

Summary of the Data Science and Literacy Act of 2023

The Data Science and Literacy Act of 2023 supports a voluntary program at the Department of Education through which educational entities (from elementary to two- and four-year colleges) can apply for funding to increase access to data science and literacy education. Given the growth of data-intensive jobs and the rising use of data across a variety of fields, data science and literacy education are critical for building America's STEM workforce. Improved access to data literacy education would also prepare students to make more informed decisions and understand uncertainty in their daily lives.

Section 1, Short Title:

- Provides the title of the bill, “Data Science and Literacy Act of 2023”

Section 2, Findings:

Explains why data science and literacy education is vital for the American people:

- Data science and literacy are vital for building a modern STEM (science, technology, engineering, and mathematics) workforce
 - Data-driven roles, such as data scientists and statisticians, are among the fastest growing positions in the United States
 - Data literacy is increasingly integral in STEM fields
 - Early access to high-quality data science and literacy education is necessary to meet industry demands and competitiveness pressures
 - Ensuring equitable access to data science and literacy education would help to expand the STEM workforce by accessing talent across the socioeconomic spectrum
- Given the ubiquity of data, data literacy is essential for effective citizenship and personal well-being
- Effective data science and statistics education at the prekindergarten through postsecondary level—
 - Ensure graduates the skills and knowledge necessary to compete in the workforce of the 21st century, with its burgeoning growth of and dependence on data, and acquire the self-efficacy and motivation to embrace careers in data science, statistics, and other STEM fields
 - Contribute to student learning and problem-solving skills across multiple disciplines; and
 - Equip students with the knowledge needed to be responsible and engaged citizens

TITLE I—DATA LITERACY EDUCATION GRANT PROGRAM

Sections 101-103, Data Science and Literacy Grants, Applications and Use of Funds:

- Provides grants to eligible entities (states, local educational agencies, tribal schools, and institutions of higher education) in order to:
 - Ensure access to data science, data literacy, and statistics education for all students served by the eligible entity
 - Promote data science, data literacy, and statistics through professional development for teachers and developing learning material

- Expand access to STEM classes, using data science and literacy as a catalyst for increased interest in STEM more broadly
- Address equity gaps in access to STEM courses
- Specifies application requirements and authorized activities, with differing requirements and activities for entities serving kindergarten through 12th grade and institutions of higher education
 - These differences reflect the roles these entities serve within their communities
 - Provisions relating to two-year colleges are important for addressing equity gaps in access to data science and statistics, as well as STEM more generally

Section 104, Reporting and Evaluation:

- Grantee reports: each eligible entity that receives a grant shall submit a report (at least twice a year) to the Secretary of Education on the use of grant funds
- The Secretary shall submit a report to Congress (no later than 5 years after the first grant is awarded) based on the analysis of the grantee reports
- The Secretary, through the Director of the Institute of Educational Sciences, shall evaluate and make public the effectiveness of the grants

Section 105, Definitions:

- Defines key terms including data science, data literacy, and statistics

Section 106, Appropriated Amount:

- \$10 million is authorized annually for this program for five years

TITLE II—STATISTICS ON SECONDARY SCHOOL STEM TEACHERS

Section 201, Amendments to the Education Sciences Reform Act of 2002:

- Directs National Center for Education Statistics to collect data on the STEM education workforce, including disciplines taught, relevant background, and demographics