

**LEGISLATIVE EDUCATION STUDY COMMITTEE
BILL ANALYSIS**

Bill Number: HB 58

50th Legislature, 2nd Session, 2012

Tracking Number: .188408.1

Short Title: Native American Student/Teacher Training

Sponsor(s): Representative Ray Begaye

Analyst: James Ball

Date: January 29, 2012

Bill Summary:

HB 58 makes an appropriation for the management of a year-long program to prepare teams of Native American students in grades 3 to 12, together with their teachers, to design, build, program, and test autonomous robots and to “produce” an international robot competition.

Fiscal Impact:

\$50,000 is appropriated from the General Fund to the Public Education Department (PED) for FY 13. Unexpended or unencumbered funds revert to the General Fund.

Substantive Issues:

By providing additional resources specifically for Native American students and their teachers, HB 58 could encourage additional participation in this activity by these groups. However, the bill also requires that Native American students and their teachers “produce” an international robot competition.

Two related bills, HB 78 and SB 44 make the same requirement but for a general student population. It is unclear, in light of these other bills, whether HB 58 would have Native American students and their teachers produce a separate international competition solely for Native American students and their teachers or whether it would provide additional resources to help Native American students and their teachers prepare for and participate in the production of the general international robot competition.

Background:

According to PED, Carnegie Mellon University’s Robotics Academy finds that the use of robotics education supports STEM (Science, Technology, Engineering, and Mathematics) education as well as language skills. Teachers report that robot competitions effectively engage students of all academic levels, but especially disengaged students and those who struggle in school.

PED further states that a study by Brandies University comparing students engaged in contextual learning programs, such as robotics, to students with comparable backgrounds and achievement levels in high school math and science, finds that students engaged in contextual learning programs are:

- significantly more likely to attend college;
- twice as likely to major in science and engineering;
- ten times more likely to have had an apprenticeship or internship in their college freshman year; and
- more than twice as likely to expect to have a science- or technology-related career after college.

Related Bills:

HB 78 *International Robot Competition*

SB 44 *International Robot Competition*