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## FISCAL IMPACT REPORT

SPONSOR Lopez DATE TYPED 02/12/05 HB \_\_\_\_\_

SHORT TITLE High School Math, Science & Engineering SB 487

ANALYST Woods

### APPROPRIATION

Appropriation Contained		Estimated Additional Impact		Recurring or Non-Rec	Fund Affected
FY05	FY06	FY05	FY06		
	\$250.0			Recurring	General Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

Relates to the appropriation for the Commission on Higher Education in the General Appropriations Act.

### SOURCES OF INFORMATION

LFC Files

#### Responses Received From

Commission on Higher Education (CHE)

### SUMMARY

#### Synopsis of Bill

Senate Bill 487 – Making an Appropriation to Assist High School Students to Develop Expertise in the Fields of Mathematics, Science and Engineering – appropriates \$250,000 to the Commission on Higher Education for expenditure in FY06 to provide programs at various New Mexico colleges and universities for high school students to develop expertise in the fields of mathematics, science and engineering. Any unexpended or unencumbered balance remaining at the end of FY06 shall revert to the general fund.

#### Significant Issues

CHE indicates this appropriation is to enhance support for the New Mexico MESA (Math, Engineering and Science Achievement) program – which is presently funded through an annual ap-

appropriation to CHE – that CHE administers through a grant to the New Mexico Institute of Mining and Technology.

New Mexico MESA, a non-profit organization, is part of a national initiative promoting educational enrichment for pre-college students from historically under represented ethnic groups. It prepares students for college majors and careers in mathematics, engineering, science and related fields. Activities include tutoring; independent study; academic, university, and career counseling; field trips; competitions; leadership development; summer programs; and scholarship incentives. The yearlong program works directly with school districts and institutions of higher education. More than 5,000 elementary, middle and high school students from 29 districts and one pueblo currently receive support through MESA activities (Eastern New Mexico University, 2005).

MESA has pioneered an academic model based on enrichment in mathematics and science, college preparation, career awareness and teacher professional development. This model also incorporates a dynamic partnership of academia, private industry, schools and teachers, parents and community and provides critical support that facilitates student success. A high school student exiting the program will have also achieved and experienced the following:

- will score above the national norm in mathematics and science;
- have the capability to assume leadership roles at college campuses;
- will be academically competitive after completing four years of college prep mathematics, science and English;
- complete plans to attend a four-year institution with a major in science, engineering or mathematics;
- will be acquainted and have interaction with high-tech professionals and scientists, thus having more motivation to pursue a mathematics, science or technology based career; and
- understand and utilize the various means of financing a college or university education (University of Arizona, 2005).

### **FISCAL IMPLICATIONS**

The \$250,000 appropriation would be a recurring expense to the general fund. Any unexpended or unencumbered balance remaining at the end of FY06 shall revert to the general fund.

### **ADMINISTRATIVE IMPLICATIONS**

The Commission on Higher Education will retain administrative oversight of this project.

### **CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP**

Relates to the appropriation for CHE in the General Appropriations Act.

## OTHER SUBSTANTIVE ISSUES

Nationally, MESA serves as a mechanism for meeting the country's need for a high tech workforce and involves the following essential components:

- MESA academic mathematics and science classes and Saturday Academies Collaborative learning groups.
- Peer to peer tutoring and mentoring across the grade levels.
- Career exploration in business and industry in technology areas.
- Student academic achievement plans based on strong counseling oriented toward meeting the entrance requirements of four-year colleges and universities.
- Parent, teacher and student leadership training.
- Recognition and awards for academic achievement.
- Field trips to colleges, industry sites, research laboratories, museums.
- Assistance with applications for admission and financial aid for institutes of higher learning.
- Intensive academic summer programs.
- Summer internships and research opportunities.
- Awarding of scholarships.
- Teacher professional development.

Nationally, MESA notes the following with respect to its pre-college students:

- 49 percent complete advanced mathematics
- 43 percent complete physics
- 92 percent college attendance rate
- 75 percent, four-year college attendance rate
- 71 percent enrollment in mathematics and science fields of study

MESA produces approximately 12 percent of all under-represented engineers nationally (University of Arizona, 2005).

**BFW/sb**