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## FISCAL IMPACT REPORT

SPONSOR Salazar DATE TYPED 2/20/05 HB 621

SHORT TITLE Middle School Teacher Science \& Math Training
SB

## ANALYST Hanika-Ortiz

## APPROPRIATION

| Appropriation Contained |  | Estimated Additional Impact |  | Recurring <br> or Non-Rec | Fund <br> Affected |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FY05 | FY06 | FY05 | FY06 |  |  |
|  | $\$ 260.0$ |  |  | Recurring | General Fund |

## SOURCES OF INFORMATION <br> LFC Files

Responses Received From
Commission on Higher Education (CHE)

## SUMMARY

Synopsis of Bill
House Bill 621 appropriates $\$ 260$ thousand from the general fund to the Board of Regents of Northern New Mexico State School in FY06 to provide a program for middle school teachers to improve their skills, technical knowledge and teaching techniques in science, mathematics and technology so that middle school teachers are better prepared to teach students in those subjects.

## Significant Issues

According to the Northern New Mexico Network for Rural Education, there is a "quiet crisis" in the math, science, and technology education within rural school districts of Northern New Mexico. This region is comprised of 22 districts, 109 schools ( 22 high schools, 26 middle schools and 64 elementary schools), and a total student enrollment of 28,160 (comprised of 20,577 Hispanic, 3,854 White, 3,573 Native American, and 125 Black students). This crisis is characterized by low student achievement in math and science and an unacceptable student achievement gap between largely Hispanic and Native American students and their Anglo counterparts. The issues include: a high rate of children and families in poverty (with $77 \%$ of school-age children receiving free lunches); the unmet needs of both Native American and Hispanic cultures (comprising $86 \%$ of the regional population); relative geographic isolation from large urban centers (averaging over 100 miles to the nearest urban center); dysfunctional school governance systems; and a
critical lack of qualified teachers - both in the "pipeline" and currently working within the schools. These factors led to situations where math, science, and technology were not necessarily given top priority for improvement.
According to the PED's Quick Stats for 2002 - 2003, the total percentage of New Mexico grade 10 students passing the High School Competency Exam was $69 \%$. The ethnic breakdown is as follows:

| Total \% passing | $69.0 \%$ |
| :--- | :--- |
| African American | $58.2 \%$ |
| Anglos | $84.5 \%$ |
| Asians | $84.3 \%$ |
| Hispanics | $61.4 \%$ |
| Native Americans | $49.7 \%$ |

## FISCAL IMPLICATIONS

The appropriation of $\$ 260$ thousand contained in this bill is a recurring expense to the general fund. Any unexpended or unencumbered balance remaining at the end of FY06 shall revert to the general fund.

The CHE reports this appropriation request is not recommended by the Commission on Higher Education at this time.

## CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP

Relates to Appropriation for the Northern New Mexico Community College in the General Appropriation Act

## OTHER SUBSTANTIVE ISSUES

The new Center for the Mathematics Education of Latinos/as (CEMELA) funded by the National Science Foundation will address the mathematics needs of Latino students in kindergarten through eighth grade. The center will examine math learning and teaching in school, family, and community settings. By recruiting and training researchers with expertise in mathematics learning and teaching, language, and culture, CEMELA will develop the next generation of scholars who will, in turn, prepare the next generation of classroom teachers. The participants are UA, UCSC, UI at Chicago, and the University of New Mexico.

The new multidisciplinary center will support multiple research avenues, one being how students learn mathematics in and out of school. Research has documented the resources students use to communicate mathematical concepts, including two languages and their everyday experiences. There is research that shows kids learning English can participate in high-level mathematical discussions. Additional research shows how teachers' beliefs about mathematics, students, learning, and equity affect student achievement, and how schools as organizations affect what teachers do in the classroom.

CEMELA will support research collaborations and teacher education by developing and disseminating innovative materials for use in courses and seminars at the four sites.

