

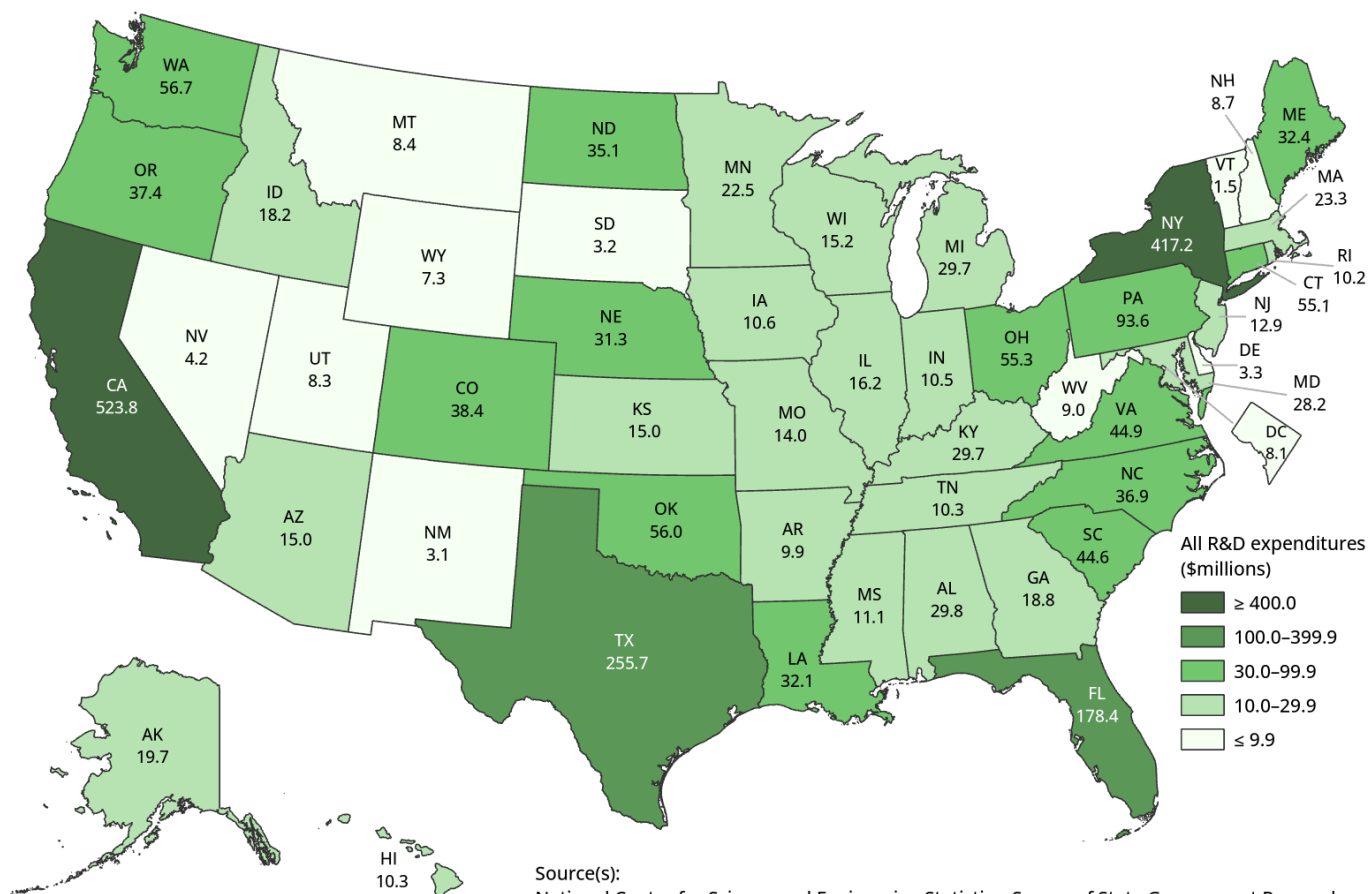


### All State Government Agency Expenditures for R&D, by Geographic Area: FY 2021

In FY 2021, state government agencies' expenditures for research and development (R&D) totaled nearly \$2.5 billion. Among all state government agencies, expenditures for R&D in California totaled nearly \$524 million, followed by New York (\$417 million), Texas (\$256 million), Florida (\$178 million), and Pennsylvania (\$94 million). Combined, the agencies in these five states accounted for 59% of all state governments' R&D. Despite the predominance of these five states in expenditures of R&D, all state governments had some R&D expenditures in FY 2021.

