

Connecting Algebra Readiness to College Success

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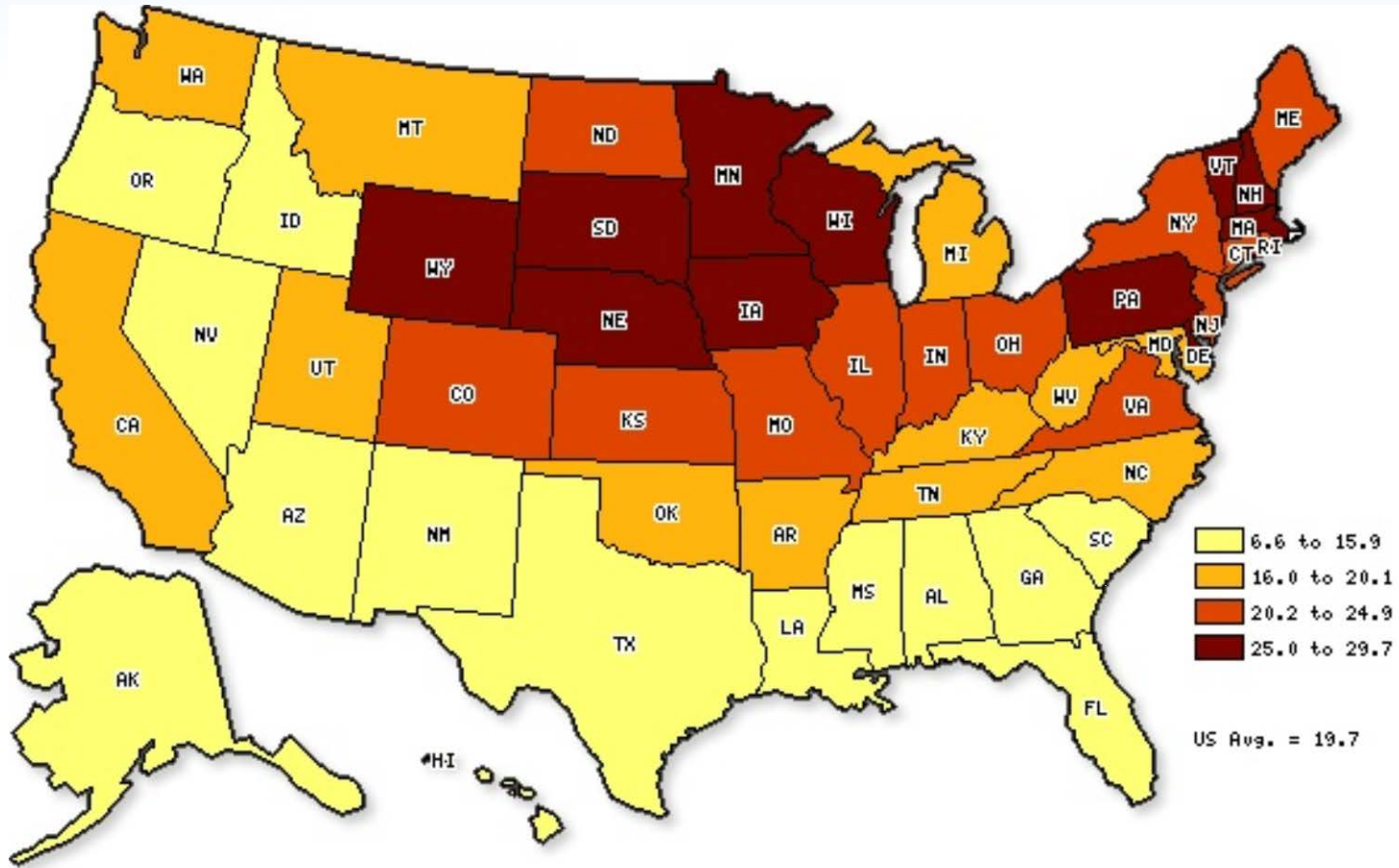
Silicon Valley Research Alliance Seminar

Silicon Valley Education Foundation, October 30, 2012

The Student Pipeline by State - Transition and Completion Rates from 9th Grade to College

