

# Washoe K-16 Data Profile

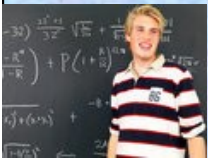
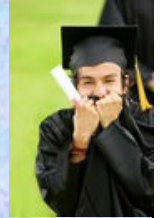
*WCSD Graduates Attending UNR and TMCC*

*Includes WCSD 2010 Graduates*

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December 2010



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# WASHOE K-16 DATA PROFILE 2010

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Galena

Gerlach

Hug

Incline

McQueen

North Valleys

Reed

Reno

Spanish Springs

Sparks

TMCC HS

Washoe

WOLF (Washoe Online Learning for the Future)\*\*\*

Wooster

## Nevada System of Higher Education

University of Nevada, Reno

Truckee Meadows Community College

\* Data are limited for high schools that opened after the initial year of this project: North Valleys (2001-02), Spanish Springs (2001-02), Damonte Ranch (2003-4), Academy of Arts, Careers & Technology (2005-06), and WOLF (2009-10).

\*\* In 2008-2009, Regional Technical Institute became the Academy of Arts, Careers & Technology.

\*\*\*This is the first year to include data for WOLF

# INTRODUCTION

## **1998 - First Edition**

- ∞ Tracked and analyzed data from the 1997 WCSD graduating cohort
- ∞ Established baseline data
- ∞ Compared district trends with state and national trends
- ∞ Reported the first college-going rate ever calculated for WCSD, which showed that the WCSD college-going rate was comparable to the national rate, and much higher than the average rate for Nevada overall

## **2002**

- ∞ Reported eye-opening statistics on the English and math remediation needs of WCSD graduates attending UNR and TMCC

## **2006**

- ∞ Added analyses of college admissions and college success of WCSD graduates from 1997 to 2005

## **2007 - Tenth Edition**

- ∞ Reviewed and compared six high school graduation rate formulas
- ∞ Reported the results of a comprehensive cohort analysis of high school graduation rates for the WCSD 2002-2003 freshman cohort

## **2010**

- ∞ Includes special reports on WCSD Research Collaborations with WestEd and the University of Nevada, Reno.

For the past thirteen years, the Washoe County School District, Truckee Meadows Community College and the University of Nevada, Reno have worked in concert through the Education Alliance of Washoe County to produce the Washoe K-16 Data Profile, formerly called the High School Data Profile. The Nevada Department of Education and the Nevada System of Higher Education have also participated in this effort. The Data Profile is the collection and presentation of data about Washoe County School District high school students and their matriculation into college, with special emphasis on the graduates who attend the University of Nevada, Reno and Truckee Meadows Community College. Through this effort, we hope to identify factors that can increase the success of our students as they proceed from high school to post-secondary education.

The Data Profile has expanded in scope each year. The 2002 edition reported a two-year increasing trend in the percentage of Washoe County School District graduates enrolled in remedial English and/or mathematics courses at both UNR and TMCC. Concern about this trend and its potential impact on students led to an increased focus on the remediation issue for the 2003 through 2005 editions of the Data Profile. The 2006 edition included college success data for the first and second cohorts tracked by the Data Profile, the WCSD 1997 and 1998 graduating classes. The tenth anniversary edition added a comparison of methods used to calculate high school graduation rates and reported the rates produced by each method for the WCSD Class of 2006. The 2010 edition includes special reports on WCSD research collaborations with WestEd and UNR. The new edition also continues last year's more intense focus on remediation needs, advanced course enrollment and college entrance exam participation.

The Education Alliance of Washoe County hopes that this and future issues of the Data Profile will continue to help educators, parents, students, and our community better prepare our graduates for a successful transition into higher education and for continued success throughout their college careers.

# SPECIAL REPORT — Research Collaboration

The Washoe County School District is a very large organization. Serving more than 62,000 students K-12, the District is among the largest 60 school districts in the nation. As is true for many large school districts, Washoe has become more urban in its characteristics, and the demographic makeup of the students it serves has shifted remarkably during the past 15 years.

Many new challenges come with this change as the District seeks to continuously improve. The District has long sought out professional relationships with post-secondary institutions to support a variety of district and school improvement efforts. The need to closely partner with our neighboring educational institutions has always been an important charge but has grown in urgency with recent changes in District administration that have revived a vision that has the school district not only graduating all students but ensuring that all students are college and/or highly-skilled career ready as they walk across the graduation stage.

One key effort that requires collaboration is to learn from the evidence of student achievement, teaching practice, and leadership that is regularly collected within the school district. Substantive data collections, often a result of federal and state mandates, are ongoing. This information can be used to answer many questions and this information can be coupled with additional data collections more focused on answering specific questions the answers to which are designed to help the District move forward. Post-secondary institutions in North Western Nevada have regularly collaborated with the District to assist in this capacity. No better evidence of this collaboration can be found than what's written within this 11<sup>th</sup> annual Data Profile. The support has been tremendous.

This ongoing support notwithstanding, the breadth of the research collaboration with our post-secondary institutions has been limited in focus. The needs of the district surpass the resources that the District and post-secondary institutions can bring to bear.

## **Washoe County School District/REL at WestEd Collaboration**

In Winter of the 2009-2010 school year, WestEd approached the school district with an offer of assistance. Modeling its proposal in part on the *Consortium on Chicago School Research* (University of Chicago, <http://ccsr.uchicago.edu>), WestEd made known to the District a variety of ways it could partner with the school district, free of charge, to use research to promote its strategic plan. Based on this initial proposal and subsequent discussions, a new research collaboration was hatched.

# SPECIAL REPORT — Research Collaboration

The District's interest in the collaboration was not based on dissatisfaction with current efforts. To the contrary, the opportunity with WestEd seemed to offer a strategic way to strengthen its current research collaborations and to expand the work to begin answering a broader set of questions. Of greatest immediate importance was to have WestEd assist the school district in mounting evidence that would both inform the District's strategic planning process and expand the efforts that were already unfolding among a very limited District staff.

WestEd saw this partnership as a key ingredient for district reform in part knowing the success of the Chicago Consortium. The District required objective evidence to inform policy level work as well as to inform practice in our schools. Moreover, even with the resources WestEd could bring to the table, WestEd was aware of the limitations in resources both within the District and within its own organization that would affect the scope of work that could be undertaken. Acknowledging this, from the outset WestEd sought to embed the work of the collaborative within a broader context calling for a broad-based steering committee that included voices from many educational stakeholders including key post-secondary partners.

As the Washoe County School District/REL at WestEd partnership enters a second year, a significant body of work has already emerged. Although much of this work has involved WestEd staff working closely with District staff, it has also occurred within the context of the ongoing relationships between the School District and its Post-Secondary partners. With the three entities involved, the District is far better positioned to amass the information it needs to evaluate progress and to plan for continuous improvement.

## **Focus of this Special Report**

To exemplify the ongoing work, two investigations are highlighted herein. The first is a set of analyses that are part of a large "backmapping" series of analyses designed to test the District's "Pathway to Excellence." In brief, the Pathway establishes key performance targets spanning Kindergarten through Post-Secondary success. While recognizing that students may take multiple paths as they make their educational journey, the Pathway does define key performance expectations along the journey that are assumed to provide the student with the best chance to succeed in college or in a highly skilled career. In this presentation we draw focus to College Readiness, as defined by ACT or SAT scores that allow acceptance without remediation into the University of Nevada, Reno.

The second highlighted study has emerged through the District's ongoing collaboration with researchers at the University of Nevada Reno. Although the conception for this work and almost all of the data collection and analysis predate the District's "Envision WCSD 2015: Investing in Our Future" (August, 2010), this study too provides strong support for aspects of the District's "Pathway to Excellence."



# The likelihood of being qualified for college-level courses: What Nevada's middle and high school achievement tests suggest for students in Washoe County School District

## REPORT SYNOPSIS

Once students have been admitted to college, they might find that, even though they have met all college admission requirements, they do not meet the requirements for enrolling in credit-bearing college-level courses. Nationwide, 28 percent of college freshman enroll in a remedial course in English language arts or mathematics (Wirt, Choy, Rooney, et al. 2004; see also Chen, Wu, Tasoff, et al. 2010). Approximately 70 percent of graduates from Washoe County School District attend college, with most (58 percent) enrolling at approximately equal rates at the University of Nevada, Reno, and at Truckee Meadows Community College (Education Alliance of Washoe County 2009). Of the graduates from 2005 through 2009 who attended these colleges, 46 percent of those who attended the University of Nevada, Reno, and 89 percent of those who attended Truckee Meadows Community College required remediation in English, in mathematics, or in both subjects (Education Alliance of Washoe County 2009).

This study emerged from the district leadership's interest in better understanding how to assess, at different points along the K–12 pathway, whether a student is on track to being ready for college-level coursework upon high school graduation. The study examined whether a student's scores on two statewide assessments in English language arts and mathematics could prove useful in predicting the likelihood of the student being considered ready for college-level courses after being admitted to a college or university upon high school graduation.

The study examined data for students in the district's graduation cohorts of 2008 and 2009 who had taken the college admission tests used by the University of Nevada, Reno, to judge eligibility for enrollment in college-level courses and who had reported these scores to the district. This group accounted for about one-third of the district's 2008 and 2009 cohorts. It was not representative of the cohorts in terms of demographic features or education outcomes. Thus, the findings from this research should not be considered to represent the results one might find if all students in the graduation cohorts were studied.

Instead, findings might more accurately be interpreted as describing the subgroup of high school students who were knowledgeable about and motivated to complete a college admission test while in high school and had, or had access to (perhaps from district financial aid), resources needed to do so.

The study examined how students' likelihood of being judged eligible for college-level courses at the University of Nevada, Reno, related to (1) students' scores on the grade 8 statewide assessments of reading and mathematics, and (2) students scores on their first attempt at the high school proficiency examination in reading and mathematics.

Students' scores on the grade 8 achievement tests and on students' first attempts at the high school proficiency exam were related to the likelihood of the students being eligible for college-level courses. For both tests (grade 8 and high school proficiency exam) in both subjects (English and mathematics), the range of scale scores that met the standard for the test was associated with a wide range of

probabilities of being judged eligible for college courses. With one exception, the likelihood of being judged ready for college-level classes was less than .20 for students who scored at the lower end of the “meets standard” range and was above .70 for students who scored at the top of the range. This was true for the grade 8 mathematics test and for both reading and mathematics on the high school proficiency exam. The exception was the grade 8 reading test, for which a probability of .41 was associated with the lower end of the range of scores.

Assuming relationships found in the study were to remain more or less constant, the parents and teachers of middle school students who are interested in attending college, as well as the students themselves, might find it helpful to review the students’ grade 8 test scores. Students who exceeded standard on their grade 8 achievement test in reading or mathematics would be predicted to have better-than-even chances of being judged ready for college-level courses in that subject (assuming the students maintain that level of achievement). Students who do not meet the standard, or whose scores place them in the lower ranges of meeting the standard, particularly in mathematics, might benefit from enhanced study and support as they endeavor to enter college ready to enroll in credit-bearing courses.

Learning about the relationships described in this study might be helpful for the district as it builds a framework for student performance targets and plans corresponding research and instructional programs. While this study examined predictors of college readiness as defined by

admissions test scores, likely more informative would be research into the actual college performance of district graduates. Also, insights into instructional strategies that would improve students’ likelihood of being ready for college courses might be found through studies that examine the articulation of high school and college curricula, as well as studies that evaluate the impact of instructional programs targeting students who want to improve their preparation for college.

## References

- Chen, X., Wu, J., Tasoff, S., and Weko, T. (2010). *Academic preparation for college in the high school senior class of 2003–04* (NCES 2010-169). Washington, DC: U.S. Department of Education, IES National Center for Education Statistics. Retrieved February 14, 2010, from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010169>
- Education Alliance of Washoe County. (2009). *Washoe K–16 data profile: WCSD graduates attending UNR and TMCC*. Reno, NV: Author. Retrieved December 20, 2010, from <http://www.washoecountyschools.org/community/annual-reports-publications/data-profiles>
- Wirt, J., Choy, S., Rooney, P., Provasnik, S., Sen, A., and Tobin, R. (2004). *The condition of education 2004* (NCES 2004-077). Washington, DC: U.S. Department of Education, IES National Center for Education Statistics. Retrieved February 14, 2011, from <http://nces.ed.gov/programs/coe/2004/section5/indicator31.asp>

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**About REL West:** REL West is one of 10 Regional Educational Laboratories nationwide funded by the U.S. Department of Education’s Institute of Education Sciences (IES). It provides scientifically valid research findings that help meet the education needs in Arizona, California, Nevada, and Utah. In addition to drawing from existing high-quality research, REL West conducts research and development projects and experimental studies, and helps stakeholders interpret evidence and build their own research capacity. Visit the REL West website at <http://relwest.WestEd.org/>.

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# The likelihood of being qualified for college-level courses: What Nevada's middle and high school achievement tests suggest for students in Washoe County School District

Andrea Lash, Min Huang, and Loan Tran

Once students have been admitted to college, they might find that, even though they have met all college admission requirements, they do not meet the requirements for enrolling in credit-bearing college-level courses. Nationwide, 28 percent of college freshman enroll in a remedial course in mathematics or English language arts (Wirt, Choy, Rooney, et al. 2004; see also Chen, Wu, Tasoff, et al. 2010). These students completed all the high school coursework required to become eligible for higher education and had taken requisite college admission tests, earning grades and test scores that led to college acceptance. Yet, despite all this, their colleges or universities judged these students to be unprepared for freshman-level coursework.

In Washoe County School District, Nevada's second largest district, approximately 70 percent of high school graduates attend college. Most (58 percent) attend locally, enrolling at approximately equal rates at the University of Nevada, Reno, and at Truckee Meadows Community College (Education Alliance of Washoe County 2009). Of district students who graduated in the classes of 2005–09, 46 percent of those who attended University of Nevada, Reno, and 89 percent of those who attended Truckee Meadows Community College required remediation in mathematics, in English, or in both subjects (Education Alliance of Washoe County 2009).

In its guide, *Helping Students Navigate the Pathway to College: What High Schools Can Do*, the Institute of Education Sciences recommends practices that research has shown to be effective in ensuring that high school graduates are ready, not just to be admitted to a college or university, but also to undertake college-level work. The guide suggests that, for each incoming grade 9 student, high schools assess whether the student is on track to be prepared for college coursework; that they use this assessment in planning an appropriate course of study for the student; and that, throughout the student's high school experience, they continue to monitor his

or her progress toward being ready for college courses (Tierney, Bailey, Constantine, et al. 2009). The current study, *The Likelihood of Being Qualified for College-Level Courses*, emerged from Washoe County School District leadership's interest in better understanding how to assess, at different points along the K–12 pathway, whether a district student is on track to being ready for college-level coursework upon high school graduation. The study examined whether a student's scores on two statewide assessments in English language arts and mathematics could prove useful in predicting the likelihood of the student being considered ready for college-level courses after being admitted to a college or university upon high school graduation.

## What this study addressed

In Nevada, schools administer state achievement tests in mathematics and reading at grade 8; the first administration of the high school proficiency exam, which covers the same subjects, is offered to students in grade 10. This study examined the relationship between students' scores on these statewide tests and their readiness for college-level coursework as defined by the

University of Nevada, Reno, (UNR). When students enroll as freshman at UNR and at Truckee Meadows Community College (TMCC), they are evaluated for placement into mathematics and English classes. At UNR, students can qualify for college-level courses in these subjects if their

## Washoe County School District and REL West at WestEd research collaboration

Washoe County School District's senior leadership believes that preparation for college and career readiness must begin before kindergarten and remain front and center throughout a child's K–12 experience. From this perspective, building a foundation for success in college is as critical in elementary school and middle school as it is in high school. Thus, the district has defined key performance targets for its students as they move from kindergarten through high school graduation, with the aim of ensuring that its students graduate ready for college, for a career, or both.

This report summarizes one of several longitudinal studies designed and conducted by a team of researchers from Washoe County School District (WCSD) and REL West at WestEd to examine the progress of district students from elementary through high school. Using student performance data provided by the district, the studies collectively examine relationships among performance targets identified by the district. In these early years of the district's longitudinal data system, it is not yet possible to follow a single group of students for 13 years. However, each study can examine a student group as its members progress over a segment of K–12 pathway and, when considered collectively, the studies can provide a broad mosaic of student performance along that pathway.

### The research team

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scores on the SAT or ACT college admission tests exceed certain criterion scores determined by the university. Otherwise, students must pass an assessment administered by the university.<sup>1</sup> To enroll in college-level courses in mathematics and English at TMCC, students must achieve a passing score on a placement test administered by the college (Nevada System of Higher Education 2010). Eligibility-related data available to Washoe County School District include SAT and ACT scores for their students who completed one or both of these college admission tests. Scores on placement tests administered by UNR and TMCC are not available. Thus, this study identified students as eligible for college-level courses if their admission test scores met the criteria established by UNR. This study addressed the following questions:

1. *How is a student's probability of qualifying for college-level courses in mathematics at the University of Nevada, Reno, related to (a) the student's score on the state-administered grade 8 mathematics test and (b) the student's score on his or her first attempt at the high school proficiency exam in mathematics?*
2. *How is a student's probability of qualifying for college-level courses in English at the University of Nevada, Reno, related to (a) the student's score on the state-administered grade 8 reading test and (b) the student's score on his or her first attempt at the high school proficiency exam in reading?*

## Which students were studied

The study examined data from students in the graduation cohorts of 2008 and 2009 who had completed the SAT, the ACT, or both college admission tests and had reported their scores to the school district, a typical step for high school students who complete these tests. Of the 10,469 students in the combined 2008 and 2009 graduation cohorts, 3,368 students, or 32 percent, had scores from college admission tests on file with the district. These 3,368 students made up the study subgroup.

As a subgroup, students with admission test scores differed from other students in the graduation cohorts. Table 1 summarizes demographic features and education outcomes for the full population of students in the 2008

<sup>1</sup> The placement process for English courses and mathematics courses, respectively, may be found on the following websites: [http://www.unr.edu/cia/engl/cwp/student\\_resources/course\\_placement.htm](http://www.unr.edu/cia/engl/cwp/student_resources/course_placement.htm) and [http://www.unr.edu/mathcenter/placement\\_incoming.html](http://www.unr.edu/mathcenter/placement_incoming.html).

**Table 1. Demographic features and education outcomes of the full population of Washoe students from the graduation cohorts of 2008 and 2009 and of two subgroups: students with and without admission test scores**

	Full population 2008 & 2009 graduation cohorts	Subgroups	
		Students with admission test scores	Students without admission test scores
<b>Number of students</b>	10,469	3,368	7,101
<b>Percent by demographic feature<sup>a</sup></b>			
1. Limited English Proficient	6.8	0.9	9.6
2. Individualized Education Plan (IEP)	12.1	2.5	16.6
3. Eligible for free or reduced-price lunch	33.7	16.1	42.0
4. Female	49.4	54.6	46.9
5. Ethnicity:			
White	61.3	73.3	55.6
Hispanic	25.7	12.8	31.7
Asian	6.7	9.0	5.6
Black	4.2	3.2	4.8
American Indian	2.1	1.8	2.2
<b>Percent by education outcome</b>			
6. Met or exceeded Grade 8 standard			
Mathematics	46.3	73.1	33.6
Reading	48.5	73.5	36.6
7. Passed high school proficiency exam, first attempt			
Mathematics	39.4	72.2	23.8
Reading	55.4	82.8	42.4
8. Graduated high school in four years	55.8	97.9	35.8

a. Students were identified as Limited English Proficient, having an IEP, or being eligible for free or reduced-price lunch if they were ever identified as such while in high school, even if their status had changed over time.

Source: Authors' analysis of data provided by Washoe County School District for graduation cohorts of 2008 and 2009.

and 2009 graduation cohorts and for two subgroups: students with admission test scores and those without these test scores. The subgroup with admission test scores had a lower percentage of students identified as Limited English Proficient than the other subgroup (0.9 percent and 9.6 percent, respectively). The subgroup

with test scores had a lower percentage of students who had an Individualized Education Plan than the other subgroup (2.5 percent and 16.6 percent, respectively). It also had a lower percentage of students eligible for free or reduced-price lunch than the other subgroup (16.1 percent and 42 percent, respectively). The subgroup

with admission test scores had a higher percentage of females (54.6 percent) than the other subgroup (46.9 percent). The subgroup of students with test scores had a higher percentage of White students (73.3 percent) than the subgroup without test scores (55.6 percent), a higher percentage of Asian students (9.0 percent) than the subgroup without test scores (5.6 percent), and a lower percentage of Hispanic students (12.8 percent) than the subgroup without test scores (31.7 percent).

Students in the study subgroup differed from the other students in education outcomes as well. When they were in grade 8, a higher percentage of those in the study subgroup (students with test scores) than those in the other subgroup (students without test scores) met or exceeded state standards in mathematics (73.1 percent and 33.6 percent, respectively) and in reading (73.5 percent and 36.6 percent, respectively). On their first attempts at the high school proficiency exam, a higher percentage of students in the study subgroup than in the other subgroup passed the exam in mathematics (72.2 percent and 23.8 percent, respectively) and in reading (82.8 percent and 42.5 percent, respectively). A greater percentage of students with admission test scores on file graduated from high school in four years (97.9 percent) compared to students who did not have admission test scores on file (35.8 percent).

## How college readiness was defined and studied

**College readiness definition.** Students were judged to be ready for college-level courses in mathematics and English if their scores on the college admission tests met the criteria established by UNR for freshmen entering in fall 2009. For mathematics, students were eligible to take college-level courses if their mathematics score was greater than 500 on the SAT or greater than 20 on the ACT. In English language arts, students were eligible for college-level courses if their verbal score on the SAT was greater than 439 or if their reading score on the ACT was greater than 17 (Nevada System of Higher Education 2010). In this study, students who had both SAT and ACT scores on file were judged eligible for college-level coursework in a subject if their scores met UNR's criterion for either test.

Each analysis in this study described the relationship between students' readiness for college-level coursework at UNR (as determined by their admission test scores) and their scores on an earlier achievement test. Not all

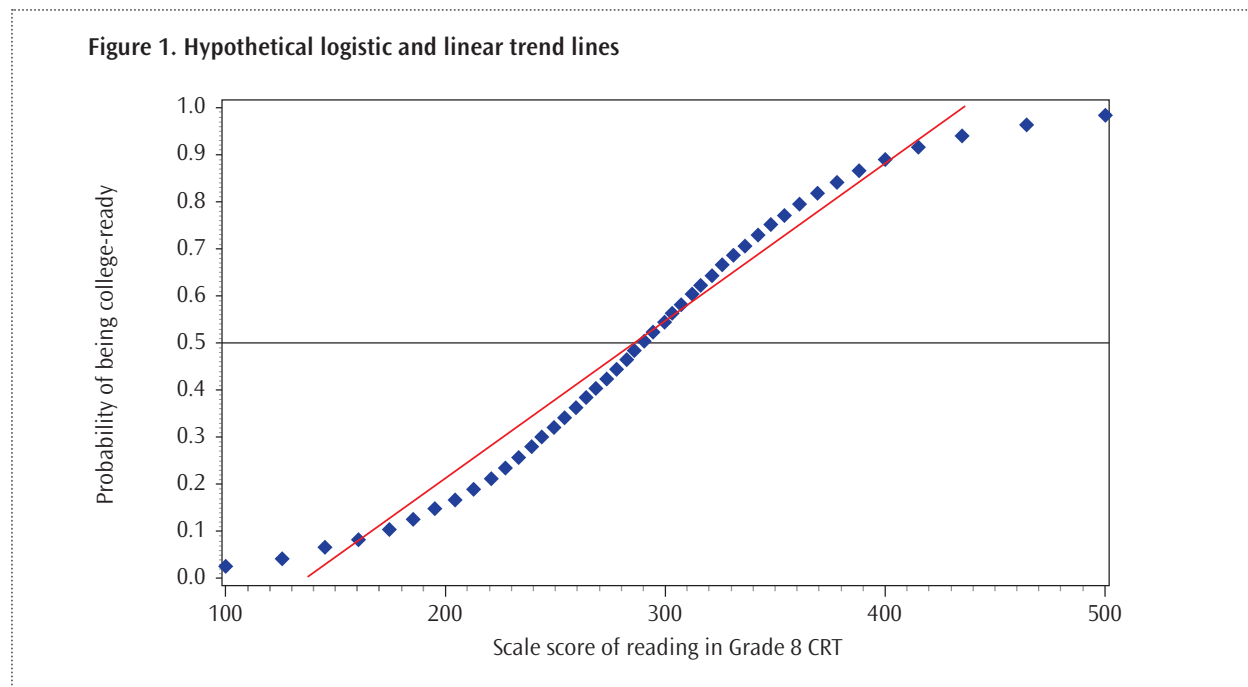
students in the study subgroup, that is, students with SAT or ACT scores, also had scores on the achievement tests. Some students, for example, may have enrolled in Washoe County School District after grade 8 and, thus, would not have scores on file for the grade 8 mathematics and reading tests. Each analysis, then, is based on the group of students who had scores on file for both a college admission test and the achievement test included in the analysis.

**Analysis method.** A statistical technique known as logistic regression was used to describe the relationship between students' readiness for college-level coursework and their scale scores on prior achievement tests. (Hereafter, scale scores for these achievement tests are referred to simply as scores.) One helpful way to think about logistic regression is as a method that groups students by their test scores (e.g., scores on the grade 8 mathematics test) and then determines the proportion of students at each score point who, based on their subsequent SAT or ACT scores, would be judged by UNR to be eligible for college-level coursework. This proportion represents the likelihood that a student at that score point would be considered eligible for college-level coursework.

Plotting the proportion of eligible students in each score group against the corresponding test score would show a scatter of points. The points might follow a trend in which the likelihood of being judged to be college-ready increases with higher scores on the achievement test. Logistic regression describes the trend graphically and with a mathematical equation. It assumes the trend will be an S-shaped curve, as shown in figure 1, in which the likelihood of being college-ready approaches 0 for lower test scores and 1 for higher test scores. This S-shaped curve is used, rather than a simple line (also shown in figure 1), because probability cannot go below 0 or above 1; a linear relationship would not be bounded by 0 and 1 but would continue past those values. Features of the curve will vary with changes in the relationship between the likelihood of being judged college-ready and the test score. Key features are the steepness of the curve across the span of test scores and the location of the curve along the test score scale, which can be described by the value of the test score associated with a .50 probability of being judged college-ready.

The logistic regression curve that results from an analysis allows us to read the predicted probability that a student at a specific score point will be judged to be college-ready.





In the example of figure 1, a student with a reading score of about 290 has a probability of .50 of being judged ready for college-level courses. Students above 290 are more likely than not to be judged college-ready, with the probability increasing as the reading score increases. Students below 290 are more likely *not* to be judged ready for college courses, with the probability decreasing with decreases in the test score.

Logistic regression also provides the equation of the curve. By inserting student test scores into the equation, a more precise estimate of the predicted probability can be computed directly rather than read from the graph (appendix A).

## Research findings

Research question 1: *How is a student's probability of qualifying for college-level courses in mathematics at the University of Nevada, Reno, related to (a) the student's score on the state-administered grade 8 mathematics test and (b) the student's score on his or her first attempt at the high school proficiency exam in mathematics?*

Of the 3,368 students with reported college admission test scores, 1,995 students, or 59 percent, met eligibility criteria to enroll in college-level mathematics courses at UNR. A grade 8 mathematics test score was available for 2,734 (81 percent) of the students with reported scores

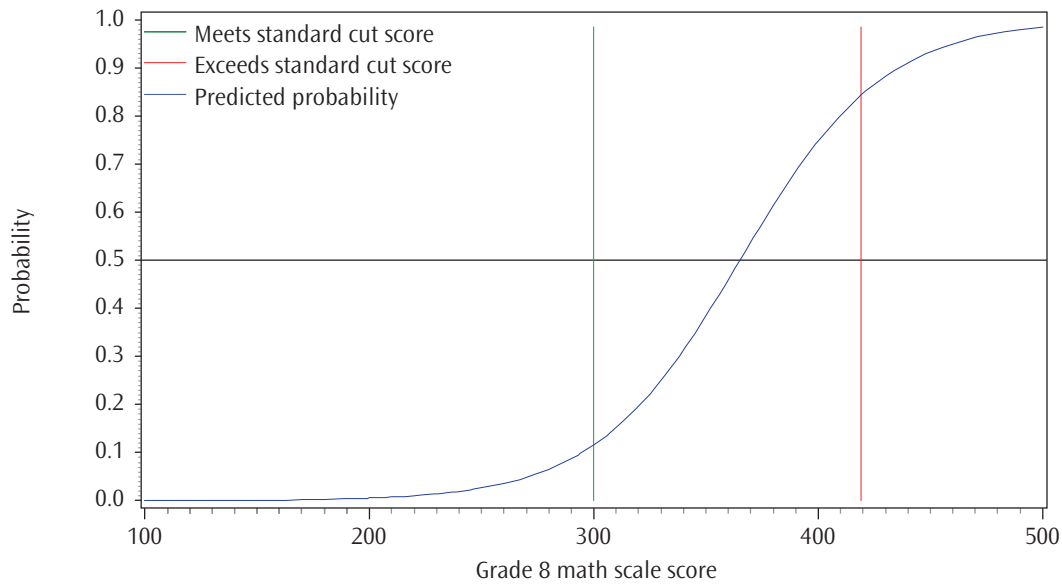
on the college admission tests.<sup>2</sup> (Table A1 in the appendix provides descriptive statistics for the score distributions for the grade 8 mathematics test and for the other tests analyzed below.)

Figure 2 shows the relationship between the probability of being eligible for college-level mathematics courses and scores on the grade 8 test of mathematics achievement administered by the State of Nevada as it was described by the logistic regression analysis. (For this and all other figures shown below, table A2 in the appendix provides results of the logistic regression analysis, including the parameters estimated for the logistic equations and an assessment of the goodness of fit of the equations to the data.)

The grade 8 mathematics score associated with a 50-50 chance of a student being judged college-ready in mathematics was 365, as shown in figure 2 and table 2. Students who score above 365 would be predicted to have higher than even chances of being judged ready for college-level mathematics courses at UNR. A scale score of

<sup>2</sup> Of the students in the study who completed the SAT or ACT, 19 percent did not have archived grade 8 test scores. As determined by their scores on the admission tests, 60 percent of the students without grade 8 scores met the criteria to be judged eligible for college-level courses in math compared with 59 percent of the students with archived scores. In reading, 81 percent of each group (with or without archived scores) met the criteria required for college-level English courses.

**Figure 2. The probability a student will be judged ready for college-level mathematics courses as a function of the student's scale score on the statewide grade 8 mathematics test**



Source: Authors' analysis of data provided by Washoe County School District for graduation cohorts of 2008 and 2009.

**Table 2. Mathematics scale scores and associated probability (p) of student being judged ready for college-level courses**

	Grade 8 achievement test		High school proficiency exam (first attempt)	
	Score	p	Score	p
Meets standard, lower bound	300	.12	304	.17
Meets standard, higher bound	419	.84	351	.83
50-50 chance of being ready	365	.50	327	.50

Source: Authors' analysis of data provided by Washoe County School District for graduation cohorts of 2008 and 2009.

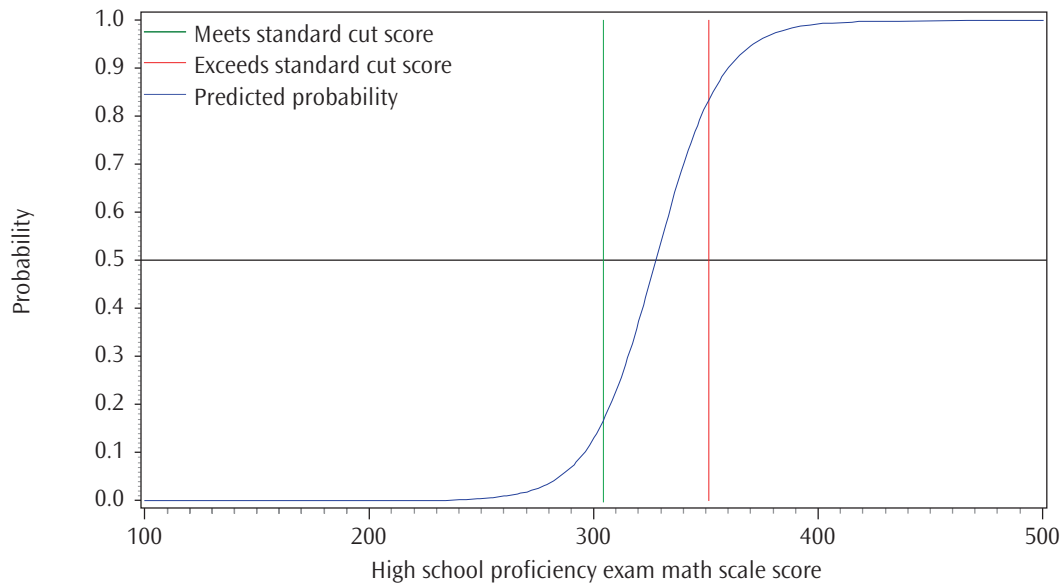
300 on the mathematics test is what students must attain to meet the mathematics standard in grade 8. A scale score of 419 is what students must attain to be identified as exceeding the standard for grade 8. The vertical lines in figure 2 identify those scores. Students at the lower bound of this range, with a score of 300, would be predicted to have a probability of .12 of being eligible for college-level classes in mathematics; students at the higher bound, with a score of 419, would be predicted to have a probability of .84 (see table 2). While all scores between 300 and 419 would be classified as meeting the grade 8 standard in math, the probability of being eligible for UNR college-level courses varies within that classification.