For statistical purposes, the District of Columbia is treated as equivalent to a state in these data. All data in this InfoByte are available at [NSF 23-302](#), table 8.

### All State Government Agency Expenditures for R&D, by Geographic Area: FY 2021



Source(s):  
National Center for Science and Engineering Statistics, Survey of State Government Research and Development: FY 2021.

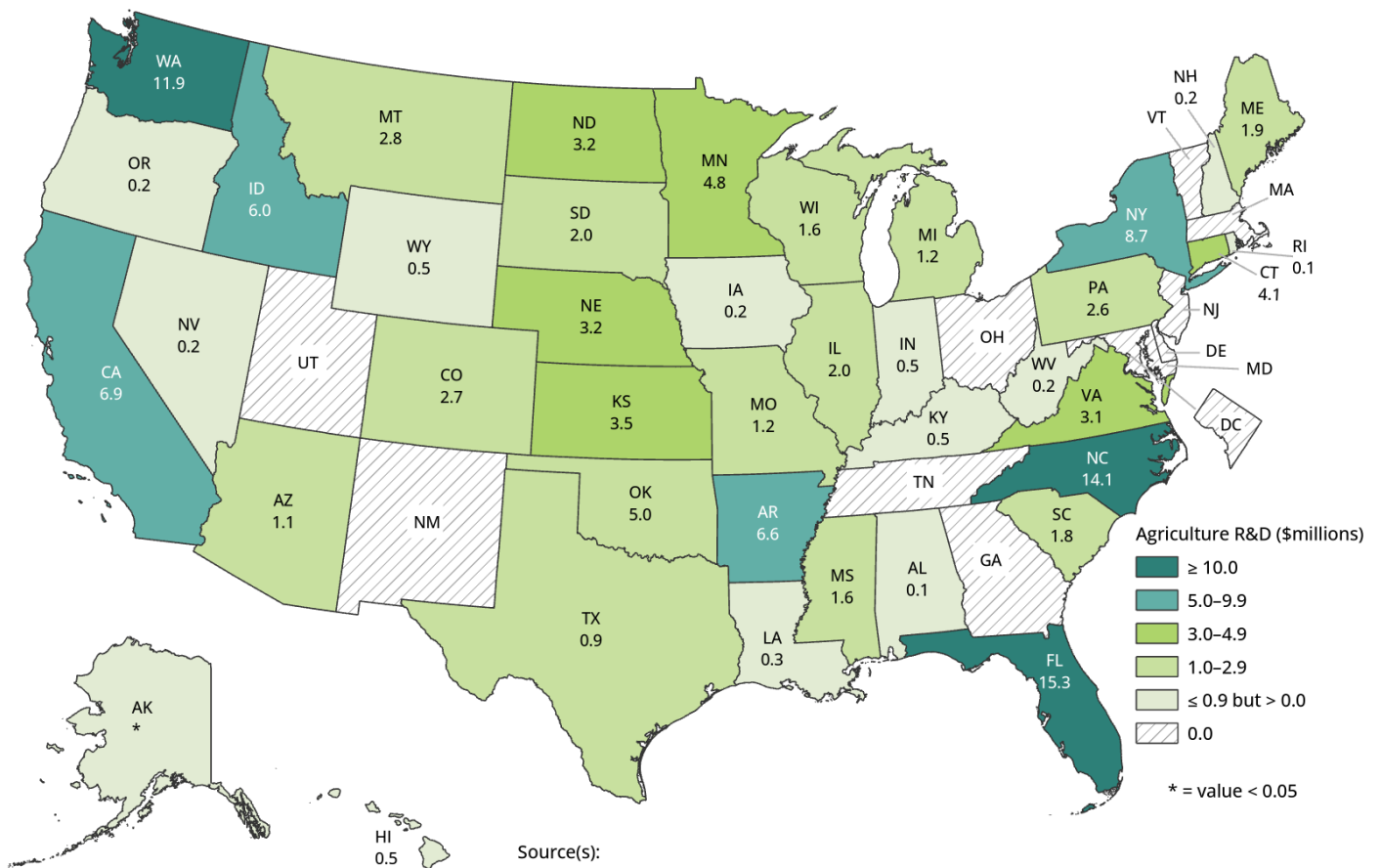
## State Government Agency Expenditures for R&D, by Geographic Area and Function: FY 2021

