

## **Abstract for “Measuring Quarterly Productivity by Industry”**

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The U.S. economy has become increasingly dynamic and with rapid change comes a demand for more timely data. BLS currently produces quarterly measures of labor productivity for broad sectors of the economy: business, nonfarm business, manufacturing, and nonfinancial corporations. These data help economic policymakers, business leaders, and researchers analyze current economic activity. BLS also produces industry level productivity estimates that can identify sources of aggregate economic growth. But these estimates are only available annually and thus cannot provide timely indicators of sources of economic growth or drivers in the U.S. economy.

BEA recently released prototype GDP by industry at a quarterly frequency for the period 2007-2012, and plans to regularly release these data quarterly beginning in April 2014. BEA has worked on the prototype for quarterly GDP by industry data since 2007 and the measures have evolved to reflect improved techniques that are more consistent with the annual industry accounts. However because complete data are not available quarterly, these higher frequency data rely on assumptions about the relationships between industry inputs, outputs, and value added from the annual and benchmark statistics. Input measures, such as wages, are available more frequently than measures of output and it is important to determine the extent that BEA uses these input measures to supplement output data. Techniques suitable for output measurement can be troubling for productivity measurement that require independent input and output measures in order to produce meaningful information on economic growth.

This paper will examine the BEA GDP-by-industry statistics to determine if they can be used to produce reasonable quarterly labor productivity statistics at the industry level. The study will develop quarterly labor hours and productivity measures for the 25 major private industry groups for which BEA is releasing GDP by industry. Methods and data sources used by BEA to construct the quarterly output series will be examined to determine if output growth is sufficiently independent from the growth in measured labor inputs. The study will analyze the value of these productivity measures for understanding of the sources of economic growth, present the limitations of the data and examine their volatility.