

Update to the Intuit QuickBooks Small Business Index

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June 3, 2025

Updated model for the US employment segment of the Intuit QuickBooks Small Business Index

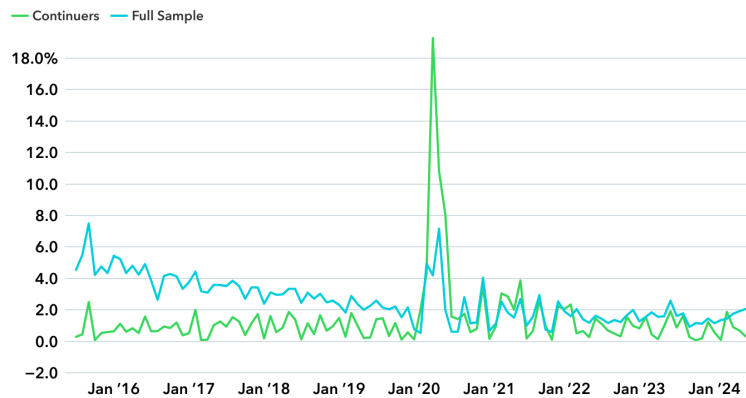
In June 2025, a small but important update was made to the methodology of the US employment segment of the Intuit QuickBooks Small Business Index. From June 2025, the sample of US businesses which use QuickBooks Online Payroll that is calibrated against official data from the U.S. Bureau of Labor Statistics only includes continuer business observations. That is, the anonymized payroll data provided by these businesses will only be included in the index's sample when they use QuickBooks Online Payroll in two consecutive months, excluding the observations when businesses first join the QuickBooks platform and when they exit. This sample restriction yields improved estimates in model performance and will be applied to current and future projections made by the index starting from the next available official statistics by the U.S. Bureau of Labor Statistics.¹ As before, the sample will continue to be benchmarked against official statistics to ensure the index reflects all US businesses with 1-9 employees, not the QuickBooks customer base or Intuit's business. In the US, the current sample size is 420,000 businesses with 1-9 employees. This methodological change is designed to accommodate changes in platform use and to ensure that the estimation methodology remains robust and reliable to future possible composition and platform use changes.

The U.S. employment segment of the Intuit QuickBooks Small Business Index follows a flexible least squares (FLS) approach to model the relationship between the QuickBooks series and the BED-JOLTS composite series (BJC).² With this methodological change we limit the set of observations that feed into the QuickBooks series. Specifically, we limit our sample to businesses with two consecutive months of QuickBooks platform activity thus excluding the entry and exit months. The seasonally-adjusted growth rates for the alternative series are more highly correlated to the BED-JOLTS composite series than the existing one, 0.66 versus 0.28 respectively. Growth rate volatility for the full-month continuer series is consistently lower, 21%, than the series including entry and exit observations, 0.11 versus 0.14 average 10-month volatility respectively. Volatility of the BED-JOLTS composite series is 0.005.

¹ At the time of publication, the latest official statistics for small business employment were available through Q3 of 2024. As a result, in June 2025, the new methodology is applied retrospectively to the index's estimates for small business employment between October 2024 and May 2025 as well as to future projections from June 2025 onwards. As before, historic projections will be replaced by official employment statistics as soon as they are available.

² The target official composite series combines the U.S. Bureau of Labor Statistics' quarterly Business Employment Dynamics (BED) series based on the population of businesses subject to UI laws with the monthly survey-based Job Openings and Labor Turnover Series (JOLTS). The resulting series is a disciplined monthly series based on the BED population that takes into consideration monthly patterns from JOLTS. See Akcigit et al. (2023) for details, available at <https://quickbooks.intuit.com/r/small-business-data/index/methodology/>.

Quickbooks sample employment growth rate, absolute difference from BED/JOLTS series



Graph shows the absolute difference from the Quickbooks sample employment growth rate and the BED/JOLTS composite series growth rate.

BLS total employment is calculated from the Bureau of Labor Statistics' (BLS) Business Employment Dynamics (BED) data and Job Openings and Labor Turnover Survey (JOLTS) for firms with 1 to 9 employees.

