Building a System of State Economic Accounts

November 2026



Introduction

The U.S. economy is shaped by interactions among individuals, businesses, and governments at all levels, as well as by interactions with the rest of the world. These interactions drive the production and consumption of goods and services, the generation of income, and the accumulation of capital. The U.S. Bureau of Economic Analysis (BEA) National Income and Product Accounts (NIPAs) provide a framework for measuring these activities—including production, income, spending, and investment across all sectors—for the nation.[1]

BEA's Industry Economic Accounts—which include the annual and benchmark Input-Output (I-O) Accounts and the Gross Domestic Product (GDP) by Industry Accounts—provide a structured view of the inner workings of the U.S. economy. They track the commodities each industry produces, the inputs industries purchase, the income generated within each industry, and the distribution of sales for each commodity to industries and final users. These accounts show each industry's contribution to GDP and its counterpart, gross domestic income (GDI). Together, the industry accounts serve as a valuable complement to the NIPAs by revealing the detailed production relationships underlying the national aggregates.[2]

At the state level, BEA does not produce a set of economic accounts analogous to the NIPAs and the industry accounts. Instead, BEA produces a subset of key state-level statistics from both sets of accounts. These include value added, personal income, and personal consumption expenditures (PCE). Building on this foundation, the Regional Economic Accounts Directorate is pursuing a long-term research agenda aimed at developing a system of accounts that integrates the state-level statistics into a cohesive framework. Two such accounts would be the State Income and Product Accounts, which would reconcile state GDP against state GDI, and the State Input-Output Accounts, broader accounts that would include the State Income and Product Accounts and would reconcile state-level production and its uses.

Constructing State Income and Product Accounts and State Input-Output Accounts is particularly challenging because it requires integrating data from multiple sources that differ in scope, coverage, and geographic detail. In particular, measuring trade among the 50 states and the District of Columbia requires information on state-to-state linkages that is generally not reported in the surveys or other source data available for the NIPAs; moreover, some source data do not include state-level information

[1] For more information on the NIPAs, see "*Measuring the Economy: A Primer on GDP and the National Income and Product Accounts*" and "*NIPA Handbook: Concepts and Methods of the U.S. National Income and Product Accounts*."

[2] For more information on the Industry Economic Accounts, see "*Measuring the Nation's Economy: An Industry Perspective | A Primer on BEA's Industry Accounts*" and "*Concepts and Methods of the U.S. Input-Output Accounts*."

at all, requiring the collection or development of additional data. Thus, building a comprehensive system of state economic accounts is not simply a matter of replicating the NIPA methodology for each state, but requires a new framework supported by new methods and data sources.

These new state accounts would provide detailed statistics on production and income linkages across states and sectors. They could inform policymakers on a state's economic outlook and inform decisions about investment and resource allocation. These accounts would also enhance the data quality and consistency of their component statistics. As such, they would advance BEA's core mission to promote a better understanding of the U.S. economy through more relevant, accurate, and timely economic statistics.

This document describes the statistics needed to produce a system of state economic accounts, explains the accounting relationships among them, and highlights the value of building such a system.

Building blocks for state economic accounts

The statistics needed to produce a set of state economic accounts can be categorized into four core building blocks: gross output, value added, intermediate purchases, and final expenditures or uses. In addition to measuring these building blocks as state aggregates, it is also important to measure interstate trade flows in order to capture production relationships across states.

Gross output is the broadest measure of economic activity. It reflects the value of goods and services purchased by industries for use as intermediate inputs in production, as well as those purchased by final users. Because it includes intermediate purchases, gross output double-counts some industry output.

Value added is the value of an industry's output *less* the value of the goods and services it uses as intermediate inputs in production. It measures the contribution of an industry to GDP. The sum of value added across all industries equals GDP.

Intermediate purchases are the purchases of goods and services used as inputs in the production of other goods and services.