One measure of state government R&D expenditures is by governmental function. Governmental functions are broad categories that cover all spending for a given topic regardless of the agency and may include multiple scientific disciplines connected to research in support of a specific function. There are six functional categories included in this report: agriculture, energy, environment and natural resources, health, transportation, and other. Across all state agencies in all states, expenditures for R&D totaled \$120 million for agriculture; \$411 million for energy; \$429 million for environment and natural resources; just over \$1.0 billion for health, the largest R&D functional area; \$300 million for transportation; and \$182 million for all other functions not elsewhere classified. State government funding of R&D by function varies by state where R&D expenditures are more concentrated for some functions than others. For example, although all fifty state governments and the District of Columbia funded R&D for transportation, nineteen state governments did not fund any energy R&D in FY 2021.

### All State Government Agency Expenditures for Agricultural R&D, by Geographic Area: FY 2021

Agricultural R&D includes, but is not limited to, research in animal husbandry, aquaculture, crop management, pest control and mitigation strategies, and food and commodities. State government agencies in Florida, North Carolina, and Washington were among the largest funders of agricultural R&D in FY 2021. Combined, these three state governments funded \$41 million for agricultural R&D, or 34% of all state governments' agricultural R&D expenditures.

### All State Government Agency Expenditures for Agricultural R&D, by Geographic Area: FY 2021

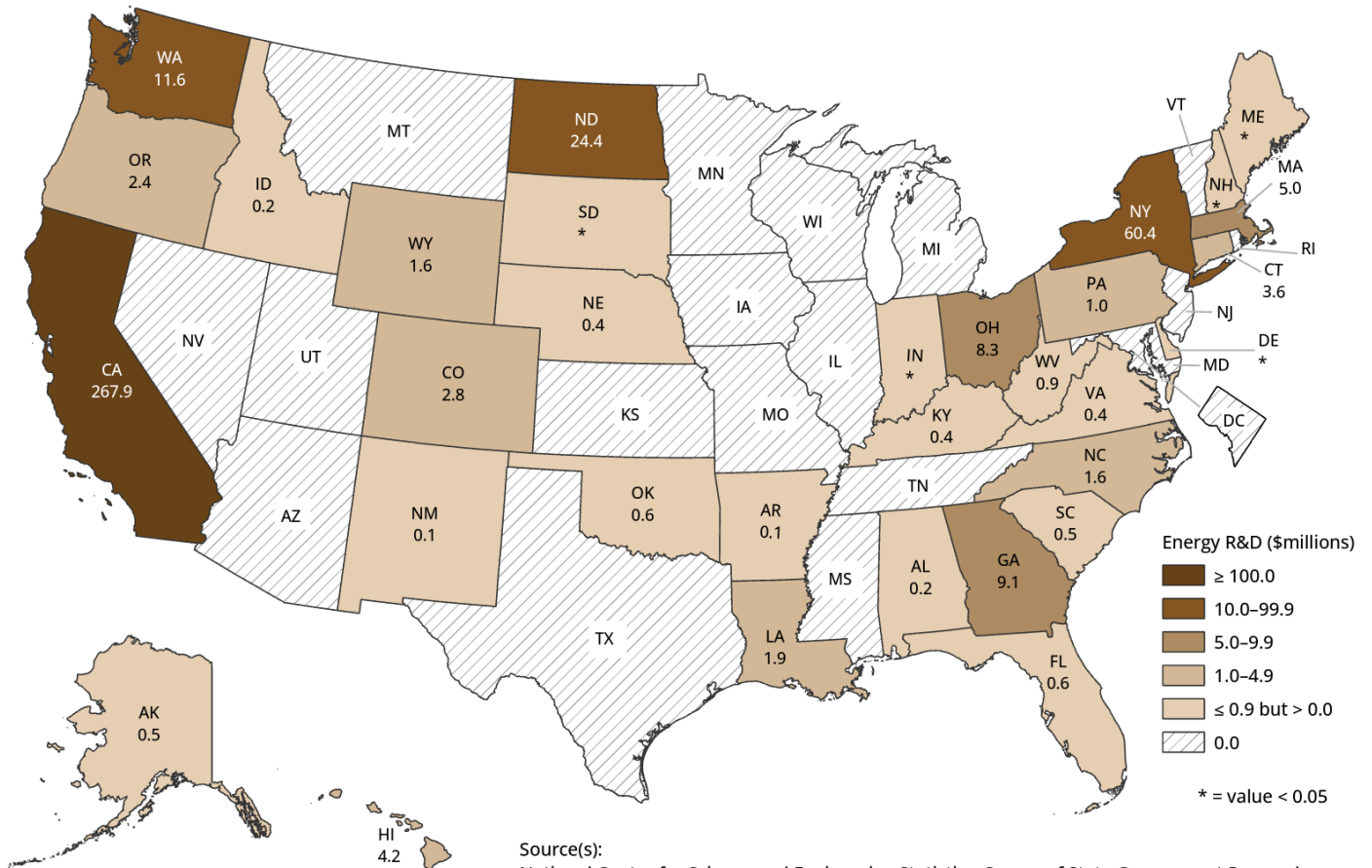


Source(s): National Center for Science and Engineering Statistics, Survey of State Government Research and Development: FY 2021.

## All State Government Agency Expenditures for Energy R&D, by Geographic Area: FY 2021

Energy R&D includes, but is not limited to, research in energy conservation and efficiency, alternative fuels (e.g., ethanol and biodiesel), oil and gas, other fossil fuels (e.g., coal and lignite), renewable energy (e.g., wind and solar), and extraction methods. State government agencies in California, New York, and North Dakota were the largest funders of energy R&D in FY 2021. Combined these three state governments funded \$353 million for energy R&D, or 86% of all state governments' energy R&D expenditures.

