F I S C A L I M P A C T R E P O R T

SPONSOR Garcia, M.J. **ORIGINAL DATE** 1-21-06 **LAST UPDATED** **HB**

SHORT TITLE NMSU Aerospace Engineering Department **SB** 120

ANALYST Dearing

APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Non-Rec	Fund Affected
FY06	**FY07**		
$152.0	$6848.0	Non-recurring	General Fund
	$152.0	Recurring	General Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

Relates to:

SB1	General Appropriation act of 2006
SB38	NMSU Aerospace Engineering Programs
SB119	NMSU Science, Math & Engineering Academy
SB 121	NMSU Space & Aerospace Research Program
HB7	General Appropriation act of 2006
HB154	NMSU Aerospace Engineering Program
HB158	NMSU Science, Math & Aerospace Academy
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

Senate Bill 120 $7,000,000 from the general fund to the New Mexico State University Board of Regents for FY07 for expenditure to develop and deliver a degree program in Aerospace Engineering. The Aerospace Engineering Program has been approved by the Board of Regents as major. The program is housed in and administered by the Department of Mechanical Engineering. The first aerospace engineering courses plan to be offered in the fall 2006 semester. Any

unexpended or unencumbered balance remaining at the end of FY08 shall not revert to the general fund.

FISCAL IMPLICATIONS

The appropriation of $7,000,000 contained in this bill is an initial capital outlay, subsequently supported by a recurring annual expense of $152,000 to the general fund. A budget appropriation of $152,000 in fiscal year 2006 exists, in addition to a LFC recommendation of $152,000 appropriation for the program in fiscal year 2007. The balance of funds is to remain in place during the initial 5-7 year program implementation period, and as such, any unexpended or unencumbered balance remaining at the end of FY08 shall not revert to the general fund.

SIGNIFICANT ISSUES

The New Mexico Higher Education Department is committed to the adequate and equitable support of necessary instructional, student services, and academic support initiatives for all students in New Mexico. Activities to be funded in this proposal are currently recommended for funding through the Instruction and General (I&G) higher education funding formula within the General Appropriations Act, however, not at the level established within this legislation. Funding of this program without the consideration of similar needs at all institutions could weaken the equitability and thus the integrity of the established I&G formula funding process.

SB120 request for appropriation for NMSU Aerospace Engineering Program is for the purpose of developing Bachelor of Science (BS), Master of Science (MS), and Ph.D. programs in Aerospace Engineering (AE) at NMSU. These will be the only AE degree programs in the State of New Mexico. The requested funding is to hire approximately six aerospace engineering faculty and supporting infrastructure to 1) develop and deliver an accredited undergraduate aerospace engineering program that would produce about 25 BSAE graduates per year and 2) to develop a nationally competitive research/graduate program that would focus on the significant presence in New Mexico of aerospace related research and industry. The undergraduate program has been approved by the NMSU Board of Regents.

Economic Impact: Economic development in the state of New Mexico will be enhanced in several ways: 1) new aerospace enterprises, availability of local AE graduates, AE educational opportunities for company employees, and aerospace research capabilities in aerospace at NMSU will be important factors in the decision of companies to locate/relocate in New Mexico; 2) aerospace enterprises already in New Mexico; availability of qualified AE graduates and academic research capability at NMSU will have a positive economic impact on young/small NM aerospace companies that are growing and/or expanding product lines; 3) educated workforce remaining in NM: anticipated increase in aerospace employment in southern New Mexico will result in NMSU AE graduates remaining in the area, strengthening the state economic base.

Educational Benefit: The aerospace program will provide a valuable new educational opportunity and career path for New Mexico's high school students and for established workers in New Mexico who want 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. Survey results indicate that student interest in aerospace engineering is high.

- SB190 in the 2004 General Session appropriated $152.0 to NMSU Aerospace Engineering.
- This proposal was not submitted to the New Mexico Higher Education Department (NMHED) by NMSU. Consequently, this request was not included in the Department's funding recommendation for FY07.
- NMSU submitted a funding request for FY07 to NMHED in the amount of $600,000 for this project in FY07.

PERFORMANCE IMPLICATIONS

NMSU will submit a plan for program evaluation, including specific program goals and criteria for assessment of program effectiveness to the Legislative Finance Committee (LFC), as well as the New Mexico Higher Education Department by October 1, 2006. NMSU will similarly submit a program evaluation to LFC and NMHED by June 30, 2008 detailing the benefits to the state of New Mexico, attributed to this program, incurred over the initial three-year period since the program's inception.

Significant aspects of the Aerospace engineering program are stated to be implemented at no additional expense due to expected synergies in the existing Mechanical Engineering program. The program will establish existing Mechanical Engineering courses for Aerospace Engineering students in the freshman and sophomore years. Mechanical Engineering facilities, including existing laboratories and infrastructure will be utilized for teaching and research.

ADMINISTRATIVE IMPLICATIONS

The balance of funds is to remain in place during the initial 5-7 year program implementation period, and as such, any unexpended or unencumbered balance remaining at the end of FY08 shall not revert to the general fund. Some level of funding and program administration costs could be incurred while these funds are in place over this period. The administration of this appropriation would most likely be conducted by the proposed Aerospace Engineering Advisory Board mentioned within the Technical Issues section.

CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP

Relates to:

SB1	General Appropriation act of 2006
SB 3	New Mexico Space Grant Consortium
SB38	NMSU Aerospace Engineering Programs
SB119	NMSU Science, Math & Engineering Academy
SB 121	NMSU Space & Aerospace Research Program
HB 140	New Mexico Space Grant Consortium
HB7	General Appropriation act of 2006
HB154	NMSU Aerospace Engineering Program
HB158	NMSU Science, Math & Aerospace Academy
HB159	NMSU Space and Aerospace Research Program
HB167	Create NMSU Aerospace Research Program

Senate Bill 120 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, engineering, scientific, mathematics, and research programs. SB 120 is specifically related establishing an aerospace engineering degree program at NMSU.

TECHNICAL ISSUES

The Aerospace Engineering program is intended to operate competitively at the national level among similar aerospace education programs. An Aerospace Engineering Advisory Board is to be formed to provide guidance and oversight of the program in curriculum and research areas of aerospace.

OTHER SUBSTANTIVE ISSUES

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.

There is an established correlation among STEM education programs and related research and incrementally higher rates of high-wage employment.

Research conducted by faculty and graduate students can help to attract other sources of research funding such as federal and private sector sources. High levels of research funding can correlate to a catalytic impact on economic development within New Mexico.

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