PRELIMINARY STUDY SHOWS RESEARCH AND DEVELOPMENT CONTRIBUTION TO ECONOMIC GROWTH

Today, the U.S. Bureau of Economic Analysis, with support from the National Science Foundation, released a preliminary Research and Development Satellite Account that estimates the effect of investment in research and development (R&D) on U.S. economic growth. These experimental estimates of the effect of intangible assets on the U.S. GDP suggest that R&D accounted for a substantial share of the resurgence in U.S. growth in recent years.

• Between 1959 and 2002, R&D investment accounted for 4 1/2 percent of growth in real GDP.
• Between 1995 and 2002, its contribution to real growth rose to 6 1/2 percent.
• In comparison, businesses’ investment in commercial and all other types of buildings accounted for just over 2 percent of real GDP growth between 1959 and 2002.

If R&D were included in the GDP as investment instead of as an expense, business investment would be 11 percent, or $178 billion, higher; and the 2002 national savings rate would be 16 percent instead of 14 percent.

The estimates measure solely the direct impact of R&D investment. They do not include the effect of R&D beyond those in the industries that conducted the R&D. For example, the increase in output and productivity of the computer industry associated with a new R&D-based innovation are included in the estimates, but the increase in output and productivity of the banking industry associated with using the more efficient computer
are not. The banking-industry effect is included in the GDP, but it is not attributed to R&D investment in these estimates. These preliminary R&D estimates are the next steps in BEA’s multi-year program to better measure intangibles.

R&D is a prime example of an intangible asset. Such assets contribute to economic growth, but they are difficult to measure. In 1999, BEA incorporated its first estimates of intangibles -- investments in computer software -- into its definition of investment.

Satellite accounts are supplementary estimates that do not change the official national accounts, including GDP. These satellite accounts provide greater detail than in the national income and product accounts and allow analysis of a particular aspect of the economy, such as investment in R&D.