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## FISCAL IMPACT REPORT

ORIGINAL DATE 1-25-06

SPONSOR Lujan LAST UPDATED \_\_\_\_\_ HB 158

SHORT TITLE NMSU Science, Math & Aerospace Academy SB \_\_\_\_\_

ANALYST Dearing

### APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Non-Rec	Fund Affected
FY06	FY07		
	\$200.0	Recurring	General Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

Duplicates SB 119

Relates to:

- SB1            General Appropriation act of 2006
- SB38        NMSU Aerospace Engineering Programs
- SB120      NMSU Aerospace Engineering Department
- SB 121     NMSU Space & Aerospace Research Program
- HB7         General Appropriation act of 2006
- HB140      New Mexico Space Grant Consortium
- HB154      NMSU Aerospace Engineering Program
- HB159      NMSU Space and Aerospace Research Program
- HB167      Create NMSU Aerospace Research Program

### SOURCES OF INFORMATION

LFC Files

#### Responses Received From

New Mexico State University (NMSU)  
Higher Education Department (HED)

### SUMMARY

#### Synopsis of Bill

House Bill 158, appropriates \$200,000 from the general fund to New Mexico State Board of Regents for expenditure in fiscal year 2007 for the purpose of supporting the Science, Engineering, Mathematics and Aerospace Academy in order to improve student achievement and increase par-

icipation statewide. Any unexpended or unencumbered balance remaining at the end of fiscal year 2007 shall revert to the general fund.

### **FISCAL IMPLICATIONS**

The appropriation of \$200,000 contained in this bill is a recurring expense to the general fund. Any unexpended or unencumbered balance remaining at the end of fiscal year 2007 shall revert to the general fund.

This proposal was submitted to the New Mexico Higher Education Department (NMHED) by NMSU. NMHED has recommended funding in the amount of \$200,000 for this project in FY07.

This proposal was submitted to the New Mexico Higher Education Department (NMHED) by NMSU. NMHED has recommended funding in the amount of \$200,000 for this project in FY07, however, the executive FY06 & FY 07 Special, Supplemental, and Deficiency Appropriation Recommendations specifies non-recurring funding the program at \$104,500.

### **SIGNIFICANT ISSUES**

The Science, Engineering, Mathematics and Aerospace Academy (SEMAA) at NMSU is a NASA sponsored organization focusing on elementary, middle, and high schools in New Mexico that primarily serve underrepresented students in the science, math, and engineering fields. The goals of SEMAA are to:

- encourage normally underrepresented students in grades K-12 into the fields of science, engineering, mathematics, aerospace, and technology (SEMAT);
- engage students in inquiry-based learning, research, use of advanced technologies, peer support groups, and mentoring relationships with professionals in the SEMAT fields;
- facilitate the successful transition of students from high school to post-secondary programs in the SEMAT fields;
- develop partnerships with parents; and to provide opportunities for pre-service teachers to work with local schools and communities and to assist in-service teachers with implementing curriculum.

Educational Benefit: The Science, Engineering, Mathematics and Aerospace Academy program provides a valuable new educational opportunity and career path for New Mexico's high school students and for established workers in New Mexico who wish to pursue undergraduate or advanced degrees in aerospace engineering. AE program outreach will generate interest and competence in math, science and engineering for K-12 students in New Mexico.

- SB190 in the 2004 General Session appropriated \$104,500 to NMSU Science, Engineering, Mathematics and Aerospace Academy
- According to HED analysis, this proposal was submitted to the New Mexico Higher Education Department (NMHED) by NMSU. NMHED has recommended funding in the amount of \$200,000 for this project in FY07

## PERFORMANCE IMPLICATIONS

Effective performance will be demonstrated through the following impacts:

Students from southern New Mexico will be given the opportunity to attend eight-week (2-21/2 hours per week) sessions (fall, winter, spring, and summer) of enriched curriculum that emphasizes science, engineering, and mathematics with an overarching theme of aerospace education. Each session is taught by a certified teacher after school at his/her school site. The curriculum and all supplies are provided by SNM SEMAA for each after school class of SNM SEMAA students. Each class consists of not more than 20-25 students.

## CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP

Duplicates: SB119

Relates to:

SB1 General Appropriation act of 2006

SB38 NMSU Aerospace Engineering Programs

SB120 NMSU Aerospace Engineering Department

SB 121 NMSU Space & Aerospace Research Program

HB7 General Appropriation act of 2006

HB154 NMSU Aerospace Engineering Program

HB159 NMSU Space and Aerospace Research Program

HB167 Create NMSU Aerospace Research Program

This legislation is duplicated by Senate Bill 119. House Bill 158 relates to the aforementioned list of proposed legislation. This list of related bills has in common the request to appropriate funding for programs that directly relate to: aerospace, aerospace engineering degree programs, and NMSU technical, scientific, mathematics, and research programs. HB 158 is specifically related to elementary, middle-school and high school outreach programs within the field of science, mathematics and engineering at NMSU.

## OTHER SUBSTANTIVE ISSUES

According to NMSU, program goals are intended to:

- Provide academic enrichment and career awareness programs for students in grades K-12 after school with a special emphasis in the fields of science, mathematics, engineering, and technology (SMET);
- To provide more opportunities for historically underrepresented students (minorities and girls) to engage in the SMET fields;
- Provide opportunities for K-12 students to work in a state-of-the-art aerospace technology lab on the campus of New Mexico State University.
- Facilitate the successful transition of students from elementary school to middle school to high school and then to postsecondary programs in the SMET fields;
- Develop partnerships with parents and provide skills to work with and encourage their children in science, mathematics, and technology activities;

## **House Bill 158 – Page 4**

- Engage students in participatory activities, such as hands-on learning, research, use of advanced technologies, peer support groups, and mentoring relationships with professionals in the SMET fields.
- Provide professional development for SNM SEMAA teachers that seeks to promote an inquiry-approach to learning.

The promotion of Science, Technology, Engineering, and Mathematics (STEM) education programs within secondary institutions within New Mexico have recently been high-lighted as issues that are at the forefront of the New Mexico Federal Congressional Delegation's funding and legislative initiatives. This initiative is an effort to promote New Mexico's development of a technically proficient state population that is able to compete in attracting investment at both the national and global level in high-tech manufacturing, engineering and research.

### **WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL**

NMSU will not be able to continue the SEMAA program at current levels. This could have a negative impact on encouraging underrepresented students in grades K-12 in the fields of science, engineering, mathematics, aerospace, and technology.

### **POSSIBLE QUESTIONS**

This proposal was submitted to the New Mexico Higher Education Department (NMHED) by NMSU. NMHED has recommended funding in the amount of \$200,000 for this project in FY07, however, the executive FY06 & FY 07 Special, Supplemental, and Deficiency Appropriation Recommendations specifies funding the program at \$104,500;

Is this \$200,000 appropriation in addition to the executive recommendation of \$104,500?

PD/mt:nt