

A K-16 Collaborative Approach to Meeting the Challenge of Academic Preparedness in a High Growth Environment

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Today's Objectives

- To describe an effective partnership
- To demonstrate the power of data-driven decisions
- To provide examples of the data elements
- To discuss results and next steps

Who We Are

- Washoe County School District
- University of Nevada, Reno
- Truckee Meadows Community College
- The Education Collaborative of Washoe County



Washoe County School District (Reno, NV)

- 98 school sites (90 district schools plus 8 district sponsored charter schools)
- 62,390 students, K-12
- 43% minority
- 34% free and reduced lunch
- 74% graduation rate
- 7,000 employees, including 3,756 licensed teachers
- 31% of WCSD teachers have taught in the district for more than 15 years

University of Nevada

- Enrollment 16,500 from all 50 states and 80 countries
- State-funded, land-grant institution
- Average SAT 1055, high school gpa 3.36
- 10 schools/colleges
- 70 undergraduate programs, 65 masters and 37 doctorates

Truckee Meadows Community College

- 11,992 students
- more than 40 academic and occupational areas
- 24% are full time students
- 23% are minority



Getting Started (1997)

- Misconceptions
 - Nevada's low college-going rate of 38% applied to WCSD
 - WCSD graduates were “self-selecting” remedial courses at UNR and TMCC
- Needed data to counter the misconceptions
- Where and how to get what we needed?

Enter the Education Collaborative.....

- A 501(c) (3) not-for-profit
- Membership from the school district, the university, the community college plus the business community
- 51% must be private sector
- One of its goals is to provide for a seamless system, K-16
- This became our vehicle for coordination and data gathering

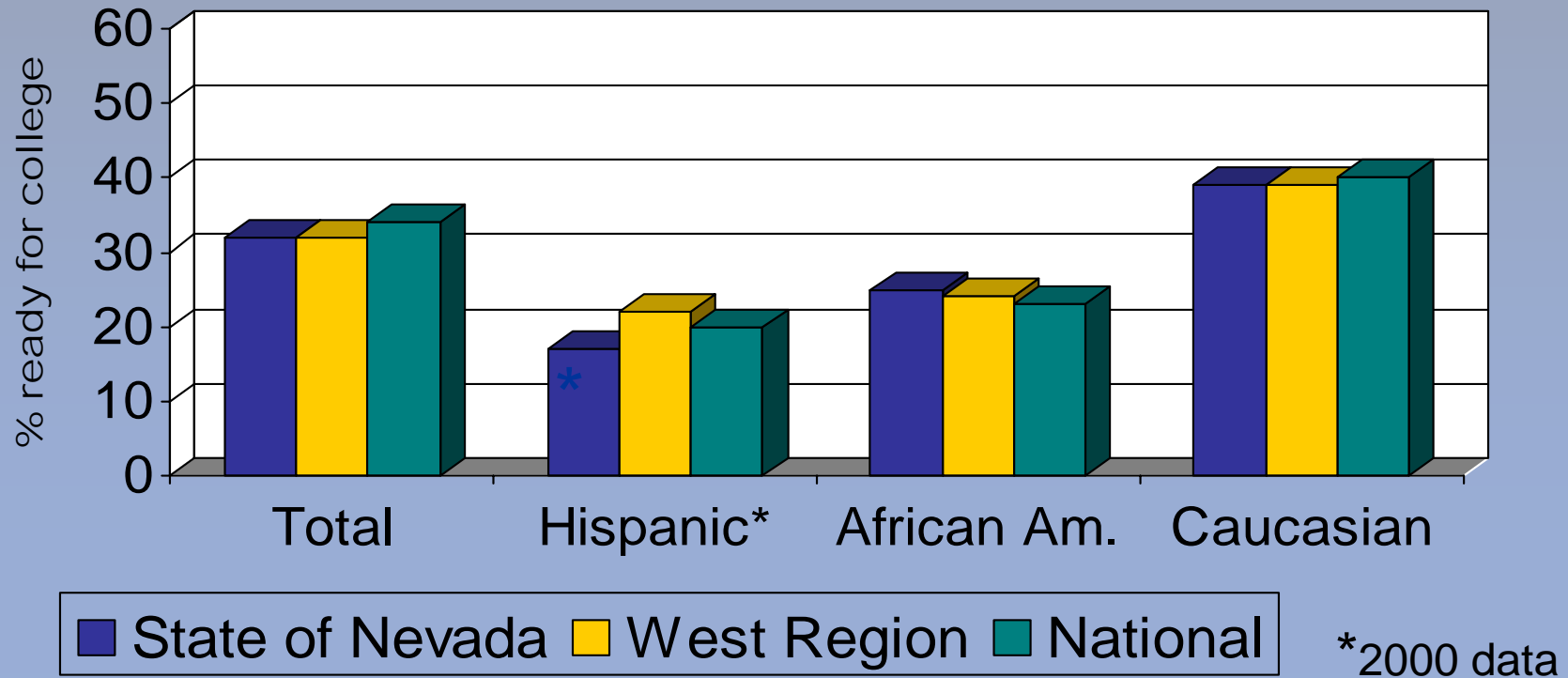
First Steps for Collecting Data

- Committee formed
- Inter-local agreement signed
 - Superintendent
 - Higher Education Chancellor
 - Nevada Attorney General
- FERPA issues addressed

