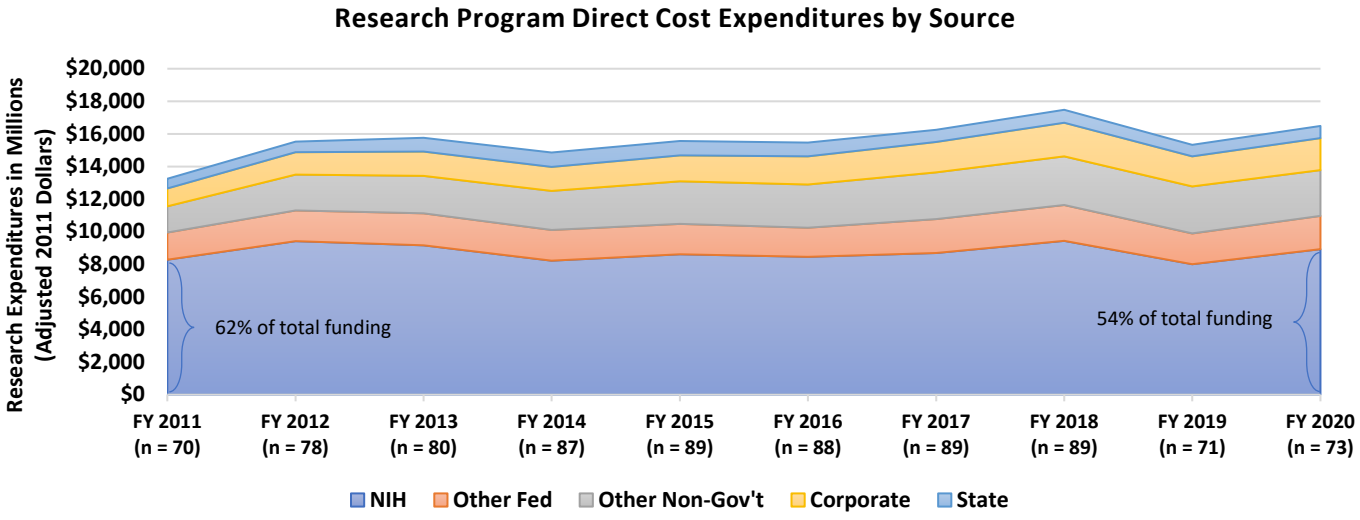
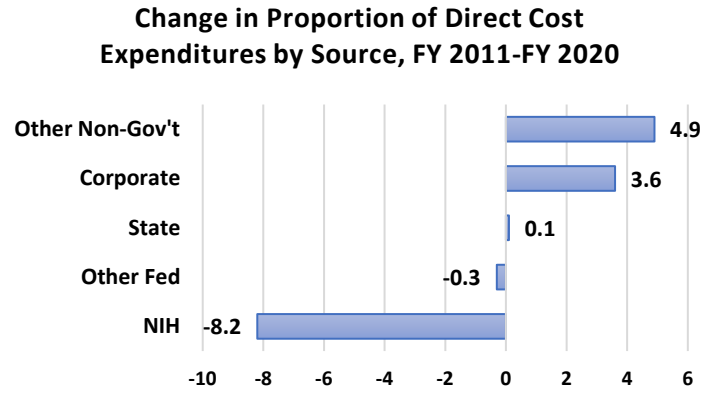
AAMC Data Snapshot

June 2022

Sponsored Research Program Direct Cost Expenditures by Funding Source: A 10-Year Review of Research Funding Trends at Fully Accredited U.S. Medical Schools

The research section of the Operations Management Survey collects sponsored program direct cost expenditures reported by fully accredited U.S. medical schools on the LCME Annual Financial Questionnaire. The sponsored program direct cost expenditures include NIH awards, federal government sponsors other than the NIH, industrial and corporate sponsors, other non-governmental organizations (e.g., philanthropy, associations, societies), and state-sponsored awards. Having a clearer understanding of the quantity and stability of research expenditures by funding source can help inform infrastructure-related decisions such as strategic mission alignment and general funds-flow questions. The following Data Snapshot provides a 10-year review of expenditures by funding source.





Key Observations:

