Congressional Budget Office
Cost Estimate

March 22, 2024

At a Glance

S. 1396, Research Advancing to Market Production for Innovators Act

As reported by the Senate Committee on Small Business and Entrepreneurship on July 25, 2023

By Fiscal Year, Millions of Dollars	2024	2024-2029	2024-2034
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	4	88	not estimated

Increases *net direct spending* in any of the four consecutive 10-year periods beginning in 2035?	No
Increases *on-budget deficits* in any of the four consecutive 10-year periods beginning in 2035?	No
Statutory pay-as-you-go procedures apply?	No
Mandate Effects	
Contains intergovernmental mandate?	Yes, Under Threshold
Contains private-sector mandate?	Yes, Under Threshold

The bill would

- Change the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs to speed up the application review process and require certain large agencies to hire technology commercialization officials
- Impose intergovernmental and private-sector mandates

Estimated budgetary effects would mainly stem from

- Increasing spending subject to appropriation by requiring agencies participating in the SBIR or STTR programs to hire technology commercialization officials and publish commercialization impact assessments

Detailed estimate begins on the next page.

See also
CBO's Cost Estimates Explained, *CBO Describes Its Cost-Estimating Process*, *Glossary*

Bill Summary

S. 1396 would change the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs that are administered by the Small Business Administration (SBA). Currently, five federal agencies participate in the STTR and SBIR programs and six more just participate in the SBIR program. Those agencies must set aside a portion of their extramural research and development (R&D) budgets to fund R&D projects carried out by small businesses.

The bill would accelerate the review process for SBIR and STTR proposals submitted to the National Institutes of Health and the National Science Foundation (NSF). Under the bill, the agencies that participate in those programs also would be required to designate technology commercialization officials to help SBIR and STTR awardees commercialize technology and identify markets for the awardees' products. Those agencies also would report to the SBA on the technologies from the SBIR or STTR programs that are ready for commercialization.

S. 1396 would require the SBA to report to the Congress on small businesses that receive certain awards under the SBIR program. The SBA also would need to receive and process annual reports from commercialization officials, coordinate with federal agencies to develop and publish commercialization impact assessments each year, and enter into an interagency agreement with the Patent and Trademark Office (PTO) to prioritize patent applications from SBIR and STTR awardees.

Estimated Federal Cost

The estimated budgetary effect of S. 1396 is shown in Table 1. The costs of the legislation fall within a variety of budget functions.

Basis of Estimate

For this estimate, CBO assumes that S. 1396 will be enacted in 2024 and that the estimated amounts will be appropriated in each year. CBO estimates that implementing S. 1396 would cost $88 million over the 2024-2029 period. Those costs are for personnel and are increased each year to account for anticipated inflation.

SBIR and STTR Agencies

CBO estimates that implementing the bill would cost the agencies that administer an SBIR or STTR program a combined $82 million over the 2024-2029 period. In 2023, CBO expects that in total agencies allocated more than $1 billion to SBIR and STTR awards.

Using information from the Department of Defense and the NSF, CBO estimates that participating agencies would need 23 technology commercialization officials, at an annual cost of $230,000 each, and 46 support staff, at an annual cost of $150,000 each. The Department of Defense would need a little more than half of those officials because 13 of the department's component agencies, including the Army, Navy, and Air Force, participate in the SBIR and STTR programs. CBO anticipates that about half of the needed staff would be in place by the end of 2024 and that the rest would be in place by the beginning of 2026.

Table 1.
Estimated Increases in Spending Subject to Appropriation Under S. 1396

	By Fiscal Year, Millions of Dollars						
	2024	2025	2026	2027	2028	2029	2024-2029
SBIR and STTR Agencies[a]							
Estimated Authorization	4	10	17	18	18	19	86
Estimated Outlays	3	9	16	17	18	19	82
Small Business Administration							
Estimated Authorization	1	1	1	1	1	1	6
Estimated Outlays	1	1	1	1	1	1	6
Total Changes							
Estimated Authorization	5	11	18	19	19	20	92
Estimated Outlays	4	10	17	18	19	20	88

SBIR = Small Business Innovation Research; STTR = Small Business Technology Transfer.

