



**Report
to
The LEGISLATIVE FINANCE COMMITTEE**



Higher Education Department
College Readiness
January 20, 2014

Report #14-02

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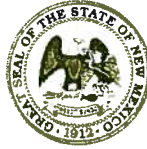
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January 20, 2014

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

Dear Secretary Garcia:

On behalf of the Legislative Finance Committee (Committee), I am pleased to transmit the evaluation, *College Readiness in New Mexico*. The program evaluation team followed up on previous program evaluations of public education and higher education, reviewed statewide high school and postsecondary efforts to improve the college readiness of students, and analyzed spending patterns and performance outcomes of students in developmental education.

The report will be presented at the Committee meeting on January 20, 2014. An exit conference was conducted with the Higher Education Department on January 9, 2014 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 examines issues the Committee asked us to review and hope New Mexico's public education and higher education systems benefit from our efforts. We very much appreciate the cooperation and assistance we received from your staff.

Sincerely,

A handwritten signature in dark ink, appearing to read "David Abbey".

David Abbey, Director

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

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Since at least 2006, remediation rates have persistently hovered around 50 percent in New Mexico.

Given poor outcomes for students who take developmental courses, Complete College America calls remediation a “bridge to nowhere.”

In FY13, New Mexico students spent \$10 million on tuition for developmental course and the state funded an estimated \$12 million through the formula for a total developmental price tag of \$22 million.

Developmental Courses by Subject, FY13

Course	Number
Math	21,470
English	13,404
Reading	6,571
Other	4,345
Total	45,790

Source: LFC Analysis of HED Data

In FY13, first-time freshmen in New Mexico took 21 thousand developmental courses at 21 postsecondary institutions across the state.

New Mexico’s college-going rate, 68 percent, is higher than the national average of 63 percent.

While the importance of postsecondary education is clear—in ten years, it is projected that 60 percent of all new jobs will likely require a college education—currently only 29 percent of New Mexico’s 25- to 35-year-old population has higher education credentials. The state has successfully increased access to postsecondary education for large numbers of students, but too many of those students show up unprepared to earn college credits. Instead, time and money are wasted on a sequence of developmental, or remedial, courses, rarely leading to program completion. This evaluation focuses on state efforts to prepare high school students for college, communication between colleges and high schools about student expectations and performance, and colleges’ implementation of redesigned models to help students succeed in credit-bearing classes.

A strong body of research indicates the ineffectiveness of placing students into traditional developmental courses before entering credit-bearing, or gateway, courses. States and students spent \$3 billion on remedial courses in 2010, including the instructional costs and lost annual earnings. In New Mexico, that amount was \$22 million in 2013. Nearly four in 10 students in community colleges never complete these developmental courses. In a multi-state study of 57 community colleges, the Community College Research Center found among students who are placed three or more levels below college math, fewer than 10 percent ever go on to complete a college-level math course.

Approximately 78 percent of the students enrolling in developmental classes are recent graduates of New Mexico public high schools. However, a lack of accountability for post-high school performance as well as barriers in the pipeline between high schools and colleges result in thousands of students graduating from high school each year without being ready for postsecondary education. Even with increased secondary assessment and graduation standards, it appears many students will continue to fall short. Instead, high schools can better use existing assessments to predict college readiness and intervene to prepare students before graduation.

Similarly, postsecondary institutions have opportunities to enroll better-prepared students by more closely collaborating with surrounding high schools through implementation of the changes to common core state standards, agreements through the dual credit program, and alignment of high school graduation requirements with college admission requirements. Particularly at large community colleges, like Central New Mexico Community College and New Mexico State University-Doña Ana, improved partnerships with a handful of feeder high schools could significantly impact incoming student college-readiness. For students who still require remediation, national best practices include more accurate placement methods, reduced time in developmental classes, and providing support within credit-bearing courses. These strategies are being used at various degrees across institutions and the preliminary results are promising. The implementation shift, however, needs to be dramatically ramped-up to see meaningful improvements in college completion rates.

By focusing on its top ten feeder high schools, CNM and UNM have the opportunity to address the needs of students enrolled in 61 percent of overall developmental courses offered by CNM.

Highest Number of Students Requiring Remediation by High School, FY13

School	Students	School Grade
Clovis	109	C
West Mesa	109	C
Cibola	110	B
Gadsden	113	D
Sandia	122	B
Las Cruces	123	C
Mayfield	128	C
Onate	133	C
Volcano Vista	139	B
Atrisco	160	D

Source: HED, PED

According to a 2013 UNM report, in some degree programs, such as the College of Arts and Sciences, students average 163 credits, exceeding the 150 required to earn both a bachelor's and a master's degree.

KEY FINDINGS

Minority and low-income students as well as under-performing high schools have disproportionate rates of developmental education.

The average statewide remedial rate of recent high school graduates remained at 51 percent in 2012 (FY12); remedial rates, however, are even higher for Native American students (59 percent), Hispanic students (68 percent), and low-income students (79 percent). The four largest community colleges offer 82 percent of those developmental courses: Central New Mexico Community College (including UNM students), New Mexico State University-Doña Ana, San Juan College, and Santa Fe Community College. As noted in the 2010 LFC evaluation of the University of New Mexico and New Mexico State University, the majority of students at each institution come from a relatively small number of “feeder” districts and schools.

While developmental education strongly correlates with poverty, some high schools are outperforming expected rates while others are doing worse than expected.

Schools with higher poverty rates tend to have the highest remediation rates, including Gallup High at 77 percent, West Mesa High in Albuquerque at 77 percent, and Zuni High at 90 percent; these schools’ tended to earn grades of C or D in 2012. The largest schools in the state generally have the highest numbers of students requiring remediation, although in some cases, such as Las Cruces High, the remediation rate, 39 percent, is lower than the state average.

College completion rates for students requiring developmental courses are low.

Students enrolling in developmental courses in New Mexico have decreased chances of completing a higher education credential on-time: on average, taking only one remedial course dropped the six-year bachelor’s degree attainment rate from 77 percent to 17 percent, while taking a second remedial course reduced the rate to 5 percent.

Course availability, academic advisement, and degree programs requiring more than 128 credits contribute to excessive course-taking. The 2010 LFC higher education evaluation of UNM and NMSU found graduates earned on average 150 credit hours, or 25 percent beyond the minimum requirement of 120 credits hours required for graduation. For all degree types in New Mexico, both part-time as well as full-time average number of credits is greater than the required amounts. Numerous states have limited degree programs to 120 credit hours, reducing overall workloads while increasing degrees awarded.

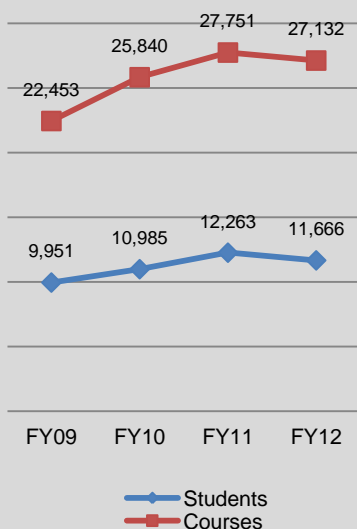
At-risk students need additional supports to succeed in college.

The Western Interstate Commission for Higher Education reports large gaps in educational attainment based on race and ethnicity and projects greater numbers of underserved students will enroll in the state’s postsecondary institutions in upcoming years. Targeted state- and federally-funded programs include: New Mexico Math, Engineering, Science Achievement (NM MESA); Engaging Latino Communities for Education (ENLACE) New Mexico, focused on increasing access and success in education; TRIO; and New Mexico Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP).

High school redesign requires:

- **four English credits**
- **four math credits, including algebra II or higher; and**
- **an advanced placement (AP), honors, dual credit, or distance learning course.**

NM Dual Credit Program Growth



Source: HED/PED

In FY09, 76 percent of students who took a dual credit course earned a grade of “C” or better compared with 10 percent of high school graduates who earned a passing score on an AP exam in 2010.

Dual Credit SBA Scaled Scores, FY13

	Average SBA Reading Score	Average SBA Math Score
Non-Dual Credit Students	38.8	41.9
Dual Credit Students	41.3	44
Difference	2.5	2.1

Source: LFC Analysis of PED Data

New Mexico’s high schools under-prepare students for postsecondary education. Recognizing the importance of increasing high school rigor, the Legislature raised graduation requirements, also known as high school redesign, beginning with the high school graduating class of 2013. Even these more stringent requirements, however, do not appear to align with college readiness expectations. Additionally, New Mexico’s A-F school grading system holds high schools accountable for graduating students, including proficiency rates on the standards-based assessments (SBA), rather than for how those students perform beyond high school.

Increasing graduation requirements, including dual credit course-taking, must be purposeful to lead to better college readiness outcomes. Between the options of taking an advanced placement, honors, dual credit, or online course, the fastest-growing option is dual credit. As noted in the 2011 LFC evaluation of Central New Mexico Community College (CNM) and New Mexico State University-Doña Ana (DACC), students who take dual credit courses graduate from high school at higher rates (91 percent compared with 84 percent), enroll in college at higher rates (67 percent versus 50 percent), and are eligible for credit-bearing courses at higher rates (65 percent compared with 47 percent). As that report described, however, students taking dual credit courses appear to already achieve at higher levels.

Students less frequently needing college remediation appear to be taking more academically rigorous dual credit courses. In FY13, students who enrolled directly into credit-bearing college math classes were more likely to have taken language arts, math, science, or business dual credit courses. In contrast, of the students who needed a developmental math class in FY13, a higher percentage were likely to take a career-technical-related dual credit course, such as carpentry, culinary arts, or welding.

In both reading and math, SBA scores are generally predictive of a high school student’s likely need to require remediation in college, but proficient scores do not mean college ready. Beginning in FY13, all New Mexico sophomores and juniors take the SBA in multiple subjects, including reading and math. To be eligible for a traditional diploma, a student must score at least a 37 on the English and math portions. Large numbers of students meeting both the graduation requirement of 37, however, are still required to enroll in remedial college courses.

For example, in FY13, of the 997 students with SBA reading scores who were placed into developmental reading courses, 548, or 10 percent, scored a 37 or higher. Given that all New Mexico students take the SBA, high schools could use these results to advise students about the need for additional high school math or reading preparation to reduce the need for college remediation. Beginning in FY14, the Partnership for Assessment of Readiness for College and Careers (PARCC) provides further opportunity for high schools and postsecondary institutions to assess readiness.

The high school senior year, an ideal opportunity to improve college readiness, is often under-used. As noted in the 2011 LFC evaluation of the twelfth-grade, depending on the high school, roughly half of all seniors do

It appears students scoring up to approximately 45 in reading and 42 in math on the SBA are still at-risk of needing college remediation.

While 23 percent of students who took algebra II-level courses during senior year of high school were college-ready, less than 4 percent of the students taking similar classes junior year and not taking a math course senior year were college-ready.

For students who completed the equivalent of trigonometry in high school, 42 percent still required developmental math courses, while for students completing calculus the developmental math rate dropped to 12 percent.

In FY13, only 6 percent of first-time freshmen who did not take a senior-year math class were ready to enroll directly in a credit-bearing course.

San Juan College's Summer Math Academy led to an average reduction of 1.7 courses or 6.5 credits of required developmental math education courses.

not take a full course load. However, sitting out senior year math, for example, strongly impacts a student's likely need for remediation. Even students who took calculus during junior year but did not take math senior year had significantly higher remediation rates, 70 percent, compared with those who took calculus during senior year, 12 percent. These differences are likely attributable to lost knowledge during the final year of high school as well as poorer performance on college placement tests.

The high school redesign math requirements inadequately prepare many students for college-level math. One of the new graduation requirements is the completion of four mathematics courses, including at least algebra II or higher. In FY13, however, of the students whose highest high school math class was algebra II, 77 percent still were required to take a developmental math course as a freshman. Remediation rates decrease for students who complete higher level math courses.

New Mexico's A-F grading system does not encourage high schools to seek feedback on postsecondary success. Currently, 15 percent of each high schools A-F grade is based on college and career readiness. This is measured, however, by the percent of students with a career or a college preparatory path and the percent of students who attempt the college and career readiness options, rather than performance post-high school. Given that districts are held largely accountable for SBA performance and graduation rates, much attention is paid to these measures.

Statute requires the Public Education Department (PED) and Higher Education Department (HED) to align high school curricula and end-of-course tests with the placement tests administered by two- and four-year public educational institutions in New Mexico. No formal efforts exist, however, for this process. Additionally, most high schools do not track how students do in college and do not have interventions specifically designed to address students likely to need postsecondary remediation. In contrast, many other states explicitly require the use of high school assessments to identify students at-risk for college remediation and provide targeted interventions to reduce that likelihood.

Higher education institutions are shifting toward promising practices but need to expand implementation to improve outcomes. The recent changes in the higher education funding formula, coupled with encouraging developmental outcomes research, appears to be shifting remedial course delivery in New Mexico. During the 2012 interim, institutions put forward plans to HED to reduce remediation and change developmental course delivery.

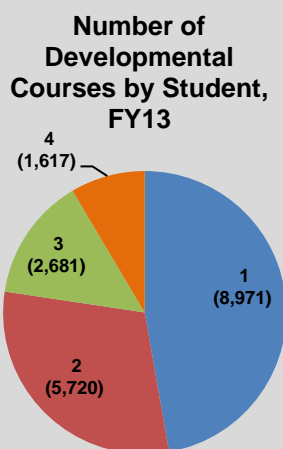
While many of New Mexico's postsecondary institutions are engaging in these practices, according to HED, the efforts lack coordination and are instead implemented in a makeshift, piecemeal fashion. Further improvement will require comprehensive organization.

Postsecondary institutions are revising course placement strategies to reduce the need for developmental courses. The Community College Research Center reports many students are "over-remediated," diagnosed as

The national average composite ACT score is 21.1, while the average score in New Mexico is 19.9, lower than the admission requirements of the state's research institutions

Research supported by the American Institutes for Research reports that high school GPA is the best predictive indicator of first-year success in college.

Course success rates for CNM students in English 1101 increased as high school GPAs increased.



Source: LFC Analysis of HED Data

needing developmental education, but likely to have done well without those courses. As a best practice, postsecondary institutions use multiple measures of student readiness for college, including high school grade point average (GPA), college admission achievement scores, and high school coursework. Each public postsecondary institution in the state is responsible for setting minimum admissions requirements for students.

