



**Report
to
The LEGISLATIVE FINANCE COMMITTEE**



Public Education Department and Higher Education Department
Dual Credit Cost-effectiveness and Impact on Remediation and On-time Degree Completion
July 12, 2012

Report #12-04

LEGISLATIVE FINANCE COMMITTEE

Senator John Arthur Smith, Chairman
Representative Luciano “Lucky” Varela, Vice-Chairman
Senator Sue Wilson Beffort
Senator Pete Campos
Senator Carlos R. Cisneros
Representative William “Bill” J. Gray
Senator Stuart Ingle
Representative Rhonda S. King
Representative Larry A. Larrañaga
Senator Carroll H. Leavell
Senator Mary Kay Papen
Representative Henry “Kiki” Saavedra
Representative Nick L. Salazar
Representative Edward C. Sandoval
Senator John Sapien
Representative Don L. Tripp
Representative James P. White

DIRECTOR

David Abbey

DEPUTY DIRECTOR FOR PROGRAM EVALUATION

Charles Sallee

PROGRAM EVALUATION TEAM

Jeff Canney, CGFM
Jon Courtney, Ph.D.
Valerie Crespín-Trujillo
Jack Evans
Brenda Fresquez, CICA
Pamela Galbraith
Maria Griego
Rachel Mercer-Smith
Matthew Pahl
Elaine Romero
Michael Weinberg, Ed.D.

Senator John Arthur Smith
Chairman

Senator Sue Wilson Beffort
Senator Pete Campos
Senator Carlos R. Cisneros
Senator Stuart Ingle
Senator Carroll H. Leavell
Senator Mary Kay Papen
Senator John M. Sapien

State of New Mexico
LEGISLATIVE FINANCE COMMITTEE

325 Don Gaspar, Suite 101 • Santa Fe, NM 87501
Phone: (505) 986-4550 • Fax (505) 986-4545

David Abbey
Director



Representative Luciano "Lucky" Varela
Vice-Chairman

Representative William "Bill" J. Gray
Representative Rhonda S. King
Representative Larry A. Larrañaga
Representative Henry Kiki Saavedra
Representative Nick L. Salazar
Representative Edward C. Sandoval
Representative Don L. Tripp
Representative James P. White

July 12, 2012

Dr. José Garcia, Secretary
Higher Education Department
2048 Galisteo Street
Santa Fe, NM 87505

Ms. Hanna Skandera, Secretary-Designate
Public Education Department
300 Don Gaspar Avenue
Santa Fe, NM 87501

Dear Secretaries Garcia and Skandera:

On behalf of the Legislative Finance Committee (Committee), I am pleased to transmit the evaluation, *Dual Credit Cost-effectiveness and Impact on Remediation and On-time Degree Completion*. The program evaluation team, in cooperation with the Center for Education Policy Research at the University of New Mexico, assessed state resource allocation to dual credit courses and materials, dual credit student and program enrollment trends, and the impact of dual credit participation on high school and postsecondary performance outcomes. The report will be presented to the Committee on July 12, 2012. Exit conferences were conducted with the Public Education Department and Higher Education Department on June 26, 2012 to discuss the contents of the report. The Committee would like a plan to address the recommendations within this report within 30 days from the date of the hearing.

I believe this report addresses issues the Committee asked us to review and hope New Mexico's public education and higher education system benefits from our efforts. We very much appreciate the cooperation and assistance we received from your staff.

Sincerely,

A handwritten signature in cursive script that reads "David Abbey".

David Abbey, Director

Cc: Senator John Arthur Smith, Chairman, Legislative Finance Committee
Representative Luciano "Lucky" Varela, Vice-Chairman, Legislative Finance Committee
Representative Henry "Kiki" Saavedra, Legislative Finance Committee
Representative Rick Miera, Chairman, Legislative Education Study Committee
Tom Clifford, Secretary, Department of Finance and Administration

Table of Contents

Page No.

EXECUTIVE SUMMARY	5
BACKGROUND INFORMATION	11
FINDINGS AND RECOMMENDATIONS	12
An Increasing Number Of High School Students Are Taking Dual Credit, Impacting State Funding To Public Schools And Postsecondary Institutions	12
New Mexico’s Dual Credit Program Has Provided Access For A Wide Range Of Students, But Lacks Clear Performance Measures	21
Lack Of Consistent Goals For Student Educational Pathways And Weak Oversight Undermines Justification For Dual Credit Program Costs	29
AGENCY RESPONSES	34
APPENDIX A: Project Information	42
APPENDIX B: Ped Performance Report Card, Third Quarter, Fy12	43
APPENDIX C: Hed Performance Report Card, Third Quarter, Fy12	45
APPENDIX D: CEPR/LFC Survey Questions for Postsecondary Institutions	46
APPENDIX E: CEPR/LFC Survey for Local Education Agencies	48
APPENDIX F: Lower Division General Education Course Transfer Curriculum for New Mexico Public Postsecondary Institutions, Areas I-V	49
APPENDIX G: Select Dual Credit Course Master Agreements between LEAs and Postsecondary Institutions, AY12.....	50
APPENDIX H: New Mexico Dual Credit Enrollment by Ethnicity.....	52
APPENDIX I: Gains in Student Performance and Increased Lifetime Earnings	53

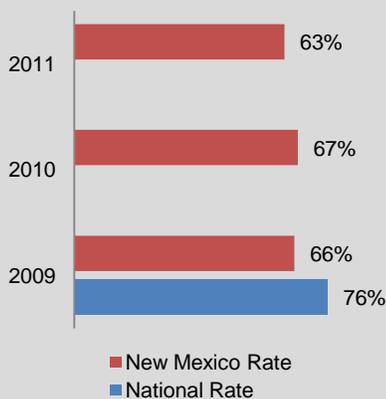
NM Higher Education Institutions Actual Instruction and General Revenues, All Sources
(in thousands)

	FY10	FY11
Two-Year Institutions	\$354,032	\$368,332
Four-Year Institutions	\$695,963	\$701,626
Total I&G Revenues	\$1,049,995	\$1,069,958

Source: Institutional Report of Actuals, FY11

In FY11, New Mexico’s public school funding formula allocated \$457.8 million for over 96 thousand students in 9th through 12th grade statewide.

New Mexico High School Four-Year Graduation Rates, 2009-2011



Source: PED, Johns Hopkins University

Dual credit courses, college-level courses taken by high school students that count for both high school and postsecondary credit, are part of a strategy to address weaknesses in New Mexico’s educational pipeline: low high school graduation rates, high remediation rates in postsecondary education, and students taking too many credits and too much time to earn a certificate or degree. State law requires public postsecondary institutions to waive tuition for students, local education agencies (LEAs) to purchase instructional materials, and students and parents to cover course fees and transportation. Through the dual credit program, students earn one high school credit per three college credits at little or no cost to the student. In FY10, New Mexico’s public school and higher education funding allocated an estimated \$34.4 million through the public school and higher education funding formula for 10,985 high school students to take dual credit courses.

Recently, many states have been working to address the financial, quality, and access challenges associated with dual credit programs. It has proven to be a difficult charge because many states, including New Mexico, lack longitudinal data systems capable of tracking students from high school into postsecondary education. These systems are necessary to adequately assess the impact of educational interventions, like dual credit, for participants compared to non-participants. Further complicating evaluation is the variability of dual credit program design in New Mexico and across the nation. Due to the relative newness of New Mexico’s official dual credit program and the limited oversight and accountability by the New Mexico Public Education Department (PED) and the New Mexico Higher Education Department (HED) for the program, the state is funding expensive courses designed to help students succeed in high school and postsecondary education without evaluating the impact on students’ academic outcomes.

Legislative Finance Committee staff conducted this joint study with the Center for Education Policy Research (CEPR) to evaluate New Mexico’s dual credit program, including the allocation of public school and higher education funding, the impact on student high school and postsecondary performance, and geographic and institutional differences in dual credit program design.

Overall, the study demonstrates that dual credit courses are accessible for students with a range of academic aptitude and are contributing to improvements in academic performance. Students who have taken courses for dual credit appear to perform adequately in their courses, graduate from high school at a higher rate than their peers, require less first-semester remediation in postsecondary education, and be on time to obtaining a degree. However, without longitudinal data on these students, it is difficult to measure students’ academic aptitude prior to taking dual credit courses, the impact dual credit is having on students’ interest in furthering their education past high school, or the impact of other policies and programs in New Mexico that affect the transition of students from secondary to postsecondary education.

Between FY09 and FY11, the number of unique students taking dual credit courses has increased by 23 percent, or 2,312 students.

Higher Education I&G Funding Grid – Instruction/Inst. Support Funding per SCH, FY10-FY11

	Lower	Upper	Graduate
Tier 1	\$133.34	\$293.44	\$635.09
Tier 2	\$199.20	\$459.40	\$873.81
Tier 3	\$321.16	\$527.84	\$1,396.77

Source: HED

“The dual credit program begins the college pathway, saves families money, and accelerates students into postsecondary education.” Public postsecondary administrator response to CEPR/LFC survey

Examples of Types of Courses Under Tier 2 Cluster, Higher Education Funding Formula

0100	Agriculture
0400	Biology
1000	Fine Arts
1200	Health Sciences
1700	Mathematics
1900	Physical Science
5300	Trades and Tech

Source: HED Funding Formula Overview

The different dual credit program designs across the state have implications for cost and education policy objectives of students. Policies and funding for programs that offer rigorous courses similar to advanced placement (AP) or international baccalaureate (IB) to academically prepared students will differ from programs designed expose students to a postsecondary experience. New Mexico lacks a consistent mission, regulatory guidelines, and performance measures to account for the concurrent funding of both LEAs and postsecondary institutions to provide courses for dual credit to high school students.

KEY FINDINGS

An increasing number of high school students are taking dual credit, impacting state funding to public schools and postsecondary institutions. Currently all public high schools have at least one master agreement in place with a postsecondary institution, expanding access to the dual credit program across the state. The availability of dual credit courses could make it an increasingly popular and accessible choice for students over honors, advanced placement (AP), or distance learning courses that are generally geared toward high-performing students or dependent upon available technology.

In FY10, New Mexico invested an estimated \$34.4 million on dual credit students through the public school and higher education funding formulas and the dual credit textbook appropriation. The funding supported 10,985 students in 25,840 course units for dual credit. Approximately \$18.7 million was spent in public school funding, \$14.7 million in higher education funding, and \$1 million was expended on instructional materials. New Mexico spends almost as much on a three-credit dual credit course, \$1,332, as it does on the higher education instruction and general (I&G) funding of a three-credit, tier 2, upper level course, \$1,378.

Funding to the LEA and postsecondary institution for the same course, often referred to as “double funding”, may provide a financial incentive for participation in the program, depending on location and delivery. High schools and postsecondary institutions are receiving full instructional funding regardless of the physical location and responsibility for instruction of the dual credit course. The state funding is the same as if the student took two courses: one at the high school and one at the postsecondary institution. Only one entity is responsible for the salary of the instructor and maintaining a seat in the classroom for a student.

Eleven states, including New Mexico, fund both high schools and postsecondary institutions for full-time equivalent (FTE) dual credit students at the same level of funding as traditional students. This is a significant investment as New Mexico dedicates close to 60 percent of its general fund to public school and higher education, a greater percentage than most states.

The 2009 high school graduates who took at least one course for dual credit averaged an SBA math proficiency rate of 47 percent, higher than non-dual credit students' average math proficiency rate of 41 percent.

Percent of New Mexico High School Students Who Took Remedial Classes in Math and/or Reading in New Mexico Colleges, 2007-2009

Year	2007	2008	2009
# of Students*	8,900	9,346	9,713
Rate (%)	50	50	47

* Does not include charter or alternative schools

Source: OEA Ready for College, 2010

Student performance on New Mexico's standards-based assessment is reported in four categories:

- beginning steps
- nearing proficient
- proficient
- advanced

Students scoring proficient are considered to be at grade-level.

The main factors in deciding the course location of a dual credit course are the ability of the students to travel to the campus, the type of courses requested, and the availability of a qualified and approved teacher for the course. Because these factors differ across the state, there is a variation in the location of courses offered for dual credit. Most dual credit courses are offered by New Mexico's public two-year institutions, which is common among most states with dual credit programs. The public four-year institutions offered only 15 percent of the 25,840 dual credit courses in FY10, although the percentage of dual credit courses offered by the four-year institutions has been increasing.

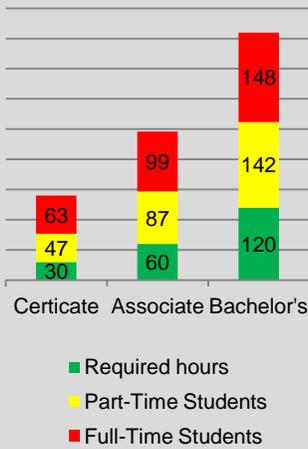
New Mexico's dual credit program has provided access for a wide range of students, but lacks clear performance measures. The limited research conducted in New Mexico demonstrates that dual credit courses are accessible and can contribute to improvements in student performance. Because PED and HED's data systems are not interoperable, isolating factors that may contribute to students' potential for success in college (such as academic aptitude or participation in other accelerated learning opportunities aside from participating in dual credit) cannot be easily accomplished.

Outcomes of eleventh-grade students who took dual credit appear positive, but in general, these students enter the program more academically prepared than their peers. The 2009 graduates who took dual credit courses averaged an SBA math proficiency rate of 47 percent, higher than non-dual credit students' average math proficiency rate of 41 percent. Similarly, dual credit students' SBA reading proficiency rate, 66 percent, was higher than the 60 percent rate for non-dual credit students.

The objectives of dual credit, as defined by regulation, do not explicitly support the desired outcomes that LEAs and postsecondary institutions are working to accomplish. The stated purpose of New Mexico's dual credit program is to allow students the opportunity to enroll in college-level academic or career technical courses and the ability to earn credit toward high school graduation while simultaneously earning a postsecondary degree or certificate. This provides the framework for the program, but does not provide a formal plan to use dual credit courses to support student success.

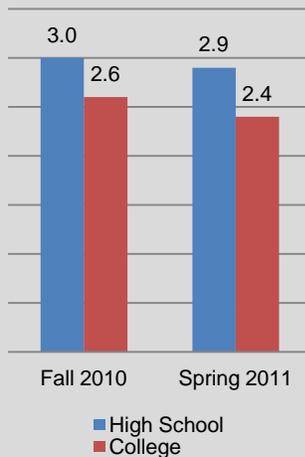
Lack of consistent goals for student educational pathways and weak oversight undermines justification for dual credit program costs. Dual credit programs have been implemented in a variety of ways that cater to students with different aptitudes to achieve different goals, without clear guidance on best practices. Due to the variations in design of dual credit programs, not all students are being provided with equal access to these experiences. Without further evidence that completing a dual credit course leads to quicker completion of postsecondary education or training, the significant resources for dual credit are difficult to justify. Furthermore, the variations in programs makes statewide analysis complicated.

**NM Students
Excessive Credits
Toward Degree
Completion, FY08**



Source: Complete College America

**Comparison of
Grades Earned, by
Dual Credit Location**



Source: HED

Courses offered for dual credit should be based on evidence that they have a positive impact on student outcomes. A 2011 National Center for Postsecondary Research study found no evidence that simply taking dual credit courses significantly increased Florida students' likelihood of high school graduation, postsecondary enrollment, or completion for students who were on the margin of the state's minimum GPA requirement. However, taking college algebra through a dual credit program significantly increased students' likelihood of enrolling at a postsecondary institution by about 16 percent and of obtaining a postsecondary credential by 23 percent.

In 2007, the Kentucky State Board of Education's "Dual Credit Task Force" recommended to the board that incentives in dual credit policy focus on "dual credit core" courses: key college courses from general education and career pathway sequences that "align with and expand upon" high school graduation requirements.

