

Business Estimates from the Office of Advocacy: A Discussion of Methodology

An Office of Advocacy Working Paper.

By Brian Headd, U.S. Small Business Administration, Office of Advocacy

June 2005. [16] pages.

Although many measures of the number of firms are available, adding employers and nonemployers from U.S. Department of Commerce, Bureau of the Census data sources is the best and most complete. However, this number is only available with a lag time of about two and a half years. The Office of Advocacy estimates more current figures and offers this paper to make the methodology transparent and to generate discussion.

Overall Findings

Estimates from the Office of Advocacy are close to the actual numbers and would be quite adequate for many practical purposes. But slight variations in the rates of change in the number of employers and nonemployers makes creating an estimate that follows the trend of the annual change in employers and nonemployers quite difficult. Therefore, using these estimates for academic models could present problems. As more data become available over the years, the methods presented here will need to be reevaluated.

Highlights

- The small number of years for which data are available restricts the ability to evaluate the estimates. So charts are employed and attached to the end of the working paper so readers can better evaluate the estimation methodology.
- The actual number of employers and nonemployers continually reflect slight annual increases, as there were actual increases in all of the periods reviewed. The increases ranged from 1.7 percent to

3.9 percent for nonemployers and from 0.1 percent to 2.0 percent for employers.

- The estimates were quite close to the actual figures, which was most likely the result of the limited natural variation of the figures from year to year. But nonemployer estimates were consistently lower than actual figures. The percentage increases in nonemployers over the measurable period of 1997 to 2002 were larger than the percentage increases in the number of nonfarm sole proprietor tax returns, so the estimation method resulted in a low estimate of the number of nonemployers. Because nonemployers constitute most—75 percent—of all businesses and because nonemployer estimates tended to be lower than nonemployer actuals, total business estimates were slightly lower than total business actuals.

- The results do not show a consistent improvement from an estimate made two years in the future to one year in the future. So having one additional year of data did not yield figures that were better able to capture the change in the numbers of employers and nonemployers.

- With nonemployers and employers continually rising throughout the evaluation period, an opportunity to evaluate the estimates' success at capturing changes of direction was not available. The decline in the number of employers estimated for 2001 did not materialize.

Data Sources and Methodology

Annual nonemployer data are available only since 1997; employer data are available since 1988. An econometric model created from these few available

data points would be weak at best; therefore Advocacy's more basic approach uses current available data from the Internal Revenue Service (IRS) and the Employment and Training Administration (ETA) to estimate year-to-year percentage changes. In addition, this basic approach injects transparency into the process.

The Census Bureau's nonemployers are similar to the population of sole proprietors documented by the IRS. The percentage change rate from IRS sole proprietors is applied to the most current Census non-employer data.

The Census Bureau's employers from the Statistics of U.S. Business (SUSB) program are similar to the employer population covered in state unemployment insurance data provided to the ETA. To arrive at figures for employer businesses, ETA's year-to-year percentage changes in employer births and terminations are applied to SUSB's figures for

employer firm births and closures. The net of these estimates is applied to SUSB's employer figures.

This report was peer reviewed consistent with the Office of Advocacy's data quality guidelines. More information on this process can be obtained by contacting the director of economic research at advocacy@sba.gov or (202) 205-6533.

For More Information

The complete text of this study is available on the Office of Advocacy website at www.sba.gov/advo/research/wkpapers.html.

To receive email notices of new Advocacy research, press releases, regulatory news, and publications, including the latest issue of *The Small Business Advocate* newsletter, visit <http://web.sba.gov/list> and subscribe to the appropriate Listserv.