Most comprehensive institutions and community colleges in New Mexico offer open enrollment, but require placement tests with varying cut scores. Institutions that do not require a high school transcript with a minimum GPA or college admission achievement scores have traditionally relied more heavily on these placement tests.

New Mexico's public colleges and universities are also using integrative models to reduce the time students spend in non-credit bearing developmental education courses. Course-level initiatives include: breaking developmental education classes into smaller, shorter modules; compression of courses for students to complete more than one level of remedial course in a single term; curricular reform reexamining the content of developmental courses to reduce the number of courses in a sequence; and co-requisite coursework pairing a college-level course with a complementary developmental course whereby students receive credits for both courses in one semester.

Some New Mexico community colleges use the Integrated Basic Education and Skills Training (I-BEST) model for career technical education. The model places students directly into career and technical or college-level academic classes with a subject-matter instructor and a second instructor focused on developmental education. Another reform allows students to take math courses more relevant to career pathways.

Improving student supports increases success in gateway courses. High-impact student support services found in most of New Mexico's postsecondary institutions include academic goal-setting and planning, student orientation, tutoring, and college success courses. Research indicates these services boost completion rates for certain students.

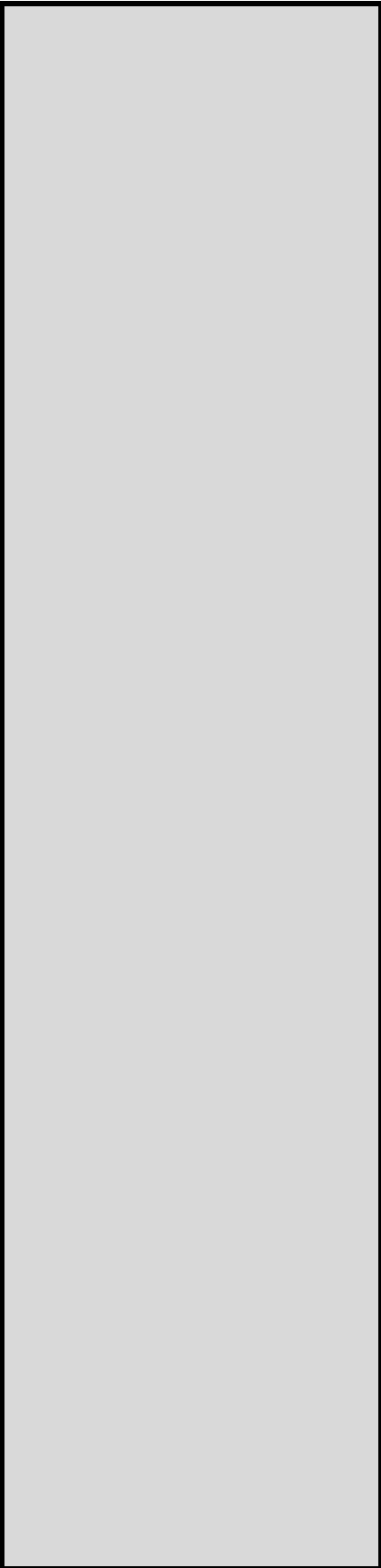
Colleges and universities will need support in scaling-up approaches that improve student performance. Institutional efforts are generating important lessons. By collecting performance data, the HED will be better able to expand successful programs and initiatives across the state.

KEY RECOMMENDATIONS

The Legislature should increase requirements for a college-ready high school diploma.

The HED should:

- Provide postsecondary performance feedback to high schools annually on the department's website;
- Direct institutions to align placement scores statewide; and

- 
- Monitor and evaluate institutions' alternatives to developmental education and provide technical support for postsecondary institutions to improve implementation.

The PED should revise the A-F school grading system to include college readiness as measured by remediation rates and gateway course completion.

HED and PED should:

- Require high schools to use the SBA or its equivalent to intervene with targeted courses for high school students likely to need college remediation;
- Align high school graduation requirements with college admissions criteria; and
- Promulgate rules limiting dual credit to courses of study demonstrating improved student performance.

The public postsecondary institutions should:

- Limit the number of credit hours required by degree program to a reasonable standard;
- Establish semester-by-semester road maps for all programs;
- Develop measures as part of the Accountability in Government Act to report results of developmental education outcomes; and
- Expand implementation of alternatives to developmental education.

High schools should use standards-based assessments and other data to better advise college-bound students, particularly regarding senior year course-selection and purposeful dual credit enrollment.

BACKGROUND INFORMATION

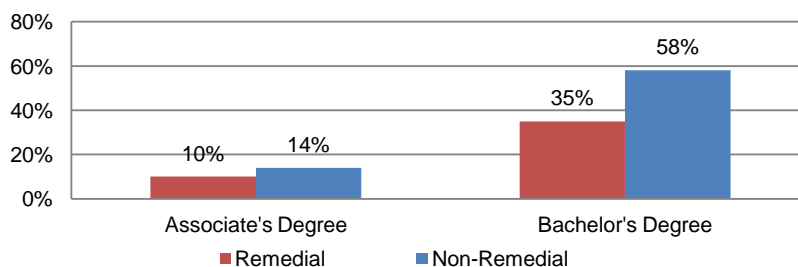
Remedial Courses. Remedial, or developmental, education refers to classes taken on a college campus below college credit-bearing level. Traditionally, students deemed not ready for credit-bearing courses, either because they were not academically prepared prior to postsecondary enrollment or because they have not been in school for a period of time, have been required to take up to three remedial courses in English, math, or both. Students pay tuition and can use financial aid for developmental courses, the majority of which are delivered on community college campuses, to demonstrate sufficient competency before entering gateway courses.

This evaluation primarily focuses on strategies to reduce the need for remediation for those first-time freshmen, 74 percent of whom were between the ages of 18 and 24 in FY13, through statewide efforts to prepare high school students for college, communication between colleges and high schools about student expectations and performance, and colleges' implementation of redesigned models to help students succeed in credit-bearing classes.

National Trends. Complete College America calls remediation higher education's, "Bridge to Nowhere"; others have described remedial courses as "the place where college dreams go to die." Nationally, states and students spent \$3 billion on remedial courses in 2010, including the instructional cost of remedial education and the lost annual earnings of students taking remedial courses, according to the Alliance for Excellent Education. Nearly four in 10 remedial students in community colleges never complete these developmental courses. In a multi-state study of 57 community colleges, the Community College Research Center found among students placed three or more levels below college math, fewer than 10 percent ever go on to complete a college-level math course.

Of those who pass remedial courses, less than a quarter of the community college students complete college-level English and math courses; only 37 percent complete remediation and college-level courses at four-year colleges. Finally, fewer than 10 percent of students who take remedial courses obtain an associate degree from community colleges within three years, compared with 14 percent who do not take remedial courses; only 35 percent of remedial course-takers complete a bachelor's degree in six years, compared with 56 percent of those who do not take remedial courses.

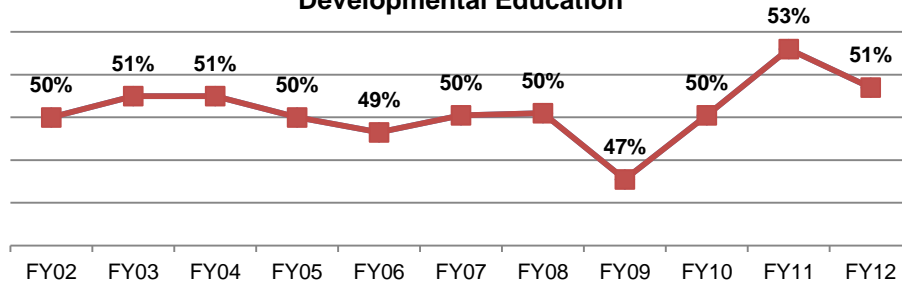
Chart 1. U.S. 3-Year and 6-Year Degree Completion Rates, FY06



Source: Complete College America

New Mexico. The state's remedial rate has hovered around 50 percent for the last seven years. In spite of recent statewide efforts to improve the college-readiness of high school students and postsecondary efforts to offer alternative approaches to developmental education, the remedial rate of recent high school graduates remained at 51 percent in FY12. Remedial rates are even higher for Native American students (59 percent), Hispanic students (68 percent), low-income students (79 percent), and students entering a two-year college (57 percent). According to the Higher Education Department (HED), in FY13, 30 thousand students at New Mexico colleges took 62 thousand developmental courses.

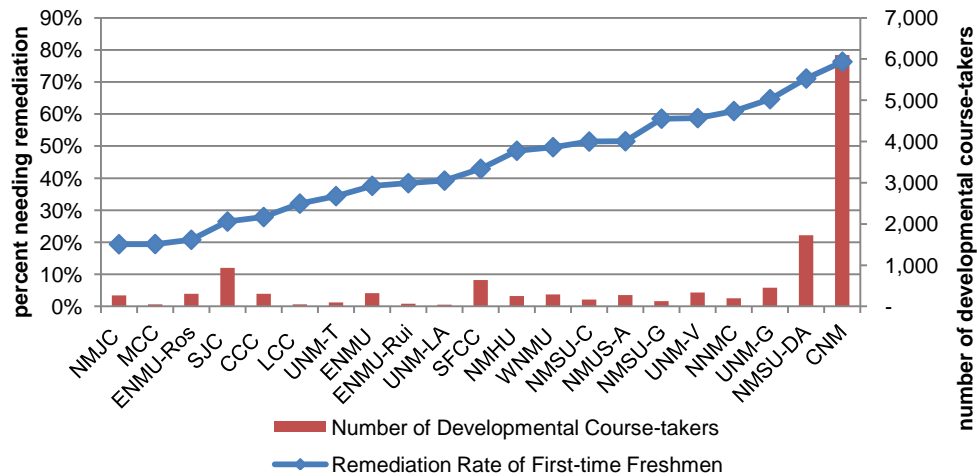
Chart 2. Percent of NM High School Students Requiring Developmental Education



Source: HED/OEA

In FY13, 13 thousand first-time freshmen enrolled in 21 thousand developmental courses, primarily at New Mexico's largest community colleges, CNM, DACC, and San Juan College. No developmental courses were offered at the New Mexico Institute of Mining and Technology, while students needing remediation at the University of New Mexico's (UNM) main campus took classes at CNM, with a similar arrangement between New Mexico State University's (NMSU) main campus and DACC.

Chart 3. Remediation Rates by Institution, FY13



Source: LFC Analysis of HED Data

These developmental courses amounted to 139 thousand credit hours, 45 percent of the credit hour total for first-time freshmen; math was the most common subject area for developmental courses, with 48 percent of the total.

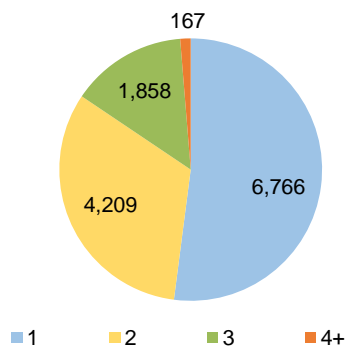
Table 1. Developmental Courses by Subject, FY13

Course	Number
Math	10,266
English	7,367
Reading	3,854
Total	21,487

Source: LFC Analysis of HED Data

Of the 13 thousand first-time freshmen who enrolled in developmental courses, 48 percent, or 6,234, took more than one course.

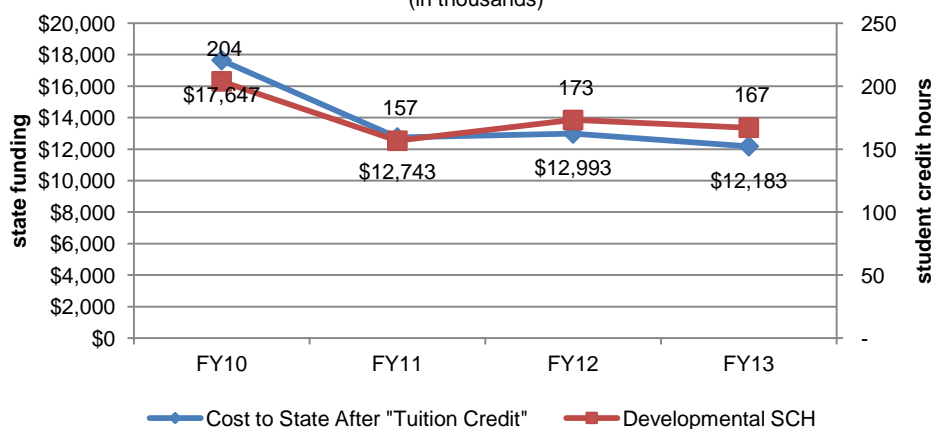
Chart 4. Number of Developmental Courses by Student, FY13



Source: LFC Analysis of HED Data

Funding. Beginning in FY13, the state significantly revised the instruction and general (I&G) funding formula, the primary tool to allocate state general fund revenues for higher education. Among the many changes, the I&G formula no longer funds a straight percentage of enrolled student credit hours and no longer considers tuition revenues in support of I&G costs. Instead, the revised formula determines state funding for student credit hours (SCH) at a significantly lower rate than historic levels. In addition to the amount in each institution's prior-year base budget for developmental and other student credit hours, the revised formula considers only completed credit hours (reducing total formula credits by 6 percent to 19 percent depending on the institution and type of credit) and calculates an increase or decrease of completed credits between two sets of academic years. The state appropriates a less than dollar-for-dollar amount for the change in completed credit hours provided. As a result of the revision, the total number of developmental credit hours eligible for state funding decreased statewide from 204 thousand in FY10 to 167 thousand in FY13. Although the majority of funding in support of student credit hours is included in each institution's historic base funding amount, HED estimates the state spent approximately \$12 million for developmental courses in FY13 -- roughly the same amount since the formula changes took effect.

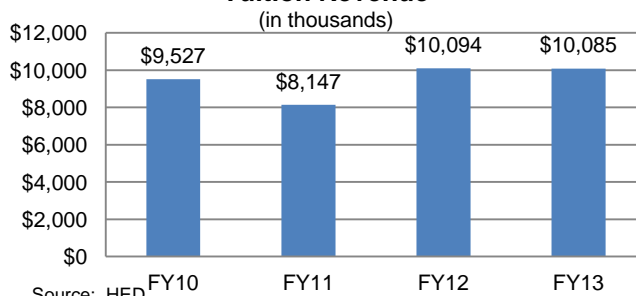
Chart 5. Developmental Student Credit Hours and Cost to the State
(in thousands)



Source: HED

In FY13, developmental credit hours cost New Mexico students \$10 million in tuition, an amount consistent with tuition expenditures for the past four years.

