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**LEGISLATIVE EDUCATION STUDY COMMITTEE**  
**BILL ANALYSIS**  
**55th Legislature, 2nd Session, 2022**

|                        |                                  |                            |                      |
|------------------------|----------------------------------|----------------------------|----------------------|
| <b>Bill Number</b>     | <u>HB115</u>                     | <b>Sponsor</b>             | <u>Lujan/Herndon</u> |
| <b>Tracking Number</b> | <u>.221961.2</u>                 | <b>Committee Referrals</b> | <u>HEC/HAFC</u>      |
| <b>Short Title</b>     | <u>School STEM Pilot Program</u> |                            |                      |
| <b>Analyst</b>         | <u>Hoxie</u>                     | <b>Original Date</b>       | <u>1/31/2022</u>     |
|                        |                                  | <b>Last Updated</b>        | <u></u>              |

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**BILL SUMMARY**

Synopsis of Bill

House Bill 115 (HB115) adds a new section to the Public School Code and creates an eight-year science, technology, engineering, and mathematics (STEM) pilot project to be administered by the Public Education Department (PED). HB115 also creates a corresponding fund, the science, technology, engineering and mathematics plus fund, which is directed to be administered by PED.

Per the provisions of HB115, the STEM pilot project will model programs for students and teachers in science, technology, engineering, and mathematics for kindergarten through fourth grade. HB115 directs PED to establish the application process and evaluation criteria for the STEM pilot project. The first year of the STEM pilot project will be conducted in the Socorro Consolidated School District, Santa Fe Public Schools, and two other districts selected through an application process; HB115 directs PED to review the pilot program's progress.

HB115 requires PED to partner with New Mexico Institute for Mining and Technology, New Mexico Highlands University, and Western New Mexico University for: 1) the professional development of participating teachers in science, technology, engineering, and mathematics; 2) the evaluation of teacher and student research projects; 3) data collection and analysis; and 4) the evaluation of the pilot program. HB115 allows PED to partner with other entities not identified in the bill.

The fund created as part of HB115—the science, technology, engineering and mathematics plus fund—would consist of appropriations, grants, gifts, and donations and would be administered by PED. Money in the fund would be subject to appropriation by the Legislature to carry out the purposes of the science, technology, engineering, and mathematics eight-year pilot project.

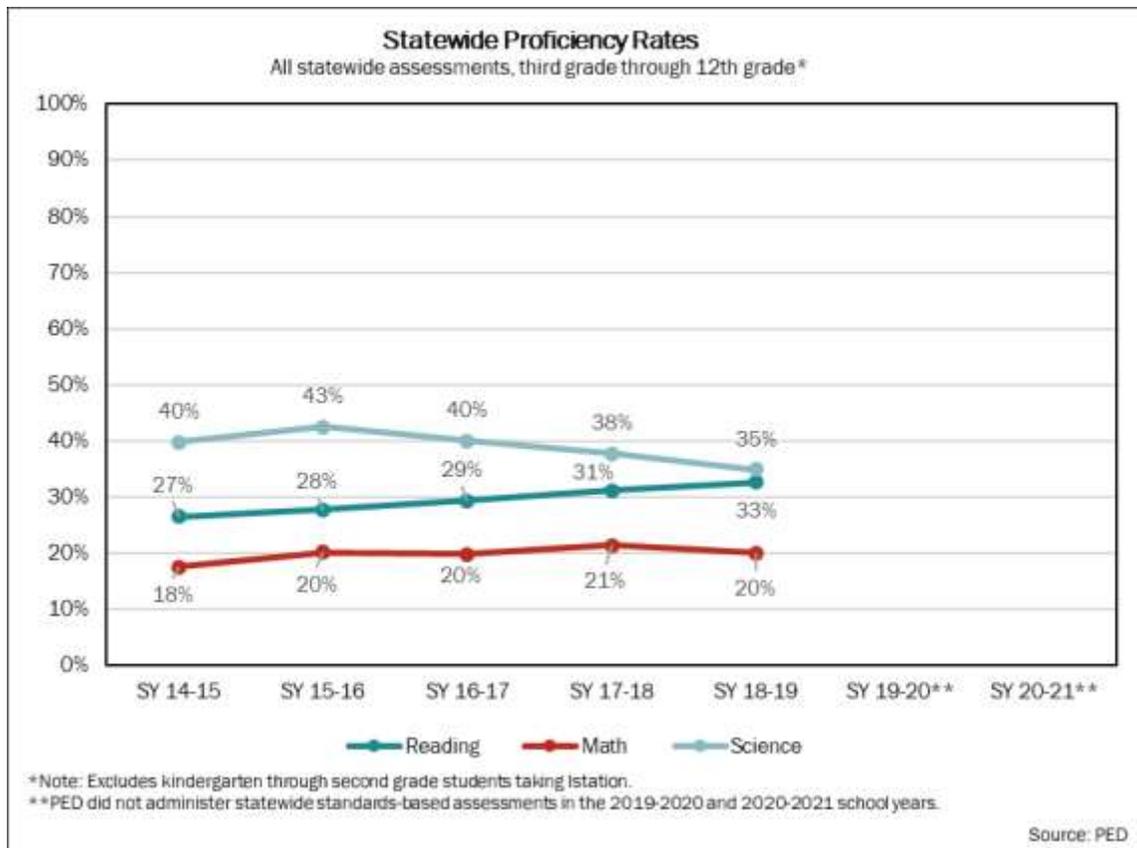
HB115 directs PED to follow participating high school student cohorts through high school and five years post-high school to determine how many participating students have achieved certain metrics and benchmarks outlined in HB115.