S. 1396 would require the Patent and Trademark Office (PTO), which is authorized to collect fees in amounts sufficient to offset its annual appropriation, to coordinate with the SBA to prioritize patent applications from SBIR and STTR awardees. CBO expects that PTO would adjust its fee collections to match any increase in operating costs. Assuming appropriation actions consistent with that authority, CBO estimates that the net increase in discretionary spending for PTO would be negligible.

a. The agencies that administer an SBIR program, an STTR program, or both, are the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation.

Small Business Administration

CBO estimates that implementing the bill would cost the SBA $6 million over the 2024-2029 period. CBO expects that the SBA would need six employees, at an average annual cost of $175,000, to coordinate with agencies that administer SBIR or STTR programs and prepare commercialization impact assessments.

Patent and Trademark Office

CBO estimates that implementing S. 1396 would cost PTO an insignificant amount over the 2024-2029 period. Additionally, because PTO is authorized to collect fees in amounts sufficient to offset its annual appropriation, CBO expects that the agency would adjust fee collections to match any increase in operating costs. Assuming appropriation actions consistent with that authority, CBO estimates that the net increase in discretionary spending for PTO would be negligible.

Innovation Corps

S. 1396 would direct the agencies that are required to administer the NSF's Innovation Corps, which trains researchers to commercialize technology, to allow SBIR and STTR awardees to participate in that training. CBO is uncertain whether that provision would affect participation in the program. Under current law, the NSF and other agencies, such as the

Department of Energy and the National Institutes of Health, already offer the opportunity for SBIR and STTR awardees to apply for Innovation Corps training.

Based on historical participation in the program, CBO does not expect that the bill would expand eligibility for or require agencies to expand participation in the Innovation Corps program. On that basis, we estimate that implementing that requirement would not have a cost. If agencies did increase eligibility for the Innovation Corps program under the bill, the cost of implementing the bill could be higher.

Pay-As-You-Go Considerations

Enacting the bill would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

Increase in Long-Term Net Direct Spending and Deficits

CBO estimates that enacting S. 1396 would not increase net direct spending or deficits in any of the four consecutive 10-year periods beginning in 2035.

Mandates

S. 1396 would impose intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

Under S. 1396, certain participants in the SBIR and STTR programs would be newly required to report to the SBA on revenues and federal contracts for a period dating to nine years before enactment. Because that requirement would apply retroactively, it would impose a private-sector mandate as defined in UMRA. CBO estimates that the incremental cost of the mandate would be small because the mandated entities already possess or report the information to other federal agencies.

If PTO increases fees to offset the costs of implementing the bill, S. 1396 would increase the cost of an existing mandate on private and intergovernmental entities required to pay those fees. CBO estimates that the incremental cost of the mandate would be small.

CBO estimates that the aggregate costs to comply with the intergovernmental and private-sector mandates would not exceed the annual thresholds established in UMRA ($100 million and $200 million in 2024, respectively, adjusted annually for inflation).

Estimate Prepared By

Federal Costs:

David Hughes (for the Patent and Trademark Office and the
Small Business Administration)

Willow Latham-Proença (for the National Science Foundation)

Aldo Prosperi (for the Department of Defense)

Mandates: Rachel Austin

Estimate Reviewed By

Justin Humphrey
Chief, Finance, Housing, and Education Cost Estimates Unit

David Newman
Chief, Defense, International Affairs, and Veterans' Affairs Cost Estimates Unit

Robert Reese
Chief, Natural and Physical Resources Cost Estimates Unit

Kathleen FitzGerald
Chief, Public and Private Mandates Unit

H. Samuel Papenfuss
Deputy Director of Budget Analysis

Estimate Approved By

Phillip L. Swagel
Director, Congressional Budget Office