**Chart 6. Developmental Course
Tuition Revenue**



Finally, in FY13, 5 percent (\$28 million), of the I&G funding amount of \$546 million was calculated based on performance outcomes, such as workforce incentives, degree completion, and serving at-risk students.

Previous Evaluations. Multiple LFC studies have highlighted concerns about the public school system's preparation of students, gaps in alignment between the high school and postsecondary institutions, and higher education's inability to effectively address the needs of incoming students. A 2010 Legislative Finance Committee (LFC) evaluation of UNM and NMSU included the following findings:

- Better preparation in New Mexico's public schools will help ultimately increase graduation rates and on-time degree completion at UNM and NMSU;
- The quality of incoming freshman classes appears static or declining over time, with both universities accepting a larger number of marginally prepared recent high school graduate students; and
- NMSU and UNM students take too long to graduate or do not graduate at all, increasing the cost of higher education for students and taxpayers.

A 2011 LFC evaluation of southern school districts recognized the statutory framework for a statewide longitudinal education data system linking high schools to colleges, but no functioning system exists. The system would have the capacity to provide postsecondary remediation data including:

- Assessment scores on exams used to determine the need for remediation;
- Remedial course enrollment history with the number and type of credit and noncredit remedial courses being taken; and
- Freshman-year outcomes for New Mexico public high school students who enroll in a public postsecondary institution within three years of leaving high school.

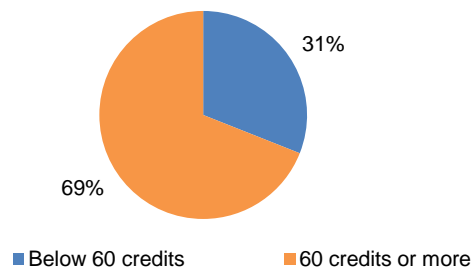
State statute, Section 22-1-11 NMSA 1978, requires a data system capable of reporting to high schools regarding former students' freshman year performance, but the reports were not and are not currently provided to districts (**Appendix B**). The program evaluation recommended posting these reports online for districts to use the information to inform educational programs.

The LFC and Center for Education Policy and Research joint study of the cost effectiveness of the twelfth grade in 2011 discerned remarkable variability in graduation requirements, high school class configurations, enrollment, costs, and data quality among high schools. On average, students earn credits in excess of state and local requirements, but the resulting impact on student preparation remains unclear and requires further study. A significant disconnect exists between high school and college curriculums despite efforts to improve articulation between the two systems.

Additionally, the 2011 LFC evaluation of CNM and DACC found improving the educational pipeline between high schools and postsecondary institutions presented opportunities to help students succeed at lower costs. Remedial coursework extends the time to degree completion, increasing costs to the state and the student. The evaluation highlighted research-based best practices in use at CNM and DACC to reduce the time students spend in remedial courses and efforts to improve articulation with local high schools. Finally, assessments, such as New Mexico's SBA, could standardize college course placement, reduce costs, and help students make better use of their senior year to lower remediation rates.

The 2012 LFC evaluation of dual credit reported New Mexico's college-going rate, 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, high school redesign, increased use of Advanced Placement, and dual credit courses. The report found more students taking dual credit courses, impacting state funding to public schools and postsecondary institutions as well as student performance.

Chart 7. 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



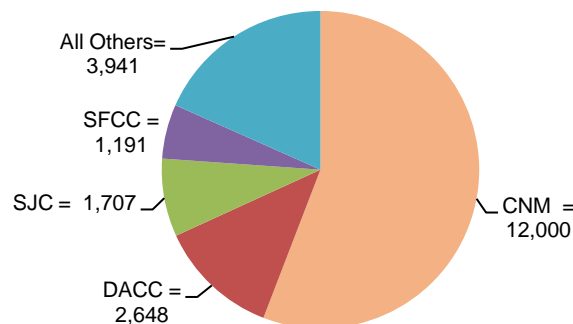
FINDINGS AND RECOMMENDATIONS

MINORITY AND LOW-INCOME STUDENTS AS WELL AS UNDER-PERFORMING HIGH SCHOOLS HAVE DISPROPORTIONATE RATES OF DEVELOPMENTAL EDUCATION

Most students needing remediation attend four postsecondary institutions and come from a handful of high schools. The average statewide remedial rate of recent high school graduates remained at 51 percent in 2012 (FY12); remedial rates are even higher for Native American students (59 percent), Hispanic students (68 percent), and low-income students (79 percent). For students matriculating at a two-year college, the average rate is 57 percent.

In FY13, first-time freshmen in New Mexico took 21 thousand developmental courses at 21 postsecondary institutions across the state. Four institutions offered 82 percent of those developmental courses: CNM (including UNM students), 12 thousand; DACC (including NMSU students), 2,648; San Juan College, 1,707; and Santa Fe Community College, 1,191. These four postsecondary institutions have the highest number of enrolled students among community colleges.

Chart 8. Number of Developmental Courses at New Mexico's Non-Research Institutions, FY13



Source: LFC Analysis of HED Data

As noted in the 2010 LFC evaluation of UNM and NMSU, the majority of students at each institution come from a relatively small number of “feeder” districts and schools. In FY13, 76 percent of developmental course-takers at CNM attended high school in either Albuquerque or Rio Rancho. By focusing on its top ten feeder high schools, CNM and UNM have the opportunity to address the needs of students enrolled in 61 percent of overall developmental courses offered by CNM.

Table 2. CNM's Top Ten Developmental Feeder High Schools, FY13

High School	Number of Developmental Courses
Atrisco Heritage Academy High	116
Cibola High	111
Volcano Vista High	107
West Mesa High	107
Sandia High	99
Rio Grande High	90
Valley High	88
Highland High	87
Albuquerque High	86
Rio Rancho High	85
Total	976
Total CNM Developmental Courses	1,587

Source: LFC Analysis of HED and PED Data

Similarly, 71 percent of NMSU and DACC's developmental courses came from just seven surrounding feeder high schools.

Table 3. NMSU-Doña Ana's Top Developmental Feeder High Schools, FY13

School	Number of Developmental Courses
Oñate High	150
Las Cruces High	143
Mayfield High	143
Gadsden High	142
Santa Teresa High	97
Chaparral High	67
Deming High	35
Total	777
Total Doña Ana Developmental Courses	1,100

Source: LFC Analysis of HED and PED Data

While developmental education strongly correlates with poverty, some high schools are outperforming expected rates while others are doing worse than expected. In general, high schools with lower rates of poverty tend to have lower college remediation rates and better grades as measured by the state's A-F school grading system. Of the state's high schools with 30 or more seniors enrolling in New Mexico's colleges in FY12, the 10 schools with the lowest remediation rates include Los Alamos High School, with 20 percent of graduating students requiring college remediation, La Cueva High School in Albuquerque at 22 percent, and Rio Rancho High School at 36 percent; these schools have tended to consistently earn school grades of A or B. In contrast, schools with higher poverty rates tend to have the highest remediation rates, including Gallup High School at 77 percent, West Mesa High School in Albuquerque at 77 percent, and Zuni High School at 90 percent; these schools' tended to earn grades of C or D in 2012 (See Appendix C for remediation rates of all New Mexico high schools).

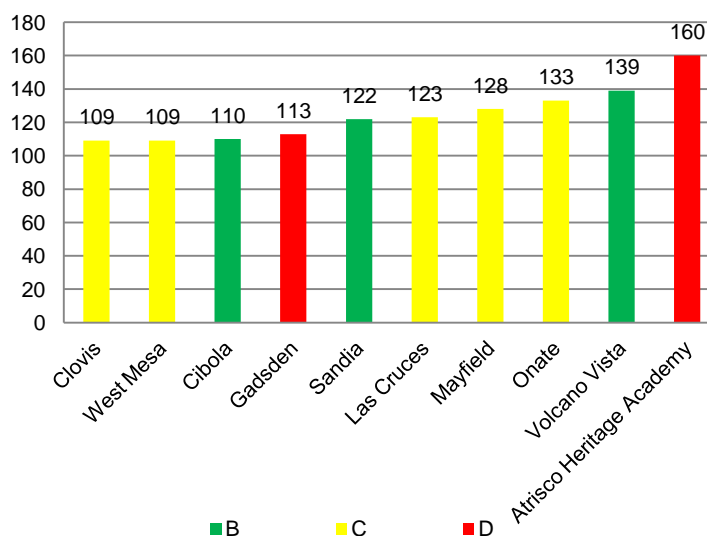
Table 4. Remediation Rates by High School, FY13

Lowest		Highest	
High School	Remedial Rate	High School	Remedial Rate
Los Alamos	20%	Highland (Albuquerque)	67%
La Cueva (Albuquerque)	22%	Cobre	69%
East Mountain (Charter)	27%	Atrisco Heritage Academy (Albuquerque)	71%
Robertson (Las Vegas)	27%	Rio Grande (Albuquerque)	72%
Eldorado (Albuquerque)	31%	Capital (Santa Fe)	74%
Artesia	32%	Miyamura (Gallup)	76%
Cloudcroft	32%	Espanola Valley	77%
Goddard (Roswell)	35%	Gallup	77%
Dexter	36%	West Mesa (Albuquerque)	77%
Rio Rancho	36%	Zuni	90%

Source: PED

The largest schools in the state tend to have the highest numbers of students requiring remediation, although in some cases, such as Las Cruces High School, the remediation rate, 39 percent, is lower than the state average.

Chart 9. New Mexico High Schools with the Highest Number of Students Requiring Remediation with 2012 School Grade



Source: PED

Given the strength of the relationship between poverty and remediation rates, the percentage of students qualifying for free or reduced-price lunch can be used to predict a likely remediation rate. Schools such as Socorro High School, Deming High School, Dexter High School, Robertson High School (Las Vegas), and Hatch Valley High School have lower remediation rates than predicted based on percentages of students qualifying for free or reduced-price lunches. Even controlling for poverty levels, at other schools, such as Zuni High School, Española Valley High School, Gallup High School, Miyamura High School (Gallup), and West Mesa High School (Albuquerque), college remediation rates exceed predicted values.

Table 5. Highest and Lowest Remediation Rates by High School, FY12

School	District	Total Enrolled	Remedial Enrollment	Free or Reduced-Price Lunch	Predicted Remedial Rate	Remedial Rate	Difference Actual to Predicted
Zuni HS	Zuni	31	28	74%	58%	90%	33%
Espanola Valley HS	Espanola	115	88	61%	52%	77%	24%
Gallup HS	Gallup-McKinley	95	73	64%	53%	77%	24%
Miyamura HS	Gallup-McKinley	86	65	70%	56%	76%	20%
West Mesa HS	Albuquerque	141	109	76%	58%	77%	19%
Socorro HS	Socorro	53	20	60%	52%	38%	-14%
Deming HS	Deming	166	71	74%	57%	43%	-14%
Dexter HS	Dexter	47	17	71%	56%	36%	-20%
Robertson HS	Las Vegas City	59	16	66%	54%	27%	-27%
Hatch Valley HS	Hatch Valley	58	22	96%	66%	38%	-28%

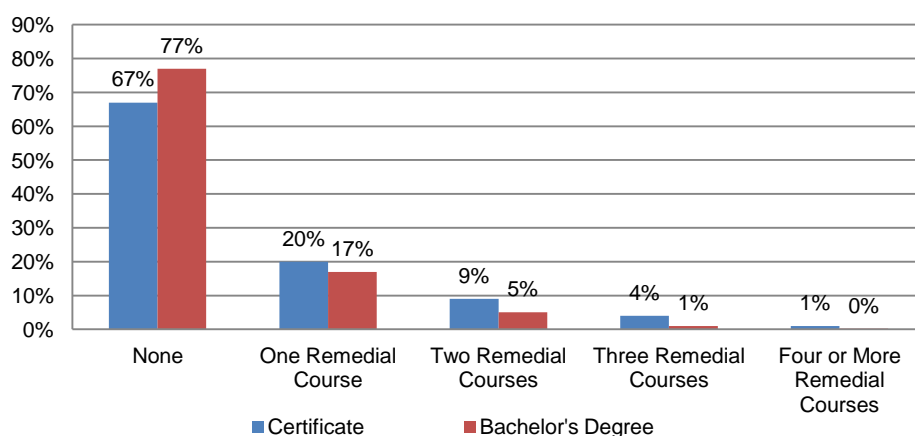
Source: LFC Analysis of HED Data

In some cases, such as Gadsden High School and West Las Vegas High School, while the actual remediation rate is higher than the statewide average (54 percent from each school), the predicted value based on poverty rates is higher, 66 percent and 68 percent.

College completion rates for students requiring developmental courses are low. Overall, completion rates at New Mexico's two-year programs range from 28 percent at the New Mexico Military Institute to 2 percent at UNM-Taos; at four-year institutions, rates range from 47 percent at New Mexico Institute of Mining and Technology to 15 percent at Northern New Mexico College (**Appendix D**).

Students enrolling in developmental courses in New Mexico have decreased chances of completing a higher education credential on-time: on average, taking only one remedial course dropped the six-year bachelor's degree attainment rate from 77 percent to 17 percent, while taking a second remedial course reduces the rate to 5 percent.

Chart 10. Impact of Remedial Courses on Six-year Graduation Rates in New Mexico, AY09



Source: OEA Ready for College 2010

Course availability, academic advisement, and degree programs requiring more than 128 credits contribute to excessive course-taking. The 2010 LFC higher education evaluation of UNM and NMSU found graduates earned on average 150 credit hours, or 25 percent beyond the minimum requirement of 120 credits hours required for graduation. According to a 2013 UNM report, in some degree programs, such as the College of Arts and Sciences, students average 163 credits, exceeding the 150 required to earn both a bachelor's and a master's degree. For all degree types in New Mexico, both part-time as well as full-time average number of credits is similarly greater than the required amounts.

To reduce time-to-degree, Complete College America recommends: 1) limiting program length to 120 credits, with exceptions only for compelling academic reasons; 2) establishing four-year semester-by-semester road maps for all programs; and 3) guaranteeing the transfer of general education curriculum. Numerous states, including Florida, Wisconsin, and Texas, have enacted legislation limiting bachelor's degree programs to 120 credit hours and as a result, seen dramatic reductions in credit hours as well as increases in degrees awarded without changing overall enrollment.

