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FISCAL IMPACT REPORT

SPONSOR Arnold-Jones **ORIGINAL DATE** 01/31/10
LAST UPDATED 02/04/10 **HJM** 22/aHEC
SHORT TITLE Improve High School Science Labs **SB** _____
ANALYST Wilson

APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Non-Rec	Fund Affected
FY10	FY11		
	NFI		

(Parenthesis () Indicate Expenditure Decreases)
 Relates to HJM 21

SOURCES OF INFORMATION

LFC Files

Responses Received From

Higher Education Department (HED)

Public Education Department (PED)

SUMMARY

Synopsis of HEC Amendment

The House Education amendment to House Joint Memorial 22 adds the requirement that a status report on the plan must be transmitted to the Legislative Education Study committee no later than December 2010.

Synopsis of Original Bill

House Joint Memorial 22 directs the PED to work with the Public Schools Facility Authority to develop a multi-year plan to improve and equip high school science laboratory facilities, including a timeline and cost estimates for improvements. PED will also evaluate the instructional impacts of computer-based laboratory experiences and, as appropriate, include adequate equipment and facilities for implementing virtual laboratory experiences in the overall laboratory facilities improvement plan.

FISCAL IMPLICATIONS

PED will be required to perform the study with existing staff. The study required by this memorial is part of the PED's ongoing responsibilities.

SIGNIFICANT ISSUES

PED does not have an official list of standard science laboratory equipment; therefore, PED refers to information provided by the National Science Teachers Association (NSTA) as a guide. In the 2004 publication NSTA Pathways to the Science Standards a list of equipment and supplies recommended for high school labs is provided. Since NM Standards for Science align with the national standards, which form the basis of this list, PED states it is appropriate to use it. The list includes safety equipment which is necessary to meet current NM rule related to safety in laboratories.

This bill is consistent with a recommendation made by the Math and Science Advisory Council (MSAC) in NM Project 2012. The MSAC was created by the Math and Science Education Act of 2007 and was charged to advise the Math and Science Bureau of PED and the legislature regarding appropriations for mathematics and science education, administration, resources and services, including programs for public school students and staff.

A MSAC recommendation identifies the need to fund new construction and remodeling of high school science laboratory facilities and purchase needed new equipment to support implementation of increased laboratory science graduation requirements.

Improving high school science labs will encourage and support high school students to be more competitive in the today's global economy in the fields of science and technology.

ADMINISTRATIVE IMPLICATIONS

The PED Math and Science Bureau will work with Public School Capital Outlay Council (PSCOC) to develop a multi-year plan to improve high school science lab facilities in New Mexico.

RELATIONSHIP

HJM 22 relates to HJM 21, Math & Science Teacher Yearly Development

TECHNICAL ISSUES

HED indicates that HJM 22 does not specify a date for completing the study, nor does it indicate who should receive copies of the study.

OTHER SUBSTANTIVE ISSUES

The National Research Council's America's Lab Report: Investigations in High School Science reported in 2006 that high school science classrooms have significant equipment, materials, and facilities needs in order to provide educationally effective laboratory experiences for students.

The new high school graduation requirements increased from one to two science courses with a laboratory component. In response to a request by the Legislative Education Study Committee for the impact of this new requirement, the Math and Science Bureau of the PED sent in November 2008 a survey of laboratory needs to the science department chairs at the 118 comprehensive high schools with a follow-up email to the superintendents. Sixty-six or 56%

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responded. Almost \$16,000,000 was requested for new or remodeled labs from 18 schools, 13 schools requested almost \$400,000 for equipment and 28 schools indicated a need for over \$500,000 for other science materials, small equipment and supplies. Only ten schools indicated that they did not need additional funds to implement the new lab component requirement.

The assessment by PSCOC of New Mexico school facilities in 2008 showed a total estimated cost of \$4,100,000,000 for the life-cycle building renewal and repair needs. This is the amount that is needed to bring up all schools in New Mexico to the current state adequacy standards. This estimate includes categories such as life, safety, health and adequacy of space.

DW/svb:mew