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Top Influencers

The Bureau of Economic Analysis (BEA) and its journal, the *Survey of Current Business*, are respected sources of data on the health of our national economy due in large part to the individuals who influenced BEA and its predecessor agencies over the past century. From economic theory to the mechanics of producing reliable statistics, their contributions helped make BEA and its accounts the reliable, authoritative sources of economic data they are today. The *Survey* has chronicled the evolution of BEA's output for almost a century.

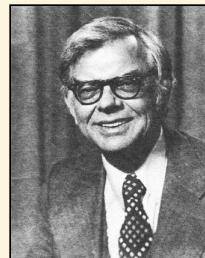
As we celebrate the centennial of the *Survey*, some of these top influencers will be profiled on the [centennial website](#). This month, we present economist **Edward Fulton Denison**.

Edward Fulton Denison

Renowned Scholar of Economic Growth Theory and National Income and Product Accounting

By Mary-Lynne Neil

Economist Edward Fulton Denison was a renowned scholar whose body of work has had a lasting and profound influence on the U.S. economy as well as economies around the world. A well-known expert on national income and productivity, he is perhaps best known for his contributions to the National Income and Product Accounts (NIPAs) and the sources of economic growth.



Edward Fulton Denison

Photo credit Virginia State Senator Janet Howell, daughter of Edward Denison, and the Brookings Institution.

Denison was instrumental in the development of gross national product (GNP) measures, and along with George Jaszi, Milton Gilbert, and Charles F. Schwartz, created the framework for two-sided economic accounts. He is considered one of the founders of growth accounting. Denison wrote a series of groundbreaking papers on growth accounting, or economic growth, creating an innovative framework of accounting and decomposing the sources of growth into many factors, such as employee education and research and development.

Denison received his Ph.D. from Brown University in 1941. He joined the predecessor agency to the Bureau of Economic Analysis (BEA), the Office of Business Economics (OBE) in its National Income Division (NID) that same year.

When Milton Gilbert became NID division chief in 1941, he sought to develop estimates of GNP from the expenditure side. He believed this would allow for improved business analysis, forecasting, and wartime planning. Gilbert brought Denison in to estimate expenditures on services.

The first estimates of GNP were published in the *Survey of Current Business* in May 1942, covering the 1929–1941 period.¹ Denison soon became instrumental in developing GNP estimates for an interlocking sector accounts framework. These estimates were published in 1947.²

As the United Kingdom, the United States, and Canada individually developed their national account frameworks, the desire to coordinate them became stronger. A groundbreaking meeting was held in September 1944, at which the United States, the United Kingdom, and Canada agreed on the structure, concepts, and methodology of a coordinated national accounting system. This meeting was recounted in a comprehensive paper with significant contributions by Denison.³ The agreements formed the foundation of the standardized system of national accounts subsequently adopted by the Organisation for Economic Co-operation and Development (OECD) and the United Nations.⁴

In 1945, Denison was assigned chief of the aggregates unit of the U.S. Strategic Bombing Survey in Europe. There he worked alongside other economists who were or would become Department of Commerce colleagues, such as John Kendrick, to evaluate the effectiveness of the Allied bombing campaigns in Europe and Asia. He returned to the Office of Business Economics in 1946, and in 1949, Denison assumed the position of assistant director. Another graduation followed in 1951, this time from the National War College.

A move in 1956 to the Committee on Economic Development (CED), a public policy nonprofit, allowed Denison to resume a more research-oriented role. His studies on economic growth resulted in a landmark 1962 CED paper “The Sources of Economic Growth in the United States and the Alternatives Before Us.”

While at the Brookings Institution from 1963 to 1978, he applied his growth accounting methodology to eight OECD member countries. These reports, updates to his U.S. growth estimates, and reports on output and production by industry added to his impressive research accomplishments.

Denison returned to what is now called the Bureau of Economic Analysis in 1979, where he was assistant director for National Economic Accounts. He retired from the government in 1982.

Denison was affiliated with and held many positions in professional organizations. He was a Distinguished Fellow at the American Economic Association, a Fellow at the American Statistical Association, and a Member of the National Academy of Sciences; he also participated in the International Association for Research in Income and Wealth, the Conference on Research in Income and Wealth, and the National Economists Club. He passed away in 1992.

Denison brought his skills, experiences, and intellectual curiosity to the table time and time again. His contributions were vital to the development of GNP, the national income accounting framework, international standardization of this framework, and sources of growth. His prolific papers can be found in the *Survey* as well as in other publications.

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1. Milton Gilbert and R.B. Bangs, "[Preliminary Estimates of Gross National Product, 1929–41](#)," *Survey of Current Business* 22 (May 1942): 9–13.
 2. Department of Commerce, Bureau of Foreign and Domestic Commerce, "[Major Revisions in National Income and Product Data](#)," *Survey of Current Business* 7 (July 1947): 9.
 3. Edward Denison, "[Report on Tripartite Discussions of National Income Measurement](#)," in *Studies in Income and Wealth, Volume 10*, ed. Conference on Research in Income and Wealth (New York: National Bureau of Economic Research, 1947): 3–22.
 4. *The System of National Accounts 2008* from the United Nations is the most recent international version.



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