

Improving Student Success At UNM: The Power Of Partnerships

**A Working Paper Prepared For
Chaouki Abdallah, Provost
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Overview

- The Purpose Of This Report
- The Data Set
- Remediation at UNM
- Where Do UNM Students Come From?
- The Changing World Of High School
- What Happens To Students Who Take Remediation?
- Five Recommendations:
 1. Strengthen UNM's Partnerships With High Schools
 2. Strengthen Teacher And Principal Preparation
 3. Examine Remediation At UNM
 4. Learn More About New Mexico's High School To College Pipeline
 5. Strengthen UNM's Role In Promoting Educational Excellence And Equity

Purpose

The purpose of this report is to begin a series of detailed analyses about students who take remedial courses in reading, math, and/or English when they first attend UNM. We start with an overview of remediation at UNM and then we delve deeper into how remedial courses, student demographics, and students' educational experience are related to measures of student success in higher education.

We hope that these analyses are useful in the daily conversations that take place within high schools, community colleges, and universities about how to help more students graduate prepared for the world ahead. More importantly, we hope these analyses are helpful in the critical conversations that take place among high schools, community colleges and universities.

Our tone is respectful. The professionals in both settings are deeply committed to their students and there is no gain in pointing fingers. We look forward to all of these conversations and to exploring the many other questions that interesting data always raise.

The Data

The purpose of these analyses is to learn more about recent high school graduates and remediation at UNM. The data set for these analyses was developed in the following manner.

- The original data set contained 31,518 first-time students from UNM's beginning freshman cohorts from 2002-2011.
- Data includes only first-time college students enrolled at UNM.
- In an effort to improve the focus of the analysis, the following students were excluded:
 - Students who did not graduate from high school (or obtain a GED certificate) in the spring prior to enrollment at UNM.
 - High school graduates who were younger than 16 or older than 23.
 - GED Certificate earners younger than 16 or older than 44. The data for GED Certificate earners will be used in later analyses.
 - Transfer Students.
- High schools we classified by type (e.g., NM public high school, NM public alternative, NM charter). These classifications are presented in more detail in the analyses.
- The final data set used for analysis consisted of 30,528 students (approximately 97% of the original).

Remediation (IS) at UNM Currently

- Offered by CNM on UNM's Campus under an Operating Agreement.
- Instructors are CNM Instructors; Students are enrolled at UNM
- Placement:
 - IS Math: Math ACT of 18 or less.
 - IS English: Verbal ACT of 18 or less.
 - IS Reading: Reading ACT less than 18 OR Science ACT less than 19.
 - Can appeal by taking Compass Test.
- IS Courses carry no college credit; must be completed before enrolling in next-in-sequence credit bearing course.

Fall 2012 Census Date IS Enrollment

Class	Number of Sections	Students Enrolled
Reading	13	300
Math	35	850
English	24	480
TOTALS	72	1,630

Note: Totals are not unique headcount since some students are in multiple IS classes.

IS English: Course Description and Objectives

Prepares students for first-year college composition by providing practice of the rhetorical and grammatical skills necessary to write purposeful, reader-centered essays. Covers effective use of a writing process in out-of-class essays and in timed, in-class situations. Incorporates readings for discussion of ideas and for information to be used in students' writing.

Students will be able to...

- Demonstrate effective use of a writing process.
- Demonstrate an ability to understand readings and to correctly integrate ideas or information from readings or other sources within his or her own writing.
- Produce writing that...
 - has a clear main idea that focuses the writing;
 - develops the main idea with adequate, specific, and logical support;
 - uses language and tone that is appropriate for a college-educated audience;
 - organizes the ideas within paragraphs and from one paragraph to the next smoothly;
 - Communicates--with reasonable correctness--in standard written English.

IS Math: Algebraic Problem Solving Course

Description and Objectives

- Includes signed numbers, solving linear equations, formulas, graphing, solving systems of equations and applications. Also covers exponents and polynomials, factoring and quadratics.
- Students will be able to solve applied problems:
 - using algebraic methods.
 - using algebraic methods to the second degree.

IS Reading & Critical Thinking

Course Description and Objectives

Introduces reading required for success in college. Students work on comprehension, problem-solving, note-taking, summarizing and computer-assisted research. At the end of this course, students will be able to:

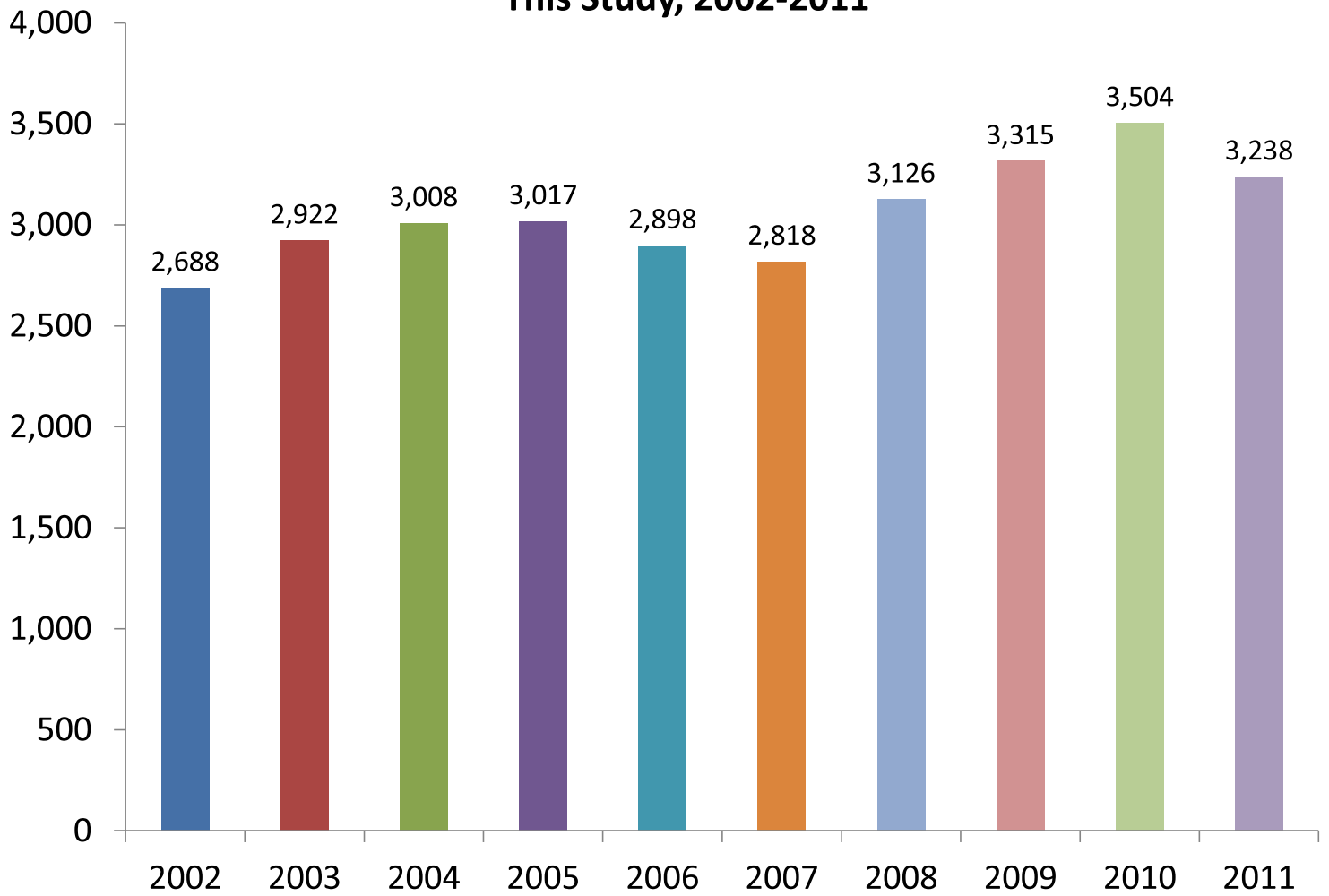
- Demonstrate a personal study system that includes strategies for comprehension, retention, and recall; these strategies include previewing, annotating, learning academic vocabulary, note taking and organizing key information.
- Summarize the thesis, main ideas, and major supporting details of articles and textbook chapters.
- Apply critical reading skills to analyze and evaluate the components of an author's argument.
- Identify a controversial issue and find information from a variety of sources to research the issue.
- Evaluate the credibility of sources of information.
- Apply techniques of critical reflection to broaden and support their perspectives and integrate new knowledge.

Entry Characteristics, 2002-2010 Freshmen

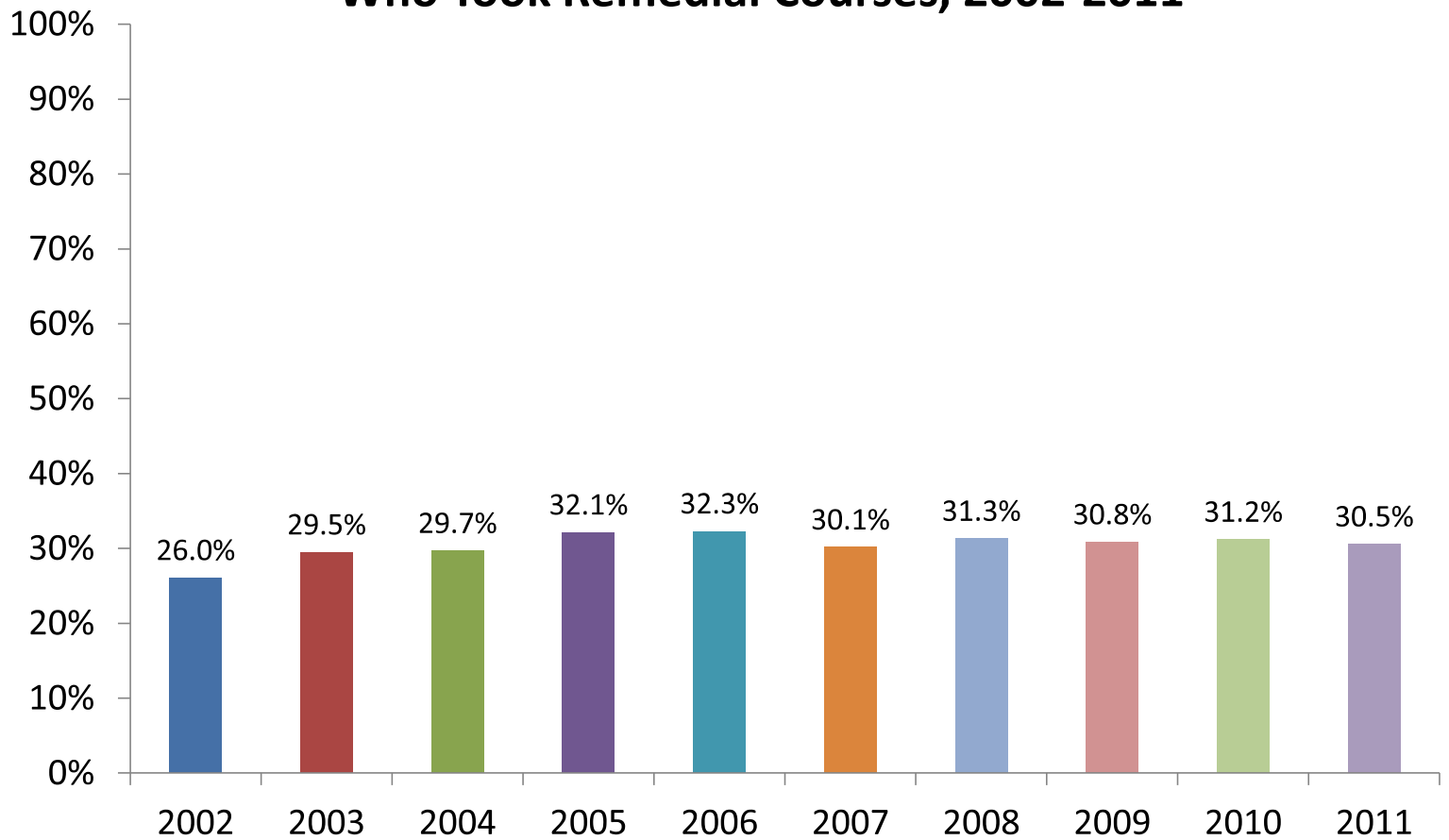
Measure	IS	Overall
HS GPA	3.11	3.32
ACT/SAT	18.08	21.92
Female	60.8%	56.0%
Hispanic	49.5%	39.8%
Native American	8.0%	5.3%
Asian	3.8%	3.8%
Black	4.1%	3.4%
White	31.5%	43.4%



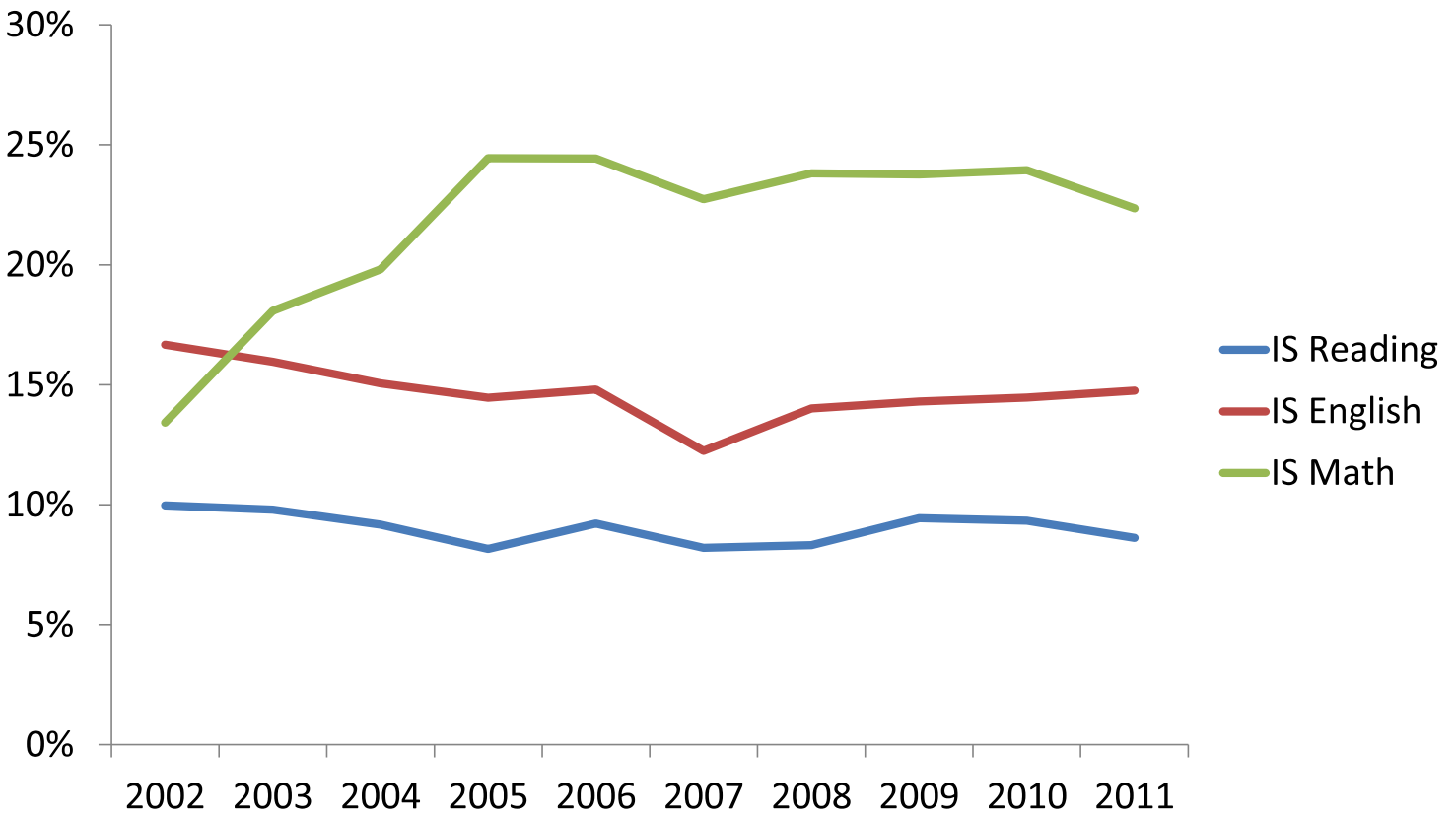
Number of UNM Students Included In This Study, 2002-2011