## All State Government Agency Expenditures for Energy R&D, by Geographic Area: FY 2021

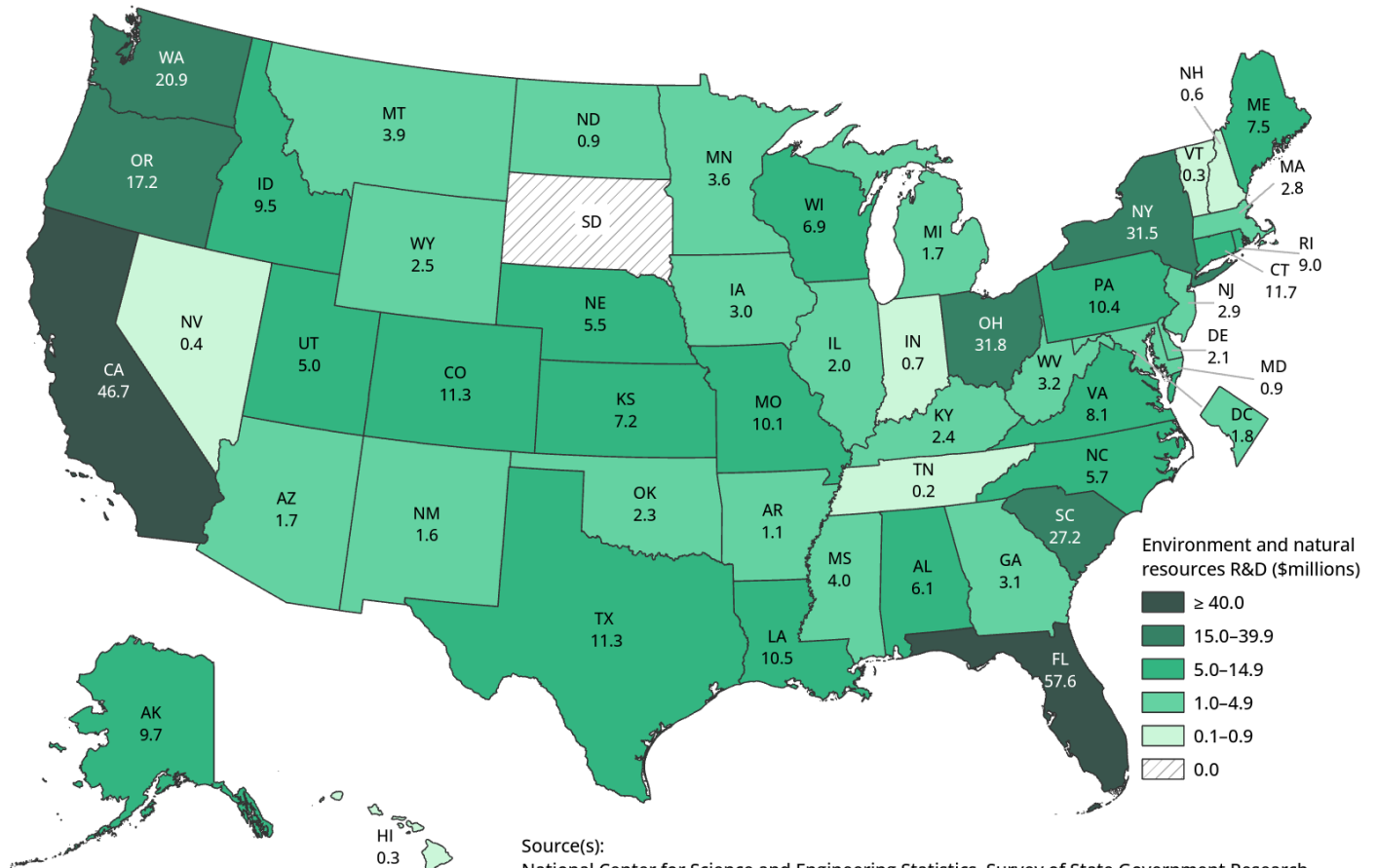


Source(s):  
National Center for Science and Engineering Statistics, Survey of State Government Research and Development: FY 2021.

## All State Government Agency Expenditures for Environment and Natural Resources R&D, by Geographic Area: FY 2021

R&D for environment and natural resources includes, but is not limited to, research in air and water quality, forestry, geological studies, marine and aquatic environments, parks and preserves, soil and water conservation, as well as fish, game, and wildlife. Although nearly all state governments had expenditures for environment and natural resources R&D in FY 2021, agencies in Florida, California, and Ohio were the largest funders for this function with \$136 million, or 32% or all state governments' environment and natural resources R&D.