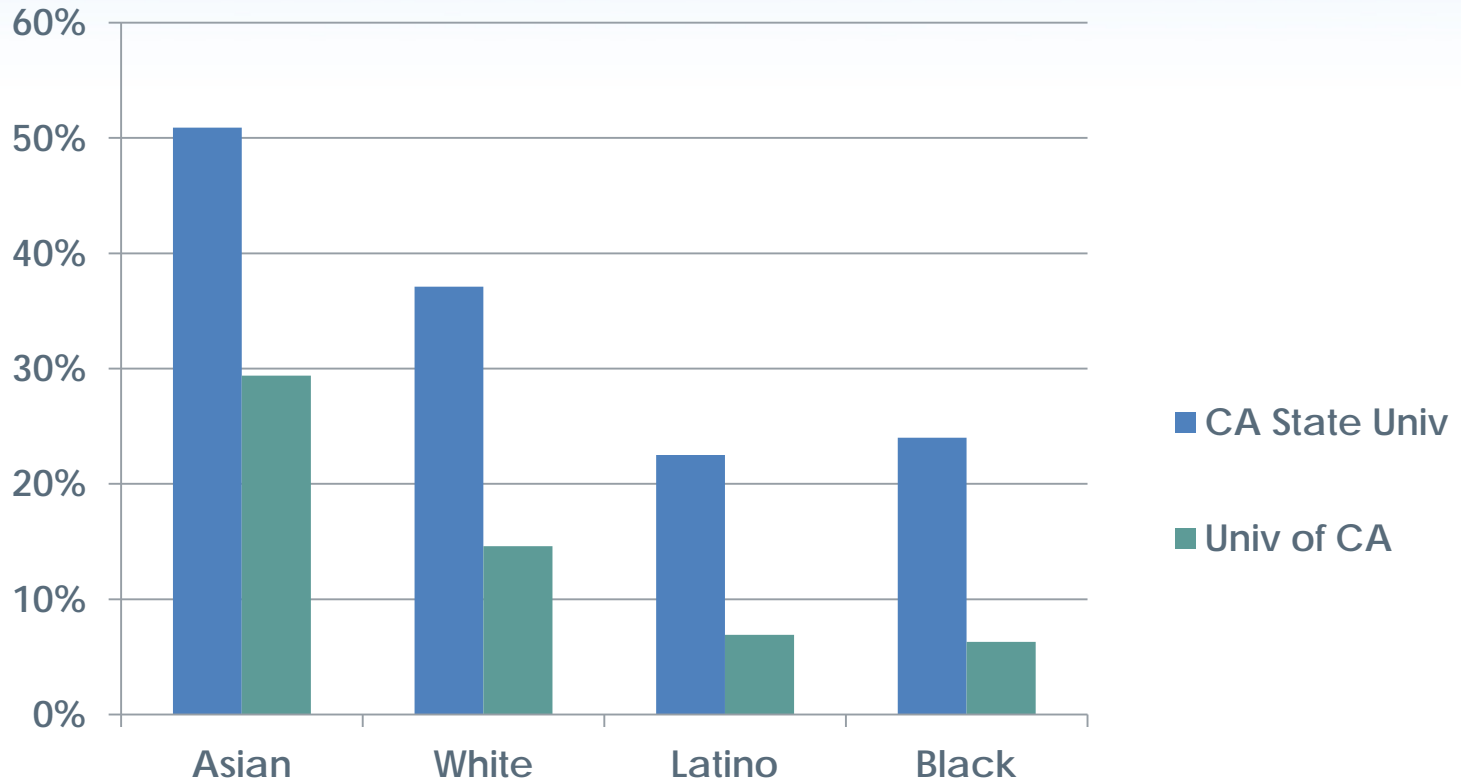
For every 100 9th graders, the number who graduate from high school within 4 years (based on the public HS graduation rates), the number who go directly to college (based on the college going rates of recent HS graduates), the number who return for their second year of college (based on the first-year retention rates), and the number who graduate from college within 150% of program time (based on the graduation rates).

The Student Pipeline by State - Transition and Completion Rates from 9th Grade to College