The Data Profile Committee

- **Washoe County School District**
 - Dotty Merrill, Assistant Superintendent, Public Policy, Accountability & Assessment
 - Jan Hall, Data Analyst, Public Policy, Accountability & Assessment
- **University of Nevada, Reno**
 - Bill Cathey, Vice Provost for Academic Affairs
 - Melisa Choroszy, Associate Vice President for Records/Enrollment
 - Serge Herzog, Director of Institutional Analysis
 - John Mahaffy, Director of Assessment
- **Truckee Meadows Community College**
 - Elena Bubnova, Director of Institutional Research
- **Nevada System of Higher Education**
 - Tyler Trevor, Assistant Vice Chancellor
 - Pat Casagranda, Assistant Director of Institutional Research
- **The Education Collaborative of Washoe County**
 - Denise Hedrick, Executive Director
 - Ginny Jackson, President
 - Anne Loring, Member of the Board of Directors

College Readiness of Public High School Graduates in 2002

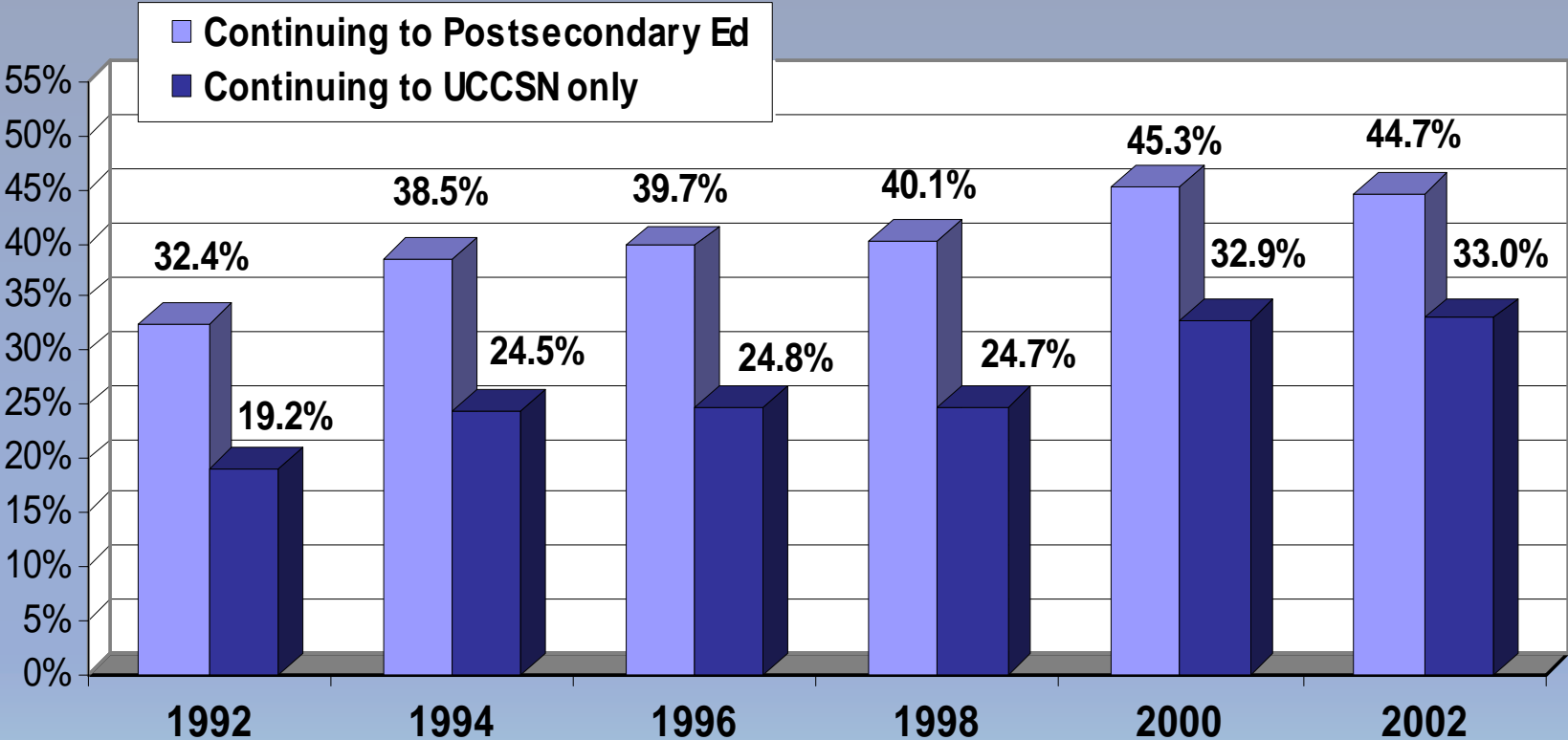


Readiness criteria are based on meeting minimum admission standards at least selective four-year colleges: 1) regular high-school diploma; 2) passing 4 years English, 3 years math, and 2 years each of natural sciences, social sciences, foreign language; 3) passing basic level on NAEP reading assessment (HSTS)

Source: Greene, J.P., & Winters, M.A. (2005, February). *Public High School Graduation and College-Readiness Rates: 1991-2002*. New York: Manhattan Institute. 11

Nevada College Continuation Rate

% of NV high school graduates enrolled as first-time, degree-seeking college students in the fall semester immediately following graduation