Figure 3 shows the results of the analysis of the high school proficiency exam in mathematics. It is based on data from 2,867 (85 percent) of the students who reported scores from the college admission tests.<sup>3</sup> For students who scored at 304, the minimum score needed to meet the standard required for high school graduation, the

<sup>3</sup> Of the students in the study who completed the SAT or ACT, 15 percent did not have archived scores for the high school proficiency exam. As determined by their admission test scores, 60 percent of the students without scores met the criteria to be judged eligible for college-level courses in math compared with 59 percent of the students with archived scores. In reading, 81 percent of each group (with or without archived scores) met the criteria required for college-level English courses.



**Figure 3. The probability a student will be judged ready for college-level mathematics courses as a function of the student's scale score on the first attempt at the high school proficiency exam in mathematics**



Source: Authors' analysis of data provided by Washoe County School District for graduation cohorts of 2008 and 2009.

**Table 3. Reading scale scores and associated probability (p) of student being judged ready for college-level courses**

	Grade 8 achievement test		High school proficiency exam (first attempt)	
	Score	p	Score	p
Meets Standard, lower bound	300	.41	251	.12
Meets Standard, higher bound	373	.94	307	.72
50-50 chance of being ready	309	.50	289	.50

Source: Authors' analysis of data provided by Washoe County School District for graduation cohorts of 2008 and 2009.

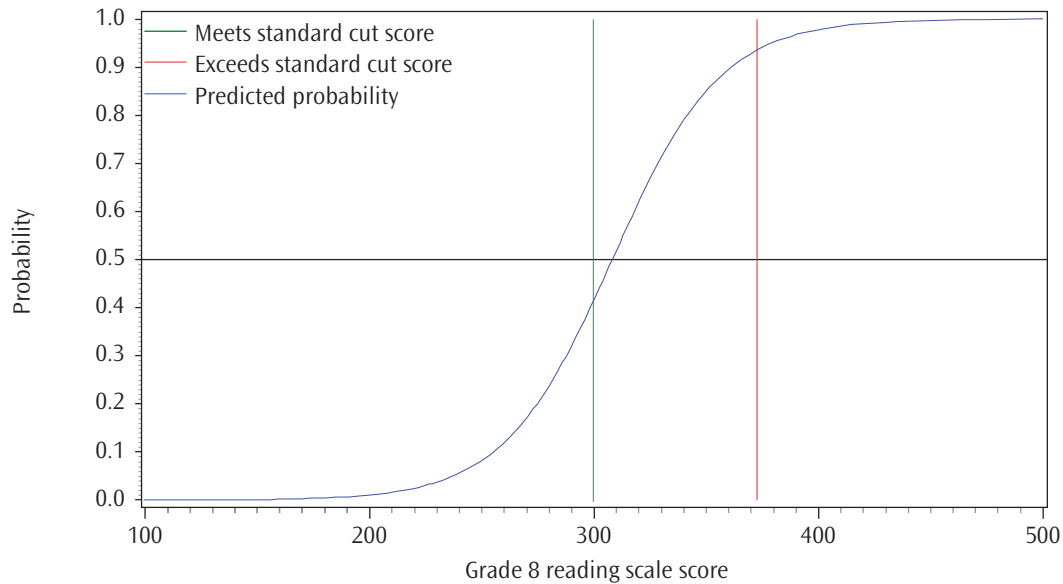
estimated probability of being judged college-ready in mathematics was .17. At the score required to exceed the standard for high school proficiency, 351, the probability was .83. The score associated with a .50 probability was 327, in the middle of the span of scores that would be classified as “meeting the standard,” but not exceeding it.

Research question 2: *How is a student's probability of qualifying for college-level courses in English at the University of Nevada, Reno, related to (a) the student's score on the state-administered grade 8 reading test and (b) the student's score on his or her first attempt at the high school proficiency exam in reading?*

Of the 3,368 students with reported college admission test scores, 2,715 (80.6 percent) exceeded the score required to be eligible for college-level courses at UNR. A grade 8 reading test score was available for 2,734 (81 percent) of the students with reported scores for the college admission tests. Figure 4 shows the relationship between students' probability of being judged ready for college-level courses in English and their grade 8 reading scores as it was described by the logistic regression analysis. Table 3 provides the scale scores and associated probability for key points on this curve.

The probability of being judged ready for college-level English courses is estimated to be .41 for students who

**Figure 4. The probability a student will be judged ready for college-level English courses as a function of the student's scale score on the statewide grade 8 reading test**



Source: Authors' analysis of data provided by Washoe County School District for graduation cohorts of 2008 and 2009.

scored at 300, the criterion for meeting the grade 8 reading standard. A probability of .94 is associated with a score of 373, the criterion for exceeding the standard. The scale score at which students had a 50-50 chance of being eligible for college-level English classes was 309.

Figure 5 shows how the probability of being judged ready for college-level English courses relates to students' scores on their first attempt at the reading test on the high school proficiency exam. This analysis was based on the 2,859 students with SAT or ACT scores for whom scores were also available from their first attempt of the high school proficiency exam in reading. These students accounted for 85 percent of the students with SAT or ACT scores.

Among these students, those who scored 251 on the reading test, the minimum score for meeting the standard required or high school graduation, had an estimated probability of .12 of being judged ready for college-level English classes (table 3). Those who scored 289 had an estimated probability of .50. Students who scored 307, the score at which students are considered to exceed the required standard, had an estimated probability of .72.

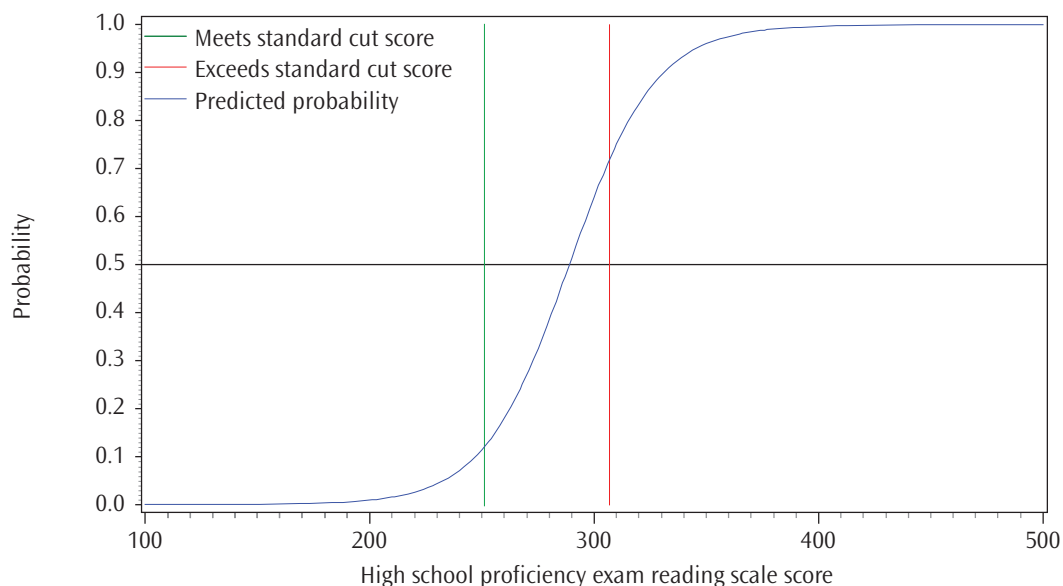
## Summary and discussion

This is a descriptive study of a particular subgroup of students from Washoe County School District who accounted for about one-third of the district's 2008 and 2009 graduation cohorts. The subgroup was not representative of the cohorts in terms of demographic variables or education outcomes. Thus, the findings from this research should not be considered to represent the results one might find if all students in the graduation cohorts were studied. Instead, findings might more accurately be interpreted as describing the subgroup of high school students who were knowledgeable about and motivated to complete a college admission test while in high school and had — or had access to<sup>4</sup> — the resources needed to do so.

A second limitation is that the study examines students for whom the district not only has college admission test scores on file but also has archived scores from earlier achievement tests. Students who enrolled in the district after the achievement tests were administered are not included in this analysis. Thus, the group of students in

<sup>4</sup> The district offers some financial support for students seeking to take an admission test but whose families cannot afford the cost.

**Figure 5. The probability a student will be judged ready for college-level English courses as a function of the student's scale score on the first attempt at the high school proficiency exam in reading**



*Source:* Authors' analysis of data provided by Washoe County School District for graduation cohorts of 2008 and 2009.

this study may be a more stable group of students than is typical even of students who take college admission tests.

Our method for judging students' readiness for college courses may underestimate students' likelihood of being judged ready by the university. The SAT and ACT are used by UNR for course placement. However, students who feel the admission test scores do not adequately reflect their skills can subsequently take a placement test administered by the university or, for English, can submit a writing portfolio. This study was necessarily limited to judgments based only on the SAT or ACT and could not access student scores on other assessments made by UNR. Thus, we could not know the final college-readiness judgments for students who failed to meet the criteria on the admission tests but who might have gone on to pass other assessments and become eligible for college-level courses.

Finally, the study uses readiness criteria established by UNR. Other colleges may use different criteria. (A summary of criteria used by Nevada colleges is reported in Nevada System of Higher Education 2010). Thus, the findings of this study are limited to UNR and other colleges that use the same criteria.

With these limitations in mind, the study found that more Washoe students were judged eligible for UNR college-level courses in English than in mathematics. This might

reflect better preparation of Washoe students in English than in mathematics, a lower UNR standard for placement in English courses than in mathematics courses, or both. There is evidence that the UNR standards differ for English and mathematics. For the 2009 freshmen, UNR's required SAT score of 440 for a student to be considered ready for college-level coursework in English was at the 28th percentile for SAT scores nationwide, while UNR's required mathematics SAT score of 500 was at the 45th percentile nationwide (College Board n.d.). Thus, based on these scores, nationwide, more students would be judged eligible for college English courses than for college mathematics courses at UNR.

Students' scores from the grade 8 achievement tests and from students' first attempt at the high school proficiency exam were related to the likelihood of their being eligible for college-level courses. In all four analyses, the range of achievement scores that met the standard for the test was associated with a wide range of probabilities of being judged eligible for college courses. With one exception, the likelihood of being judged ready for college-level classes was less than .20 for students who scored at the lower end of the "meets standard" range and was above .70 for students who scored at the top of the range. This was true for the grade 8 mathematics test and for both mathematics and reading

on the high school proficiency exam. The exception was the grade 8 reading test, for which a probability of .41 was associated with the lower end of the range of scores that meet the grade-level standard.

Do these descriptive analyses provide useful information for current and future students who would like to assess their progress in getting prepared for college? To use the descriptions provided in this study as a basis for predicting other students' likelihood of being eligible for college courses, one has to assume that the relationships between achievement test scores and eligibility for college courses remain constant over time and context — a constancy that may not persist if, for example, changes are made to the content or standards of the achievement tests. Similarly, changes to the college admission tests or to the criterion scores used to judge college readiness could also alter the relationship. So, too, could changes to the high school curriculum or the sequence of courses commonly taken by students. For example, if future students who scored low on the grade 8 achievement tests were provided enriched remedial instruction that accelerated their learning, the relationship between their test scores and their likelihood of being judged ready for college-level courses could change.

Assuming the relationships found in the study were to remain more or less constant, however, the parents and teachers of middle school students who are interested in attending college, as well as the students themselves, might find it helpful to review the students' grade 8 test scores. Students who exceeded standard on their grade 8 achievement test in reading or mathematics would be predicted to have better-than-even chances of being judged ready for college-level courses in that subject (assuming the students maintain that level of achievement). Students who do not meet the standard, or whose scores place them in the lower ranges of meeting the standard, particularly in mathematics, might benefit from enhanced study and support as they endeavor to enter college ready to enroll in credit-bearing courses.

Learning about the relationships described in this study might be helpful for the district as it builds a framework for student performance targets (Washoe County School District 2010) and plans corresponding research and instructional programs. But while this study examined predictors of college readiness, as defined by admission test scores, likely more informative would be research into the actual college performance of district graduates, including their grades in college-level courses. Also,

insights into instructional strategies that would improve students' likelihood of being ready for college courses might be found through studies that examine the articulation of high school and college curricula, as well as in studies that evaluate the impact of instructional programs targeting students who want to improve their preparation for college.

## References

- Chen, X., Wu, J., Tasoff, S., and Weko, T. (2010). *Academic preparation for college in the high school senior class of 2003–04* (NCES 2010-169). Washington, DC: U.S. Department of Education, IES National Center for Education Statistics. Retrieved February 14, 2010, from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010169>
- College Board. (n.d.). *SAT percentile ranks, 2009 college bound seniors*. Retrieved February 14, 2010, from <http://professionals.collegeboard.com/profdownload/SAT-Percentile-Ranks-2009.pdf>
- Education Alliance of Washoe County. (2009). *Washoe K–16 data profile: WCSD graduates attending UNR and TMCC*. Reno, NV: Author. Retrieved December 20, 2010, from <http://www.washoecountyschools.org/community/annual-reports-publications/data-profiles>
- Nevada System of Higher Education. (2010). Remedial/ Developmental report. Retrieved December 30, 2010, from <http://system.nevada.edu/Chancellor/Academic-A1/Reports/Remedial-R/Remedial-Report--Fall-2009-.pdf>
- Tierney, W.G., Bailey, T., Constantine, J., Finkelstein, N., and Hurd, N.F. (2009). *Helping students navigate the path to college: what high schools can do*. Washington, DC: Institute of Education Sciences. Retrieved February 14, 2011, from <http://ies.ed.gov/ncee/wwc/publications/practiceguides/>
- Washoe County School District. (2010). *Envision WCSD 2015: investing in our future*. Reno, NV: Author. Retrieved March 30, 2010, from <http://www.washoe.k12.nv.us/community/strategic-plan>
- Wirt, J., Choy, S., Rooney, P., Provasnik, S., Sen, A., and Tobin, R. (2004). *The condition of education 2004* (NCES 2004-077). Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved February 14, 2011, from <http://nces.ed.gov/programs/coe/2004/section5/indicator31.asp>

## Appendix: statistical analyses

**Descriptive statistics.** Table A1 provides descriptive statistics for the distributions of scores on the grade 8 tests of mathematics and reading and for the high school proficiency exam tests of mathematics and reading. The distributions are based on the combined graduation cohorts of 2008 and 2009. Also in the table are the intercorrelations among test scores.

**Logistic regression results.** Equation [1] shows the form of the logistic regression equation. The probability of an outcome coded as 1 (college ready) for person  $j$  is a nonlinear function of student  $j$ 's score ( $X_j$ ) on the achievement test. The logistic regression analysis estimates the weight to apply to the score ( $\beta_1$ ) and the constant ( $\beta_0$ ). A student's probability of being ready for

a college-level course may be estimated by substituting the student's achievement test score into the equation.

$$P(Y_j = 1) = 1/(1+e^{-z_j}); \text{ where} \quad [1]$$

$$z_j = \beta_0 + \beta_1 X_j$$

Table A2 provides the estimates of the constant ( $\beta_0$ ) and the regression weight ( $\beta_1$ ) for each of the four analyses in this study. Also provided are indicators of the goodness of fit of the logistic model to the data. The likelihood ratio test assesses the increased value of having information from the achievement test in the model over a model with the constant alone. The concordance value, which can range from 0 to 100, provides information on the accuracy of the predictions of college readiness using the

**Table A1. Descriptive statistics for scores from the grade 8 achievement tests and the high school proficiency exam for the combined graduation cohorts of 2008 and 2009.**

Statistic	Grade 8 achievement tests		High school proficiency exam (first attempt)	
	Mathematics	Reading	Mathematics	Reading
<b>Score distribution summary</b>				
Number of students with scores	2,734	2,734	2,867	2,859
Maximum score	500	500	500	500
75th percentile	434	400	360	358
50th percentile	382	366	336	333
25th percentile	341	331	314	306
Minimum score	100	100	100	100
Mean	385.0	364.9	337.1	332.8
Standard deviation	69.0	52.6	39.0	42.1
<b>Correlations among scores<sup>a</sup></b>				
Correlation with Grade 8 math (N of students)	--	.62 (2,731)	.76 (2,449)	.57 (2,445)
Correlation with Grade 8 reading (N of students)	--	--	.53 (2,449)	.70 (2,445)
Correlation with HSPE math (N of students)	--	--	--	.55 (2,855)

a. All correlations differ from zero with  $P \leq .001$ . "N of students" is the number of students who have both scores considered in the correlation and thus is the number on which the correlation is based.

Source: Authors' analysis of data provided by Washoe County School District for graduation cohorts of 2008 and 2009.

model. It is the percentage of all pairs of two observations in which the observed Y values differ (i.e., one is 0 and the other 1 for “not eligible” and “eligible” for college-level

classes) that have the probability predicted from X (the achievement test score) lower for the pair member with Y = 0 than for the pair member with Y = 1.

**Table A2. Summary of logistic regression analyses predicting preparation for college-level mathematics and English courses from scale scores on statewide achievement tests**

	Achievement test used as predictor			
	Mathematics		Reading	
	Grade 8	HSPE	Grade 8	HSPE
Constant	-11.40 (.46)	-22.46 (.88)	-12.77 (.63)	-15.15 (.73)
Weight	0.03 (.00)	0.07 (.00)	0.04 (.00)	0.05 (.00)
<b>Information about model fit</b>				
Likelihood ratio	1333.57	1523.13	924.62	954.45
Concordance	87	88	88	88

*Note:* Cell entries for the constant and weight are estimated values with standard errors in parentheses. All estimates differ from zero with  $p < .0001$ . For each analysis, the likelihood ratio test was significant at  $p < .0001$ .

*Source:* Authors' analysis of data provided by Washoe County School District for graduation cohorts of 2008 and 2009.

April 2011

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# SPECIAL REPORT — Research Collaboration with UNR

## What High School Curricular Pathways Tell Us About College Preparation and Success

### Purpose of Study

- Relate high school curricular experience to first- year college success
- Assess metrics of high school curricular rigor that best predict first-year success
- Support K-16 curriculum alignment and prospective student academic preparation

### Key Findings:

- First-year academic success at UNR correlates strongly with curricular experience in high school
- Completing Calculus in high school reduces the need for math remediation at UNR 15 times compared to completing high school Algebra only
- Completing AP English in high school reduces the need for English remediation at UNR 3 times compared to completing regular high school English only



# **SPECIAL REPORT — Research Collaboration with UNR**

## **Key Findings (cont):**

- The more AP subjects a student takes in high school, the greater the academic success at UNR
- Over 40% of WCSD high school graduates attending UNR received college credits for AP coursework
- Almost 80% of WCSD graduates taking AP courses in high school receive college credit at UNR
- Starting Algebra in 8<sup>th</sup> grade (instead of 9<sup>th</sup> grade) may raise the ACT Math score by 4 points (25 vs. 21 on average)
- Students from low-income high schools on average have significantly lower ACT/SAT scores than those from high-income high schools, even though they take the same level of math/English and receive comparable grades in each subject matter

## **Data Analyzed:**

- New full-time freshmen at UNR who graduated from a WCSD high school
  - ◊ Fall enrollment 2001 through 2008
  - ◊ Attended graduating high school at least 3.5 years
  - ◊ With matched high school/college transcript records (~ 85% matched, ~30% of FR population, N~6,100)
- Data sources
  - ◊ UNR University student information system
  - ◊ WCSD High school district transcript files





# **What High School Curricular Pathways Tell Us About College Preparation and Success**

**\*\*\*\*\***

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### Purpose of Study

- Relate high school curricular experience to first-year college success
- Assess metrics of high school curricular rigor that best predict first-year success
- Support K-16 curriculum alignment, prospective student academic preparation

### Relevant Previous Research

- *The Toolbox Revisited* (Adelman, 2006)
  - Academic intensity of student's high school curriculum
    - English, math, science units completed
    - Highest level math course completed
    - AP courses completed
  - High school attended (course offerings)
  - Delayed college entry of high school graduates
  - College-level math credits completed by 2<sup>nd</sup> year
  - Less than 20 college credits earned in first year
  - Trend in grades received
  - Attempted vs. completed courses in college
  - Covariate controls (e.g., SES, college financial aid)
  - Findings based on NELS:88/2000

### Data Analyzed for this Study

- New full-time freshmen at moderately selective public research university
  - Fall entry 2001 through 2008
  - Graduated from public high school in two in-state counties/districts in primary capture area 2001-08
  - Attended graduating high school at least 3.5 years
  - With matched high school/college transcript records (~ 85% matched, ~30% of FR population, N~6,100)
- Data sources
  - University student information system
  - High school district transcript files
- Data accuracy
  - Does not depend on retrospective recall of responses from student surveys (e.g., NCES' BPS, CIRP)

### Gauging High School Academic Influence

- Curricular rigor
  - Diploma type received
  - Honors/AP courses taken by discipline
  - Units completed by discipline
- Academic performance
  - GPA in core courses, within discipline
  - State proficiency exam test scores
- Academic progress
  - GPA trend senior year to prior years, within core, within discipline
  - Highest level math/science courses taken
  - Highest level English courses taken
  - 8<sup>th</sup> grade Algebra (N = 1,453)

### Gauging First-Year College Success

- End of fall semester academic momentum
  - Index score composed of credits earned and GPA:  
 $((\text{credits quintile} * 10) + (\text{GPA} * 12.5)) = 100 \text{ pt max}$
- End of first-year academic momentum
  - Retained in spring semester
  - Index score composed of cumulative credits earned and cumulative GPA (formula as above)
- Enrollment persistence into second year
- Credits earned grouping
  - Fall semester: <12, 12, 13-14, 15, > 15
  - First-year: <20, 20-25, 26-28, 29-30, > 30
  - Grouping logic reflects findings in Adelman (2006) and financial aid eligibility



## Preliminary Findings

- No difference in academic momentum, fall or first-year, between standard and advanced diploma holders
- Honors diploma holders score 15-16 points higher (~2/3 SD) in first-year momentum (i.e. GPA and credits completed)
- Loss of fall-to-spring momentum for all, but greatest for advanced holders, least for honors holders

### Multiple Comparisons

FirstY Momentum  
Dunnett T3

		Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
(I) HSDiplType	(J) HSDiplType				Lower Bound	Upper Bound
Standard/Adult/GED/NG	Advanced	.96280	.68696	.410	-.6784	2.6040
	Honors	-15.54735*	.58780	.000	-16.9511	-14.1436
Advanced	Standard/Adult/GED/NG	-.96280	.68696	.410	-2.6040	.6784
	Honors	-16.51015*	.63593	.000	-18.0295	-14.9908
Honors	Standard/Adult/GED/NG	15.54735*	.58780	.000	14.1436	16.9511
	Advanced	16.51015*	.63593	.000	14.9908	18.0295

\*. The mean difference is significant at the 0.05 level.

## Preliminary Findings

- The higher the level of high school math completed, the greater the academic momentum in college
- The 25-point difference between a 'lower math' student and a 'calculus' student is equivalent to a jump from the 50%tile to the 90%tile on the academic momentum scale

**Fall Momentum Score Difference by Highest HS Math**

		Mean Diff*	Std. Error
Calculus	Pre-Calc/Trig	10.89	0.80
	Stats/Pre-IB	14.78	0.94
	Algebra 4	21.44	0.85
	Lower math	25.16	1.61
Lower math	Calculus	-25.16	1.61
	Pre-Calc/Trig	-14.26	1.57
	Stats/Pre-IB	-10.37	1.64
	Algebra 4**	-3.72	1.59

\*. The mean difference is significant at the 0.05 level.

\*\* non-significant difference



## Preliminary Findings

- The higher the level of high school English completed, the greater the academic momentum (GPA, credits earned) in college
- The 16-point difference between a ‘repeat regular English’ student and an ‘AP’ student is equivalent to a jump from the 50%tile to the 73%tile on the academic momentum scale!

**Fall Momentum Score Difference by Highest HS English**

<i>Reference (GPA/Crs)</i>	<i>Compared to....</i>	<i>Mean Diff.*</i>	<i>Std. Error</i>	<i>Fall GPA</i>	<i>Earned Credits</i>
AP/IB (3.1, 14.3)	Honors/College-level	5.84	1.30	2.95	13.2
	English 8 (4)	11.90	0.68	2.66	12.6
	Engl Topics	14.73	1.10	2.56	11.9
	SpecEd/ELL//AE/OC	15.35	2.30	2.53	11.8
	Repeat RegEngl	15.98	1.66	2.47	11.7
	No record	50.85	0.94	0.87	2.3

\*. The mean difference is significant at the 0.05 level.

## Preliminary Findings

- The higher the level of high school math/science completed, the greater the first-year academic momentum in college
- The 27-point difference between a 'Algebra 4/lower' student and a 'Calc/AP' student is equivalent to a jump from the 50%tile to the 90%tile on the academic momentum scale

**First-Year Momentum Score Difference by Highest HS Math & Science Taken**

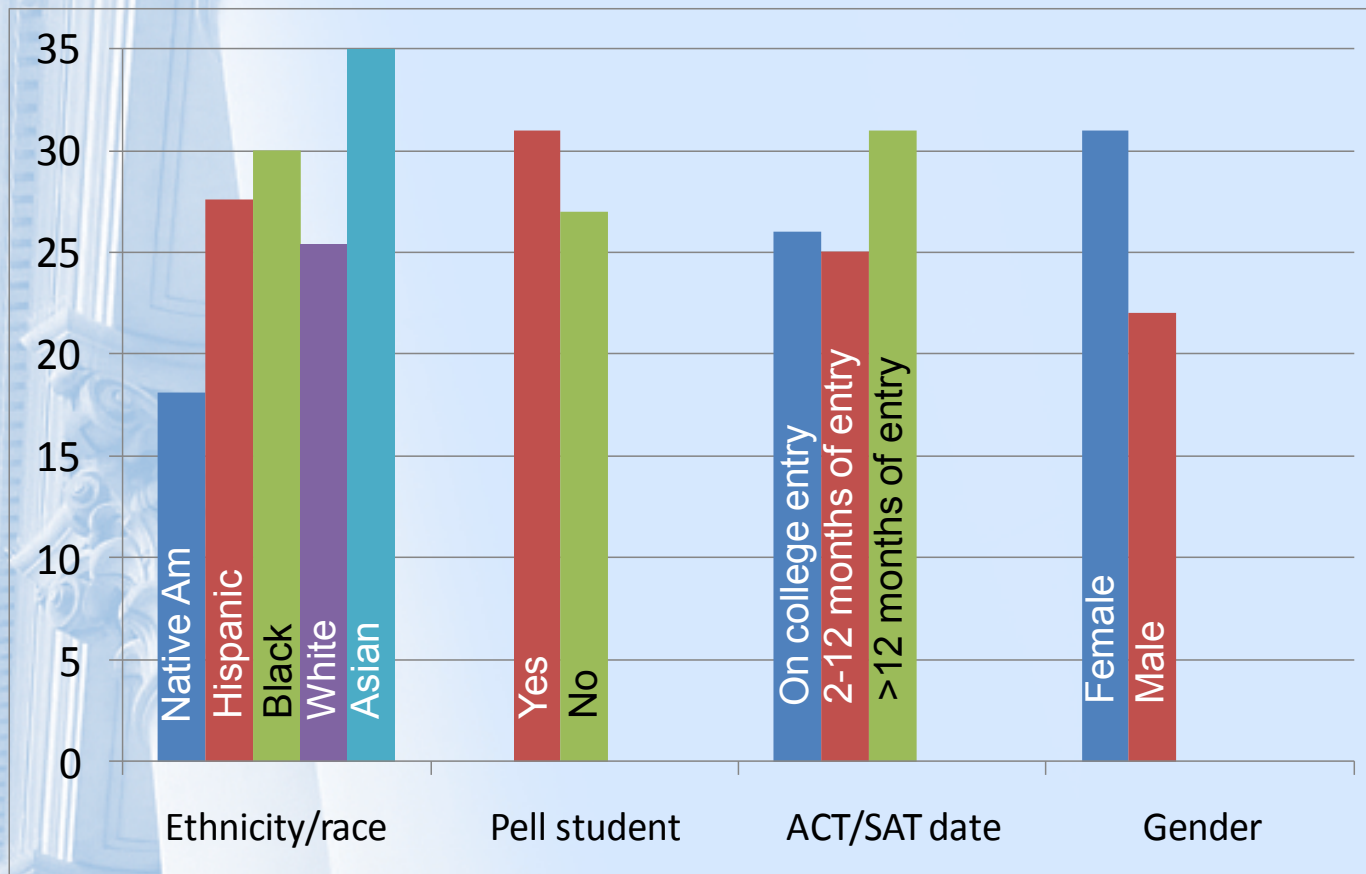
<i>Reference</i>	<i>Compared to....</i>	<i>Mean Diff.*</i>	<i>Std. Error</i>	<i>Cum GPA</i>	<i>Earned Credits</i>
Calc Math & AP Science (GPA 3.33; Credits 29.6)	Calc Math & HonAdv Phys	7.06	1.22	3.20	27.0
	PreCalc or Trig & AP Sci	12.03	1.08	3.01	25.8
	PreCalc or Trig & HonAdv Phys	14.58	0.98	2.93	24.9
	Stats or PreIB math & AP Sci	16.09	1.26	2.94	24.6
	Stats or PreIB math & HonAdv Phys	19.84	1.18	2.80	23.3
	Algebra 4(8) & AP Science	20.86	1.18	2.77	22.9
	Algebra 4(8) or lower & Intro Sci	27.29	0.99	2.58	20.6
	All other math/sci combinations	22.83	0.91	2.69	22.3

\*. The mean difference is significant at the 0.05 level.

