

UIDP Projects Survey: Size of Academic R&D Investments from Industry

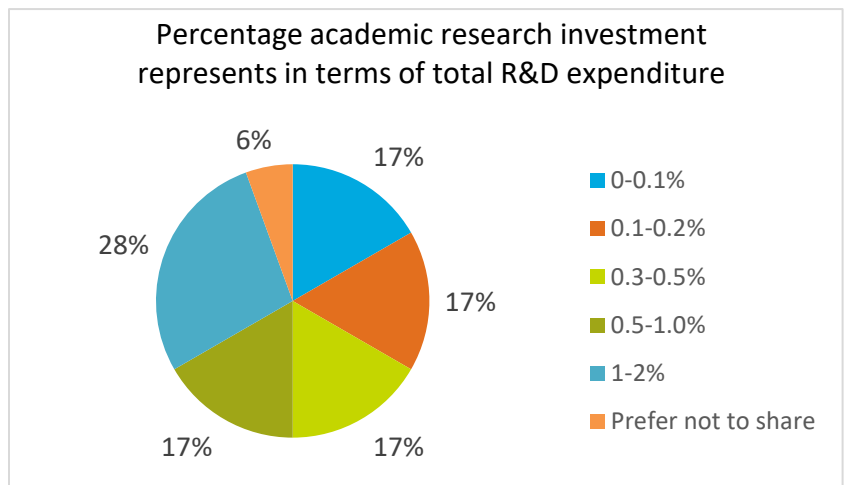
Oct. to Nov. 2021 | n=20

Companies with a keen interest in collaborative research have limited information upon which to base investment levels in external R&D efforts. Although government investment in research is well documented, similar investment from industry is not fully known. UIDP is exploring a benchmarking project to better understand the levers used to determine investment in university-industry research. To inform the project, we asked industry member representatives to offer information about their company’s investment in university sponsored research. Respondents were forthcoming about how much they spent on sponsored research and offered important context pertaining to their overall research expenditure.

The survey was in the field for one week and received responses from 20 UIDP member companies across a range of sectors. The largest proportion of respondents were from the tech sector (40%), followed by the chemical sector (20%). Other sectors represented were information, manufacturing, healthcare, food/consumer products, energy, agriculture, and aerospace. Company size was calibrated by number of employees worldwide; 35% of responding companies (the largest proportion) employ more than 100,000, and the next largest segment (30%) employ 50,000-100,000, indicating that a majority of respondents represent very large organizations. However, 10% of respondents were in companies with between 5,000 and 10,000 employees.

In terms of total R&D expenditure, companies by and large spend less than 1% of total research investment in university-sponsored research. **Less than one-third of respondents (28%) invest between 1% and 2% on research with university partners, and not a single respondent said they spent more than 2%.** It is also worth noting that 6% of respondents preferred not to share this information.