At-risk students need additional supports to succeed in college. Other factors such as familiarity with the process of applying to college, completing financial aid applications, and having the non-cognitive skills (study skills, time management, help-seeking behavior, and social problem-solving) to persist in a postsecondary setting impact students' decisions to enroll and remain in college. These factors especially impact low-income, minority, and first-generation college students, all populations prevalent in New Mexico. The Western Interstate Commission for Higher Education reports large gaps in educational attainment based on race and ethnicity and projects greater numbers of underserved students will enroll in the state's postsecondary institutions in upcoming years.

Table 6. New Mexico's Projected High School Graduates, FY14-FY18

FY	Native American	Asian	Black	Hispanic	White	Total
FY14	1,746	342	414	9,420	5,443	17,365
FY18	1,823	343	455	10,263	5,501	18,385
5-year change	4%	0%	10%	9%	1%	6%

Source: WICHE

Some high schools, including Rio Rancho High School, Deming High School, Espanola Valley High School and Farmington High School, have counselors to support students' college and career readiness. The counselors help students through counseling and academic planning, facilitating college and career recruitment fairs, coordinating financial literacy education and financial aid workshops, providing SAT and ACT preparation, and involving parents in the college decision making process through workshops held at the high schools.

Targeted state- and federally-funded programs demonstrate positive college readiness outcomes. For example, New Mexico Math, Engineering, Science Achievement Inc. (NM MESA) receives state funding to support the work of preparing middle and high school students for postsecondary education. Students participate in field trips, speaker presentations, workshops, academic competitions, community service, and leadership development. Approximately 78 percent of students who participate in the program attend college, compared with the state rate of 67 percent. Similarly, ENLACE New Mexico, provides mentoring and tutoring, family involvement, and leadership and professional development.

The federal TRIO programs serve and assist low-income individuals, first-generation college students, and individuals with disabilities through the academic pipeline from middle school to graduate school. Sequestration impacted the discretionary programs funded within the United States Department of Education, reducing FY14 TRIO funding by \$44 million, in addition to recession-related cuts. As a result, New Mexico Highlands University discontinued its Upward Bound program, which had allowed high school students to enroll in up to nine college credit hours during the summer semester while experiencing college life through a residential program.

New Mexico Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), housed at HED, provides discretionary grants to schools and partnerships to increase the readiness of low-income students to attend and succeed in postsecondary education. Funded by a \$43 million, seven-year grant, GEAR UP serves 11 thousand students in grades 7-12 in 25 schools as well as college freshmen who graduated from GEAR UP high schools. A national evaluation of the GEAR UP program in 2008 demonstrated that attending a GEAR UP school did not provide evidence of an association with students' intentions to attend college, expectations for postsecondary education, or overall orientation toward college; however the United States Department of Education has revised the annual performance reporting requirements for grantees and the NM GEAR UP program will be collecting more comprehensive student performance data during this grant cycle.

The state lacks a comprehensive college readiness support strategy. However, promising examples exist in other states. For example, the *Ramp-Up to Readiness* program developed by the University of Minnesota is a school-wide guidance program for students in the sixth-through twelfth-grades that help them master the knowledge, skills, and habits for success in higher education. The curriculum, developed by faculty, staff, educators, and students, will be used at 130 schools in FY15.

Recommendations

New Mexico public postsecondary institutions should:

- Limit the number of credit hours required by degree program to a reasonable standard with exceptions only for compelling academic reasons;
- Establish semester-by-semester road maps for all programs;
- Guarantee the transfer of general education credits; and
- Collaborate more closely with feeder high schools to clarify expectations for college readiness.

NEW MEXICO'S HIGH SCHOOLS UNDER-PREPARE STUDENTS FOR POSTSECONDARY EDUCATION

High school incentives and accountability are critical to reduce the need for remediation in college. The United States Government Accountability Office (GAO) noted the role of high schools in reducing or eliminating the need for college remediation and the role both high schools and colleges play in ensuring alignment between the two systems. Recognizing the importance of increasing high school rigor, the New Mexico Legislature raised graduation requirements beginning with the high school graduating class of 2013. Also known as high school redesign, these requirements include four English credits; four math credits, including algebra II or higher; and an advanced placement (AP), honors, dual credit, or distance learning course.

In general, increasing high school graduation requirements correlates with higher ACT scores. In 2012, of the nearly 14 thousand students who took the ACT while in high school, 80 percent took four or more years of English and three or more years of math, social studies, and natural science. The composite ACT scores of those students were two points higher than those who did not complete the same number of core course units.

Table 7. Average New Mexico ACT Scores by Level of Preparation, 2008-2012

Year	Number of Students Tested		English		Math		Reading		Science		Composite	
	*Core or More	Core or Less	Core or More	Core or Less	Core or More	Core or Less	Core or More	Core or Less	Core or More	Core or Less	Core or More	Core or Less
2008	7227	4112	20.6	18.0	20.6	18.2	21.8	19.5	21.0	18.8	21.1	18.8
2009	9229	2923	20.1	17.1	20.3	17.8	21.4	18.7	20.6	18.3	20.8	18.1
2010	9536	2849	20.1	17.1	20.3	17.9	21.2	18.6	20.8	18.5	20.7	18.2
2011	10472	2929	19.6	16.9	20.0	17.8	20.8	18.3	20.6	18.3	20.4	17.9
2012	10903	2746	19.5	17.0	20.1	18.0	20.7	18.6	20.4	18.5	20.3	18.2

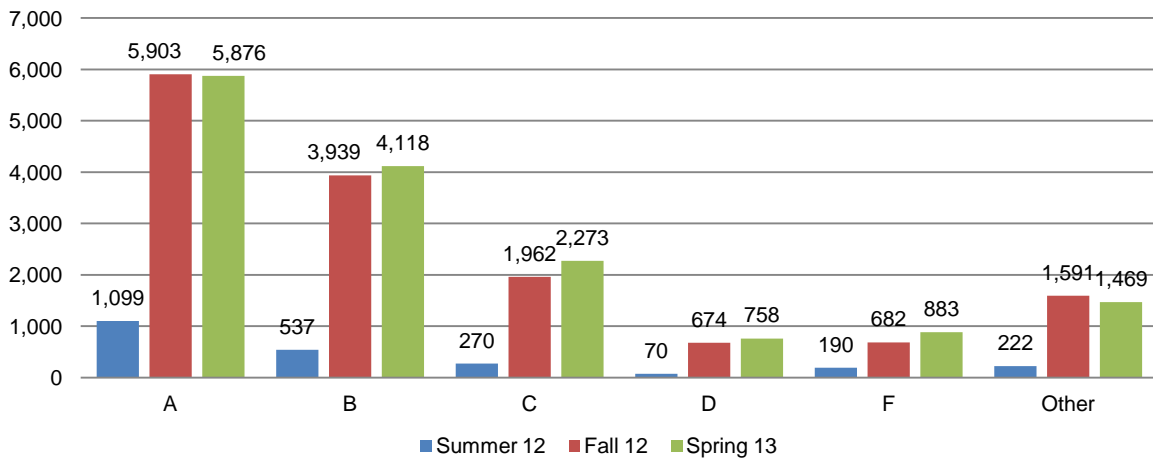
**Core or More" results correspond to students taking four or more years of English and three or more years of math, social studies, and science

Source: New Mexico ACT Profile Report, Graduating Class of 2012

Even these more stringent requirements, however, do not appear to align with college readiness expectations. Additionally, New Mexico's A-F school grading system holds high schools accountable for graduating students, including proficiency rates on the SBA, rather than for how those students perform beyond high school.

Increasing graduation requirements, including dual credit course-taking, must be purposeful to lead to better college readiness outcomes. Between the options of taking an AP, honors, dual credit, or online course, the fastest-growing option is dual credit. This is partially related to the challenge of taking and passing an AP exam with a score of three or better to earn college credit, compared with earning a passing grade in a dual credit course. As noted in the 2012 LFC dual credit evaluation, 76 percent of students who took a course for dual credit in spring 2009 earned a grade of "C" or better compared with 10 percent of high school graduates who earned a passing score on an AP exam in 2010.

Chart 11. Dual Credit Course Grade Distribution

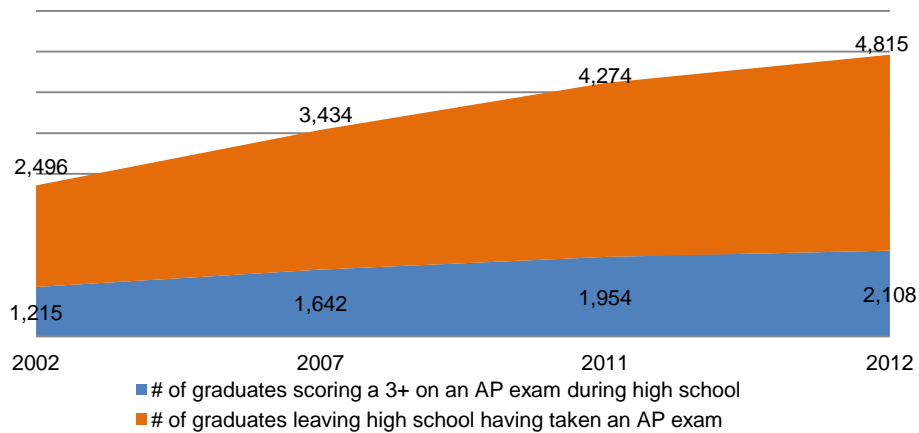


Other includes pass/fail, credit/no credit, withdrawals, no grade, audit grades that do not count towards GPA calculation

Source: HED

The number of 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 passing score on an AP exam in 2011.

Chart 12. New Mexico AP Participation



Source: 9th Annual AP Report to the Nation

As noted in the 2011 LFC evaluation of CNM and DACC, students who take dual credit courses graduate from high school at a higher rate (91 percent compared with 84 percent), enroll in college at a higher rate (67 percent versus 50 percent), and are eligible for credit-bearing courses at a higher rate (65 percent compared with 47 percent). As that report described, however, students taking dual credit courses appear to already achieve at higher levels. Of the students who took dual credit in FY13, for example, average scaled scores on both the reading and math portions of the SBA were more than two points higher than non-dual credit taking students.

Table 8. Dual Credit SBA Scaled Scores, FY13

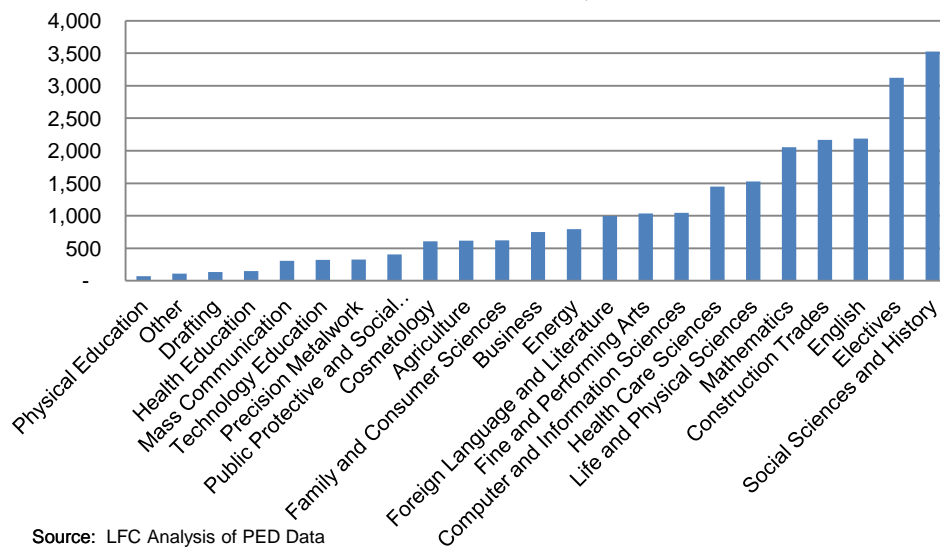
	Average SBA Reading Score	Average SBA Math Score
Non-Dual Credit Students	38.8	41.9
Dual Credit Students	41.3	44
Difference	2.5	2.1

Source: LFC Analysis of PED Data

Previous LFC evaluations raised concerns with the selection of dual credit courses, particularly given the goal of increasing college readiness. The National Center for Postsecondary Research found simply taking a dual credit course does not improve academic success. Instead, taking a challenging course, specifically college algebra, increased students' likelihood of enrolling at a postsecondary institution by 16 percent and increased the chance of obtaining a postsecondary credential by 23 percent. In New Mexico in FY12, however, 16 percent of dual credit math courses were below algebra II, such as Financial Literacy or Pre-Algebra.

Current dual credit policy and subsequent course-taking patterns do not necessarily increase college readiness. Between FY11 and FY13, New Mexico high school juniors and seniors enrolled in 24,436 dual credit courses. The types of courses included 2,169 construction trade courses, or 9 percent of the total, 2,053 math courses, 8 percent of the total, and 2,189 English courses, 9 percent of the total.

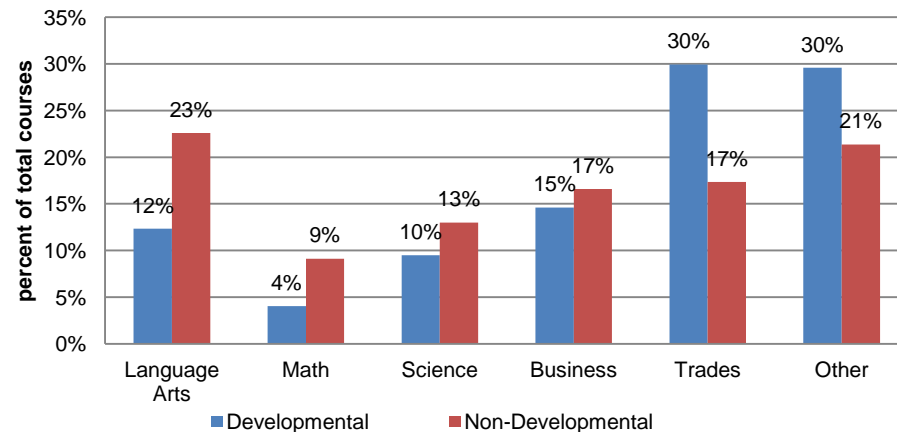
Chart 13. Dual Credit Courses, FY11 to FY13



Source: LFC Analysis of PED Data

Students less frequently needing college remediation appear to be taking more academically rigorous dual credit courses. While enrollment in dual credit courses correlates with lower remediation rates, more purposeful selection of courses appears to further improve outcomes. Based on a sample of high school seniors in FY12 who took dual credit courses and then enrolled in a college-level math course in FY13, those who enrolled directly into credit-bearing college math classes were more likely to take language arts, math, science, or business dual credit courses. In contrast, of the students who needed a developmental math class in FY13, a higher percentage were likely to take a career-technical-related dual credit course, such as carpentry, culinary arts, or welding.