## SPECIAL REPORT — Research Collaboration with UNR

N

### HS AP/Honors\* English Participation Rate (%)

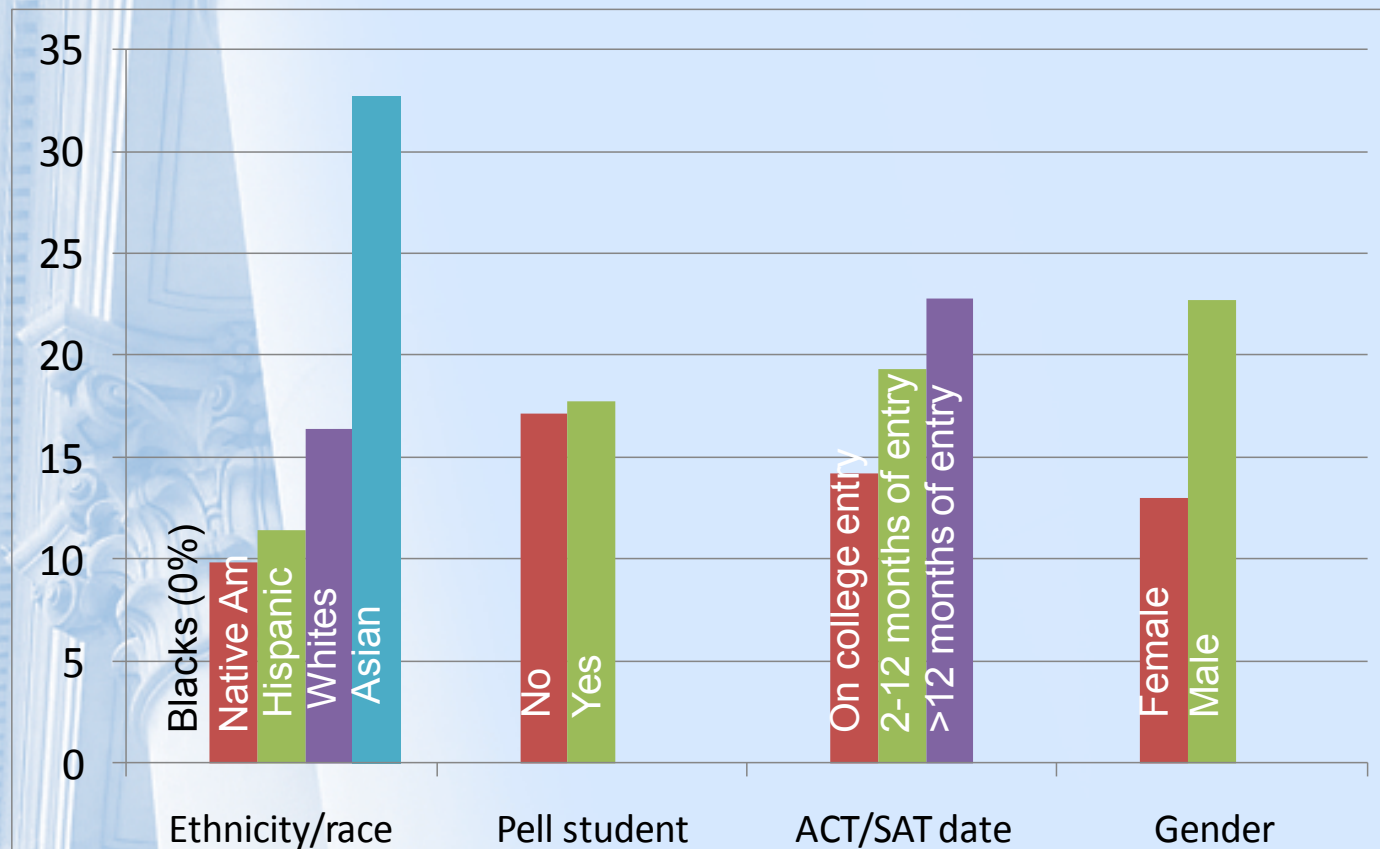


\*Including IB and college-level courses

## SPECIAL REPORT — Research Collaboration with UNR

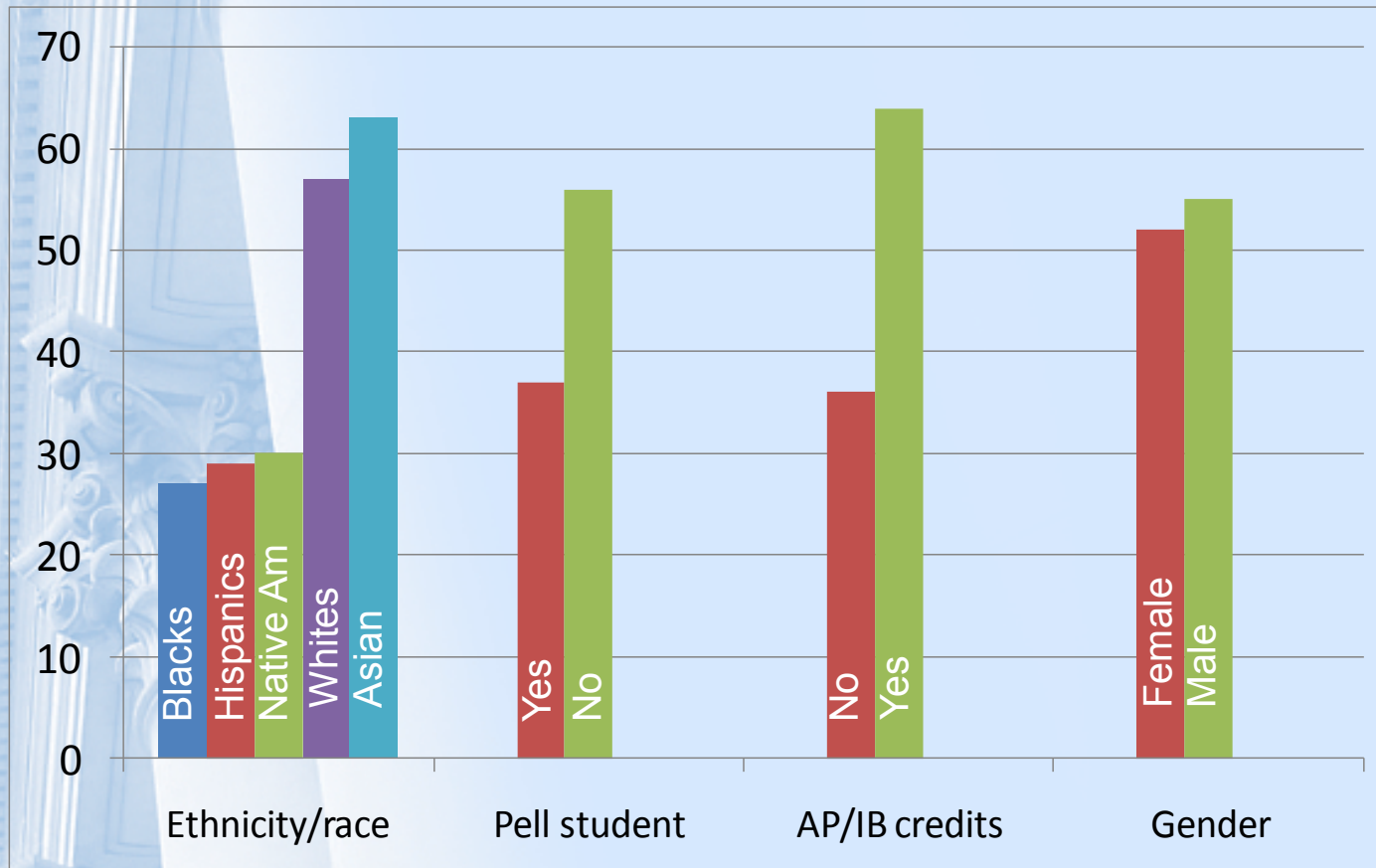


### HS Advanced\* Math/Science Participation Rate (%)



\* Minimum Calculus math *and* AP Science or Honors/Advanced Physics

## 8<sup>th</sup> Grade Algebra Participation Rate (%)



### Preliminary Findings: 8<sup>th</sup> Grade Algebra

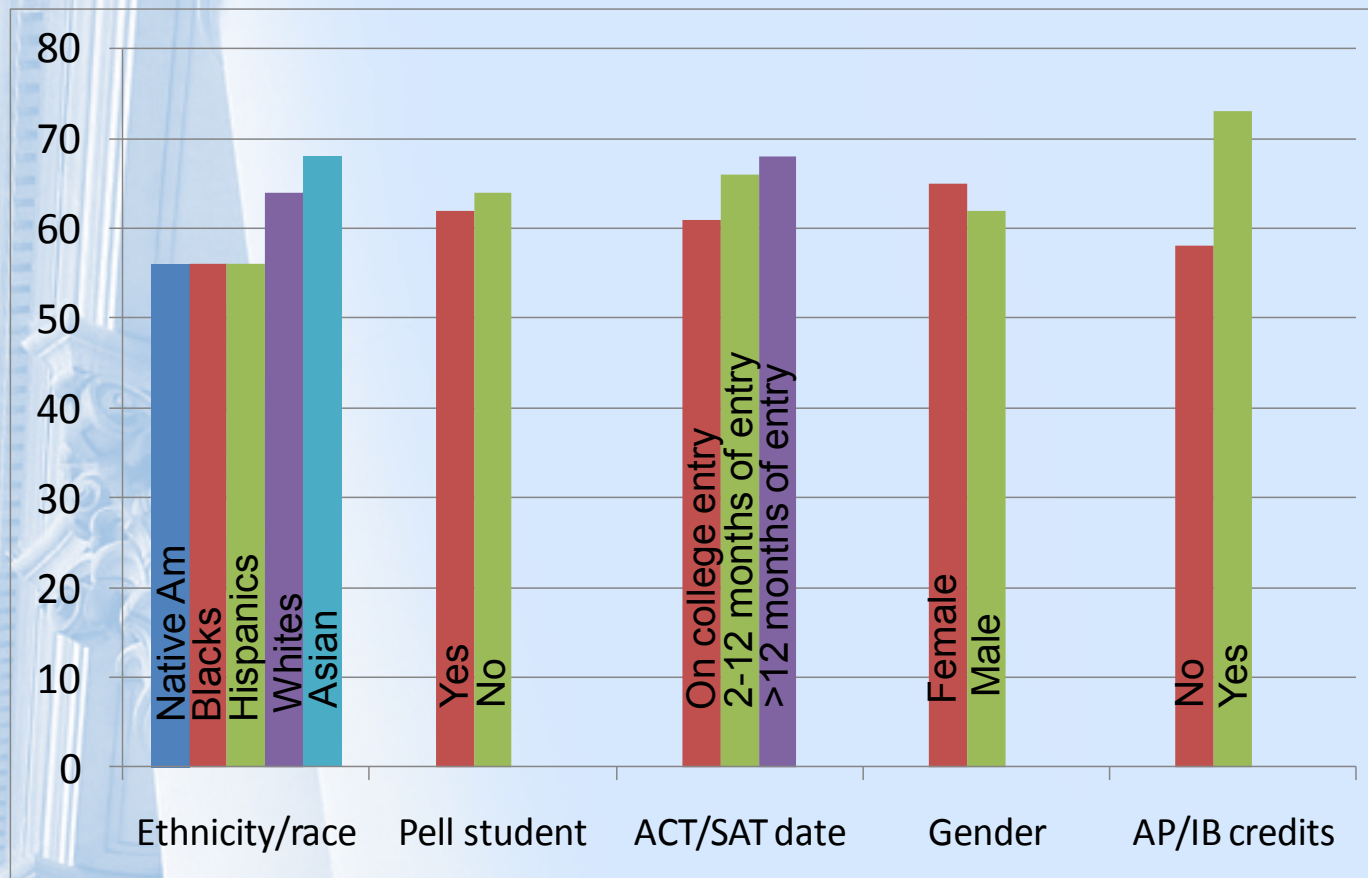
- College freshmen at UNR are twice as likely to start Algebra in 8<sup>th</sup> grade compared to average high school graduates (53% vs 22%; freshmen N=1,453; all HS grads N=32K)
- Freshmen with 8<sup>th</sup>-grade Algebra show greater first-year academic momentum (71 vs 61 pts;  $t = 6.5$ ) and are more likely to return for second year (90 vs 85%;  $X^2=2.9$ )
- Freshmen with 8<sup>th</sup>-grade Algebra score higher on ACT Math test (25 vs 21;  $t = 20.1$ ) and HS proficiency math test (359 vs 334;  $t = 17.7$ )
- Moderate correlation between 8<sup>th</sup>-grade Algebra test score and first-year momentum ( $r=.51$ )
- Freshmen with 8<sup>th</sup>-grade Algebra are *six times* more likely to take calculus/AP-level math/science in high school



## SPECIAL REPORT — Research Collaboration with UNR

N

### First-Year Academic Momentum Score\*



\*  $((\text{credits quintile} * 10) + (\text{GPA} * 12.5)) = 100 \text{ pt max; mean} = 63, \text{SD} = 21$

### Regression Analysis Findings

- Academic momentum at end of first semester
  - Overall HS GPA and core GPA are best predictors
  - Senior GPA is nearly as good as overall core GPA
  - Importance ranked by senior units: 1) math, 2) science, 3) arts & humanities, 4) English
  - Positive impact of taking advance coursework is greatest for math
- Academic momentum at end of first year college
  - The effect of level of HS math and ACT/SAT score increases compared to overall HS GPA



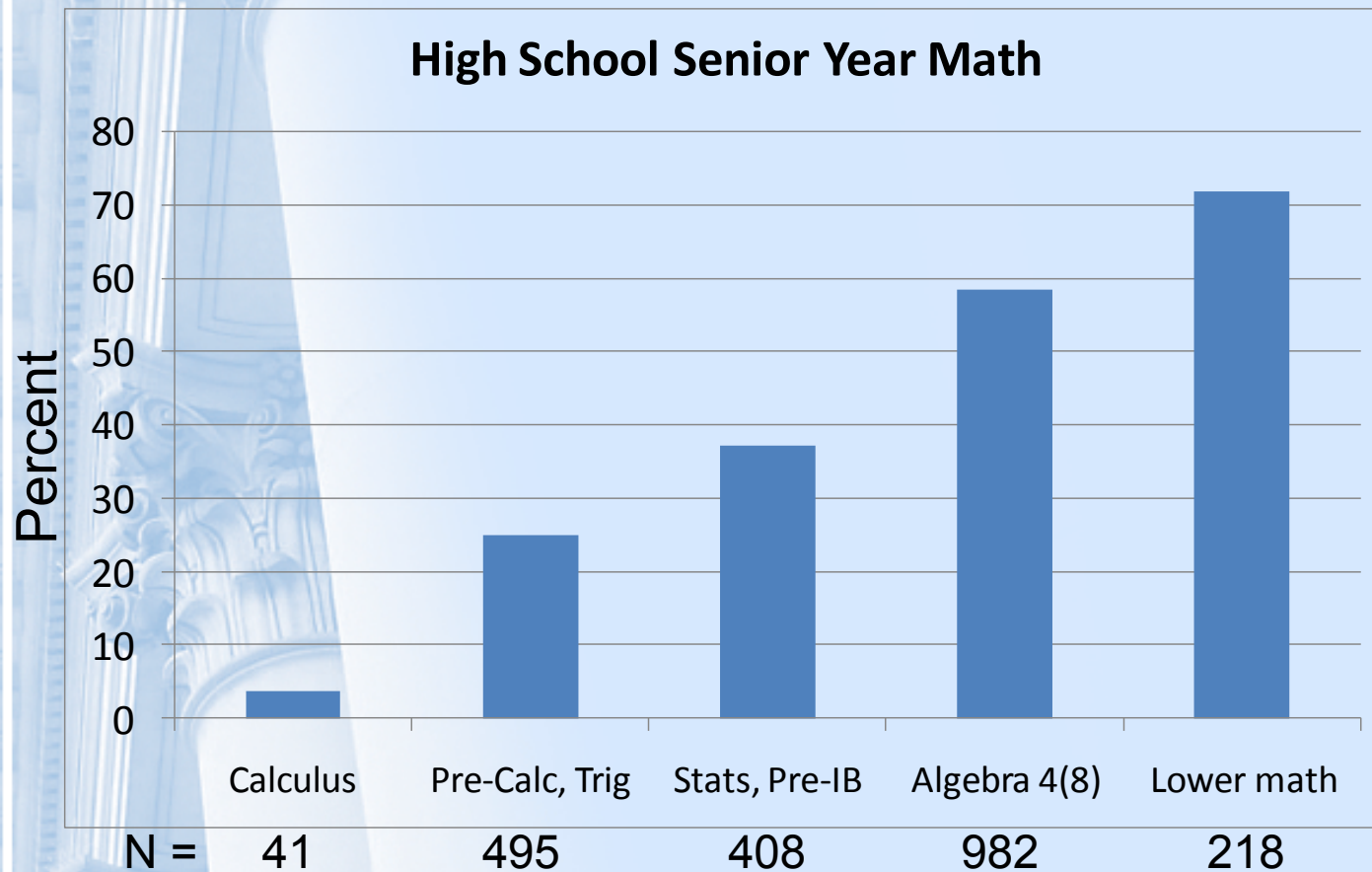
### Regression Analysis: First-Year Momentum

- Impact of highest-level HS English
  - AP/IB students score higher (2 pts) than core completers, those completing regular-sequence up to English 4(8)
  - All others similar to core completers ( $\alpha > .05$ )
  - Highest level of HS English adds little value after all other variables are considered
  - PE score in Writing adds slight value
- Impact of highest-level HS math/science
  - Only advanced math (Pre-Calc up) students score higher (2.5-6.0 pts)
  - Statistics-level students no longer score higher compared to fall term momentum results

### Preliminary Findings: HS Proficiency Exams

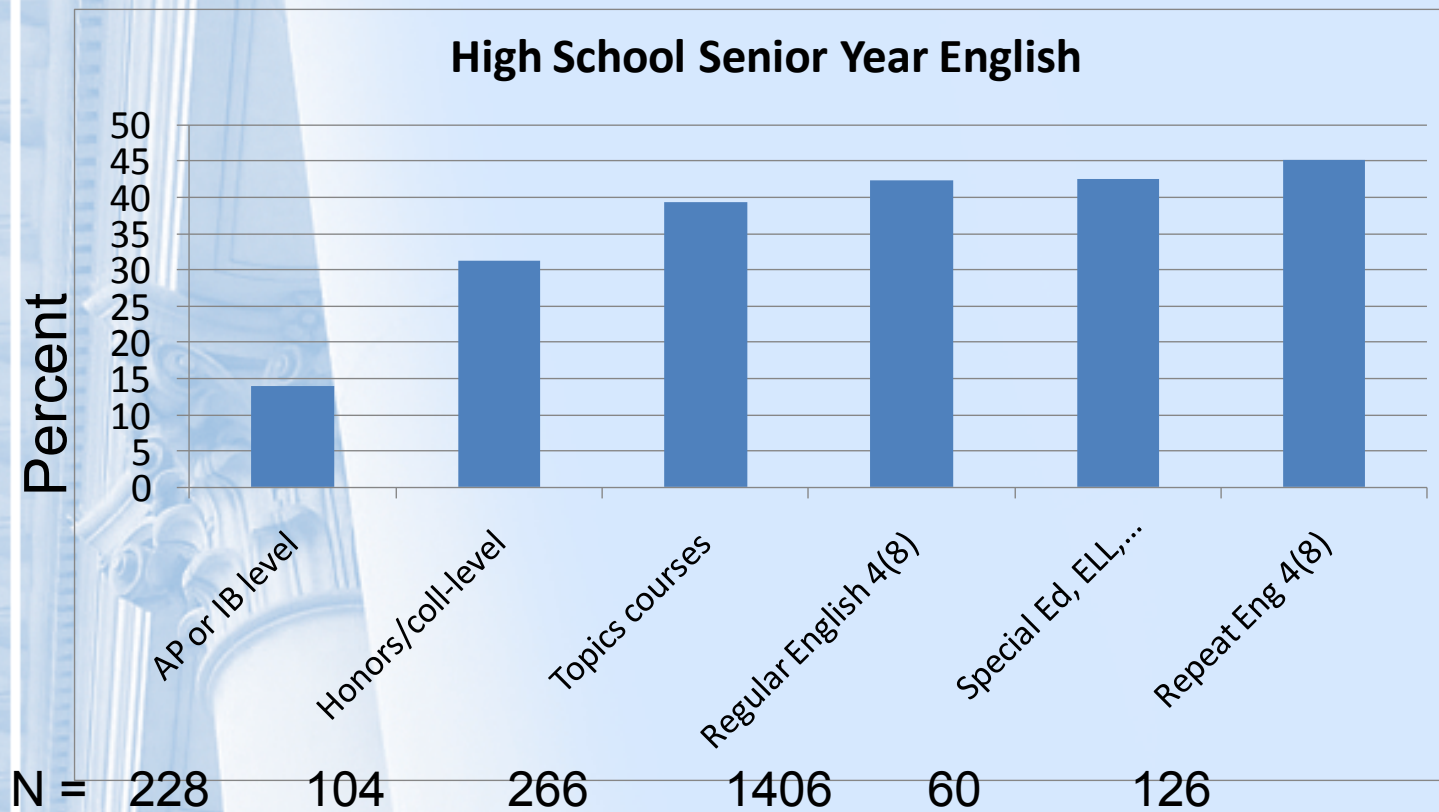
- Proficiency exam (PE) scores show smaller correlation with first-year momentum in college ( $r = .23$  to  $.30$ ) compared to ACT English/math ( $r = .39$  to  $.41$ ) and HS GPA ( $r = .58$ )
- Reading PE scores show stronger correlation with ACT English ( $r = .57$ ) than the Writing PE scores ( $r = .41$ )
- Math PE scores alone explain about 42% of the variation in ACT math scores ( $r = .65$ )
- Association (t) with AP-standing in college: ACTM 34.6, ACTE 34.5, HS GPA 27.0, Math PE 25.5, Reading PE 21.8, Writing PE 11.1

## In Need of Math Remediation\* at UNR



\* ACT math < 21 or SAT math < 500

## In Need of English Remediation\* at UNR



\* ACT English < 21 or SAT verbal < 510

### Key Findings

- First-year academic success at UNR correlates strongly with curricular experience in high school
- Completing Calculus in high school reduces the need for math remediation at UNR 15 times compared to completing high school Algebra only
- Completing AP English in high school reduces the need for English remediation at UNR 3 times compared to completing regular high school English only
- The more AP subjects a student takes in high school, the greater the academic success at UNR
- Over 40% of WCSD high school graduates attending UNR received college credits for AP coursework
- Almost 80% of WCSD graduates taking AP courses in high school receive college credit at UNR
- Starting Algebra in 8<sup>th</sup> grade (instead of 9<sup>th</sup> grade) may raise the ACT Math score by 4 points (25 vs. 21 on average)



### Major Findings for High Schools

- High school attended matters, variation in grading and/or content rigor (i.e. little variation in GPA, much variation in ACT/SAT)
- Need for remediation at UNR varies significantly by high school and correlates strongly with highest level of math/English taken
- Over 40% of WCSD graduates attending UNR received AP credits
- Almost 80% of WCSD graduates attending UNR who took AP courses in high school received college credit at UNR
- The more AP subjects a high school student takes, the greater the academic success at UNR
- The high school core GPA is the strongest predictor of academic success at UNR using first-year GPA and credits completed
- Taking advanced courses in high school strongly correlates with academic success at UNR
- WCSD graduates attending UNR are twice as likely to have started Algebra in 8<sup>th</sup> grade compared to average WCSD grads

# **2010 Data Profile**

WCSD Graduates Including the Class of 2010



# SUMMARY OF DATA TRENDS

## WCSD Graduates Including the Class of 2010

### High School Trends

- The 2010 Cohort Graduation Rate increased seven percentage points to 63%. From 2006 through 2009, the Cohort Graduation Rate had remained flat at around 56%. All WCSD population groups had a higher graduation rate in 2010. Hispanics increased from 40% in 2009 to 45% in 2010, and Whites increased from 63% in 2009 to 73% in 2010.
- Thirty-seven percent of the 2010 cohort did not graduate — 19% stayed in school, but did not complete all graduation requirements; 18% dropped out or left without giving a reason.
- The percentage of graduates receiving an Honor's Diploma rose from 16% in the previous two years, to 19% in 2010, when 951 graduates earned an Honor's Diploma. The Honor's Diploma is the most academically rigorous diploma offered by WCSD.
- The Class of 2010 was the first cohort for which the Gateway Curriculum was mandatory. The percentage of 2010 graduates earning four math credits rose to 62% (compared to 38% in 2004); the percentage of 2010 graduates earning three science credits rose to 77% (compared to 67% in 2004).
- The average ACT math score for 2010 seniors was 22.4, the highest average ACT math score on record for the District.
- From 1998 through 2008, WCSD's SAT verbal and math scores were significantly above the national average, but they have dropped almost continuously since 2003 and are now much closer to the national average.

# SUMMARY OF DATA TRENDS

## WCSD Graduates Including the Class of 2010

### College Trends

- Fifty-eight percent of WCSD 2010 graduates enrolled in either TMCC or UNR in the summer or fall following high school graduation, the highest percentage since the Data Profile began tracking in 1997 (when 37% of grads enrolled in UNR or TMCC).
- Members of the WCSD Class of 2010 who enrolled in TMCC demonstrated the highest average algebra placement scores, and the highest average ACT math scores of any of the WCSD graduating classes in the previous eight years.
- Eighty-three percent of WCSD 2009 graduates who enrolled at UNR continued their enrollment into the second semester, compared to 76% of all other Nevada students who enrolled in UNR in 2009 as first-time freshmen.
- Sixty-six percent of WCSD graduates who enrolled at TMCC continued their enrollment into the second semester.

### College Success

- Fifty-five percent of 2004 WCSD graduates who attended UNR completed a Bachelor's degree within 6 years of high school graduation, compared to 50% of all UNR 2004 first-time freshmen.
- The percentage of WCSD graduates who earned an Associate's Degree or Certificate from TMCC within 3 years of high school graduation (2 years for certificates) nearly doubled between the WCSD Class of 2006 and the Class of 2007, increasing from 11% to 21%.

# SUMMARY OF DATA TRENDS

WCSD Graduates Including the Class of 2010

## Recommendations for Future Work

- Identify potential effects of the Gateway Curriculum on college enrollment, need for remediation and college persistence beyond the first semester.
- Investigate factors that contribute to a student's failure to graduate from high school.
- Continue to examine Washoe County data at the four key transition points from high school to completion of a college degree: high school graduation rate, college-going rate, persistence rate after two college semesters, college graduation rate.
- Continue to disaggregate selective data sets by student ethnicity.
- Continue to improve the capability to identify factors that promote or retard student success in higher education.

# COHORT GRADUATION RATE VS. STATE GRADUATION RATE

## Graduation Rate Calculations: *Cohort Rate Versus Leaver*

As described in detail in the 2007 edition of the *Washoe K-16 Data Profile*, researchers have used many different methods to measure high school graduation rates. Some methods attempt to estimate the percentage of a freshman class that graduates four years later. Others measure some other aspect of graduation. The various formulas yield disparate results and often describe very different relationships.

Currently, the method known as the *Leaver Rate* is used to produce the official graduation rate reported by the Nevada Department of Education. The *Leaver Rate* measures the percentage of students in a given senior class who leave school as graduates – that is, leave school with a standard, advanced, or honors diploma. The *Leaver Rate* answers the question, “Of those students who officially leave, how many leave by graduating?” The majority of states, including Nevada, have used the *Leaver Rate* to produce the graduation rate used for Federal accountability reporting required by the No Child Left Behind act. Graduation rates produced by the *Leaver Rate* method are typically higher than graduation rates calculated by other methods.

The Class of 2010 graduation rate, as calculated using the *Leaver Rate* formula, was **72%** for WCSD.

In 2005, the National Governors Association (NGA) developed a formula for calculating a longitudinal cohort high school graduation rate that determines the percentage of first-time freshmen and transfer-in students who ultimately graduate with a regular diploma within four years. The Education Alliance of Washoe County (formerly the Education Collaborative of Washoe County) initiated WCSD’s first attempt to track individual students and produce a cohort graduation rate for the Class of 2006. A detailed report of this endeavor and the results were published in the 2007 edition of the *Washoe K-16 Data Profile*. (In that report, the method was referred to as the *EC/NGA Cohort High School Graduation Rate*. In this report, the name has been shortened to the *Cohort Graduation Rate*.)

The *Cohort Graduation Rate* consists of the longitudinal tracking of individual students in a given freshman class, including transfers in and out of the cohort, over their four years in high school. Expressed as a formula, the *Cohort Graduation Rate* equals:

$$\frac{\text{Number of 4-Year Graduates}}{(\text{1}^{\text{st}}\text{-Time Freshmen}) + (\text{Total Transfers In}) - (\text{Total Transfers Out})}$$

The *Number of 4-Year Graduates* includes students who earned standard, advanced, honors and adult diplomas by August of their fourth year.

*1<sup>st</sup>-Time Freshmen* includes 9<sup>th</sup> graders who transferred in during their freshman year.

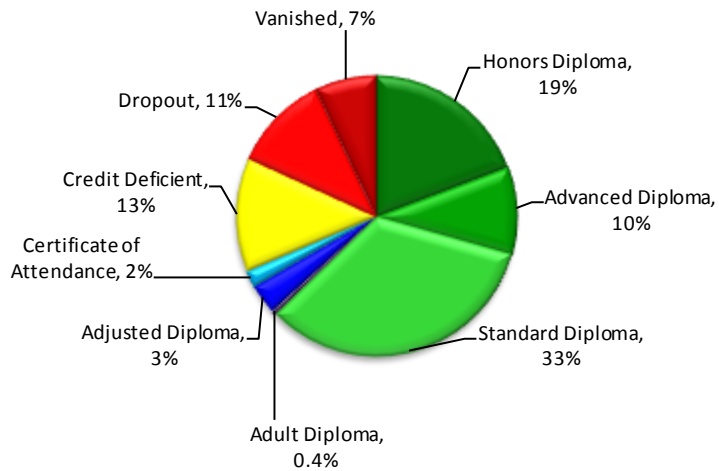
*Total Transfers In* includes all transfers in that occurred between the cohort’s sophomore and senior years.

*Total Transfers Out* includes all transfers out that occurred between the cohort’s freshman and senior years.

All high school graduation rates reported in the following pages were calculated using the *Cohort Graduation Rate* method.

# COHORT GRADUATION RATE

Class of 2010



Final Status of All Students in the Cohort	2006		2007		2008		2009		2010	
	N	%	N	%	N	%	N	%	N	%
Graduate - Honors	652	14%	782	15%	821	16%	874	16%	951	19%
Graduate - Advanced	539	11%	580	11%	512	10%	631	12%	500	10%
Graduate - Standard	1441	31%	1404	28%	1519	29%	1432	27%	1625	33%
Graduate - Adult	41	1%	12	0.2%	33	1%	20	0.4%	20	0.4%
Adjusted Diploma <sup>1</sup>	183	4%	227	4%	176	3%	182	3%	155	3%
Certificate of Attendance	112	2%	157	3%	127	2%	104	2%	121	2%
Credit Deficient	346	7%	328	6%	360	7%	374	7%	657	13%
Dropout <sup>2</sup>	619	13%	761	15%	792	15%	683	13%	557	11%
Vanished <sup>3</sup>	783	17%	796	16%	819	16%	1021	19%	349	7%
Full Cohort	5802		6036		6144		6295		6245	
Verified Transfer Out <sup>4</sup>	1086		989		985		974		1310	
Final Adjusted Cohort	4716		5047		5159		5321		4935	
<b>Total Graduates</b>	<b>2673</b>	<b>57%</b>	<b>2778</b>	<b>55%</b>	<b>2885</b>	<b>56%</b>	<b>2957</b>	<b>56%</b>	<b>3096</b>	<b>63%</b>

1. Adjusted diplomas are only available for students with disabilities and are not equivalent to a Standard diploma. Students who receive Adjusted diplomas are counted as non-grads.

2 *Dropout*<sup>2</sup> includes cohort members who transferred to Washoe Adult HS before their 18th birthday to work toward obtaining a GED, and students who stated they were withdrawing to obtain a GED. WCSD cannot track how many students actually obtain a GED because they can test outside of the District.

3. *Vanished*<sup>3</sup> consists of cohort members with: 1) no withdrawal data; or 2) out-of-district transfer withdrawal codes, but no record of a transcript request; or 3) in-district transfer withdrawal codes, but no record of subsequent enrollment in a WCSD school.

4. Per state guidelines, *Verified Transfer Out*<sup>4</sup> includes cohort members who transferred to Washoe Adult HS on or after their 18th birthday. For the 2010 cohort, 140 students (2% of the full cohort) transferred to Washoe Adult after turning 18.

5. Changes in the percentages of *Credit Deficient*, *Dropouts*, and *Vanished* across the years are a result of improvements in student accounting (such as new/expanded withdrawal codes), and should not be interpreted as major changes in the types of non-grads.

# COHORT GRADUATION RATE BY HIGH SCHOOL

School	Class of 2006		Class of 2007		Class of 2008		Class of 2009		Class of 2010	
	N	%	N	%	N	%	N	%	N	%
AACT **	26	70%	32	84%	32	76%	47	90%	20	96%
Damonte Ranch	106	55%	138	51%	192	60%	191	60%	205	70%
Galena	286	73%	295	77%	274	74%	298	70%	278	84%
Gerlach	-	-	-	-	-	-	-	-	-	-
Hug	105	36%	103	34%	130	38%	133	41%	155	44%
Incline	71	60%	91	66%	65	65%	74	60%	78	75%
McQueen	347	70%	342	72%	352	71%	375	71%	353	79%
North Valleys	243	49%	262	48%	267	50%	298	55%	320	65%
Reed	361	66%	401	62%	414	64%	379	62%	411	76%
Reno	358	76%	383	76%	343	73%	338	74%	360	82%
Spanish Springs	300	65%	326	62%	345	63%	349	66%	376	75%
Sparks	130	43%	122	45%	129	48%	135	45%	141	53%
TMCC	90	81%	80	85%	82	86%	92	92%	91	95%
Washoe	84	18%	43	9%	84	16%	58	10%	43	8%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	31	34%
Wooster	159	50%	159	45%	170	43%	184	46%	225	55%
<b>WCSD</b>	<b>2673</b>	<b>57%</b>	<b>2778</b>	<b>55%</b>	<b>2885</b>	<b>56%</b>	<b>2957</b>	<b>56%</b>	<b>3096</b>	<b>63%</b>

The 2006 through 2008 rates have been recalculated to conform to the NDE's Adjusted Cohort Graduation Rate Method. Consequently, numbers reported here differ from previously reported numbers .

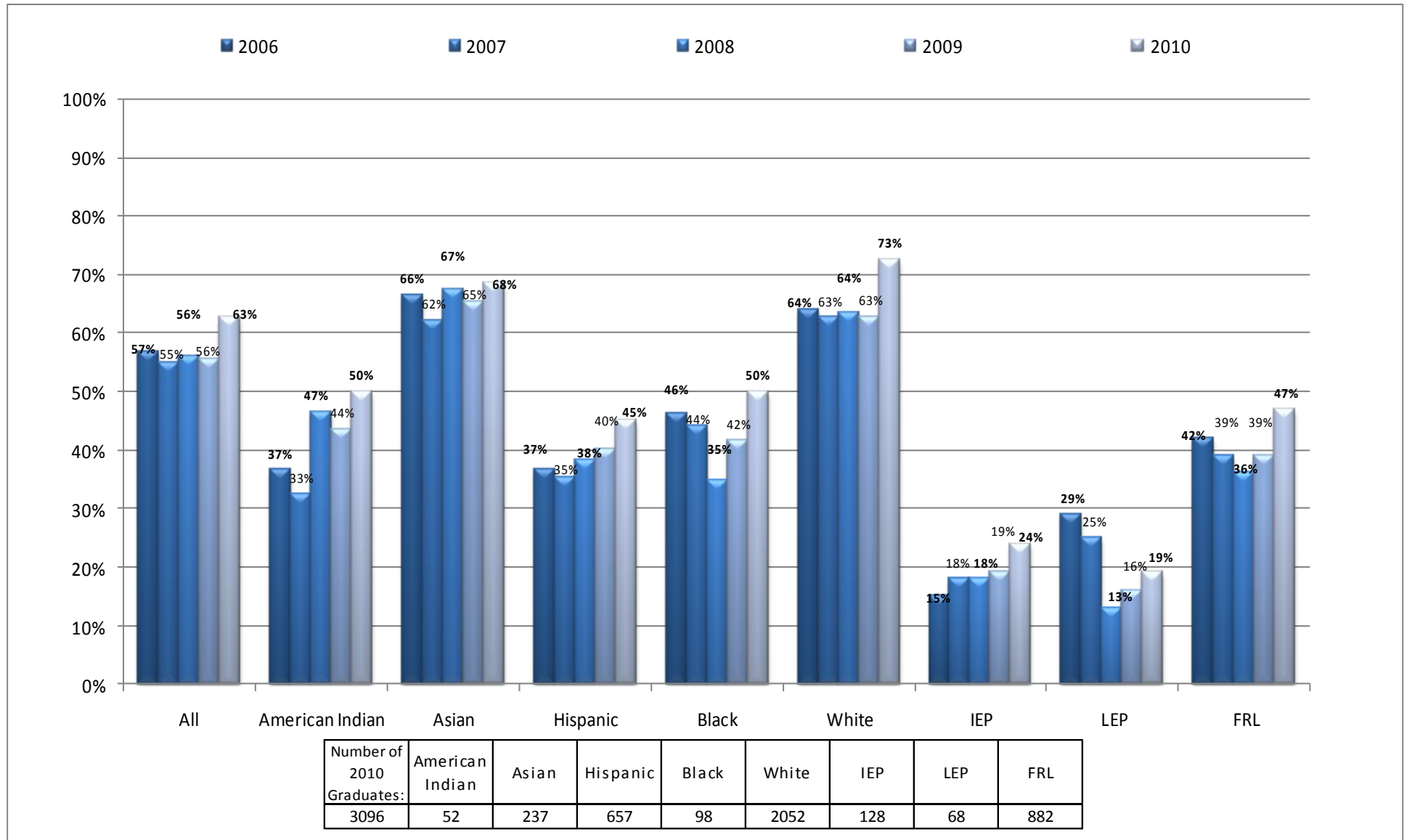
District Totals include schools with fewer than 10 students in a population, and are therefore higher than the total of the column percentages.