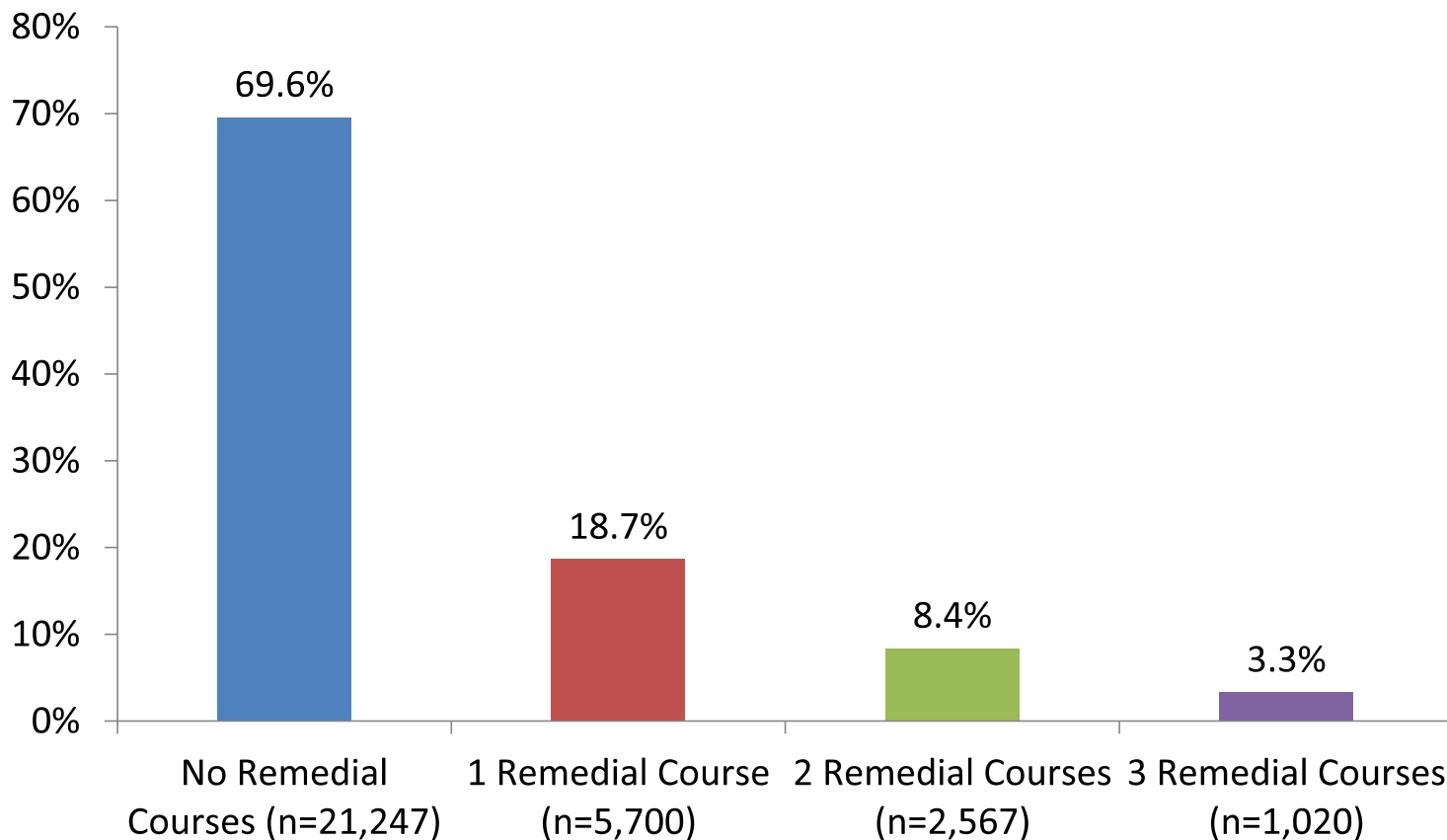
Percent of UNM Students Included In This Study Who Took Remedial Courses, 2002-2011



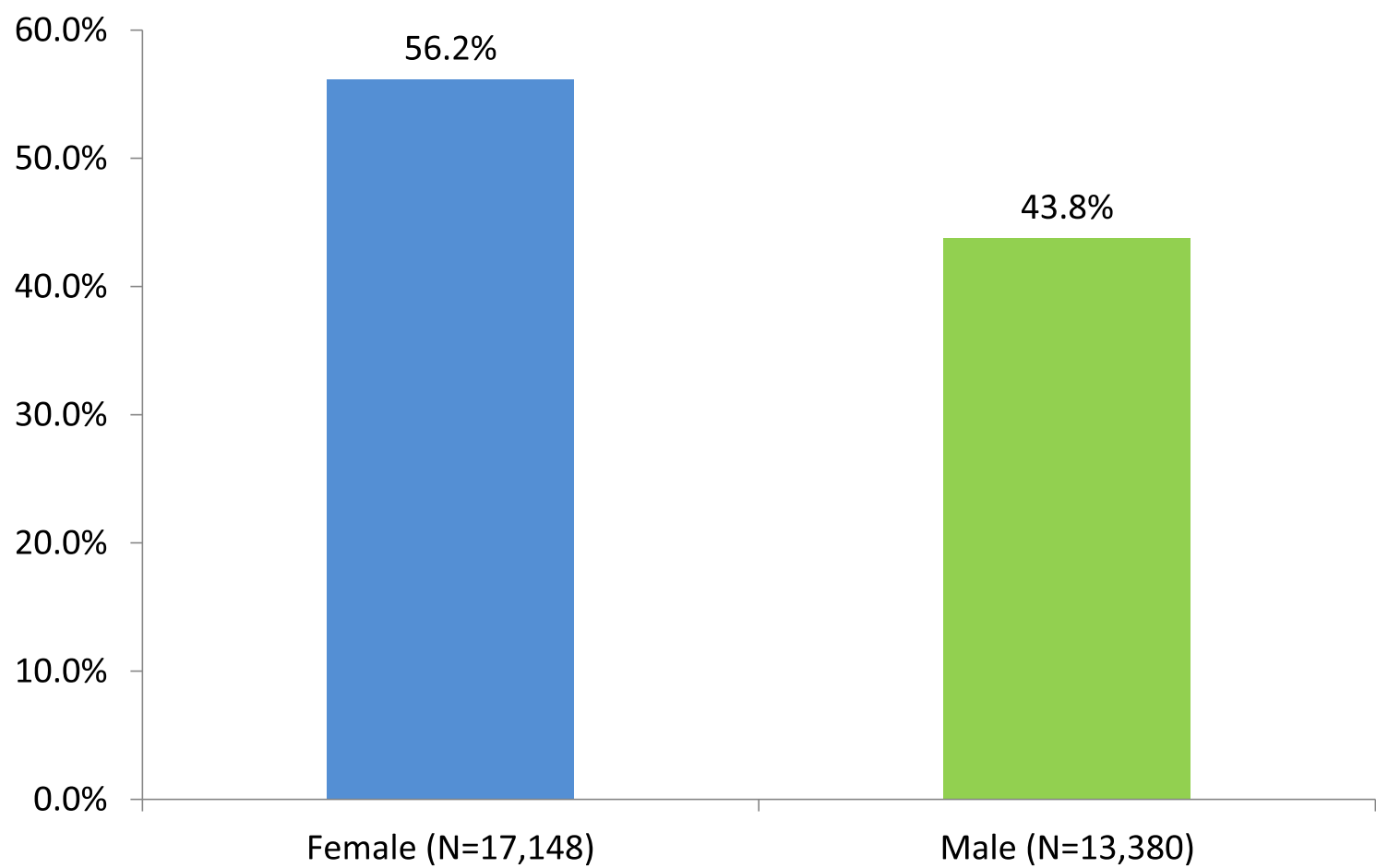
Percentage of UNM Students Who Took Remedial Classes in Math, Reading, or English: 2002-2011



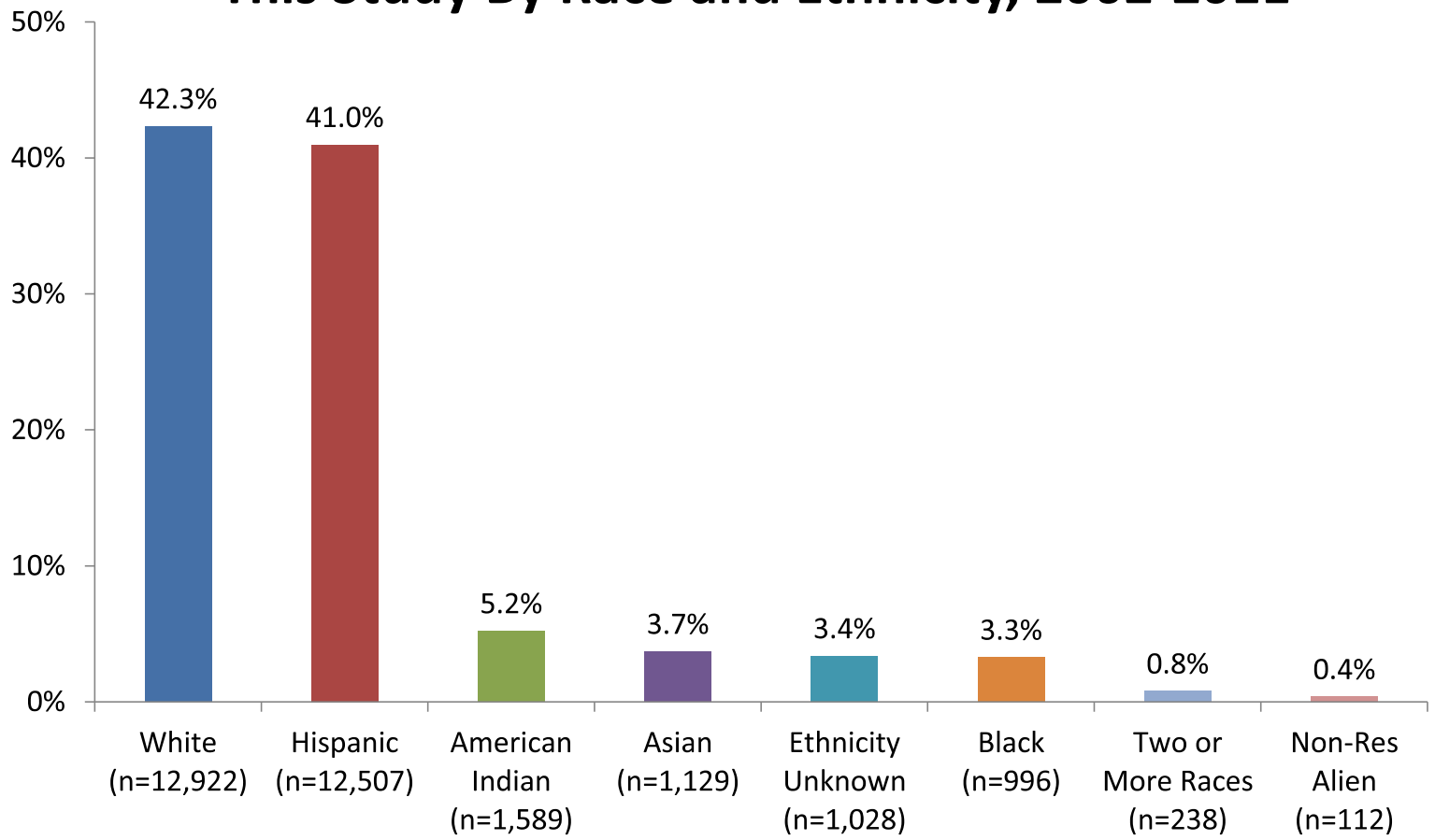
Percent of UNM Students Who Took Different Numbers Of Remedial Classes, 2002-2011



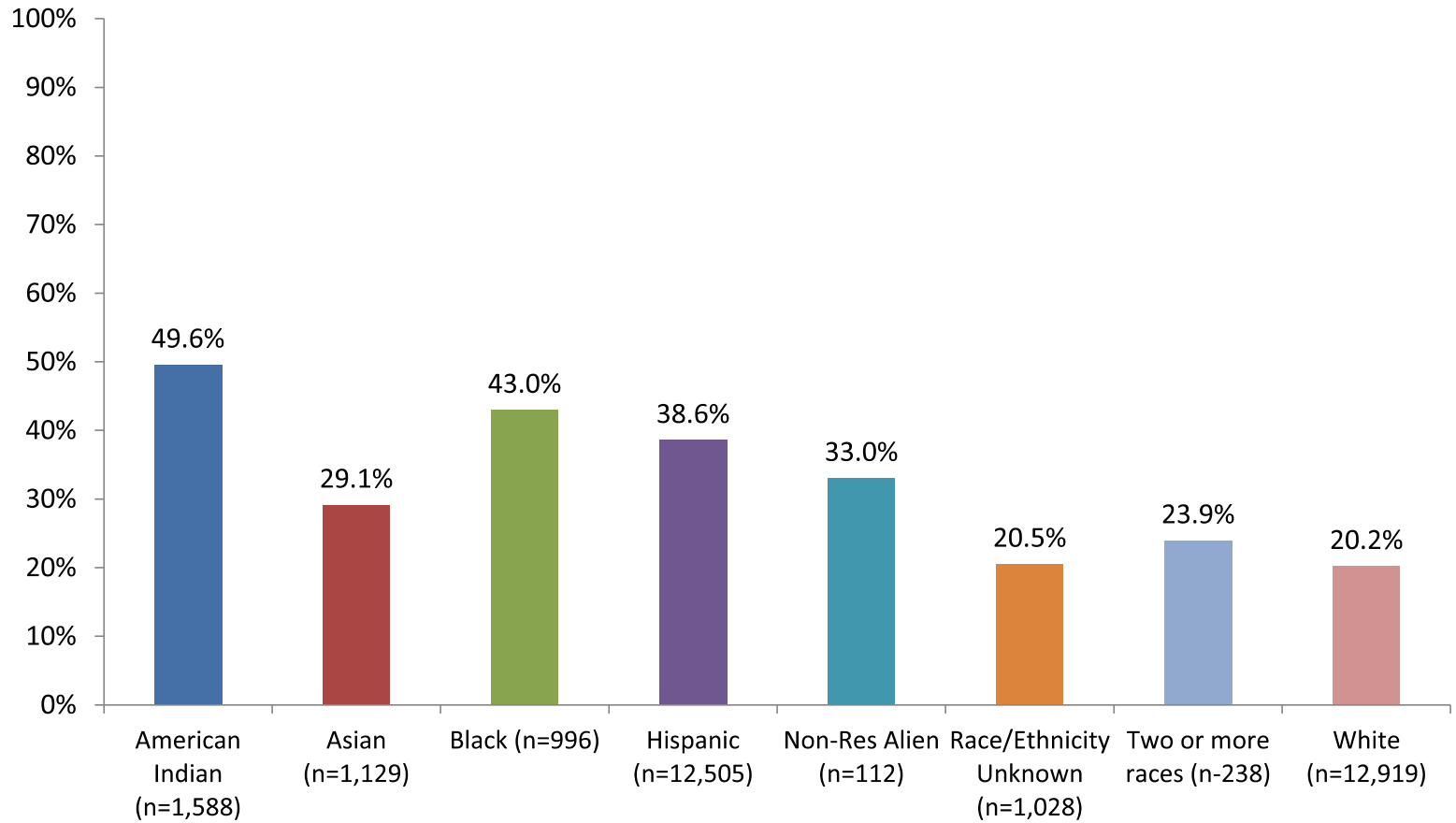
Students Data: Gender Distribution Over 10 Years 2002-2011