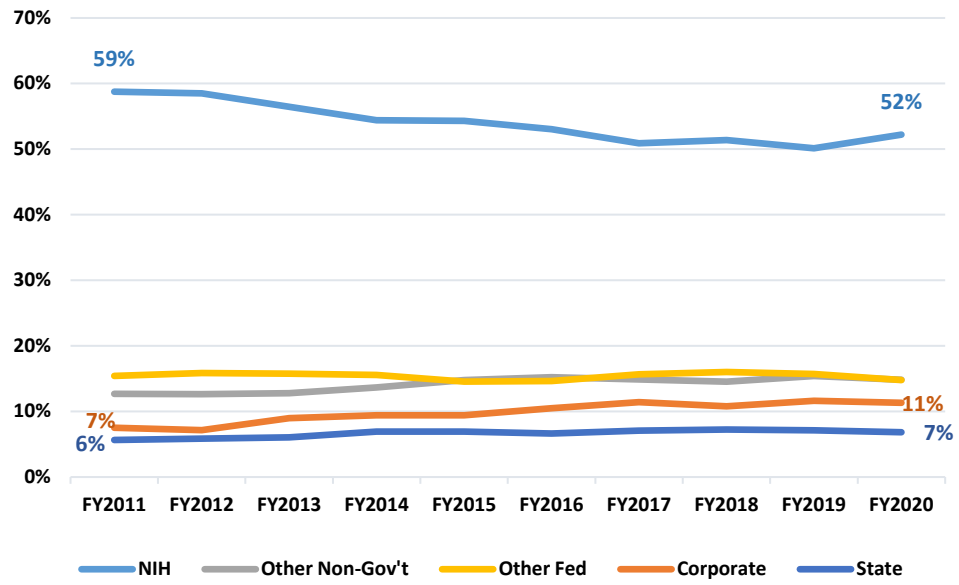
- NIH awards direct cost expenditures (DCE) grew 8% (adjusted 2011 dollars) from $8.3 billion to $8.9 billion between FY 2011 and FY 2020.
- However, NIH awards declined 8 percentage points as a portion of total DCE during this period.
- Other non-government awards (e.g., not state or local government) and industrial and corporate sponsor awards grew 74% and 79% (adjusted 2011 dollars) during this period, respectively, and increased from a combined 20% of total DCE in FY 2011 to 29% in FY 2020.

Data Source: All data for this Data Snapshot were derived from the Operations Management Survey, FY 2011-2020. Additionally, schools that reported a value of zero or greater for all award sources per year were included in this snapshot. Schools that reported a blank in any source were not included in that year.

Note: Expenditures were converted to 2011 constant dollars using the U.S. Bureau of Labor Statistics CPI-Urban for years 2011-2020.[1] The rationale for adjusting to a base year of 2011 dollars was to remove the effect of inflationary pressure on the real growth of expenditures by funding source.

AAMC Data Snapshot

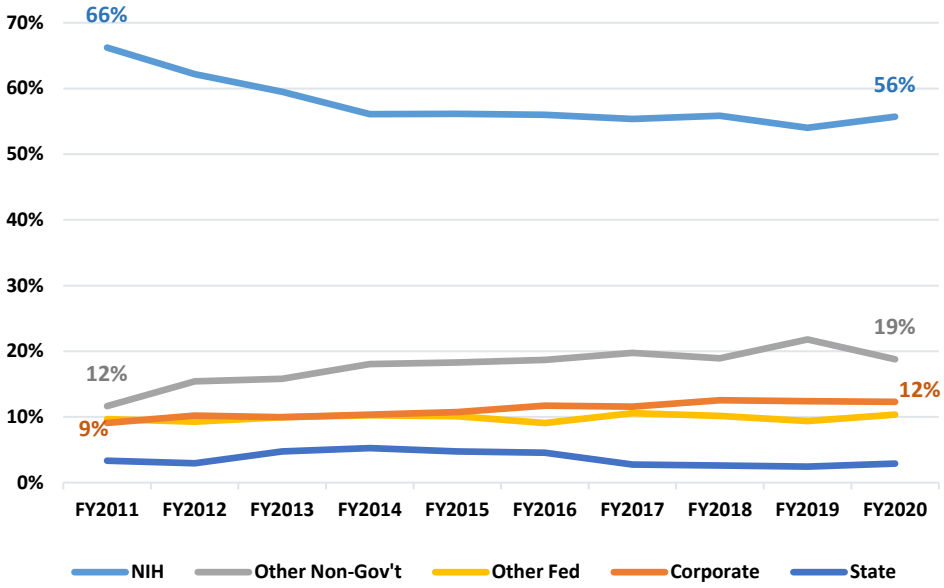
Expenditures by Source as a Percentage of Total Direct Cost Expenditures at Public U.S. Medical Schools, FY 2011-FY 2020



Key Observations:

- NIH awards to public medical schools declined 7 percentage points as a portion of total DCE and declined 5% overall in adjusted 2011 dollars from $3.9 billion in FY 2011 to $3.7 billion in FY 2020.
- Industrial and corporate sponsor awards increased 4 percentage points as a portion of total DCE and 62% overall in adjusted 2011 dollars from $ 508 million in FY 2011 to $822 million in FY 2020.
- State awards also increased 30% overall in adjusted 2011 dollars from $383 million in FY 2011 to $497 million in FY 2020.