\*\* AACT changed enrollment policies resulting in fewer seniors in the 2009-10 school year.

'-' Denotes too few students to report.

N = number of graduates

# COHORT GRADUATION RATE BY STUDENT GROUP



LEP = Students with limited English proficiency  
 IEP = Students with an Individualized Education Plan  
 FRL = Students receiving free or reduced priced lunches



# NON-GRADUATES

## Dropout, Vanished, Credit Deficient

SCHOOL	Class of 2006				Class of 2007				Class of 2008				Class of 2009				Class of 2010			
	Dropout/ Vanished		Credit Deficient		Dropout/ Vanished		Credit Deficient		Dropout/ Vanished		Credit Deficient		Dropout/ Vanished		Credit Deficient		Dropout/ Vanished		Credit Deficient	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
AACT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Damonte Ranch	65	33%	10	5%	101	38%	14	5%	88	28%	13	4%	78	25%	29	9%	38	13%	23	8%
Galena	78	20%	19	5%	59	15%	17	4%	61	17%	18	5%	111	26%	-	-	17	5%	24	7%
Gerlach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hug	98	37%	44	15%	122	40%	25	9%	126	38%	32	9%	125	39%	32	10%	94	26%	57	16%
Incline	33	23%	-	-	31	22%	-	-	23	23%	-	-	41	33%	-	-	14	14%	-	-
McQueen	91	19%	35	7%	80	17%	27	6%	98	19%	34	7%	93	18%	38	7%	33	7%	45	10%
North Valleys	194	39%	32	6%	200	37%	40	7%	208	38%	34	6%	164	31%	47	9%	88	18%	57	11%
Reed	116	21%	37	7%	145	22%	35	5%	147	23%	40	6%	174	28%	22	4%	53	10%	41	8%
Reno	88	18%	12	3%	80	16%	20	4%	98	21%	-	-	97	21%	-	-	48	11%	20	5%
Spanish Springs	107	23%	27	6%	125	24%	36	7%	147	26%	35	6%	116	22%	38	7%	55	11%	50	10%
Sparks	101	33%	31	10%	93	34%	24	9%	88	33%	22	8%	96	33%	35	12%	69	26%	23	9%
TMCC	11	10%	-	-	-	-	-	-	11	11%	-	-	-	-	-	-	-	-	-	-
Washoe	297	63%	63	13%	382	77%	45	9%	365	70%	55	11%	471	77%	56	9%	264	49%	217	40%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	25	27%	34	38%
Wooster	120	38%	14	4%	126	36%	35	10%	143	37%	61	16%	132	33%	59	15%	102	25%	57	14%
<b>WCSD</b>	<b>1402</b>	<b>30%</b>	<b>324</b>	<b>7%</b>	<b>1557</b>	<b>31%</b>	<b>328</b>	<b>6%</b>	<b>1611</b>	<b>31%</b>	<b>360</b>	<b>7%</b>	<b>1704</b>	<b>32%</b>	<b>356</b>	<b>7%</b>	<b>906</b>	<b>18%</b>	<b>657</b>	<b>13%</b>

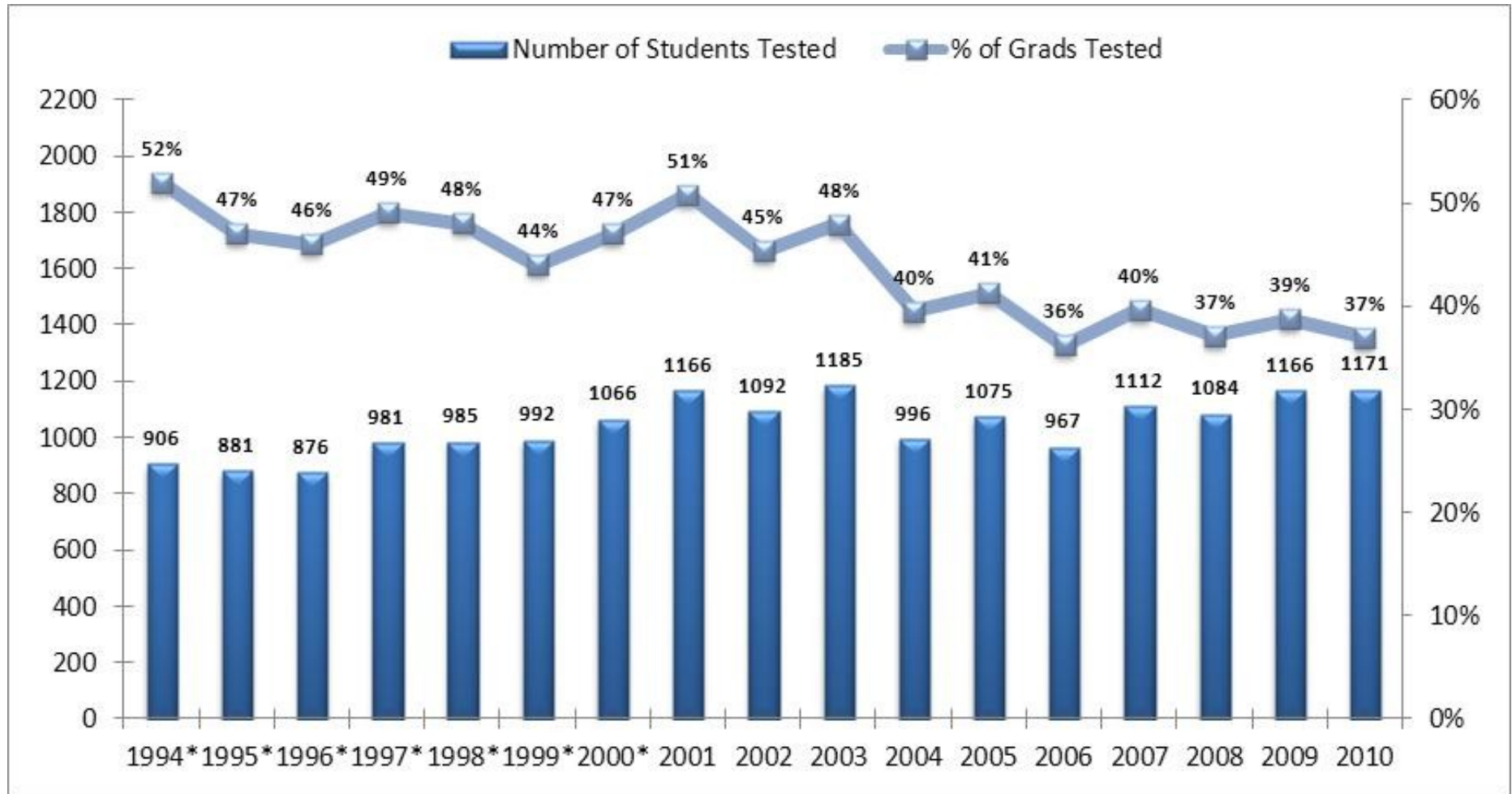
In accordance with the Nevada Department of Education, cohort members who transferred to the Washoe Adult HS program before the age of 18 are included in the 'Dropout' category.

'-' denotes too few students to report

# COLLEGE ENTRANCE EXAMS

ACT Participation

*Number and Percentage of WCSD Graduates Who Took the ACT*

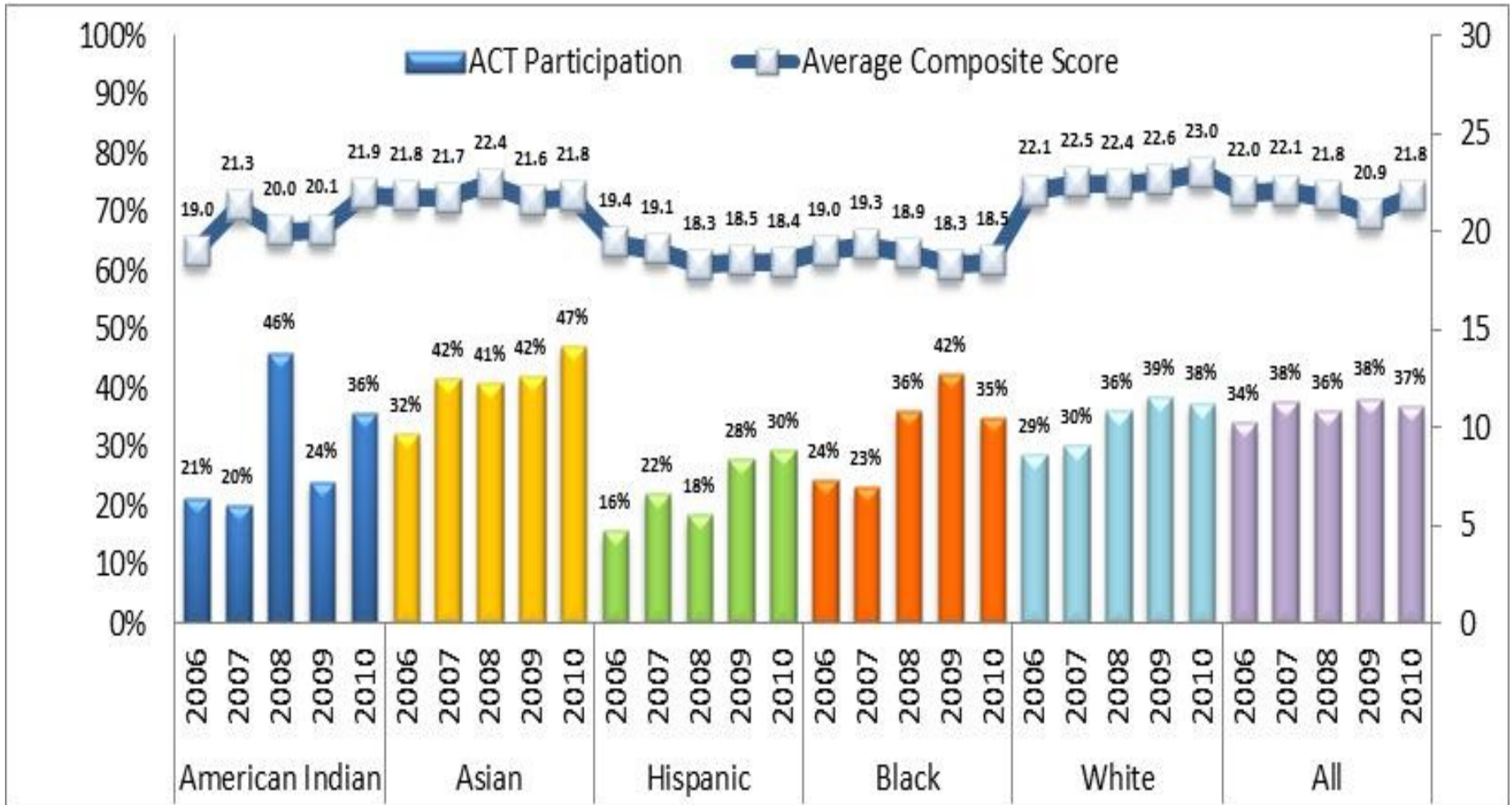


\*Prior to 2001, the percentage of grads tested included adjusted diplomas; for 2001 and beyond, the percentages do not include adjusted diplomas.

# COLLEGE ENTRANCE EXAMS

ACT Participation and Average Composite Score by Ethnicity

*Percentage of Seniors Who Took the ACT*



Example: 16% of 2006 Hispanic seniors took the ACT; their average composite score was 19.4

Previous years' data have been corrected.

ACT participation rates on the previous page depict percent of graduates. This chart depicts percent of all seniors (regardless of graduation status).

# COLLEGE ENTRANCE EXAMS

## ACT Participation by High School

## Number and Percentage of WCSD Graduates Who Took the ACT

High Schools	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
	%	%	%	%	%	%	%	%	%	N	%
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-	-	-	
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	-	-	-	21%	27%	42	20%
Galena	49%	49%	59%	50%	54%	58%	46%	71%	68%	170	60%
Gerlach	-	-	-	-	-	-	-	-	-	-	-
Hug	36%	29%	32%	29%	29%	34%	42%	46%	44%	103	40%
Incline	36%	33%	47%	-	-	-	42%	49%	48%	34	42%
McQueen	60%	60%	56%	52%	44%	46%	47%	55%	53%	156	44%
North Valleys	Not Open	Not Open	51%	45%	37%	30%	32%	35%	39%	95	30%
Reed	60%	55%	57%	44%	50%	48%	47%	47%	39%	148	36%
Reno	54%	45%	44%	34%	38%	33%	49%	51%	59%	168	47%
Spanish Springs	Not Open	Not Open	41%	24%	43%	20%	38%	39%	39%	103	27%
Sparks	55%	47%	43%	45%	46%	42%	60%	45%	79%	71	49%
TMCC HS	38%	30%	-	-	-	-	-	-	24%	21	22%
Washoe	-	-	-	-	-	-	-	-	-	-	-
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-
Wooster	49%	33%	46%	38%	43%	35%	21%	10%	22%	55	25%
<b>Total</b>	<b>51%</b>	<b>45%</b>	<b>48%</b>	<b>40%</b>	<b>41%</b>	<b>36%</b>	<b>40%</b>	<b>37%</b>	<b>39%</b>	<b>1166</b>	<b>37%</b>

Total numbers are higher than the sum of individual schools because AACT, Gerlach, TMCC, Washoe and WOLF had too few students tested to report. Individual school test data are not published for schools with fewer than 30 ACT participants, but the participants are included in district totals.

'-' Denotes too few students tested to report.

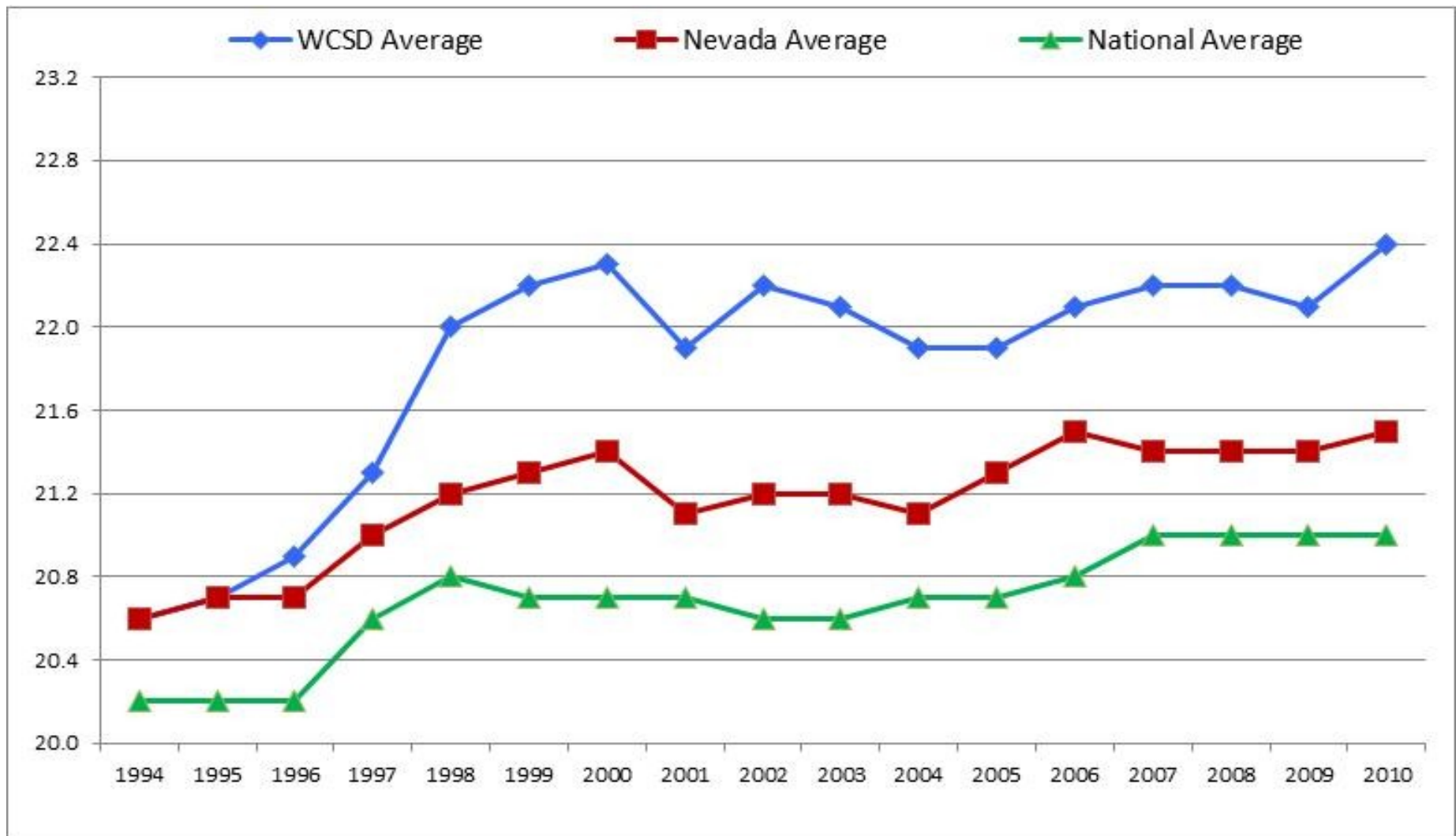
Adjusted diplomas are not included in the rates reported here.

Previous years' data have been corrected .

# COLLEGE ENTRANCE EXAMS

ACT Math Scores

*WCSD, Nevada and National Comparisons*



ACT scores are reported on a scale from 1 to 36. For purposes of this comparison the scale has been reduced to enhance visual discrimination.

# COLLEGE ENTRANCE EXAMS

## ACT Math Scores by High School

High Schools	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AAC	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-	-	-
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	-	-	-	22.4	22.6	22.5
Galena	22.2	22.1	21.6	22.2	23.5	23.3	23.7	22.6	22.9	23.8
Gerlach	-	-	-	-	-	-	-	-	-	-
Hug	20.9	20.6	19.8	19.5	18.7	18.1	17.8	17.9	17.8	17.6
Incline	21.3	21.6	24.5	-	-	-	22.7	22.7	20.9	22.3
McQueen	23.3	23.3	23.9	23.3	22.4	22.6	23.2	23.5	23.9	23.9
North Valleys	Not Open	Not Open	19.7	20.7	20.1	21.8	20.6	21.2	21.3	20.4
Reed	21.1	21.7	22.0	21.1	21.6	22.1	22.0	22.7	21.4	21.5
Reno	23.0	24.6	24.5	23.2	23.2	22.8	24.3	23.7	25.1	24.8
Spanish Springs	Not Open	Not Open	20.2	20.4	21.6	20.8	20.5	21.9	21.6	21.5
Sparks	20.4	19.9	20.5	19.9	19.4	20.2	18.9	18.9	18.4	19.5
TMCC	22.4	20.8	-	-	-	21.0	21.5	21.2	20.2	23.0
Washoe	-	-	-	-	-	-	-	-	-	-
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-
Wooster	22.1	23.1	22.7	22.8	22.9	22.2	25.4	24.8	23.9	24.7
<b>WCSD Average</b>	<b>21.9</b>	<b>22.2</b>	<b>22.1</b>	<b>21.9</b>	<b>21.9</b>	<b>22.1</b>	<b>22.2</b>	<b>22.2</b>	<b>22.1</b>	<b>22.4</b>

The WCSD average is higher than the average of school scores listed in this table because AAC, Damonte Ranch, Gerlach, TMCC, Washoe and WOLF had fewer than 30 students who took the ACT. Individual school test data are not published for schools with fewer than 30 ACT participants, but the participants' scores are included in district totals.

␣ Denotes too few students tested to report.

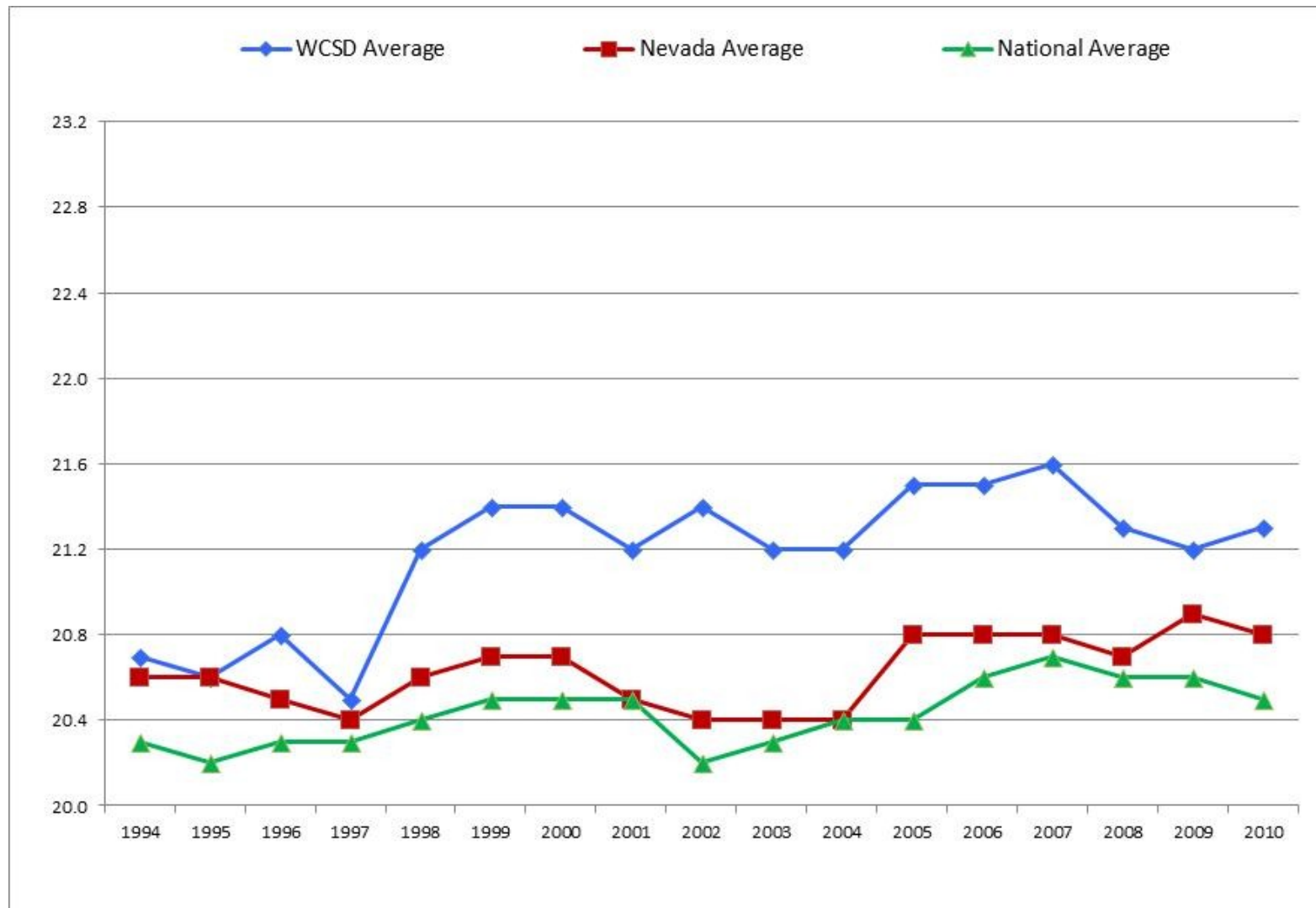
Previous years' data have been corrected.

These are average scores for all seniors who tested, regardless of graduation status.

# COLLEGE ENTRANCE EXAMS

ACT English Scores

*WCSD, Nevada and National Comparisons*



ACT scores are reported on a scale from 1 to 36. For purposes of this comparison the scale has been reduced to enhance visual discrimination.



# COLLEGE ENTRANCE EXAMS

## ACT English Scores by High School

High Schools	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-	-	-
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	-	-	-	21.6	21.1	22.1
Galena	21.9	21.9	20.8	22.3	22.9	22.9	23.3	22.3	22.8	23.5
Gerlach	-	-	-	-	-	-	-	-	-	-
Hug	19.3	18.5	18.8	17.8	17.9	17.9	15.8	15.6	15.3	14.9
Incline	21.7	22.7	24.0	-	-	-	22.1	23.2	20.5	20.7
McQueen	21.7	22.0	22.0	22.3	21.8	21.8	22.8	21.9	22.7	22.7
North Valleys	Not Open	Not Open	19.0	19.9	20.1	20.1	20.6	20.9	21.4	20.2
Reed	20.3	20.7	21.3	20.1	21.0	21.0	20.7	21.4	20.1	20.2
Reno	23.5	23.5	23.5	22.2	23.3	23.3	23.7	22.8	24.1	24.2
Spanish Springs	Not Open	Not Open	19.1	20.2	21.4	21.4	19.9	21.1	20.9	21.1
Sparks	20.3	19.9	20.6	19.1	19.8	19.8	18.9	18.2	16.8	17.7
TMCC	-	-	-	-	-	23.6	23.3	22.5	22.3	24.4
Washoe	-	-	-	-	-	-	-	-	-	-
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-
Wooster	20.9	20.5	21.5	21.3	21.8	21.8	24.5	23.2	22.9	22.9
<b>WCSD Average</b>	<b>21.2</b>	<b>21.4</b>	<b>21.2</b>	<b>21.2</b>	<b>21.5</b>	<b>21.5</b>	<b>21.6</b>	<b>21.3</b>	<b>21.2</b>	<b>21.3</b>

The WCSD average is higher than the average of school scores listed in this table because AACT, Damonte Ranch, Gerlach, TMCC, Washoe and WOLF had fewer than 30 students who took the ACT. Individual school test data are not published for schools with fewer than 30 ACT participants, but the participants' scores are included in district totals.

'-' Denotes too few students tested to report.

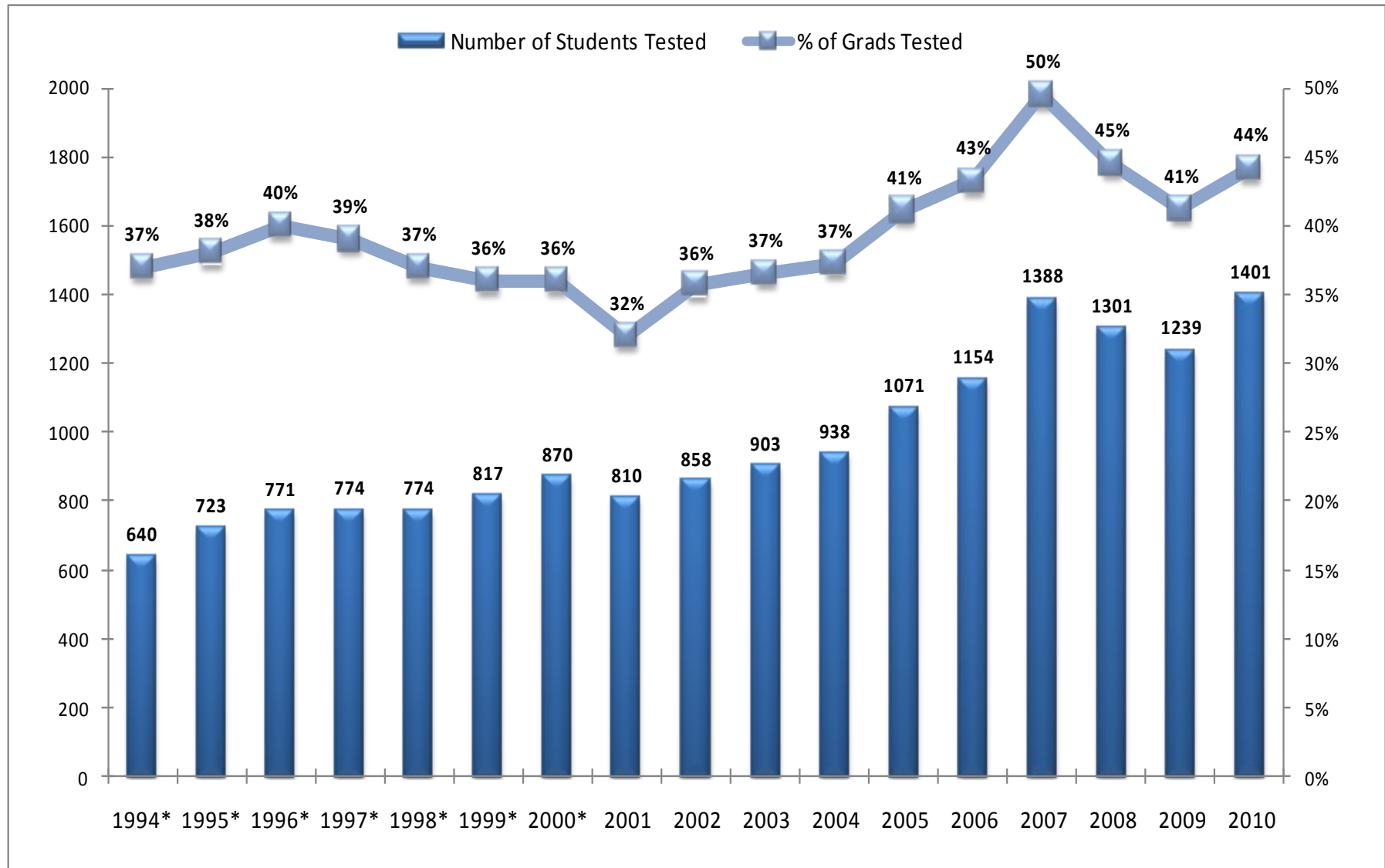
These are average scores for all seniors who tested, regardless of graduation status.

Previous years' data have been corrected.

# COLLEGE ENTRANCE EXAMS

## SAT Participation

## Number and Percentage of WCSD Graduates Who Took the SAT

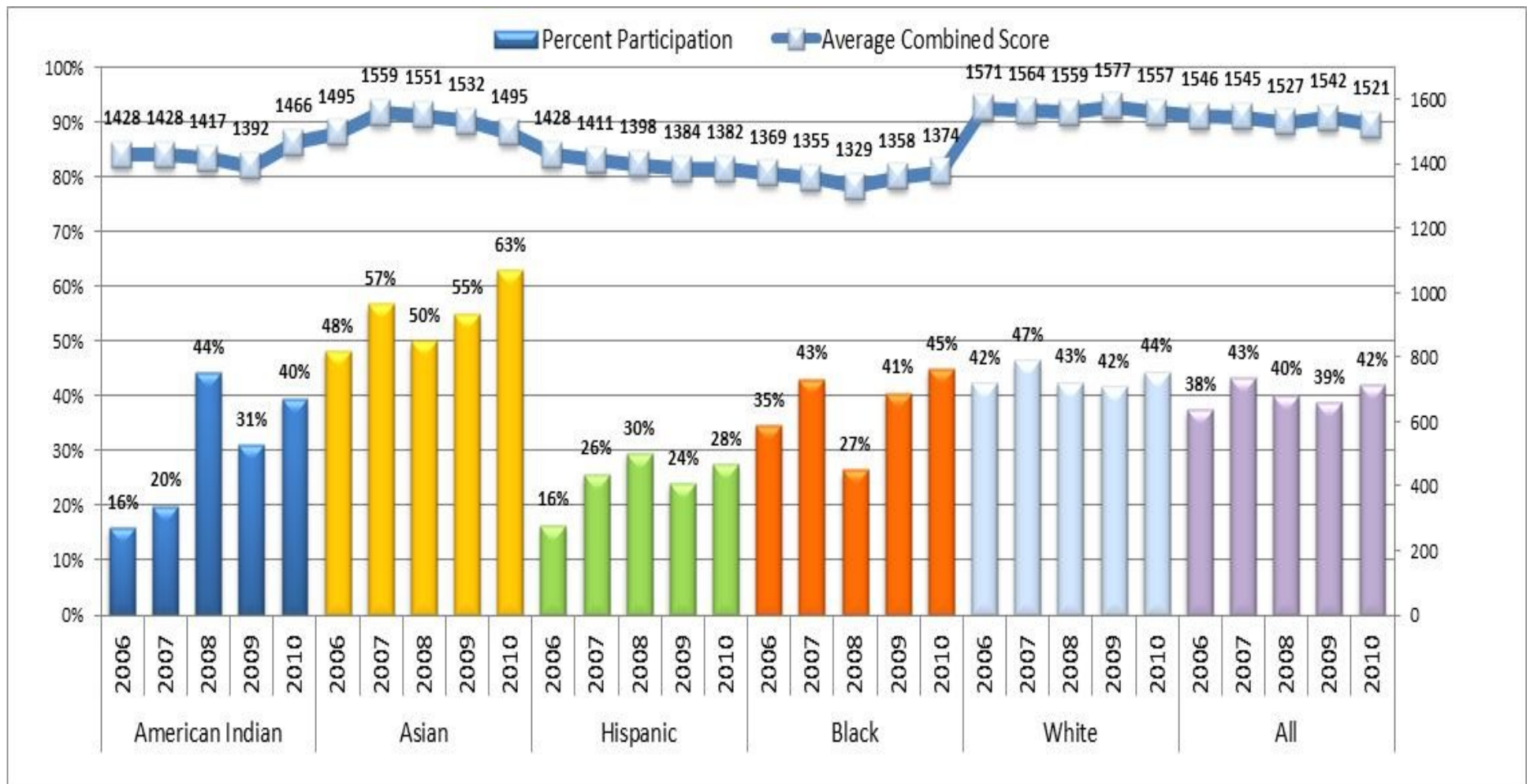


\*Prior to 2001, the percentage of grads tested included adjusted diplomas; for 2001 and beyond, the percentages do not include adjusted diplomas.

Previous years' data have been corrected.

# COLLEGE ENTRANCE EXAMS

SAT Participation and Average Combined Score by Ethnicity *Percentage of Seniors Who Took the SAT*



Example: 48% of 2006 Asian seniors took the SAT; their average combined score was 1495

SAT participation rates on the previous page depict percent of graduates. This chart depicts percent of all seniors (regardless of graduation status).