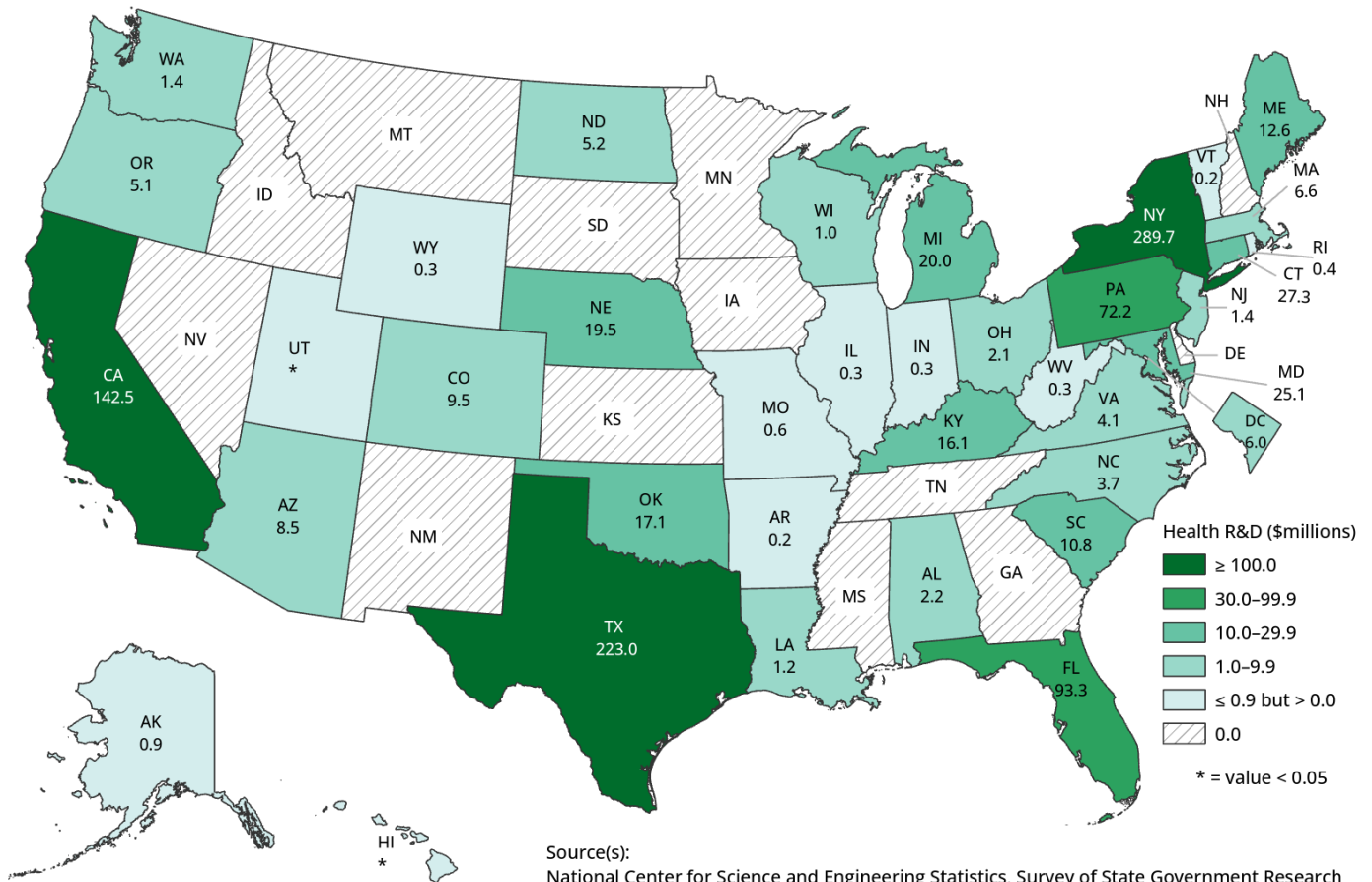
## All State Government Agency Expenditures for Environment and Natural Resources R&D, by Geographic Area: FY 2021



## All State Government Agency Expenditures for Health R&D, by Geographic Area: FY 2021

R&D for the health function includes, but is not limited to, biomedical research, mental health and addiction, pharmaceuticals, and public health. State agencies in New York, Texas, and California were the largest funders of health R&D in FY 2021, with more than \$100 million from each of these state governments. Combined these three state governments funded \$655 million for health R&D, or 64% of all state governments' health R&D expenditures.