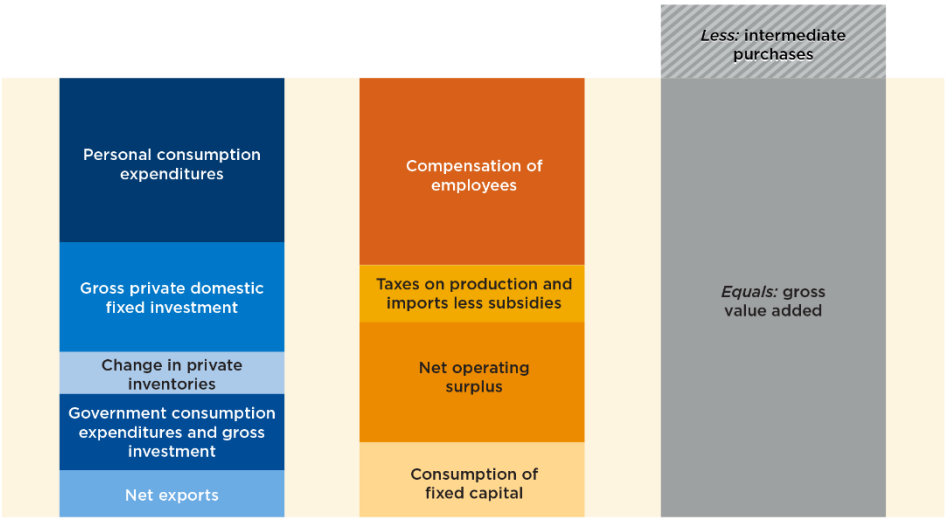
Final expenditures (or final uses) are goods and services purchased by final users (persons, businesses, governments, and foreigners) and consist of PCE, private fixed investment, government consumption expenditures and gross investment, and net exports (exports *less* imports).

Interstate trade flows reflect the movement of goods and services from the state in which they are produced to the state in which they are purchased for either intermediate or final use.

The relationships among these building blocks are defined by the national accounting identity BEA uses to estimate GDP in three different ways (figure 1):

1. the *expenditure approach*, which sums the goods and services purchased by final users;
2. the *income approach*, which sums the income payments and other production-related costs incurred in production, and together comprise GDI; and
3. the *production approach*, which sums the value added generated at each stage of production.

Figure 1. Three Approaches to Measuring GDP



GDI Gross domestic investment
GDP Gross domestic product

U.S. Bureau of Economic Analysis

At the industry level, these accounting relationships identify how each industry contributes to aggregate GDP. For each industry, value added can be computed as the difference between gross output and intermediate purchases or, equivalently, as the sum of the factor incomes generated in production. The sum of value added across all industries equals GDP.

For industry i producing in state s, these relationships are as follows:

$$VA_{i,s} = GO_{i,s} - II_{i,s} = Comp_{i,s} + (TOPI_{i,s} - SUB_{i,s}) + NOS_{i,s} + CFC_{i,s}$$

$$GDP_s = \sum_i VA_{i,s}$$

where:

$VA =$ value added;
$GO =$ gross output;
$II =$ intermediate purchases;
$Comp =$ compensation of employees;
$TOPI =$ taxes on production and imports;
$SUB =$ subsidies;
$NOS =$ net operating surplus; and
$CFC =$ consumption of fixed capital.

The input–output (and related supply and use) framework provides a more detailed accounting structure underlying GDP by adding the commodity (product) dimension to the industry dimension. It shows how each commodity produced is used either as an intermediate input by industries or as purchases by final users.

For commodity c produced in state s, these relationships are as follows:

$$GO_{c,s} = II_{c,s} + FU_{c,s}$$

$$FU_{c,s} = C_{c,s} + I_{c,s} + G_{c,s} + (X^D_{c,s} - M^D_{c,s}) + (X^F_{c,s} - M^F_{c,s})$$

$$\sum_s M^D_{c,s} = \sum_s X^D_{c,s}$$

where:

$GO_{c,s} =$ production of commodity c in state s;
$II_{c,s} =$ intermediate use of commodity c in state s; and
$FU_{c,s} =$ final purchases of commodity c in state s.

Within final purchases:

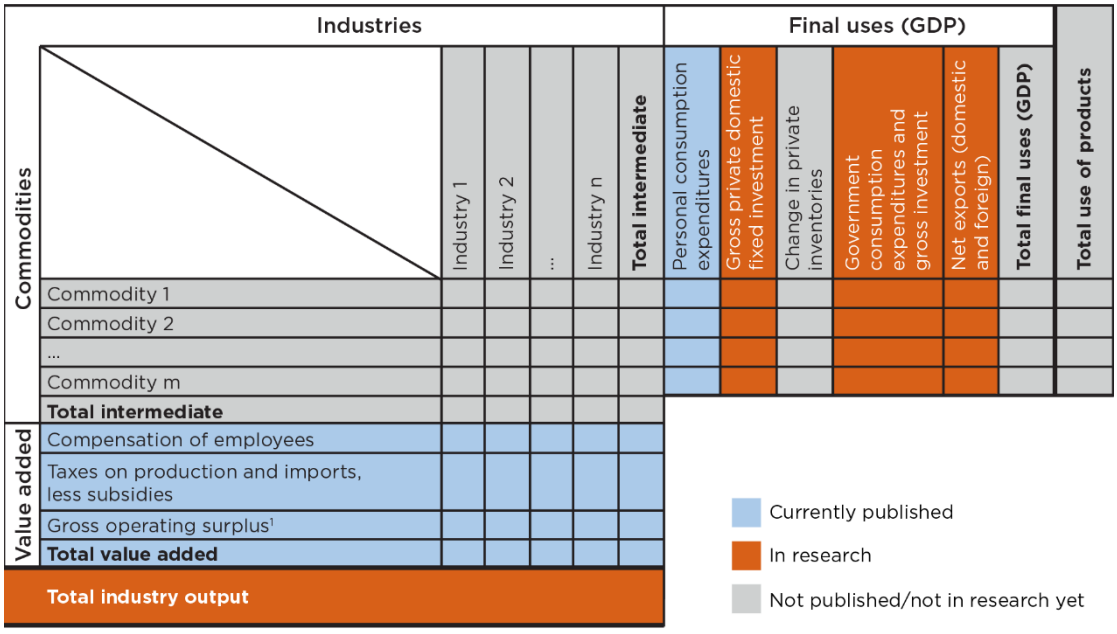
$C =$ PCE;
$I =$ private fixed investment;
$G =$ government consumption expenditures and gross investment;
$(X^D - M^D) =$ net exports from state s to another state; and
$(X^F - M^F) =$ net exports from state s to the rest of the world.

Applying this framework at the state level introduces an additional dimension because production and use do not necessarily occur in the same state. A state-level account would therefore show not only the relationship between the production and use of a commodity but also the locations where that production and use take place, captured through interstate trade flows. An important feature of this framework is state exports and imports include not only trade abroad but also trade with other states. These interstate flows when summed across all states net to zero, maintaining consistency with the national accounts.

The Regional Economic Accounts Directorate currently publishes state-level estimates of value added by industry, derived using the income approach. In addition to value added, BEA publishes its underlying income components: compensation of employees, taxes on production and imports less subsidies, and gross operating surplus, which consists of net operating surplus and consumption of fixed capital. Among final uses, BEA publishes estimates of PCE by state, available both by category and by function. Despite these existing statistics, developing a system of state-level economic accounts is a major undertaking that requires a wide range of data. Accounting relationships, however, can help structure and guide the estimation process. For example, reliable estimates of gross output and value added by industry can inform both the level and the composition of intermediate inputs.

Figure 2 shows the progress already made toward building a system of state economic accounts and the components that remain to be developed. State-level estimates are published for value added and its major income components, as well as for PCE. Research is underway on several additional building blocks, including gross output, private fixed investment, government consumption expenditures and gross investment, and domestic and foreign trade. A key component still to be developed is the detailed intermediate-use portion of the account: the industry-by-commodity relationships that connect what industries produce with the inputs they purchase. As these components are developed and brought together, the accounting scaffold can be progressively built upon and reconciled into an integrated system of state economic accounts.

Figure 2. Status of State-Level Estimates for Various Components



GDP Gross domestic product

1. Gross operating surplus equals net operating surplus plus consumption of fixed capital.

U.S. Bureau of Economic Analysis

The value of a system of state economic accounts

Producing a system of state-level economic accounts would provide two broad benefits. First, the accounts would provide a framework for improving the internal consistency and quality of BEA's state-level statistics, which are estimated using different source data and methodologies. Reconciling these statistics would ensure that, within each state, total supply (production plus imports) equals total use across industries and final users. Similarly, intermediate purchases and value added by industry would need to reconcile with gross output. These accounting relationships can help identify and resolve discrepancies among estimates of production, consumption, income, and trade and ensure state estimates are consistent within the regional accounts and with the NIPAs.

Second, an integrated system of state accounts would substantively expand the ability to analyze how state economies are structured and interconnected. By showing the relationships among industries, products, final demand, and interstate and international trade, the accounts would provide a foundation for input-output, supply-chain, and regional economic analyses. For example, they could be used to examine how the effects of a new manufacturing plant or major infrastructure project spread through

suppliers and other industries, both within the state where the plant is located and across state lines. The integrated accounts would provide the detailed production and trade relationships needed to trace these effects across industries and regions.

The accounts would also provide more detailed information on states' dependence on domestic and foreign suppliers and markets. This could help analysts assess which states and industries are most exposed to particular supply-chain disruptions or new supply linkages. A state-level accounting framework incorporating industry relationships and interstate trade would provide a robust basis for tracing how such changes affect producers, suppliers, and customers across regions. Such information could also support analyses of the regional effects of natural disasters, plant closures, changes in government spending, or shifts in demand. In this way, state economic accounts would provide useful information for economic research, business planning, and the formulation and evaluation of regional policies.