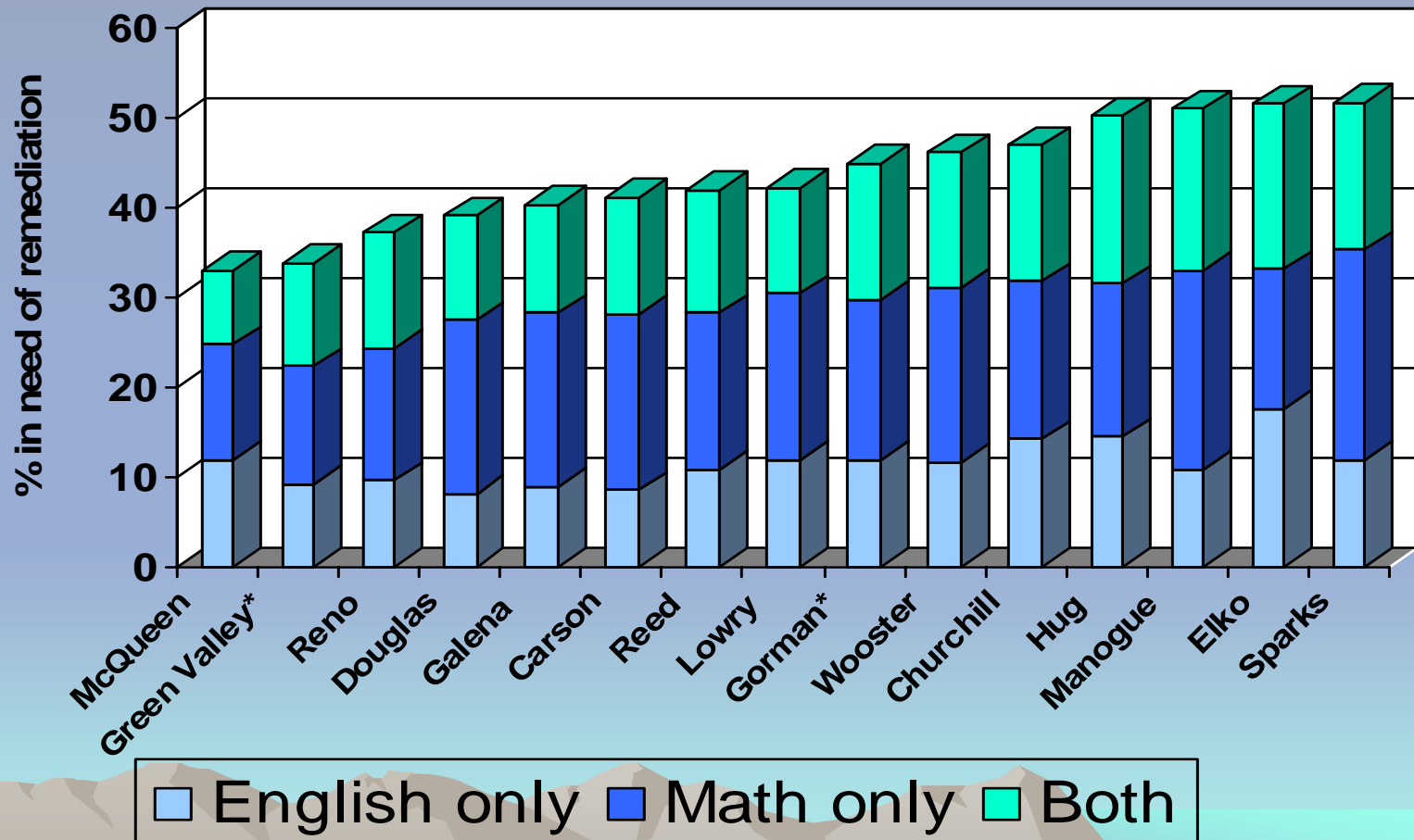


Source: Office of Academic & Student Affairs (2005). Performance Indicator Report 2004-05. Reno, NV: UCCSN.

College-going rate of Nevada high school graduates rises to 45.3 percent in 2000 as the Millennium Scholarship is introduced

New Freshmen in Need of Remediation

Fall 1996 - Spring 2005 by Largest Feeder High Schools
(based on ACT/SAT and UNR placement scores)