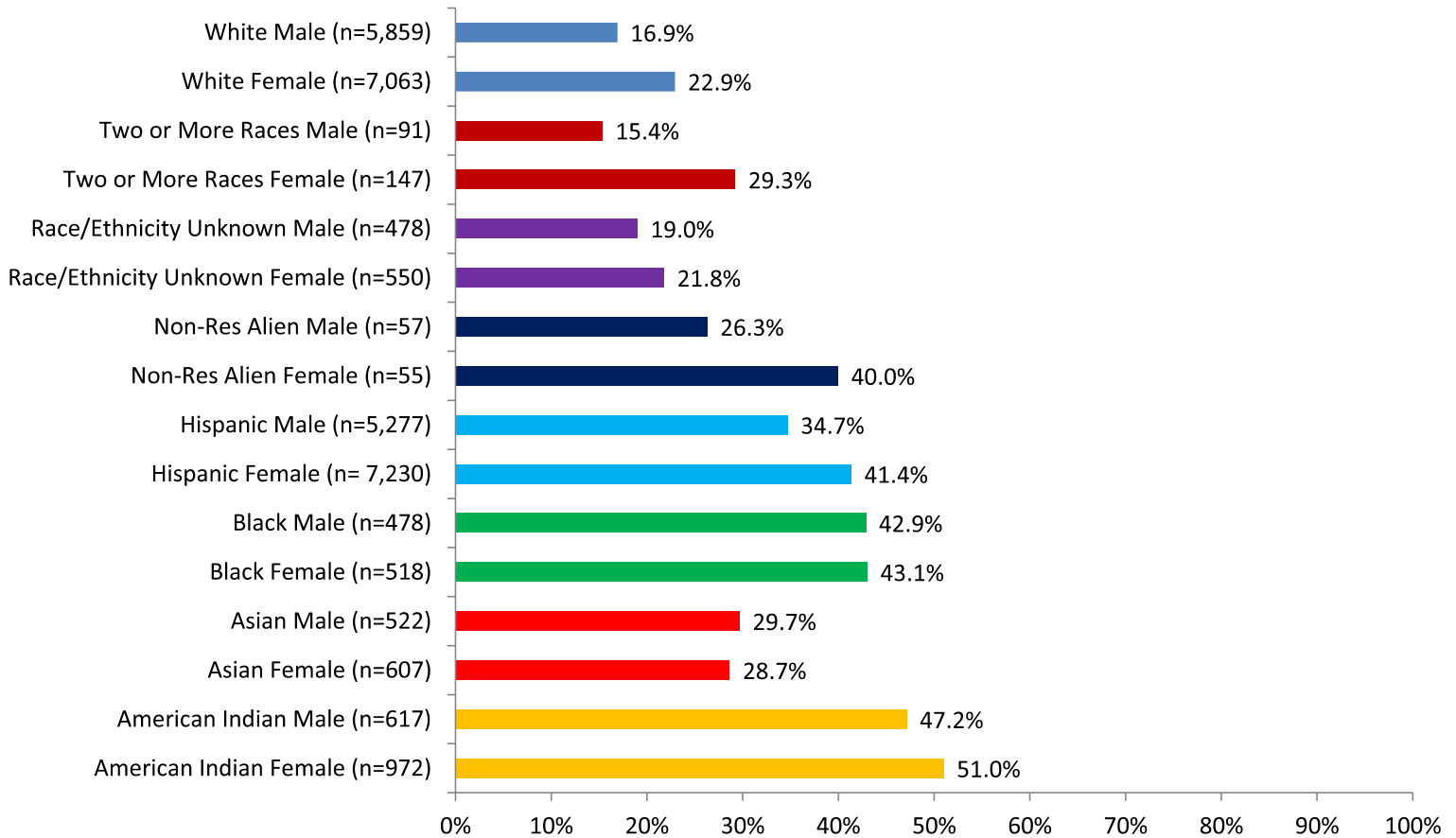
Number of UNM Students Included In This Study By Race and Ethnicity, 2002-2011



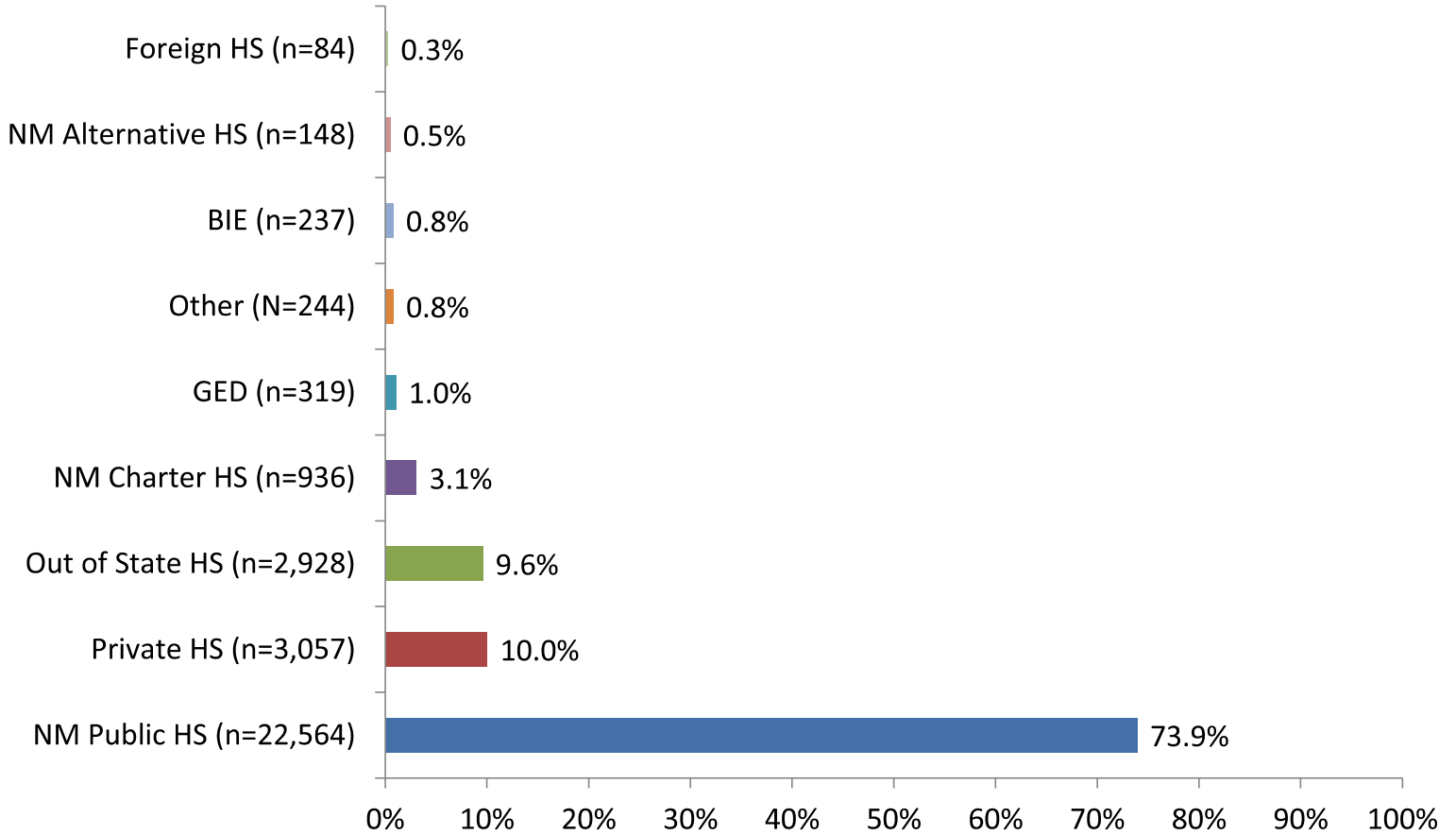
Percent of All High School Graduates Taking Remedial Courses at the University of New Mexico by Race and Ethnicity: 2002-2011



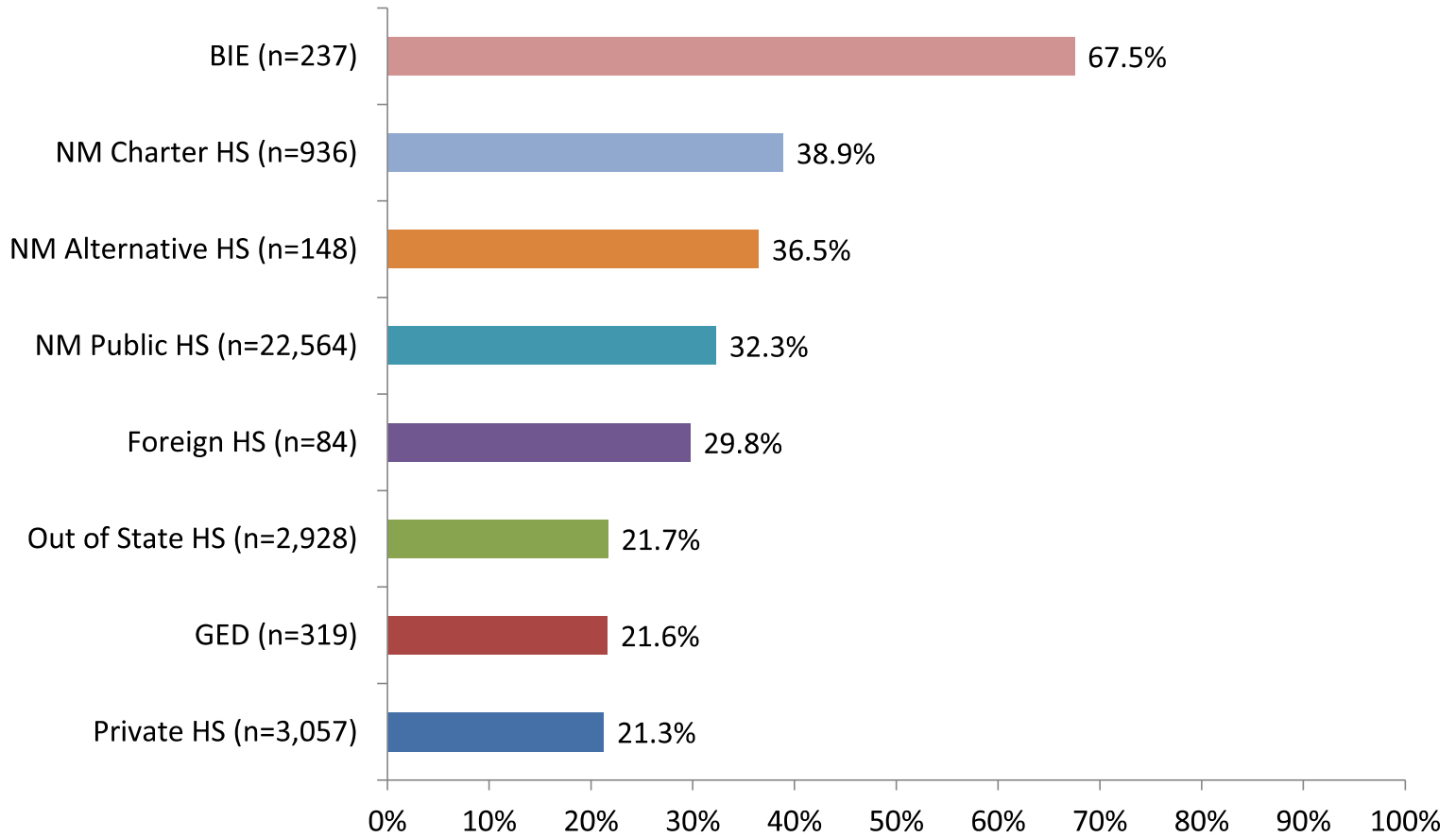
Percent of All Students Taking Remedial Courses by Race, Ethnicity and Gender: 2002-2011