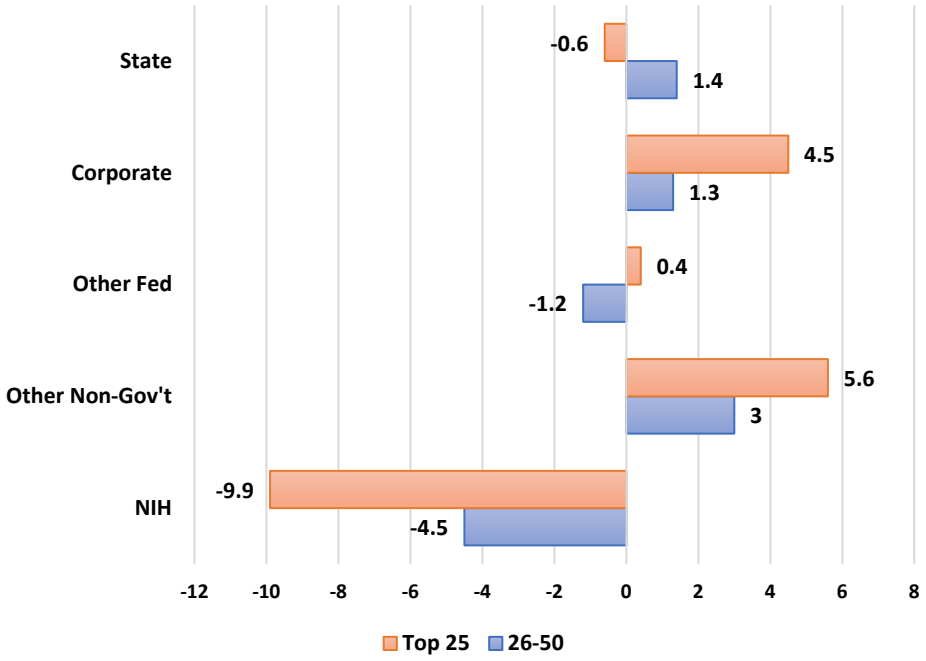
Expenditures by Source as a Percentage of Total Direct Cost Expenditures at Private U.S. Medical Schools, FY 2011-FY 2020



Key Observations:

- While NIH awards to private medical schools declined 11 percentage points (due to rounding) as a portion of total DCE, overall adjusted 2011 dollars increased by 20% from $4.2 billion in FY 2011 to $5.1 billion in FY 2020.
- Other non-government sponsor awards increased 7 percentage points as portion of total DCE and 130% overall in adjusted 2011 dollars from $752 million in FY 2011 to $1.7 billion in FY 2020.
- Industrial and corporate sponsor awards increased 4 percentage points as a portion of total DCE and grew 93% overall in adjusted 2011 dollars from $587 million in FY 2011 to $1.1 billion in FY 2020.

Change in Proportion of Total Direct Cost Expenditures by Source and Research Rank, FY 2011-FY 2020



Key Observations:

- NIH awards to the top 25 research institutions declined 10 percentage points as a portion of total DCE between FY 2011 and FY 2020, though adjusted 2011 dollars increased 12% overall from $6.0 billion to $6.7 billion during this period.
- Similarly, NIH awards to schools ranked 26-50 declined 4.5 percentage points as a portion of total DCE, though again, adjusted dollars increased 23% overall from $1.5 billion to $1.9 billion during this time.
- For top 25 research institutions, other non-government and corporate DCE increased 91% and 106% overall, from $1.2 billion to $2.2 billion and $750 million to $1.5 billion, respectively, between FY 2011 and FY 2020.

Conclusion

In FY 2011, direct cost expenditures associated with NIH awards accounted for nearly two-thirds (62%) of the total research portfolio. By 2020, it accounted for just over half (54%). While research dollars from NIH awards still account for greater than 50% of total sponsored program direct cost expenditures, the decline as a portion of total direct cost expenditures, and the slow growth in aggregate dollars overall, is notable though not surprising.[2] The growth of other non-government and industrial and corporate sponsored awards, while substantially smaller in aggregate dollars, is encouraging if only for the fact that it is sustaining the research missions of academic medicine during periods of NIH funding stagnation. Sustained and meaningful growth of research funding, whether through the NIH budget or other sponsors, is necessary if academic medicine is to maintain its influence.[3]

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References

1. U.S. Department of Labor, Bureau of Labor Statistics. Consumer Price Index for 2011-2020. https://www.bls.gov/data/. Accessed Feb. 1, 2022.
2. Congressional Research Service. *National Institutes of Health (NIH) Funding: FY1996-FY2022*. United States Library of Congress; 2022. https://crsreports.congress.gov/search/#/?termsToSearch=R43341
3. AAMC (Association of American Medical Colleges). *The Value of NIH-Funded Research at Medical Schools and Teaching Hospitals*. Washington, D.C.: AAMC; 2019. https://www.aamc.org/media/30596/download.

Appendix

The Operations Management Survey defines "sponsored program direct cost Expenditures" as all expenditures, including those recorded (i.e., "on the books") and those not recorded (i.e., "off the books"), in medical school accounts that materially benefit medical school activities, which include:

NIH awards: Direct costs expenditures associated with awards from the National Institutes of Health.

Federal awards other than NIH awards: Direct costs expenditures associated with awards from federal government agencies other than the National Institutes of Health.

Note: The sum of these expenditures should equal the amount reported as "Total Direct Costs (Federal Government)" of the FY 2021 LCME Part I-A Annual Financial Questionnaire (AFQ).

Industrial/corporate sponsors awards: These include pharmaceutical companies, company-sponsored foundations, and trade and other business organizations.

Other non-government sponsors awards: These sponsors are not state or local governments, and include philanthropic foundations, charitable organizations, community and independent foundations, associations, and societies.

State and local government awards: Direct cost expenditures associated with awards from state and local governments.