Without consensus about the objective of dual credit, few parameters exist to guide LEAs and institutions on student eligibility and program design. Eligibility requirements for dual credit students appear to be the same for regular students at the institutions, including course placement scores for certain subjects, but there is a wide variety of dual credit enrollment policies across the state. Without standardization of eligibility requirements for students across LEAs and postsecondary institutions, the academic challenge of dual credit courses is called into question. Setting minimum eligibility requirements discourages LEAs and postsecondary institutions from enrolling unqualified students in order to increase enrollment.

Despite regulations for PED and HED to conduct an annual evaluation of student performance for the governor and the Legislature, incompatible data systems and inadequate staffing has prevented detailed analysis. Data analysis of the students participating in the dual credit program has focused more on student enrollment, rather than performance outcomes. Without proper program evaluation to drive program improvement, it is difficult for policymakers and citizens to measure the impact of dual credit course-taking on college and career achievement.

KEY RECOMMENDATIONS

The Legislature should consider alternative public school funding for students who take dual credit courses and do not attend high school full-time by amending state law to clarify current student membership and qualified students for full funding. Statute should state that school districts cannot limit participation in dual credit courses due to funding changes.

The PED should:

Convene a meeting with LEAs to introduce the new guidelines that have been developed for the allocation of dual credit instructional material

Funding for Select Education Programs in NM, FY10

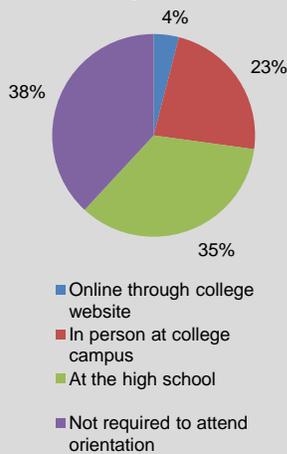
	Dual Credit	AP	Pre-K	K-3 Plus
# of students served	10,985	11,239	4,963	7,540
Funding Amount (in millions)	\$34.4*	\$4.6	\$19.8	\$8.5

*Estimated

Source: LFC, PED, Utah State University

“A disadvantage of dual credit is the distraction caused when students/parents think it is more important to get college credit than to complete more rigorous core high school coursework.” LEA dual credit coordinator response to CEPR/LFC survey

Percentage of Dual Credit Students Receiving Orientation



CEPR/LFC Dual Credit Survey

funds. Reference materials should be available to assist high schools in accurately submitting paperwork for reimbursement so all appropriated funds are expended.

Assess student outcomes as they relate to the graduation requirement to take at least one honors, AP, distance learning, or dual credit course and report to the Legislature on the impact of the statute beginning with the high school graduating class of 2013.

Develop a more accurate methodology to grade high schools on their college and career readiness availability and participation based on the eligibility requirements that are specific to the school and the postsecondary institution, as it pertains to dual credit.

The HED should:

Consider how the geographic areas of responsibility (GAR) impacts access to courses offered for dual credit and manage the master agreement process between postsecondary institutions and LEAs to increase availability of quality courses for all students without duplicating services.

Require postsecondary institutions to report the information collected through the New Mexico dual credit request form to the department to drive program and policy improvements.

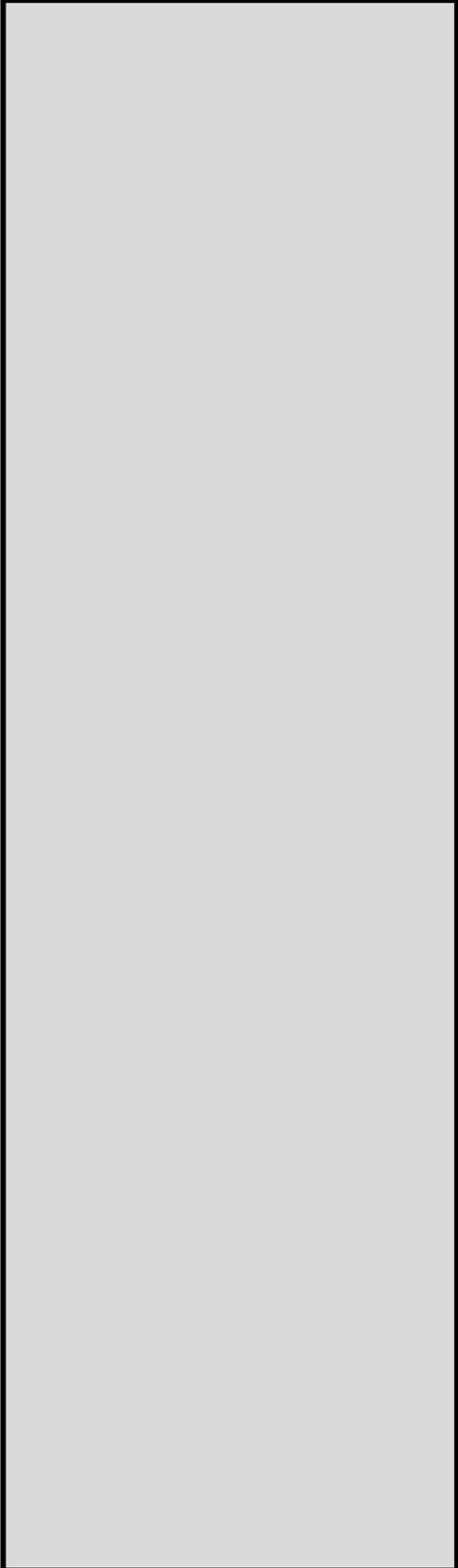
Report on the average number of credits and completed credits being earned through dual credit courses and subsequently in postsecondary education to ensure that students are not taking credits in excess of what is necessary to earn a certificate or degree.

Develop a process to review the master agreements for courses offered for dual credit and make a determination about appropriate courses that are college level or career technical and impact student outcomes, such as those that are guaranteed to be transferable between postsecondary institutions and those that are offered in a structured sequence.

PED and HED should:

Assess the full costs and benefits of dual credit financial policies and make recommendations to the Legislature on an equitable and efficient use of public and higher education funding for students in dual credit courses, including funding by course location, method of delivery and instruction.

Work together, along with LEAs and postsecondary institutions, to develop a more efficient and cost-effective way to purchase, distribute, and maintain textbooks used in courses offered for dual credit, including leasing books through the postsecondary bookstore and book buy-back options to recover some of the expense.



With input from the Legislature, postsecondary institutions, and LEAs, promulgate rules that more explicitly define the program's design to those practices and courses of study that have proven to improve student performance and set clear measures of success.

Support the work of the New Mexico Educational Data System Council, created in Section 22-1-11 NMSA 1978, so the state's educational pipeline can be better analyzed for strengths and weaknesses.

Convene LEAs and postsecondary institutions to develop common eligibility standards for high school students to participate in dual credit courses across the state to promote participation of qualified students.

Consider setting a minimum amount of college credit hours that can be earned by high school students to ensure dual credit participation will result in a shorter time to degree for students, once course quality matters have been reviewed.

Submit an annual report on dual credit costs and outcomes to the governor and the Legislature as part of the budget request.

Reconvene regular meetings of the dual credit council and facilitate larger statewide meetings of dual credit practitioners and policymakers to inform them of program improvements, new statutes and regulations, and to share best practices.

BACKGROUND INFORMATION

In New Mexico, the percentage of high school graduates going directly to college, 68 percent, is higher than the national average of 63 percent. The Legislature and the executive have targeted the high school to college transition through initiatives such as the Legislative Lottery Scholarship, the New Mexico high school redesign and Diploma of Excellence, increasing national testing such as advanced placement (AP), and the dual credit program. Dual credit has been employed as an accelerated learning mechanism intended to help students learn more and learn faster so they can make successful transitions to college and into the workforce.

In 2007, the Legislature passed statewide dual credit legislation allowing high school students to be able to enroll in college-level academic or career-technical courses offered by a public postsecondary institution and to earn credit toward high school graduation and a postsecondary degree or certification. Remedial and developmental courses were originally excluded, followed by physical education activity courses in 2009. Initially, only students who were enrolled in a regular public or charter school were eligible to participate; however, legislation in 2008 expanded eligibility to all state supported schools and in 2009, students at all local education agencies (LEAs) were able to participate. While the inclusion of LEAs was intended to add Bureau of Indian Education (BIE) schools and tribal colleges to the dual credit program, credits earned at the tribal colleges has been limited, as no funding mechanism exists for dual credit students and courses for these institutions. In 2012, the Legislature created the Tribal College Dual Credit Program Fund, but no appropriation was associated with the fund to facilitate student participation.

Prior to a formal dual credit program, some New Mexico public postsecondary institutions allowed high school students to concurrently enroll: to take college courses for credit while simultaneously earning high school credits towards a diploma, at a cost to the student. The dual credit statute, Section 21-1-1.2 NMSA 1978, mandated HED to revise procedures in the higher education funding formula to require institutions to waive tuition for high school students taking courses for dual credit. With public postsecondary institutions receiving instruction and general (I&G) funding along with tuition reimbursement for participating high school students and LEAs receiving full state equalization guarantee (SEG) for qualifying students, all public postsecondary institutions and LEAs were encouraged to participate in New Mexico's dual credit program.

However, three years of declining general fund appropriations before FY13 led to a reduction of \$2 million in the overall higher education I&G funding amount intended to eliminate dual credit funding for ninth-grade and tenth-grade students in FY12. Some public postsecondary institutions continued to waive tuition and fees for these students, even without general fund support. In FY13, institutions will receive an additional \$28 million over FY12 general fund levels in general fund appropriations for I&G funding and special projects. Beginning in FY13, a new performance-based funding formula will be implemented for higher education. The state, along with postsecondary institutions and the Legislature, are well positioned to revisit dual credit policy and funding and examine the costs and benefits of providing these courses.

This evaluation analyzes the funding of courses for dual credit and how student performance is being impacted through this accelerated learning mechanism. As dual credit enrollment has increased over time, both in number of students who are participating and in the number of courses that are offered, the Legislative Finance Committee is evaluating educational policy and programs designed to encourage the transition between secondary and postsecondary education, to improve performance in college, to expedite completion of career technical training or a degree, and to ensure efficient and effective use of public resources (see **Appendix A** for project information, **Appendix B** for the PED Performance Report Card, and **Appendix C** for the HED Performance Report Card).

FINDINGS AND RECOMMENDATIONS

AN INCREASING NUMBER OF HIGH SCHOOL STUDENTS ARE TAKING DUAL CREDIT, IMPACTING STATE FUNDING TO PUBLIC SCHOOLS AND POSTSECONDARY INSTITUTIONS.

Increased enrollment may be a result of statute that mandates students to participate in at least one dual credit, advanced placement (AP), honors, or distance learning course to receive a high school diploma.

Section 22-13-1.1 NMSA 1978 directs students in a public school or other state-supported school or institution, in consultation with the student's parent and school counselor or office to develop a written plan that includes at least one AP or honors course, a dual credit course offered in cooperation with a postsecondary institution, or a distance learning course as a high school graduation requirement. While honors and AP courses are often geared toward high-performing students and distance learning courses are dependent upon the availability of technology at the high school and the adaptability of the curriculum to a distance learning format, the availability of dual credit courses could make it an increasingly popular and accessible choice for students. All public high schools have at least one master agreement in place with a postsecondary institution (see **Appendix G**), expanding access to the dual credit program across the state. In FY10, the unduplicated headcount in courses offered for dual credit was 10,985 students which accounted for 11 percent of New Mexico's total high school enrollment that year and approximately 3 percent of total high school courses. Between FY09 and FY11, the number of unique students taking dual credit courses has increased by 23 percent, or 2,312 students.

Graph 1. Dual Credit Unduplicated Headcount, FY09-FY11



Source: HED

In FY10, New Mexico invested an estimated \$34.4 million on dual credit students through the public school and higher education funding formulas and the dual credit textbook appropriation. The funding supported 10,985 students in 25,840 course units for dual credit. Approximately \$18.7 million was spent in public school funding, \$14.7 million in higher education funding, and \$1 million was expended on instructional materials. This funding is provided regardless of whether the student passes and earns credit for the course. For FY13, institutions are funded for completed courses, including those offered for dual credit. New Mexico spends almost as much on a three-credit dual credit course, \$1,332, as it does on the higher education I&G funding of a three-credit, tier 2, upper level course, \$1,378.

Dual credit funding is not a direct appropriation, but the costs are imbedded in larger funding formulas that do not provide an opportunity for the Legislature to make a recommendation on an amount to allocate for these courses. By comparison, other programs that have been a focus for expansion for a number of years, such as Pre-Kindergarten and Kindergarten-Three Plus, receive direct appropriations and that are not funded at the same level as dual credit courses.

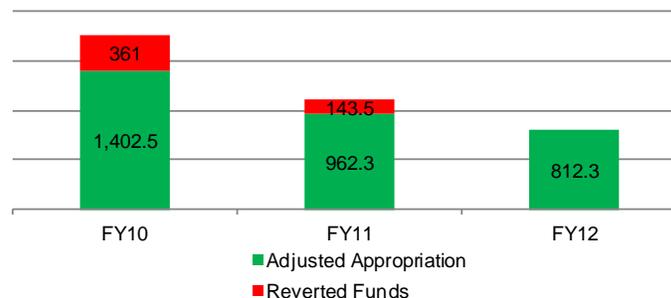
Table 1. Estimated State Funding for Dual Credit, FY10

	Estimated Average Cost Per Course	# of Courses	Total Dual Credit Funding (in millions)	% of Total Budget [^]
Public Education	\$722	25,840	\$18.7	1.2%
Higher Education	\$570	25,840	\$14.7*	1.6%
Instructional Materials	\$40	25,840	\$1.04	n/a
Total	\$1,332		\$34.4	
* Estimated funding based on FY10 SCH. Actual funds would not be appropriated until FY12 due to the "lag" associated with the funding formula.				
[^] % of total budget based on PED dual credit expenses as a portion of PED operating expenses for instruction / total HED funding				

In FY10, New Mexico's public schools received \$4,741 per high school student for basic program funding. Based on the LFC/CEPR Joint Evaluation of the 12th Grade (page 9) the average number of credits earned yearly in eleventh and twelfth grades is 6.56. Therefore, FY10 public school funding per course was \$722. In New Mexico, all high school students must be enrolled in one-half or more of the minimum course requirements approved by the New Mexico Public Education Department (PED), even those taking courses for dual credit. This ensures full SEG funding for students, independent of the number of courses taken and the location or delivery method of the course. Part-time students generating full-time funding raises public policy questions and should be examined.

In addition to the public school funding, the state appropriated \$1.8 million in FY10 to PED for dual credit instructional materials. PED receives funding through the dual credit instructional materials allocation to pay for textbooks and other related course materials by reimbursing local educational agencies (LEAs) for the expense per student per course. Allocations for instructional materials are based on STARS dual credit student course enrollment data from the previous year. In FY10, the average reimbursement was approximately \$40 per student course. Despite increasing enrollments in dual credit courses, over \$500 thousand, or 21 percent, of funding for dual credit textbooks reverted to the general fund in FY10 and FY11.

Graph 2. Dual Credit Textbook Funding, FY10-FY12 (in thousands)



Source: LFC

The CEPR/LFC survey of postsecondary institutions and LEAs, indicated that a more efficient method for reimbursement of instructional materials is necessary. In response to a question regarding the strengths and challenges associated with the financial aspects of dual credit programs (see **Appendices D and E**), 25 of the 53 LEAs replied that reimbursement for textbooks was a challenge for their district. Common dual credit instructional materials problems among LEAs are:

- instructors at postsecondary institutions changing editions of textbooks every year;
- the buyback price of the textbook is lower than the original purchase price;
- dual credit textbook appropriation is not sufficient to cover expenses for all participating students;
- LEAs are using their operational budgets to pay for dual credit instructional materials; and
- the process and paperwork required of the LEAs to submit for reimbursement is complicated, timely, and not consistent.