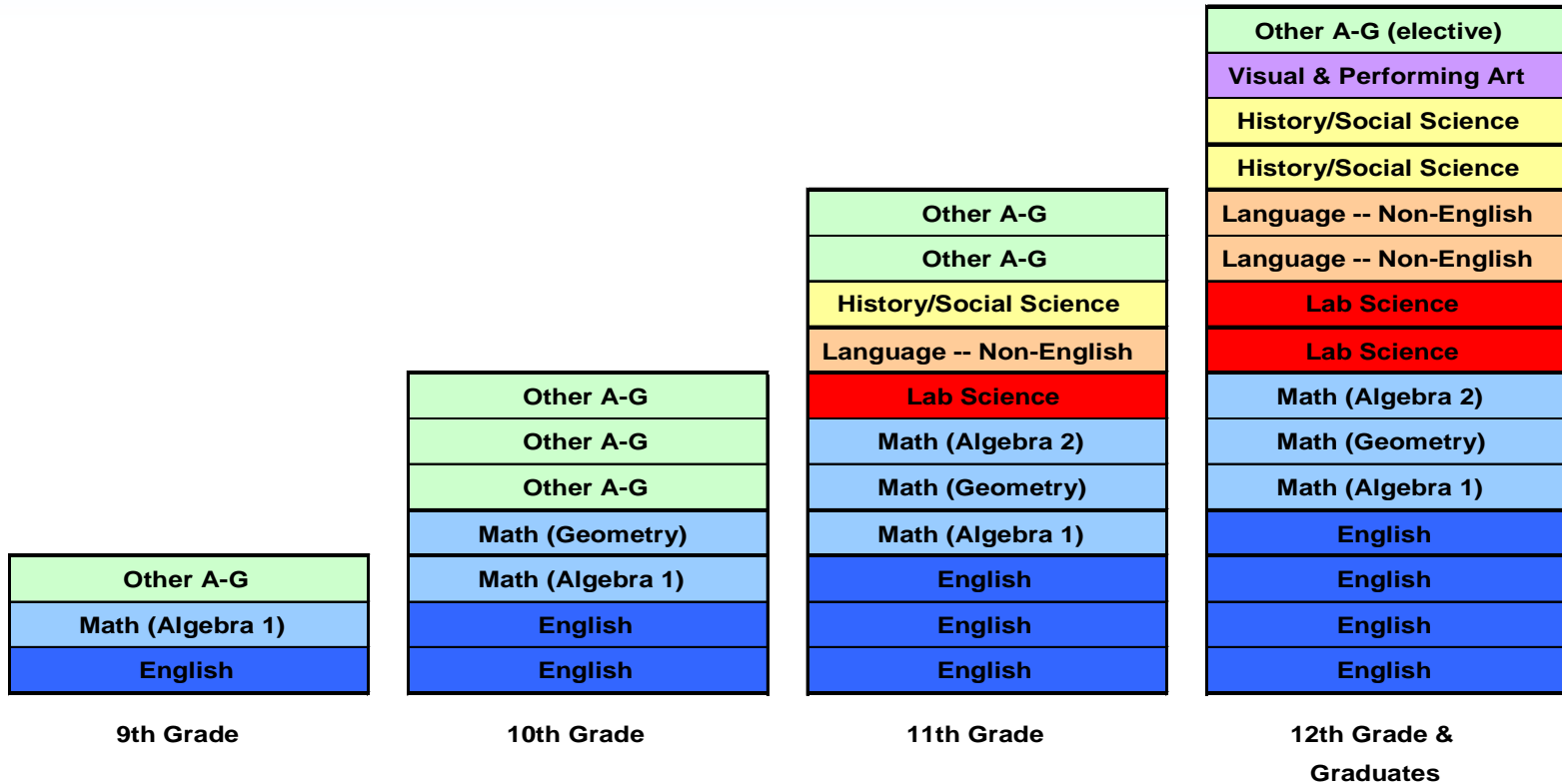


Source: NCES: Common Core Data; IPEDS Residency and Migration, Fall Enrollment, and Graduation Rate Surveys