* Clark County school

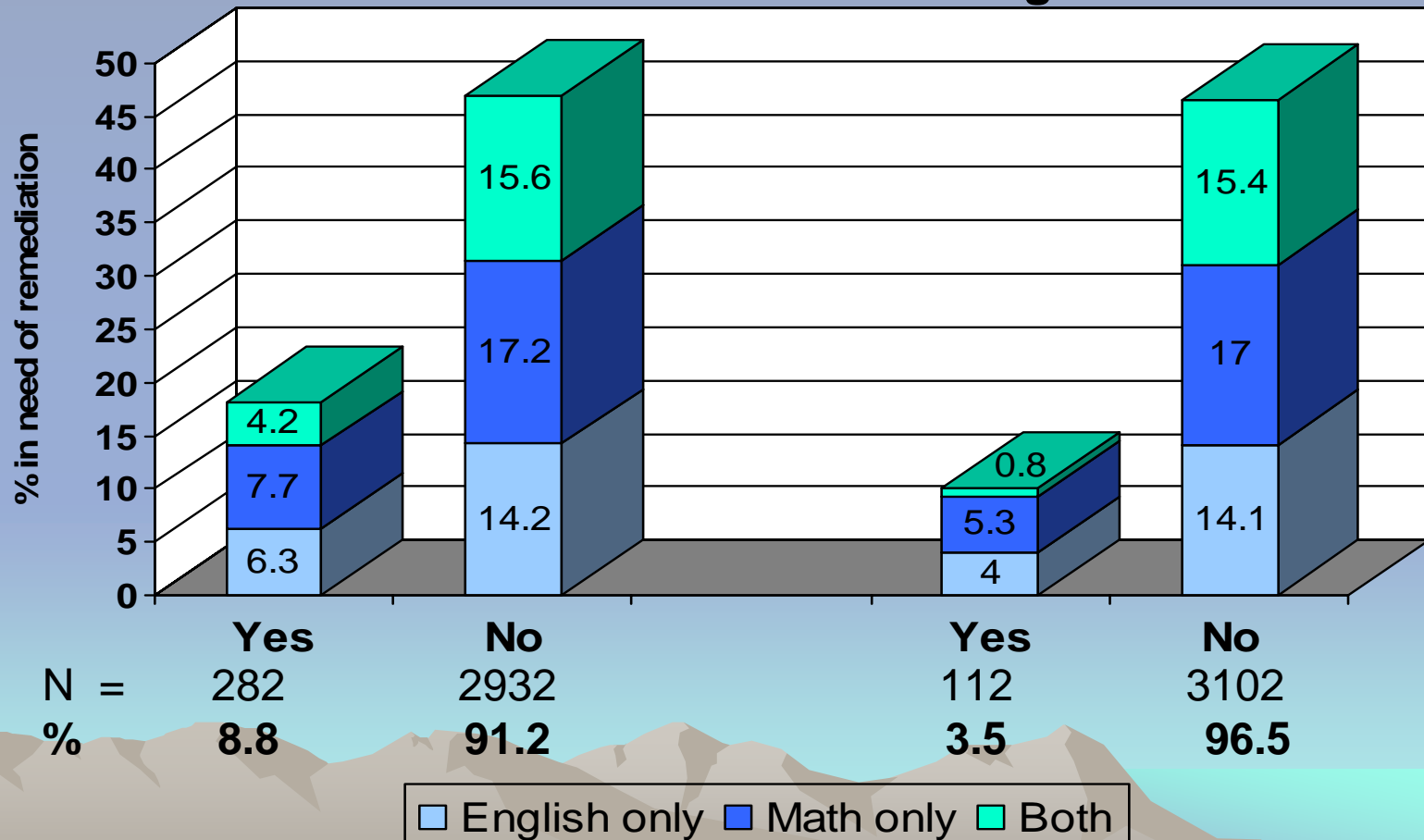
New Full-Time Freshmen in Need of Remediation

Fall Semester 2000-2003 by Pre-Matriculation Experience

(based on ACT/SAT and UNR placement scores, N = 7,775)

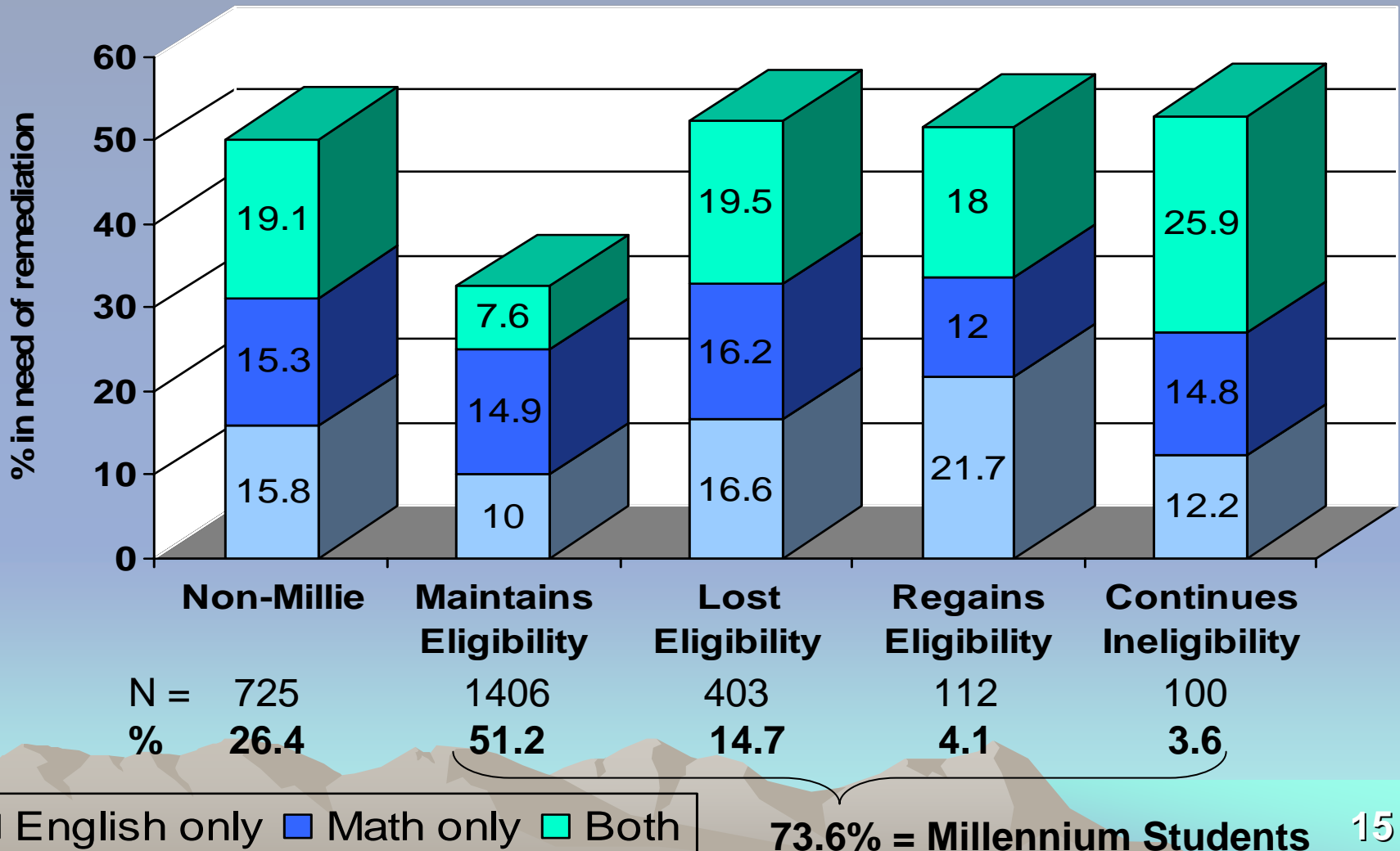
**Summer Courses Taken
Prior to Initial Matriculation**