PED regulations direct postsecondary institutions to make every effort to adopt college textbooks for courses offered as dual credit for at least three years, but institutions cannot require their faculty to adhere to this policy. It is possible that college textbooks purchased by the LEA for dual credit students are not used for more than one academic year, resulting in new costs every time a student enrolls in that course.

Table 2. Cost of Selected Instructional Materials for College Courses, CNM and UNM Spring 2012

	Required College Textbooks	New Price	Used Price
CNM English 1101	Writer's Presence	\$69	\$52
	Bedford Handbook, 8th Edition	\$82	\$61
UNM English 101	Writing Today with & MyCompLab w/EBook Package	\$70	\$52
UNM Math 120	Intermediate and College Algebra	\$136	\$102

Source: CNM Bookstore, UNM Bookstore

Until FY12, PED did not have clearly identified dual credit instructional materials allocation guidelines. The department has since put into place allocation guidelines for LEAs to ensure compliance with program requirements and to determine their eligibility to receive a second allocation to cover actual expenses. In the case of non-compliance, PED has the right to rescind the LEAs' initial allocations and redistribute those funds to compliant LEAs. Better understanding and control of the dual credit textbook appropriation by will likely result in the entire appropriation being spent and for reimbursement to be directed toward school districts that properly document their expenditures.

New Mexico public postsecondary institutions received approximately \$570 in instruction and general (I&G) funding per dual credit course in FY10. These courses are funded using the same college credit hour matrix as non-dual credit courses. Based on the distribution of subject and level of dual credit courses taken, the average funding is \$190 per hour, or \$570 for a three credit-hour course. The institutions receive more money per student credit hour for courses offered through dual credit because the state pays tuition recovery to the institutions for waiving tuition for eligible high school students. Beginning with FY13, institutions will not be eligible for a tuition credit for dual credit courses through the new higher education funding formula.

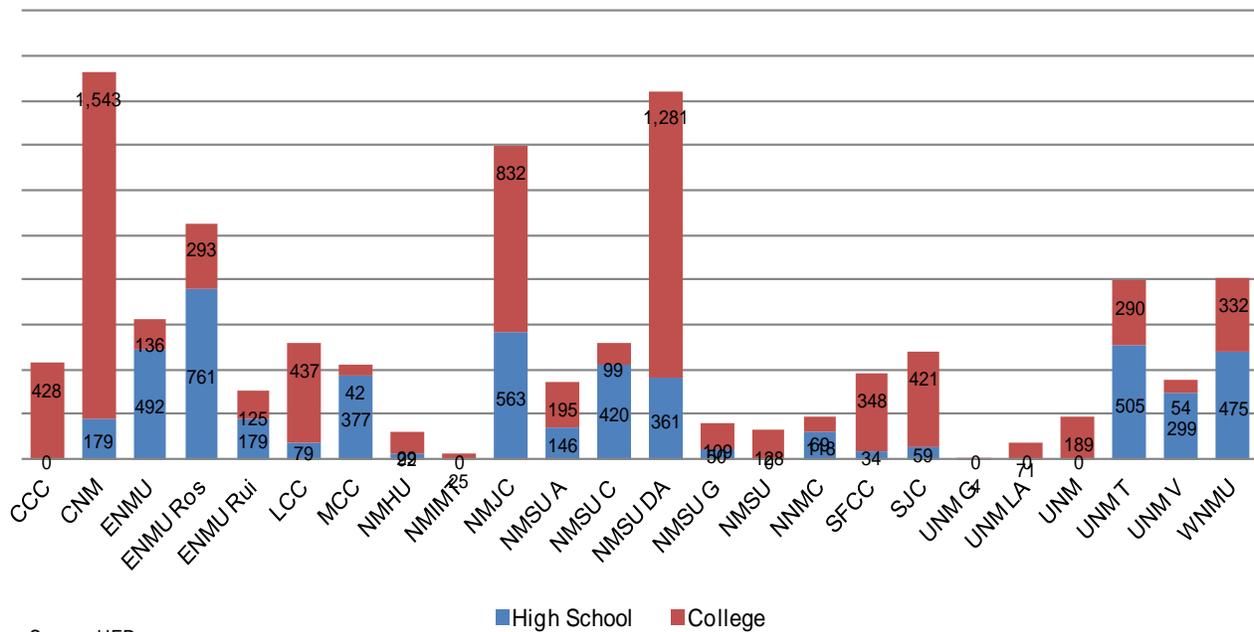
Table 3. Higher Education I&G Funding Grid – Instruction/Inst. Support Funding per SCH, FY10-FY11

	Lower	Upper	Graduate
Tier 1	\$133.34	\$293.44	\$635.09
Tier 2	\$199.20	\$459.40	\$873.81
Tier 3	\$321.16	\$527.84	\$1,396.77

Source: HED

Funding to the LEA and postsecondary institution for the same course, or double funding, may provide a financial incentive for participation in the program, depending on location and delivery. High schools and postsecondary institutions are receiving instructional funding regardless of the physical location and responsibility for instruction. The state funding is the same as if the student took two courses: one at the high school and one at the postsecondary institution. If a dual credit course is offered on a high school campus and is taught by a qualified high school instructor, the postsecondary institution awarding credit for the course would benefit by not having to contribute to the salary of a college faculty member and not having to give up a seat in a classroom to a dual credit student. The institution is able to claim state funding along with tuition reimbursement for a dual credit student who is not instructed on campus. The scenario is also true for students who take the dual credit course at the postsecondary institution, where the LEA claims full public school funding for a student who receives credit for a course that is not taught by a high school teacher or on a high school campus. There are associated administrative costs to LEAs and postsecondary institutions for offering dual credit courses such as the responsibility of enrolling high school students and verifying their credentials and waiving course fees charged to regular students. However, even with the costs associated with the dual credit program, the funding generated by courses offered for dual credit is still lucrative compared to regular courses.

Graph 3. Number of Dual Credit Courses Taken by Postsecondary Institution and Location, Fall 2010



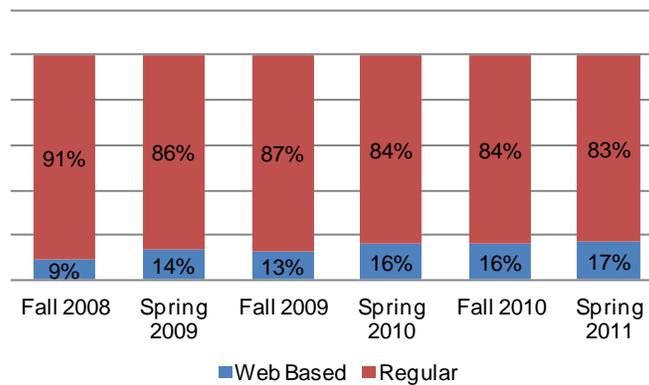
Source: HED

Fifty-nine percent of courses offered for dual credit in fall 2010 are located at the postsecondary institutions and forty-one percent are located at the high school. The distribution of course locations is disproportionate among postsecondary institutions allowing LEAs and institutions to receive state funding for student instruction that is not being provided on their campuses.

The early college high school model may allow schools to generate more estimated funding for dual credit than schools spend to deliver services. The Arrowhead Early College High School in Las Cruces allows students to earn both a high school diploma and an associate’s degree or up to two years of credit toward a bachelor’s degree simultaneously. The priority is to serve students who have been traditionally underrepresented in higher education. To earn college credits, students attend either Doña Ana Community College (DACC) or New Mexico State University (NMSU) for instruction. The Las Cruces Public School District has the advantage of receiving funding for their students at the Arrowhead Early College High School through the public school funding formula, while students are receiving instruction by postsecondary faculty members on the institutions’ campuses.

Dual credit courses offered through a hybrid model provide instructional support for both the college faculty member who develops and instructs the course as well as a high school teacher who facilitates the course in person and is on hand to provide further instruction. Hybrid courses generally require both distance learning, like instructional television (ITV) which combines instructional video and an interactive course website, as well as regular class attendance. Both the institution and the high school are required to pay instructors' salaries, but the postsecondary institution has the advantage of using a designated ITV/distance education classroom space for the course.

Graph 4. Percentage of Dual Credit Courses by Method of Instruction, FY09-FY11



Source: HED

An analysis by OPPAGA revealed four of the 17 state dual credit policies reviewed nationally only partially fund high schools and postsecondary institutions. The Florida Office of Program Policy Analysis (OPPAGA) report on Florida's high school acceleration programs found that only 40 states have formal dual credit policies. Eleven states, including New Mexico, fund both high schools and postsecondary institutions for full-time equivalent (FTE) dual credit students at the same level of funding as traditional students. This is a significant investment as New Mexico dedicates a higher percentage of its general fund to public school and higher education funding than most states. Texas and Washington do not receive high school funding for the time a student is enrolled in a college course. The remaining states either do not have a state funding policy in statute or the policy is unclear.

Table 4. Ten States Fund Dual Credit Like New Mexico

Funding Policy	States
Fund full FTE at high school and postsecondary	Arizona, California, Colorado, Florida, Illinois, Maryland, Minnesota, Missouri, New Mexico, Virginia, and Wyoming
Fund partial FTE at high school and postsecondary	Georgia, Michigan, North Carolina, and Ohio
Fund postsecondary only	Texas and Washington

Source: Florida Office of Program Policy Analysis and Government Accountability

The complexity of education funding at the secondary and postsecondary level and the variance of financing arrangements by each state makes cost calculations and comparisons of dual credit programs difficult. Cost comparisons by states are difficult as dual credit programs differ along many characteristics including:

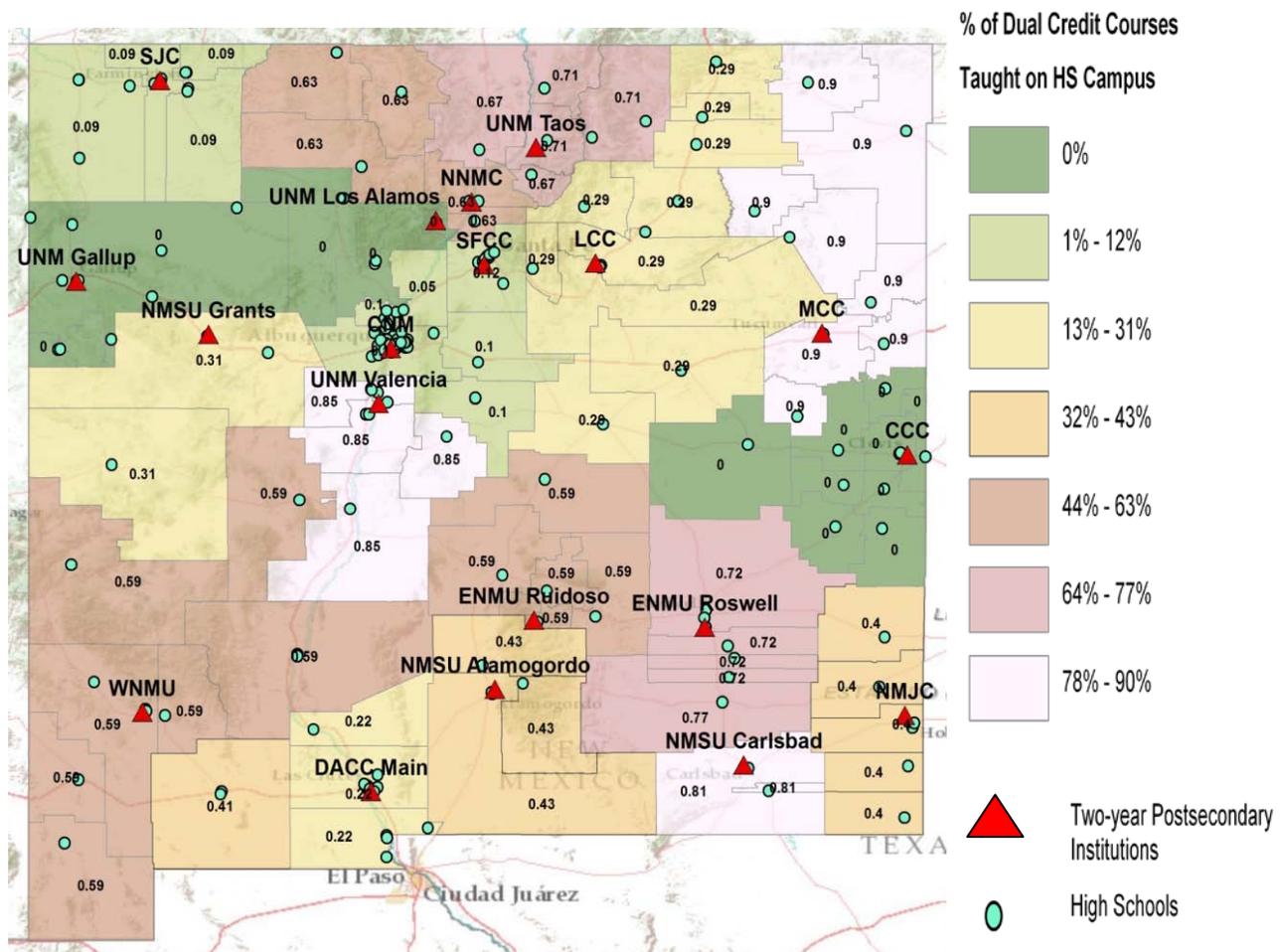
- mandatory or voluntary participation of high schools and postsecondary institutions;
- how states fund participating high schools;
- how states fund participating postsecondary institutions;
- responsibility for paying tuition;

- where courses are provided;
- student eligibility requirements; and
- restrictions on the subject area and number of dual credits students may earn.

An American Institutes for Research (AIR) study of Texas dual credit programs and courses in FY10 estimates program funding and revenue at \$180 million for 94,232 students. The average program cost per credit hour attempted at Texas institutions of higher education (IHE) was approximately \$125 and the average cost per credit hour attempted at the high school was \$149. This is slightly lower than the estimated cost of New Mexico’s dual credit courses most likely because Texas IHEs are not required to waive tuition for students. The South Carolina Commission on Higher Education reported a range of student costs for dual credit courses from \$0 for institutions that did not charge students for courses to \$252 per course. The highest student cost per course among South Carolina’s four-year institutions was \$132 at the University of South Carolina-Columbia in FY08.

According to the CEPR/LFC survey of postsecondary institutions, the main factors in deciding the course location of a dual credit course are the ability of the students to travel to the campus, the type of courses requested, and the availability of a qualified and approved teacher for the course. Because these factors differ across the state, there is a variation in the location of courses offered for dual credit. In Albuquerque, Santa Fe, and Las Cruces, courses are offered at the postsecondary institution more frequently than at the high school. In Carlsbad, Taos, and Silver City, more dual credit courses are offered at the high school than at the postsecondary institution.

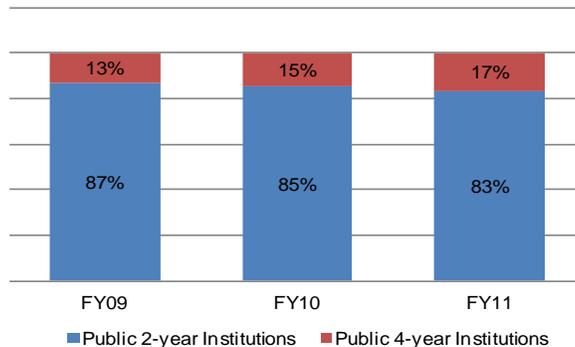
Figure 1. Percentage of Two-Year Public Postsecondary Institution Dual Credit Courses Taught at a High School Campus, Fall 2010



Source: HED. School Districts with Shared College Responsibility are shown as the average of the respective colleges

Courses offered for dual credit are mainly offered by New Mexico’s public two-year institutions, which is common among most states with dual credit programs. The public four-year institutions offered only 15 percent of the 25,840 dual credit courses in FY10, although the percentage of dual credit courses offered by the four-year institutions has been increasing. New Mexico’s policy to include both types of institutions increases the geographic accessibility of courses. However, college credits earned at public postsecondary institutions outside of HED’s lower-division general education common core courses, as specified by Section 21-1B-1 et seq. NMSA 1978 (see **Appendix F**), are not guaranteed to transfer between two-year and four-year institutions unless an articulation agreement is in place on an institutional level. Without articulation agreements in place outside of the courses listed in statute, taking dual credit courses does not guarantee the reduction of the total number of credits needed once enrolled in college.

