

3.3 Production account for state and local government enterprises

Table 6 shows a production account for state and local government enterprises in 1972, 1992, and 2012 using functions identified as enterprises for each year (i.e., when the ratio of charges to production costs is at least 0.5, corresponding to table 5). This means the 1972 values include transit system utility but exclude housing and community development since its ratio was below 0.5 in 1972. Likewise, the 2012 values include hospitals and solid waste management, but exclude transit system utility and housing and community development. This production account shows output in current dollars was estimated to be \$12.2 billion in 1972, growing to \$378.1 billion in 2012, or about 1.3 percent of total U.S. output in 2012 (U.S. Bureau of Economic Analysis, 2021a). Between 1972 and 2012, intermediate consumption grew from \$5.1 billion to \$245.9 billion, value added grew from \$7.1 billion to \$132.3 billion, compensation grew from \$4.1 billion to \$91.8 billion, and operating surplus grew from \$3.0 billion to \$40.4 billion. The operating surplus of over \$40 billion in 2012 in this production account is much higher than the -\$7.6 billion current surplus in the NIPAs for state and local enterprises, mostly due to the exclusion of transit system utility and housing and community development (U.S. Bureau of Economic Analysis, 2021b).

Table 6. Illustrative Production Account for State and Local Government Enterprises (\$000s)

	1972	1992	2012
Output	12,247,770	130,801,102	378,104,891
Intermediate consumption	5,101,504	83,460,580	245,852,546
Value added	7,146,266	47,340,522	132,252,345
Compensation	4,099,447	44,949,332	91,834,719
Operating surplus	3,046,819	2,391,190	40,417,626

4. Discussion

NIPA table 3.8 shows current surplus of state and local government enterprises has been negative since 2003, driven by public transit and housing and urban renewal (U.S. Bureau of Economic Analysis, 2021b). If the functions classified as state and local government enterprises in the NIPAs were updated to reflect changes in market production behavior since 1967, housing and urban renewal and public transit would not be considered enterprises as of 1972 and 1982, respectively, while hospitals and solid waste management would be considered government enterprises as of 1977 and 1992, respectively.

Reclassifying state and local government public transit and housing and urban renewal from government enterprises to general government would better reflect how these functions have evolved over time. In the first half of the 1900s, public transit was dominated by privately run transit (especially streetcars), but when automobiles became more common and populations began moving away from cities and into the suburbs, ridership declined, buses started to become more prevalent, and more distant subway stations needed to be constructed (Young, 2015). State and local governments stepped in when private companies could no longer make a profit (Transportation Research Board and National Research Council, 2001). Housing and urban renewal also underwent substantial changes in the second half of the 1900s. Formalized by a variety of Acts passed by Congress, including the Civil Rights Act of 1964, Housing and Urban Development Act of 1965, and the Housing and Community Development Act of 1974, the focus of housing and urban renewal shifted to subsidies for low-income households and redevelopment of existing neighborhoods and away from demolition of dilapidated properties that made way for the development of higher-income properties (von Hoffman, 2012). Corresponding to these transitions, the current surplus of both public transit and housing and urban renewal in the NIPAs steadily declined since 1960, the first year the data are published. In 1960, the current surplus for public transit was $-\$0.1$ billion and $\$0.1$ billion for housing and urban renewal, but by 2019 the current surplus was $-\$55$ billion for public transit and $-\$25.1$ billion for housing and urban renewal (U.S. Bureau of Economic Analysis, 2021b).

Hospitals and solid waste management have also evolved since the mid-1900s. Hospital services changed significantly as health insurance became the norm and technological advances rapidly emerged, incentivizing hospitals to offer more and costly services to increase reimbursement (Moseley III, 2008). Solid waste management also changed over time in response to growing concerns related to the environment and public health, especially trash collection, landfill maintenance, and recycling services (Starkey and Hill, 1996). Although the mechanism driving the transition to economically significant prices for solid waste management is not as obvious as the other functions, the Census of Government data show average annual charges for this function consistently outpaced operating

expenditures over the 1967–2017 period, with charges growing by 14 percent on average, but average operating expenditures growing by only 9 percent.

Using Census of Government data for state and local governments spanning 1967–2017, this analysis shows housing and urban renewal and public transit ceased charging economically significant prices during the 50-year period. Over the same time span, hospitals and solid waste management began charging economically significant prices. Corresponding to both the NIPA handbook and *SVAs*, these results suggest housing and urban renewal and public transit should no longer be classified as state and local government enterprises as of 1972 and 1982, respectively. Additionally, hospitals and solid waste management should be reclassified as state and local government enterprises as of 1977 and 1992, respectively. This updated reclassification would better reflect changes in market production behavior over time for government functions and result in positive current operating surplus in the NIPAs for state and local government enterprises.