**Chart 14. Developmental vs. Non-Developmental
Distribution of Dual Credit Courses, FY13**



Source: LFC Analysis of PED and HED Data

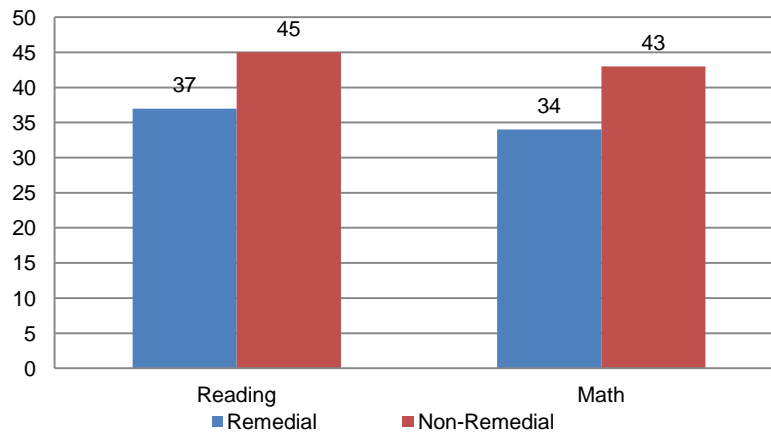
Previous LFC evaluations and the Education Commission of the States recommend focusing dual credit master agreements for academically challenging courses impacting student outcomes. Along these lines, other states, such as Kentucky, have structured incentives in dual credit policy on core courses from general education and career technical pathways that “align with and expand upon” high school graduation requirements.

First-time students who enroll in a college success course are more likely than those who do not to earn a community college credential. College success courses are designed to address students’ non-academic deficiencies, like poor study habits and lack of clear goals for college and careers, which many community college educators maintain are important for student success in postsecondary education. These courses are not considered developmental, but some students who need academic remediation may be required to take them once they enroll in college. Some master agreements between school districts and colleges allow high school students to take college success courses for dual credit. A Community College Research Center study of Florida students who enrolled in a college success course demonstrated a 6 percent increase in on-time completion of a postsecondary credential over students who did not take a college success course.

In both reading and math, SBA scores are generally predictive of a high school student’s likely need to require remediation in college but proficient scores do not mean college ready. Beginning in FY13, all New Mexico sophomores and juniors take the SBA in multiple subjects, including reading and math. Each tested subject takes approximately three hours to complete and involves a combination of multiple choice as well as open response items. Student performance on these assessments has been shown to correlate with scores on other standardized tests, such as the ACT. Each subject of the SBA is scored on a scale of zero to 80, with 40 considered proficient. To be eligible for a traditional diploma, a student must score at least a 37 on the English and math portions. Large numbers of students meeting both the graduation requirement of 37 as well as the proficiency score of 40, however, are still required to enroll in developmental courses.

The average math SBA scaled score for first-time freshmen who required a remedial class in math was 34, while students who did not enroll in remedial math averaged an SBA scaled score of 43. Similarly, the average reading SBA scaled score for first-time freshmen who took either remedial reading or writing was 37, compared with an average scaled score of 45 for students who did not enroll in remedial courses.

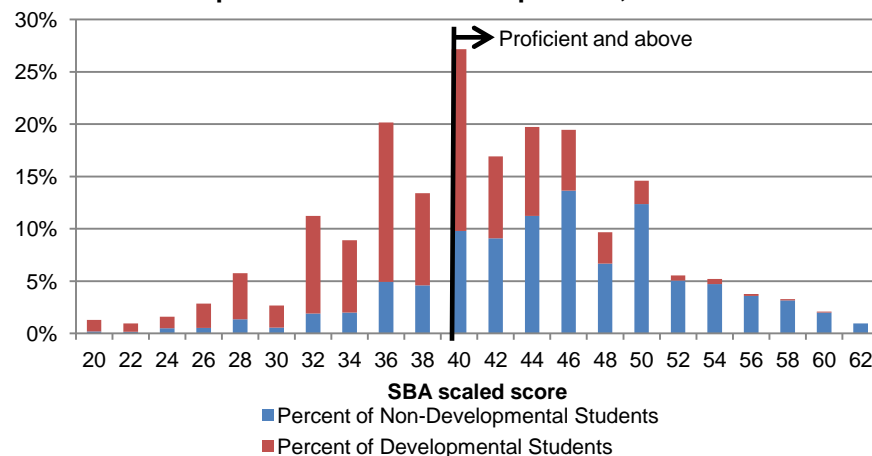
Chart 15. Average SBA Scaled Scores, Remedial vs. Non-Remedial, FY13



Source: LFC Analysis of PED and HED Data

While students with higher SBA scores are less likely to need remediation in college, many students scoring above proficient still require developmental courses. Of 6,558 students with SBA scaled scores who enrolled in New Mexico postsecondary institutions in FY13, 5,405 scored 37 or above in reading. However, 548 of these graduation-eligible students, or 10 percent, were placed into developmental reading courses. This amounted to 55 percent of the 997 students who enrolled in developmental reading courses in FY13.

Chart 16. Reading SBA Scaled Score Distribution, Developmental vs. Non-Developmental, FY13



Source: LFC Analysis of PED and HED Data

Although high school students are eligible to graduate with scores of 37 on the SBA, it appears students scoring up to approximately 45 in reading and 42 in math are still at-risk of needing college remediation. Given that all New Mexico students take the SBA as both sophomores and juniors, high schools could use these results to advise students about the need for additional high school math or reading preparation to reduce the need for costly developmental course-taking in college.

A study conducted in Maryland looked at first-time college students in the fall and tracked their enrollment, first-year grades, and placement into developmental courses and the correlation with various proficiency levels on the state's tenth-grade assessment. Similarly, as described in the 2011 LFC evaluation of community colleges, California State University and the California public schools use the standard tests taken by all eleventh-graders in

math and English to determine if a student is prepared for college-level work and exempted from placement exams or needs additional preparation that can occur during the senior year.

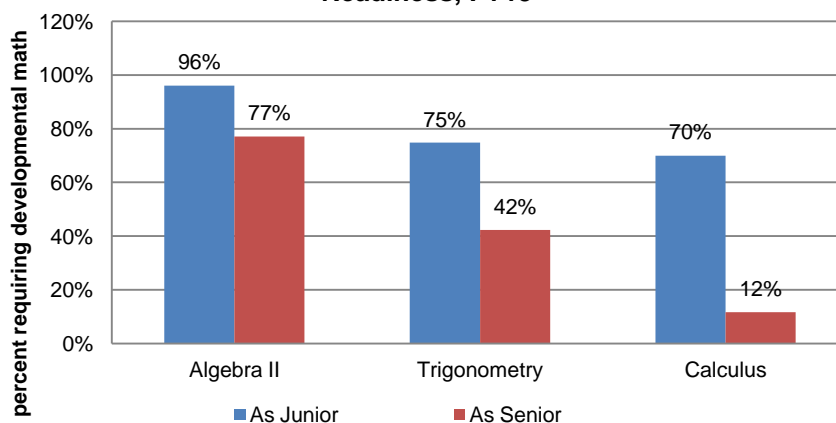
The Partnership for Assessment of Readiness for College and Careers (PARCC) is another opportunity for high schools and postsecondary institutions to assess readiness. New Mexico is a member and governing state of PARCC, a consortium of 18 states plus the District of Columbia and the U.S. Virgin Islands that is working to develop a common set of kindergarten through twelfth-grade assessments in English and math with a college- and career-ready focus. The PARCC assessments will build a pathway to college- and career-readiness by the end of high school, mark students' progress toward this goal from third-grade up, and provide teachers with timely information to inform instruction and provide student support. The PARCC assessments will be ready for implementation during the 2014-2015 school year. It has yet to be determined how higher education will incorporate the PARCC assessments into placement policies, but the exams are designed as a cost-effective, reliable measure of college-readiness.

HED is currently in the process of hiring a project leader for PARCC. In this position the project leader will serve as a liaison with all associated organizations in the PARCC initiative: HED, PED, the PARCC administration, and all New Mexico public postsecondary institutions. This position will continue through September 30, 2014.

The high school senior year, an ideal opportunity to improve college readiness, is often under-used. As noted in the 2011 LFC evaluation of the twelfth-grade, depending on the high school, roughly half of all seniors do not take a full course load. In math, for example, 27 percent of students fulfilled minimum graduation requirements by the junior year of high school and did not take a senior year math course. Sitting out senior year math, however, strongly impacts a student's likely need for remediation in college.

In FY13, 1,529 first-time freshmen who did not take a senior-year math class took a college-level math course. Of those students, only 85, or 6 percent, were ready to enroll directly in a credit-bearing course. Regardless of the highest level of math class reached in high school, taking that class senior year corresponds with much lower college remediation rates. While 23 percent of students who took algebra II-level courses during senior year were college-ready, less than 4 percent of the students taking similar classes junior year and not taking a math course senior year were college-ready. Even students who took a calculus-level class during junior year but did not take math senior year had significantly higher remediation rates, 70 percent, compared with those who took calculus during senior year, 12 percent. These differences are likely attributable to lost knowledge during the final year of high school as well as poorer performance on college placement tests.

Chart 17. Impact of Senior Year Math on College Readiness, FY13



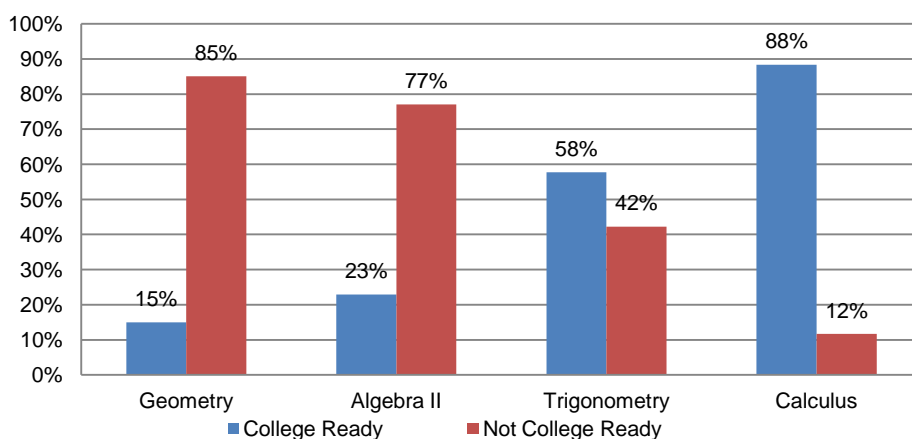
Source: LFC Analysis of PED and HED Data

The high school redesign math requirements inadequately prepare many students for college-level math.

One of the high school graduation requirements taking effect for the class of 2013 is the completion of four mathematics courses, including at least algebra II or higher. While college course-taking data is not yet available for the 2013 high school graduates, similar information is available for high school students graduating in 2012. Of 6,085 students who took a high school math course in FY12 and enrolled in a college math class in FY13, 3,014 (49.5 percent) were prepared to take college level math classes and 3,071 (50.5 percent) were required to take developmental courses. Alarming, of the students whose highest high school math class was algebra II, 77 percent still were required to take a developmental math course as a freshman in 2013.

While the rates decrease, even students who complete higher level math courses need developmental math courses. For students who completed the equivalent of trigonometry in high school, 42 percent still required developmental courses, while for students completing calculus the developmental rate dropped to 12 percent.

Chart 18. College Math Readiness by Highest High School Math Course, FY13



Source: LFC Analysis of PED and HED Data

New Mexico's A-F grading system does not encourage high schools to seek feedback on postsecondary success. Currently, 15 percent of each high schools A-F grade is based on college and career readiness. This is measured by the percent of students with a career or a college preparatory path and the percent of students who attempted any of the college and career readiness options, rather than performance post-high school.

Students, and therefore schools, are considered successful if they achieve a score of 3 or better on an AP exam in a core academic area while in the eleventh- and twelfth-grade, achieve a college readiness benchmark score on the four content areas of the ACT while in the eleventh- and twelfth-grade, achieve a college-readiness benchmark score on the three content areas of the PSAT, or complete all course requirements for career-readiness with the grade of A, B, or C and graduate with a regular diploma in four years while in the twelfth-grade.

Most high schools, however, appear to be less focused on reducing the need for college remediation. Given that districts are held largely accountable for performance on the SBA and graduation rates, much attention is paid to these measures. For example, in FY14 the Legislature appropriated \$500 thousand for a statewide Early Dropout Warning System to identify key factors likely to impact a student's ability to graduate, including third grade reading proficiency rates, middle school truancy rates, middle school course failures, ninth grade truancy rates, ninth grade GPA below 1.5, and failure of any core courses during the ninth grade year. Additionally, individual districts, such as Rio Rancho, direct resources to prepare students for the SBA, offering mandatory elective courses for those at-risk of failure.

Statute requires PED and HED to align high school curricula and end-of-course tests with the placement tests administered by two- and four-year public educational institutions in New Mexico. No formal efforts exist, however, to ensure alignment between these two educational levels. Additionally, most high schools do not track how students do in college and do not have interventions specifically designed to address students likely to need postsecondary remediation.

In contrast, other states have explicitly required high school identification and intervention to reduce college remediation. Initiatives related to better placement of students and working with high schools on preparing students can reduce or eliminate the need for developmental education. According to the GAO, successful community colleges partner with local public schools to align curricula to improve college readiness. For example, one Texas community college established vertical teams bringing together high school and community college faculty in science, math, and social studies to discuss students' academic needs.