Graph 5. Percentage of Dual Credit Courses, by Institution Type, FY09-FY11



Source: HED

High school students, especially those in rural areas, may experience limited dual credit course offerings because of the higher education geographic areas of responsibility (GAR). HED issued regulations under Sections 21-1-26, 21-1-26.3, 21-2-5, and 21-2A-11 NMSA 1978, which established the GAR to facilitate the effective planning and delivery of educational programs and services across New Mexico, with due regard for economy and efficiency of delivery and the avoidance of unnecessary program duplication. However, LEAs have requested access to dual credit courses outside of their GARs to expand educational opportunities for students. For a two-year institution to offer courses outside of their GAR, they must seek the “first right of refusal” from the postsecondary institutions assigned to those areas. In these cases, it is likely the course will be offered through distance learning or on the high school campus, unless a satellite campus exists to serve the local high schools or transportation can be provided to students. The GAR may restrict equitable access to courses for dual credit across the state by limiting courses to only those offered by the local community college. The GAR does not apply to public four-year postsecondary institutions or courses offered through distance learning. However, four-year institutions have stricter eligibility requirements and distance learning may not be suitable for all students.

Table 5. Student Enrollment in Dual Credit Courses at New Mexico's Public Postsecondary Institutions, FY09-FY11

Institution	AY 2008-2009	AY 2009-2010	AY 2010-2011
CNM	3124	3973	3522
NMSU DA	2503	2547	2916
NMJC	2008	2932	2765
ENMU Roswell	857	1438	1723
UNM T	1416	1044	1646
WNMU	1507	1747	1600
LCC	1556	1271	1299
ENMU	681	942	1191
SFCC	663	866	1170
NMSU C	1305	1403	1058
UNM V	1355	1450	1051
SJC	242	750	905
MCC	1219	919	848
NMSU A	489	716	692
CCC	1372	1517	648
ENMU Ruidoso	338	319	586
NNMC	309	426	551
UNM	102	214	411
NMSU G	295	422	384
UNM LA	353	395	370
NMSU	78	221	294
NMHU	263	216	258
NMIMT	34	36	38
UNM G	384	56	4
Total	22,453	25,840	25,930

Note: Duplicated head counts may occur each semester within an academic year

Source: HED

Recommendations

The Legislature should consider alternative public school funding for students who take dual credit courses and do not attend high school full-time by amending state law to clarify current student membership and qualified students for full funding. Statute should state that school districts cannot limit participation in dual credit courses due to funding changes.

PED should convene a meeting with LEAs to introduce the new guidelines that have been developed for the allocation of dual credit instructional material funds. Reference materials should be available to assist high schools in accurately submitting paperwork for reimbursement so all appropriated funds are expended.

PED should assess student outcomes as they relate to the graduation requirement to take at least one honors, AP, distance learning, or dual credit course and report to the Legislature on the numbers of students enrolled in each type of course and the impact of the statute beginning with the high school graduating class of 2013.

HED should consider how the GAR impacts access to courses offered for dual credit and manage the master agreement process between postsecondary institutions and LEAs to increase availability of quality courses for all students without duplicating services.

PED and HED should assess the full costs and benefits of dual credit financial policies and make recommendations to the Legislature on an equitable and efficient use of public and higher education funding for students in dual credit courses, including funding by course location, method of delivery and instruction.

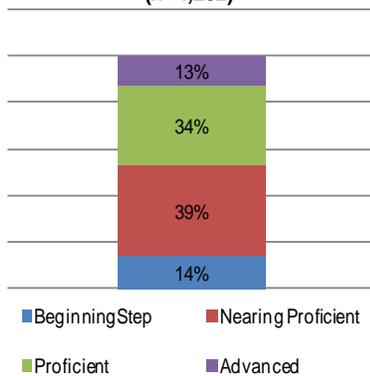
PED and HED, along with LEAs and postsecondary institutions, should work together to develop a more efficient and cost-effective way to purchase, distribute, and maintain textbooks used in courses offered for dual credit, including leasing books through the postsecondary bookstore and book buy-back options to recover some of the expense.

NEW MEXICO’S DUAL CREDIT PROGRAM HAS PROVIDED ACCESS FOR A WIDE RANGE OF STUDENTS, BUT LACKS CLEAR PERFORMANCE MEASURES.

The limited research conducted in New Mexico demonstrates that dual credit courses are accessible and can contribute to improvements in student performance. Analysis of dual credit course taking and the effect on students’ high school and postsecondary achievement is difficult because many states and programs, including New Mexico, do not track or report longitudinal dual credit outcomes as compared to non-participants. Because PED and HED’s data systems are not interoperable, isolating factors that may contribute to students’ potential for success in college (such as academic aptitude or participation in other accelerated learning opportunities aside from participating in dual credit) cannot be easily accomplished.

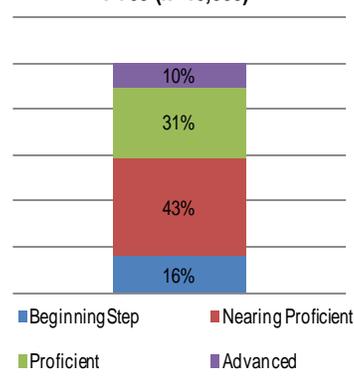
Data provided by PED demonstrates that students with a wide range of academic aptitude, as measured by the eleventh grade Standards Based Assessment (SBA) exams in mathematics and reading, are participating in the dual credit program. Research from the Teachers College at Columbia University cites dual credit as an example of an accelerated learning mechanism that can assist low-performing students in meeting high academic standards while helping those students realize their capability to undertake college-level courses. The participation of these students in dual credit could lead to increased college-going rates for all students, not just those who are likely to go to college with or without dual credit courses.

Graph 6. Eleventh Grade SBA Math Proficiency of Dual Credit Students, FY09 (n=4,232)



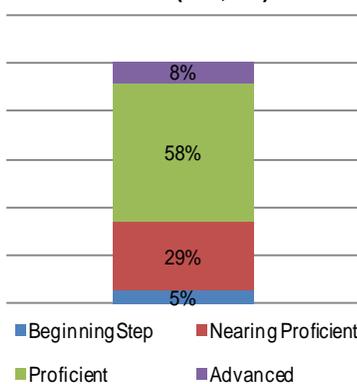
Source: PED

Graph 7. Eleventh Grade SBA Math Proficiency of Non-Dual Credit Students, FY09 (n=10,355)



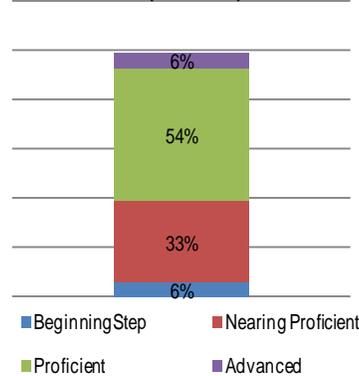
Source: PED

Graph 8. Eleventh Grade SBA Reading Proficiency of Dual Credit Students, FY09 (n=4,230)



Source: PED

Graph 9. Eleventh Grade SBA Reading Proficiency of Non-Dual Credit Students, FY09 (n=10,354)



Source: PED

Outcomes of eleventh-grade students who took dual credit appear positive, but in general, these students enter the program better prepared than their peers. The 2009 high school graduates who took dual credit averaged an SBA math proficiency rate of 47 percent, higher than non-dual credit students' average math proficiency rate of 41 percent. Similarly, dual credit students' SBA reading proficiency rate, 66 percent, was higher than the 60 percent rate for non-dual credit students. A comparison of students who enrolled at the University of New Mexico (UNM) as first-time freshman and graduated with a bachelor's degree between 2009 and 2011 demonstrates the average time to degree for students who took dual credit in high school was almost a semester shorter than students who did not take a dual credit course prior to attending UNM. For both dual credit and non-dual credit students at UNM, upward high school grade point averages (GPA) are also associated with earning a degree in a shorter amount of time. Students who had a higher high school GPA and took a course for dual credit prior to enrolling at UNM, in general, spent less time in college to earn a degree.

**Table 6. UNM Average Years to Graduation:
Comparison of Dual Credit vs. Non-Dual Credit
Student First-time Freshman Graduates, FY09-FY11**

High School Grade Point Average	Took a Dual Credit Course in High School	Did Not Take a Dual Credit Course in High School
Less than 2.5	*	5.66 years
		(n=65)
2.5 – 2.99	5.28 years	5.24 years
	(n=31)	(n=644)
3.0 – 3.49	4.60 years	5.02 years
	(n=123)	(n=1,377)
3.5 – 3.99	4.20 years	4.55 years
	(n=217)	(n=1,591)
Greater than 4.0	3.87 years	4.18 years
	(n=127)	(n=593)

Years to Graduation are calculated as follows: Fall semester = .4 years, Spring semester = .4 years, Summer semester = .2 years

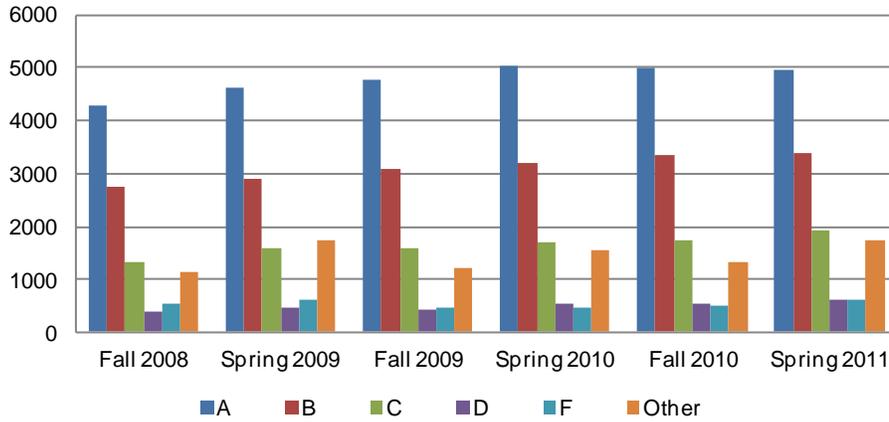
*Data masked due to n<10

Source: UNM

Graduation rates and college going rates of students who took at least one dual credit course in FY09 were higher than the overall student population. A primary goal of dual credit programs nationwide is to improve the likelihood that students will graduate from high school. In FY09, of the 4,524 New Mexico high school seniors that took at least one course for dual credit, 91 percent graduated from high school that same year which is 25 percentage points higher than the four-year graduation rate of all students that graduated in FY09. Of the dual credit students who graduated in FY09, 2,800 or 67 percent, attended a public postsecondary institution in New Mexico in fall 2009, higher than the state's overall rate of 50 percent. The commendable college-going rate of New Mexico students can also be attributed to the Legislative Lottery Scholarship and other funding incentives.

The enrollment growth and college credits earned through the dual credit program in New Mexico have outpaced AP in a short amount of time. Seventy-six percent of students who took a course for dual credit in spring 2009 earned a grade of "C" or better compared to 10 percent of high school graduates who scored a three or better on an AP exam in 2010. Those students earning a grade of A, B, or C, 9,907 students, was over five times the amount of students, 1,954, who earned a score of three or better on an AP exam.

Graph 10. Dual Credit Course Grade Distribution



Source: HED

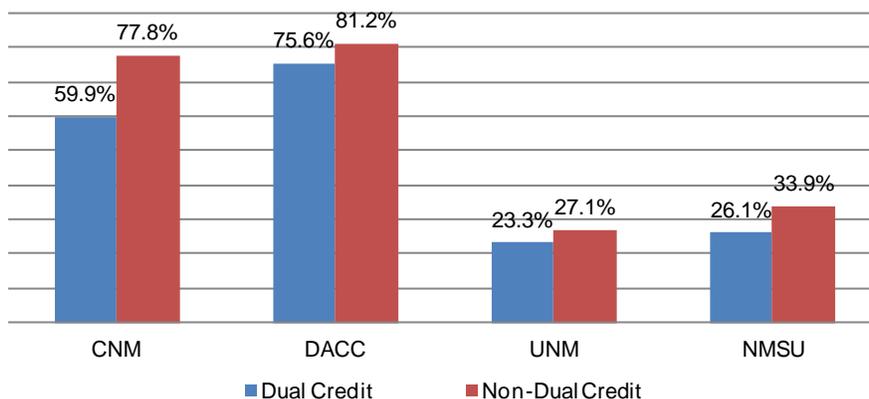
Table 7. Five-year Change in Advanced Placement in New Mexico

	2006	2011
HS Graduates	17,498	17,567
HS Graduates Who Took an AP Exam	3,385	4,274
Percentage of HS Graduates Who Took an AP Exam	19.3	24.3
# of HS Graduates Who Scored a 3 or Higher on an AP Exam	1,623	1,954
Percentage of HS Graduates Who Scored a 3 or Higher on an AP Exam	9.3	11.1

Source: College Board

In the fall 2009 semester, only 35 percent of students who took dual credit in FY09 took a remedial course. The average statewide remediation rate is 47 percent. While this result appears promising, the data is limited to students who enrolled in a remedial math, English, or reading course the first semester following high school graduation. It does not account for students who delayed taking remedial courses until later in their postsecondary education. Furthermore, research from the National Center for Postsecondary Research suggests that simply taking a dual credit course does not improve marginal students' rates of academic success, but taking a challenging dual credit course such as college algebra is more effective. Examining the dual credit taking patterns of students that do not require remediation could help direct students into courses that would help prepare them academically for college.

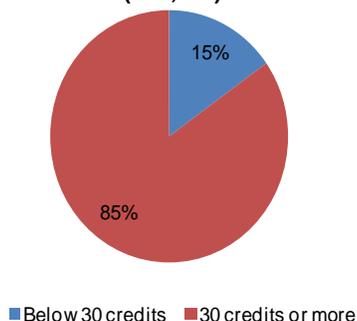
Graph 11. Comparison of Fall 2009 to Fall 2010 Remediation Rates, Selected Institutions



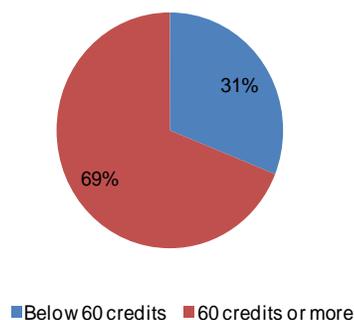
Source: CNM/DACC/UNM/NMSU

Data on receiving a postsecondary credential is limited in New Mexico because of the infancy of formal dual credit data collection. Instead, an analysis of students who took at least one dual credit course in fall of 2008, entered a New Mexico postsecondary institution in the fall semester of 2009, and persisted for four semesters shows promising results after two semesters. Of the 6,615 students who took a dual credit course in the fall of 2008, 29 percent or 1,890 students were still enrolled in a New Mexico public postsecondary institution by the spring 2011 semester, or four semesters of college. Of those students, 1,604 had 30 or more student credit hours by their second semester in college, signaling that they were on time to achieving a degree at 100 percent of time. By the fourth semester of college, 1,304 students had earned 60 credit hours or more, demonstrating a 69 percent rate of dual credit students being on time to a degree.