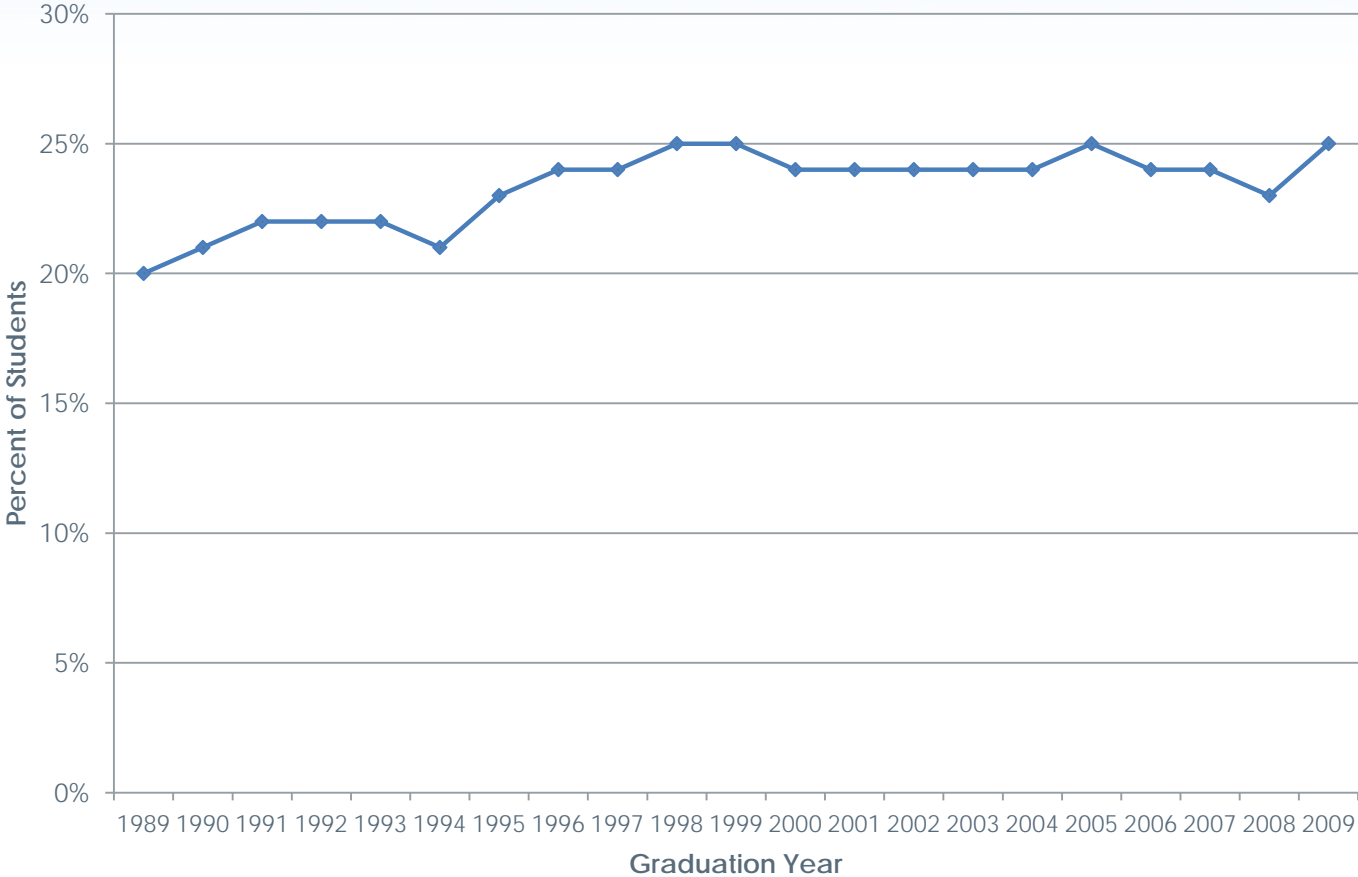
Percent of California Public High School Graduates Eligible for Admission to CSU and UC in 2007 (Estimates from CPEC Studies)