Examples of other states explicitly requiring high school identification and intervention to reduce college remediation include:

- Washington: In 2015 the state plans to offer a college assessment in the eleventh-grade to identify and provide additional instruction to students with remediation needs.
- Kentucky: Requires providing intervention strategies with accelerated learning opportunities to students who are identified through (1) the eighth-grade high school readiness examination as in need of additional assistance to be successful in high school, or (2) the ACT exam as not prepared for entry into credit-bearing course at a postsecondary institution.
- Arkansas: Requires using multiple means to assess whether a student is in need of remediation, including state end-of-course exams. Students identified as in need of remediation are required to participate.
- North Carolina and Ohio: Operate early math testing programs, frequently run by a public institution of higher education, to provide students with a "reality-check" on their math skills while still in high school, prior to enrolling in a postsecondary institution.
- California: The California State University (CSU) system added a series of college readiness questions to the state's eleventh-grade exam. After students test, they are told whether they are on track for college-level classes in the CSU system. Plus, CSU is helping high school teachers work with unprepared students and is developing a twelfth-grade transitional curriculum.
- Indiana: Since 2005, the public and higher education systems jointly developed 40 core graduation requirements, ensuring high school students are prepared for college and careers.
- Virginia, Texas, Florida, and Kentucky: Created twelfth-grade transitional courses and end-of-course tests based on college readiness standards and first-year courses. Students who earn high enough scores can bypass additional placement tests and move directly into full-credit college courses.

Finally, a recent Florida law prohibits colleges from requiring recent high school graduates to take the state's standard placement test or to enroll in non-credit remedial courses. College placement testing is now mandatory for most eleventh-graders and seniors who do not make the cut are required to take courses designed to address remedial needs.

Recommendations

The Legislature should increase requirements for a college-ready high school diploma.

HED should:

- Annually publish "First-year" reports on the department's website, detailing the postsecondary performance of entering freshmen who graduated from the state's high schools.
- Direct institutions to align placement scores statewide.

PED should revise the A-F school grading formula to include college readiness as measured by remediation rates and gateway course completion.

HED and PED should:

- Require high schools to use the SBA or its equivalent to intervene with targeted courses for high school students likely to need college remediation.
- Align high school graduation requirements with college admissions criteria.
- Promulgate rules limiting dual credit to courses of study demonstrating improved student performance and set clear measures of postsecondary success. The departments should use the National Alliance of Concurrent Enrollment Partnerships (NACEP) Standards of Program Quality as a framework for developing rules.

High schools should use the SBA and other data to better advise college-bound students, particularly regarding senior year course-selection and purposeful dual credit enrollment.

HIGHER EDUCATION INSTITUTIONS ARE SHIFTING TOWARD PROMISING PRACTICES BUT NEED TO EXPAND IMPLEMENTATION TO IMPROVE OUTCOMES

The recent changes in the higher education funding formula, coupled with encouraging developmental outcomes research, appears to be shifting remedial course delivery in New Mexico. The GAO identified strategies to reduce or eliminate the need for college remediation: revising course placement (examples include using multiple placement methods and offering refreshers); using integrative models, such as combining two courses into one or placing a student in a credit-bearing course with a tutoring component, also known as co-requisites (examples include fast track and I-BEST courses); and improving student supports (examples include learning communities).

While many of New Mexico's postsecondary institutions have begun to engage these practices, according to HED, the efforts lack coordination, and are instead implemented in a makeshift, piecemeal fashion. Further improvement will require comprehensive organization with a focus on teachers.

During the 2012 interim, institutions put forward plans to reduce remediation and change developmental course delivery. In conjunction with two developmental conferences HED convened, institutions completed descriptions of current reform efforts as well as proposed next steps to implement practices designed to increase student completion of courses and postsecondary credentials (**Appendix E**).

Table 9. New Mexico Public Postsecondary Institutional Developmental Education Strategies

Institution	Current Co-Requisite Courses	Plans for Co-Requisite Courses in FY2013-2014	Fast Track	Refresher	Multiple Placement Methods	Learning Communities	Online	IBEST
CCC	Yes	Yes	Yes	Yes	No	≠	≠	≠
CNM	Yes	Yes	Yes	Yes	Yes	Yes	Learning labs	Yes
DACC	Yes		Yes	Yes	Yes	Yes	≠	Yes
ENMU	No	No	Yes	Yes	Yes	Yes	Yes	No
ENMU-Ros	Yes		Yes	Yes	Yes	Yes	I-Learn	Yes
ENMU-Rui	Yes	Yes	Yes	Yes	Yes	Yes	≠	Yes
LCC	No	Yes	Yes	No	Yes	≠	≠	≠
MCC	No	Yes	Yes	No	No	Yes	≠	Yes
NMHU	Yes		Yes	Yes	Yes	Yes	Desire2Learn	≠
NMJC	Yes		Yes	Yes	Yes	≠	≠	≠
NMSU	Remediation occurs at DACC					≠	≠	≠
NMSU-A	Yes		Yes	No	Yes	≠	≠	≠
NMSU-C	No	Yes	Yes	Yes	Yes	≠	PLATO	≠
NMSU-G	No	No	Yes	No	No	≠	COLL Programs	≠
NNMC	No	Yes	Yes	Yes	Yes	Yes	Yes	≠
NMMI	Yes	Yes	Yes	Yes	Yes	≠	Aleks	≠
SFCC	Yes		Yes	No	No		Yes	Yes
SJC	Yes	Yes	Yes	Yes	Yes	Yes	Aleks	Similar model
UNM	Remediation occurs at CNM					Yes	Aleks	≠
UNM-G	No	Yes	Yes	Yes	Yes	≠	≠	≠
UNM-LA	No		Yes	No	Yes	≠	Yes; unspecified	≠
UNM-T	No	Yes	Yes	No	Yes	Yes	Aleks	≠
UNM-V	No	Yes	Yes	≠	No	Yes	Aleks	Yes
WNMU	No	Yes	Yes	No	No	≠	Aleks	≠

≠ Institution did not provide information

Source: HED

Postsecondary institutions are revising course placement strategies to reduce the need for developmental courses. The Community College Research Center reports many students are “over-remediated,” diagnosed as needing developmental education but likely to have done well without those courses. Instead, students might benefit from a quick refresher on material they have already mastered.

As a best practice, colleges use multiple measures of student readiness for college to measure students’ academic abilities and accurately place students into appropriate courses. High school GPA, college admission achievement scores, and high school coursework are the most common measures. The GPA demonstrates students’ content knowledge and the work effort and study skills necessary to manage the demands of a college environment. College admission achievement test scores, like the ACT and SAT, are standardized indicators of students’ cognitive ability, basic skills, and core academic skills. Coursework required for college admission helps institutions identify whether applicants have been exposed to content that prepares them for introductory courses.

Each institution is responsible for setting minimum admissions requirements and minimum requirements are consistent among each higher education sector in the state. New Mexico’s research institutions have the most rigorous admissions policies, determining different combinations of GPA and tests scores that will gain first-time freshman students regular admission.

Table 10. Regular Freshman Admission Requirements of New Mexico's Research Institutions

	GPA	GED	ACT- Composite	SAT- Combined	Provisional Admission
NM Tech	2.5	500	21	970	Appeals Process
NMSU	2.5		21	990	Yes
UNM	2.5	500	21-24	980-1120	Yes

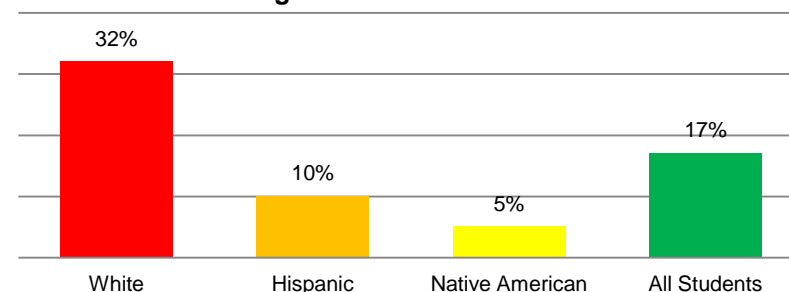
Source: Postsecondary Institutions Course Catalogs

NMSU and UNM allow provisional admission to new students who do not meet the requirements for regular admission, but meet a certain level of academic preparation. UNM has created the Gateway program in cooperation with CNM, Santa Fe Community College, New Mexico Junior College, San Juan College, and the UNM branch campuses. Upon successfully completing 24 hours of core curriculum at a partner community college, students continue at the UNM main campus.

The best predictor of first-year success in college is high school GPA. High school grades had been previously considered an unreliable criterion for college admissions because different grading standards exist across high schools. For example, high school GPA is computed by multiplying the number of credit hours of a course by the quality point value assigned to the letter grade. High schools may choose to weight college preparatory courses (such as AP, honors, or dual credit courses) higher than non-college preparatory courses, contributing to some of the inconsistency of high school GPAs across the state. However, research supported by the American Institutes for Research reports that high school GPA captures approximately 20 percent of the variance in college outcomes.

More than 18 thousand students graduated from New Mexico’s high schools in 2012 and 75 percent of those students took the ACT in either their sophomore, junior, or senior year. While the national average composite ACT score was 21.1, the average score in New Mexico was 19.9, lower than the admission requirements of the state’s research institutions. Only 17 percent of New Mexico’s 2012 ACT-tested graduates met all four College Readiness Benchmarks set by ACT and consistent with other standardized test results, the gap is wider based on ethnicity.

Chart 19. New Mexico Students Meeting All ACT College Readiness Benchmarks



Source: ACT Profile Report, NM 2012

New Mexico's comprehensive institutions and community colleges provide open enrollment but require placement test scores to determine appropriate course enrollment. Institutions that do not require a high school transcript with a minimum GPA or college admission achievement scores have traditionally relied more heavily on placement test scores such as the ACCUPLACER or Compass tests. These tests evaluate students' knowledge in math, reading, and writing to identify strengths and weaknesses in each subject area. Similar to the research institutions, the comprehensive universities and community colleges develop minimum cut scores for the ACCUPLACER and Compass tests, but consider GPA and ACT or SAT scores if available.

The 2011 LFC program evaluation of community colleges found students who scored similarly on the ACCUPLACER or Compass tests enrolled in credit-bearing courses at some institutions, but were placed into developmental courses at others. In response, CNM is reviewing ACCUPLACER cut scores to make them more consistent with the content of math courses.

Many of New Mexico's community colleges and comprehensive universities offer preparatory classes or online test preparation to students who will be taking placement tests. For example, in 2012, SJC began the Launch Grant Summer Math Academy based on ALEKS, a National Science Foundation-funded program. After the six-week course, students at SJC gained an average of 19.1 points on the ACCUPLACER arithmetic section and 17.1 points in the elementary algebra section. This led to an average reduction of 1.7 courses or 6.5 credits of required developmental education courses.

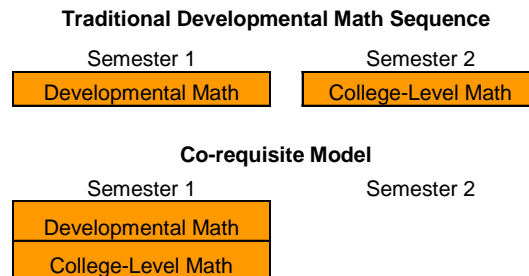
Additionally, some community colleges and four-year institutions offering developmental courses consider multiple factors, such as high school grades or GPA, when determining placement. CNM conducted a longitudinal study of college readiness key performance indicators, which includes high school GPA and performance in entry-level English and math courses at the college. The study demonstrates the success rate of students in each course through a breakdown of high school GPA. This research could be useful to other colleges and universities in developing more accurate placement strategies for those students who may not need to take developmental courses based on the sufficiency of high school GPA (**Appendix F**).

Postsecondary institutions are also using integrative models to reduce the time students spend in non-credit bearing courses. A number of course-level initiatives, include:

- Modularization-breaking up the developmental education classes into smaller, shorter component modules that would otherwise last a full term by segmenting courses into one-credit modules. Students are then only required to take particular modules based on diagnostic assessment results. Prior to the redesign, a single developmental education math course carried a credit load of four or five credits, which could have led to students taking unnecessary coursework over a longer period of time;
- Compression-allowing students to complete more than one class in a single term. For example, offering fast-track math classes to allow students to complete two classes in one semester. Additionally, colleges have combined developmental education reading and writing coursework, thus reducing a two-class requirement to one during a term.

- Curricular reform-reexamining the developmental education content to eliminate the overlap between developmental classes and college-level classes, thereby reducing the number of developmental education courses in the sequence; and
- Co-requisite coursework-many variations of co-requisite remediation exist, but the most common model pairs a college-level course with a complementary developmental course for students at the highest level of developmental courses. Students receive credits for both courses in one semester.

Figure 1. Co-requisite Developmental Course Model



Source: The University of Texas

New Mexico Highlands University offers self-paced remedial math courses that allow students to complete one or both of the developmental courses in one or less than one semester. Additionally, the English faculty has designed and is offering Freshman Composition “stretch” co-curricular sections that enable students to complete the developmental course objectives and the first college-level English course in a single semester. New Mexico Highlands University has expanded the self-paced math course to include college algebra content, making it is possible for students to complete the two developmental courses and college algebra simultaneously.

One model used by some New Mexico community colleges to reduce the time students spend in developmental education is Washington state’s Integrated Basic Education and Skills Training (I-BEST). The I-BEST model requires colleges to offer coursework applicable to students’ academic and career goals by placing students directly into career technical or college-level academic classes with two instructors: one to teach the subject matter and the other to teach developmental education in the context of the class. The model challenges the idea that students have to spend more time and money to complete developmental education before entering into a career training program. It is designed to increase postsecondary credential attainment for low-skilled individuals and accelerate basic skills students’ transition into and through college-level occupational fields of study. I-BEST delivers demand-driven career pathways based on regional and statewide industry need.

The New Mexico Skill Up Network (NM SUN) I-BEST program, funded by the United States Department of Labor “TAACCT” grant, is offered at six sites: DACC, ENMU-Roswell, UNM-Valencia, CNM, Mesalands Community College, and SFCC. The I-BEST model has demonstrated reduced time and costs for a student to receive a credential. Under the old model, students took two semesters in adult basic education (ABE) and two semesters in developmental math and English for an average cost of \$2,800. The I-BEST model requires one semester of ABE with additional I-BEST support services for \$950. Under both models, the students take six additional credit hours during one semester in career training courses at a cost of around \$1,000. While the old model required students to enroll in five semesters of courses at a cost of \$3,800, the I-BEST model takes two semesters to complete at a cost of \$2,000.