Graph 12. Students Who Took Dual Credit in Fall 2008, Entered College in Fall 2009, and Have Enough Cumulative Credits in Spring 2010 to be 100% On Time to Degree (n=1,890)



Graph 13. Students Who Took Dual Credit in Fall 2008, Entered College in Fall 2009, and Have Enough Cumulative Credits in Spring 2011 to be 100% on Time to Degree (n=1,890)

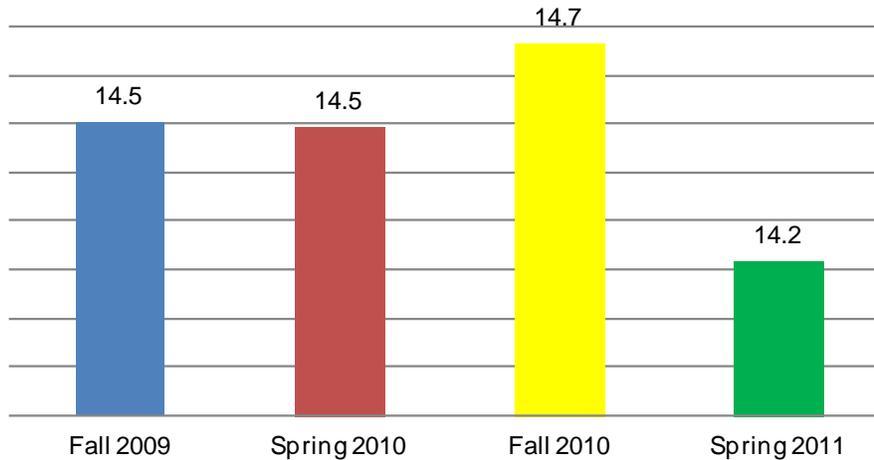


Source: HED

The ability to earn college credits while in high school gives students an advantage to earning a degree 100 percent on time. In a Complete College America report of New Mexico's students in 2011, only 24 percent of full-time students at two-year public postsecondary institutions graduate on time and only 50 percent of full-time students at four-year institutions graduate on time even though New Mexico students, on average, earn more credits than are necessary to earn a certificate or degree.

On average, students who took dual credit in high school and were enrolled in public postsecondary institutions in FY10 and FY11 took more student credit hours per semester than what is required to be considered a full-time student, 12 hours or generally four, three-credit courses per semester.

Graph 14. Average Student Credit Hours Taken by Matriculated Students Who Took Dual Credit in Fall 2008



Source: HED

Gains in student performance as they relate to dual credit have the ability to reduce expenditures and generate new revenues for the state, as well as save students and their families money. An analysis of student outcomes at Central New Mexico Community College (CNM) and UNM reveals that students who took dual credit courses prior to matriculating into college and who graduated with a postsecondary credential are more efficient in course completion. For example, a UNM bachelor’s degree graduate who took dual credit courses in high school needed an average of seven fewer credits than a UNM graduate that did not take courses for dual credit. As a result, the state could save money by funding fewer student credit hours for these students at the college level.

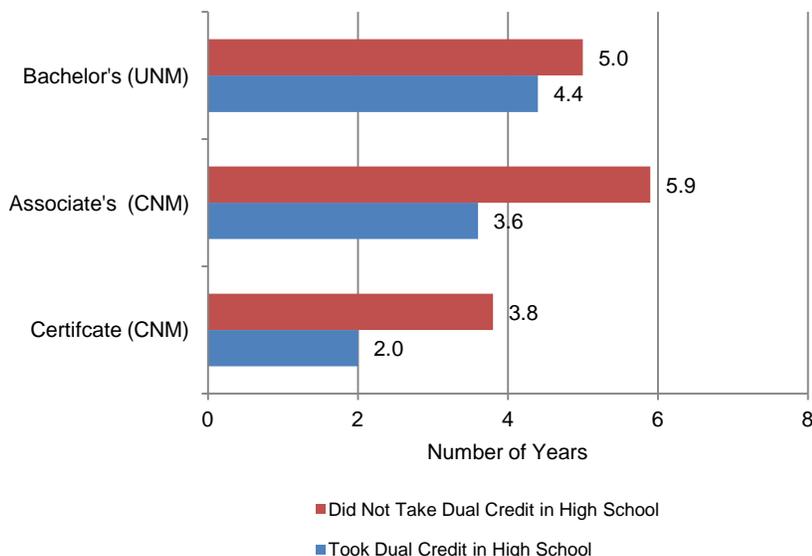
Table 8. Average Credit Hours Attempted by CNM and UNM Graduates, FY08-FY10

	Dual Credit Students	Non-Dual Credit Students	Difference	Formula Savings per Student
CNM Certificate Graduates	44	52	8	\$1,520
CNM Associate’s Graduates	93	96	3	\$570
UNM Bachelor’s Graduates	160	167	7	\$1,330

Source: CNM and UNM Institutional Research

Students at CNM and UNM who took dual credit courses also graduated at a faster rate than their peers. As a result, students and their families saved money on college expenses, such as tuition, fees, and books. For example, CNM associate's degree graduates who had taken dual credit courses graduated 2.3 years faster than their peers, saving them nearly five semesters worth of tuition, fees, books, and other related expenses.

Graph 15. Average Years to Graduation by Degree Type, Select Institutions
(n=6,961 CNM graduates from 2008-2010; n=9,583 UNM graduates from 2008-2010)



Source: UNM Office of Enrollment Management and CNM Office of Institutional Research

The objectives of dual credit, as defined by regulation, do not explicitly support the desired outcomes that LEAs and postsecondary institutions are working to accomplish. The stated purpose of New Mexico's dual credit program is to allow students the opportunity to enroll in college-level academic or career technical courses and the ability to earn credit toward high school graduation while simultaneously earning a postsecondary degree or certificate. This provides the framework for the program, but does not provide a formal plan to use dual credit courses to support student success. Other states, such as Florida and Texas, have more clearly designed dual credit programs to accomplish specific goals, such as reducing the time associated with completing a high school diploma and a postsecondary credential (F.S. § 100.24) and reducing the number of high school students enrolling in developmental courses (Texas Administrative Code § 4.174; HB 1 § 61.0761).

The National Alliance of Concurrent Enrollment Partnerships (NACEP) of which CNM and New Mexico State University-Carlsbad are members, has developed measurable criteria that promote the implementation of dual credit policies and practices and encourage greater accountability for dual credit programs through required impact studies, student surveys, and course and program evaluations. The standards are the basis for accreditation, but New Mexico could benefit by using these standards as a guide to create dual credit regulation that is focused and uses well-defined standards.

Dual credit can be used as a tool to move students through the educational pipeline from high school to postsecondary education through improved student performance. Students who take a course for dual credit while in high school are expected to:

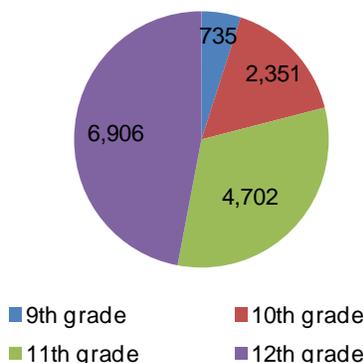
- graduate from high school at higher rates than students who did not participate in dual credit;
- need less remediation in their postsecondary education than students who did not participate in dual credit; and
- advance to earning a postsecondary credential in less time than students who did not take a course for dual credit.

An examination of the role dual credit plays in influencing these outcomes should be part of New Mexico’s approach in administering the program to ensure policies are designed to achieve state priorities and goals and that the state is receiving a greater return on its investment.

PED has developed a college and career readiness indicator that accounts for 15 percent of a high school’s grade pursuant to the A-F Schools Rating Act, Section 22-2E-4 NMSA 1978. There are two components of the grade: participation, which is determined by the percent of enrolled students in the ninth, tenth, eleventh, or twelfth grades who show evidence of a career or a college preparatory path; and success, which is determined by the percent of students who attempted any of the college and career readiness options and who met the success criterion.

Students, and therefore schools, are considered successful if they achieve a score of three or better on an AP exam in a core academic area while in the eleventh- and twelfth-grade, achieving a college readiness benchmark score on the four content areas of the ACT while in the eleventh- and twelfth-grade, achieving a college readiness benchmark score on the three content areas of the PSAT, or completing all course requirements for career readiness with the grade of A, B, or C and graduating with a regular diploma in four years while in the twelfth-grade. Student attempts will be pooled as the denominator, and student successes will be pooled as the numerator for the final calculation. Students may make multiple attempts, with multiple indicators, and the single most successful indicator will be retained.

Graph 16. Dual Credit Duplicated Student Enrollment by Grade Level, FY10



Source: HED

Using a calculation of the number of students participating in dual credit courses divided by the entire student population at a high school does not accurately reflect a school’s college and career readiness involvement. Due to limitations on student eligibility, some dependent on the grade level or age of the student, all students do not have the same opportunities to participate. This varies by school district and postsecondary institution awarding the dual credit. To calculate success, PED uses the number of students that attempted a college course and those that met a success benchmark to derive a percentage that is used to calculate a high school’s grade.

Recommendations

PED should develop a more accurate methodology to grade high schools on their college and career readiness availability and participation based on the eligibility requirements that are specific to the school district and the postsecondary institution, as it pertains to dual credit.

HED should require postsecondary institutions to report the information collected through the New Mexico dual credit request form to the department to drive program and policy improvements. The additional data can be used

to include academic aptitude through high school grade point average (GPA), placement test scores, and college entrance exam scores when assessing dual credit student performance.

HED should report on the average number of credits being earned through dual credit courses and subsequently in postsecondary education to ensure that students are not taking credits in excess of what is necessary to earn a degree.

PED and HED should, with input from the Legislature, postsecondary institutions, and LEAs, promulgate rules that more explicitly define the program's design to those practices and courses of study that have proven to improve student performance and set clear measures of success. The departments are encouraged to use the National Alliance of Concurrent Enrollment Partnerships (NACEP) Standards of Program Quality as a framework for developing these rules.

PED and HED should support the work of the New Mexico Educational Data System Council, created in Section 22-1-11 NMSA 1978 so the state's educational pipeline can be better analyzed for strengths and weaknesses. Improved use of the Student Teacher Accountability Reporting System (STARS) and Data Editing and Reporting (DEAR) data can help policymakers identify successful student characteristics and best practices in dual credit that meet the state's educational priorities and goals.

LACK OF CONSISTENT GOALS FOR STUDENT EDUCATIONAL PATHWAYS AND WEAK OVERSIGHT UNDERMINES JUSTIFICATION FOR DUAL CREDIT PROGRAM COSTS.

Dual credit programs have been implemented in a variety of ways that cater to students with different aptitudes to achieve different goals, without clear guidance on best practices. The programs operate on the assumptions that students enrolled in college coursework while in high school are better prepared for postsecondary education, students who earn both high school and college credit simultaneously will achieve a postsecondary credential in a shorter time frame, and that exposing students to a postsecondary environment provides multiple benefits. Due to the variations in design of dual credit programs, not all students are being provided with equal access to these experiences. Furthermore, the variations in programs makes statewide analysis complicated.

Courses offered for dual credit should be reviewed for content and be based on evidence that they are contributing to the positive impact on student outcomes. According to Jobs for the Future, states should be ensuring the quality of dual credit courses by encouraging the high school and postsecondary institution to use the same syllabi, assign comparable work, and give the same examinations as the equivalent courses taught at the postsecondary institution in order to have a positive impact on student outcomes. The National Center for Education Statistics uses 47 classification of instructional program (CIP) codes to categorize fields of study into a systemic description of instructional programs. In New Mexico, dual credit course topics can be categorized into 39 of the possible CIP codes. Courses for “personal awareness and self-improvement” have not demonstrated clear efficacy on students’ overall college readiness and postsecondary achievement compared to more academic courses like “English language and literature” and “mathematics and statistics”.

Table 9. Top 20 Spring 2011 Dual Credit Courses by Classification of Instructional Program (CIP) and Enrollment

	Fall 2008	Spring 2009	Fall 2010	Spring 2011
English language and literature/letters	834	1056	872	1200
Health profession and related clinical services	758	936	1270	1173
Mathematics and statistics	693	736	768	829
Visual and performing arts	471	486	675	787
Computer and information sciences	728	683	790	763
Social science	494	511	668	649
Psychology	371	506	456	609
Physical science	455	756	437	574
Mechanic and repair technologies/technicians	349	395	641	569
Engineering technologies/technicians	0	485	560	550
Business, management, marketing and related	508	490	610	548
Foreign language, literatures, linguistics	465	548	422	542
Liberal arts, general studies/humanities	263	275	527	469
Biological and biomedical science	437	382	282	456
History	330	539	348	402
Precision production	433	368	367	394
Personal awareness and self improvement	4	35	43	355
Construction trades	313	416	336	310
Security and protective services	192	201	307	280
Personal and culinary services	208	192	371	238

Source: HED

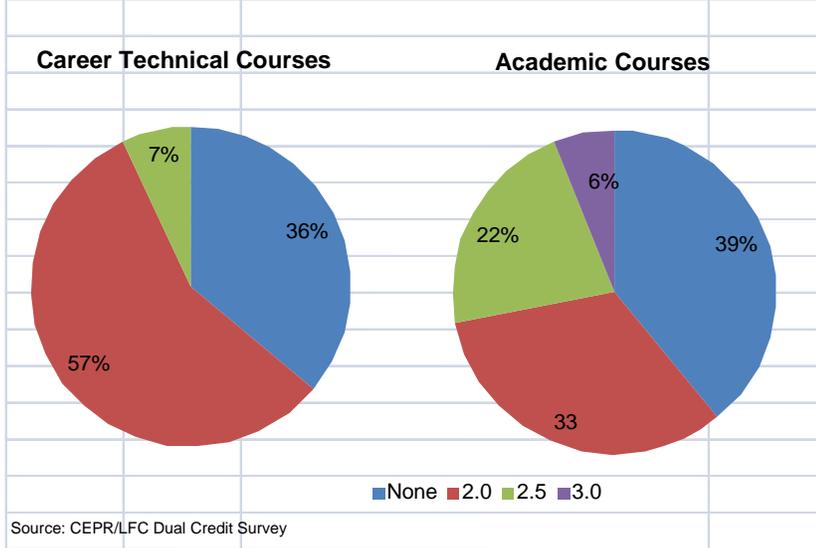
A 2011 National Center for Postsecondary Research study found no evidence that simply taking dual credit courses significantly increased Florida students' likelihood of high school graduation or postsecondary enrollment or completion for students who were on the margin of the state's minimum GPA requirement. However, taking college algebra through a dual credit program significantly increased students' likelihood of enrolling at a postsecondary institution by about 16 percent and of obtaining a postsecondary credential by 23 percent. In 2007, the Kentucky State Board of Education's "Dual Credit Task Force" recommended to the board that incentives in dual credit policy focus on "dual credit core" courses: key college courses from general education and career technical pathway sequences that "align with and expand upon" high school graduation requirements.

In New Mexico, adopting a similar policy would not only reduce the cost of providing dual credit courses to the state, but would ensure transferability of credit hours between postsecondary institutions, since only lower division general education common core courses are guaranteed to transfer to any public postsecondary institution. Transfer and articulation of career technical courses is more challenging, since agreements are typically made between institutions rather than statewide. As the issue of students earning more credit hours than necessary for a postsecondary credential is not efficient for either the state or the student, limiting the type of courses that can be offered or certain programs of study for dual credit so credit hours are not accumulated beyond what is necessary, is preferable.

PED and HED demonstrated programmatic and financial oversight of the dual credit program through a policy decision to prohibit students from taking physical activity courses and remedial courses and for dual credit. Physical education activity courses taught in high schools are required to meet PED's Physical Education Content Standards with Benchmarks and Performance Standards. The physical education activity requirement for high school graduation remains at the secondary level and is not eligible for inclusion in the dual credit program. One of the potential benefits of dual credit is to lower the need for remediation by preparing students to meet the challenges of college-level work, therefore restricting developmental courses diminishes the demand at postsecondary institutions.