**Earned AP or IB Credits
in High School**



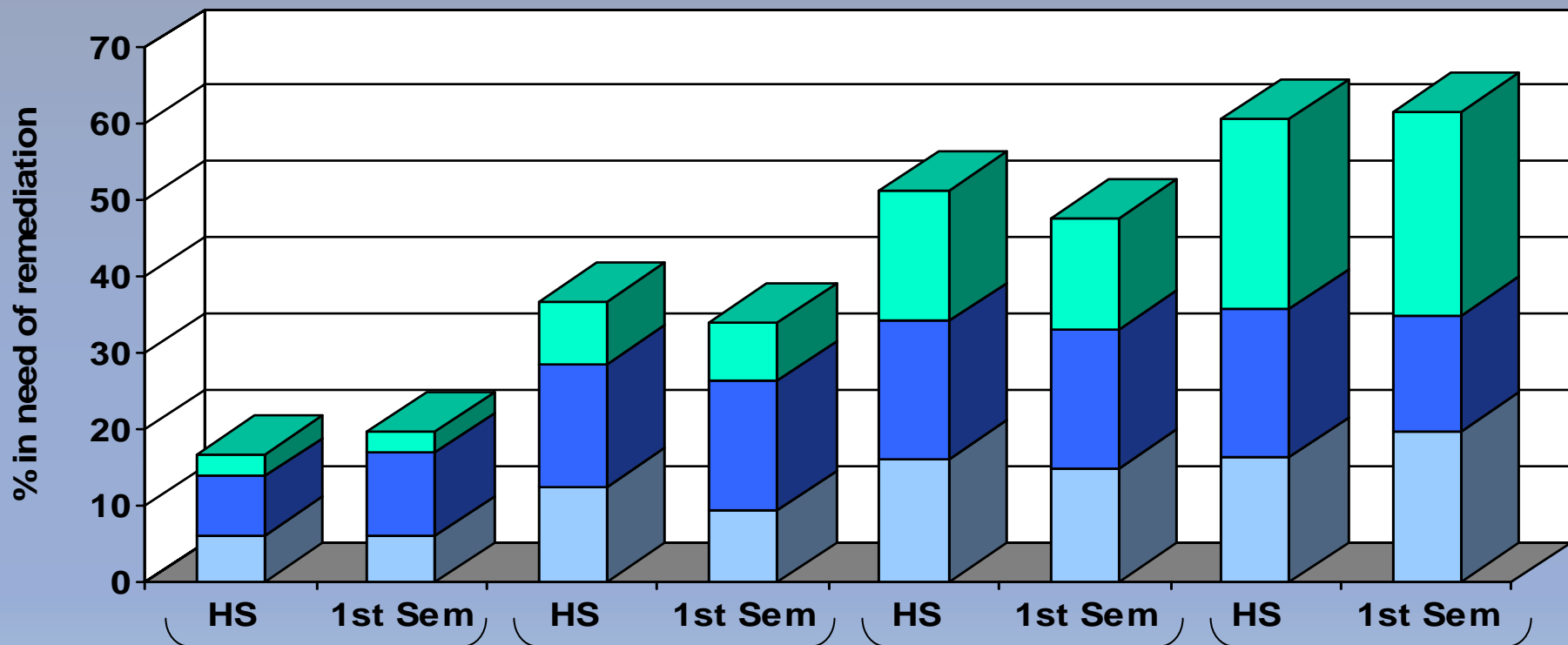
New Full-Time Freshmen in Need of Remediation

Fall Semester 2000-2003 by Millennium Status (based on ACT/SAT and UNR placement scores, N = 6,940)



New Full-Time Freshmen in Need of Remediation

Fall Semester 2000-2003 by High School and UNR GPA Quartile
(based on ACT/SAT and UNR placement scores, N = 7,775)