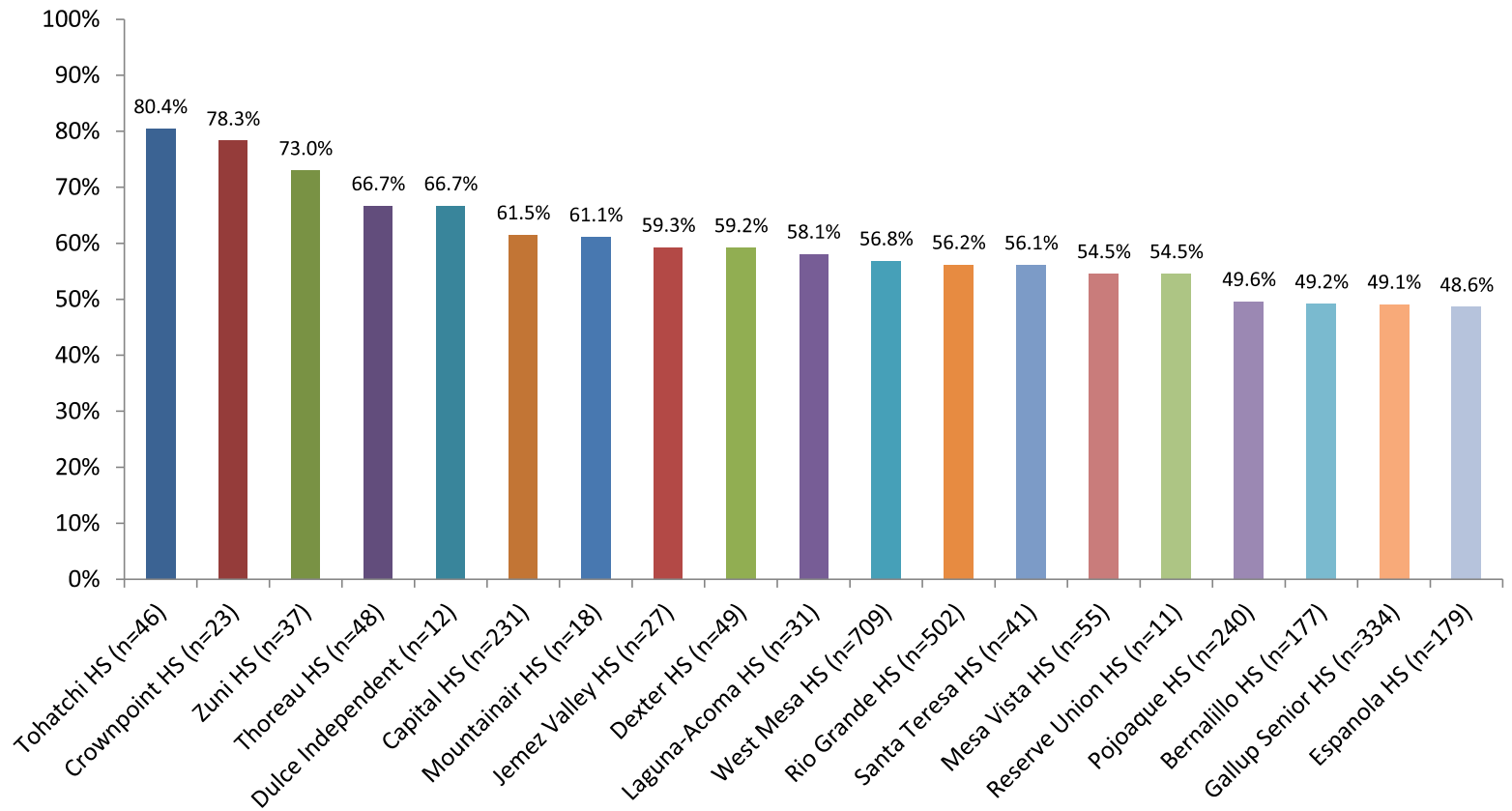
Percent of UNM Students Included In This Study By Type of High School, 2002-2011



Percent of UNM Students Included In This Study Who Took Remedial Courses By Type of High School, 2002-2011

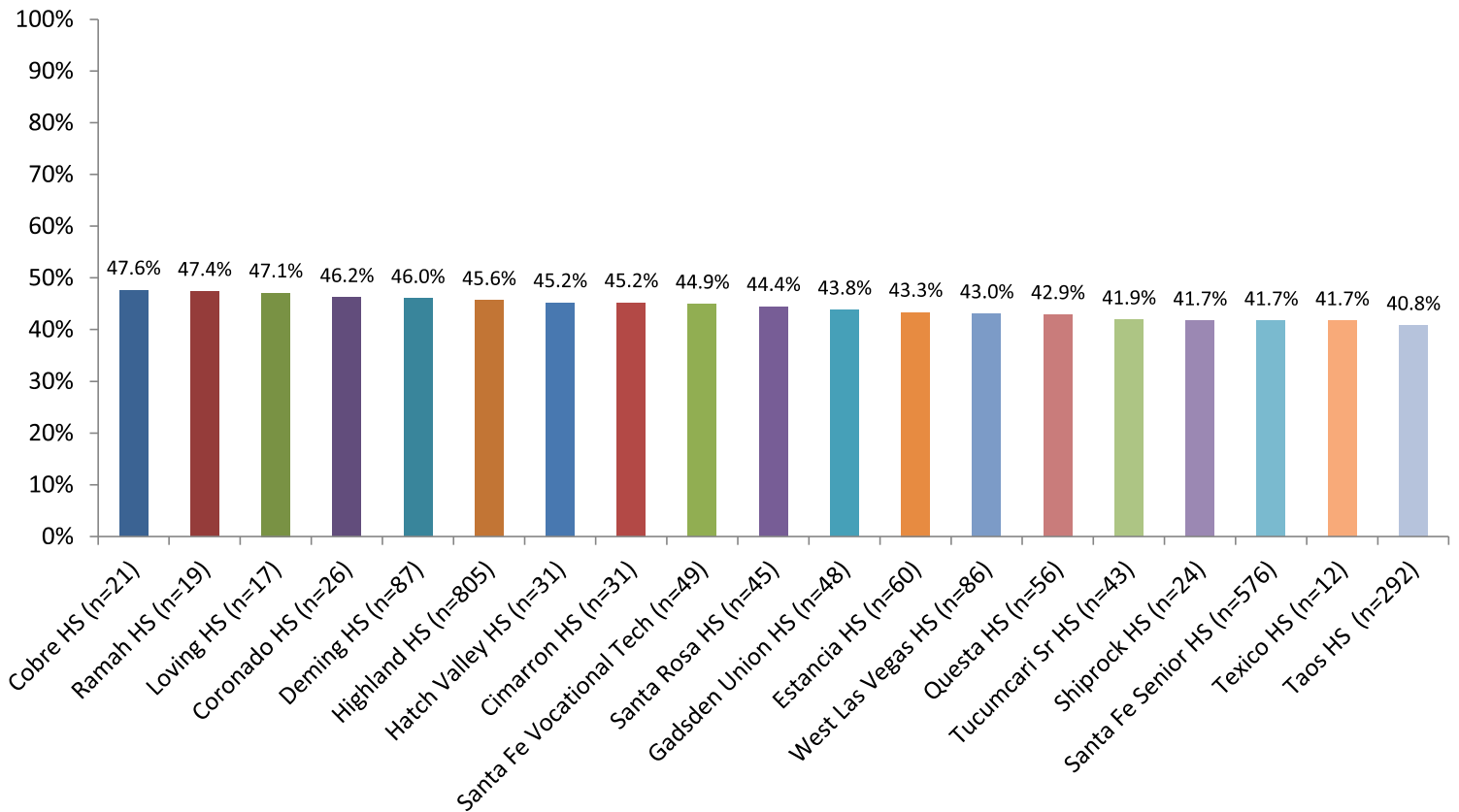


Percent of New Mexico Public High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011



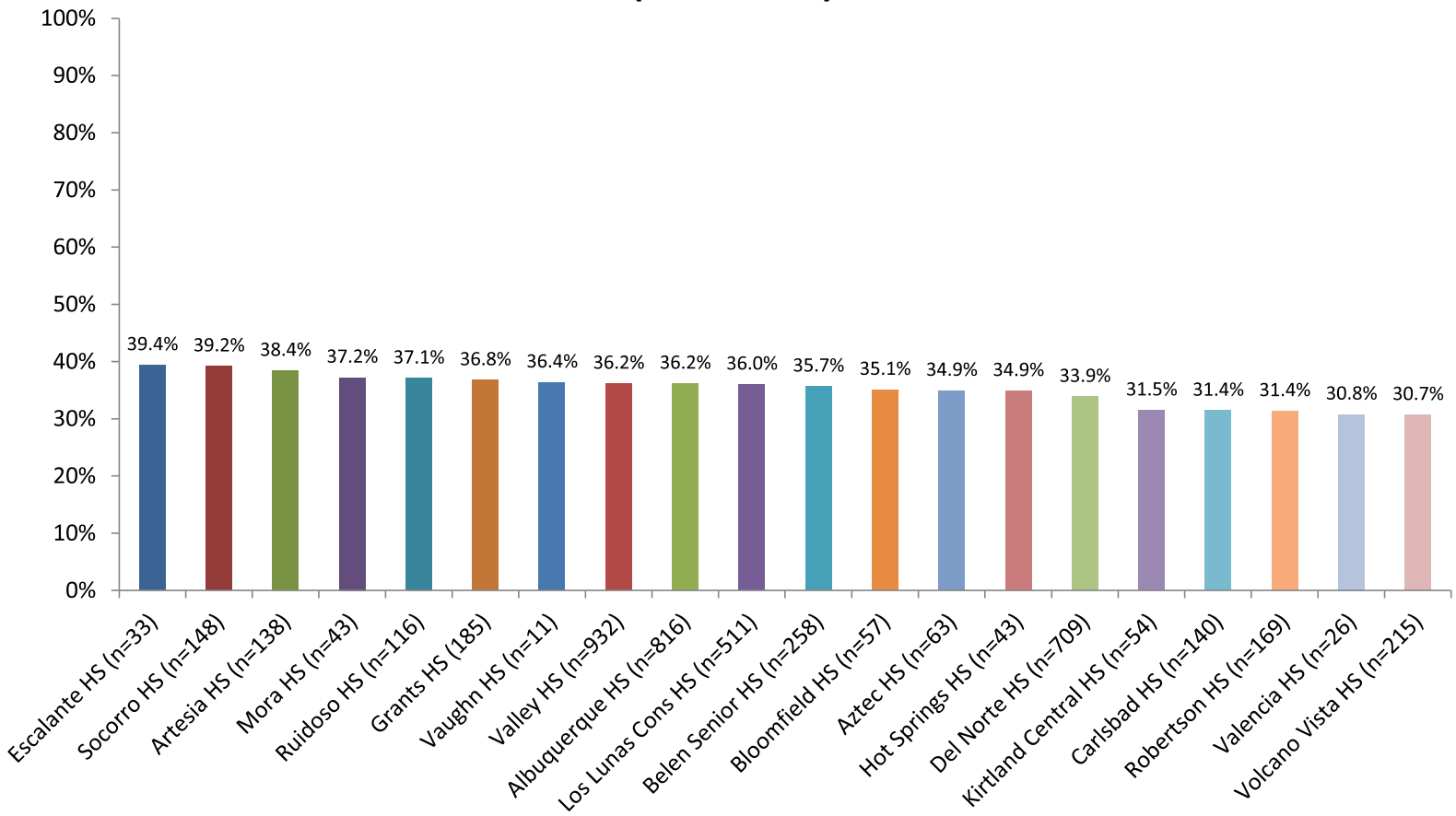
New Mexico's Public High Schools Ranked From High To Low Percentages (n=1 to 19 of 88)

Percent of New Mexico Public High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011 (Continued)



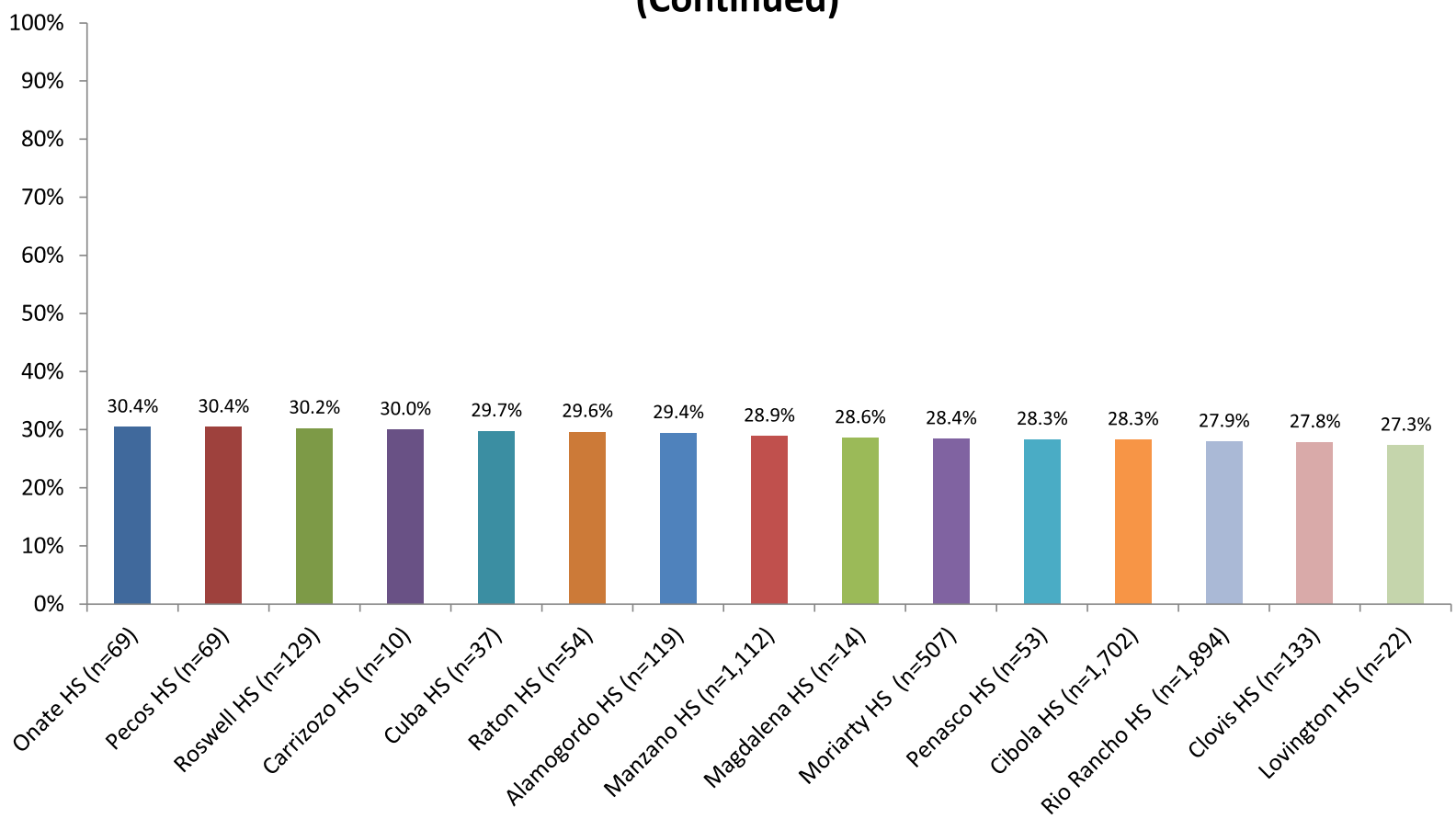
New Mexico's Public High Schools Ranked From High To Low Percentages (n=20 to 38 of 88)

Percent of New Mexico Public High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011 (Continued)



