

SMALL BUSINESS FACTS

SMALL BUSINESS CONTRIBUTIONS TO RESEARCH AND DEVELOPMENT

September 2022, by Tyler Richards, Regulatory Economist

Small Businesses Perform an Increased Share of R&D

Small businesses play an important role in innovation and R&D. In 2019, small businesses with 10–499 employees performed \$70.6 billion worth of R&D work and employed over 500,000 R&D workers. R&D performance includes work the company performed, regardless of whether the company paid for it or others did (through consulting or other means). Data on businesses with fewer than 10 employees are not as up to date, but these businesses perform a significant amount of R&D given their size. In the most recent data available, from 2016, businesses with 1-9 employees performed \$6.6 billion worth of R&D work. The overall role of small businesses in R&D has also grown over time. The small business share of total R&D performance increased from 5 percent in 1982 to over 20 percent in 2009 but was down to around 15 percent in 2019 (see Figure 1).

Figure 1: Small Business Share of R&D Performance



Note: 2017-2019 shares for businesses with 5-9 employees imputed by author.

R&D Funding Sources and Spending Differ by Business Size

In every size category, businesses get most of their R&D funding from inside the company. The smallest and largest businesses get higher percentages of their R&D funding from the federal government than do businesses in the middle of the pack (Figure 2). Small businesses also get a higher percentage of R&D funding from other sources, such as contracting with other businesses or with state and local governments, than do large businesses. Among businesses engaged in R&D, small businesses spend a much higher percentage of their sales on R&D than do large businesses (Figure 3). The distribution of small business R&D spending among different categories has remained relatively constant since 1985. About two-thirds of spending goes to development, about a quarter to applied research, and the remaining tenth to basic research.

Figure 2: R&D Funding Sources by Employment Size of Company

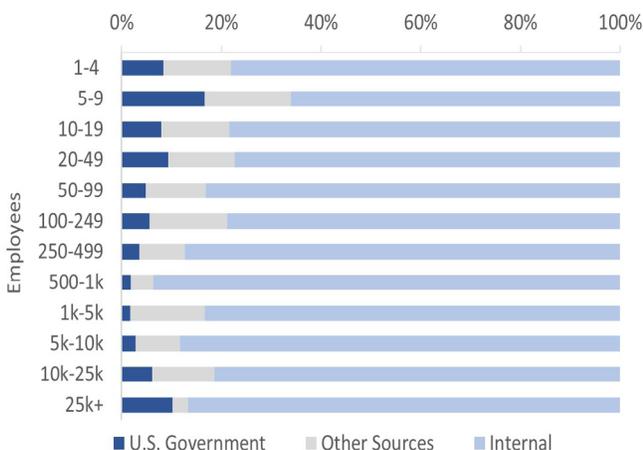
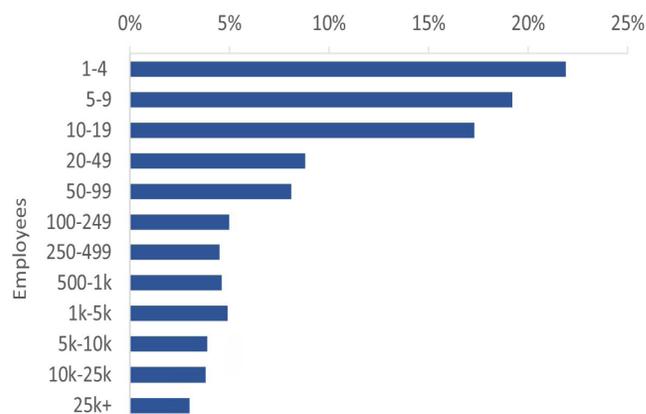


Figure 3: R&D Spending as Percent of Sales Among R&D-Performing Companies, by Employment Size



Sources: National Science Foundation, Business Enterprise Research and Development Survey (BERD), 2022 release, <https://www.nsf.gov/statistics/srvyberd/> (accessed August 19, 2022). National Science Foundation, Business R&D, and Innovation Survey – Microbusiness (BRDI-M), 2019, <https://www.nsf.gov/statistics/srvymicrobus/> (accessed August 19, 2022).