Without consensus about the objective of dual credit, few parameters exist to guide LEAs and institutions on student eligibility and program design. Eligibility requirements for dual credit students appear to be the same for regular students at the institutions, including course placement scores for certain subjects, but there is a wide variety of dual credit enrollment policies across the state. Allowing access to dual credit courses for broad range of academically prepared students does not ensure that only students ready for college-level work participate in the program. For example, Florida requires high school students taking courses for dual credit to maintain a 3.0 GPA for academic courses and a 2.0 GPA for career technical courses. This guarantees that most students have access to some dual credit options, even if they are not ready to participate in an academic course. Without standardization of common eligibility requirements for students across LEAs and postsecondary institutions, the academic challenge of dual credit courses is called into question.

Graph 17. Percentage of CEPR/LFC Survey Respondents Indicating a Required Minimum GPA for High School Students to be Eligible to Enroll in a Course Offered for Dual Credit at New Mexico's Postsecondary Institutions

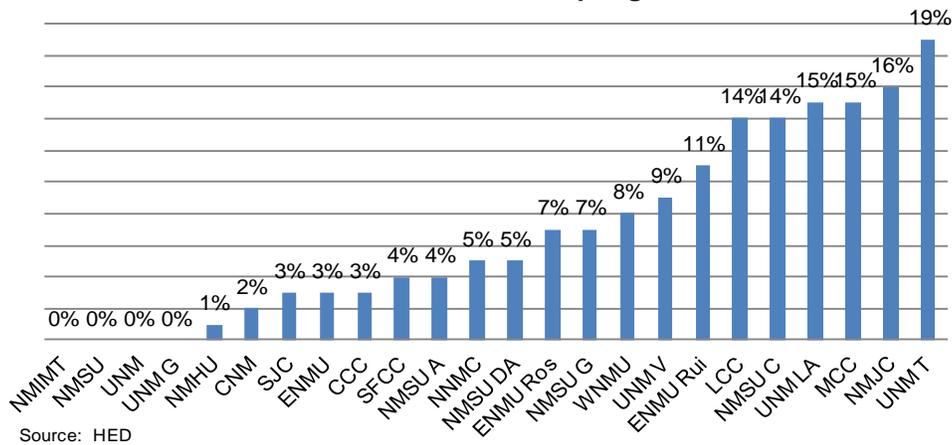


In New Mexico, more than half of the postsecondary institutions who responded to the CEPR/LFC survey, 57 percent, indicated that a minimum of a 2.0 GPA was required for students to participate in career technical courses for dual credit. To be eligible to enroll in academic courses for dual credit, 39 percent of institutions responded that there was not a minimum GPA requirement for students.

Of the 24 postsecondary institutions that responded to the CEPR/LFC survey about dual credit, 13 institutions indicated the minimum high school grade level for students to participate in dual credit is the eleventh grade. This decision may have been the result in the one-time reduction of dual credit funding by \$2 million in FY12 whereby the Legislative Finance Committee recommended HED to direct institutions to eliminate dual credit offerings for ninth and tenth grade students, but never formalized the policy. There is no evidence the funding reduction was based on suitability or poor performance of freshman and sophomores in dual credit. Restricting the amount of credit hours high school students can earn through dual credit by limiting their eligibility to two years is a disadvantage to students who are trying to reduce postsecondary training and college costs. While it may be a proxy for student ability to complete college level work, it does not promote a shorter time to degree once students enter postsecondary as regular students.

Setting minimum eligibility requirements discourages LEAs and postsecondary institutions from enrolling unqualified students in order to increase enrollment. Postsecondary institutions that have a high percentage of dual credit courses as part of their total student credit hours are often criticized for using dual credit to increase enrollment, especially for those courses not being taught on the college campus and not being instructed by a college faculty member. The lack of regulation to guide enrollment decisions made at the LEA and postsecondary level call into question the program implementation of dual credit to either maximize or limit student enrollment.

Graph 18. Dual Credit Hours as a Percentage of Total Institution Credit Hours, Spring 2011



Data analysis of the students participating in the dual credit program has focused more on student enrollment, rather than performance outcomes. Despite regulations for PED and HED to conduct an annual evaluation of student performance for the governor and the Legislature, incompatible data systems and inadequate staffing has limited detailed analysis of:

- the high school graduation rates for participating LEAs for dual credit students once the students graduate from high school;
- the New Mexico postsecondary institutions dual credit students ultimately attend; and
- the estimated cost of providing the statewide dual credit program, including tuition, fees, textbooks, and course supplies.

Without proper program evaluation to drive program improvement, it is difficult for policymakers and citizens to measure the impact of dual credit course-taking on college and career achievement and meeting workforce needs in a timely and most effective manner.

Besides what is stated in the master agreement between LEAs and postsecondary institutions about the quality and rigor of dual credit courses, PED and HED have a limited scope in the review and approval of eligible programs and courses. According to a report by NACEP, twenty-nine states have adopted quality standards for overseeing postsecondary providers of dual credit. New Mexico, as a state, has not regularly practiced these recommended oversight functions. Without quality review, the agencies cannot reliably assess a course or program’s relationship to reducing the need for remediation at the college level, faster completion of certificate or degree programs, or transferability of courses between institutions.

**Table 10. National Alliance of Concurrent Enrollment Partnerships
State Strategies for Overseeing Dual Credit Programs,
Select States**

	Illinois	Oregon	New Mexico	South Dakota	Utah
Program Approval		√		√	
Periodic Program Reviews	√	√			
Student Outcome Analysis		√		√	
Regular Collegial Meetings		√			√
Course Approvals					√
Review of District/College MOUs			√		√
Annual Reporting	√	√	√		√

Source: National Alliance for Concurrent Enrollment Partnerships/NMAC 6.30.7

The dual credit council, an advisory group consisting of staff from PED and HED responsible for issuing recommendations to the cabinet secretaries of the department regarding dual credit issues, has not met regularly. Both LEAs and postsecondary institutions have expressed a lack of leadership and direction for the dual credit program at the state level. NACEP suggests that regularly occurring collegial meetings provide opportunities for dual credit administrators and state officials to share best practices, discuss standards, and resolve issues that arise through information exchange and professional development.

Recommendations

HED should develop a process to review the master agreements for courses offered for dual credit and make a determination about appropriate courses that are academically challenging and impact student outcomes, such as those that are guaranteed to be transferable between postsecondary institutions and those that are offered in a structured sequence.

PED and HED should convene LEAs and postsecondary institutions to develop common eligibility requirements for high school students to participate in dual credit courses across the state to promote participation of qualified students.

PED and HED should consider setting a minimum amount of college credit hours that can be earned by high school students to ensure dual credit participation will result in a shorter time to degree for students, once course quality matters have been reviewed.

PED and HED should be required to submit an annual report on dual credit costs and outcomes to the governor and the Legislature as part of their budget request.

PED and HED should reconvene regular meetings of the dual credit council and facilitate larger statewide meetings of dual credit practitioners and policymakers to inform them of program improvements, new regulations, and to share best practices.

NEW MEXICO HIGHER EDUCATION DEPARTMENT



SUSANA MARTINEZ
NEW MEXICO GOVERNOR

JOSÉ Z. GARCIA
CABINET SECRETARY

July 6, 2012

David Abbey
Director
Legislative Finance Committee
325 Don Gaspar
Santa Fe, NM 87501

Dear Mr. Abbey,

We have received and reviewed the recently submitted legislative Finance Committee study on Dual Credit, *Dual Credit Cost-effectiveness and Impact on Remediation and On-time Degree Completion* (July 12, 2012). The New Mexico Higher Education Department (NMHED) is firmly committed to ensuring that dual credit courses are provided in a cost-effective and efficient manner for the benefit of both students and tax payers. NMHED will continue its oversight of the program through a variety of methods including the Dual Credit Council, the Dual Credit Committee, Chief Academic Officer's meetings, and data and fiscal institutional oversight.

In the months ahead, we will be reviewing the findings and recommendations provided in this report and along with the New Mexico Public Education Department (NMPED) and Institutions of Higher Education we will move forward to make dual credit an efficient and effective offering for New Mexico high school students. NMHED will continue to provide oversight of the Geographic Areas of Responsibility and postsecondary institutional data reporting as well as the accuracy of course offerings for dual credit. In its role as one of the two partners that guide the New Mexico Educational Data Systems Council, NMHED will continue to ensure that through the quarterly meeting process and other activities the effective analysis of the dual credit initiative.

In the NMHED/NMPED *Dual Credit Annual Report, SY 2010-2011*, a 2.5-page *White Paper* was included, which outlined dual credit initiatives and is attached for your reference.

Thank you for the opportunity to take part in the continued development of the Dual Credit Program.

Sincerely,

A handwritten signature in black ink, appearing to read "José Z. Garcia".

Dr. José Z. Garcia
Secretary of Higher Education

2048 Galisteo Street, Santa Fe, NM 87505
(505) 476-8400 www.hed.state.nm.us



**New Mexico
Dual Credit
Annual Report
A White Paper
for School Year
2010–2011**

Public Education Department
300 Don Gaspar
Santa Fe, New Mexico 87501
505-827-5800
www.ped.state.nm.us

Higher Education Department
2048 Galisteo
Santa Fe, NM 87505
505-476-8400
<http://hed.state.nm.us>

March 2012

The Integrated Solution

The 2010–2011 Dual Credit Annual Report identifies and incorporates the following state DC initiatives:

- ✓ Aligning New Mexico's High School Competencies with College Placement and Career Readiness Expectations
- ✓ Affording access to dual credit courses for every New Mexico high school student
- ✓ Engaging the Dual Credit Council (DCC) in educational transformation
- ✓ Delivering Professional Development (PD) for the successful completion of dual credit courses
- ✓ Providing meaningful opportunities for Parental Involvement (PI)
- ✓ Ensuring College and Career Readiness (CCR)

Benefit 1

The Dual Credit Council specifically addresses the following indicator benefits:

- ✓ Enhancing Student Achievement
- ✓ Integrating Systemic Continuous Improvement
- ✓ Responding Strategically to Educational Changes
- ✓ Connecting with Partners—Parents and Community

Benefit 2

The indicators are aligned with the “Initiatives” and may include goals from stakeholder entities ensuring that transformative practices become the educational services for our rural, ethnic minorities of low socioeconomic status.

Benefit 3

Student valued processes are woven into the DC methodology creating a continuous improvement structure that will provide an environment which fosters relevant 21st Century competencies, lifelong learning, and achievement.

Implementation

The DCC issues recommendations to the Cabinet Secretaries on matters not addressed in the rule, including determination of alignment of course content to determine the appropriate credit ratio. The Council administers an appeals process for LEAs and postsecondary institutions. The HED and the PED Cabinet Secretaries shall act jointly upon Council recommendations.

Summary

New Mexico's HED and the PED "Dual Credit Collaborative Initiatives" require an all-inclusive infrastructure that provides educators with the resources to ensure access to best practices, research strategies, and technology enabling learners with targeted, innovative services. This essential infrastructure is far-reaching and demands a concerted and coordinated effort from New Mexico students, educators, families, and communities in order to be sustainable and prolific.



STATE OF NEW MEXICO
PUBLIC EDUCATION DEPARTMENT
300 DON GASPAR
SANTA FE, NEW MEXICO 87501-2786
Telephone (505) 827-5800
www.ped.state.nm.us

HANNA SKANDERA
SECRETARY-DESIGNATE OF EDUCATION

SUSANA MARTINEZ
Governor

July 5, 2012

Mr. David Abbey, Director
Legislative Finance Committee
325 Don Gaspar, Suite 101
Santa Fe, NM 87501

RE: Dual Credit Program Evaluation

Dear Director Abbey:

Thank you for the opportunity to respond to the draft evaluation on Dual Credit in New Mexico. Please accept my compliments to your staff for their professionalism and collaborative approach throughout the evaluation process. As always, the Public Education Department (PED) is committed to continuous quality improvement, best practices, and positively impacting outcomes for all of our students in New Mexico. By offering options to students through programs like Dual Credit, our hope is to address low graduation rates, prepare students for vocational or post-secondary education, and enhance their opportunities for success.

The Dual Credit Annual Report for School Year 2010-2011 is posted on the PED website. The Annual Report was compiled in partnership with the Higher Education Department (HED) and fulfills the statutory requirement of the Dual Credit Act 21-1-1-2. NMSA 1978. The link to the website is <http://www.ped.state.nm.us/DualCredit/index.html>.

The exit conference between LFC, PED and HED was held Tuesday, June 26, 2012 and the draft report was discussed. Following is the PED response to the draft report.

Incompatible Data Systems

Due to incompatible data systems there has been an inability to conduct annual evaluations that provide detailed analysis to the Governor and the legislature. Instead, data analysis has consisted of student participation in dual credit programs, with more emphasis on enrollment than performance outcomes. Without appropriate program evaluation to guide improvement, it is difficult for policymakers and citizens to measure the impact of dual credit programs on college

and career achievement. The report references incompatible data systems and inadequate staffing right before the *Key Recommendations* section on draft page 8.

Methodology

The report only indicates numbers of students that graduated by meeting the requirement via dual credit. This brings concerns regarding the inferences that will be drawn. Because the accountability model prior to school grading did not account for college and career readiness, it is difficult to predict the level of impact that dual credit may have as schools try to meet requirements of school grading. The report recommends PED develop an accurate methodology to grade high schools on draft page 9.

Instructional Materials

Aligning instructional materials processes for districts is likely the best way to address problems with the current processes. Many districts struggle with not having data to inform them of the texts being used/purchased until after the semester. PED suggests using model schools like Rio Rancho Public Schools, which has designed an efficient tracking system to inform needs and purchases. The report references problems with instructional materials on draft page 14.

PED Rule Change

This may be the largest problem that is the simplest to remedy. Creating a rule that requires courses to follow an adoption cycle that suits the needs of students is a first step. The report references issues with the current PED regulations on courses on draft page 14.

Incentives

Creating an incentive for dual credit programs may enhance the ability for students to be served by these specific programs and lessen the need for traditional comprehensive high schools to do so. Is dual credit best handled by programs that show the best ability to manage it? Early College high schools and Rio Rancho may provide models of exceptional outcomes that need to be replicated. All entities need to be accountable for their outcomes. The report references this issue on draft page 16.

General Observations

As noted in the evaluation, “students who have taken courses for dual credit appear to perform adequately in their courses, graduate from high school at a higher rate than their peers, require less first-semester remediation in postsecondary education, and be on time to obtaining a degree”. This observation by the evaluators indicates the success dual credit is playing in improving student achievement as one of many options for parents available in schools. The evaluation also makes a number of references to the high cost of providing dual credit courses but appears to ignore the cost-benefit of students achieving at higher levels, improving student success through higher graduation rates and the reduced need for remedial courses in college.

While the department agrees with a number of the observations noted in the report, concern is raised with the dollar estimates of annual expenditures made to support dual credit programs statewide. It is unclear how the evaluators determined that \$18.7 million was spent in public school funding to support students. While the LFC may argue that high school students, particularly seniors, are over funded and may have applied this amount to the cost of dual credit, it is clear that current statute provides funding to schools for students enrolled within the provisions of existing statute. With regard to funds expended on dual credit materials, PED reimburses school districts for approved materials that are actually purchased. One issue that should be addressed is that individual professors change texts regularly, precluding school districts from reusing materials. As a result, districts are left in possession of out-of-date college textbooks that are no longer of use.

The evaluation notes that increasing numbers of high school students are taking dual credit, impacting state funding. Again, if students are benefitting from these courses, in the long run the state is benefitting as well. We as a state spend significant dollars on educational programs that are not improving education. We should embrace those that are and celebrate their success.

The evaluation notes that New Mexico's dual credit program has provided access for a wide range of students, but lacks clear performance measures. It is clear, as noted by the evaluators, "students who have taken courses for dual credit appear to perform adequately in their courses, graduate from high school at a higher rate than their peers, require less first-semester remediation in postsecondary education, and be on time to obtaining a degree". This is performance; perhaps not a written down measure, but performance nonetheless. Students are achieving, bottom line. School grades give credit for dual credit courses for this reason.