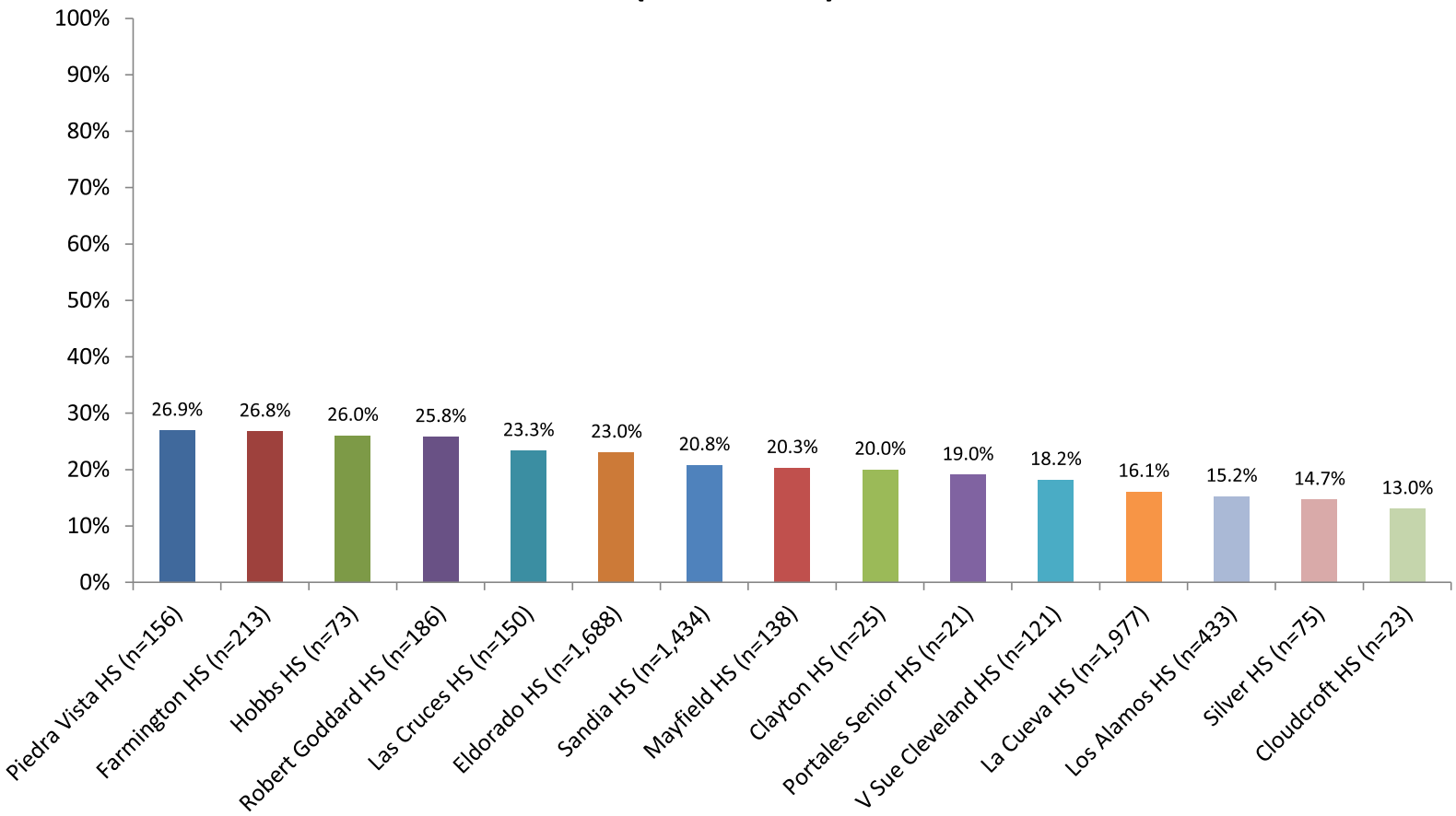
New Mexico's Public High Schools Ranked From High To Low Percentages (n=39 to 58 of 88)

Percent of New Mexico Public High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011 (Continued)



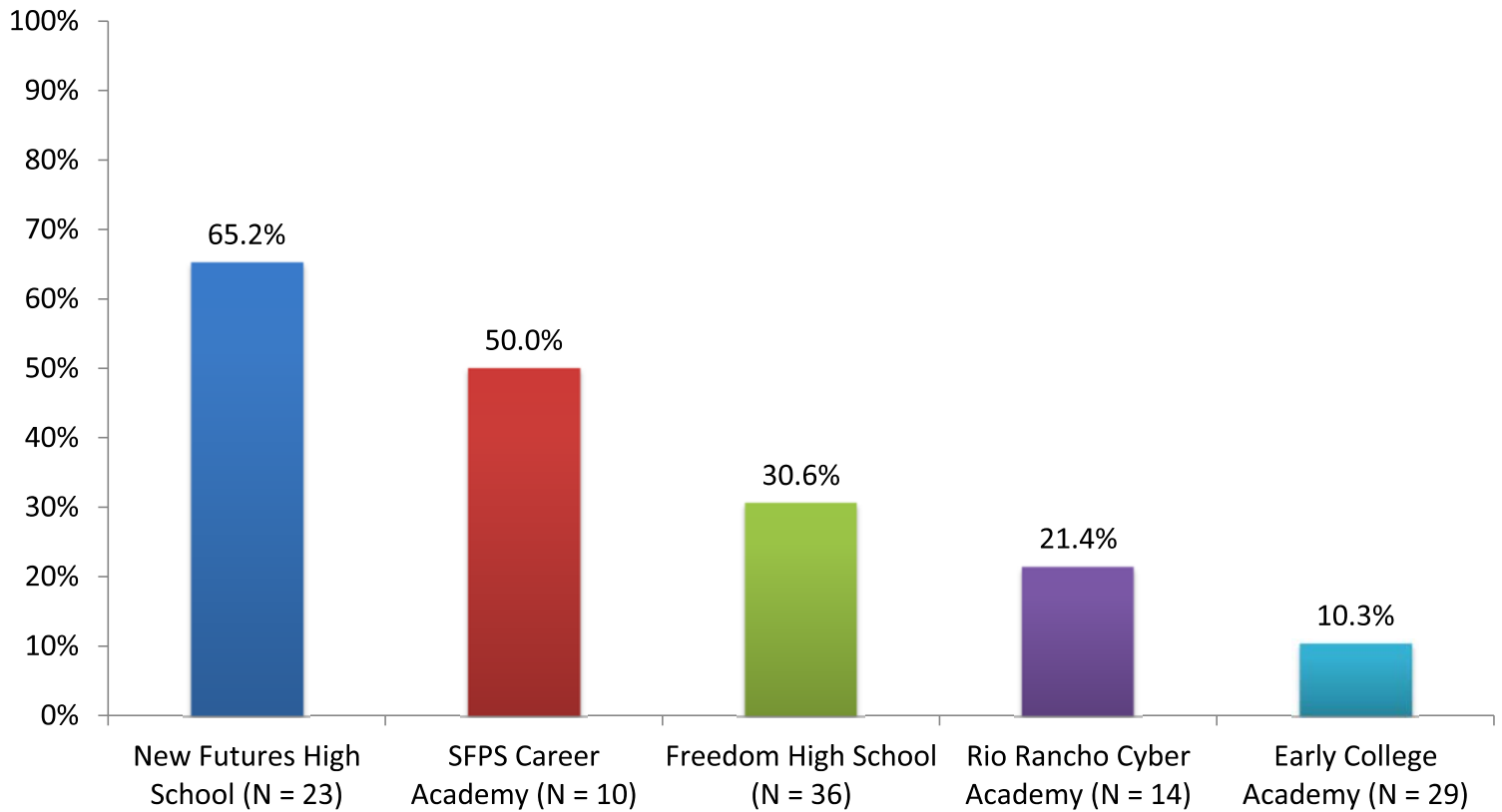
New Mexico's Public High Schools Ranked From High To Low Percentages (n=59 to 73 of 88)

Percent of New Mexico Public High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011 (Continued)



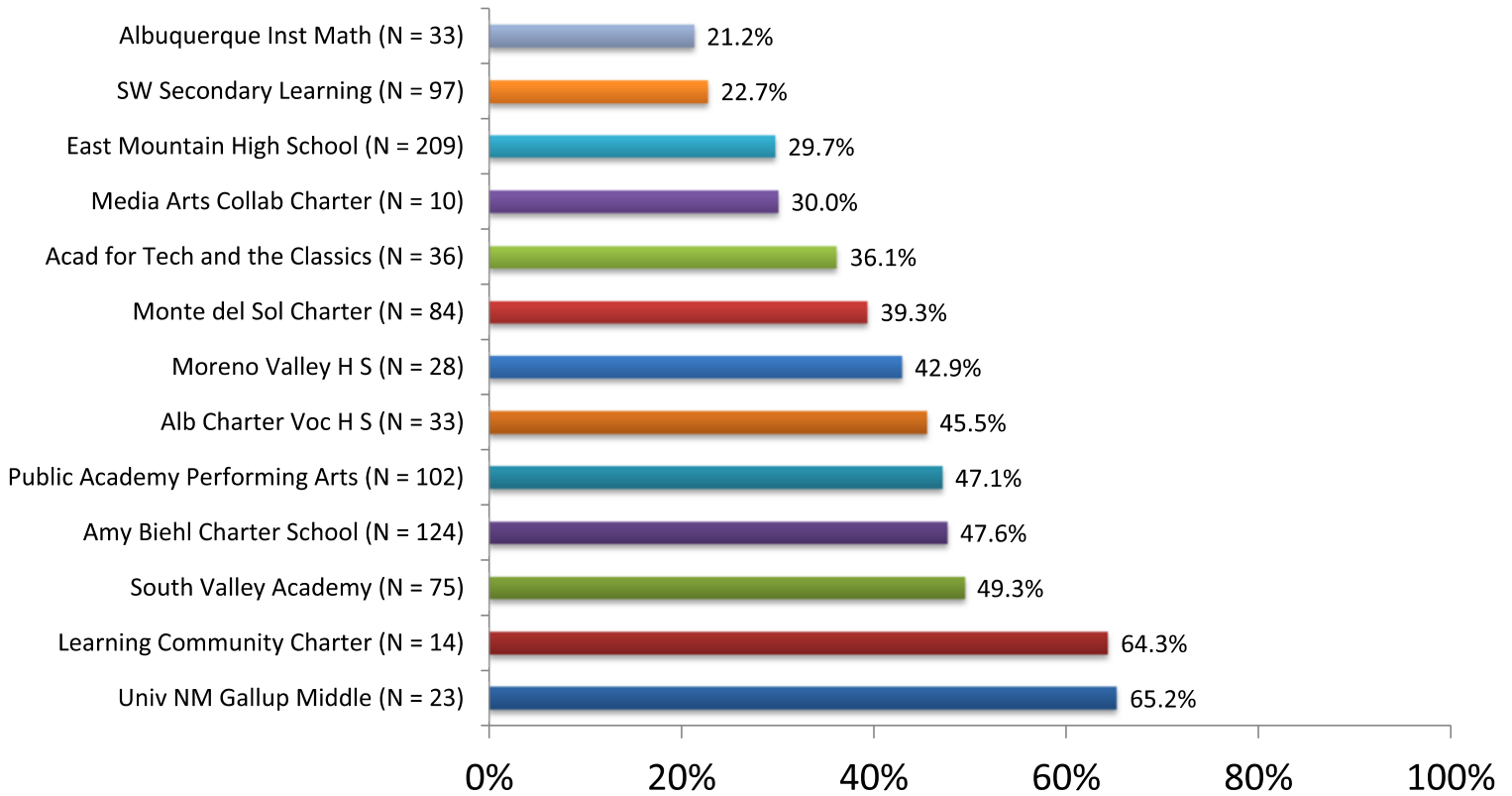
New Mexico's Public High Schools Ranked From High To Low Percentages (n=74 to 88)

Percent of New Mexico Alternative High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011



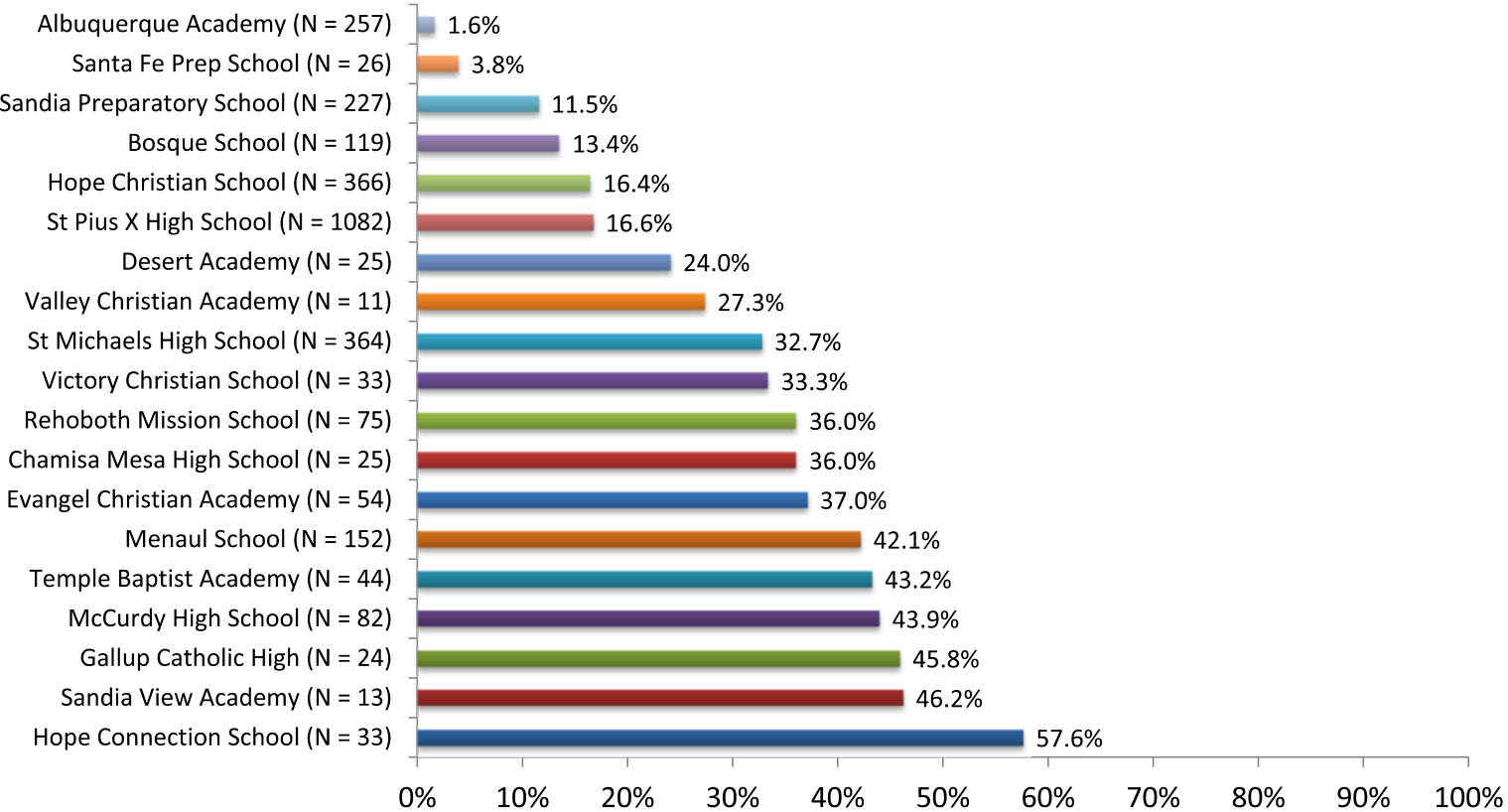
New Mexico's Alternative High Schools Ranked From High To Low Percentages (n=5)

Percent of New Mexico Charter High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011



New Mexico's Public Charter High Schools Ranked From High To Low Percentages (n=13)