The grant funding for New Mexico’s I-BEST programs ends September 2014. The I-BEST consortium will request \$891 thousand from the Legislature and the executive to sustain the current level of services in FY15. The consortium is conducting a rigorous evaluation of the program and if the results continue to be positive, plans to double the number of students served in FY16 (from 288 to 526) and expand I-BEST to more campuses.

Another strategy being used is alternative pathways for developmental math students. Research demonstrates that traditional developmental math prepares students for higher levels of college math not needed for certain fields. At San Juan College, math faculty are developing several pathways for students: students in Science, Technology, Engineering, or Mathematics (STEM) fields could take a path that leads them to the types of math they need for their field, such as calculus, while students in the social sciences or liberal arts could take a path that leads them to different types of statistics courses or quantitative literacy that may be more relevant to their fields of study (**Appendix G**). Similarly, Santa Fe Community College revamped their math pathways and offers Math 119, which is a course for non-science majors. While this type of developmental education redesign is supported by Complete College America, New Mexico's community colleges have expressed concern about how students who transfer to four-year institutions will be impacted.

Austin Peay State University in Tennessee eliminated remedial math courses and places students in redesigned credit-bearing courses that include extra workshops and specialized help. Initial assessments are given to determine specific knowledge gaps, and then the workshops are used to provide additional instruction on key math concepts with special emphasis on individual areas of weakness. As a result, twice as many remedial students are passing their initial college-level math courses.

Improving student supports increases success in gateway courses. Postsecondary institutions are experimenting with learning communities as a strategy to help students succeed in developmental courses. Learning communities are small cohorts of students placed together in two or more courses for one semester, usually in the freshman year so students will form stronger relationships with each other and instructors and engage more deeply in the content of the integrated course work.

UNM produced a report analyzing students' first-year experiences at the institution. Because 30 percent of entering students place into developmental coursework, the university sought high-impact practices to improve student success. One of the practices implemented was freshman learning communities, which doubled from 30 to 60 in one year. In order to measure the effect of high-impact practices, UNM is beginning to develop a tracking system for first-year students that will allow them to match students with effective programs and allow the collection of data that will be used to guide improvement on an on-going basis.

The Center for Community College Student Engagement has identified other high-impact student support services found in most community colleges, including: academic goal-setting and planning, student orientation, tutoring, and college success courses. While there is no agreement among experts on whether all of these practices work, there is an emerging body of evidence that they help boost completion rates for certain populations of students. Many of New Mexico's postsecondary institutions offer some or all of these support services to varying degrees.

Colleges and universities will need support in replicating approaches that improve student performance on a larger scale. Institutions have been driven by student needs and their efforts are beginning to generate important lessons. By collecting performance data, HED will be better able to expand successful programs and initiatives across the state.

Recommendations

The HED should continue to monitor and evaluate institutions' alternatives to developmental education and provide technical support for postsecondary institutions to share practices and data and implement strategies.

Postsecondary institutions should:

- Develop measures as part of the Accountability in Government Act to report results of developmental education outcomes; and
- Expand implementation of alternatives to developmental education.

NEW MEXICO HIGHER EDUCATION DEPARTMENT



SUSANA MARTINEZ
NEW MEXICO GOVERNOR

JOSÉ Z. GARCIA
CABINET SECRETARY

January 14, 2014

Mr. David Abbey, Director
Legislative Finance Committee
125 Don Gaspar
Santa Fe, NM 87501

Dear Mr. Abbey,

We have reviewed the Legislative Finance Committee's (LFC) recent study, *Improving College Readiness in New Mexico* (January 20, 2014), in draft form. In addition, we met with Michael Weinberg and Valerie Crespín-Trujillo on January 9, 2014, to review the report findings and recommendations.

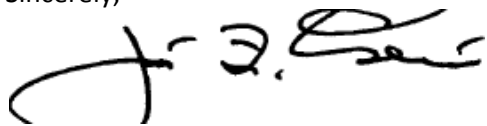
The New Mexico Higher Education Department (NMHED) is firmly committed to improving college readiness in the state. The most significant college readiness undertaking by the Department is to hold institutions accountable through the HED funding formula, which rewards institutions for graduating students in the "at-risk" (that is, college *unready*) category. In addition, the Department has asked institutions to set performance goals for reform in remediation programs, for rates of retention for first-year students, reduction in the number of credits taken to complete a certificate or degree program, etc. NMHED has held statewide conferences on closing the achievement gap, setting performance goals, remediation, and other relevant issues during the past few years.

Another of the NMHED initiatives, the longstanding GEAR UP program, is, in fact, primarily a college readiness project designed specifically to target the "at-risk" student population. Moreover, the department, in collaboration with a variety of key stakeholders, is designing a long-term college readiness program targeted at 15% of the Native American student population.

The NMHED is also working with the New Mexico Public Education Department in efforts to collectively address issues related to college readiness. The review and oversight of the Dual Credit program, jointly administered by the two departments, is one example of combined departmental efforts in this regard.

The NMHED is appreciative of the opportunity to engage fully in the continued growth and development of initiatives to improve college readiness in New Mexico.

Sincerely,

A handwritten signature in black ink, appearing to read "Dr. José Z. Garcia". The signature is fluid and cursive, with a large initial "J" and "Z".

Dr. José Z. Garcia

Secretary of Higher Education

Evaluation Objectives.

- Review college readiness issues, including spending and student performance;
- Analyze opportunities to improve the high school to college pipeline; and
- Compare existing developmental education programs with best practices.

Evaluation Procedures.

- Met with LFC and LESC staff;
- Reviewed applicable laws and regulations, LFC file documents, previous evaluations, relevant performance reviews from other states, and performance measures;
- Reviewed best practices and relevant developmental education research;
- Compared New Mexico's approach to developmental education with other states; and
- Visited institutions to identify promising practices as well as opportunities for improvement.

Evaluation Team.

Michael Weinberg
Valerie Crespín-Trujillo

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 the Higher Education Department on January 9, 2014.

Report Distribution. This report is intended for the information of the Office of the Governor; the Higher Education Department; 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: FRESHMAN YEAR OUTCOMES SAMPLE REPORT

Fall 13 Postsecondary
Enrollment: 555

- Full time: 507
- Part time: 48

Second Semester Retention:
480

Total Remediation Required:
233

- Remedial Math 205
- Remedial English 110
- There are overlaps

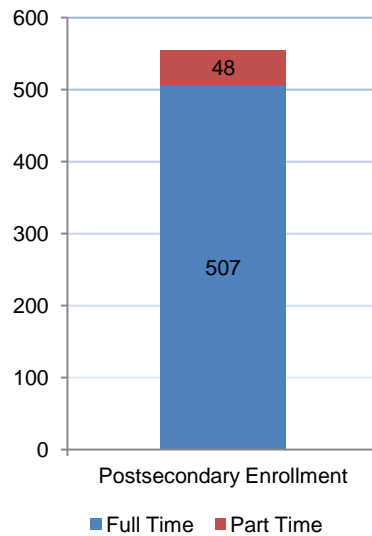
Legislative Lottery Scholarship
Received

- Requires 12 credit hours
- 2.5 postsecondary GPA
- Straight out of high school
- Pays full tuition

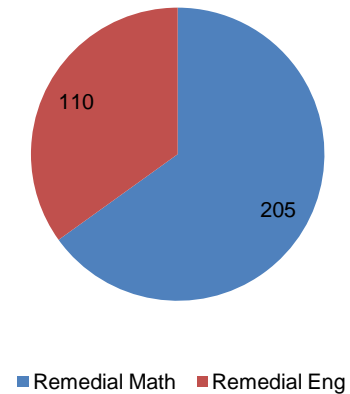
Type of Postsecondary
Institution attending is about
the same

- The enrollment numbers are duplicated if the student chose to attend both type of institution
- This typically occurs when a student needs to take remedial courses

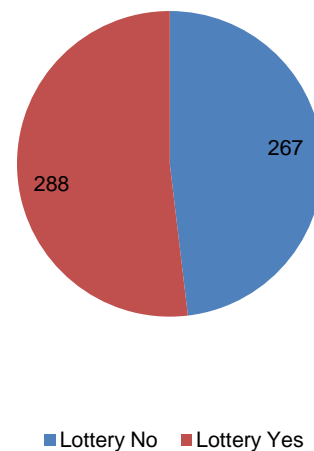
**Full and Part Time
Breakdown**



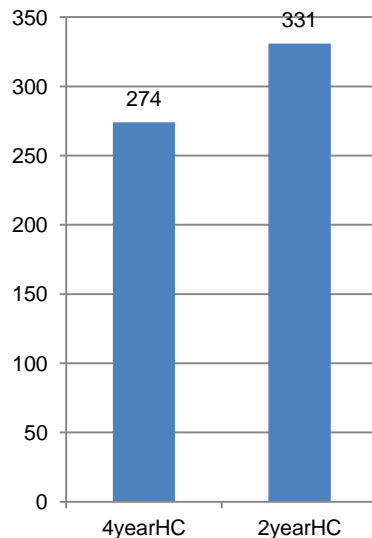
**Remediation
Breakdown: Out of 233
Students**



**Legislative Lottery
Scholarship Received**



**Type of Post-secondary
Institution**



Source: HED

APPENDIX C: NEW MEXICO HIGH SCHOOL GRADUATES ENROLLED IN REMEDIAL COURSES AT PUBLIC POSTSECONDARY INSTITUTIONS, FY13

High School Name	District Name	Total Enrolled	Enrolled in Remedial class	Remedial %
Alamogordo High	Alamogordo Public Schools	170	75	44%
Academy of Trades and Technology (State Charter)	Albuquerque Public Schools	<10	<10	75%
ACE Leadership High School (State Charter)	Albuquerque Public Schools	<10	<10	60%
Albuquerque High	Albuquerque Public Schools	157	82	52%
Albuquerque Institute of Math & Science (State Charter)	Albuquerque Public Schools	20	<10	10%
Albuquerque Talent & Development Secondary Charter	Albuquerque Public Schools	10	<10	40%
Amy Biehl High School (State Charter)	Albuquerque Public Schools	26	13	50%
Atrisco Heritage Academy High	Albuquerque Public Schools	225	160	71%
Bataan Military Academy	Albuquerque Public Schools	<10	<10	40%
Career Academic & Technical Academy	Albuquerque Public Schools	10	<10	70%
Cesar Chavez Community School (State Charter)	Albuquerque Public Schools	13	10	77%
Cibola High	Albuquerque Public Schools	258	110	43%
Cottonwood Classical Preparatory School (State Charter)	Albuquerque Public Schools	14	<10	14%
Creative Education Prep Institute #1 (State Charter)	Albuquerque Public Schools	22	18	82%
Del Norte High	Albuquerque Public Schools	131	76	58%
Digital Arts and Technology Academy	Albuquerque Public Schools	34	18	53%
East Mountain High School (State Charter)	Albuquerque Public Schools	63	17	27%
El Camino Real Academy	Albuquerque Public Schools	<10	<10	75%
Eldorado High	Albuquerque Public Schools	263	81	31%
Gilbert L Sena Charter High School	Albuquerque Public Schools	16	11	69%
Highland High	Albuquerque Public Schools	123	83	67%
La Academia de Esperanza	Albuquerque Public Schools	<10	<10	100%
La Cueva High	Albuquerque Public Schools	256	56	22%
Los Puentes Charter School	Albuquerque Public Schools	<10	<10	100%
Manzano High	Albuquerque Public Schools	205	90	44%
Media Arts Collaborative Charter (State Charter)	Albuquerque Public Schools	30	14	47%
Native American Community Academy	Albuquerque Public Schools	<10	<10	88%
New America School (State Charter)	Albuquerque Public Schools	<10	<10	100%
Nuestros Valores Charter School	Albuquerque Public Schools	14	11	79%
Public Academy for Performing Arts	Albuquerque Public Schools	28	15	54%
Rio Grande High	Albuquerque Public Schools	111	80	72%
Robert F. Kennedy Charter School	Albuquerque Public Schools	<10	<10	67%
S.I.A. Tech (School for Integrated Academics & Tech.)	Albuquerque Public Schools	<10	<10	71%
Sandia High	Albuquerque Public Schools	293	122	42%

South Valley Academy	Albuquerque Public Schools	21	16	76%
Southwest Secondary Learning Center (State Charter)	Albuquerque Public Schools	38	14	37%
The Learning Community Charter School	Albuquerque Public Schools	17	15	88%
Valley High	Albuquerque Public Schools	154	99	64%
Volcano Vista High	Albuquerque Public Schools	289	139	48%
West Mesa High	Albuquerque Public Schools	141	109	77%
Animas High	Animas Public Schools	12	<10	42%
Artesia High	Artesia Public Schools	112	36	32%
Aztec High	Aztec Municipal Schools	84	44	52%
Vista Nueva High	Aztec Municipal Schools	<10	<10	57%
Belen Senior High	Belen Consolidated Schools	138	74	54%
Bernalillo High	Bernalillo Public Schools	69	39	57%
Bloomfield High	Bloomfield Schools	92	45	49%
Capitan High	Capitan Municipal Schools	15	<10	40%
Carlsbad High	Carlsbad Municipal Schools	192	90	47%
Jefferson Montessori Academy	Carlsbad Municipal Schools	<10	<10	25%
Carrizozo High School	Carrizozo Municipal Schools	<10	<10	29%
Central High	Central Consolidated Schools	64	34	53%
Newcomb High	Central Consolidated Schools	12	<10	50%
Shiprock High	Central Consolidated Schools	27	20	74%
Escalante High	Chama Valley Independent Schools	<10	<10	38%
Cimarron High	Cimarron Municipal Schools	<10	<10	40%
Moreno Valley High	Cimarron Municipal Schools	<10	<10	40%
Clayton High	Clayton Municipal Schools	10	<10	40%
Cloudcroft High	Cloudcroft Municipals Schools	31	10	32%
Clovis High	Clovis Municipal Schools	220	109	50%
Cobre High	Cobre Consolidated Schools	36	25	69%
Corona High	Corona Public Schools	<10	<10	0%
Cuba High	Cuba Independent Schools	30	17	57%
Deming High	Deming Public Schools	166	71	43%
Des Moines High	Des Moines Municipal Schools	<10	<10	50%
Dexter High	Dexter Consolidated Schools	47	17	36%
Dora High	Dora Consolidate Schools	24	10	42%
Dulce High	Dulce Independent Schools	12	<10	58%
Elida High	Elida Municipal Schools	<10	<10	40%
Espanola Valley High	Espanola Public Schools	115	88	77%
Estancia High	Estancia Municipal Schools	21	<10	29%
Eunice High	Eunice Public Schools	<10	<10	29%
Farmington High	Farmington Municipal Schools	150	84	56%
Piedra Vista High	Farmington Municipal Schools	149	61	41%