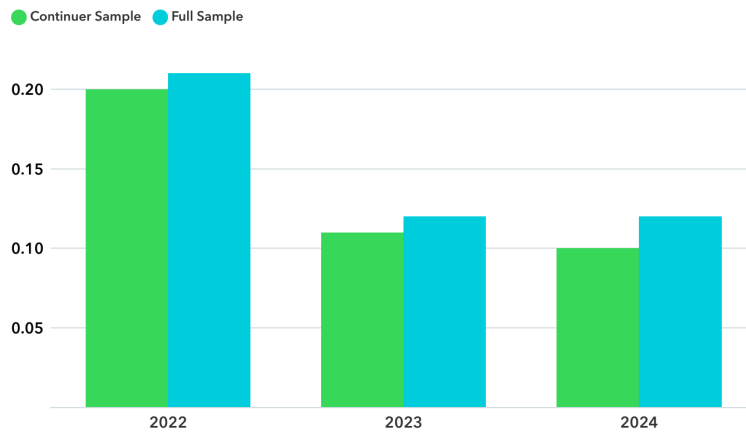
Figure 1: Quickbooks sample, absolute difference from composite series

We use the lower volatility series as our input to calibrate against the official statistics (BJC). We assess model performance by comparing the mean square error (MSE) of model predicted growth rates relative to the target official composite series in Figure 2. We focus strictly on out-of-sample model performance. Two points are worth noting. First, regardless of time period the calibrated model using the continuer-lower-volatility series consistently outperforms the model calibrated using the full QuickBooks sample. Second, model performance improves as we move away from the COVID shock. In additional analysis, we find model performance improves particularly during periods of consistent negative growth. This is reflected in Figure 3, where we show the MSE of imputed employment levels relative to the official series where predicted errors can accumulate over time. In 2023, the predicted employment series from the full model particularly underperformed during a period of continuous decline between June and September 2023.

Further details of the methodological changes will be made available through a modified version of the methodology paper that was released when the index was introduced.³

³ The full methodology paper ("Intuit QuickBooks Small Business Index: A New Employment Series for the US, Canada, and the UK" by Akcigit et al., May 1, 2023) is available to download here: <https://quickbooks.intuit.com/r/small-business-data/index/methodology/>

Mean square error of growth rates by model



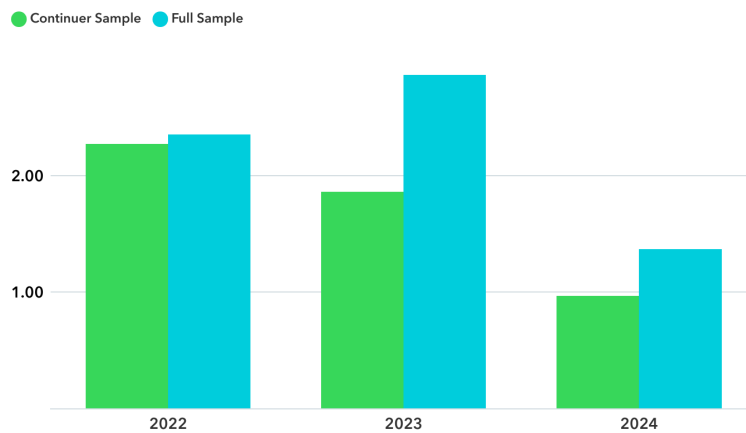
Mean square error (MSE) is a "goodness of fit" measure that shows how accurate a model's predictions were against actual values. A lower MSE is better.

Continuer sample refers to the Quickbooks sample limited to only continuer firms. For a given month m , continuer firms are defined as a firm that has employment data in month m and the previous month, $m-1$.

BLS growth rates, the target series in the mean square error calculation, are calculated from the Bureau of Labor Statistics' (BLS) Business Employment Dynamics (BED) data and Job Openings and Labor Turnover Survey (JOLTS).

Figure 2: Mean square error of growth rates by model

Mean square error of imputed employment by model



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Figure 3: Mean square error of imputed employment by model