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## FISCAL IMPACT REPORT

**ORIGINAL DATE** 01/22/14  
**LAST UPDATED** \_\_\_\_\_ **HB** \_\_\_\_\_

**SPONSOR** Kernan

**SHORT TITLE** Statewide Robot Workshops & Competition **SB** 102

**ANALYST** Chavez

### APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Nonrecurring	Fund Affected
FY14	FY15		
	\$300.0	Recurring	General Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

Duplicates HB 138

Duplicates Special Appropriation in the General Appropriation Act: Section 5, Higher Education Department, Eastern New Mexico University

### SOURCES OF INFORMATION

LFC Files

#### Responses Received From

Eastern New Mexico University (ENMU)

#### Other Responses Received From

RoboRAVE International (Program Operator)

### SUMMARY

#### Synopsis of Bill

Senate Bill 102 appropriates \$300 thousand from the general fund to the board of regents of Eastern New Mexico University for the purpose of statewide workshops for students in grades three through twelve, to learn to design, build, program and test autonomous robots culminating in an international robot competition.

### FISCAL IMPLICATIONS

The appropriation of \$300 thousand contained in this bill is a recurring expense to the general fund. Any unexpended or unencumbered balance remaining at the end of fiscal year 2014 shall revert to the general fund.

For FY14, ENMU received a general fund special appropriation of \$200 thousand.

RoboRAVE International, the program operator, reports that the \$200 thousand FY14 appropriation is currently being used for:

- 1) Workshops to prepare teachers and students to build, program, and test robots to be able to use at the international robotics competition in Albuquerque, May 2014;
- 2) 2014 event facility, support, and materials costs (Albuquerque Convention Center, May 1-3, 2014); and
- 3) Administration of the robot education and competition program.

To date, of the \$200 appropriation, \$112 thousand has been expended. The program expects to spend the full \$200 thousand appropriation by the end of FY14.

### **SIGNIFICANT ISSUES**

LFC staff analysis of a similar bill in 2013 noted that a study by Brandies University comparing students engaged in contextual learning programs (such as robotics), to a group of students with comparable backgrounds and achievements in high school math and science, reports that students engaged in contextual learning programs are: 1) significantly more likely to attend college; 2) twice as likely to major in science and engineering; 3) ten times more likely to have had an apprenticeship, internship or co-op, in their college freshman year; and 4) more than twice as likely to expect to have a science or technology related career after college.

### **PERFORMANCE IMPLICATIONS**

Analysis of last year's bill noted that the bill did not provide performance measures. LFC staff recommended implementation of performance measures if funding was given. It's not clear if performance measures were created for the program.

Similarly, the bill does not indicate the number of schools impacted nor does it indicate whether funding is for all schools or targeted schools and districts.

PED noted in 2013 analysis that this bill supports the department's strategic level 3: ready for success initiative: goal 1) increases the percentage of students who score proficient and advanced on the NMSBA and goal 6) increase the number of students prepared for college and career. By participating in this robotics program, students have the opportunity to have contextual and applied learning experiences in mathematics, science, and language arts, which will enhance their learning and promote higher scores on the NMSBA and prepare them for STEM college programs and careers.

### **DUPLICATION**

Duplicates HB 138.

### **OTHER SUBSTANTIVE ISSUES**

RoboRAVE International reports that students ages 8-18 from Penasco, Las Vegas, Santa Fe, Bernalillo, Rio Rancho, Albuquerque, Sandia Park, Los Lunas, Ruidoso, Carlsbad, Roswell, Las Cruces, Gallup, Farmington, Shiprock, Mesa Vista, Los Alamos, Tesuque, Espanola, Anton Chico, Taos, Dixon, Dulce, Crownpoint, and Gadsden have attended workshops.