Quartile

Top

2nd

3rd

4th

N * =

319

730

976

1178

%

9.9

22.8

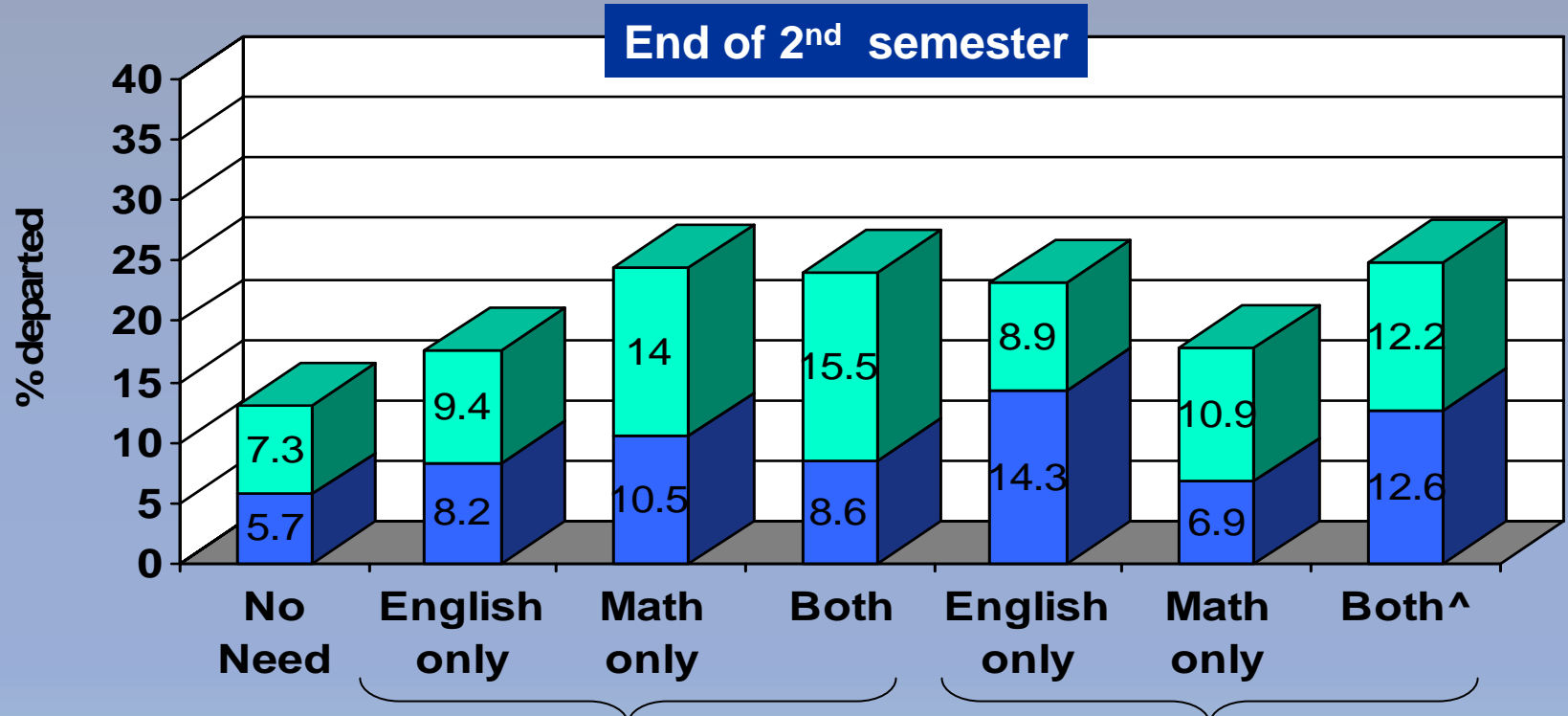
30.5

36.8



* HS GPA Q's

New Full-Time Freshmen in Need of Remediation Fall Semester 2000-2003 by 2nd Year Departure (based on ACT/SAT and UNR placement scores, N = 6,940)



Remediated

Not remediated

Re-enrolled %	87.0	82.4	75.5	75.9	76.8	82.2	75.2
Total N* =	4,194	748	257	407	112	786	436
% not remediated:					13.0	75.4	51.7