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Appendix

Appendix Table 1. Description of State and Local Government Functions in the Census of Government Financial Microdata – Table Continues

Government function	Description
Air transportation	Construction, maintenance, operation, and support of airport facilities.
Education	Schools, colleges, and other educational institutions (e.g., for blind, deaf, and other handicapped individuals) and educational programs for adults, veterans, and other special classes. Higher Education includes activities of degree-granting post-secondary institutions operated by the state and local governments, except that agricultural extension services and experiment stations are classified under <i>Natural Resources</i> and hospitals serving the public are classified under <i>Hospitals</i> . Elementary and Secondary Education comprises payments for instructional, support services and other activities of local public schools for kindergarten through high school programs. This includes the operation of public schools, construction of school buildings, purchase and operation of school buses, and other services ancillary to the provision of public schools. Revenue and expenditure for dormitories, cafeterias, athletic events, bookstores, and other auxiliary enterprises financed mainly through charges for services are reported on a gross basis in both higher and elementary-secondary education. Other Education includes state educational administration and services, tuition grants, fellowships, aid to private schools, and special programs.
Electric power utility	Operation and maintenance of electric power system including production or acquisition and distribution of electric power. See under <i>Utility</i> .
Gas supply utility	Operation and maintenance of gas supply systems including acquisition and distribution of natural gas. See under <i>Utility</i> .
Hospitals	Financing, construction, acquisition, maintenance or operation of hospital facilities, provision of hospital care, and support of public or private hospitals. Own Hospitals are facilities administered directly by the government concerned; Other Hospitals refers to support for hospital services in private hospitals or other governments. However, see <i>Public Welfare</i> concerning vendor payments under welfare programs. Nursing homes are included under <i>Public Welfare</i> unless they are directly associated with a government hospital.
Housing and community development	Construction and operation of housing and redevelopment projects, and other activities to promote or aid housing and community development.
Liquor stores	Alcoholic beverage distribution facilities operated by governments maintaining alcoholic beverage monopoly systems.
Miscellaneous commercial activities	Provision and operation of commercial facilities not classified under particular functions. Includes a bank (North Dakota), a cement plant, hail insurance systems, and the like.

**Appendix Table 1. Description of State and Local Government Functions in the
Census of Government Financial Microdata – End of Table**

Government function	Description
Natural resources	Conservation, promotion, and development of natural resources, such as soil, water, forests, minerals, and wildlife. Includes irrigation, drainage, flood control, forestry and fire protection, soil reclamation, soil and water conservation, fish and game programs, and agricultural fairs. For the federal government, includes agricultural experiment stations and extension services, farm price stabilization programs, farm insurance and credit activities, and multipurpose power and reclamation projects.
Parking facilities	Construction, purchase, maintenance, and operation of public-use parking lots, garages, parking meters, and other distinctive parking facilities on a commercial basis.
Parks and recreation	Provision and support of recreational and cultural-scientific facilities and activities including golf courses, playfields, playgrounds, public beaches, swimming pools, tennis courts, parks, auditoriums, stadiums, camping areas, recreation piers, marinas, botanical gardens, galleries, museums, and zoos. Also includes building and operation of convention centers and exhibition halls.
Regular highways	Construction, maintenance, and operation of highways, streets, and related structures, including non-toll highways, bridges, tunnels, ferries, street lighting, and snow and ice removal.
Sea and inland port facilities	Construction, maintenance, operation, and support of canals and other waterways, harbors, docks, wharves, and related marine terminal facilities. (Also called “Water Transport and Terminals”).
Sewerage	Provision of sanitary and storm sewers and sewage disposal facilities and services, and payments to other governments for such purposes.
Solid waste management	Street cleaning, solid waste collection and disposal, and provision of sanitary landfills and resource recovery facilities.
Toll highways	Toll turnpikes and toll roads, toll bridges, ferries, and toll tunnels operated by state agencies. Expenditure for this purpose includes only acquisition, construction, and maintenance of state facilities; it does not include any debt service on toll facility debt or any aid to local governments for toll facilities.
Transit system utility	Construction, maintenance, and operation of public mass transit systems—bus, commuter rail, light rail, or subway systems. Excludes systems established solely to transport elementary and secondary school pupils. Ferry systems are classified under <i>Highways</i> . See under <i>Utility</i> .
Unclassified	All other general charges, not elsewhere classified.
Utility	A government-owned and -operated water supply, electric light and power, gas supply, or transit system. Excludes government revenue, expenditure, and debt relating to utility facilities leased to other governments or persons, and other commercial type activities of governments, such as port facilities, airports, housing projects, radio stations, steam plants, ferries, and the like which are classified as general government activities.
Water supply utility	Operation and maintenance of water supply system including acquisition and distribution of water to the general public or to other local governments for domestic or industrial use. Acquisition and distribution of water for irrigation of agricultural lands are classified under <i>Natural Resources</i> . See under <i>Utility</i> .

Source: U.S. Census Bureau (2008)

**Appendix Table 2. BEA Industries Used to Calculate Consumption of
Fixed Capital for Government Functions**

Government function	BEA Industry
Air transportation	Air transportation
Education	Educational services
Electric power utility	Utilities
Gas supply utility	Utilities
Hospitals	Hospitals for 1997–2017. Nursing homes are combined with hospitals in BEA’s industry tables prior to 1997, so the 1967–1992 estimates also include nursing homes.
Housing and community development	Real estate
Liquor stores	Retail trade
Miscellaneous commercial activities	Average of all industries
Natural resources	Average of all industries
Parking facilities	Other transportation and support activities
Parks and recreation	Amusements, gambling, and recreation industries
Regular highways	Construction
Sea and inland port facilities	Water transportation
Sewerage	Utilities
Solid waste management	Waste management and remediation services
Toll highways	Construction
Transit system utility	Transit and ground passenger transportation
Unclassified	Average of all industries
Water supply	Utilities