**FISCAL IMPACT**

The bill appropriates \$5 million from the general fund to the STEM plus fund for expenditure in FY23 and subsequent fiscal years to carry out the STEM pilot project. Any unexpended or unencumbered balance remaining at the end of FY23 shall not revert to the general fund.

**SUBSTANTIVE ISSUES**

**Student Proficiency Data in Science and Math.** In 2019, proficiency levels across the state were extremely low, consistent with previous years, demonstrating the majority of students in New Mexico are not proficient in math or science. In grades three through 12, 35 percent of students were proficient in science and 20 percent in math. The 2019 National Assessment of Educational Progress (NAEP), a national assessment of a sample of U.S. students mandated by Congress, showed similarly low proficiency rates for New Mexico, with New Mexico second to last for fourth and eighth graders in math.



**Funding for Science and Math Initiative.** In FY22, the Legislature appropriated a total of \$3.026 million to PED for teacher professional development for computer science, mathematics, and science. For FY23, PED requested \$3.026 million for the science, technology, engineering, arts, and math (STEAM) initiative to support implementation of mathematics, science, and computer science through professional development and technical assistance. The department also requested an additional \$500 thousand from the public education reform fund to fund the STEAM Initiative. The department’s budget request notes the STEAM Initiative supports the use of high quality instructional materials and professional development.

**Pilot Project Benchmarks.** The STEM plus pilot project created by HB115 requires students participating in the pilot project to be evaluated prior to participating in the pilot, during their participation, and the following school year as measured by standardized tests. HB115 does not prescribe which standardized tests are to be used for evaluation. HB115 requires PED to track outcomes of students participating in the pilot project through high school and five years post-high school. This tracking includes how many participating students achieved the following metrics:

- Achieved higher benchmarks than grade level cohorts in high school and higher education;
- Graduated from high school with a diploma of excellence or received a high school equivalency credential;
- Placed higher in college-level mathematics;
- Graduated from college with at least a bachelor's degree in a science, technology, engineering or mathematics field; and
- Applied to graduate school or were employed in their degree field or chose to become or became public school teachers in New Mexico.

For students who do not receive at least a bachelor's degree, HB115 requires the reporting of students that completed associate's degrees or career technical certificates in a STEM field and report if students are employed at higher rates than non-participating students.

It is unclear if PED has the capacity to conduct this type of reporting.

**Data Reporting and Requirements.** HB115 requires PED to use baseline metrics gathered from required math and science assessments given in eighth grade to follow student cohorts through high school and five years after high school. It is unclear if PED currently has such data collection and tracking systems in place to meet these requirements. Data required to be tracked includes some metrics that fall outside of the kindergarten through 12<sup>th</sup> grade education system, such as post-secondary graduation rates and employment information. The New Mexico Higher Education Department (HED) has begun to develop a New Mexico Longitudinal Data System (NMLDS), but this project is not yet completed and a completion date is unclear. The goal of the NMLDS is to better connect data sets from departments such as PED, HED, the Early Childhood Education and Care Department, and the Department of Workforce Solutions. Until the completion of the NMLDS, it is unclear if PED would have access to the information and systems required of the department by the proposed provisions of HB115.

## **ADMINISTRATIVE IMPLICATIONS**

HB115 would require HED to work closely with PED to track students who participate in the program for five years after high school graduation.

The HED agency analysis notes HB115 would likely increase administrative costs, but further review is needed to ascertain the full financial impact.

## **TECHNICAL ISSUES**

It is unclear if PED would be required by HB115 to contract with partner universities or if the department simply “may” partner, leaving uncertainty around how partner universities would be compensated for professional development services rendered.

**OTHER SIGNIFICANT ISSUES**

**PED Mathematics Framework.** In 2021, PED released the [New Mexico Mathematics Framework](#) to provide guidance to school districts and charter schools on evidence-based practices to teaching math. The framework provides information on mathematical mindsets and resources related to Common Core standards. It is unclear how PED implements this framework and provides support to school districts and charter schools. PED agency analysis was not available at the time of this analysis. PED also provides [instructional scopes](#) or tools to provide instructional planning support for grade level appropriate math, science, and computer science instruction.

**SOURCES OF INFORMATION**

- LESC Files
- PED Files

**EH/cf/mb**