Previous years' data have been corrected.

# COLLEGE ENTRANCE EXAMS

## SAT Participation by High School

*Number and Percentage of WCSD Graduates Who Took the SAT*

High Schools	2001	2002	2003	2004	2005	2006	2007	2008	2009		2010	
	%	%	%	%	%	%	%	%	N	%	N	%
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-	-	-	-	-
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	-	51%	55%	52%	91	48%	105	50%
Galena	50%	52%	53%	45%	64%	54%	61%	67%	173	58%	185	65%
Gerlach	-	-	-	-	-	-	-	-	-	-	-	-
Hug	18%	12%	-	-	14%	25%	41%	34%	53	38%	63	38%
Incline	61%	59%	72%	59%	61%	54%	75%	62%	50	67%	55	68%
McQueen	34%	37%	37%	42%	48%	46%	51%	53%	204	54%	184	52%
North Valleys	Not Open	Not Open	19%	20%	26%	34%	35%	31%	73	24%	79	25%
Reed	30%	33%	30%	34%	39%	44%	48%	37%	130	34%	158	38%
Reno	62%	62%	76%	64%	63%	67%	75%	64%	211	62%	239	67%
Spanish Springs	Not Open	Not Open	13%	37%	33%	45%	43%	41%	132	37%	176	46%
Sparks	17%	10%	-	-	-	-	20%	19%	7	5%	26	18%
TMCC HS	28%	28%	32%	23%	38%	22%	25%	24%	20	22%	27	28%
Washoe	-	-	-	-	-	-	-	-	-	-	-	-
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-	-
Wooster	34%	31%	40%	40%	46%	44%	51%	49%	87	47%	103	46%
<b>Total</b>	<b>32%</b>	<b>36%</b>	<b>37%</b>	<b>37%</b>	<b>41%</b>	<b>43%</b>	<b>50%</b>	<b>45%</b>	<b>1236</b>	<b>41%</b>	<b>1401</b>	<b>44%</b>

\* Total numbers are higher than the sum of individual schools because AACT, Gerlach, Washoe and WOLF had too few students tested to report. Individual school test data are not published for schools with fewer than 20 SAT participants, but the participants are included in district totals.

“-” Denotes too few students tested to report.

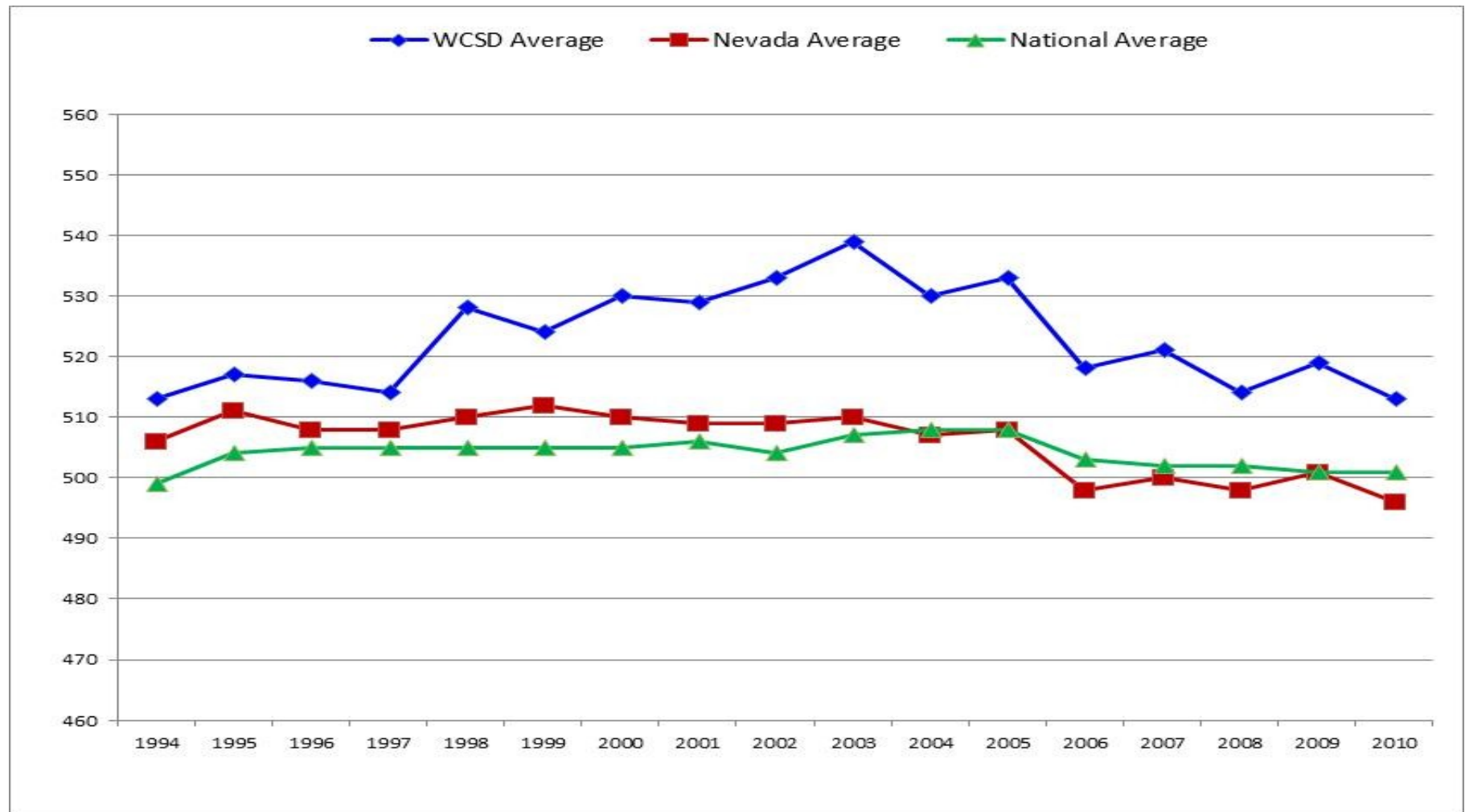
The number of graduates does not include Adjusted Diplomas

Previous years' data have been corrected.

# COLLEGE ENTRANCE EXAMS

## SAT Verbal Scores

## *WCSD, Nevada and National Comparisons*



SAT Verbal scores range from 200 - 800, with 500 considered average. For purposes of this comparison, the scale has been reduced to enhance visual discrimination. The SAT was re-centered for the 1993-1994 and 1994-1995 school years; score comparisons from previous years are not valid. Substantial changes to the SAT format and content were instituted in March 2005 and are first reflected in the 2005-2006 scores.

# COLLEGE ENTRANCE EXAMS

## SAT Verbal Scores by High School

High Schools	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-	-	-
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	Not Open	-	496	508	494	504
Galena	526	519	531	533	533	539	544	528	533	552
Gerlach	-	-	-	-	-	-	-	-	-	-
Hug	515	479	-	-	-	457	414	418	390	391
Incline	540	526	533	545	545	549	523	547	491	523
McQueen	530	549	564	555	555	523	532	513	525	521
North Valleys	Not Open	Not Open	486	511	511	490	487	500	507	500
Reed	510	517	534	510	510	506	505	510	499	488
Reno	549	559	558	549	549	538	557	527	562	545
Spanish Springs	Not Open	Not Open	484	486	486	492	508	499	506	493
Sparks	492	532	-	-	-	-	475	437	472	458
TMCC	580	571	559	534	534	551	561	565	561	539
Washoe	-	-	-	-	-	-	-	-	-	-
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-
Wooster	522	512	525	514	514	516	511	549	539	521
<b>WCSD Average</b>	<b>529</b>	<b>533</b>	<b>539</b>	<b>530</b>	<b>530</b>	<b>518</b>	<b>521</b>	<b>514</b>	<b>519</b>	<b>513</b>

The WCSD average is higher than the average of school scores listed in this table because AACT, Gerlach, Washoe and WOLF had fewer than 20 students who took the SAT. Individual school test data are not published for schools with fewer than 20 SAT participants, but the participants' scores are included in district totals.

'-' Denotes too few students tested to report.

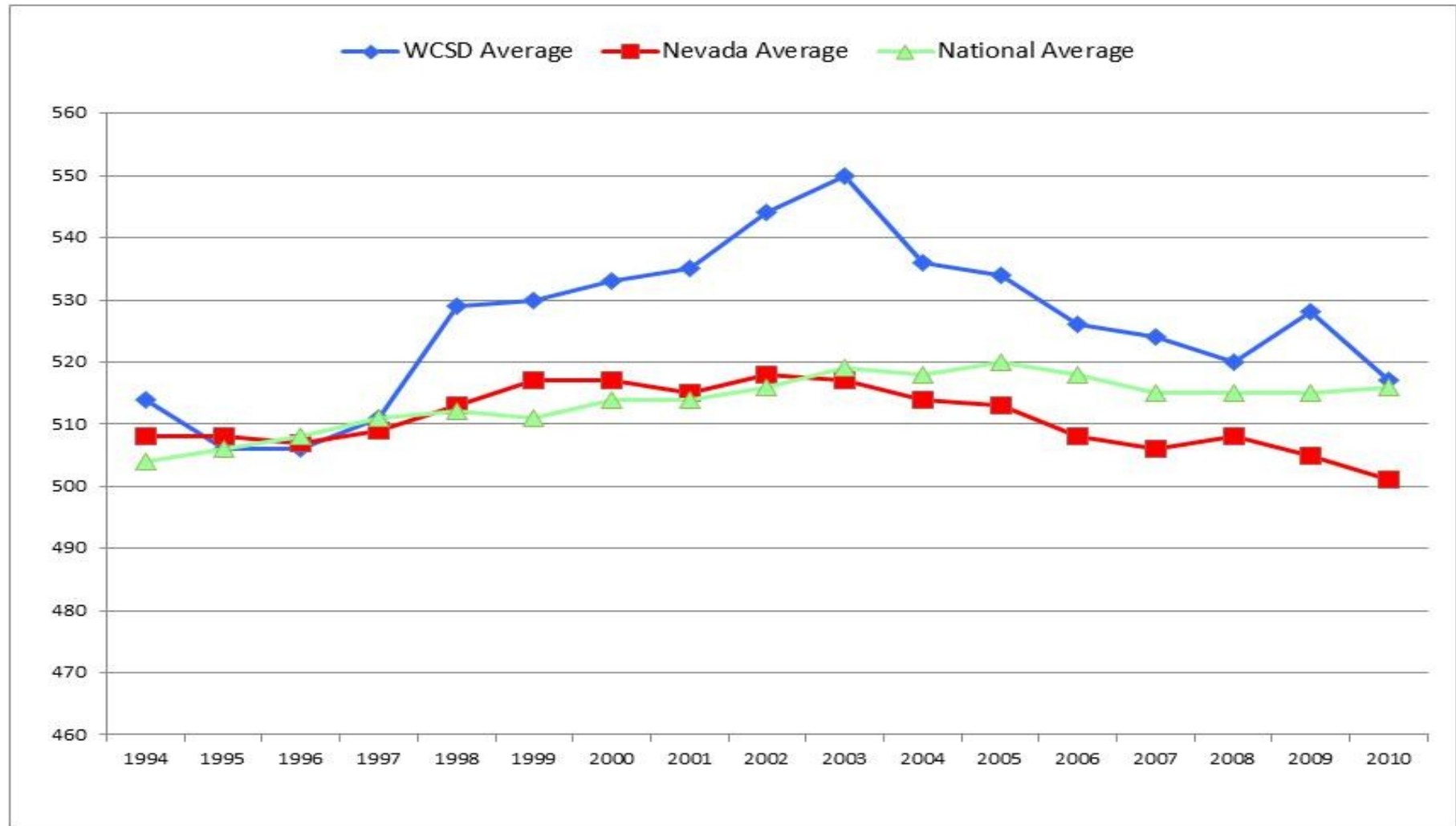
These are average scores for all seniors who tested, regardless of graduation status.

Previous years' data have been corrected.

# COLLEGE ENTRANCE EXAMS

## SAT Math Scores

## WCSD, Nevada and National Comparisons



SAT Math scores range from 200 - 800, with 500 considered average. For purposes of this comparison, the scale has been reduced to enhance visual discrimination. The SAT was re-centered for the 1993-1994 and 1994-1995 school years; score comparisons from previous years are not valid. Substantial changes to the SAT format and content were instituted in March 2005 and are first reflected in the 2005-2006 scores.



# COLLEGE ENTRANCE EXAMS

## SAT Math Scores by High School

High Schools	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-	-	-
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	-	-	488	506	508	506
Galena	527	529	534	535	547	550	544	527	542	546
Gerlach	-	-	-	-	-	-	-	-	-	-
Hug	523	522	-	-	-	450	433	430	422	411
Incline	549	530	564	553	544	554	526	541	502	526
McQueen	552	562	579	564	540	534	537	533	543	528
North Valleys	Not Open	Not Open	511	500	490	492	485	503	488	488
Reed	517	533	546	526	531	529	525	521	516	494
Reno	546	560	566	550	556	538	554	539	562	552
Spanish Springs	Not Open	Not Open	500	493	515	497	505	500	519	493
Sparks	514	536	-	-	-	-	443	442	477	476
TMCC	549	551	550	566	530	513	556	554	513	530
Washoe	-	-	-	-	-	-	-	-	-	-
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-
Wooster	536	545	534	546	537	536	530	554	562	541
<b>WCSD Average</b>	<b>535</b>	<b>544</b>	<b>550</b>	<b>536</b>	<b>534</b>	<b>526</b>	<b>524</b>	<b>520</b>	<b>528</b>	<b>517</b>

The WCSD average is higher than the average of school scores listed in this table because some schools had fewer than 20 students who took the SAT in a given year. Individual school test data are not published for schools with fewer than 20 SAT participants, but the participants' scores are included in district totals.

␣ Denotes too few students tested to report.

These are average scores for all seniors who tested, regardless of graduation status.

Previous years' data have been corrected.

# THE GATEWAY CURRICULUM

In December 2004, the Washoe County School District Board of Trustees adopted the Gateway Curriculum as the default course of study for high school students. The Gateway Curriculum requirement took effect with freshmen entering in the fall of 2006.

All high school students are automatically enrolled in the Gateway Curriculum, but provisions for exemptions are available. Potential exemptions include:

- ∞ Special Education students whose *Individualized Education Plan* (IEP), specifies exemption from the Gateway Curriculum.
- ∞ Students actively receiving *English as a Second Language* (ESL) services may be exempt, if it is determined that the Gateway Curriculum is educationally inappropriate for them.
- ∞ Students who transfer into a WCSD high school in their junior or senior year who would not be able to enroll in the required fourth math and/or third science courses during their remaining school year(s).
- ∞ Students exempted through the formal opt-out procedure established by the Office of Secondary Education.

The Gateway Curriculum requires students to enroll in four math courses and three science courses in addition to the other courses required for graduation, and further requires that students enroll in at least six courses during their senior year.

The intended Gateway math enrollment sequence is Algebra 1-2, Geometry, Algebra 3-4, and one post-Algebra 3-4 course. Students who enroll but fail to earn credits in any of the math sequence courses adhere to the Gateway Curriculum by re-enrolling in the failed course or obtaining approval to enroll in a different math course the following year.

The intended Gateway science enrollment sequence is Biology, Physical Science or Chemistry, plus one additional third or fourth year science course. As with the math sequence, students who enroll but fail to earn credits in any of the science sequence courses adhere to the Gateway Curriculum by re-enrolling in the failed course or obtaining approval to enroll in a different science course the following year.

Seniors may meet the Gateway requirement of enrolling in at least six courses by combining required, elective, online, correspondence, work-study and dual-credit college courses, or by enrolling in other courses approved by the Office of Secondary Education.

# GATEWAY CURRICULUM

## Percentage of Seniors Taking Four, Five and Six or More Classes

High School	Four Classes							Five Classes							Six or More Classes						
	Class of 2004	Class of 2005	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2004	Class of 2005	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2004	Class of 2005	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010
AACT	Not Open	No Seniors	N/A*	N/A*	53%	56%	51%	Not Open	No Seniors	N/A*	N/A*	27%	22%	26%	Not Open	No Seniors	N/A*	N/A*	20%	22%	23%
Damonte Ranch	No Seniors	3%	24%	17%	14%	12%	18%	No Seniors	11%	19%	23%	30%	14%	27%	No Seniors	86%	56%	60%	56%	73%	55%
Galena	25%	38%	36%	27%	29%	27%	26%	34%	30%	34%	37%	34%	33%	34%	41%	31%	30%	36%	36%	41%	40%
Gerlach	-	-	14%	0%	-	-	-	-	-	0%	0%	-	-	-	100%	100%	86%	100%	100%	100%	100%
Hug	6%	15%	29%	2%	13%	10%	9%	19%	23%	28%	15%	16%	14%	19%	75%	62%	43%	83%	71%	76%	72%
Incline	29%	22%	20%	19%	9%	16%	6%	33%	39%	26%	26%	37%	35%	38%	39%	39%	54%	55%	54%	49%	56%
McQueen	13%	28%	20%	20%	17%	9%	9%	34%	31%	35%	30%	28%	23%	21%	54%	42%	45%	50%	55%	68%	70%
North Valleys	8%	22%	20%	22%	23%	19%	18%	25%	36%	32%	27%	30%	27%	28%	67%	42%	48%	51%	47%	55%	54%
Reed	30%	5%	5%	30%	25%	18%	12%	32%	41%	37%	30%	26%	27%	24%	38%	53%	59%	39%	49%	55%	64%
Reno	24%	44%	41%	39%	32%	29%	29%	41%	31%	28%	33%	33%	33%	29%	35%	26%	31%	28%	35%	38%	42%
Spanish Springs	18%	32%	27%	27%	3%	2%	7%	27%	27%	36%	27%	31%	32%	26%	56%	41%	37%	45%	66%	66%	67%
Sparks	27%	4%	4%	6%	1%	1%	4%	31%	16%	18%	16%	18%	15%	12%	42%	80%	78%	79%	80%	84%	84%
TMCC	N/A*	N/A*	N/A*	N/A*	19%	21%	15%	N/A*	N/A*	N/A*	N/A*	34%	22%	25%	N/A*	N/A*	N/A*	N/A*	48%	56%	60%
Washoe	N/A*	N/A*	N/A*	N/A*	53%	61%	59%	N/A*	N/A*	N/A*	N/A*	19%	10%	18%	N/A*	N/A*	N/A*	N/A*	28%	29%	23%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	58%	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	14%	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	28%
Wooster	20%	32%	33%	2%	24%	13%	7%	36%	28%	31%	23%	19%	21%	20%	44%	41%	36%	75%	57%	66%	73%
<b>Total</b>	<b>23%</b>	<b>24%</b>	<b>24%</b>	<b>23%</b>	<b>20%</b>	<b>17%</b>	<b>14%</b>	<b>31%</b>	<b>31%</b>	<b>31%</b>	<b>28%</b>	<b>28%</b>	<b>26%</b>	<b>26%</b>	<b>46%</b>	<b>45%</b>	<b>45%</b>	<b>49%</b>	<b>52%</b>	<b>59%</b>	<b>60%</b>

AACT, TMCC, Washoe and WOLF have unique course options that do not follow the Gateway Curriculum

'-' denotes too few to report

# GATEWAY CURRICULUM

Percentage of All Seniors\* Enrolling in Four Years of Math and Three Years of Science

High School	Enrolled in 4 Years of Math			Enrolled in 3 Years of Science		
	2008	2009	2010	2008	2009	2010
AACT	18%	20%	-	58%	69%	-
Damonte Ranch	40%	52%	58%	98%	89%	92%
Galena	58%	68%	80%	85%	92%	92%
Gerlach	0%	33%	66%	100%	86%	100%
Hug	40%	51%	55%	73%	62%	68%
Incline	32%	42%	50%	94%	92%	96%
McQueen	61%	76%	78%	92%	91%	93%
North Valleys	57%	71%	74%	80%	92%	90%
Reed	47%	61%	66%	90%	87%	91%
Reno	58%	73%	76%	90%	92%	91%
Spanish Springs	42%	66%	70%	91%	92%	92%
Sparks	49%	52%	56%	84%	82%	86%
TMCC	7%	6%	6%	35%	35%	33%
Washoe	-	-	-	-	-	-
WOLF	Not Open	Not Open	-	Not Open	Not Open	-
Wooster	10%	25%	32%	67%	79%	81%
<b>WCSD</b>	<b>46%</b>	<b>59%</b>	<b>66%</b>	<b>86%</b>	<b>87%</b>	<b>92%</b>

\* Includes both graduates and non-graduates

AACT, TMCC, Washoe and WOLF have unique course options that do not follow the Gateway Curriculum

- denotes too few to report

# GATEWAY CURRICULUM

## Percentage of Graduates Earning Three Credits in Science and Four Credits in Math

High Schools	Earned 3 Science Credits							Earned 4 Math Credits						
	Class of 2004	Class of 2005	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2004	Class of 2005	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010
AACT	No Seniors	No Seniors	40%	45%	46%	53%	55%	No Seniors	No Seniors	7%	18%	8%	26%	21%
Damonte Ranch	No Seniors	51%	60%	66%	79%	81%	83%	No Seniors	18%	23%	31%	44%	62%	58%
Galena	80%	80%	74%	78%	81%	85%	84%	40%	60%	50%	49%	66%	74%	79%
Gerlach	44%	33%	86%	100%	100%	83%	100%	78%	33%	0%	0%	25%	50%	80%
Hug	46%	50%	53%	53%	54%	49%	57%	24%	33%	26%	27%	35%	48%	48%
Incline	56%	65%	70%	71%	83%	76%	81%	40%	42%	37%	38%	36%	51%	56%
McQueen	70%	81%	75%	78%	85%	86%	85%	47%	56%	46%	58%	61%	78%	83%
North Valleys	65%	69%	69%	75%	72%	79%	79%	35%	42%	42%	49%	58%	69%	71%
Reed	71%	77%	74%	67%	82%	79%	83%	42%	50%	53%	32%	47%	55%	52%
Reno	86%	89%	85%	87%	87%	88%	90%	56%	57%	59%	62%	65%	80%	79%
Spanish Springs	64%	66%	73%	77%	80%	83%	84%	26%	37%	41%	45%	44%	66%	66%
Sparks	76%	60%	77%	74%	73%	72%	74%	60%	25%	29%	37%	49%	45%	51%
TMCC	48%	54%	60%	48%	34%	34%	31%	5%	20%	21%	22%	12%	13%	13%
Washoe	9%	8%	25%	17%	16%	28%	31%	2%	2%	1%	3%	2%	6%	8%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	42%	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	15%
Wooster	53%	54%	37%	75%	62%	68%	70%	21%	43%	25%	51%	33%	51%	54%
<b>Total</b>	<b>67%</b>	<b>69%</b>	<b>69%</b>	<b>72%</b>	<b>75%</b>	<b>76%</b>	<b>77%</b>	<b>38%</b>	<b>45%</b>	<b>41%</b>	<b>44%</b>	<b>49%</b>	<b>61%</b>	<b>62%</b>

Gerlach percentages are based on very small numbers of students (usually fewer than 10)

AACT, TMCC, Washoe and WOLF have unique course options that do not follow the Gateway Curriculum

# EARNED CREDITS IN ADVANCED MATH

## Percentage of Graduates Earning Advanced Math Credits

School	Algebra 3-4			Trigonometry/ Pre-Calculus			Probability/Statistics/ Discrete Math			Calculus and AP/IB Calculus			AP Statistics			Advanced Algebra 5-6*	
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2009	2010
AACT	76%	65%	100%	3%	14%	4%	3%	4%	4%	0%	0%	0%	0%	0%	0%	0%	0%
Damonte Ranch	69%	68%	71%	23%	33%	30%	15%	28%	32%	6%	10%	10%	0%	5%	0%	0%	11%
Galena	76%	81%	84%	34%	37%	45%	39%	46%	46%	15%	17%	19%	5%	14%	12%	0%	19%
Gerlach	75%	86%	100%	25%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Hug	50%	70%	71%	20%	25%	25%	0%	12%	18%	5%	5%	7%	0%	0%	0%	14%	13%
Incline	86%	82%	84%	26%	42%	44%	0%	0%	0%	15%	8%	13%	0%	0%	0%	0%	9%
McQueen	87%	89%	92%	45%	57%	54%	6%	8%	10%	18%	17%	22%	6%	6%	8%	10%	14%
North Valleys	76%	83%	87%	31%	36%	39%	37%	41%	48%	8%	7%	10%	7%	3%	3%	11%	16%
Reed	63%	67%	67%	33%	30%	38%	13%	20%	24%	16%	12%	14%	7%	7%	9%	4%	5%
Reno	82%	86%	90%	36%	49%	56%	23%	22%	24%	9%	17%	20%	14%	23%	19%	8%	6%
Spanish Springs	76%	76%	75%	32%	34%	43%	9%	10%	14%	7%	7%	10%	0%	11%	7%	11%	17%
Sparks	83%	82%	83%	34%	27%	34%	17%	15%	34%	11%	9%	14%	0%	0%	0%	0%	0%
TMCC	82%	70%	88%	11%	8%	7%	0%	2%	1%	0%	1%	0%	1%	0%	0%	0%	0%
Washoe	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
WOLF	Not Open	Not Open	51%	Not Open	Not Open	12%	Not Open	Not Open	1%	Not Open	Not Open	1%	Not Open	Not Open	1%	Not Open	0%
Wooster	30%	40%	47%	16%	22%	36%	0%	8%	16%	8%	10%	12%	1%	1%	1%	0%	7%
Total	72%	76%	79%	31%	36%	37%	16%	20%	21%	11%	11%	13%	5%	7%	7%	6%	9%

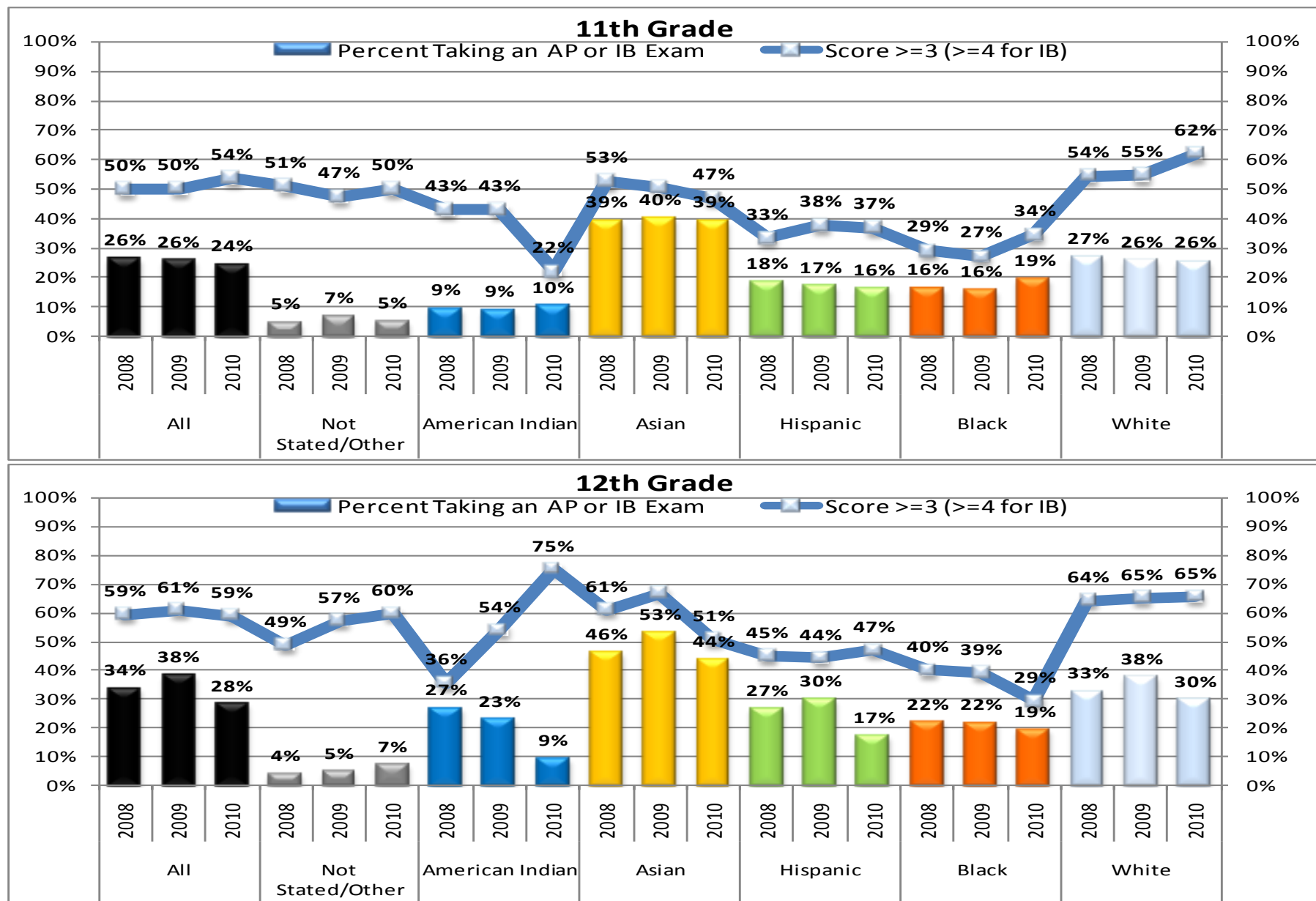
Gerlach percentages are based on very small numbers of students (usually fewer than 10)

AACT, TMCC, Washoe and WOLF have unique course options that do not follow the Gateway Curriculum

\*Advanced Algebra 5-6 was not offered until the 2008-2009 school year

# ADVANCED PLACEMENT / IB

## Percentage of WCSD Juniors and Seniors Enrolled in Advanced Placement or IB\* Courses



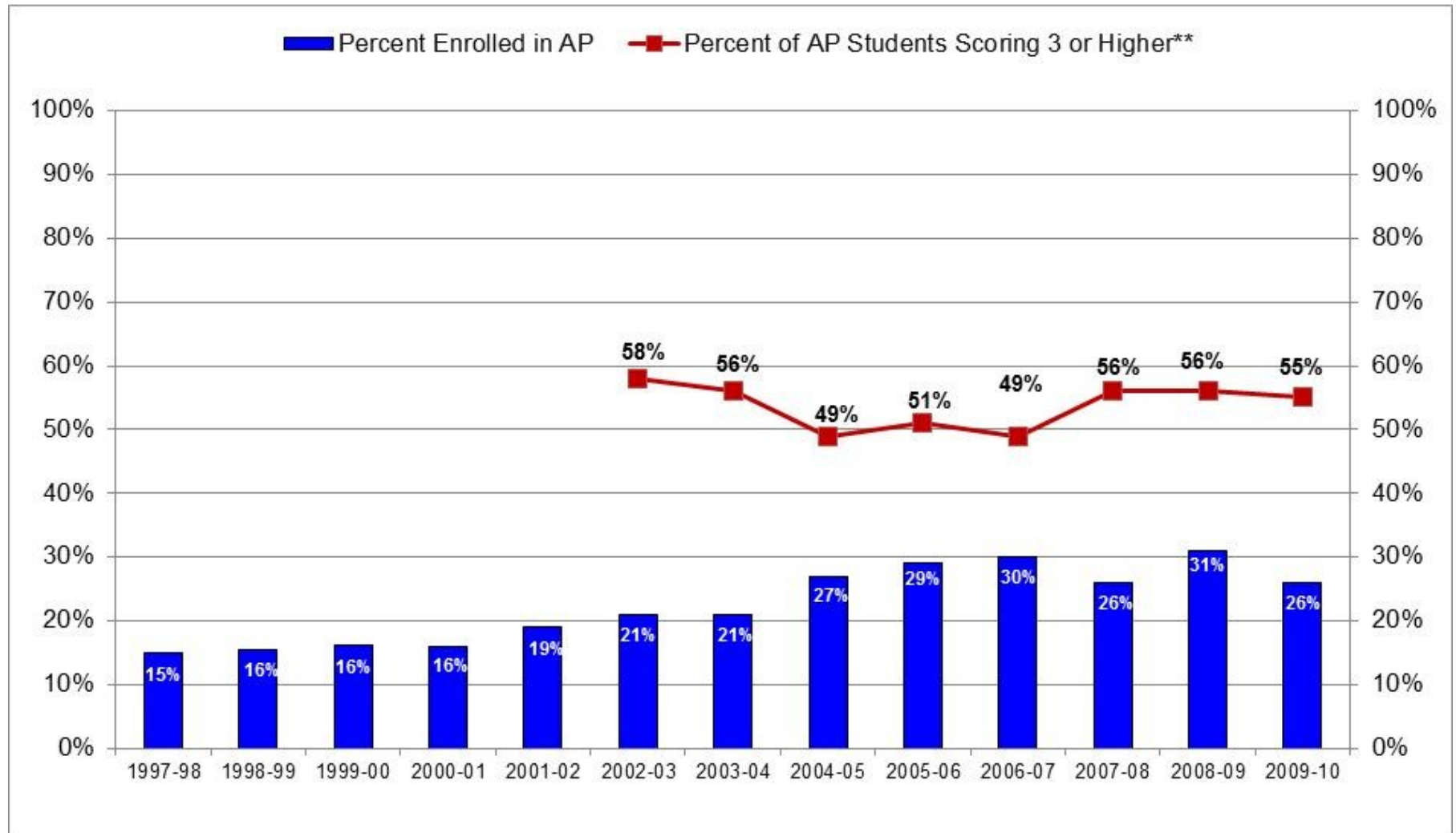
\* International Baccalaureate Program

Data have been corrected for previous years.