"A-G" Course Requirements



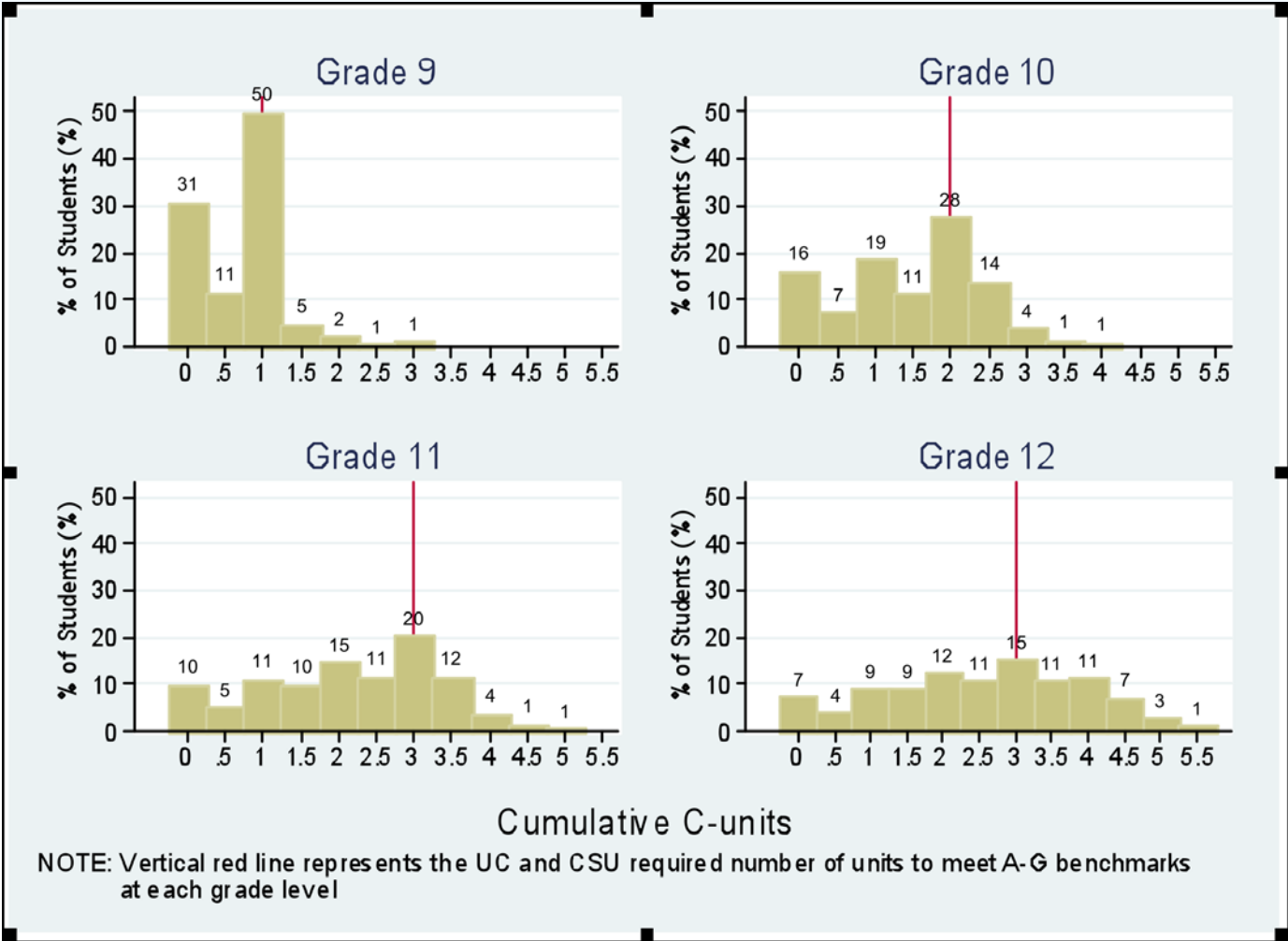
Percent of CA High School Students Completing A-G, 1989-2009



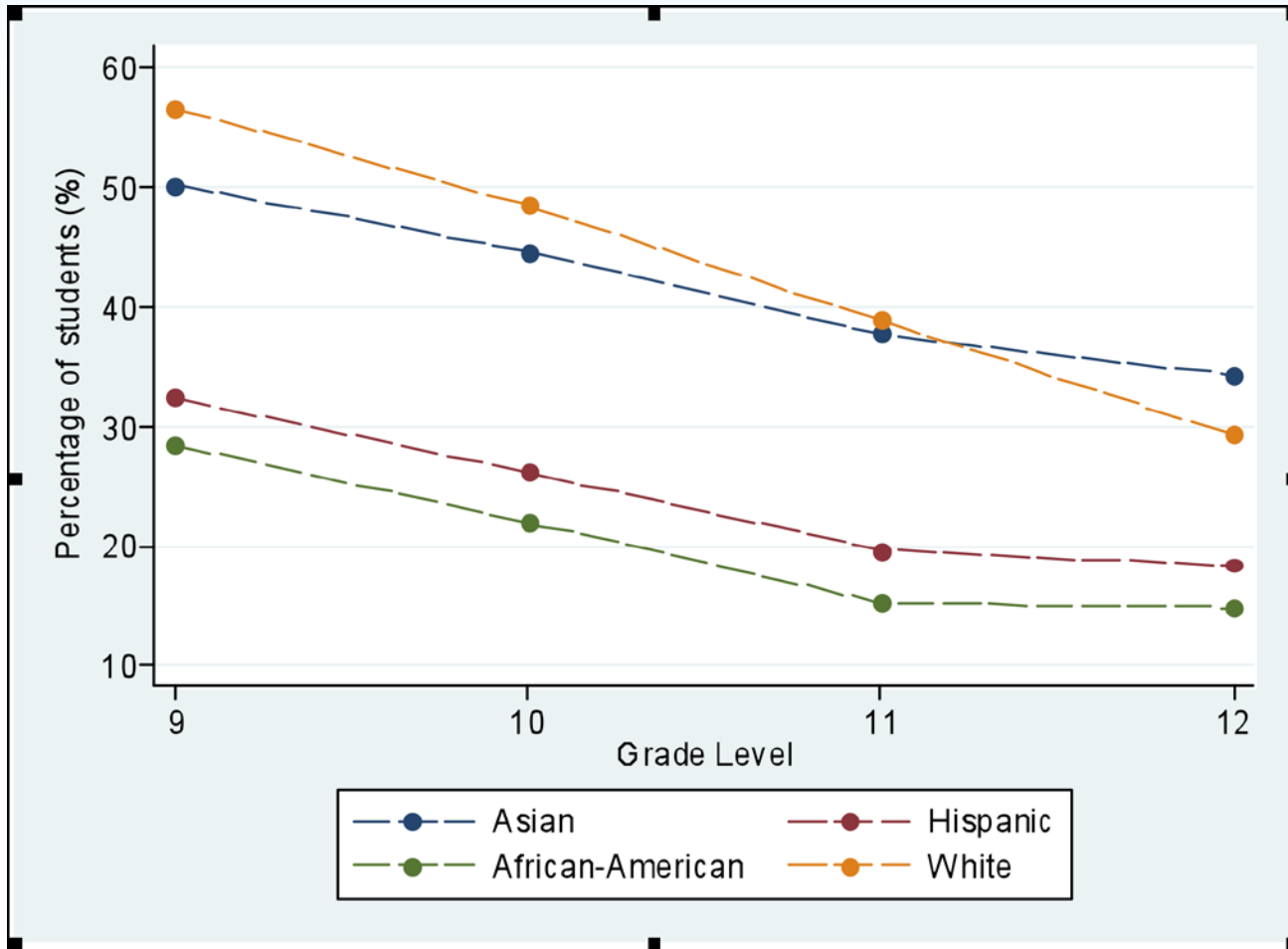
Regional Educational Lab, West: Course Taking Patterns in CA