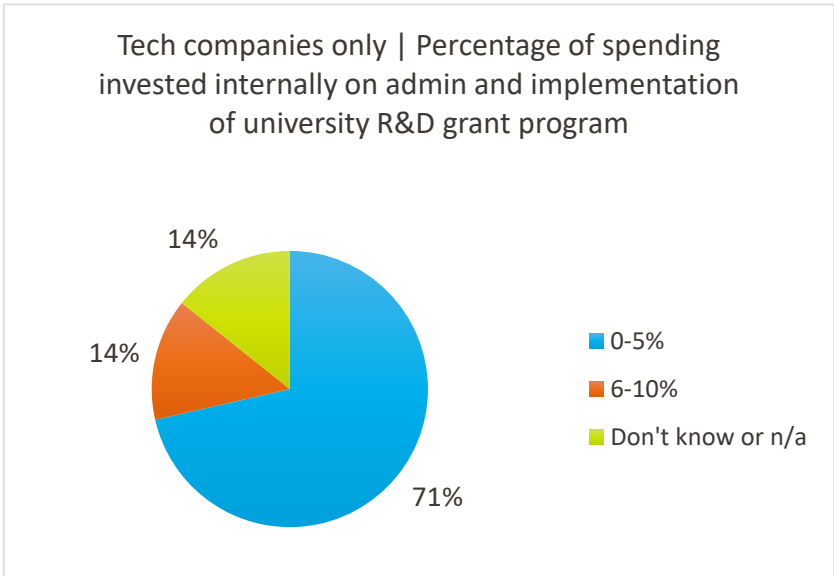
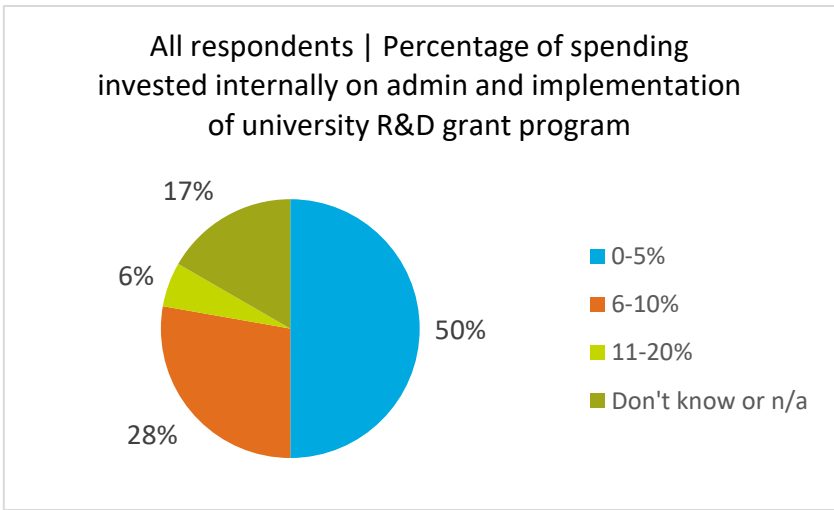
We asked respondents about their **annual global expenditure in academic research programs**. In dollars, the majority of respondents (60%) spent more than \$5 million annually on university sponsored research. Of those spending the highest amount, a majority (65%) were also among the companies with the most employees (more than 50,000). However, company size does not necessarily correlate with the largest university research expenditures, as 35% of respondents came from companies with between 5,000 and 50,000 employees.



Annual global expenditure for academic research programs	
Less than \$1M	10%
\$1M-\$2M	10%
\$2M-\$3M	10%
\$3M-\$4M	5%
\$4M-\$5M	5%
\$5M+	60%

Half of survey respondents say they manage these sponsored research programs with relatively low administrative investment. We asked respondents to indicate how much they spend internally on administration and implementation of their university R&D grant programs, not including time spent “off the books” nurturing and managing these programs. Half of respondents said they spend less than 5% on administration and implementation costs, and 28% said they spend between 6 and 10% on these costs. A small minority (6%) said they spend 11-20% on administration and implementation.

Interestingly, when sorting for **technology companies only**, none of these respondents reported more than 10% of total university research program expenditures on administration and implementation (71% spent between 0-5%).



NOTE: Although interest in this topic is strong in the UIDP community, data sources are limited. UIDP is interested in conducting a more rigorous project to gain further insight on this topic. We welcome comments and feedback so we can better acquire the information needed for a more comprehensive report.

Related Resources

A February 2021 article in *R&D World* reported that industry invests in academic research at a higher rate (2.5%) than the UIDP survey responses indicate.

Billions USD/Percent Changes from 2020						
R&D Source	R&D Performers					
	Federal Gov't	Industry	Academia	Federally Funded R&D Centers	Non-Profit	Total
Federal	\$49.8	\$40.0	\$46.0	\$17.0	\$7.0	\$159.8
Government	-0.2%	-2.4%	-2.1%	-2.3%	-5.4%	1.8%
Industry		\$380.1	\$10.0	\$4.0	\$2.3	\$396.4
		-1.1%	0.0%	-2.4%	-11.5%	-1.1%
Academia			\$20.0	\$0.3		\$20.3
			-12.7%	0.0%		-12.5%
Other			\$4.0			\$4.0
Government			0.0%			0.0%
Non-Profit			\$6.0	\$0.2	\$12.0	\$18.2
			-3.2%	-33.3%	-3.2%	-3.7%
Total	\$49.8	\$420.1	\$86.0	\$21.3	\$21.3	\$598.7
	-0.2%	-1.2%	-4.6%	-4.1%	-4.9%	-1.8%

Chart Source: COVID-19 and U.S. R&D. (2021). *R&D World*, Feb. 2021, p. 8.

Chart data sources: International Monetary Fund, World Bank, CIA Fact Book, National Science Foundation.