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FISCAL IMPACT REPORT

ORIGINAL DATE 02/05/10

SPONSOR Arnold-Jones LAST UPDATED _____ HB HJM 21

SHORT TITLE Math & Science Teacher Yearly Development SB _____

ANALYST Wilson

ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)

	FY10	FY11	FY12	3 Year Total Cost	Recurring or Non-Rec	Fund Affected
Total		\$50.0- \$100.0			Nonrecurring	General Fund

(Parenthesis () Indicate Expenditure Decreases)

Relates to HJM 22

SOURCES OF INFORMATION

LFC Files

Responses Received From

Higher Education Department (HED)

Public Education Department

SUMMARY

Synopsis of Bill

House Joint Memorial 21 expresses support for a study of the expected impacts of yearly mandatory professional development for K-12 math and science teachers and school administrators. The study must include an implementation timeline, an estimation of the associated costs and an evaluation of how this program effects other requirements.

FISCAL IMPLICATIONS

As of January 21, 2010, the PED Math and Science Bureau is staffed at 50% capacity, the state's hiring freeze is in force and PED does not anticipate the removal of hiring freeze parameters. The capacity of the PED to conduct this study at this time in light of the staffing vacancies should be considered. The Office of Educational Accountability of the Department of Finance & Administration, HED and the New Mexico Leadership Institute are potential partners in conducting this study.

SIGNIFICANT ISSUES

HJM 21 requires development of an implementation timeline, estimation of costs of implementing professional development for all math and science teachers and school administrators, and an evaluation of the impact this professional development in light of other considerations such as the requirement that teachers perform 180 days of classroom instruction.

New Mexico is a member of the Council of Chief State School Officers (CCSSO). In June 2009, CCSSO published a Meta-Analysis Study of the Effects of Teacher Professional Development.

The study focused on completed studies of effects of professional development for K-12 teachers of science and mathematics. The meta analysis results show important cross-study evidence that teacher professional development in mathematics does have significant positive effects on student achievement. The analysis results also confirm the positive relationship to student outcomes of key characteristics of design of professional development programs.”

Review of CCSSO’s findings will likely be beneficial in providing a framework for a study specific to New Mexico, and redundant efforts by the State of New Mexico should be avoided. If it is determined that the CCSSO’s findings are transferrable and applicable to New Mexico, this information should be incorporated.

The Math and Science Advisory Council has published a Strategic Action Plan and Project 2012 which reads as follows:

Effective teachers are one of the most important factors in student achievement. Students learn more from math and science teachers who have strong content knowledge and pedagogical skill than from those who do not. But as with any other profession, even the most skilled teachers have a difficult time staying abreast of new developments in math and science content, curriculum, pedagogy and learning research. Thus systematic, ongoing, high-quality professional learning for every K-12 math and science teacher in New Mexico is an essential part of helping our teachers and students reach their full potential.

Strong, effective leadership from principals and other school and district administrators is critically important to realizing a high-performing educational establishment that provides teacher effectiveness and retention, student achievement, and school improvement.

New Mexico is currently in the 6th year of implementation of a federally funded grant known as the Math Science Partnership, labeled Mathematically-Connected Communities (MC2). From MC2, New Mexico was able to discern that from among the participating districts, teachers had significant positive gains in geometry for both of the last years; and, most of participating New Mexico schools had students with increased scores, especially at the 8th grade level.

ADMINISTRATIVE IMPLICATIONS

PED’s Math & Science Bureau staff will have a lot of difficulty directing and overseeing this study while operating at a 50% vacancy rate. However, New Mexico is currently in the sixth year of implementation of a federally funded program that includes focused professional development for participating districts.

RELATIONSHIP

Relates to HJM 22, Improve High School Science Labs

TECHNICAL ISSUES

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

OTHER SUBSTANTIVE ISSUES

HED provided the following:

Significant math and science professional development initiatives are already underway and should serve as useful models. The National Science Foundation-funded Gadsden Math Initiative did much to improve math achievement in that historically low performing district. The LANL Foundation and the State of New Mexico have supported the Math and Science Academy (MSA) that has done much to improve achievement in school districts in northern New Mexico.

DW/mew