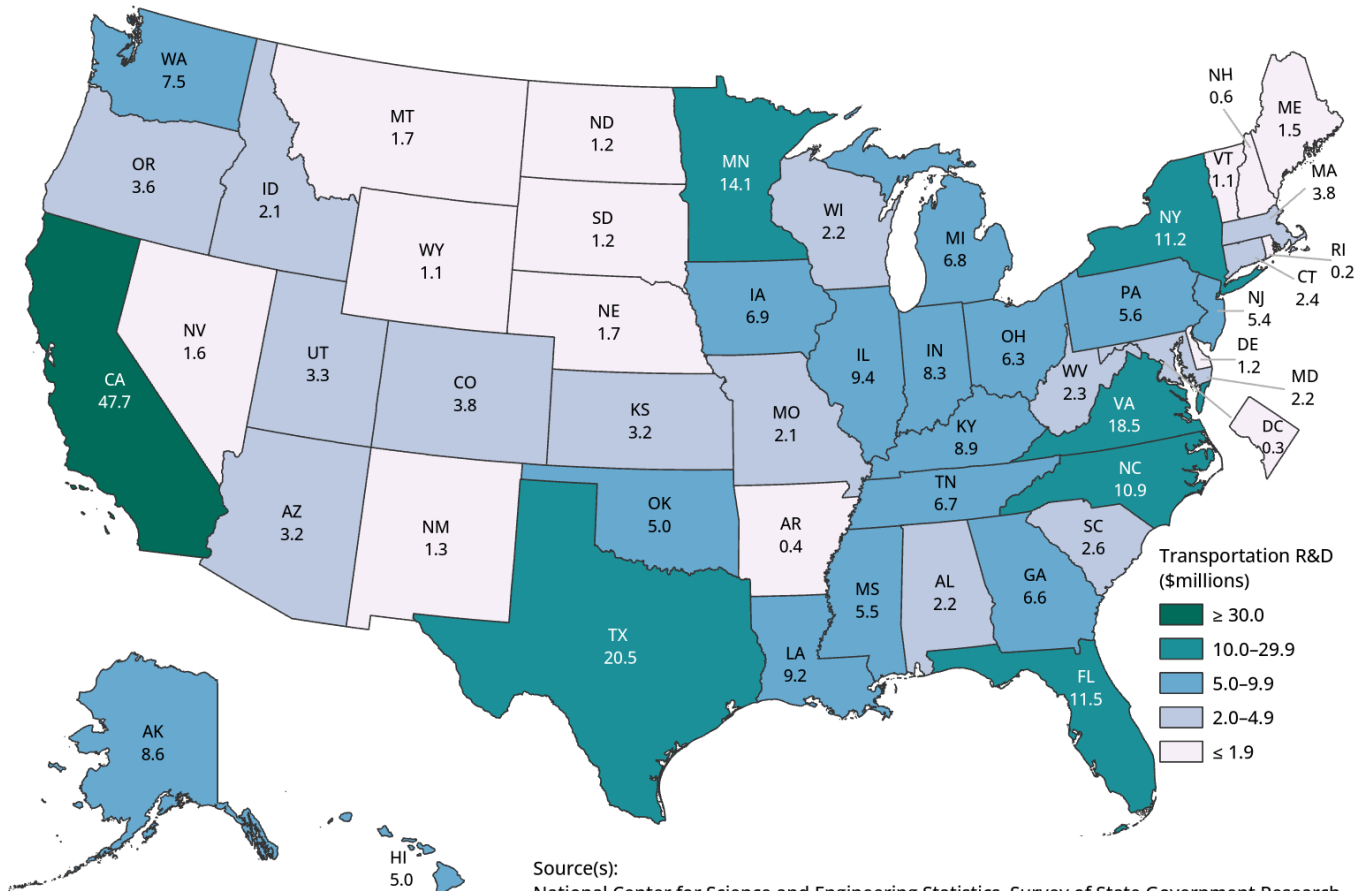
## All State Government Agency Expenditures for Health R&D, by Geographic Area: FY 2021



## All State Government Agency Expenditures for Transportation R&D, by Geographic Area: FY 2021

Transportation R&D includes, but is not limited to, research in aviation, ports and waterways, public transportation, rail and freight, highways, roads, and bridges. Although all state governments fund transportation R&D as part of the Department of Transportation Federal Highway Administrations National Cooperative Highway Research Program,<sup>1</sup> agencies in California, Texas, and Virginia were the largest funders of transportation R&D in FY 2021. Combined these three state governments funded \$87 million, or 29% of all state governments' transportation R&D expenditures.

## All State Government Agency Expenditures for Transportation R&D, by Geographic Area: FY 2021



Source(s): National Center for Science and Engineering Statistics, Survey of State Government Research and Development: FY 2021.