- 31 public high schools
- 67,536 complete student records
- 12th graders' transcripts in 2004-05
- No statistically significant differences between TES schools and all CA high schools on 12 descriptive measures
- Each course on each transcript "marked" for A-G course accreditation status

Cumulative Units Completed in Math, by Grade Level



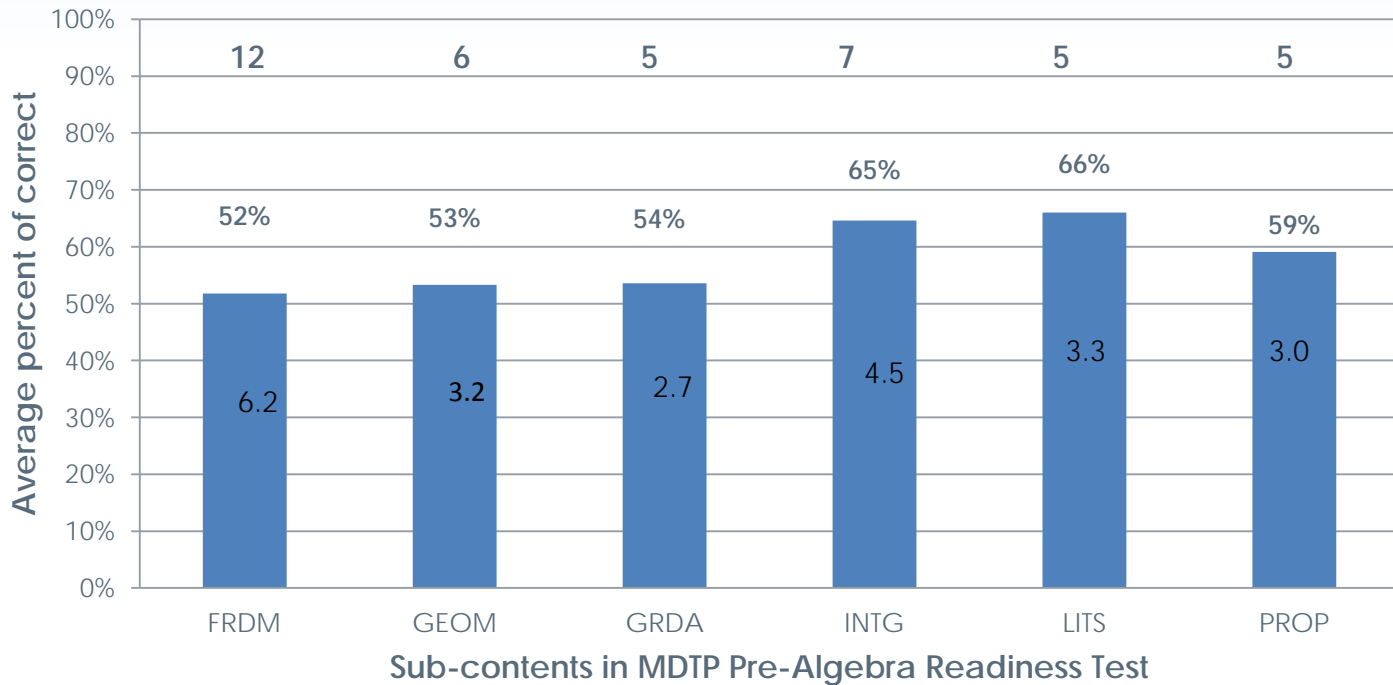
Percentage of Students Meeting CSU Course Requirements