# ADVANCED PLACEMENT / IB

## Percentage of WCSD Juniors and Seniors Enrolled in Advanced Placement or IB\* Courses

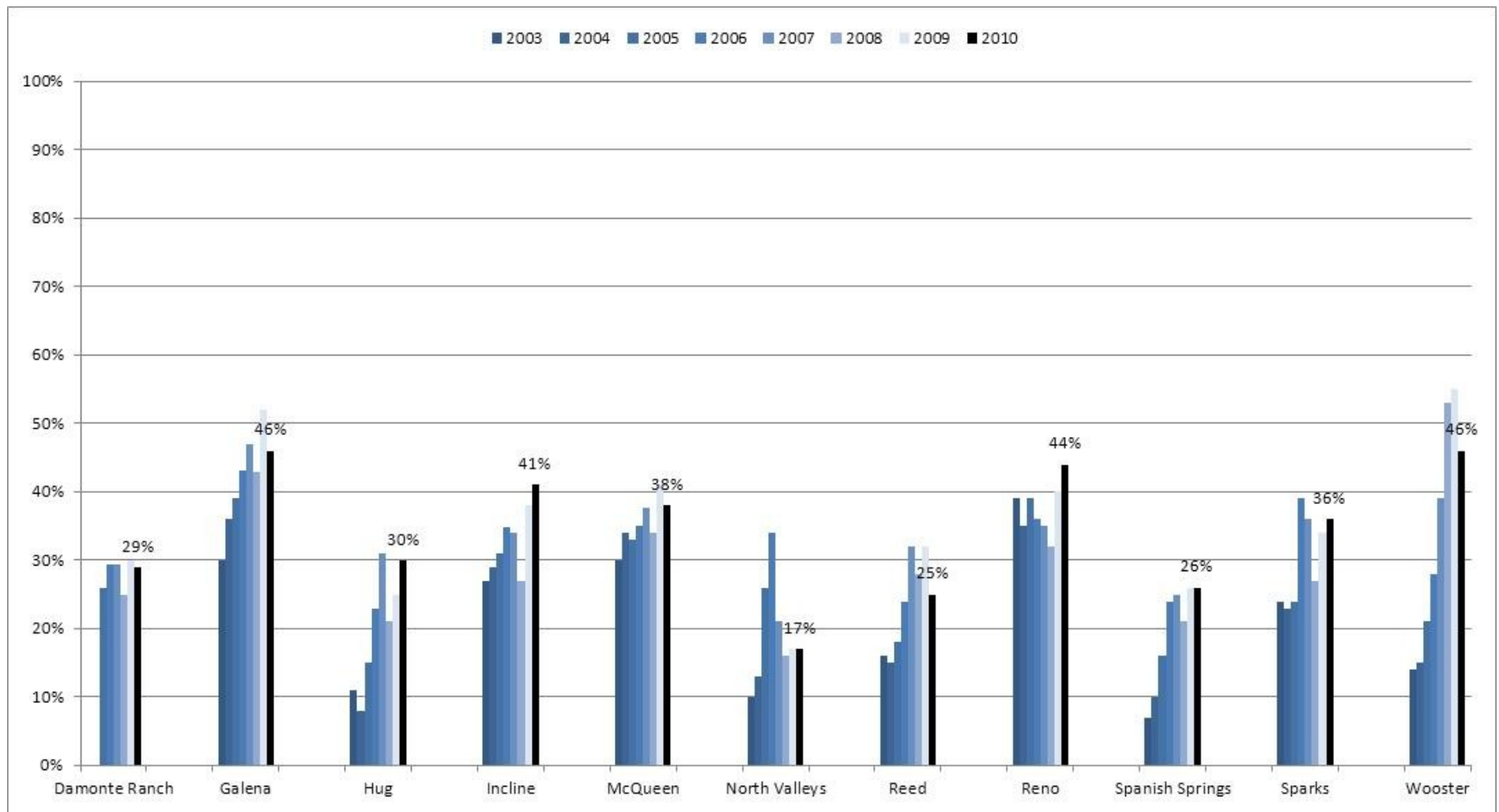


\* International Baccalaureate Program

\*\* Data on percentage scoring 3 or higher are not available prior to 2003; percentages include IB scores of 4 or higher. Data have been corrected for previous years.

# ADVANCED PLACEMENT / IB

Percentage of Juniors and Seniors by School Who Took at Least One Advanced Placement or IB\* Exam



\* International Baccalaureate Program

AP classes are not offered at AACT, TMCC, or Washoe. WOLF did not offer AP courses in 2009-10.

# ENROLLMENT IN ADVANCED PLACEMENT / IB\* COURSES

Percentage of Juniors and Seniors by School Who Took at Least One Advanced Placement or IB\* Course

High School	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09		2009-10	
	%	%	%	%	%	%	%	%	N	%	N	%
Damonte Ranch	Not Open	Not Open	Not Open	-	26%	29%	29%	25%	143	30%	165	29%
Galena	24%	27%	30%	36%	39%	43%	47%	43%	331	52%	291	46%
Gerlach	-	-	-	-	-	-	-	-	-	-	-	-
Hug	7%	7%	11%	8%	15%	23%	31%	21%	109	25%	191	30%
Incline	28%	29%	27%	29%	31%	35%	34%	27%	63	38%	73	41%
McQueen	24%	29%	30%	34%	33%	35%	38%	34%	341	41%	351	38%
North Valleys	Not Open	12%	10%	13%	26%	34%	21%	16%	124	17%	173	17%
Reed	9%	17%	16%	15%	18%	24%	32%	28%	285	32%	275	25%
Reno	25%	32%	39%	35%	39%	36%	35%	32%	310	40%	359	44%
Spanish Springs	Not Open	4%	7%	10%	16%	24%	25%	21%	223	26%	269	26%
Sparks	8%	20%	24%	23%	24%	39%	36%	27%	124	34%	181	36%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-	-
Wooster	12%	15%	14%	15%	21%	28%	39%	53%	314	55%	322	46%
<b>All High Schools</b>	<b>16%</b>	<b>19%</b>	<b>21%</b>	<b>21%</b>	<b>27%</b>	<b>29%</b>	<b>30%</b>	<b>26%</b>	<b>2369</b>	<b>31%</b>	<b>2654</b>	<b>32%</b>

\* International Baccalaureate Program

AP classes are not offered at AACT, TMCC, or Washoe. WOLF did not offer AP courses in 2009-10.

‘-’ Denotes no students enrolled or too few students to report.

Data have been corrected for previous years.

# PERFORMANCE IN ADVANCED PLACEMENT / IB\* COURSES

Percent of Students Scoring 3 or Higher on AP Exams\*\*

High School	Percent of AP Students Scoring 3 or Higher on AP Exams						
	2003-04	2004-05	2005-06	2006-07	2007-2008	2008-2009	2009-2010
Damonte Ranch	33%	21%	41%	37%	43%	50%	49%
Galena	59%	61%	69%	68%	62%	67%	78%
Gerlach	-	-	-	-	-	-	-
Hug	25%	20%	7%	8%	9%	13%	19%
Incline	70%	70%	75%	75%	73%	79%	81%
McQueen	71%	58%	62%	63%	72%	63%	73%
North Valleys	26%	28%	32%	32%	44%	44%	28%
Reed	55%	47%	47%	39%	45%	34%	45%
Reno	65%	65%	66%	66%	70%	75%	78%
Spanish Springs	49%	51%	35%	43%	56%	57%	59%
Sparks	19%	10%	17%	14%	15%	21%	33%
WOLF	-	-	-	-	-	-	-
Wooster	32%	40%	46%	44%	68%	68%	71%
<b>WCSD</b>	<b>56%</b>	<b>49%</b>	<b>51%</b>	<b>49%</b>	<b>56%</b>	<b>56%</b>	<b>59%</b>

\* International Baccalaureate Program

\*\*4 or higher for IB exams

AP classes are not offered at AACT, TMCC, or Washoe. WOLF did not offer AP courses in 2009-10.

'-' Denotes no students enrolled or too few students to report.

# ADVANCED PLACEMENT CHALLENGE INDEX

The Challenge Index, developed by *Washington Post* education writer Jay Mathews, measures a public high school's effort to challenge its students. The Index is calculated by dividing the number of AP or IB or exams taken by the number of seniors who graduated in June. Exam scores are not included in the calculation and exams taken by all students, not just seniors, are counted. The rating is not a measurement of the overall quality of the school but illuminates one factor that many educators and researchers consider important. For purposes of this calculation, the WCSD graduating class includes all students who earned a diploma plus those students who had enough credits to graduate but failed one or more sections of a state-mandated graduation exam. A Challenge Index of 1.0 or higher meets the benchmark defined by the measure's author.

School	Class of 2005		Class of 2006		Class of 2007		Class of 2008		Class of 2009		Class of 2010 <sup>3</sup>
	Challenge Index	National Ranking <sup>2</sup>	Challenge Index	National Ranking <sup>2</sup>	Challenge Index	National Ranking <sup>2</sup>	Challenge Index	National Ranking <sup>2</sup>	Challenge Index	National Ranking <sup>2</sup>	Challenge Index
Damonte Ranch	1.2	-	1.2	1014	1.3	1089	0.9	-	1.2	1462	1.3
Galena	1.7	531	1.9	509	1.7	535	1.7	887	2.1	671	2.0
Hug	0.7	-	1.1	1201	1.4	1289	1.1	1431	1.2	1537	1.4
Incline	1.4	835	1.6	690	1.5	732	1.5	1041	1.9	811	1.9
McQueen	1.8	488	1.6	684	1.8	724	1.9	695	2.0	740	2.5
North Valleys	1.2	1045	1.6	736	1.4	783	1.1	1454	1.0	1690	1.0
Reed	0.9	-	1.1	1162	1.2	1248	1.1	1419	1.4	1315	1.4
Reno	1.6	650	1.6	732	1.6	780	1.5	1000	2.0	748	1.9
Spanish Springs	0.7	-	1.0	1219	1.0	1309	0.8	-	1.1	1578	1.1
Sparks	1.3	868	1.5	754	1.7	803	1.4	1106	1.8	893	2.1
Wooster <sup>1</sup>	1.6	495	1.7	598	1.7	630	1.6 <sup>4</sup>	243	1.6 <sup>4</sup>	177	1.8

1 Wooster offers both AP courses and the International Baccalaureate Program (IB)

2 National rankings published in Newsweek. All of the ranked schools have an index of at least 1.0 and are in the top 5 percent of the nation's public schools on this measure.

3 National rankings for the Class of 2010 will not be available until June 2011

4 The 2008 and 2009 Challenge Indices for Wooster that were published in Newsweek differ from what was submitted. The numbers reported here are the numbers that were submitted

'-' Denotes Challenge Index was less than 1.0, so the school was not ranked.

AP classes are not offered at AACT, TMCC, or Washoe. WOLF did not offer AP courses in 2009-10.

Gerlach HS has too few students to report

# MILLENNIUM SCHOLARSHIP

## Percentage of Graduates Qualified for the Millennium Scholarship by Year

SCHOOL	Percent of 2000 Graduates Who Qualified	Percent of 2001 Graduates Who Qualified	Percent of 2002 Graduates Who Qualified	Percent of 2003 Graduates Who Qualified	Percent of 2004 Graduates Who Qualified	Percent of 2005 Graduates Who Qualified	Percent of 2006 Graduates Who Qualified	Percent of 2007 Graduates Who Qualified	Percent of 2008 Graduates Who Qualified	Percent of 2009 Graduates Who Qualified	Percent of 2010 Graduates Who Qualified
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	37%	27%	21%	4%	15%
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	Not Open	37%	45%	33%	46%	46%	42%
Galena	64%	58%	65%	69%	69%	71%	65%	62%	65%	80%	62%
Gerlach	13%	67%	50%	67%	67%	67%	71%	50%	17%	40%	0%
Hug	33%	44%	42%	40%	49%	41%	40%	30%	30%	29%	34%
Incline	49%	71%	59%	59%	59%	61%	58%	48%	39%	36%	57%
McQueen	54%	59%	65%	63%	59%	58%	56%	53%	52%	60%	56%
North Valleys	Not Open	Not Open	Not Open	51%	53%	45%	48%	40%	40%	40%	34%
Reed	49%	61%	59%	71%	61%	52%	58%	49%	43%	40%	47%
Reno	68%	67%	67%	78%	70%	63%	62%	61%	59%	61%	65%
Spanish Springs	Not Open	Not Open	Not Open	52%	54%	53%	48%	49%	45%	41%	39%
Sparks	44%	53%	56%	58%	47%	39%	45%	49%	41%	31%	46%
TMCC	66%	74%	75%	78%	74%	75%	73%	70%	63%	62%	67%
Washoe	16%	54%	44%	31%	24%	10%	8%	15%	11%	8%	1%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	No Data
Wooster	43%	60%	51%	63%	63%	57%	46%	56%	53%	52%	45%
<b>WCSD</b>	50%	59%	56%	63%	57%	52%	51%	48%	45%	47%	46%
GPA Requirement	3.00	3.00	3.00	3.00	3.00	3.10	3.10	3.25	3.25	3.25	3.25

# WCSD GRADUATING COHORTS ANALYSIS

The Tracking of WCSD Graduates\* from High School to College

## Graduating Classes

- 2009-2010 Graduates = 3424
- 2008-2009 Graduates = 3292
- 2007-2008 Graduates = 3151
- 2006-2007 Graduates = 2922
- 2005-2006 Graduates = 2887
- 2004-2005 Graduates = 2842
- 2003-2004 Graduates = 2742
- 2002-2003 Graduates = 2635
- 2001-2002 Graduates = 2560
- 2000-2001 Graduates = 2429
- 1999-2000 Graduates = 2243
- 1998-1999 Graduates = 2227
- 1997-1998 Graduates = 2072
- 1996-1997 Graduates = 2006

## College Measures

∞ **Capture Rate:** The percentage of WCSD graduates enrolling at UNR, TMCC, other in-state colleges and universities and out-of-state institutions immediately following high school graduation.

∞ **Remediation:** Student enrollment in developmental English or math courses (intermediate algebra and below).

∞ **Persistence:** The rate at which a cohort returns to college with each advancing semester.

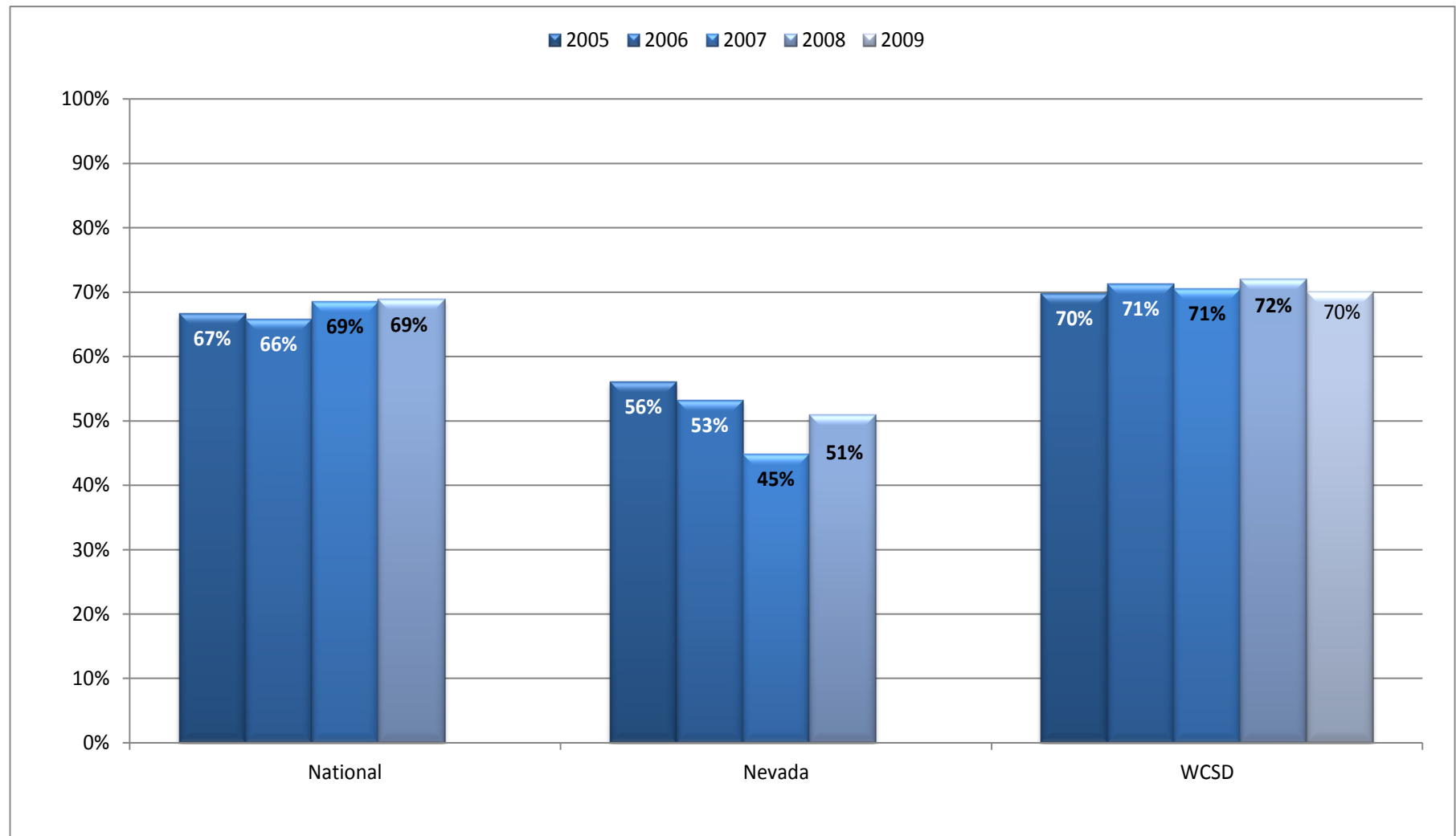
∞ **SAT and ACT Exams:** SAT and ACT scores of WCSD graduates\* attending the University of Nevada, Reno.

\*Includes all standard and adjusted diplomas from District schools. Does not include Washoe Adult High School or the Charter Schools. Graduate numbers include all students who graduated or earned an adjusted diploma in the given year, including 5th year seniors and beyond. Consequently these counts differ from the *Cohort Graduation Rate* graduate counts.



# WCSD COLLEGE-GOING RATE FOR 2005-2009

Percentage of High School Graduates Immediately Enrolling in Post-Secondary Education\*

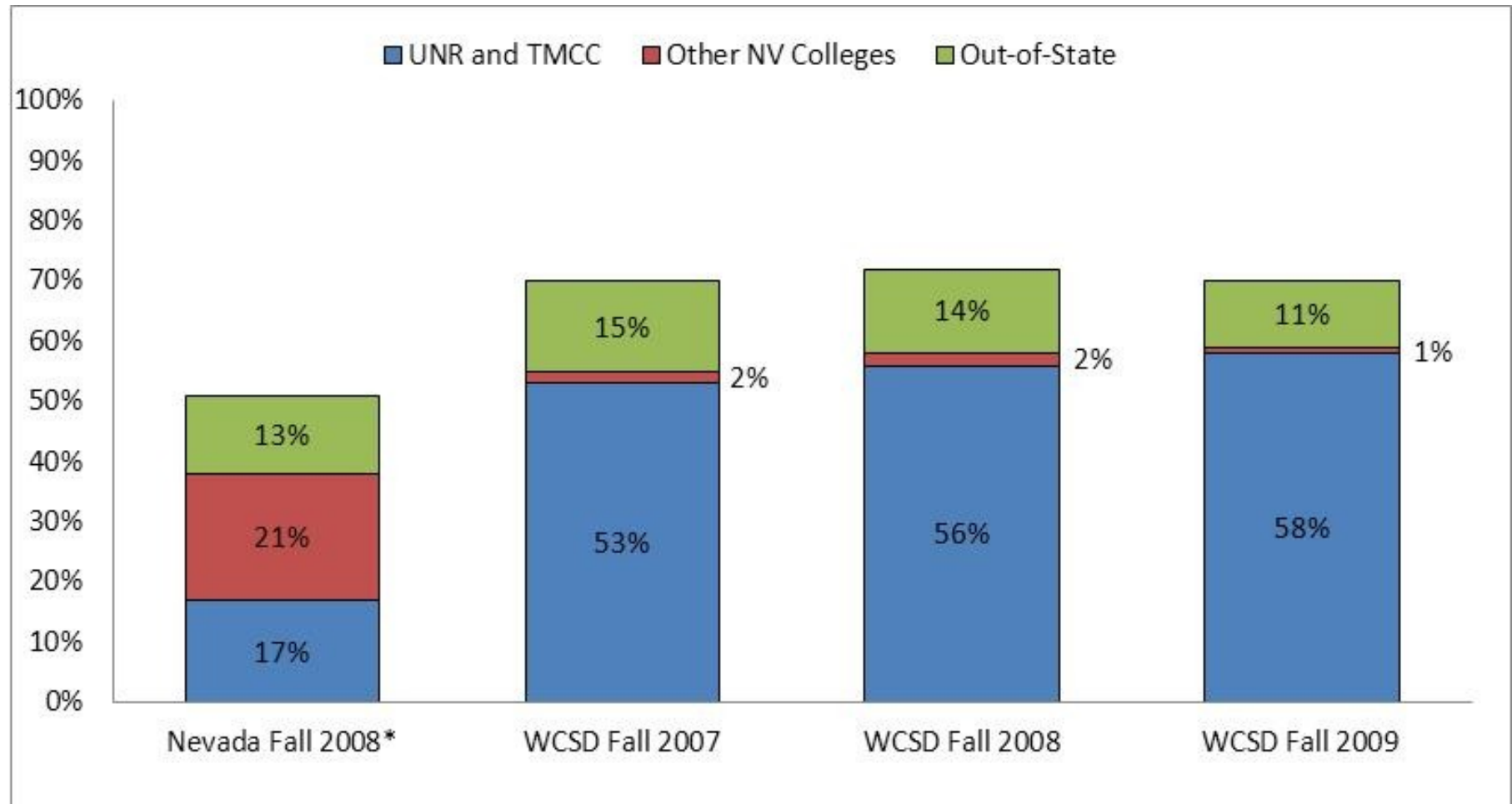


\* To permit comparison with state and national rates, only WCSD graduates with standard, advanced and honors diplomas are included in the percentages depicted in the college-going rate charts. Students with adjusted diplomas were excluded. Additionally, the Nevada and national rates include charter and private high schools, but the WCSD rate does not. The national rate shown here is based on census data, and differs from the national rate reported in the 2003-04 Data Profile. **New data sources and calculation methods were applied beginning with the 2006 edition. Therefore the college going rates reported here are not directly comparable to those reported for years prior to 2005.**

The 2009 National and Nevada college-going rates are not available.

# CLASS OF 2007 Through 2009 COLLEGE GOING RATES

Percentage of Nevada and WCSD High School Graduates Enrolling in Local, In-State and Out-of-State Institutions



\* Nevada rates for 2009 are not available.

Only high school graduates with standard diplomas were included in the percentages depicted in the college-going rate charts.

Sources: Nevada System of Higher Education Annual Reports on Nevada College Continuation Rates and College Remediation.

Data have been corrected for previous years.

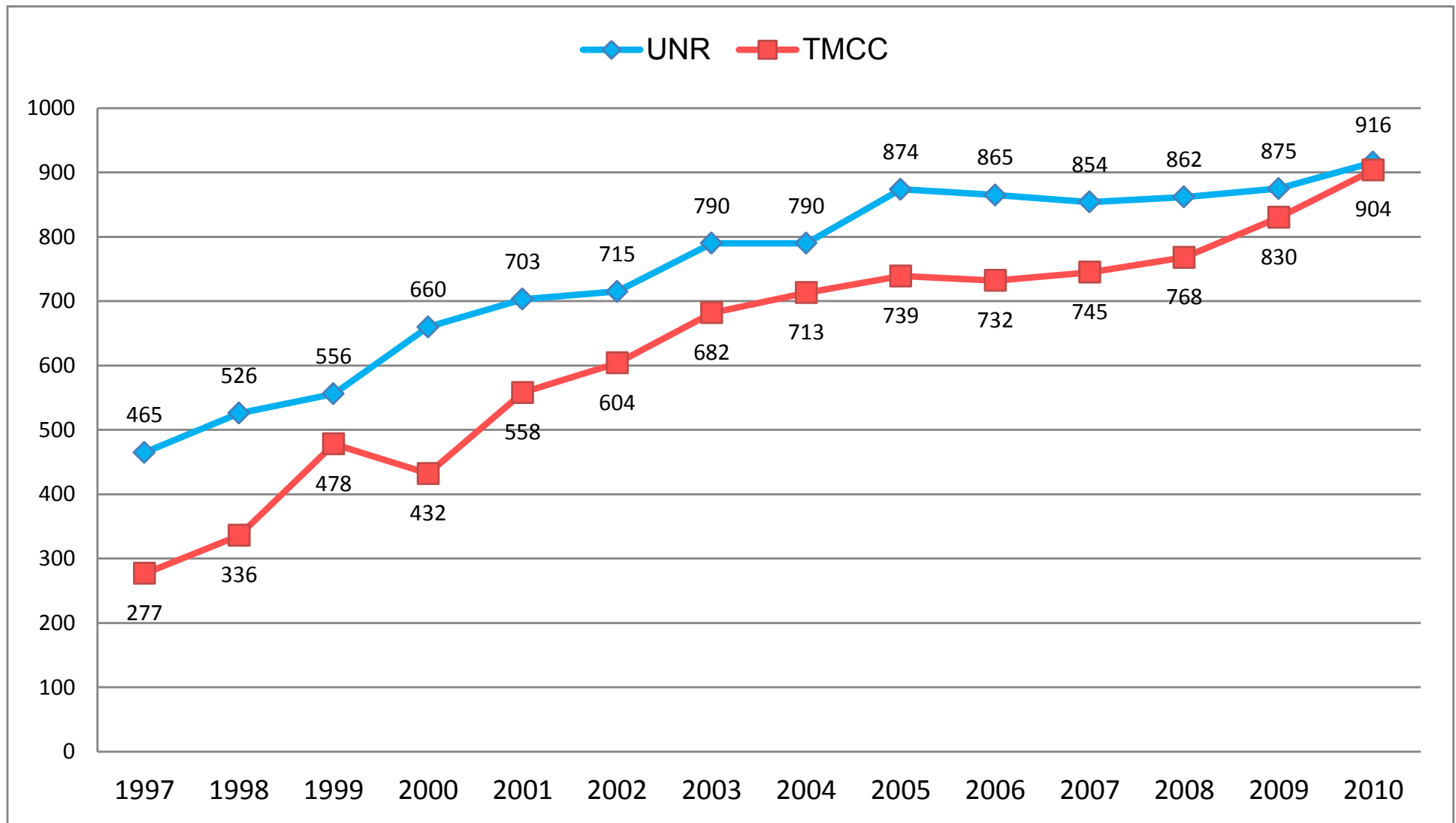
## CAPTURE RATES BASED ON UNR & TMCC ENROLLMENT COUNTS

The college-going rate for Washoe County School District reported in the previous two pages was calculated using student-matched data collected by the National Student Clearinghouse Student Tracker Service. The student-matched data generate a more precise college-going rate than the rates published in previous Data Profile reports. Using student-matched data, WCSD students who received an adjusted diploma or did not graduate (i.e. drop outs and students who received a certificate of attendance), but nevertheless enrolled in college, can be identified and excluded from the analysis. Additionally, students who are dual-enrolled (i.e. taking classes at both UNR and TMCC during the same term) can be identified so that they are only counted once in the college-going rate.

The TMCC and UNR capture rates reported on the following pages differ from the college-going rates reported on previous pages in that they may include WCSD students who received an adjusted diploma, students who did not graduate, and/or students dual-enrolled at UNR and TMCC.

# WCSD HIGH SCHOOL GRADUATES ATTENDING UNR OR TMCC

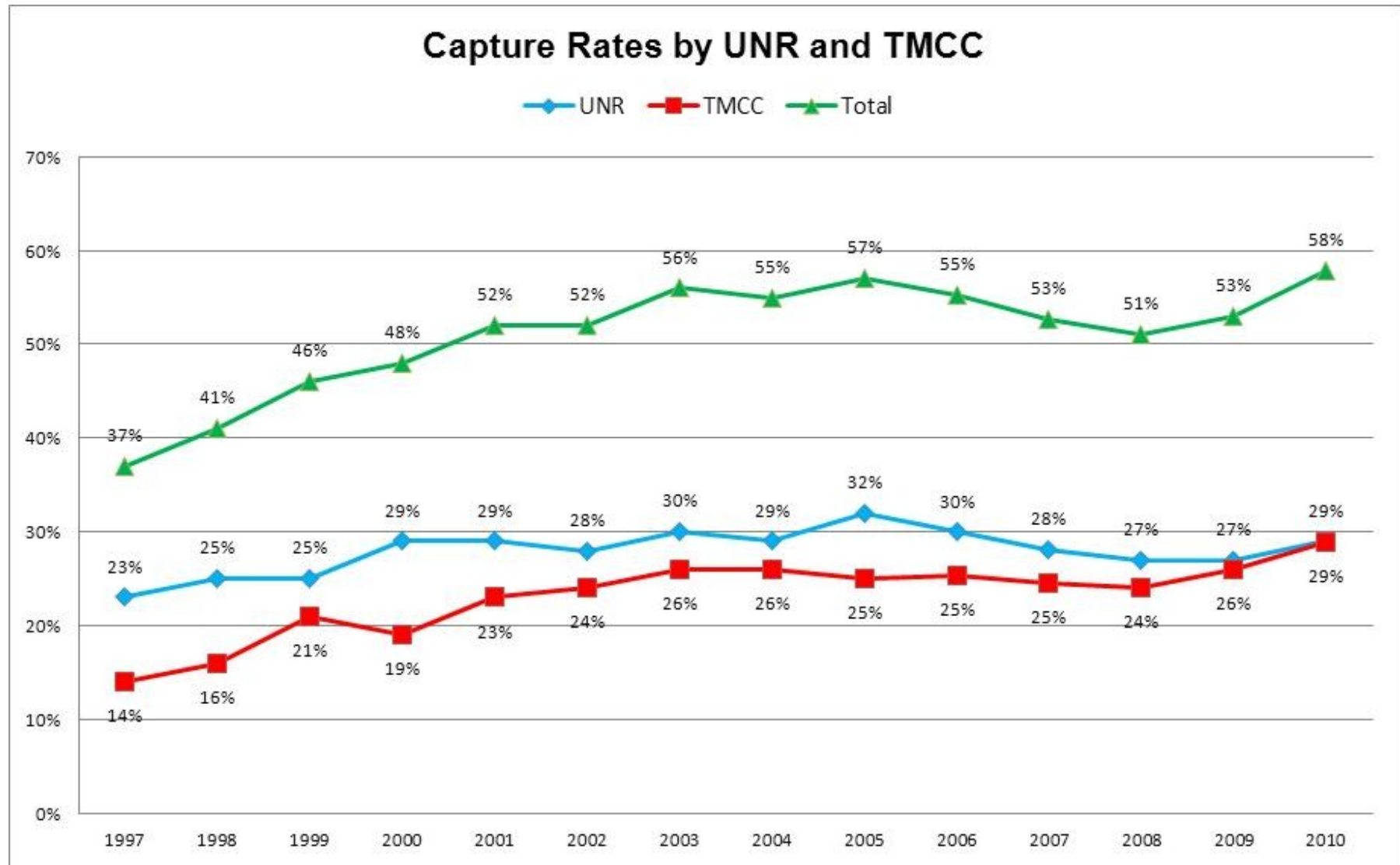
Number of WCSD Graduates Enrolling by Year



Numbers may include WCSD students who did not receive a diploma and students co-enrolled at both institutions.

# CAPTURE RATES OF HIGH SCHOOL COHORTS BY UNR & TMCC

Percentage of WCSD Graduates Enrolling in UNR and TMCC by Year



Data have been corrected from previous years.

Numbers may include WCSD students who did not receive a diploma and students co-enrolled at both institutions.

# COMBINED UNR & TMCC CAPTURE RATE BY HIGH SCHOOL

High Schools	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	
	%	%	%	%	%	%	%	%	%	N	%
AACT	Not Open	Not Open	Not Open	Not Open	-	37%	58%	25%	30%	10	37%
Damonte Ranch	Not Open	Not Open	Not Open	-	38%	53%	49%	53%	52%	121	58%
Galena	57%	52%	61%	76%	65%	53%	55%	64%	65%	180	64%
Gerlach	42%	0%	67%	67%	33%	43%	50%	0%	17%	0	0%
Hug	43%	36%	42%	36%	42%	40%	43%	48%	57%	91	55%
Incline	26%	37%	30%	31%	32%	39%	32%	37%	39%	26	32%
McQueen	61%	60%	62%	63%	62%	65%	60%	63%	66%	222	63%
North Valleys	Not Open	Not Open	42%	48%	55%	52%	49%	54%	51%	170	53%
Reed	49%	51%	55%	48%	56%	63%	53%	54%	55%	152	37%
Reno	52%	51%	58%	53%	66%	63%	51%	62%	62%	201	56%
Spanish Springs	Not Open	Not Open	51%	48%	51%	47%	54%	59%	49%	200	52%
Sparks	44%	47%	56%	56%	60%	45%	65%	48%	75%	102	70%
TMCC	62%	78%	80%	92%	82%	68%	64%	79%	65%	72	75%
Washoe	33%	77%	57%	71%	43%	46%	48%	35%	28%	25	30%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	3	7%
Wooster	52%	45%	48%	46%	55%	54%	48%	62%	53%	116	52%
<b>Total</b>	<b>52%</b>	<b>52%</b>	<b>56%</b>	<b>55%</b>	<b>57%</b>	<b>55%</b>	<b>53%</b>	<b>51%</b>	<b>53%</b>	<b>1820</b>	<b>58%</b>

Numbers may include WCSD students who did not receive a diploma and students co-enrolled at both institutions, and are not comparable to the reported college-going rates.

“-” Denotes no graduates that year

Data have been corrected for previous years.