Floyd High	Floyd Municipal Schools	11	<10	64%
Fort Sumner High	Fort Sumner Municipal Schools	14	<10	36%
Chaparral High	Gadsden Independent Schools	109	69	63%
Gadsden High	Gadsden Independent Schools	211	113	54%
Santa Teresa High	Gadsden Independent Schools	162	103	64%
Crownpoint High	Gallup-Mckinley County Public Schools	20	17	85%
Gallup High	Gallup-Mckinley County Public Schools	95	73	77%
Middle College High	Gallup-Mckinley County Public Schools	< 10	0	0%
Miyamura High	Gallup-Mckinley County Public Schools	86	65	76%
Navajo Pine High	Gallup-Mckinley County Public Schools	<10	<10	100%
Ramah High	Gallup-Mckinley County Public Schools	16	12	75%
Thoreau High	Gallup-Mckinley County Public Schools	28	17	61%
Tohatchi High	Gallup-Mckinley County Public Schools	24	20	83%
Tse' Yi' Gai High	Gallup-Mckinley County Public Schools	<10	<10	100%
Grady High	Grady Municipal Schools	<10	<10	50%
Grants High	Grants-Cibola County Schools	103	52	50%
Laguna-Acoma High	Grants-Cibola County Schools	22	14	64%
Hagerman High	Hagerman Municipal Schools	16	<10	19%
Hatch Valley High	Hatch Valley Public Schools	58	22	38%
Hobbs High	Hobbs Municipal Schools	157	75	48%
Hondo High	Hondo Valley Public Schools	11	<10	36%
House High	House Municipal Schools	<10	<10	40%
Jal High	Jal Public Schools	<10	<10	50%
Coronado High	Jemez Mountain Public Schools	<10	<10	50%
Jemez Valley High	Jemez Valley Public Schools	16	12	75%
Walatowa Charter High	Jemez Valley Public Schools	<10	<10	100%
Lake Arthur High	Lake Arthur Municipal Schools	<10	<10	29%
Alma D' Arte Charter High	Las Cruces Public Schools	24	14	58%
Las Cruces High	Las Cruces Public Schools	318	123	39%
Las Montanas Charter High School	Las Cruces Public Schools	20	13	65%
Mayfield High	Las Cruces Public Schools	311	128	41%
Onate High	Las Cruces Public Schools	280	133	48%
Robertson High	Las Vegas City Public Schools	59	16	27%
Logan High	Logan Municipal Schools	11	<10	27%
Lordsburg High	Lordsburg Municipal Schools	24	14	58%
Los Alamos High	Los Alamos Public Schools	134	27	20%
Los Lunas High	Los Lunas Public Schools	153	86	56%

Valencia High	Los Lunas Public Schools	140	72	51%
Loving High	Loving Municipal Schools	20	<10	45%
Lovington High	Lovington Municipal School	54	25	46%
New Hope Alternative High	Lovington Municipal School	<10	<10	80%
Magdalena High	Magdalena Municipal Schools	11	<10	18%
Maxwell High	Maxwell Municipal Schools	< 10	0	0%
Melrose High	Melrose Public Schools	10	<10	40%
Mesa Vista High	Mesa Vista Consolidated Schools	30	20	67%
Mora High	Mora Independent Schools	16	<10	44%
Moriarty High	Moriarty-Edgewood Schools	90	43	48%
Mosquero High	Mosquero Municipal Schools	<10	<10	100%
Mountainair High	Mountainair Public Schools	<10	<10	33%
Pecos High	Pecos Independent Schools	19	12	63%
Peñasco High	Penasco Independent Schools	25	16	64%
Pojoaque High	Pojoaque Valley Public Schools	90	45	50%
Portales High	Portales Municipal Schools	119	62	52%
Quemado High	Quemado Independent Schools	<10	<10	43%
Questa High	Questa Independent Schools	14	<10	64%
Raton High	Raton Public Schools	28	12	43%
Reserve High	Reserve Independent Schools	<10	<10	33%
Rio Rancho High	Rio Rancho Public Schools	273	99	36%
V. Sue Cleveland High	Rio Rancho Public Schools	265	103	39%
Goddard High	Roswell Independent Schools	125	44	35%
Roswell High	Roswell Independent Schools	148	64	43%
Roy High	Roy Municipal Schools	< 10	0	0%
Ruidoso High	Ruidoso Municipal Schools	67	35	52%
San Jon High	San Jon Municipal Schools	<10	<10	100%
Academy for Technology and the Classics	Santa Fe Public Schools	29	<10	0%
Capital High	Santa Fe Public Schools	94	70	74%
Monte Del Sol Charter School	Santa Fe Public Schools	17	<10	41%
Santa Fe High	Santa Fe Public Schools	139	92	66%
Tierra Encantada Charter High School	Santa Fe Public Schools	<10	<10	57%
Santa Rosa High	Santa Rosa Consolidated Schools	16	<10	38%
Aldo Leopold Charter School	Silver Consolidated Schools	11	<10	36%
Cliff High	Silver Consolidated Schools	15	<10	7%
Opportunity High School	Silver Consolidated Schools	<10	<10	89%
Silver High	Silver Consolidated Schools	100	48	48%
Socorro High	Socorro Consolidated Schools	53	20	38%
Springer High	Springer Municipal Schools	<10	<10	67%

Taos Academy (State Charter)	Taos Municipal Schools	<10	<10	71%
Taos High	Taos Municipal Schools	92	47	51%
Vistas Grande High	Taos Municipal Schools	13	10	77%
Tatum High	Tatum Municipal Schools	<10	<10	33%
Texico High	Texico Municipal Schools	26	<10	35%
Hot Springs High	Truth or Consequences Municipal Schools	49	23	47%
Tucumcari High	Tucumcari Public Schools	19	10	53%
Tularosa High	Tularosa Municipal Schools	36	24	67%
Vaughn High	Vaughn Municipal Schools	<10	<10	100%
Wagon Mound High	Wagon Mound Public Schools	<10	<10	33%
West Las Vegas High	West Las Vegas City Public Schools	52	28	54%
Zuni High	Zuni Public Schools	31	28	90%

Source: HED

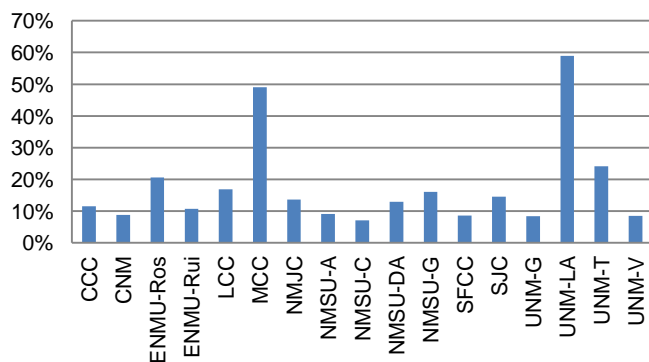
APPENDIX D: NM PUBLIC POSTSECONDARY INSTITUTION PERFORMANCE DATA, FY13

Performance-Based Funding, FY13

Institution	Performance Amounts	Total I&G	Performance as Percent of Total I&G
CCC	\$282	\$8,587	3%
CNM	\$4,143	\$46,639	9%
ENMU	\$1,606	\$24,502	7%
ENMU-Ruidoso	\$106	\$2,027	5%
ENMU-Roswell	\$526	\$11,218	5%
NMHU	\$1,116	\$25,938	4%
LCC	\$195	\$7,180	3%
MCC	\$79	\$4,118	2%
NMJC	\$242	\$5,490	4%
NMSU	\$4,570	\$107,585	4%
NMSU-Alamogordo	\$389	\$6,930	6%
NMSU-Carlsbad	\$88	\$4,278	2%
NMSU-Doña Ana	\$1,375	\$19,478	7%
NMSU-Grants	\$136	\$3,391	4%
NNMC	\$280	\$10,188	3%
SJC	\$755	\$22,425	3%
SFCC	\$643	\$8,194	8%
NMIMT	\$481	\$25,452	2%
UNM	\$9,252	\$169,737	5%
UNM-Gallup	\$371	\$8,553	4%
UNM-Los Alamos	\$89	\$1,745	5%
UNM-Taos	\$258	\$2,982	9%
UNM-Valencia	\$293	\$4,946	6%
WNMU	\$719	\$14,791	5%
Total	\$27,993	\$546,373	5%

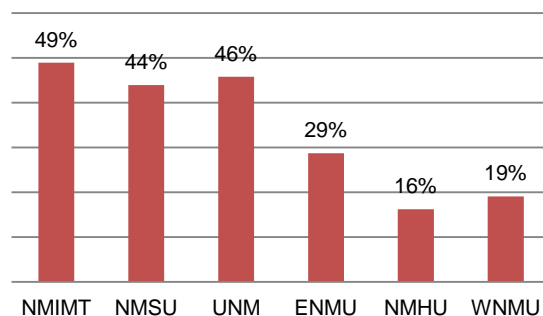
Source: LFC Analysis of HED Data

Full-Time Student Associate Degree Completion Rates (3 years), FY13



Source: NM Accountability in Government Act, 2013

Full-Time Student Bachelor Degree Completion Rate (6 years), FY13



Source: NM Council of University Presidents Performance Effectiveness Plan, 2013

APPENDIX E: DEVELOPMENTAL COURSE OFFERINGS & TERMS DEFINED

Developmental Courses by Postsecondary Institution, FY13

UNM-Los Alamos	98
MCC	172
UNM-T	298
ENMU-Ruidoso	336
NMHU	447
NMSU-Grants	482
ENMU	598
LCC	688
NNMC	764
NMSU-Carlsbad	772
WNMU	788
NMJC	790
NMSU-Alamogordo	874
UNM-Valencia	1,045
CCC	1,175
ENMU-Roswell	1,220
UNM-Gallup	1,326
SFCC	2,513
SJC	3,450
NMSU-Dona Ana	5,519
CNM	22,435

Source: LFC Analysis of HED Data

Co-requisite: Instead of requiring students to take a non-credit pre-requisite course, the co-requisite model allows students to simultaneously enroll in both a credit bearing course and a developmental education course.

Fast Track: Allows students to complete remedial courses and their co-requisite in a shorter amount of time. Courses are compressed and may involve a small student to teacher ratio.

Bridge/Refresher: A fairly short course, one or two weeks, usually before the academic year or semester begins designed to refresh students' knowledge so that placement is accurate. Some students place into remedial classes because they never learned the necessary skills, while others simply do not remember them.

Multiple Placement Methods: Instead of simply using one test to determine placements, institutions may use more comprehensive placement methods to ensure that students are accurately placed within developmental courses.

Learning Communities: Two linked courses that have an interdependent curriculum with the same group of students in both courses. Typically this is only a first year program.

I-BEST: a model for embedded remedial education that functions parallel to the co-requisite model for vocational pathways. Courses combine basic skills and college content courses so that students are learning and applying foundational skills while also earning college credit towards their degree or certificate.

APPENDIX F: CENTRAL NM COMMUNITY COLLEGE GPA STUDY

Central New Mexico Community College

ENG 1101 Performance By High School GPA

ENG 1101 Performance by High School GPA						
Fall 2010 Cohort - through Spring 2013						
ENG 1101	N	%	High School GPA			
			Median	Mean	25th Percentile	75th Percentile
Pass	560	39.9%	2.66	2.65	2.32	3.02
Fail	137	9.8%	2.43	2.38	2.10	2.72
Withdrawal	130	9.3%	2.42	2.41	2.12	2.70
Exclude	3	0.2%	2.22	2.14	1.57	2.62
Missing	572	40.8%	2.39	2.34	2.00	2.74

ENG 1101 Performance - Fall 2010 Cohort									
Various High School GPA Breakdowns – Breakdown 1									
HS GPA GROUPS 1	Exclude	Fail	Missing	Pass	Withdrawal	Enrollment	Num	Denom	Course Success Rate
Lower than a 3.0	3	124	505	419	113	1,164	419	656	63.9%
3.0 or Higher	0	13	67	141	17	238	141	171	82.5%
Various High School GPA Breakdowns – Breakdown 2									
HS GPA GROUPS 2	Exclude	Fail	Missing	Pass	Withdrawal	Enrollment	Num	Denom	Course Success Rate
Lower than a 2.0	1	26	147	54	20	248	54	100	54.0%
2-2.49	1	55	190	161	56	463	161	272	59.2%
2.5-2.99	1	43	168	204	37	453	204	284	71.8%
3-3.49		11	51	111	14	187	111	136	81.6%
3.5-4 or Higher		2	16	30	3	51	30	35	85.7%
Various High School GPA Breakdowns – Breakdown 3									
HS GPA GROUPS 3	Exclude	Fail	Missing	Pass	Withdrawal	Enrollment	Num	Denom	Course Success Rate
Lower than a 2.0	1	26	147	54	20	248	54	100	54.0%
2-2.24	1	25	84	59	27	196	59	111	53.2%
2.25-2.49		30	106	102	29	267	102	161	63.4%
2.5-2.74	1	29	98	107	27	262	107	163	65.6%
2.75-2.99		14	70	97	10	191	97	121	80.2%
3-3.49		11	51	111	14	187	111	136	81.6%
3.5-4 or Higher		2	16	30	3	51	30	35	85.7%
Various High School GPA Breakdowns – Breakdown 4									
HS GPA GROUPS 4	Exclude	Fail	Missing	Pass	Withdrawal	Enrollment	Num	Denom	Course Success Rate
Lower than a 2.66	3	97	397	281	94	872	281	472	59.5%
2.66 or Higher		40	175	279	36	530	279	355	78.6%

Source: Institutional Research – 7/1/2013

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APPENDIX G: SAN JUAN COLLEGE MATH REDESIGN FLOW CHART