Outcomes of eleventh-grade students who took dual credit appear positive, but in general, these students enter the program more academically prepared than their peers. This statement does not appear to be substantiated. Students from a wide swath of academic abilities participate in the dual credit program. These include students who will go on to earn a four-year degree as well as those who will study within the career and technical fields. All of these students can and are taking advantage of the dual credit program and contributing to the statewide success noted in the evaluation. To generalize that these students are more academically prepared than their peers is concerning and should be reconsidered or data presented to validate the comment.

Lack of consistent goals for student educational pathways and weak oversight undermines justification for dual credit program costs. This finding, when its supporting comments are considered, contradicts other portions of the evaluation. To imply that because of the variety of ways programs cater to students with different aptitudes is a bad thing goes against all that we know about education. Different children learn differently and because institutions are addressing this issue is not a bad thing, but rather, acknowledges differences and works to help all children succeed. Further, the comment is made that "without further evidence that completing a dual credit course leads to quicker completion of postsecondary education or training, the significant resources for dual credit are difficult to justify" is interesting in that the evaluators comment in the opening paragraph of the report the value the program adds to student achievement as well as post-secondary completion.

PED Response to LFC Dual Credit
7/5/12

With regard to recommendations, PED already works with districts during the Spring Budget Workshop to provide the necessary guidance regarding instructional materials. As to the dual agency recommendations, PED will work with HED to identify and inform policy decisions regarding the ongoing implementation of the program.

Thank you again for the opportunity to participate in the Dual Credit LFC evaluation. We look forward to discussing the recommendations with you and the LFC members July 12, 2012 in Rio Rancho.

Warm regards,



Hanna Skandera
Secretary-Designate
Public Education Department

HS/hja/mm/at

APPENDIX A: PROJECT INFORMATION

Evaluation Objectives.

- **Descriptive Data.** Determine the relationship between demographics of dual credit students compared with non-dual credit students to more effectively direct resources.
- **Student Performance.** Examine the types of dual credit courses being taken and assess their contribution to better student outcomes.
- **Funding.** Review the funding mechanisms of dual credit and determine if the state is experiencing a return on investment through improved student outcomes.

Scope and Methodology.

- Coordinated research, analysis and fieldwork between LFC and CEPR staff
- Conducted a literature review of dual credit, including performance analysis conducted nationally and in other states
- Reviewed websites of public postsecondary institutions and tribal colleges in New Mexico for information about program design
- Developed surveys for high school, public postsecondary, and tribal college administrators of dual credit programs
- Electronically surveyed 28 institutions of higher education and 89 school districts about the dual credit program at the schools and across the state
- Analyzed statewide dual credit student, course, and performance data
- Conducted analysis of educational pipeline data from select high schools and colleges, with attention on indicators of academic aptitude of students.
- Interviewed key staff members in school districts and institutions of higher education
- Reviewed and determined the cost-effectiveness of
- Reviewed applicable laws and regulations; LFC file documents, including all available project documents; relevant performance reviews from other states; and performance measures.
- Examine state, district, and school-level student performance data and student demographic data
- Link instructional spending, operational spending, and outcome information

Evaluation Team.

Valerie Crespin-Trujillo, Lead Program Evaluator

Kevin Stevenson, Associate Director, UNM Center for Education Policy Research

Authority for Evaluation. LFC is authorized under the provisions of Section 2-5-3 NMSA 1978 to examine laws governing the finances and operations of departments, agencies, and institutions of New Mexico and all of its political subdivisions; the effects of laws on the proper functioning of these governmental units; and the policies and costs. LFC is also authorized to make recommendations for change to the Legislature. In furtherance of its statutory responsibility, LFC may conduct inquiries into specific transactions affecting the operating policies and cost of governmental units and their compliance with state laws.

Exit Conferences. The contents of this report were discussed with PED and HED on June 26, 2012.

Report Distribution. This report is intended for the information of the Office of the Governor; the Higher Education Department; NMSU and DACC; CNM; Office of the State Auditor; and the Legislative Finance Committee. This restriction is not intended to limit distribution of this report, which is a matter of public record.



Charles Sallee

Deputy Director for Program Evaluation

APPENDIX B: PED PERFORMANCE REPORT CARD, THIRD QUARTER, FY12

Performance Overview: In general, little or no consistent public school performance data is available during the year. Performance measures for public school support provide an annual snapshot of student performance at the end of each school year. Student performance at the end of FY11 generally failed to show improvement over FY10. Data from the FY11 administration of the New Mexico Standards Based Assessment shows decreases in statewide proficiency over FY10: a decrease of 3.4 percentage points in reading, 0.4 percentage points in math, and 4.2 percentage points in science. Based on FY11 assessment data, 50.2 percent of students scored below proficient in reading, 58.2 percent of students scored below proficient in math, and 58 percent of student scored below proficient in science.

The Public Education Department reports an increasing number of schools failing to make adequate yearly progress (AYP). Based on assessment results from the 2011 school year, 720, or 86.6 percent of all schools failed to make AYP and are in the school improvement cycle for the 2011 school year. This is an increase of 86 schools over the 2010 school year. Since 2005, the number of schools failing to make AYP has increased 73.1 percent. It is important to note that student achievement is a better indicator of academic success.

The department notes a 4.3 percent decrease in FY11's four-year cohort graduation rate, from 67.3 percent to 63 percent, for freshmen entering high school in 2007 and graduating in 2011. Graduation rate reporting methodologies delay graduation rate reporting by more than a year. However, a high note in student performance, the percentage of recent high school graduates requiring remedial courses in institutions of higher education showed positive progress, dropping from 47.1 percent in FY10 to 46.2 percent in FY11. Student achievement continues to indicate the need for programs that engage students, target struggling students, keep students in school, and better prepare students for college or the workplace.

Budget: FTE:		FY10	FY11	FY12	Q1	Q2	Q3	Q4	Rating
\$2,338,422.0		Actual	Actual	Target					
1	Percent of fourth-grade students who achieve proficiency or above on standard-based assessments in reading*	51.4%	46.5%	78%	Reported Annually	Reported Annually	Reported Annually		-
2	Percent of eighth-grade students who achieve proficiency or above on the standards-based assessments in reading*	60.5%	53.3%	76%	Reported Annually	Reported Annually	Reported Annually		-
3	Percent of fourth-grade students who achieve proficiency or above on the standards-based assessments in mathematics*	45.4%	44.4%	77%	Reported Annually	Reported Annually	Reported Annually		-
4	Percent of eighth-grade students who achieve proficiency or above on the standard-based assessments in mathematics*	39.2%	40.8%	74%	Reported Annually	Reported Annually	Reported Annually		-
5	Percent of recent New Mexico high school graduates who take remedial courses in higher education at two-year and four-year schools*	47.1%	46.2%	40%	Reported Annually	Reported Annually	Reported Annually		-
6	Current year's cohort graduation rate using four-year cumulative method*	67.3%	63%	75%	Reported Annually	Reported Annually	Reported Annually		-
7	Annual percent of core academic subjects taught by highly qualified teachers, kindergarten through twelfth grade	99.5%	97.1%	100%	Reported Q2	98.4%	99.3%		G
Program Rating		Y	R						Y
Comments: For FY13, the Legislature appropriated \$2.5 million to the PED for short-cycle assessments to be administered in fourth through tenth grades. Short-cycle assessments are designed to assist in making instructional decisions and can be used to indicate student growth within a school year. To be meaningful, implementation should consider mandatory reporting to the Public Education Department (PED) at least three times a year, allowing policymakers access to data more than once annually.									

Improving Student Achievement and Closing the Achievement Gap: Student achievement at the end of the 2010-2011 school year failed to achieve significant gains. Proficiency targets have generally been set unrealistically high, historically. Proficiency targets for FY13 have been adjusted downward to reflect reasonable student achievement growth over time. Despite generally failed student achievement targets by all subgroups, the achievement gap continues to persist in New Mexico, and continues to widen for economically disadvantaged students and English-language learners. The department does not currently report any performance measures for any student subgroups. To better assess the achievement gap, the PED should consider reporting proficiency results by race/ethnicity and additionally report results for economically disadvantaged students and English-language learners.

Teacher Quality: Despite having a “highly qualified” teacher workforce, improvement in student achievement continues to progress slowly. The PED has agreed to reform the state’s teacher evaluation system to measure the effect teachers have on student learning as measured by academic growth in exchange for the federal government granting New Mexico a flexibility waiver from requirements No Child Left Behind. While the Legislature failed to reach consensus on teacher evaluation legislation during the 2011 and 2012 sessions, the department will seek to establish the new system in regulations. The Legislature made a \$1 million special appropriation to PED to implement a teacher evaluation system based on student achievement growth.

Suggested Performance Measure Improvement

Performance measures for AYP reporting should be phased out in FY14 in exchange for measures aligned with the state accountability A through F rating system, consistent with the federal No Child Left Behind Waiver. Additionally, measures related to teacher and school leader effectiveness ratings should be included for FY14 as more information becomes available from the department regarding the new state evaluation system that will be implemented as part of the federal waiver. Performance measures should be added for student subgroups.

APPENDIX C: HED PERFORMANCE REPORT CARD, THIRD QUARTER, FY12

Performance Overview: The Higher Education Department (HED) consists of two programs: (1) Policy Development and Institutional Financial Oversight and (2) Student Financial Aid.

Without having a formal strategic plan for FY12, the HED set a number of statewide priorities, including revising the higher education instruction and general (I&G) funding formula. These priorities were not directly tied to FY12 AGA performance measures for either of the HED programs. Where the HED generally reports annual, not quarterly, data collected from institutions, it is difficult to assess quarterly progress for the majority of departmental AGA measures.

Policy Development & Institutional Financial Oversight	FTE: 33.5 Perm 24.5 Term	Budget \$24,797.0	FY11 Actual	FY12 Target	Q1	Q2	Q3	Q4	Cumulative Total	Rating
1	Number of adult basic education students who enter into postsecondary education or training		1,209	1,500	68	201	293		532	Y
2	Percent of adult basic education students who set and attain the goal of obtaining employment		55%	58%	55%	55%	13%			Y
3	Percent of properly completed capital infrastructure draws released to the state board of finance within thirty days of receipt from the institutions *		100%	100%	100%	100%	100%			G
Program Rating			Y							Y
The department sustained performance in timely processing capital infrastructure draws for independent community colleges and financial aid allocations to all institutions. Nearly all of department's metrics are context measures reporting annual institution-generated data, with few departmental operations measures or institution-generated semi-annual or semester measures.										
Student Financial Aid Program	FTE: 0	Budget: \$78,985.5	FY11 Actual	FY12 Target	Q1	Q2	Q3	Q4	Rating	
1	Percent of students meeting eligibility criteria for need-based programs who continue to be enrolled by the sixth semester*		62%	66%	N/A	82%	N/A		N/A	
2	Percent of students meeting eligibility criteria for merit-based programs who continue to be enrolled by the sixth semester*		62%	68%	N/A	86%	N/A		N/A	
Program Rating			Y						N/A	
Comments: The department's measures do not provide meaningful quarterly or semi-annual data, relying on institutional annual data.										
Suggested Performance Measure Improvement										
Comments: Since there are no current AGA measures to track performance on the HED's initiatives and since information used to record activity progress is provided by institutions annually, LFC recommends the HED be discontinued as an AGA key agency by the Department of Finance and Administration. Instead of providing quarterly AGA reports, the HED could submit quantitative reports on how the department meets its statutory purpose: determining an adequate level and equitable distribution of funds to institutions of higher education; administering the state's financial aid, private and proprietary school, and adult basic education programs; reviewing and recommending institutional capital projects; and creating and furthering the statewide agenda for public higher education, including studying current and future capacity needs.										

APPENDIX D: CEPR/LFC Dual Credit Survey Questions for Postsecondary Institutions

1. Does your institution use specific criteria to determine which school districts that you sign a master agreement with?
2. If your institution has a master agreement process, who is involved in the coordination of that effort?
3. How does your institution utilize the information collected on the State of New Mexico Dual Credit request form?
4. Is there any information fields not currently on the State of New Mexico Dual Credit request form that your institution would like to see added?
5. Please describe the relationship between high school counselors and college advisors in relation to course guidance and progress monitoring? Program
6. Does your institution have specifically identified college academic advisors assigned to handle issues for dual credit students?
7. Do college academic advisors receive clear training and guidance on any of the following for dual credit enrolled students?
8. Are students enrolled in dual credit courses required to attend an orientation session?
9. If a student earns enough credits through Dual Credit courses to receive a postsecondary credential, what is the process for awarding the credential?
10. Do grades earned in dual credit courses factor into a student's GPA for Lottery Scholarship initial eligibility?
11. Do grades earned in dual credit courses factor into the cumulative GPA for Lottery Scholarship eligibility after the first semester of college?
12. Does your institution have any of the following requirements to be eligible for participation in CAREER/TECHNICAL dual credit course?
13. Does your institution have any of the following requirements to be eligible for participation in ACADEMIC FOCUSED dual credit course?
14. When do students take the placement exams at your institution?
15. How do students at your institution obtain course materials for dual credit courses?
16. What are the main factors that influence whether your institution will offer a dual credit course through distance education?
17. Does your institution have any special scheduling patterns, such as block scheduling, to simplify the transportation of students to your institution for courses?
18. Besides dual credit, does your institution offer any other type of postsecondary preparation for high school students?
19. Does your institution maintain a dual credit section on your website?
20. Does faculty at your institution receive training around academic needs of dual credit (high school) students?
21. Do high school faculty who teach a dual credit course receive instruction about expected academic rigor?
22. Are high school faculty who teach a dual credit course required to have specific certification?
23. Do dual credit students registered at your institution have access to any student services? If students have access to any student services at your institution, do they pay any fees for access
24. What semesters during the academic school year do you offer dual credit courses?
25. How do dual credit students access their course grades?
26. If your institution offers dual credit courses through Instruction Television (ITV), how is the course location reported to the state Higher Education Department?
27. Are there any fees associated with the admissions application that a student applying for dual credit must pay?
28. Do you know of any instances where your institution has charged any fees for a dual credit student from a public or BIE school?
29. Is there a fee associated with placement tests required for students to take dual credit courses?
30. Does your institution waive course specific fees (such as lab fees) for students taking dual credit courses?

31. Does your institution charge a fee (such as an online or ITV fee) to students taking dual credit courses through distance education? If yes, please specify amount of fee.
32. Has dual credit enrollment at your institution changed over the past several years (e.g. number of students, number of courses, types of students, types of courses), and how has your institution managed these changes?
33. Do you think that dual credit has been effective in improving access to higher education for disadvantaged high school students? What evidence do you have to support your perspective?
34. How do you feel your institution serves rural and urban students through dual credit?
35. What are the strengths and challenges associated with high schools and higher education institutions working together on dual credit programs? How might this collaboration be improved?
36. What are the strengths and challenges associated with the financial aspects of dual credit programs? How might the financial aspects of the dual credit program be improved?

