

Question 15. E.O. 13329 Report

The U.S. Department of Education (ED) operates its SBIR program at the Institute of Education Sciences (IES). In 2021, the ED SBIR Program used a contracts mechanism to provide up to \$1,100,000 in funding (\$200,000 for Phase I; \$900,000 for Phase II) to small business firms and partners for the research and development (R&D) of commercially viable education technology products for use by students, teachers, and administrators in education and in special education settings.

[Executive Order 13329](#), which was instituted in 2004, assigns duties to the Federal Government to do its part to assist the private sector in its manufacturing innovation efforts and instructs SBIR programs to assign priority to projects that are manufacturing-related.

Broadly speaking, ED's SBIR program supports and encourages R&D in manufacturing through the development of educational products for use by students, educators, or administrators in education and special education.

In 2021, attention was paid in identifying projects that were manufacturing-related. Of the 29 contracts awarded, six projects conducted R&D of hardware components, which if demonstrated to be feasible could potentially be manufactured and commercialized on a broader scale during Phase III.

An example of a manufacturing-related ED SBIR project from the 2021 portfolio that is conducting R&D of hardware that could potentially be manufactured and commercialized on a broader scale:

With a [Phase I award in 2021](#), Myriad Sensors is developing a new prototype of a matchbox-sized car with embedded sensors for measuring velocity, acceleration, and force, for use in hands-on physical science classrooms. The prototype includes a sensor component that captures and transmits data to an app and a user-interface to present data from which educators and students can draw insights. When fully developed, this product will be used by students in and out of classrooms to supplement learning of course content aligned to Next Generation Science Standards (NGSS) topics in physics. The sensor that collects data is being manufactured in the United States to enable wide scale commercialization and distribution to schools. To do so, Myriad Sensors contracts with a US owned manufacturer. When the product is ready for distribution to end customers, Myriad Sensors will do their own assembly, programming, testing, and packaging of devices in house.

In FY2021, ED SBIR continued to implement procedures to give priority to manufacturing related projects, including by:

- 1) Placing a notice in SBIR program solicitations that details Executive Order 13329;
- 2) Placing a forced-choice question in the SBIR program solicitations for applicants to indicate (yes or no) whether their proposed project is “manufacturing-related;” and
- 3) Placing language in the solicitation advising potential applicants that ED SBIR offices will give priority to manufacturing-related projects in the event of a tie in the award selection process. (Note: This “tie-breaker” specification allows the ED SBIR program to apply an additional preference without compromising the quality standards or established criteria of the program).

In FY2021, ED SBIR used the following procedures and mechanisms to promote and support Executive Order 13329:

- 1) Maintained the notice on the ED SBIR website that describes Executive Order 13329, provides a definition of manufacturing-related projects in education, and provides a web-link to the Executive Order
- 2) Continued tracking and reporting success stories demonstrating the impact of the SBIR program on manufacturing
- 3) Placed a notice in SBIR program solicitations on manufacturing