Not Enrolled Transferred Out

*Including re-enrolled
[^]Not remediated in either

New Full-Time Freshmen by High School Academic Preparation

Fall Semesters 2000-2003, NV High School Graduates

Low Socioeconomic Status School: Sparks

Capture rate: 26.8%

ACT Math 2003: 20.5

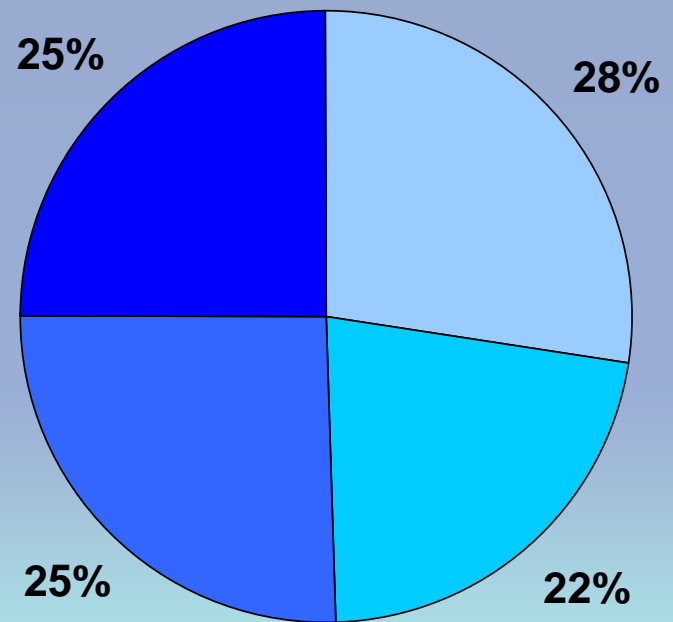
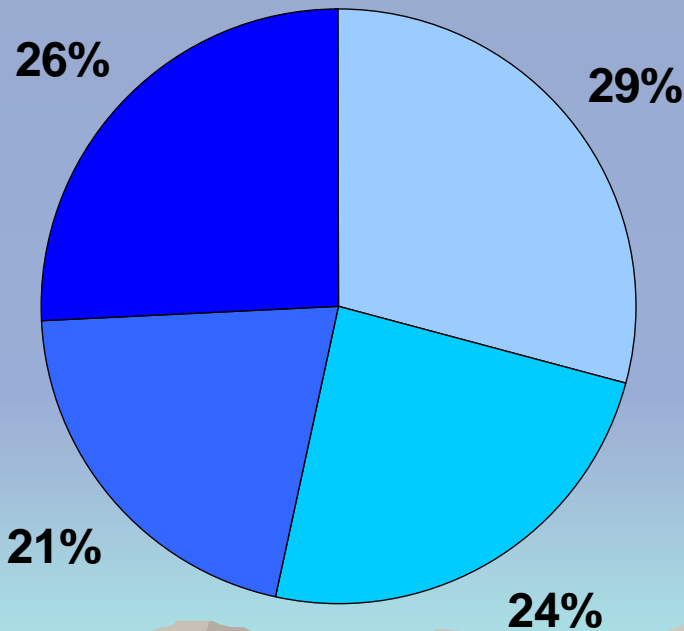
ACT Participation 2003: 36%

