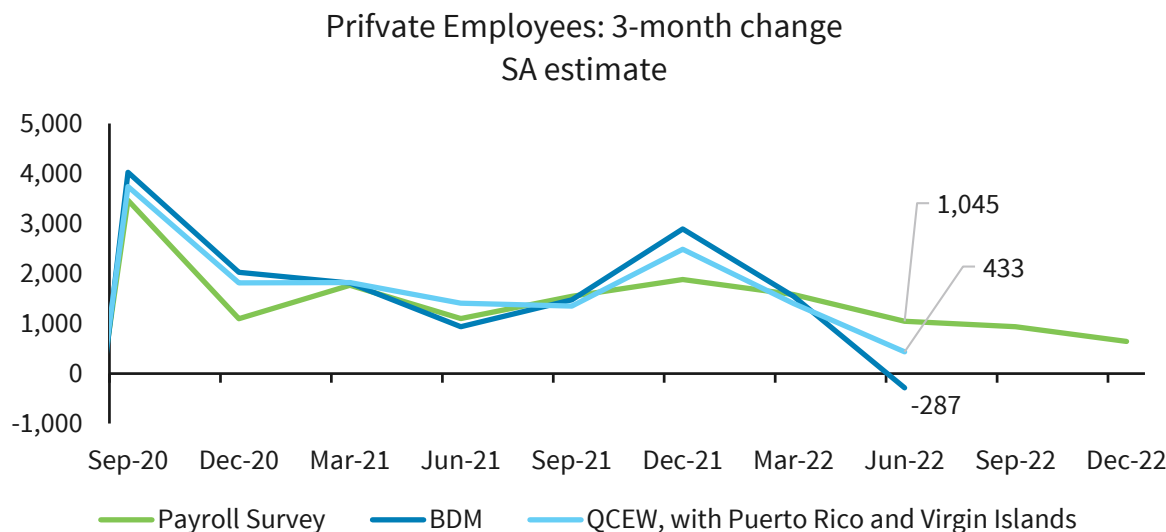
Why are employment gains in the BDM Survey so low?

- The BDM survey is designed to provide a more accurate assessment of births and deaths of private businesses, and how these are affecting employment. The estimates from this program also derive from the QCEW program.
- The QCEW is ideal for this purpose, because participating and filing for the UI is mandatory for all operating firms. The BDM links responses from the QCEW for the same business through time, which allows for an estimation of gross job gains and losses in each.
- A byproduct of this survey is an estimate of the change in *private* NFP jobs, which is the difference between gross job gains and losses. By construction, this will be nearly identical, in NSA terms, to changes the QCEW. This holds true in Q2.



Source: Bureau of Labor Statistics, Haver Analytics, Barclays Research

Why are employment gains in the BDM Survey so low?



Source: Bureau of Labor Statistics, Haver Analytics, Barclays Research

- Although the private employment gain is essentially identical, in NSA terms, to the QCEW, the seasonally adjusted gain (-287k) is well below the QCEW estimate (433k).
- Much as with the Philly Fed's early benchmark estimates, this suggests that inconsistent seasonal adjustment factors are responsible for much of the significant discrepancy between these job gain estimates and the payroll survey.
- As with overall employment, the NSA level of employment at end-Q2 would be similar, after benchmarking.

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