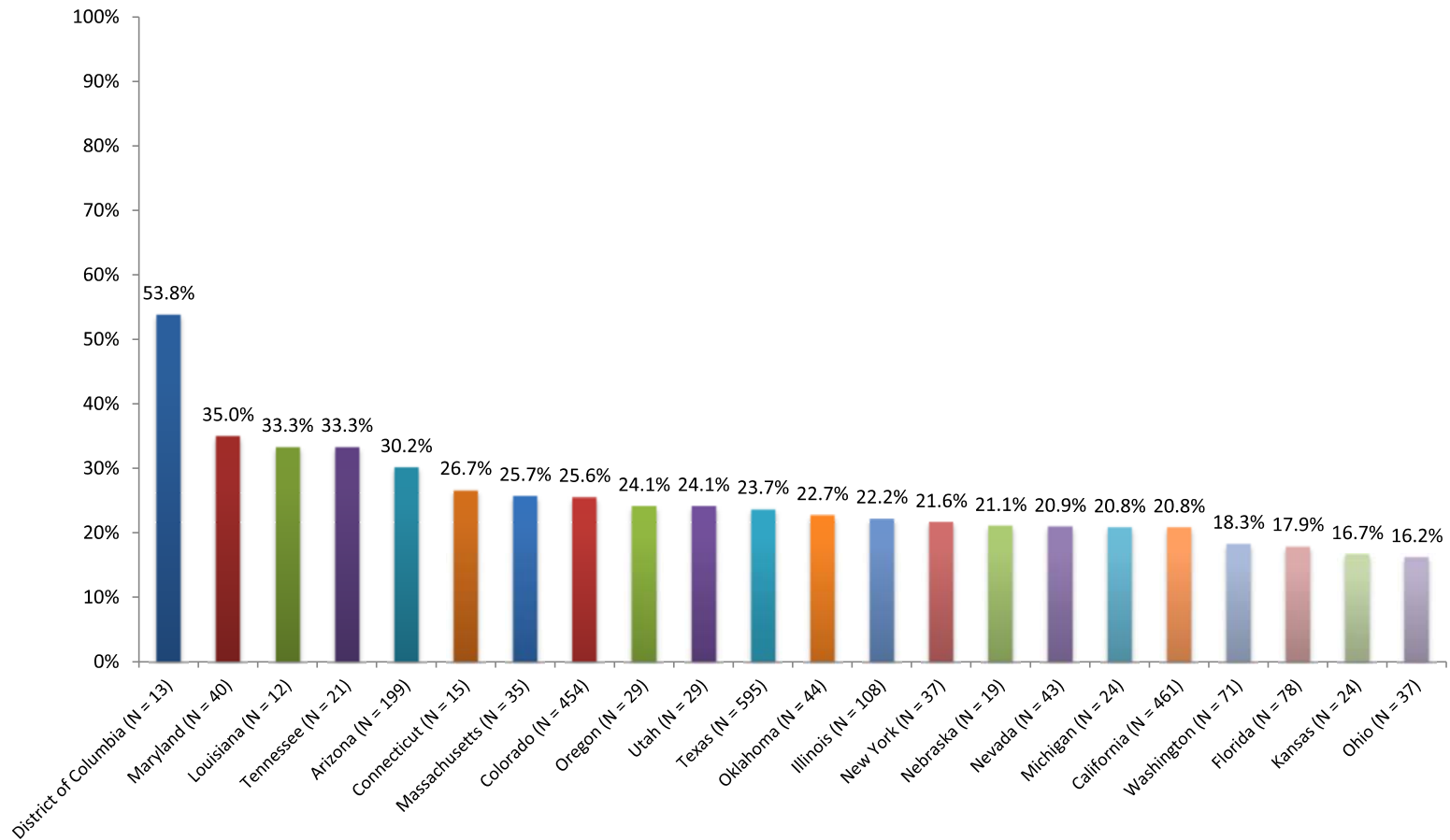
Percent of New Mexico Private High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011



New Mexico's Private High Schools Ranked From High To Low Percentages (n=19)

Note: Data does not include private schools with less than 10 students in this study.

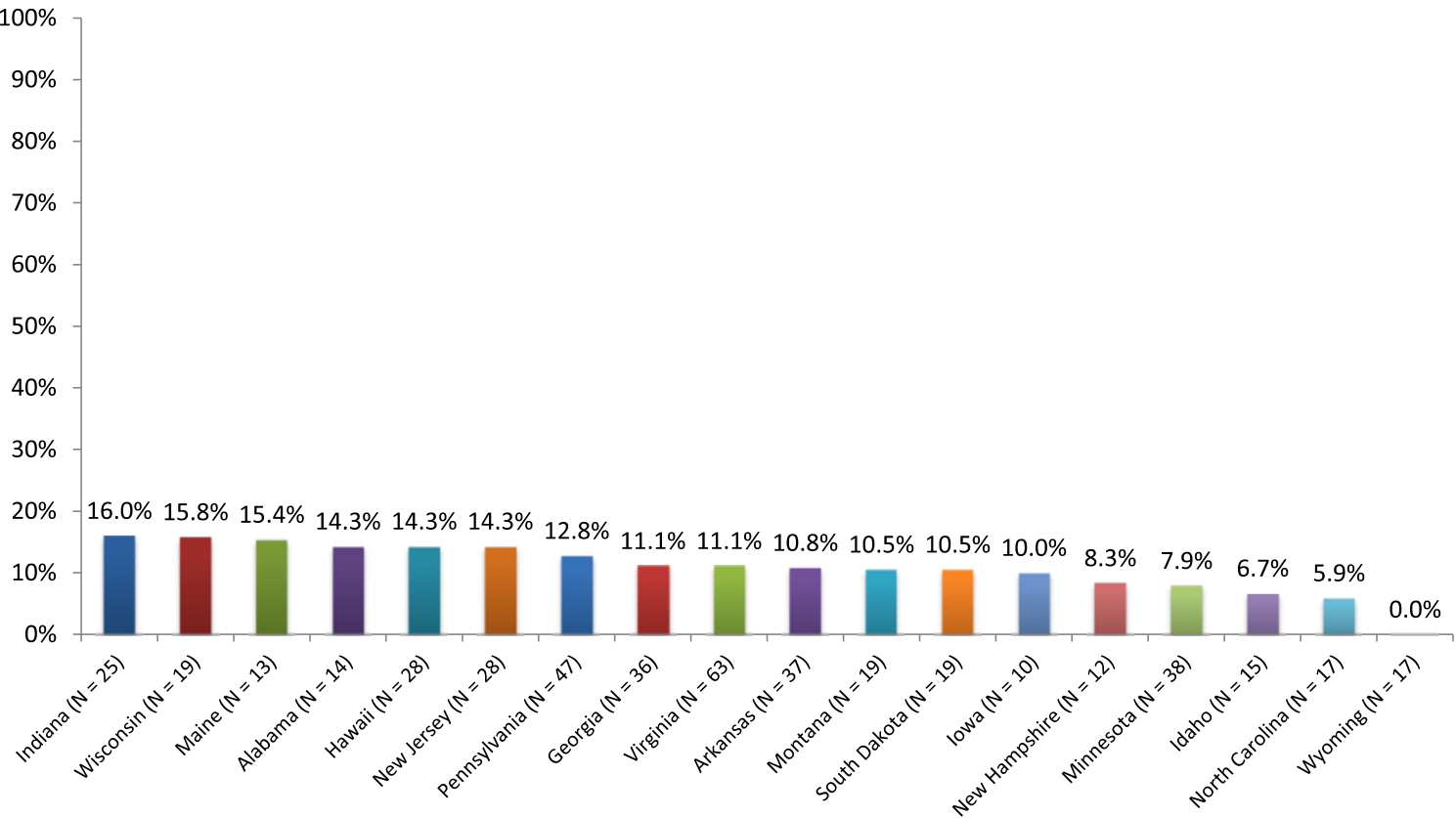
Percent of All Out of State High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011



Out of State Schools Ranked From High To Low Percentages (n= 22 out of 40)

Note: Data is not differentiated by type of school, and does not include schools with less than 10 students involved in this study.

Percent of All Out of State High School Graduates Taking Remedial Courses at the University of New Mexico: 2002-2011



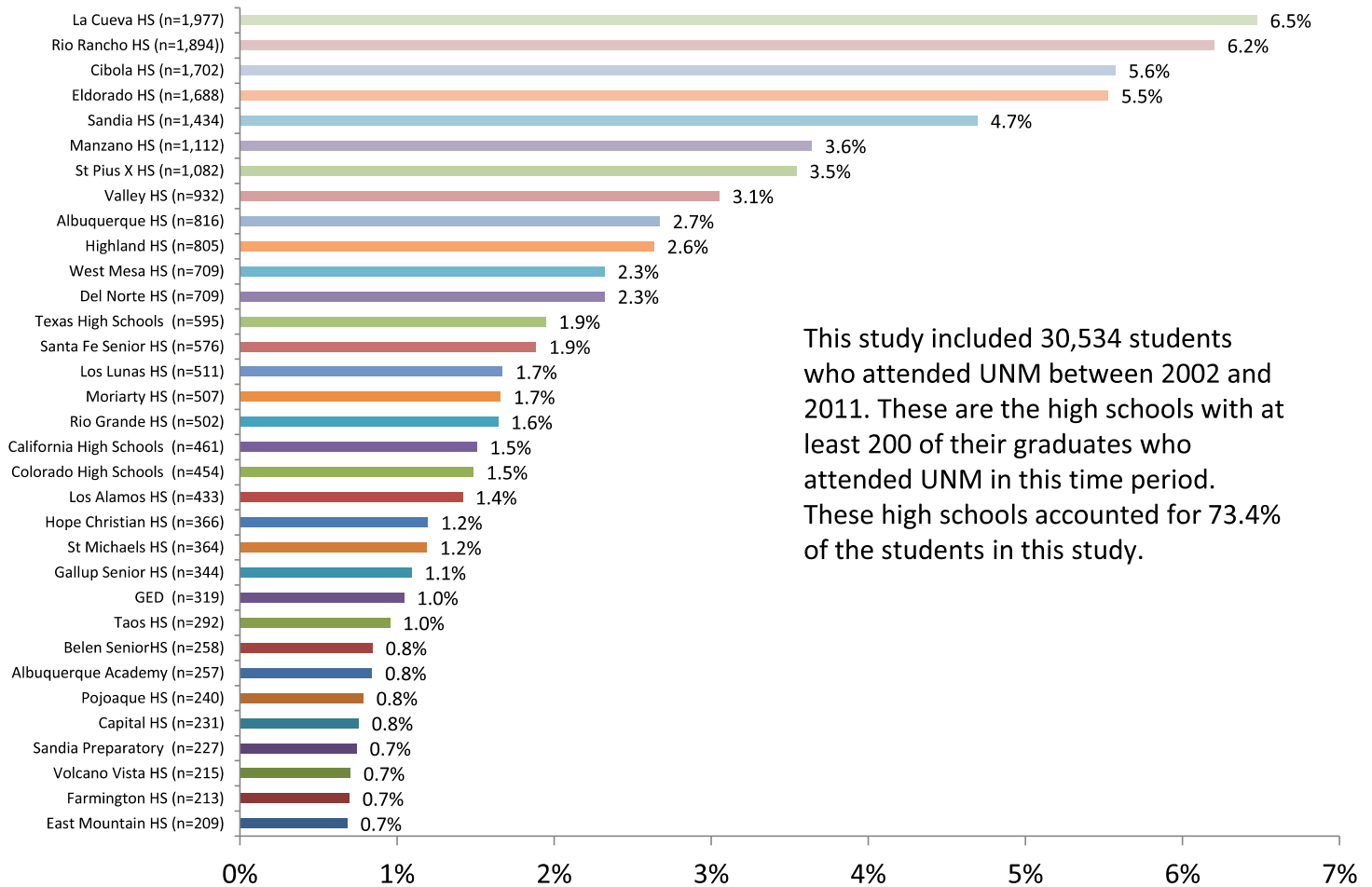
Out of State Schools Ranked From High To Low Percentages (n= 18 out of 40)

Note: Data is not differentiated by type of school, and does not include schools with less than 10 students involved in this study.

Where Do UNM Students Come From?

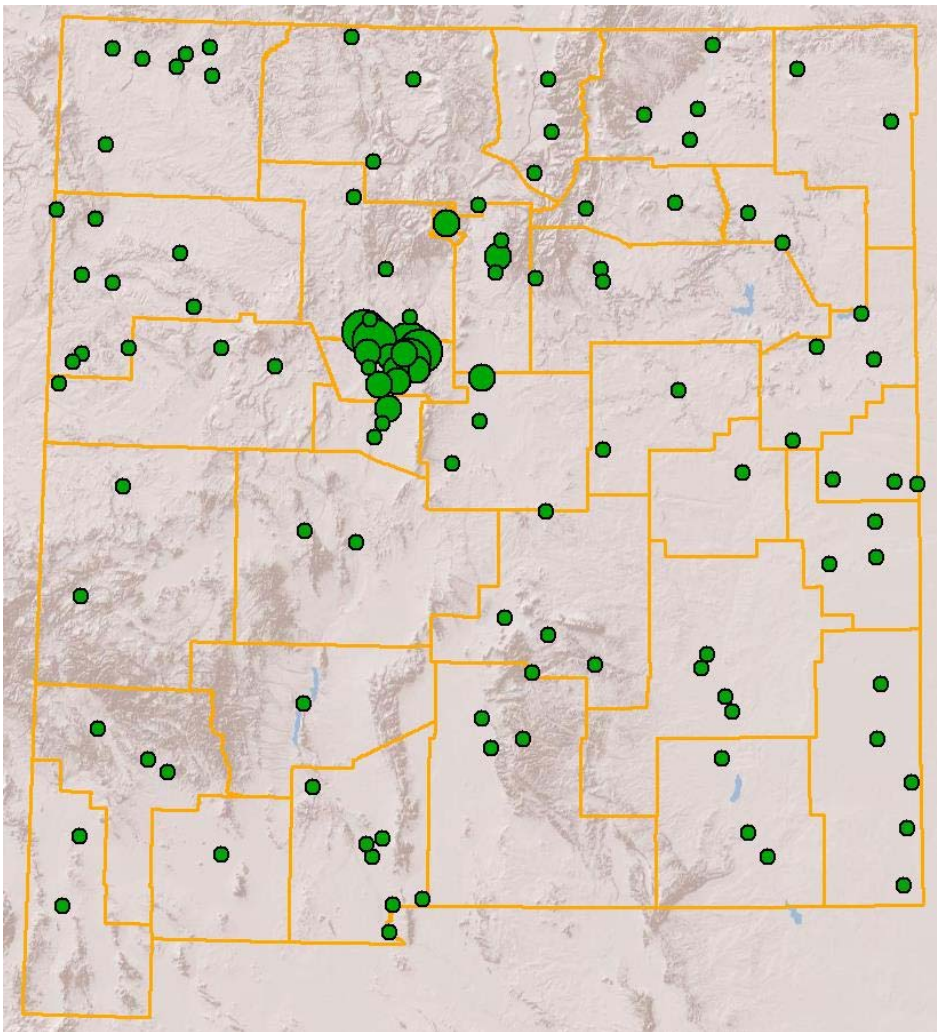


Percent of Students Included in This Study By High School: 2002-2011



This study included 30,534 students who attended UNM between 2002 and 2011. These are the high schools with at least 200 of their graduates who attended UNM in this time period. These high schools accounted for 73.4% of the students in this study.