High Socioeconomic Status School: Galena

Capture rate: 37.5%

ACT Math 2003: 21.6

ACT Participation 2003: 55%



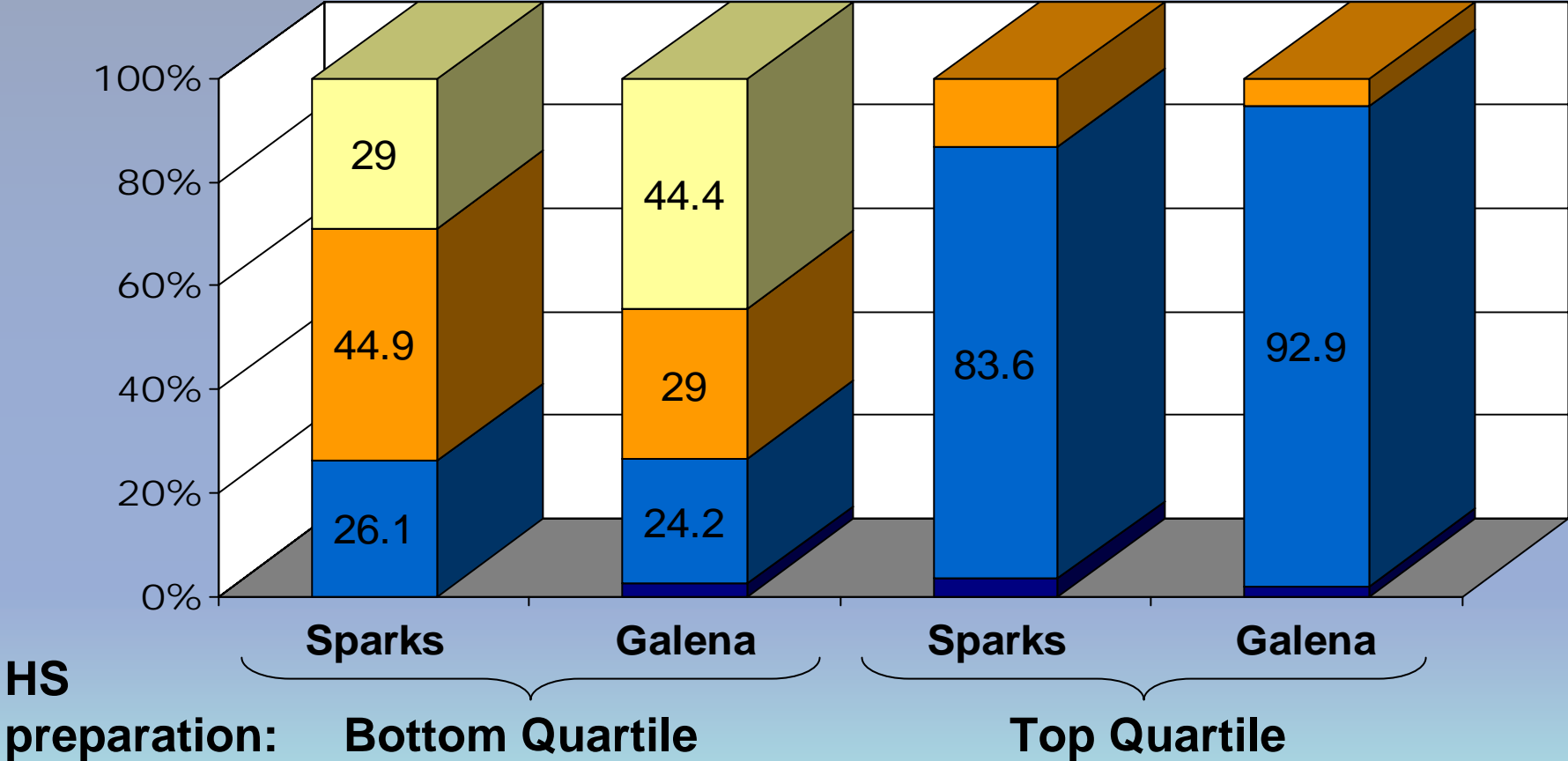
Bottom Q
 3rd Q
 2nd Q
 Top Q

Preparation Quartile

New Full-Time Freshmen by High School Preparation

Fall Semesters 2000-2003, NV High School Graduates

Millennium Scholarship Status at End of First Semester



- Eligible, no Millennium
- Maintained eligibility (w/ %)
- Lost eligibility (w/ %)
- HS grad ineligible (w/ %)

Next Steps

- Work of the Data Profile group clearly documented that our high school graduates were coming to college underprepared.
- More detail needed: tracking the performance of individual students as they progress through K-16 educational system
- How do high school course-taking patterns later impact student performance, persistence and course-taking patterns in higher education?

Math Transcript Analysis Project

Question: How were students getting into remedial math?

- 88% of students enrolled in college-level remedial math were placed there by Accuplacer or ACT cut scores. 9% self-selected remedial math but had not taken either of the placement tests. Only 3% of students qualifying for college-level math based on placement tests, self-selected remedial math.

Math Transcript Analysis Project

Question: Number of years of high school math taken by students in remediation?

- Only 35% at UNR and only 20% at TMCC had taken 4 years of high school math.

Math Transcript Analysis Project

Question: High School Math course-taking patterns for students in remediation?

- 15% at UNR and 56% at TMCC had not passed Algebra 3-4 or any higher level math course in high school

Math Transcript Analysis Project

Question: Grades achieved in High School Math classes by students enrolled in remedial math?

- Of students who passed Algebra 3-4 in high school, 61% at UNR and 72% at TMCC only achieved a grade of C or lower in the class. The average cumulative math GPA in high school for these students was 2.5 for UNR students and 2.38 for TMCC students.

Math Transcript Analysis Project - Conclusions

- Students were not self-selecting remedial math
- Importance of:
 - Successful completion of Algebra 3-4
 - Achieving a grade higher than a C in Algebra 3-4
 - Enrolling in any math beyond the level of Algebra 3-4
 - Taking 4 years of high school math
- Need for similar data on English course-taking patterns (Fall 2005: English Transcript Analysis Project)

Data-Driven Actions

UNR

- Students were taking remedial math courses at a lower rate than the placement scores indicated should be the case
- Not enough remedial classes were being offered
- Additional remedial math courses were added

Data-Driven Actions

TMCC

- Accuplacer testing earlier in high school might allow students more time to correct deficiencies prior to graduation
- Grant proposal written to offer diagnostic Accuplacer testing in high schools to Sophomores and Juniors.

Data-Driven Actions

WCSD

- The “Gateway Curriculum” adopted by WCSD Board of Trustees in Fall, 2004
 - Beginning in Fall, 2006 all freshmen will be enrolled in 4 years of math and 3 years of science
 - Parental option to opt-out
 - All seniors must enroll in 6 class periods, both semesters

Data-Driven Actions

WCSD

- All sophomores must now take the PSAT examination
- Trustees have set a goal that by 2012, 70% of all graduates will have taken at least one AP class
- All students enrolled in an AP class must take the AP exam

Next Steps

Recommendations for Future Work:

- 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.
- Begin 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.

Conclusions

- Clear, convincing and unbiased data that can withstand scrutiny are necessary for policymakers to use in considering changes to K-12 or higher education.
- It is possible for K-12 and higher education to sit at the same table, talk about questions, gather the data to prove or disprove hypotheses, and publish the findings.

What Next?

Expand our knowledge to better understand how we can help students be more successful.

How?

- Add to the existing data
 - NSSE, BCSSE, FSSE and CLASSE
 - Post-graduate data
 - Alumni survey
 - Employer survey
 - National Student Enrollment Clearinghouse
- Study cohorts longitudinally
 - Follow students from high school through several years post-college

Why?

- Having an expanded number and type of variables available to help analyze changes in a group of individuals over time will help us:
 - Obtain richer information about student behavior and success, including factors that appear to have greatest influence;
 - Provide useful information for student services, advising and others.

What Will We Learn?

Quantitative analysis

Examples

If and how, in certain student populations,



HS academic transcript factors
Parent educational levels
Standardized test scores

do changes-over-time in various factors



College curricular experience
Financial aid
Off campus employment
Student engagement

relate to:



Retention
Time to degree
Career choice
Employment
Continued education

What Will We Learn?

- Qualitative analysis
 - Use interviews, focus groups and surveys to help understand:
 - Why students made changes in their academic and non-academic lives;
 - What people or college services, if any, they consulted prior to the change;
 - What they expected the outcome of the change to be;
 - What outcome actually occurred;
 - How could this have worked out better for them;
 - And more.

Why It Matters

Knowledge of student group characteristics is important and will help us improve our institutions.

The quality of individuals' lives largely results from their choices; better understanding the critical forces and dynamics of those choices will enable us to better serve students.

For more information

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