# TMCC CAPTURE RATE BY HIGH SCHOOL

High Schools	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	
	%	%	%	%	%	%	%	%	%	N	%
AACT	Not Open	Not Open	Not Open	Not Open	-	37%	55%	24%	27%	9	33%
Damonte Ranch	Not Open	Not Open	Not Open	-	26%	21%	21%	27%	24%	62	30%
Galena	25%	20%	26%	23%	24%	17%	20%	20%	21%	68	24%
Gerlach	25%	0%	67%	11%	0%	29%	0%	0%	0%	0	0%
Hug	26%	24%	29%	27%	25%	26%	25%	26%	28%	41	25%
Incline	10%	16%	14%	12%	13%	12%	9%	13%	21%	7	9%
McQueen	22%	18%	23%	21%	22%	23%	23%	24%	25%	105	30%
North Valleys	Not Open	Not Open	22%	31%	29%	28%	30%	29%	29%	111	35%
Reed	21%	24%	24%	27%	28%	27%	23%	22%	29%	120	27%
Reno	17%	18%	17%	16%	22%	23%	14%	19%	16%	67	19%
Spanish Springs	Not Open	Not Open	27%	27%	19%	22%	27%	22%	22%	106	28%
Sparks	21%	23%	30%	32%	39%	25%	44%	20%	39%	61	42%
TMCC	46%	52%	60%	46%	53%	49%	47%	61%	44%	54	56%
Washoe	33%	77%	57%	71%	43%	46%	48%	35%	28%	25	30%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	3	7%
Wooster	22%	24%	23%	24%	25%	33%	19%	28%	24%	48	22%
Total	23%	24%	26%	26%	25%	25%	25%	24%	26%	916	29%

Numbers may include WCSD students who did not receive a diploma and students co-enrolled at both institutions.

‘-’ Denotes no graduates that year



# UNR CAPTURE RATE BY HIGH SCHOOL

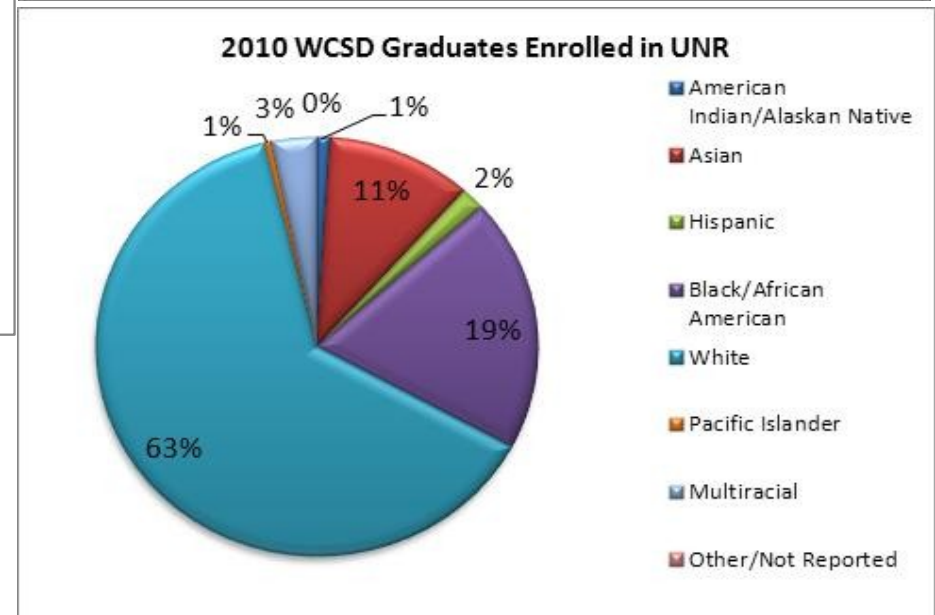
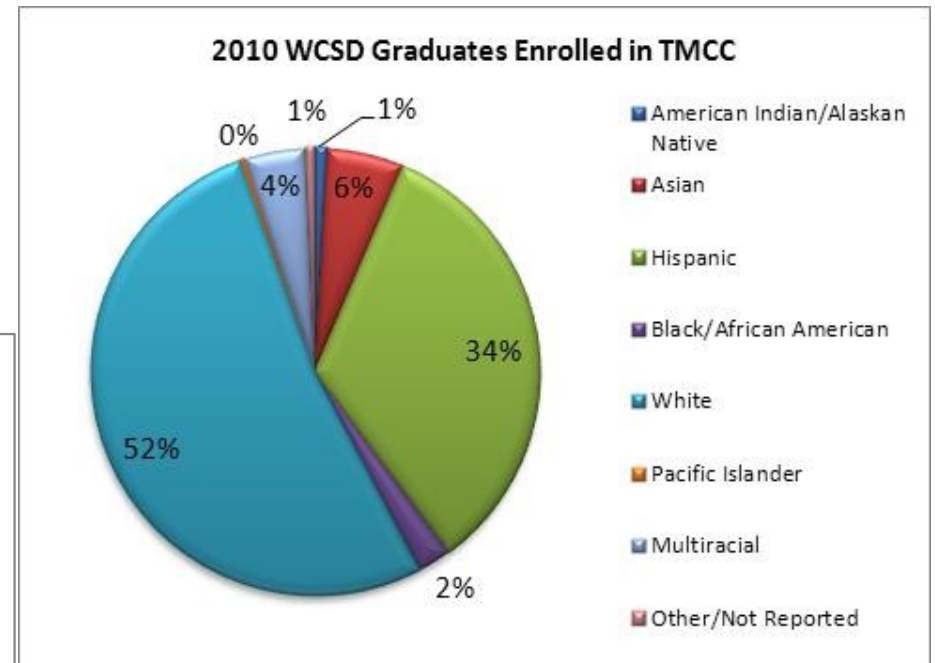
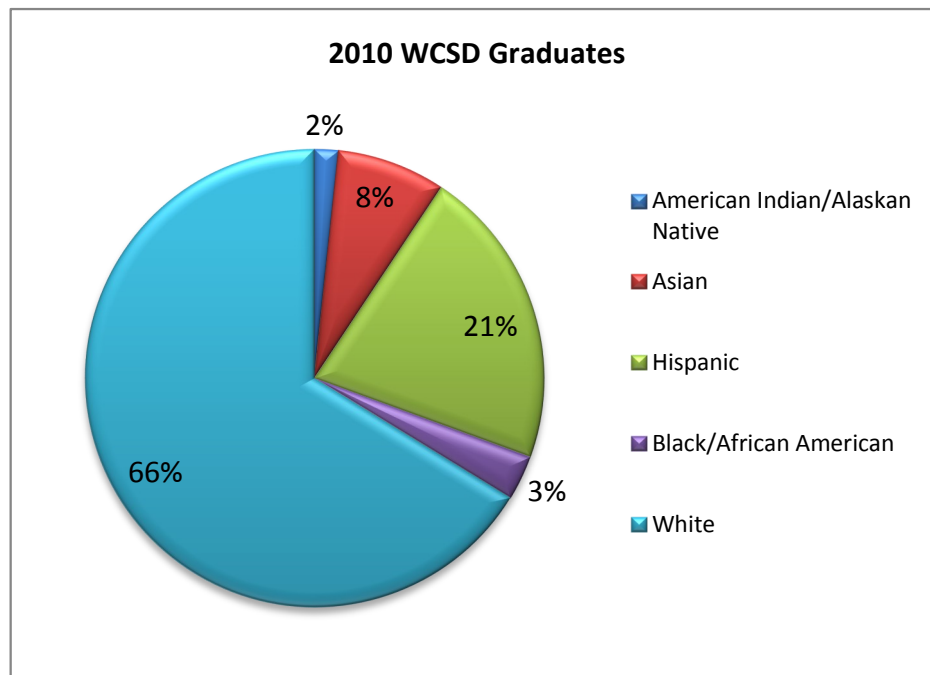
High Schools	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	
	%	%	%	%	%	%	%	%	%	N	%
AACT	Not Open	Not Open	Not Open	Not Open	-	0%	3%	0%	0%	1	4%
Damonte Ranch	Not Open	Not Open	Not Open	-	12%	31%	28%	22%	27%	59	28%
Galena	33%	33%	37%	39%	41%	37%	35%	43%	44%	112	40%
Gerlach	17%	10%	0%	33%	33%	14%	50%	0%	0%	0	0%
Hug	18%	11%	13%	15%	17%	15%	18%	14%	23%	50	30%
Incline	17%	21%	16%	17%	19%	28%	24%	22%	16%	19	23%
McQueen	40%	43%	40%	41%	39%	41%	37%	37%	40%	117	33%
North Valleys	Not Open	Not Open	20%	21%	26%	25%	19%	23%	20%	59	18%
Reed	30%	28%	32%	29%	28%	36%	30%	29%	23%	132	32%
Reno	38%	34%	42%	37%	44%	40%	37%	42%	44%	134	38%
Spanish Springs	Not Open	Not Open	24%	22%	32%	25%	27%	35%	26%	94	25%
Sparks	23%	24%	28%	18%	22%	20%	21%	29%	28%	41	28%
TMCC	18%	26%	30%	20%	28%	19%	17%	15%	22%	18	19%
Washoe	0%	0%	0%	0%	2%	0%	0%	3%	5%	0	0%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	0	0%
Wooster	30%	21%	25%	25%	30%	21%	29%	33%	27%	68	30%
<b>Total</b>	<b>29%</b>	<b>28%</b>	<b>30%</b>	<b>29%</b>	<b>32%</b>	<b>30%</b>	<b>28%</b>	<b>27%</b>	<b>27%</b>	<b>904</b>	<b>29%</b>

Numbers may include WCSD students who did not receive a diploma and students co-enrolled at both institutions.

␣ Denotes no graduates that year

# ETHNIC COMPOSITION OF WCSD GRADUATES ATTENDING UNR & TMCC

Fall 2010 College Freshmen



# WCSD GRADUATES' NEED FOR REMEDIATION

## Prior Conclusions of 4-Year Review of Remediation Data for WCSD Graduates Enrolled as Freshmen at UNR and TMCC Remediation Study Conducted Between 2002 and 2005

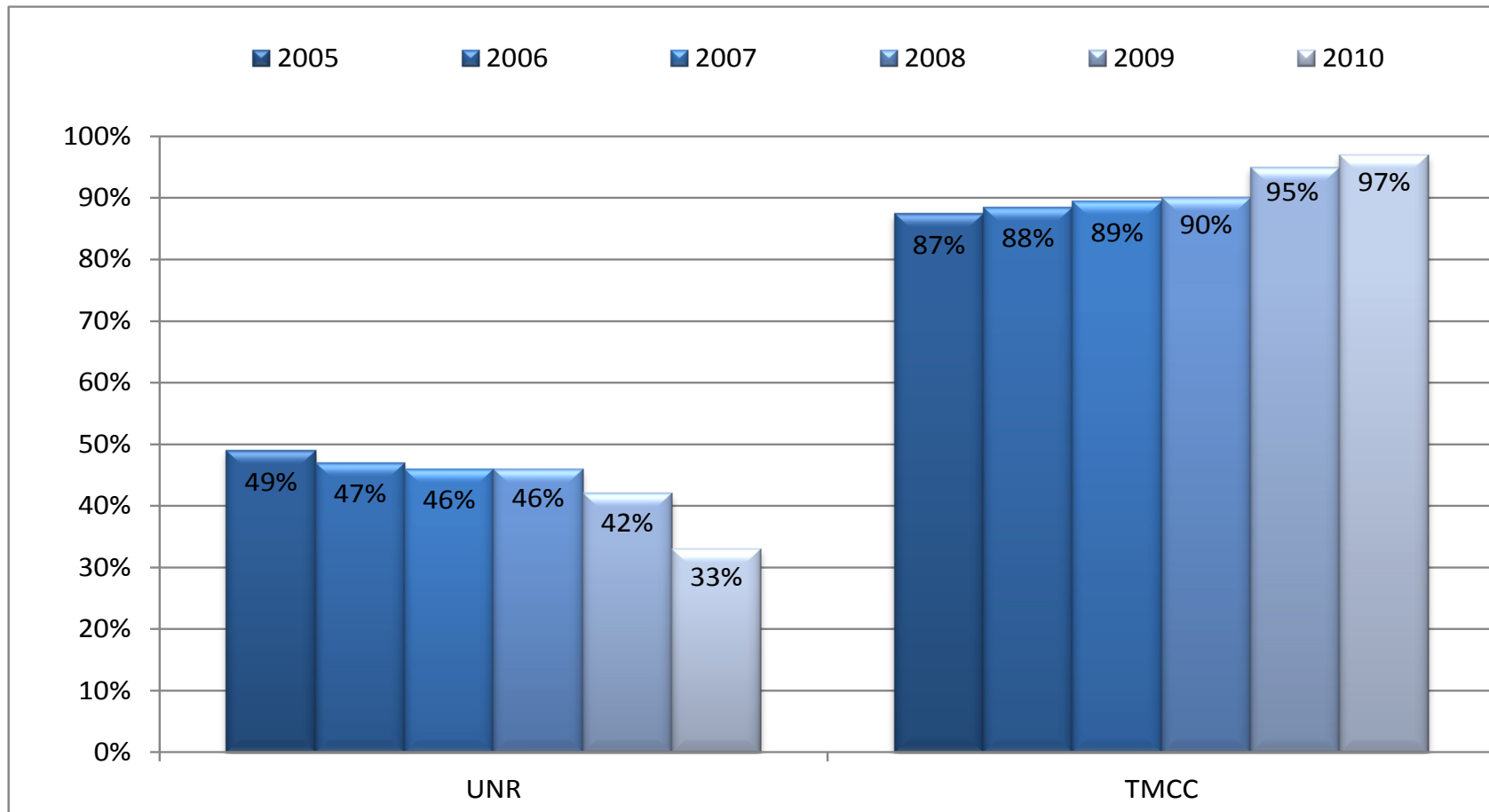
- ∞ The percentage of students enrolled in remedial English or math as freshmen at UNR and TMCC is lower than the percentage of students who need remedial English or math based on their placement scores.
- ∞ Over 80% of students enrolled in remedial English or math as freshman are there because of their placement exam scores and not because of self-selection.
- ∞ Enrollment in high school mathematics beyond the level of Algebra 3-4 dramatically reduces the likelihood that a student will need math remediation in college. Enrollment in Advanced Placement English and mathematics courses in high school also appears to reduce the likelihood that a student will need remediation in those content areas in college.
- ∞ In general, students who registered for remedial math in college are characterized by not having taken four years of high school math, not having taken math beyond Algebra 3-4, and often not even having taken and passed Algebra 3-4.
- ∞ Those students enrolled in remedial math in college who had completed Algebra 3-4 in high school were generally students who earned a C grade or lower in Algebra 3-4. The average cumulative math GPA in high school of these students was 2.43.

## Differences Between Remedial Enrollment and Remedial Need

- ∞ Past issues of the Data Profile reported WCSD graduates' enrollment in remedial courses at UNR and TMCC. Remedial enrollment is an important indicator on its own, but it underreports the true need for remediation. Many students who demonstrate a need for remediation based on placement scores postpone enrolling in remedial classes until sometime later in their college career, and are therefore not included in remedial enrollment counts, which are based on first-time freshman fall enrollment numbers.
- ∞ In this and future issues of the Data Profile only remediation need based on placement scores will be reported. Remedial enrollment will no longer be reported.

# NEED FOR REMEDIATION BASED ON PLACEMENT SCORES

Percentage of WCSD Graduates with ACT, SAT or Accuplacer Scores Demonstrating a Need for Remediation in Math, or English, or Both



TMCC changed their remedial placement cut scores in 2009, and again in 2010, resulting in higher percentages of students being placed into remedial courses. As of November 2010, the TMCC cut scores for college level English placement are: Accuplacer reading 86 and writing 6, SAT Verbal 440, ACT English 18; college level math placement cut scores are Accuplacer 63, SAT math 500, ACT math 22.

UNR changed their math and English cut scores in 2010, resulting in lower percentages of students being placed into remedial courses. UNR cut scores: English went from ACT verbal < 21 and SAT verbal < 510 to ACT verbal < 18 and SAT verbal < 440. For math, from ACT < 21 and SAT < 510 to ACT < 22 and SAT < 500

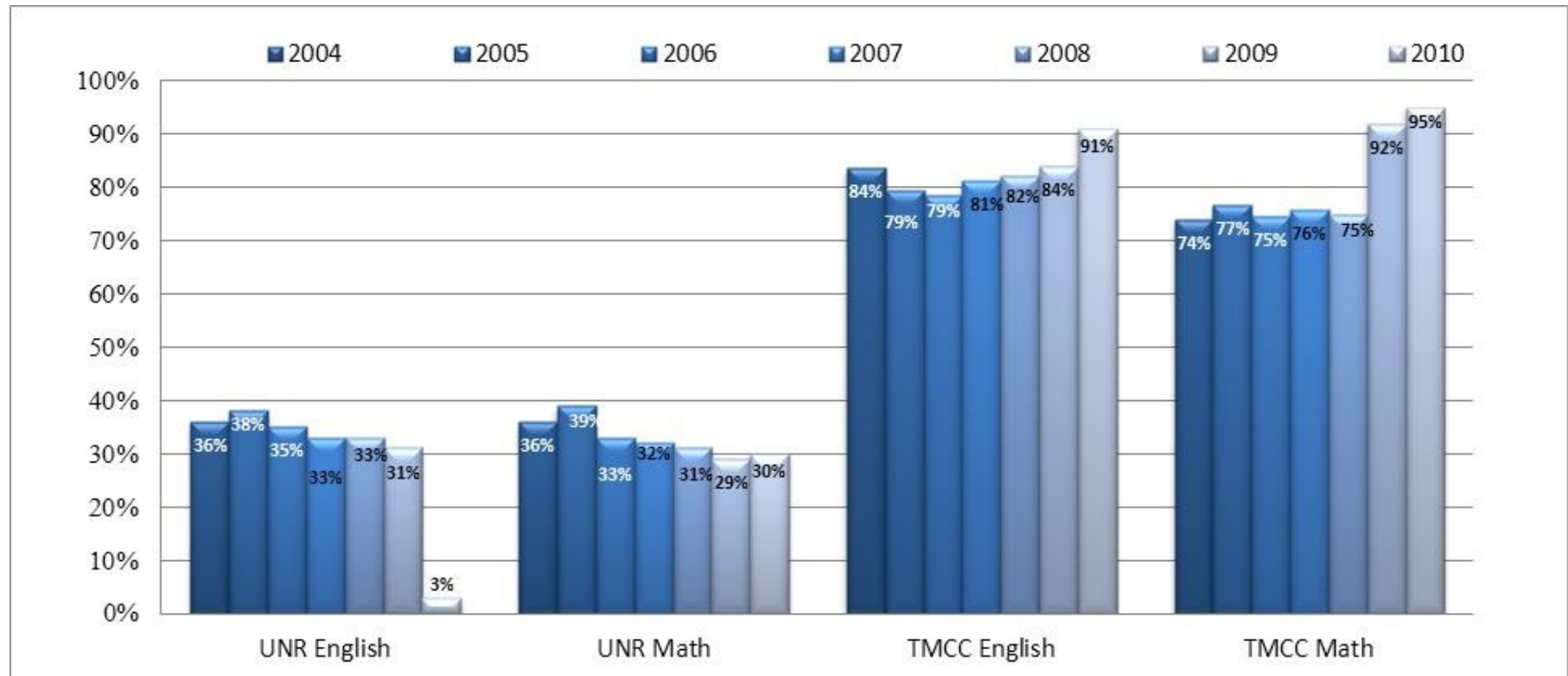
Approximately 5% of UNR and 15% of TMCC WCSD freshmen do not have placement exam scores.

This chart depicts students whose scores on placement exams were below the cut-off for college level work. Not all of these students enrolled in English or math in their first semester at UNR or TMCC.

Data have been corrected for previous years.

# NEED FOR REMEDIATION BASED ON PLACEMENT SCORES

Percentage of WCCS Graduates with ACT, SAT or Accuplacer Scores Demonstrating a Need for Remedial Math or English Placement



TMCC changed their cut scores in 2009, resulting in higher percentages of students being placed into remedial courses. In Fall 2008, students who received an 80 or better on the elementary algebra test of Accuplacer would be placed in Math 120 or higher. In Fall 2009, students needed to get a 50 or better on the college level math test to place into Math 120 or higher.

UNR changed their cut scores in 2010, resulting in lower percentages of students being placed into remedial courses. UNR cut scores: English went from ACT verbal < 21 and SAT verbal < 510 to ACT verbal < 18 and SAT verbal < 440. For math, from ACT < 21 and SAT < 510 to ACT < 22 and SAT < 500

Approximately 5% of UNR and 15% of TMCC WCCS freshmen do not have placement exam scores.

This chart depicts students whose scores on placement exams were below the cut-off for college level work. Not all of these students enrolled in English or math in their first semester at UNR or TMCC.

Data have been corrected for previous years.

# REMEDIATION NEED BY HIGH SCHOOL

Percentage of WCSD Graduates With Placement Exam Scores Indicating a Need for Remediation in English and/or Math

Washoe County High Schools	TMCC Remediation Need Determined by Placement Exam					
	2008		2009		2010	
	N	%	N	%	N	%
AACT	8	100%	14	100%	7	100%
Damonte Ranch	55	94%	48	100%	40	93%
Galena	56	95%	60	93%	57	100%
Gerlach	-	-	-	-	-	-
Hug	44	100%	44	98%	31	97%
Incline	9	89%	15	88%	6	100%
McQueen	84	94%	87	88%	78	98%
North Valleys	76	92%	87	95%	55	100%
Reed	87	85%	115	96%	58	95%
Reno	60	85%	51	88%	46	92%
Spanish Springs	73	90%	78	96%	73	95%
Sparks	23	92%	63	100%	45	100%
TMCC	*	*	*	*	*	*
Washoe	38	95%	41	97%	41	100%
WOLF	Not Open	Not Open	Not Open	Not Open	-	-
Wooster	44	89%	43	91%	27	96%
TOTAL	695	90%	786	95%	589	97%

Total includes schools with fewer than 5 students attending TMCC, and is therefore higher than the sum of individual schools.

'-' Denotes fewer than 5 students enrolled.

\* TMCC High School students complete all TMCC remedial requirements prior to high school graduation.

# REMEDIATION NEED BY HIGH SCHOOL

Percentage of WCSD Graduates With Placement Exam Scores Indicating a Need for Remediation in English and/or Math

Washoe County High Schools	UNR Remediation Need Determined by Placement Exam					
	2008		2009		2010	
	N	%	N	%	N	%
AACT	-	-	-	-	-	-
Damonte Ranch	25	60%	28	54%	21	38%
Galena	46	40%	47	36%	23	21%
Gerlach	-	-	-	-	-	-
Hug	13	72%	23	74%	28	85%
Incline	7	50%	6	50%	7	39%
McQueen	59	45%	51	34%	28	24%
North Valleys	27	46%	24	41%	17	31%
Reed	51	44%	42	47%	49	40%
Reno	53	38%	57	38%	32	25%
Spanish Springs	56	47%	42	47%	30	35%
Sparks	24	67%	21	55%	15	52%
TMCC	6	50%	10	50%	-	-
Washoe	-	-	-	-	-	-
WOLF	Not Open	Not Open	Not Open	Not Open	-	-
Wooster	27	49%	15	30%	22	38%
TOTAL	395	46%	367	42%	276	33%

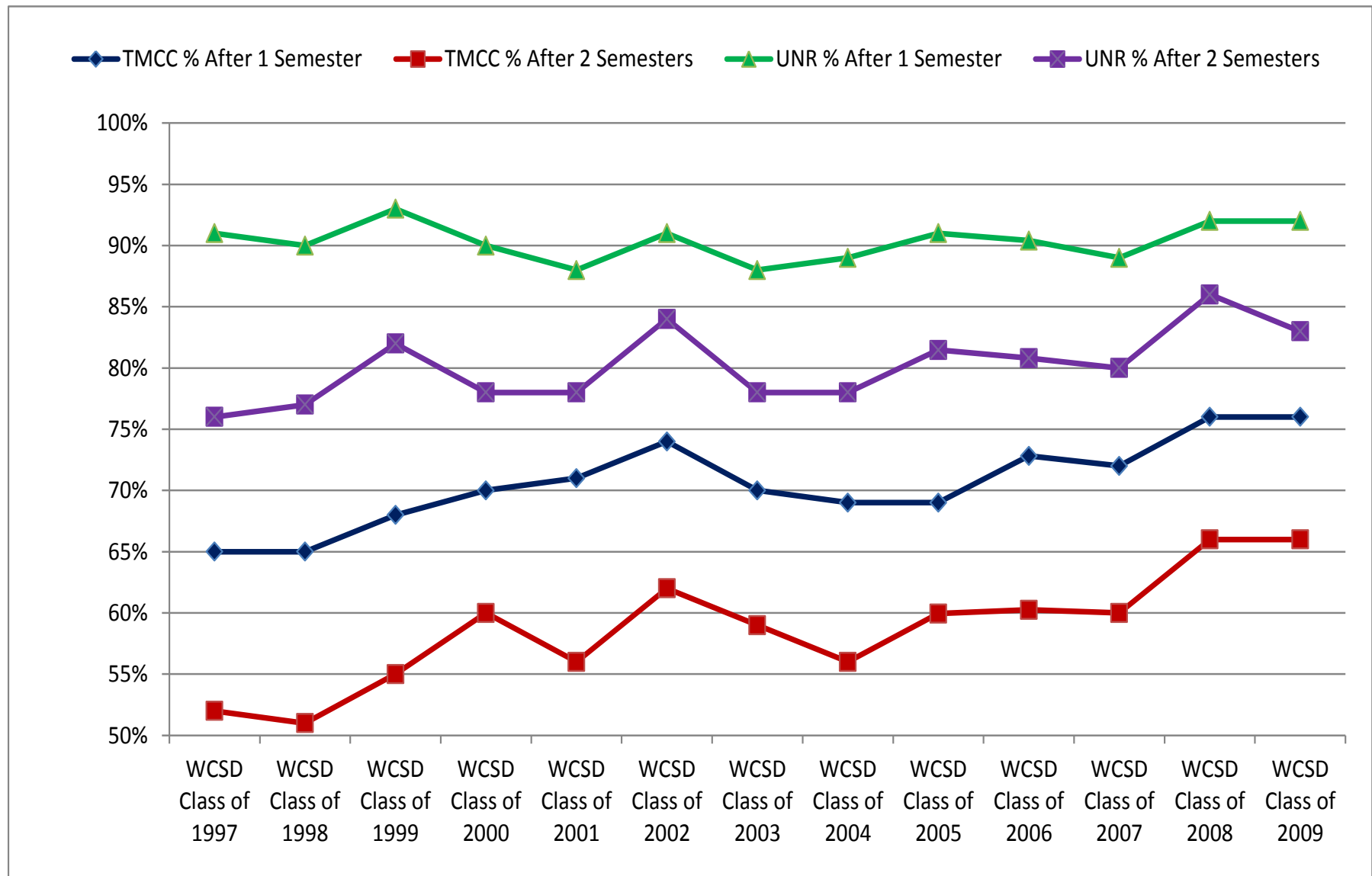
Total includes schools with fewer than 5 students attending UNR, and is therefore higher than the sum of individual schools.

'-' Denotes fewer than 5 students enrolled.



# TMCC AND UNR PERSISTENCE RATES

WCSD Graduating Cohorts



Nationally, 73.9% will return after 2 semesters at Universities and 55.9% at Community Colleges (2010, ACT, *National Collegiate Retention and Persistence to Degree Rates*)

# PERSISTENCE AT TMCC BY HIGH SCHOOL

Percentage Returning After One Semester

High Schools	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009	
	%	%	%	%	%	%	%	%	%	%	N	%
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-	73%	61%	75%	9	64%
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	Not Open	-	68%	65%	63%	71%	41	85%
Galena	80%	65%	80%	77%	71%	77%	77%	71%	66%	76%	48	75%
Gerlach	-	-	-	-	-	-	-	-	-	-	-	-
Hug	79%	73%	68%	74%	65%	60%	59%	51%	71%	75%	41	91%
Incline	-	-	78%	62%	55%	50%	60%	67%	78%	80%	13	76%
McQueen	65%	78%	59%	73%	74%	61%	68%	80%	77%	80%	80	81%
North Valleys	Not Open	Not Open	Not Open	Not Open	67%	70%	71%	68%	72%	82%	79	86%
Reed	70%	74%	75%	77%	69%	75%	76%	77%	74%	80%	91	76%
Reno	56%	70%	72%	80%	73%	65%	68%	74%	74%	70%	43	74%
Spanish Springs	Not Open	Not Open	Not Open	Not Open	69%	100%	69%	76%	80%	70%	58	72%
Sparks	65%	72%	82%	73%	71%	45%	65%	71%	67%	76%	46	73%
TMCC	81%	66%	75%	75%	73%	79%	71%	77%	76%	92%	34	85%
Washoe	44%	61%	48%	57%	65%	61%	42%	72%	47%	60%	22	52%
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open
Wooster	67%	65%	65%	73%	74%	72%	71%	73%	82%	76%	29	62%
<b>Total</b>	<b>68%</b>	<b>70%</b>	<b>71%</b>	<b>74%</b>	<b>70%</b>	<b>69%</b>	<b>69%</b>	<b>73%</b>	<b>72%</b>	<b>76%</b>	<b>634</b>	<b>76%</b>

Total numbers include schools with fewer than five students attending TMCC, and are therefore higher than the sum of individual schools.

‘-’ Denotes fewer than 5 students attended TMCC

# PERSISTENCE AT UNR BY HIGH SCHOOL

Percentage Returning After One Semester

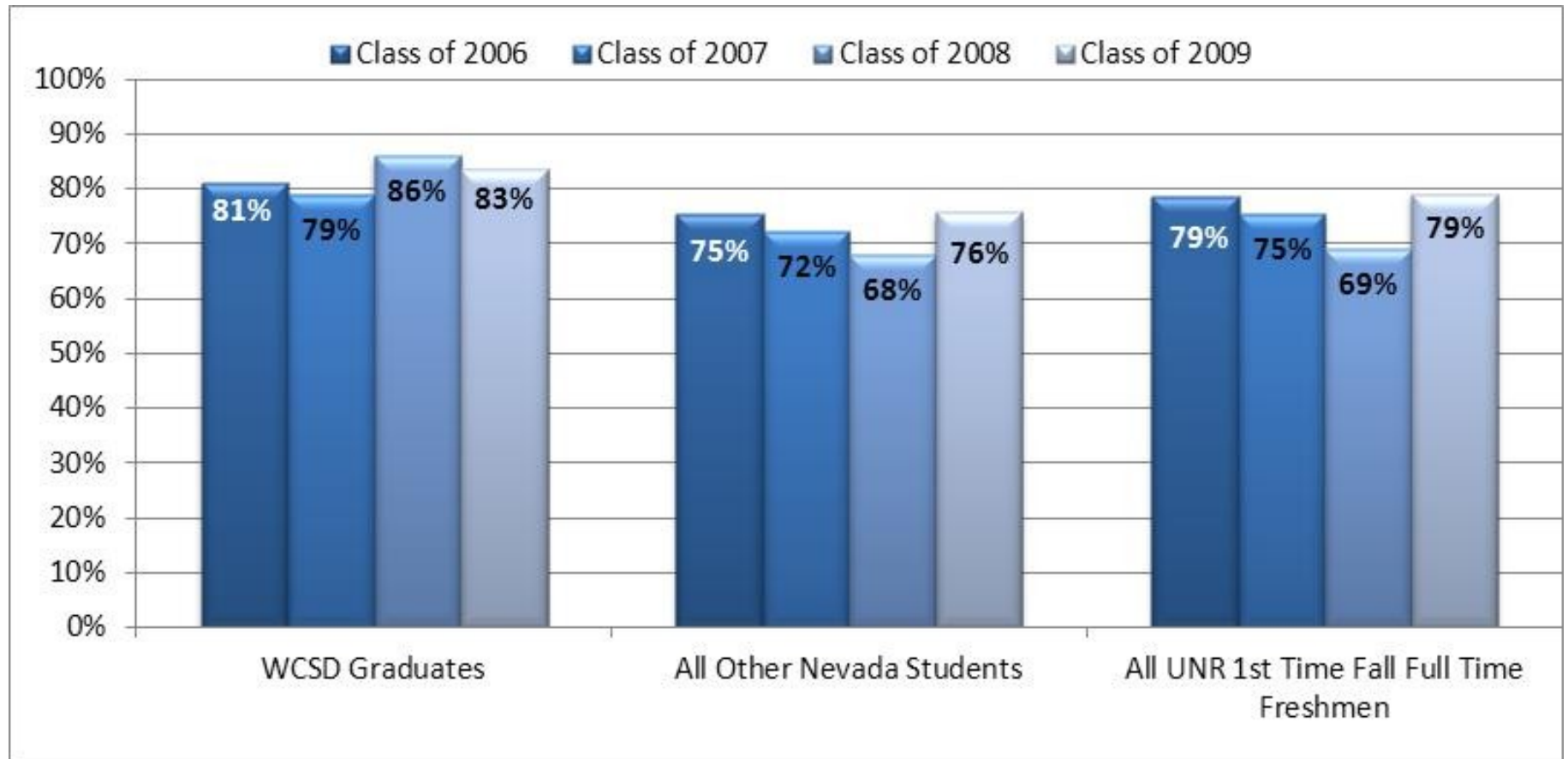
High Schools	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009	
	%	%	%	%	%	%	%	%	%	%	N	%
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-	-	-	-
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	Not Open	-	44%	79%	83%	98%	46	87%
Galena	97%	90%	92%	90%	89%	91%	89%	95%	95%	90%	130	98%
Gerlach	-	-	-	-	-	-	-	-	-	-	-	-
Hug	94%	81%	84%	88%	84%	87%	90%	80%	80%	94%	26	84%
Incline	95%	95%	93%	71%	77%	100%	100%	86%	96%	93%	12	100%
McQueen	93%	91%	95%	95%	92%	90%	95%	92%	93%	97%	138	92%
North Valleys	Not Open	Not Open	Not Open	Not Open	82%	87%	86%	87%	80%	86%	50	85%
Reed	95%	89%	81%	90%	87%	81%	91%	90%	86%	91%	86	96%
Reno	94%	91%	88%	96%	90%	95%	90%	95%	93%	91%	145	97%
Spanish Springs	Not Open	Not Open	Not Open	Not Open	86%	84%	89%	85%	86%	93%	75	84%
Sparks	86%	88%	85%	92%	90%	89%	83%	94%	90%	97%	34	89%
TMCC	83%	92%	89%	81%	78%	89%	67%	88%	86%	100%	19	95%
Washoe	-	-	-	-	-	-	-	-	-	-	-	-
Wooster	92%	93%	87%	86%	93%	85%	93%	89%	88%	93%	47	94%
<b>Total</b>	<b>93%</b>	<b>90%</b>	<b>88%</b>	<b>91%</b>	<b>88%</b>	<b>89%</b>	<b>91%</b>	<b>90%</b>	<b>89%</b>	<b>92%</b>	<b>808</b>	<b>92%</b>

Total numbers include schools with fewer than five students attending UNR, and are therefore higher than the sum of individual schools.