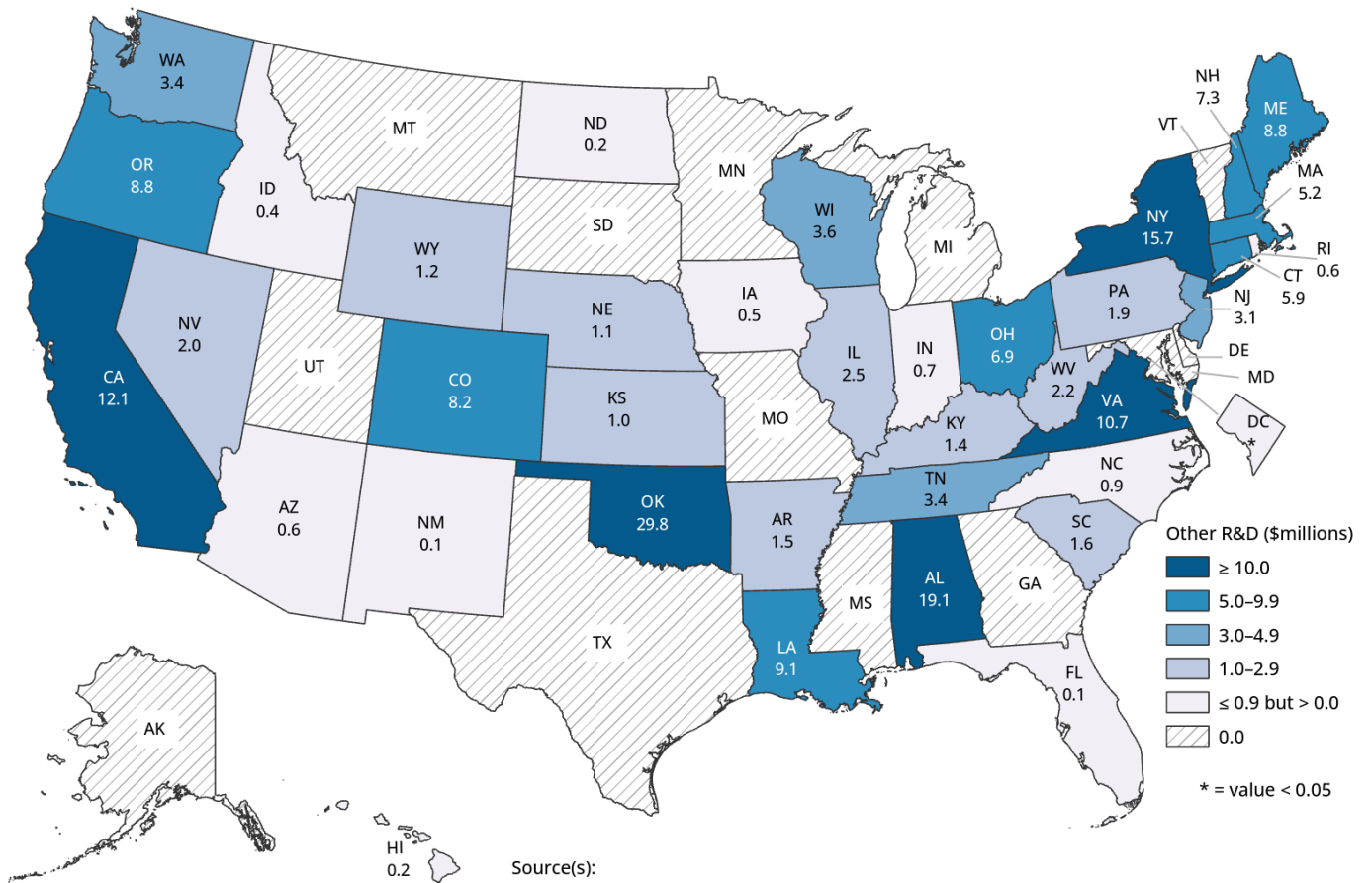
<sup>1</sup> For additional information, see <https://highways.dot.gov/research/opportunities-partnerships/partnerships/national-cooperative-highway-research-program>.



## All State Government Agency Expenditures for Other R&D, by Geographic Area: FY 2021

R&D in all other functions includes, but is not limited to, research in corrections and criminal justice, education, labor, public safety, and social services. In FY 2021, state government agencies in Oklahoma, Alabama, and New York had the most in R&D expenditures for all other functions, not elsewhere classified.

## All State Government Agency Expenditures for Other R&D, by Geographic Area: FY 2021



Source(s): National Center for Science and Engineering Statistics, Survey of State Government Research and Development: FY 2021.