UNM Students Included In This Study from Public High Schools in New Mexico, 2002-2011



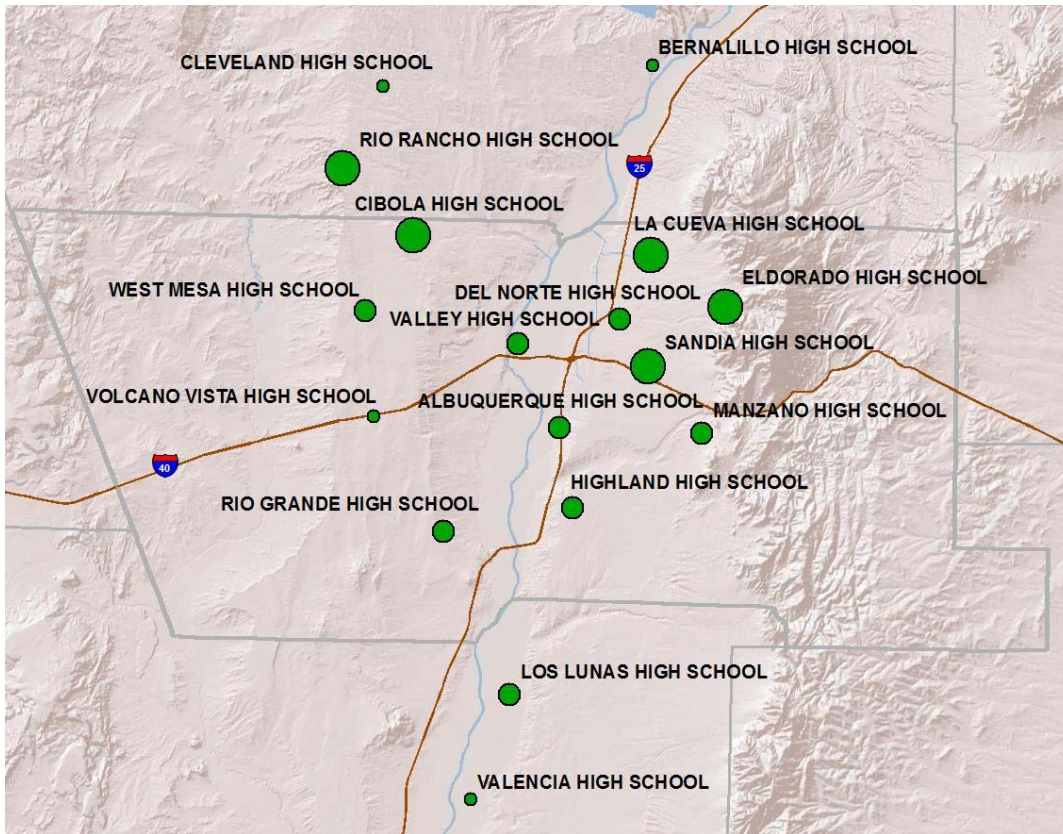
UNM Students

- 10 - 334
- 335 - 1112
- 1113 - 1977

UNM Students Included In This Study from Public High Schools in New Mexico, 2002-2011

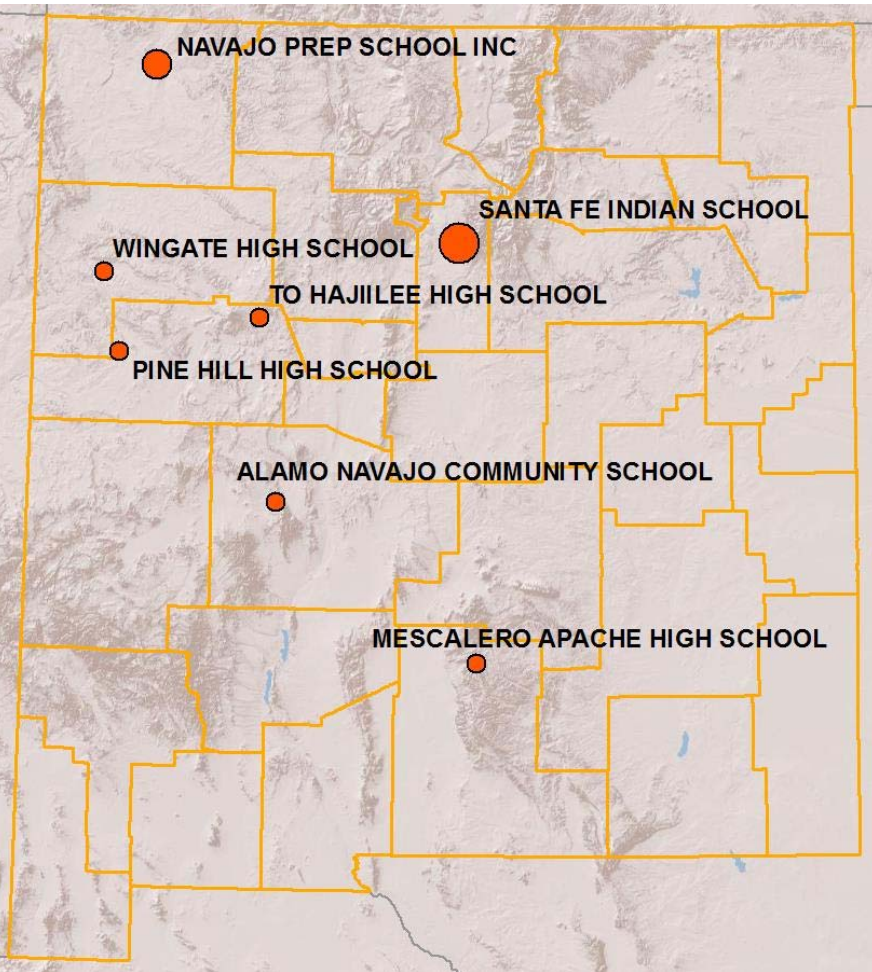
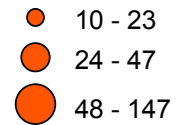
UNM Students

- 10 - 334
- 335 - 1112
- 1113 - 1977

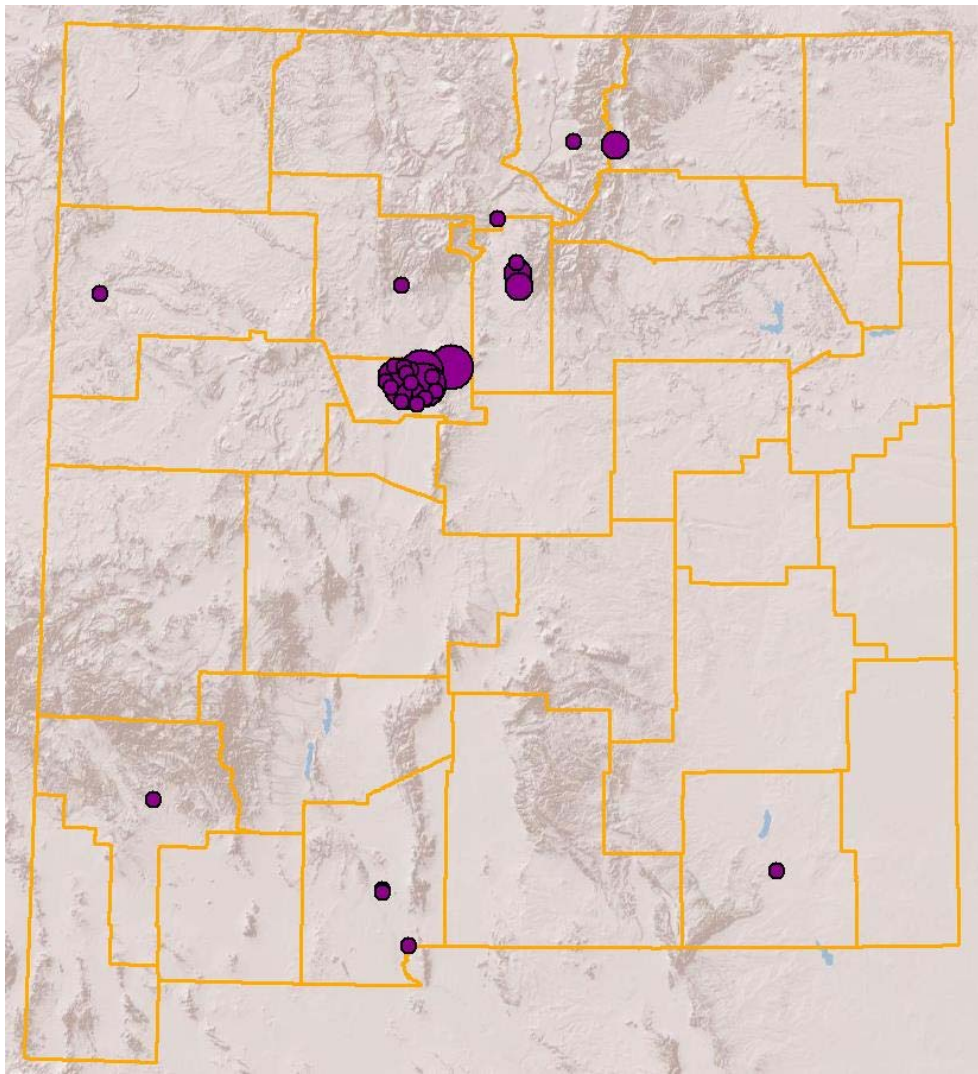


UNM Students Included In This Study from BIE High Schools in New Mexico, 2002-2011

UNM Students



UNM Students Included In This Study From Charter High Schools in New Mexico, 2002-2011

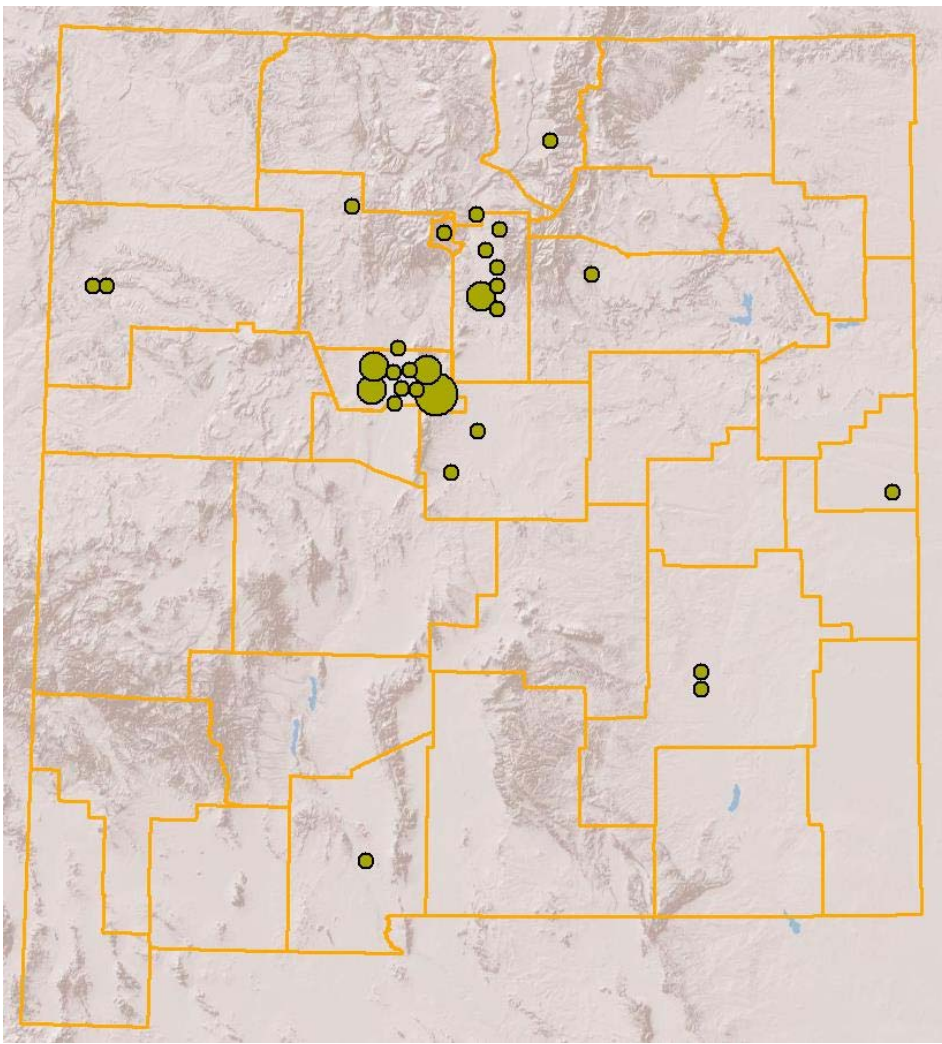
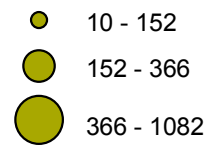


UNM Students

- 10 - 23
- 24 - 84
- 85 - 209

UNM Students Included In This Study From Private High Schools in New Mexico, 2002-2011

UNM Students



The Changing World Of High Schools

New Mexico high schools have been undergoing a process of redesign over the last 5 years. The changes have included an increase in the number of units required to graduate, changes in the curriculum and course content, and changes in how students are assessed. The high school graduating class of 2014 will be the first class that will graduate with all of these changes in place. It is also important to note that changes in high schools will continue as New Mexico's K-12 schools implement the Common Core State Standards.

One of the most critical ways that UNM can partner with high schools is by better understanding how these how the changes in high school impact student performance in college.



Graduation Unit and Exit Exam Requirements for Students Entering High School from 2006-2007 through 2010-2011

2006-2007 Class of 2010	2007-2008 Class of 2011	2008-2009 Class of 2012	2009-2010 Class of 2013	2010-2011 Class of 2014
23 units to include: <ul style="list-style-type: none"> • 4 units English • 3 units math (one unit = or > than algebra 1) • 3 units science (1 w/lab) • 3 units social science, including United States history and geography, world history and geography and government and economics • .5 unit New Mexico history • 1 unit physical education • 1 unit communication skills or business education or language other than English • 7.5 units electives 	23 units to include: <ul style="list-style-type: none"> • 4 units English • 3 units math (one unit = or > than algebra 1) • 3 units science (1 w/lab) • 3 units social science, including United States history and geography, world history and geography and government and economics • .5 unit New Mexico history • 1 unit physical education • 1 unit communication skills or business education or language other than English • 7.5 units electives 	23 units to include: <ul style="list-style-type: none"> • 4 units English • 3 units math (one unit = or > than algebra 1) • 3 units science (1 w/lab) • 3 units social science, including United States history and geography, world history and geography and government and economics • .5 unit New Mexico history • 1 unit physical education • 1 unit communication skills or business education or language other than English • 7.5 units electives 	24 units to include: <ul style="list-style-type: none"> • 4 units English • 4 units math (one unit = or > than algebra 2) • 3 units science (2 w/lab) • 3.5 units social science, including United States history and geography, world history and geography and government and economics, and .5 unit New Mexico history • 1 unit physical education • 1 unit career cluster, workplace readiness or language other than English • 7.5 units electives <p><i>One of the above units must be honors, Advanced Placement, dual credit, or distance learning</i></p>	24 units to include: <ul style="list-style-type: none"> • 4 units English • 4 units math (one unit = or > than algebra 2) • 3 units science (2 w/lab) • 3.5 units social science, including United States history and geography, world history and geography and government and economics, and .5 unit New Mexico history • 1 unit physical education • 1 unit career cluster, workplace readiness or language other than English • 7.5 units electives <p><i>One of the above units must be honors, Advanced Placement, dual credit, or distance learning</i></p>
For NM Diploma, must take and pass all sections of the NM High School Competency Exam	For NM Diploma, must take and pass all sections of the NM High School Competency Exam	For NM Diploma, must meet threshold for high school exit on 11 th grade SBA or demonstrate competence through portfolio of standards-based indicators	For NM Diploma of Excellence, must meet threshold for high school exit on 11 th grade SBA or demonstrate competence through portfolio of standards-based indicators	For NM Diploma of Excellence, must meet threshold for high school exit on 11 th grade SBA or demonstrate competence through portfolio of standards-based indicators

NMPED- Additional District Requirements for High School Course Offerings as of May 1, 2011

Classes required for districts to offer (each year) as elective classes	Other offerings required for districts to offer	Classes that may be offered as elective classes	Class that may be offered as a Mathematics requirement	Health Education is required prior to graduation for students entering the 8th grade in the 2012-2013
<ul style="list-style-type: none"> • Driver Education* • Financial Literacy as an elective* • Student Service Learning 	<ul style="list-style-type: none"> • At least one Honors or similar academically rigorous class each in Mathematics and Language Arts** • A program of courses for Dual Credit, in cooperation with an institution of higher education • A program of distance learning courses* • At least 2 years of a language other than English* 	<ul style="list-style-type: none"> • Pre-Apprenticeship Programs • Media Literacy* 	<ul style="list-style-type: none"> • Financial Literacy as a high school mathematics requirement 	<ul style="list-style-type: none"> • Health Education may be required in either middle school or high school, as determined by the school district. • Each school district shall submit to the department by the beginning of the 2011-2012 school year: • a Health Education implementation plan for the 2012-2013 and subsequent school years; • include in which grade Health Education will be required and how the course aligns with department content and performance standards; • For more information, please go to: http://www.ped.state.nm.us/sfsb/index.html or call Dr. Kristine Meurer at 505-222-4748.