‘-’ Denotes fewer than 5 students attended UNR

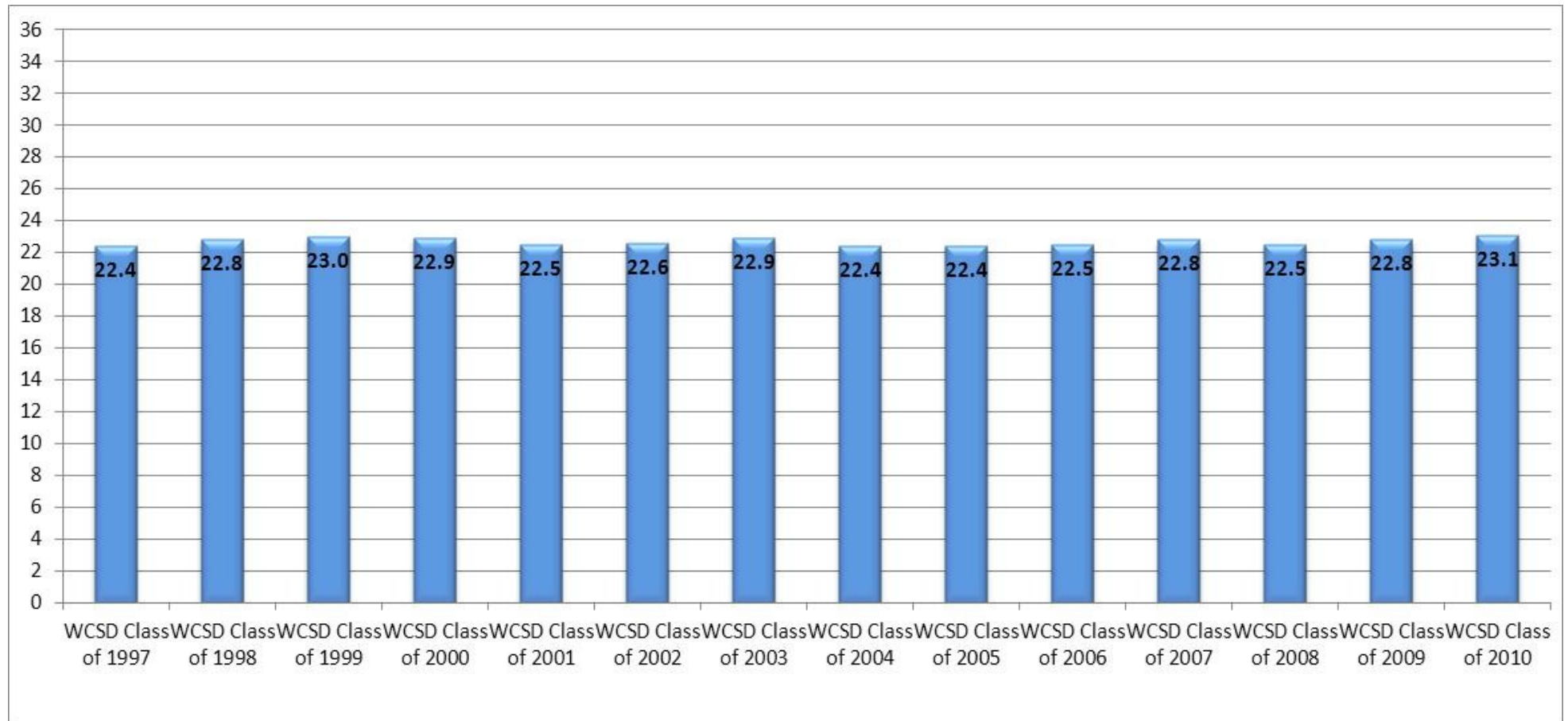
# PERSISTENCE AT UNR

Percentage Returning After Two Semesters



# ACT SCORES - UNR

ACT Composite Scores of WCSD Graduating Cohorts Attending UNR



The maximum composite ACT score is 36.

# AVERAGE ACT COMPOSITE SCORES BY HIGH SCHOOL

WCSD Graduating Cohorts Attending UNR

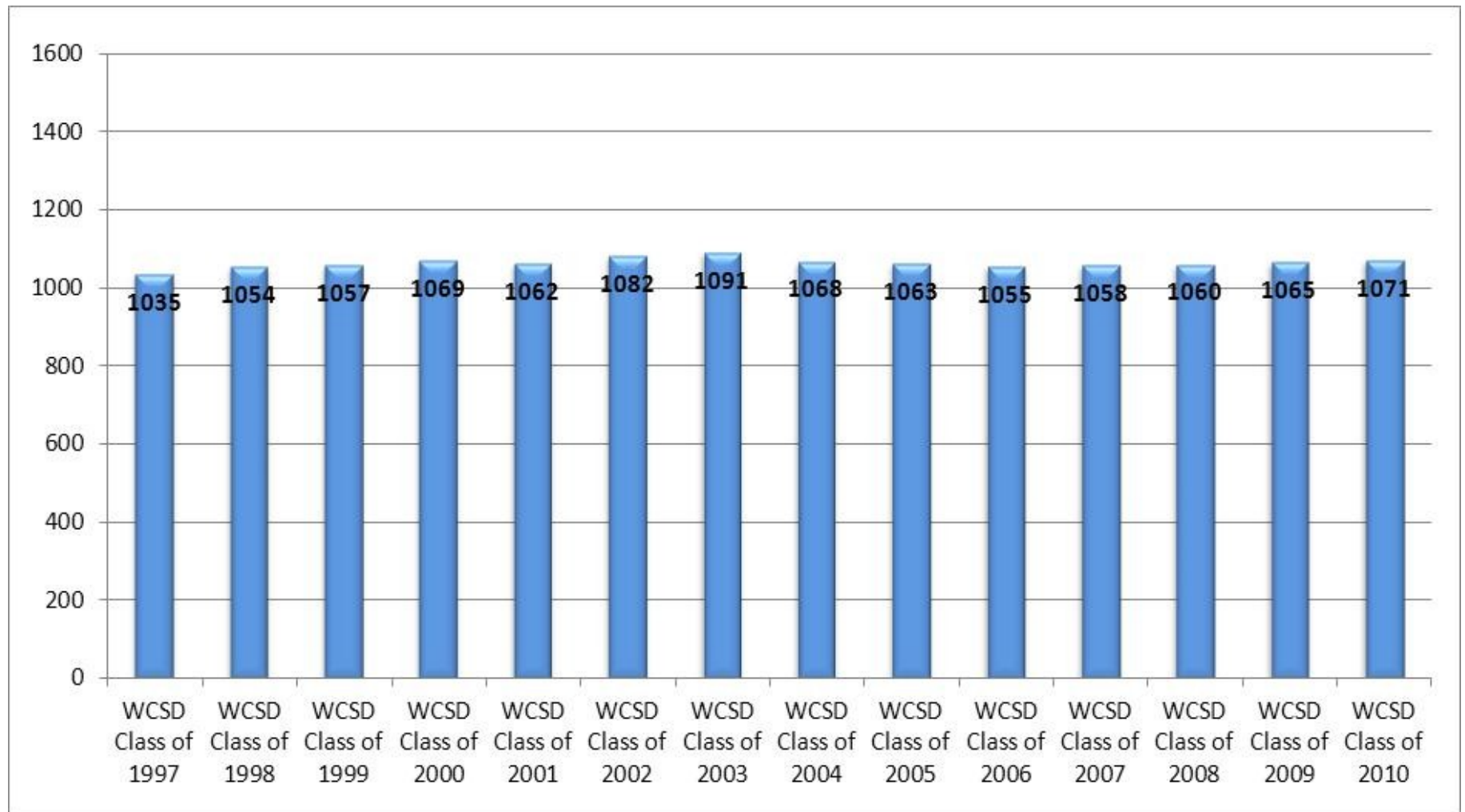
High Schools	WCSD Class of 1999	WCSD Class of 2000	WCSD Class of 2001	WCSD Class of 2002	WCSD Class of 2003	WCSD Class of 2004	WCSD Class of 2005	WCSD Class of 2006	WCSD Class of 2007	WCSD Class of 2008	WCSD Class of 2009	WCSD Class of 2010
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-	-	22.0
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	Not Open	-	22.0	20.8	24.3	22.3	22.5	25.3
Galena	23.0	23.8	23.5	22.9	22.7	22.8	22.8	22.8	23.5	22.5	23.3	24.3
Gerlach	-	-	-	-	-	-	20.0	-	-		23.0	-
Hug	22.3	21.7	20.3	22.0	20.1	21.7	20.0	19.8	18.6	19.6	18.6	17.2
Incline	21.9	22.5	19.5	20.8	22.0	25.0	23.7	23.1	21.2	22.2	20.2	22.7
McQueen	24.5	23.5	22.9	23.0	23.5	23.1	22.7	23.1	23.4	23.2	23.9	23.7
North Valleys	Not Open	Not Open	Not Open	Not Open	21.8	22.3	22.1	23.3	23.1	23.1	23.8	23.2
Reed	23.3	23.2	22.0	22.6	23.2	21.6	22.1	22.5	23.2	22.3	22.7	22.5
Reno	21.9	22.1	23.1	23.4	23.7	22.8	22.7	22.2	22.9	23.4	23.5	24.2
Spanish Springs	Not Open	Not Open	Not Open	Not Open	21.5	20.7	22.6	21.6	21.4	22.1	21.8	22.9
Sparks	22.3	21.6	22.0	21.6	21.6	21.5	21.5	21.8	21.6	20.3	21.5	20.8
TMCC	23.8	23.2	23.9	22.5	23.1	23.2	23.8	23.8	25.4	23.7	21.9	24.5
Washoe	-	-	-	-	-	-	21.0	-	-	22.0	26.0	-
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open
Wooster	21.4	22.7	23.4	22.4	23.0	23.0	23.4	21.5	22.6	24.2	20.8	25.0
<b>Avg Score</b>	<b>23.0</b>	<b>22.9</b>	<b>22.5</b>	<b>22.6</b>	<b>22.9</b>	<b>22.4</b>	<b>22.4</b>	<b>22.5</b>	<b>22.8</b>	<b>22.5</b>	<b>22.8</b>	<b>23.1</b>

The average score is a weighted mean.

␣ Denotes fewer than 5 students enrolled.

# SAT SCORES - UNR

Combined Verbal and Math SAT Scores of WCSD Graduating Cohorts Attending UNR



The maximum combined SAT score is 1600.



# AVERAGE SAT SCORES BY HIGH SCHOOL

WCSD Graduating Cohorts Attending UNR

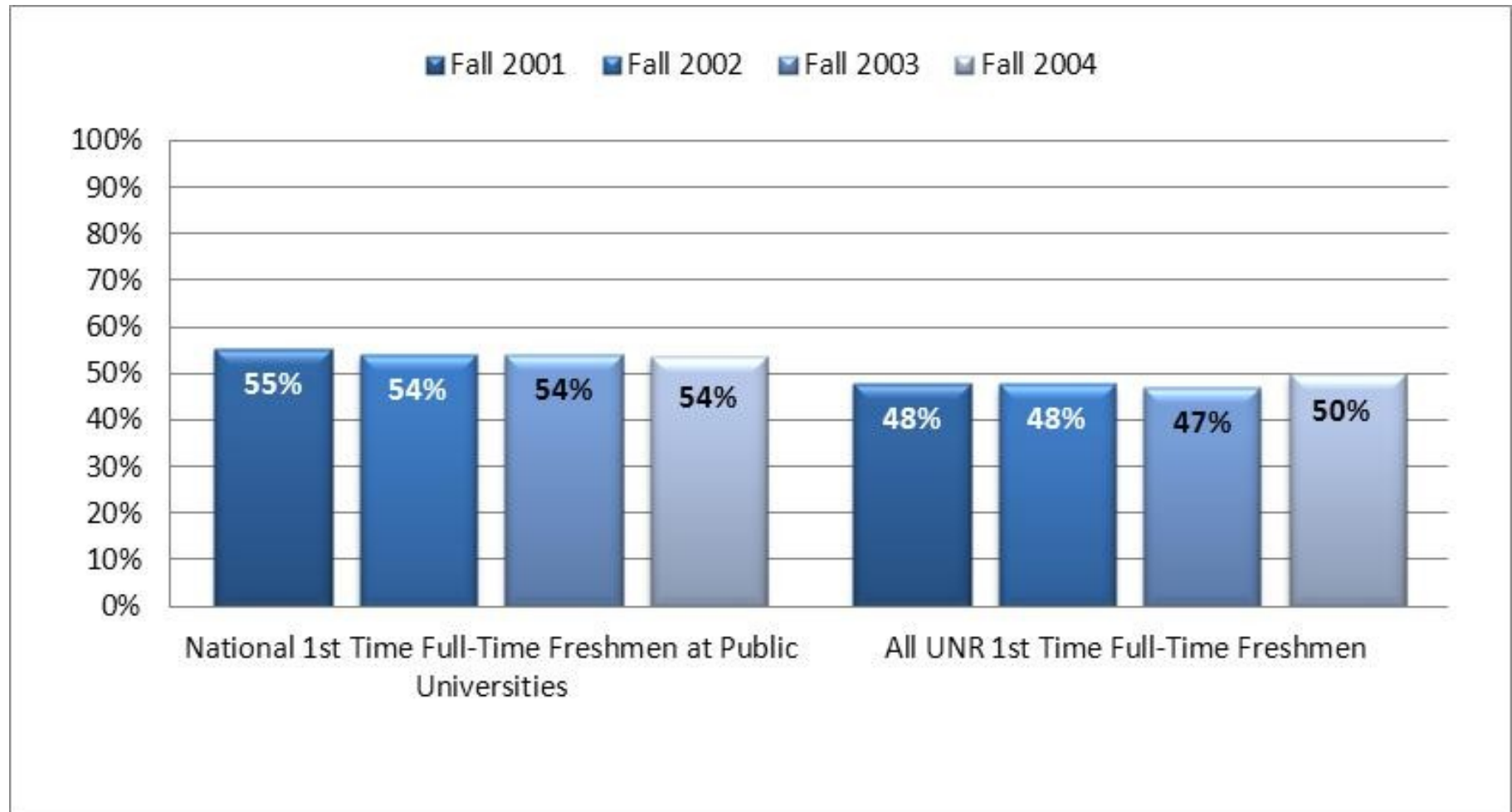
High Schools	WCSD Class of 1999	WCSD Class of 2000	WCSD Class of 2001	WCSD Class of 2002	WCSD Class of 2003	WCSD Class of 2004	WCSD Class of 2005	WCSD Class of 2006	WCSD Class of 2007	WCSD Class of 2008	WCSD Class of 2009	WCSD Class of 2010
AACT	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	-	-	-	-	-
Damonte Ranch	Not Open	Not Open	Not Open	Not Open	Not Open	-	964	1013	1060	1038	1025	1061
Galena	1065	1099	1061	1062	1043	1072	1066	1088	1082	1081	1070	1113
Gerlach	-	-	-	-	-	-	900	-	-	1210	1170	-
Hug	1095	1025	1053	992	1077	1077	978	896	888	957	941	911
Incline	1038	1008	1017	999	1034	1004	1051	1126	998	1045	1019	1057
McQueen	1102	115	1078	1113	1158	1122	1069	1080	1076	1071	1091	1091
North Valleys	Not Open	Not Open	Not Open	Not Open	1035	1038	1061	1039	1037	1025	1024	1051
Reed	1038	1058	1030	1058	1103	1055	1051	1065	1056	1067	1029	1031
Reno	1039	1053	1076	1095	1112	1071	1068	1053	1089	1077	1096	1107
Spanish Springs	Not Open	Not Open	Not Open	Not Open	1024	1023	1070	1038	1031	1036	1054	1029
Sparks	1115	1030	1068	1127	1019	1041	1030	892	943	909	1032	1081
TMCC	-	1061	1133	1155	1140	1040	1132	1033	1132	1170	1037	1115
Washoe	-	-	-	-	-	-	-	-	-	-	-	-
WOLF	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open	Not Open
Wooster	1018	1039	1064	1098	1079	1064	1094	1047	1066	1095	1115	1070
<b>Avg Score</b>	<b>1057</b>	<b>1069</b>	<b>1062</b>	<b>1082</b>	<b>1091</b>	<b>1068</b>	<b>1063</b>	<b>1055</b>	<b>1058</b>	<b>1060</b>	<b>1065</b>	<b>1071</b>

The average score is a weighted mean.

- Denotes fewer than 5 students enrolled.

# COLLEGE SUCCESS NATIONALLY AND AT UNR

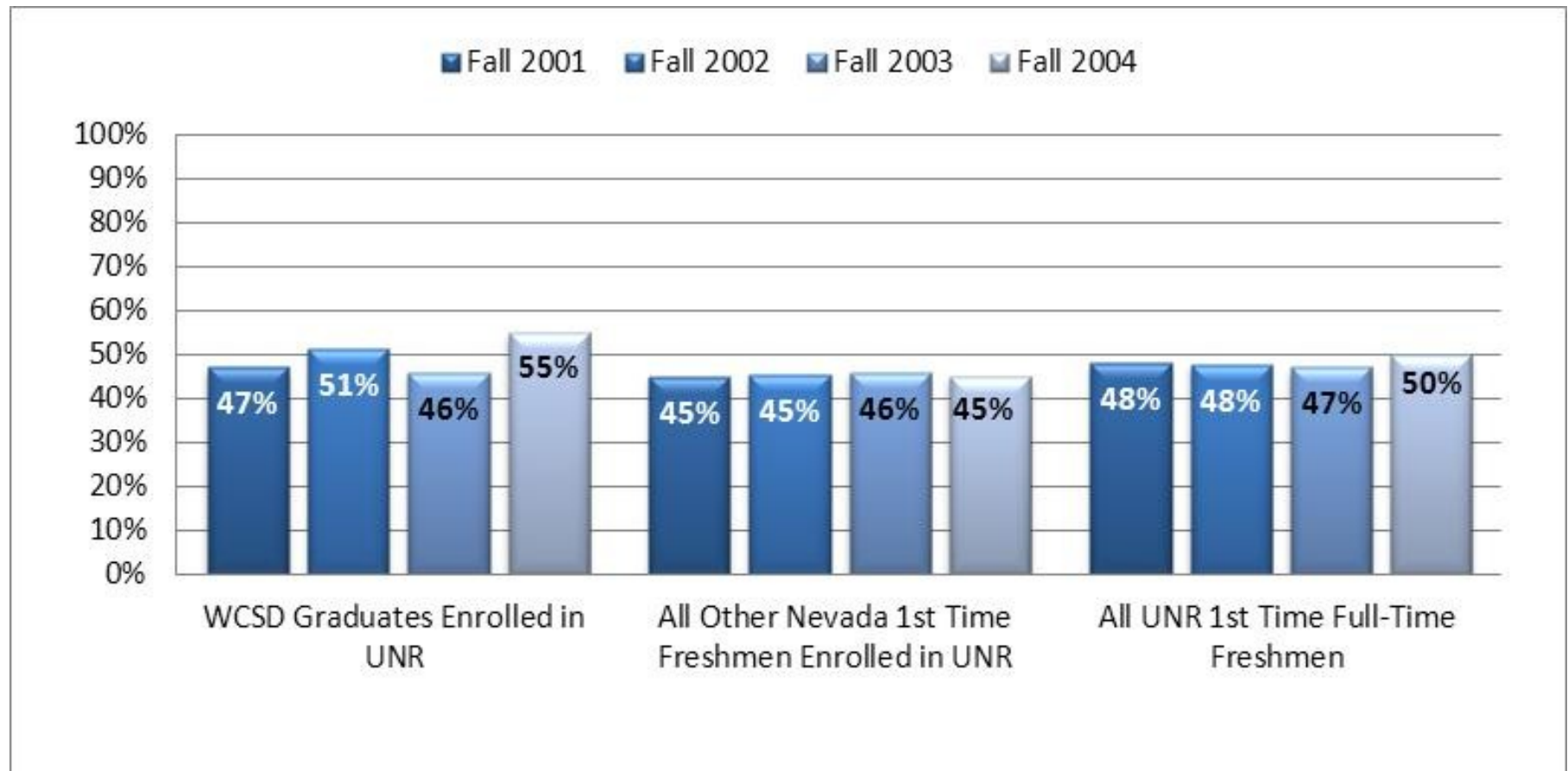
Percentage of Students Awarded College Degrees Within Six Years of Initial College Enrollment



Source: ACT Institutional Data Files 2007 through 2010.

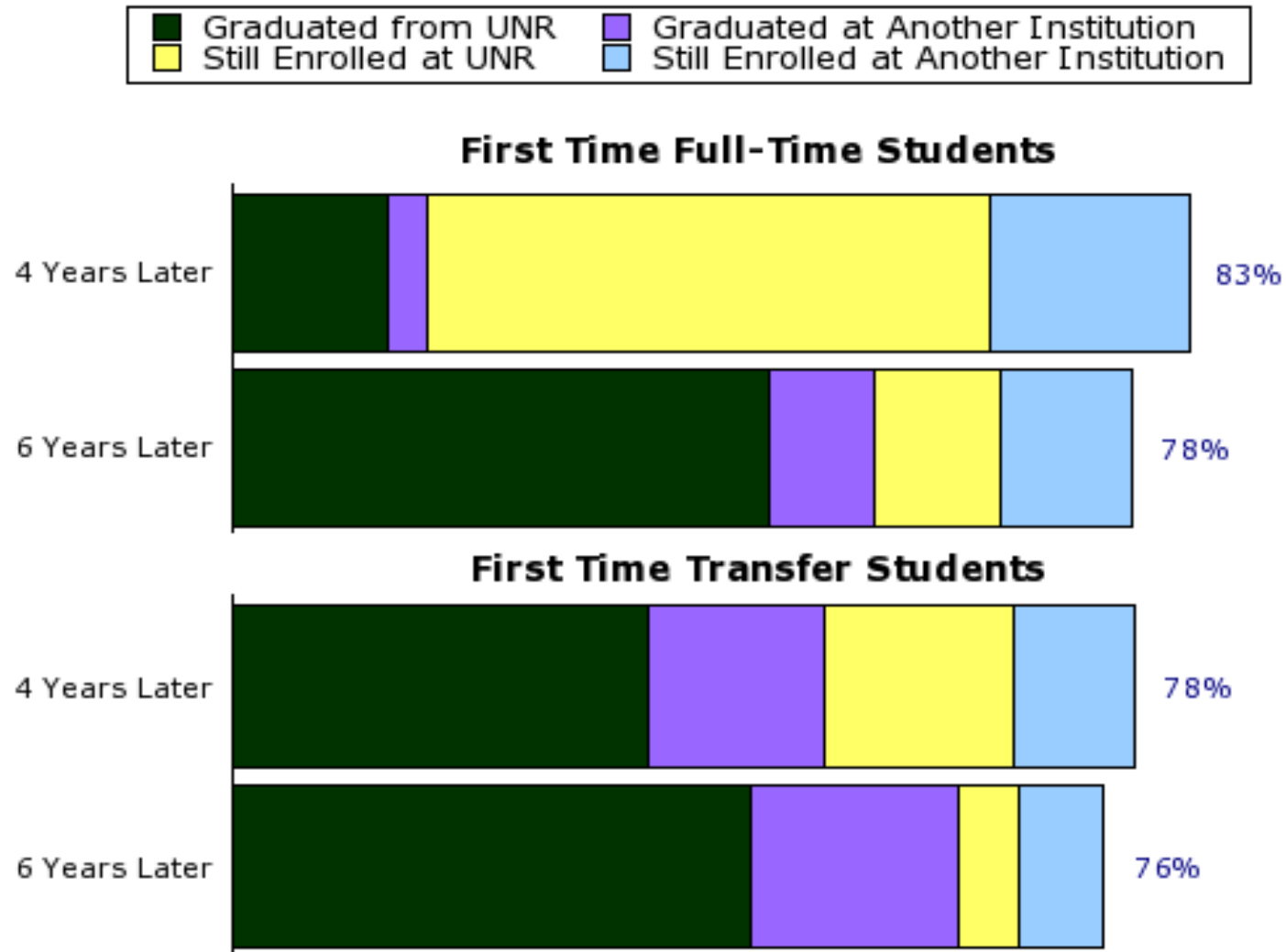
# COLLEGE SUCCESS OF WCSD GRADUATES AT UNR

Percentage of Students Awarded College Degrees Within Six Years of Initial College Enrollment



# COLLEGE SUCCESS AT UNR

## UNR Undergraduate Success and Progress Rate - Fall 2003 Entering Class (All)

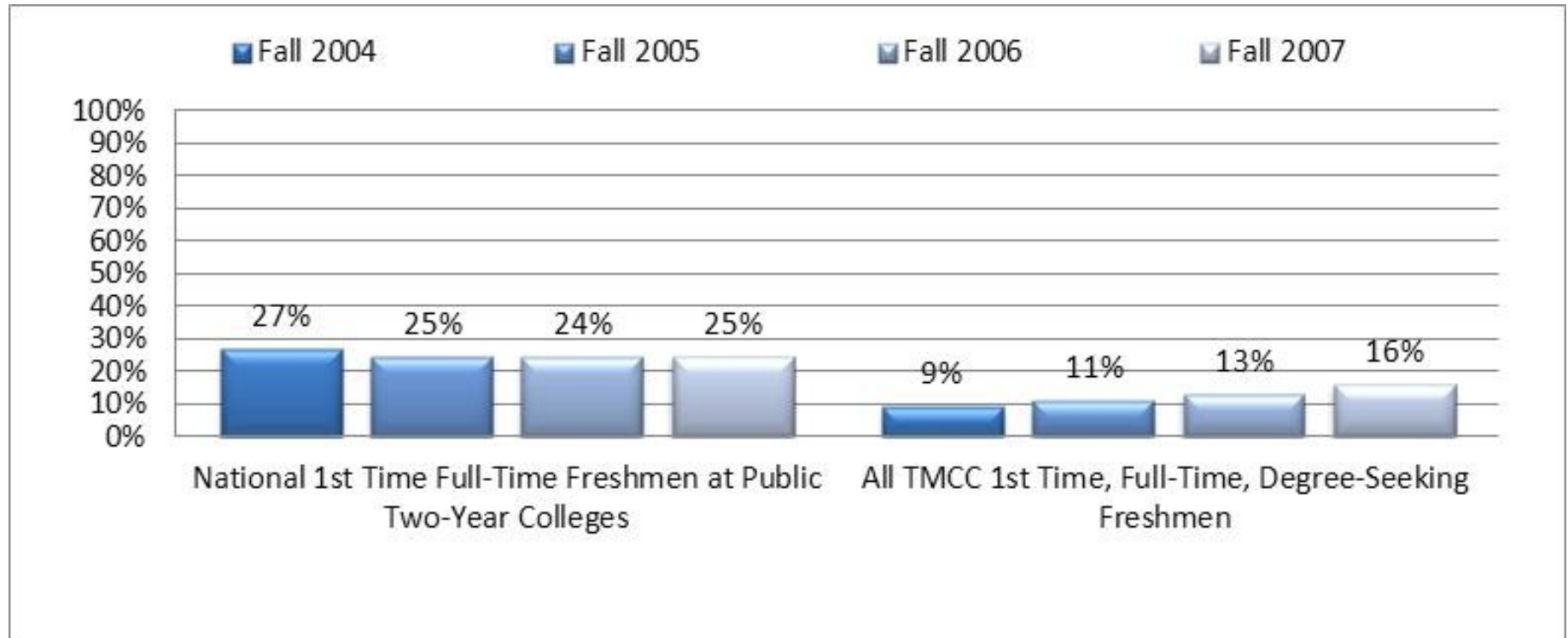


This chart depicts all entering students, not just WCSD students. The fall 2003 entering class included 2,106 first-time, full-time students and 679 full-time transfer students.

An 83% four-year success and progress rate means that 83% of students starting in Fall 2003 either graduated or are still enrolled at a higher education institution four years later.

# COLLEGE SUCCESS NATIONALLY AND AT TMCC

## New Full-Time Freshmen 3-year Graduation Rate

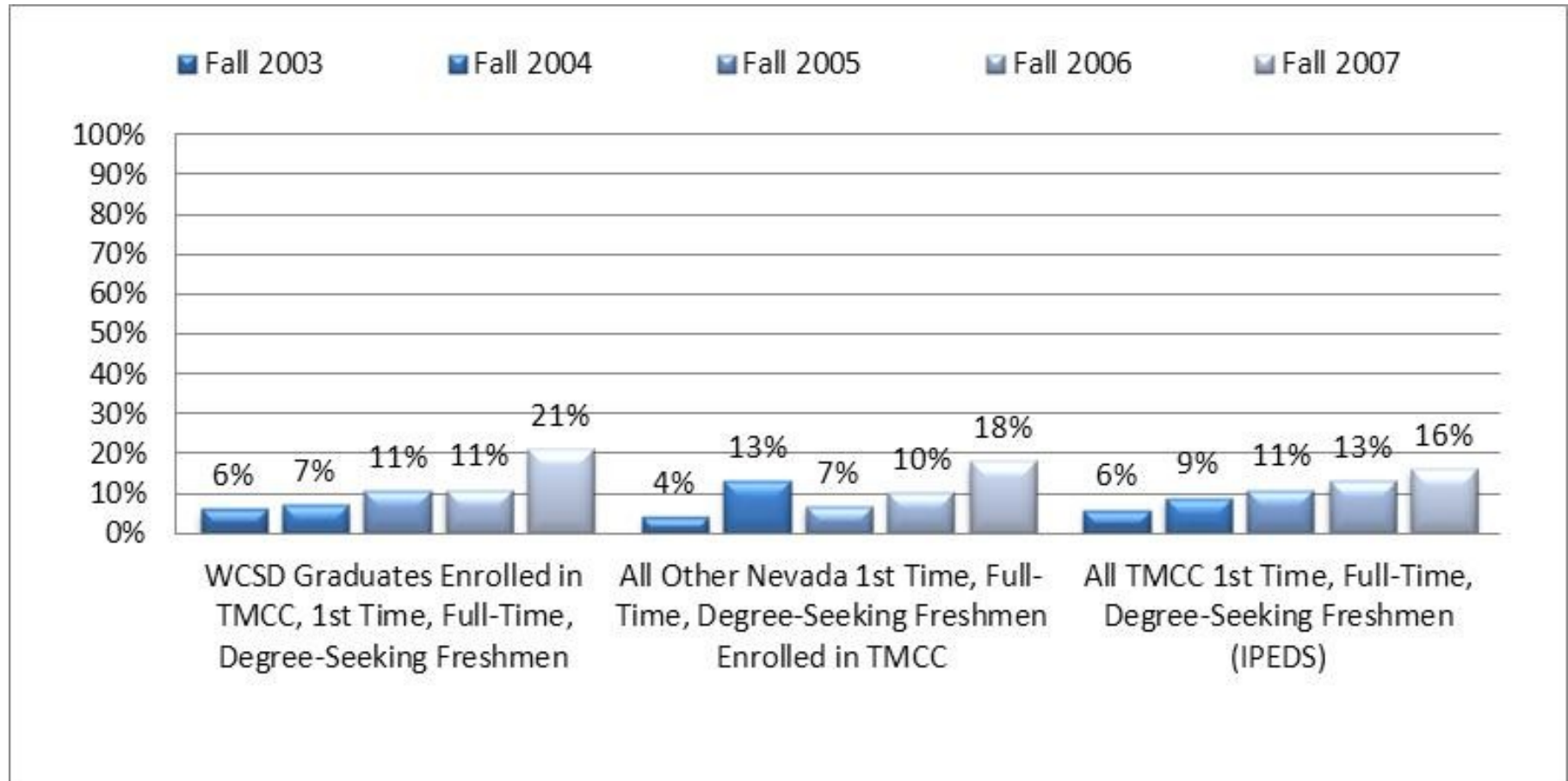


Graduation cohorts consist of students who are first-time, full-time, and degree-seeking. The graduation rate reported here is the rate of earning a degree or certificate for first-time, full-time degree-seeking students within 150% of normal time (3 years for degrees, 2 years for certificates from the first fall semester attended).

Source: ACT Institutional Data Files 2007 through 2010.

# COLLEGE SUCCESS OF WCSD GRADUATES AT TMCC

Percentage of Students Earning Degrees or Certificates Within 150% of Normal Time



Graduation cohorts consist of students who are first-time, full-time, and degree-seeking. The graduation rate reported here is the rate of earning a degree or certificate for first-time, full-time degree-seeking students within 150% of normal time (3 years for degrees, 2 years for certificates from the first fall semester attended).

***The End***