APPENDIX E: CEPR/LFC Dual Credit Survey for Local Education Agencies

1. Does your high school/district use specific criteria to determine which colleges you sign a master agreement with?
2. If your high school/district has a master agreement process, who is involved in the coordination of that effort?
3. What role do counselors/advisors play in determining a student's dual credit course selection and course load?
4. Please describe the relationship between high school counselors and college advisors in relation to course guidance and progress monitoring?
5. How is participation in a dual credit course initiated?
6. Are students enrolled in dual credit courses required to attend an orientation session?
7. Does your high school/district place any requirements on students to be eligible for participation in CAREER/TECHNICAL dual credit courses?
8. Does your high school/district place any requirements for students to be eligible for participation in ACADEMIC FOCUSED dual credit courses?
9. Are placement exams offered at your high school/district?
10. How do students at your high school/district obtain course materials for dual credit courses?
11. What happens to course materials once a student completes a dual credit course?
12. How many dual credit courses does your high school/district allow a student to take per semester?
13. What are the main factors that influence whether a dual credit course will be offered at a high school campus vs. a college campus?
14. Does your high school/district provide any transportation services for students to attend dual credit courses at a college campus?
15. Do high school instructors teaching dual credit courses receive any extra compensation?
16. Does your high school/district maintain a dual credit section on your website?
17. Do high school faculty who teach a dual credit course receive instruction about expected academic rigor?
18. Are high school faculty who teach a dual credit course required to have specific certification?
19. Has dual credit participation at your high school/district changed over the past several years (e.g. number of students, number of courses, types of students, types of courses), and how has your high school/district managed these changes?
20. Do you think that dual credit has been effective in improving access to higher education for disadvantaged high school students? What evidence do you have to support your perspective?
21. Do you believe there are appropriate dual credit opportunities for both rural and urban students?
22. What are the strengths and challenges associated with high schools and higher education institutions working together on dual credit programs? How might this collaboration be improved?
23. What are the strengths and challenges associated with the financial aspects of dual credit programs?
24. How might the financial aspects of the dual credit program be improved?

APPENDIX F: Lower Division General Education Course Transfer Curriculum for New Mexico Public Postsecondary Institutions, Areas I-V

The Postsecondary Education Articulation Act (Section 21-1B-1 et seq. NMSA 1978) authorizes the New Mexico Higher Education Department (HED) to establish and maintain a comprehensive statewide plan to facilitate the articulation of educational programs and the transfer of students among public postsecondary institutions within the state. In consultation with the institutions, HED is to define, publish, and maintain various modules of transferrable courses; monitor the progress of articulation and transfer; establish a procedure for receiving and investigating student complaints about transfer decisions made by institutions; and make reports and recommendations to the legislature and the governor about program articulation and student transfer.

LOWER-DIVISION GENERAL EDUCATION COMMON CORE

Area I: Communications	9 semester hours
(a) College-level English Composition	3-4 hours
(b) College-level Writing	3 hours
(c) Public Speaking	3 hours
 Area II: Mathematics	 3 semester hours
(a) College Algebra (or higher)	3 hours
(b) Liberal Arts Mathematics	3 hours
(c) Statistics	3 hours
 Area III: Laboratory Science	 8 semester hours
(a) Astronomy	4-8 hours
(b) Biology	4-8 hours
(c) Chemistry	4-8 hours
(d) Geology	4-8 hours
(e) Physics	4-8 hours
 Area IV: Social/Behavioral Sciences	 6-9 semester hours
(a) Economics (Macro or Microeconomics)	3 hours
(b) Introductory Political Science	3 hours
(c) Introductory Psychology	3 hours
(d) Introductory Sociology	3 hours
(e) Introductory Anthropology	3 hours
 Area V: Humanities and Fine Arts	 6-9 semester hours
(a) Introductory History Survey	3 hours
(b) Introductory Philosophy	3 hours

APPENDIX G: Select Dual Credit Course Master Agreements between LEAs and Postsecondary Institutions, AY12

Moriarty/Edgewood School District and Mesalands Community College

- English 102-English Composition
- English 104-English Composition and Research
- Spanish 101-Beginning Spanish I
- Spanish 102-Beginning Spanish II
- Economics 251-Macroeconomics
- Political Science 102-American Politics
- Communications 101-Interpersonal Communication
- Communications 102-Public Speaking
- Trade Sciences 100-Welding I
- Trade Sciences 101-Welding II
- Animal Science 150-Anatomy and Physiology
- Animal Science 151-Equine Anatomy and Physiology
- Psychology 134-Psychology of Adjustment
- Psychology 202-Abnormal Psychology
- Math 141-Elements of Calculus I
- Math 142-Elements of Calculus II
- Chemistry 115-Intro to Chemistry
- Chemistry 116-Intro th Chemistry II

Socorro Consolidated Schools and New Mexico Institute of Mining and Technology

- Fine Arts 135C-Ceramics I Handbuilding
- Music 351-Chamber Orchestra
- English 111-English Composition
- English 1112-English Literature
- History 343-Modern European History
- German 114-German II
- Spanish 113-Elementary Spanish
- Math 132-Calculus II
- Math 131-Calculus AB
- Math 103-Pre-Calculus
- Math 104-Trigonometry
- Chemistry 132-General Chemistry
- Physics 121-General Physics

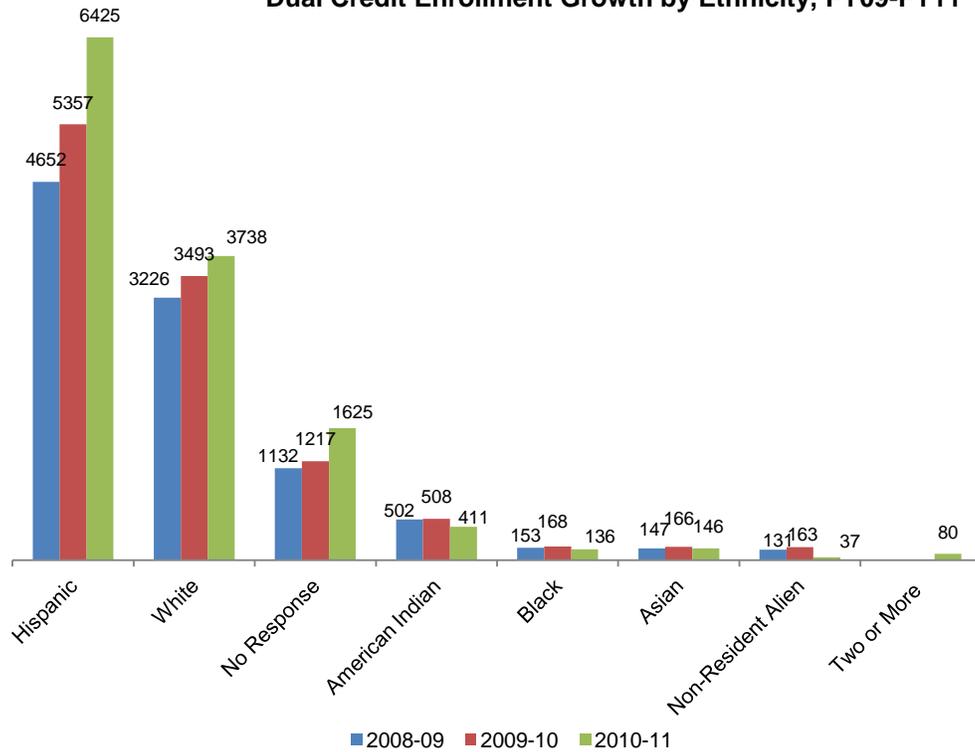
Grants/Cibola County Schools and New Mexico State University-Grants (*select courses*)

- Accounting 251-Management Accounting
- Anthropology 201G-Introduction to Anthropology
- Art 101G-Orientation in Art
- Art 260-Introduction to Painting
- Astronomy 110G-The Planets
- Automotive Technology 112-Basic Gas Engine
- Automotive Technology 125-Brakes
- Biology 101G-Human Biology
- Business Law 230-Business Law
- Business Management 110-Introductory Business

- Business Administration 111-Business Economics
- Criminal Justice 101-Introduction to Criminal Justice
- Criminal Justice 199-Women in the Criminal Justice System
- Computer Science 110-Computer Literacy
- Computer Science 171G-Basic Computer
- Chemistry 110G-Principals and Application of Chemistry
- Chemistry 111-General Chemistry I
- Creative Media Technology 100-Commercial Art
- Creative Media Technology 155-Acting in Movies
- College 101-College Life/Success
- College 108-Study Skills
- Communication 253G-Public Speaking I
- Drafting 109-CAD Design and Software
- Drafting 180-Residential Drafting
- Early Childhood Education 115-Child Development
- Early Childhood Education 245-Education Professionalism
- Economics 251G-Macroeconomics
- Educational Management and Development 101-Freshman Orientation
- Electronics Technology 265-Energy/Power (Solar Energy)
- English 111G-English Composition
- Finance 210-Personal and Business Finance
- French 111-French I
- Geography 111G-Geography in the Natural Environment
- Geology 220-Physical Science, Take a Hike
- Government 100G-American National Government
- History 201G-Introduction to Early American History
- History 269-History of Rock and Roll
- Human Nutrition and Food Science 163-Basic Foods
- Linguistics 200G-English Morphology and Grammar
- Math 112G-Algebra II/Trigonometry
- Management 201-Business Management
- Music 101G-Music Appreciation and Introduction to Music
- Navajo 111-Elementary Navajo I
- Occupational Education Computer Science 125-Operating Systems
- Occupational Education Paramedic 115-Emergency Medical Technician
- Electronics 110-Exploration of Electricity/Electronics
- Occupational Education Electrical Trades 110-Electricity Comprehensive I
- Occupational Education Health Occupations 120-Medical Office
- Occupational Education Nurse Aide 105-Certified Nursing Assistant
- Occupational Education Technical Studies 118-Math for Technicians
- Welding 100-Structural Welding I
- Philosophy 201-Introduction to Philosophy
- Physics 110G-Great Ideas of Physics
- Psychology 201G-Introduction to Psychology
- Science, Mathematics, Engineering, Technology 101-Introduction to Science, Math, Engineering and Technology
- Special Education 201-Public Service
- Social Work 221G-Introduction to Social Welfare
- Sociology 101G-Introduction to Sociology
- Spanish 111-Spanish I
- Theater 101G-Introduction to Theater
- Women's Studies 201G-Introduction to Women's Studies

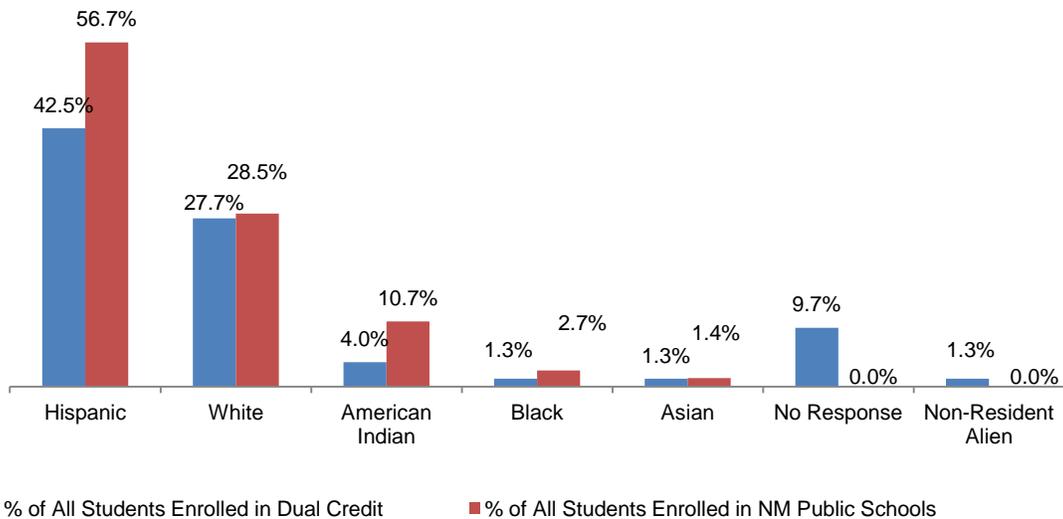
APPENDIX H: New Mexico Dual Credit Enrollment by Ethnicity

Dual Credit Enrollment Growth by Ethnicity, FY09-FY11



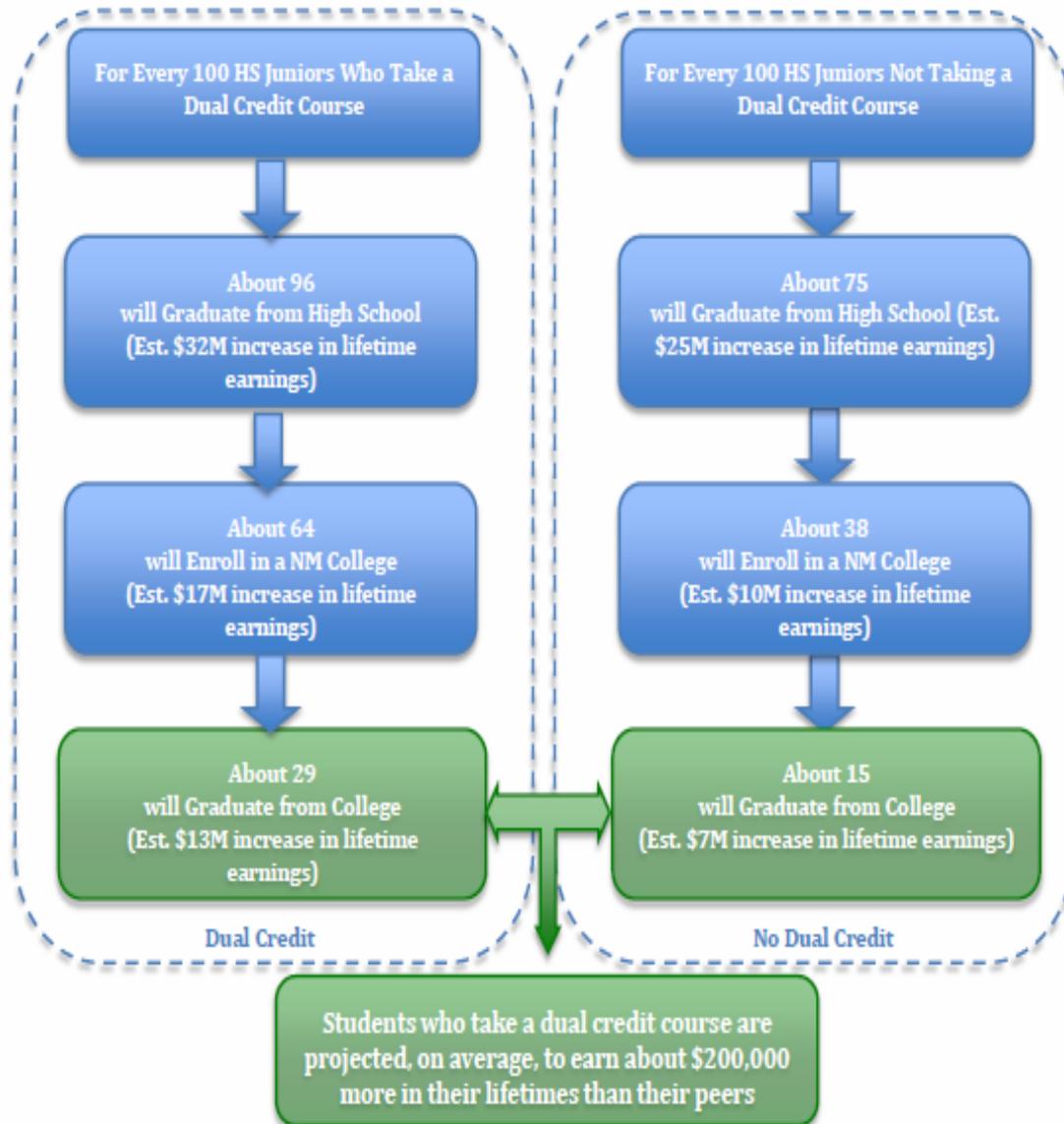
Source: HED

Percentage of Minority Students Enrolled in Dual Credit Courses, FY10



Source: PED and HED

Gains in Student Performance Have the Ability to Increase Lifetime Earnings



Information in this chart is based on CEPR analysis of multiple data sources. High state based on APS class of 2011 11th grade completions; College enrollment rate based on *Ready for College 2010* (Winograd, Garcia, & Flores, 2010), College graduation rate based on NCES IPEDS statewide data and UNM graduation rate data. Lifetime earning estimates from *The College Payoff* (Carnevale, Rose, & Cheah) Data provided by: APS RDA, UNM Division of Enrollment Management, and NCES IPEDS State Profile.