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

SPONSOR Harper **ORIGINAL DATE** 2/15/2015 **LAST UPDATED** 2/26/2015 **HB** 283

SHORT TITLE UNM Manufacturing Engineering Program **SB**

ANALYST Hartzler

APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Nonrecurring	Fund Affected
FY15	**FY16**		
	$200.0	Recurring	General Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

REVENUE (dollars in thousands)

Estimated Revenue			Recurring or Nonrecurring	Fund Affected
FY15	**FY16**	**FY17**		
	$150.0	$150.0	Recurring	Program Support Fees
	$300.0	$300.0	Recurring	Grant Revenues

(Parenthesis ( ) Indicate Revenue Decreases)

ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)

	FY15	FY16	FY17	3 Year Total Cost	Recurring or Nonrecurring	Fund Affected
Total		$200.0	$200.0	$400.0	Recurring	General Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

Duplicates Appropriation in the General Appropriation Act, Section 4J Higher Education, University of New Mexico, Research and Public Service Projects, Manufacturing Engineering Program

SOURCES OF INFORMATION
LFC Files

Responses Received From
University of New Mexico (UNM)

SUMMARY

Synopsis of Bill

House Bill 283 appropriates $200 thousand from the general fund to UNM to provide auxiliary faculty and staff for and to support the operations of a miscrosystems clean room of the Manufacturing Engineering Program (MEP).

FISCAL IMPLICATIONS

The appropriation of $200 thousand contained in this bill is a recurring expense to the general fund. As stated in the bill, any unexpended or unencumbered balance remaining at the end of FY16 shall revert to the general fund. However, should the appropriation be included in Section 4 of the General Appropriation Act as a line-item to each institution, the funds would not revert to the general fund.

In FY15, MEP received $561.9 thousand in general fund appropriations to support faculty and staff in operating the program and microsystems cleanroom. The program also receives federal grant funding from national labs and National Science Foundation, totaling more than $2 million in FY15 and FY16. For FY16, HB 2 includes a general fund appropriation for $561.9 thousand. Should HB 283 and HB 2 be enacted, the program would receive $761.9 thousand in general fund support for FY16.

It is estimated that an increase in funding could result in additional grant or contract revenues and increased fees from users of the cleanroom.

SIGNIFICANT ISSUES

According to Dr. John Wood, the program director at UNM,

> The UNM manufacturing engineering program has the following five goals: (1) provide manufacturing resources, courses and degrees for graduate level engineering and computer science students; (2) sustain research and projects; (3) interact with community colleges and high schools, both within NM and outside of NM; (4) interact with the manufacturing industry, both within NM and outside of NM, supporting economic development; and (5) diversify and institutionalize primary sources of funding. These goals are supported by the nine quantifiable objectives shown on the [HED's] research and public service project performance measures matrix. This expansion request herein will impact, in a positive way, each of these five goals.
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> This program does not duplicate other activities in the Albuquerque area or in New Mexico. The Manufacturing Training and Technology Center (Center's) cleanroom is unique in New Mexico as it supports, (1) training of teachers and students from UNM, Central New Mexico (CNM) Community College, Southwest Indian Polytechnic Institute, and Albuquerque Public Schools (APS); (2) small companies doing microsystems prototyping to prove performance to venture capitalists; and (3) research by UNM faculty and students.
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> Most recently, the Center's tenants include Radiant Technology and Trilumina. Both of these tenants are tapping into the infrastructure of the MTTC cleanroom for their R&D

operations. It is vital that the MTTC cleanroom remain viable, as a source of economic development, in order for these small companies to succeed.

[Further,] the microsystem sector is growing at about 15% per year, requiring technicians and engineers to support this growth. The Center's cleanroom prepares both technicians and engineers for these jobs. The cleanroom hosts a CNM dual-credit/enrollment course (Introduction to MEMS) that is open to APS high-school students. These types of courses expose high school students to the possibility of high-tech STEM careers, as technicians or engineers. Starting salaries for MEMS technicians is on the order of $45k/yr.

PERFORMANCE IMPLICATIONS

The program currently provides performance reports as part of its annual budget submission. In the FY16 budget submission, the program reported a significant increase in the number of high school and community college students impacted by hands-on design and fabrication facilities, workshops and conferences. The recent recession and federal cuts in spending have limited papers and abstracts published, though the amount of funding to MEP increased. A growing number of university students and faculty using MEP facilities increased in FY14.

With additional funding, the program proposes to expand course offerings, including courses in bio-manufacturing that are being developed in conjunction with other university programs.

DUPLICATION

HB 283 duplicates a line-appropriation in the General Appropriation Act, Section 4, University of New Mexico, Manufacturing Engineering Program.

TECHNICAL ISSUES

UNM reports that "there is no similar degree-granting manufacturing program in New Mexico, and there is no similar microsystems cleanroom that supports workforce development, technology development, and economic development. While Intel (Rio Rancho) and Sandia National Laboratories have cleanrooms, they are limited to their specialized processes and not open to small companies."

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