*Districts may offer these courses through IDEAL-NM.

**Districts may offer AP Calculus and Honors English 2 through IDEAL-NM

2011 Legislative Watch: SB 360 suspends the requirement for students to pass a high school exit exam for graduation in 2012.

One Of The Most Interesting Analyses We Conducted Examined High Schools That Had Both High Graduation Rates And Low Remediation Rates. This Is A Preliminary Analyses, But It Does Indicate That We Should Learn More About The High Schools That Are “Beating The Odds” And How The Lessons Learned In These Schools Might Be Shared Across New Mexico



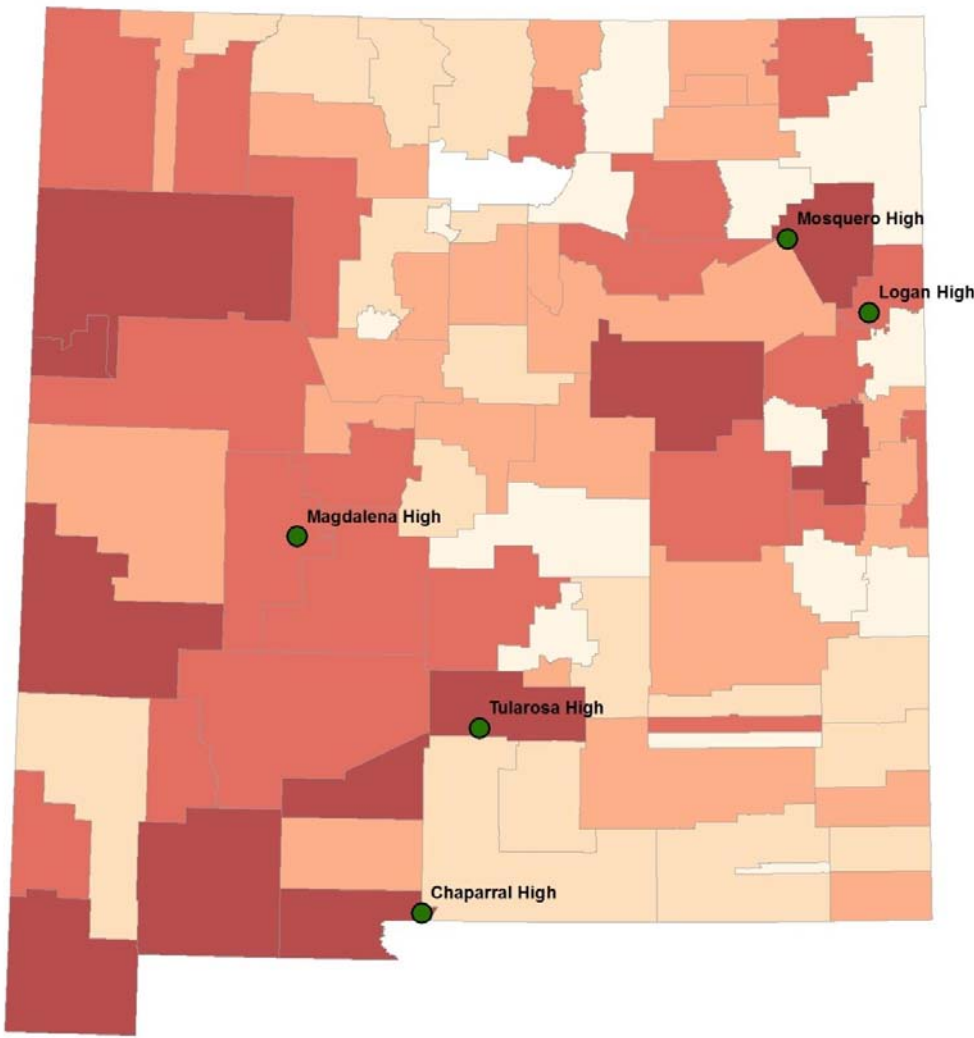
Are These Schools Beating the Odds?

**Graduation Rate > 70%,
Remediation Rate At UNM < 30%,
Child Poverty > 30%**

High School	Total School Enrollment (2011-2012)	Graduation Rate	Remediation Rate
Chaparral High	1,080	77.8%	25.0%
Logan High	127	86.6%	16.7%
Magdalena High	127	72.9%	28.6%
Mosquero High	27	98.0%	0.0%
Tularosa High	273	86.5%	14.3%

Percent of Children in Poverty in District

- 0% - 10%
- 11% - 21%
- 22% - 30%
- 31% - 39%
- 40% - 51%



What Happens To Students Who Take Remediation Courses?

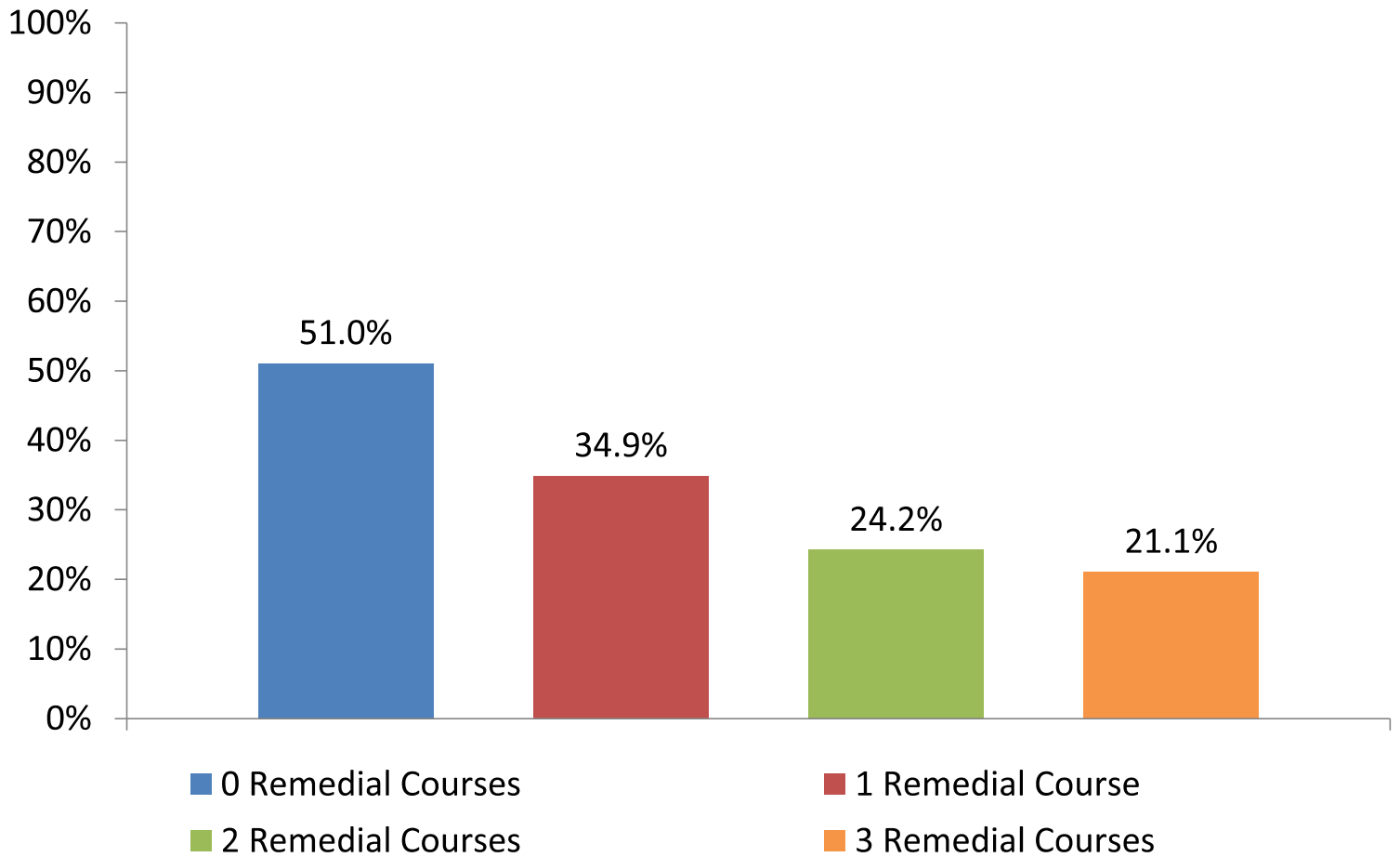


Comparison Of Students Who Take Any IS Class and UNM Students Overall

Measure	Any IS	UNM Overall
GPA, 1 st Semester	2.66	2.9
GPA, 2 nd Semester	2.53	2.81
GPA, 4 th Semester	2.43	2.76
Matriculate To A Degree College, 5 th Semester	13.5%	31.3%
Credit Hours, 4 Semesters	36	44
6-Year Graduation Rate	29.4%	44.4%



Average 6-Year Graduation Rates For All Students By Number of Remedial Courses Taken, 2002-2006 Cohorts



Recommendation #1 □ Strengthen UNM's □ Partnership □ With High Schools

The most important recommendation is to strengthen UNM's relationships with the high schools who send us their graduates. Here are some ways those important collaborations might be enhanced:

- Develop feedback reports on high school graduates' first year (and longer term) performance that are automatically sent back to high schools that send a logistically-feasible number of their students to UNM.
- Strengthen student support partnerships with districts throughout New Mexico. UNM is working closely with Albuquerque Public Schools and Rio Rancho Schools and these kinds of relationships with school districts should be established across the state.
- Continue to work in partnership around the development of the curriculum and assessments in the Common Core of State Standards Initiative. New Mexico's public schools are deeply involved in this initiative and UNM can help in determining what it means for high school students to be "college and career ready."

Recommendation #1 □ Strengthen UNM's Partnership With High Schools (Continued)

Here are some additional ways those important collaborations between UNM and high schools might be enhanced:

- Strengthen outreach to students and ensure that students have a stronger sense of “college knowledge” and what it takes to be successful in higher education. One of the most important ways that UNM can help is by raising younger New Mexican’s aspirations about becoming college graduates.
- Strengthen dual credit and other accelerated learning initiatives. Current research reveals that UNM students who have taken dual credit courses require less remediation and graduate faster compared to students who have not taken dual credit courses.
- Collaborate on student preparation and other critical student success initiatives to ensure these efforts are not segregated on one side of the secondary or post-secondary system.

Recommendation #2: Strengthen Teacher And Principal Preparation

The second recommendation is to strengthen the preparation of and support for the teachers, principals, counselors, and other education-related professionals who graduate from UNM:

- UNM has a unique opportunity to strengthen its programs in teacher education and educational leadership. Improving these programs is critical for so many reasons including that the success of UNM's students are deeply tied to the quality of their teachers and principals.
- Develop stronger ways to track where UNM's teachers, principals, counselors and other educational professionals are placed, their successes and their challenges, and how they feel about the preparation and advanced training they received from UNM.
- Teachers and principals receive most of the attention that surrounds student achievement. But it is abundantly clear that students and their families face daunting challenges both in and out of school. UNM graduates from the full range of disciplines including health sciences, arts & science, fine arts, engineering, law, public administration, and business have much to offer and many are deeply involved in supporting students, families, and schools. UNM should develop stronger ways to track and support these educational initiatives.

Recommendation #3: Examine Remediation At UNM

The third major recommendation is to continue examining the use of remediation at UNM. Here are some potential next steps in that process:

- Monitor student performance in and after the IS classes and ensure those courses are taught as effectively as possible.
- Explore alternative models to the current structure of IS courses. One of the most promising approaches involves having students enrolled in both remedial courses and credit-bearing courses at the same time.
- Conduct a similar analysis of the students who enroll in Math 120 and the newly designed courses Math 101, 102, and 103. These courses are not classified as remedial but they are courses that students take to strengthen their math skills so they will be more successful in university math courses.
- Conduct similar analyses of the remediation classes at the UNM branch campuses. This study did not include students who transferred into UNM from the branch campuses. Those students are UNM students also and we need to learn more about how remediation impacts their success.
- Conduct this study every year to see how the baseline data presented in this report changes over time.

Recommendation #4 □ Learn More About New Mexico's □ High School To College Pipeline

The fourth major recommendation is to conduct systematic, longitudinal research on the paths that New Mexican students take from high school to college and beyond.

Here are some of the questions that could be addressed:

- Which New Mexico high schools are most successful in graduating all of their students and preparing them to succeed in college? What lessons can we learn from those high schools?
- What impact have the changes in high school graduation requirements had on college remediation rates? How do Honors classes, dual credit classes, AP classes, distance education classes; the increase in college units; or the changes in exit exam requirements impact college attendance, remediation and graduation rates?
- What impact will the implementation of the Common Core Standards have on college attendance, remediation and graduation rates?
- What impact will UNM's efforts to build partnerships with high schools and improve student success have on college attendance, remediation, and graduation rates?
- What are the most promising practices in high school and college partnerships and how can they be used to strengthen student success here at UNM?

Recommendation #5 □ Strengthen UNM's Role In Promoting Educational Excellence And Equity

The fifth major recommendation is to continue to examine UNM's values and its role as the flagship university of the most diverse state in the country. It is clear that remediation has a disproportionate impact on students of differing race, ethnicity, and gender and that remediation at college is linked to the educational disparities that students experience all along the educational pathways from early childhood to high school graduation. It is absolutely crucial that we reduce the numbers of students who take remediation in college, but we need to do this in ways that ensure current college students get the support they need now, and that future college students obtain the K-12 education that makes remediation unnecessary. UNM's deep commitment to both excellence and equity is one of New Mexico's best hopes of ensuring a bright future for the state we love so much.

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