Number and percent of students by CST 2011 proficiency level and grade

CST 2011 proficiency level	Grade 6		Grade 7	
	number	percent	number	percent
Far Below Basic	369	7.2	339	6.6
Below Basic	1,040	20.2	979	19.1
Basic	1,320	25.7	1,452	28.4
Proficient	1,395	27.2	1,595	31.2
Advanced	1,012	19.7	752	14.7
Total	5,136		5,117	

Students in Grade 6 who took the Math Diagnostic Testing Program's Pre-Algebra readiness test



Note: FRDM=Fractions and Decimals

GEOM=Measurement of Geometric Objects

GRDA=Co-ordinate Geometry, Graphical Representation, Data Analysis

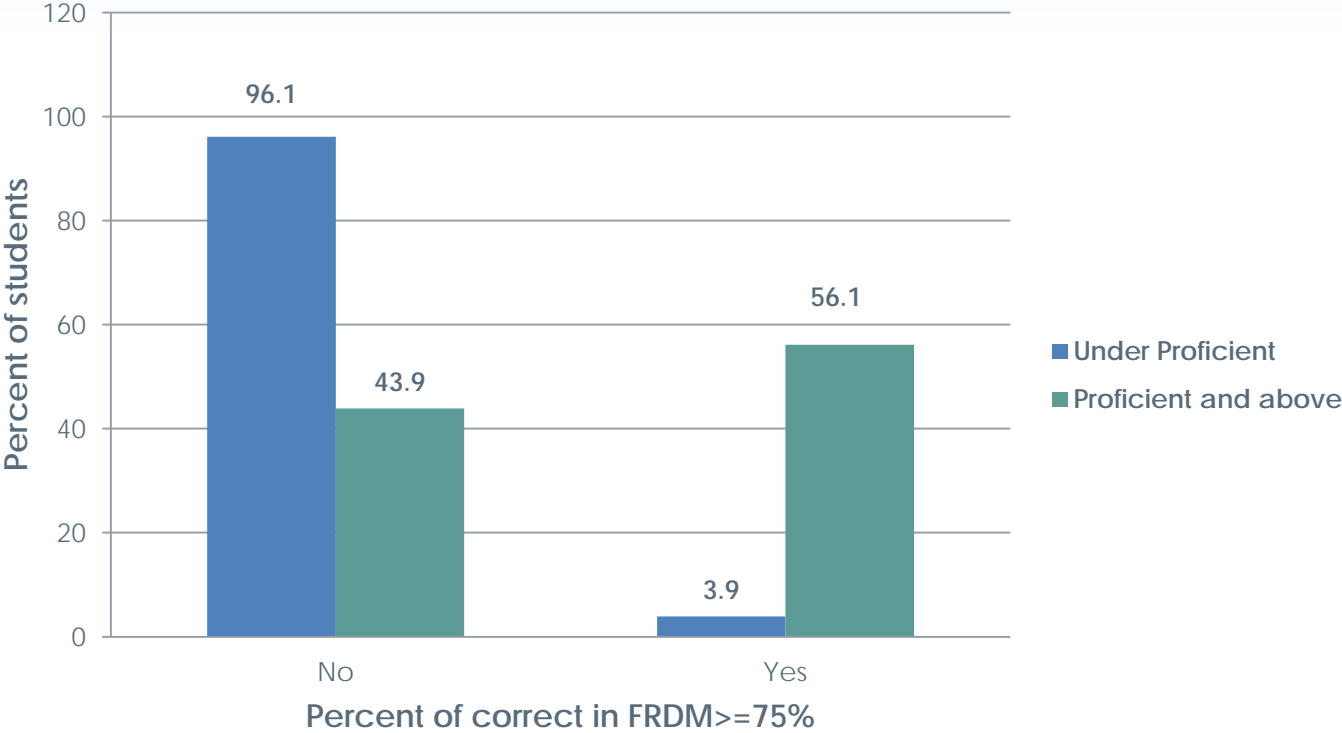
INTG=Integers

LITS=Literal Symbols

PROP=Proportional Reasoning

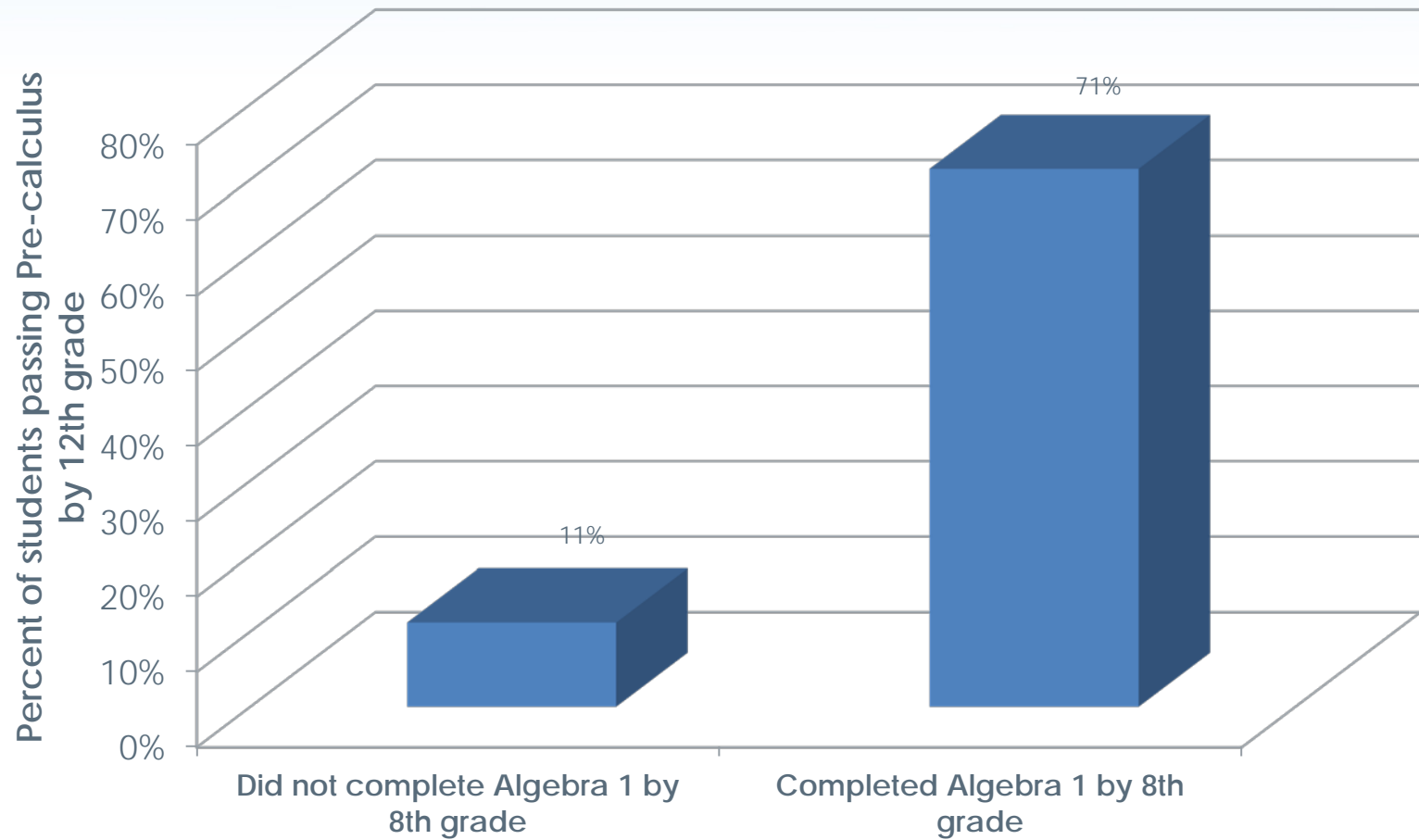
n=5,136

Students in Grade 6 who took the MDTP Pre-Algebra readiness test and the 2011 CST concurrently



Note: FRDM=Fractions and Decimals (total 12 items)

Completing Algebra 1 by 8th grade is highly correlated with math completion in high school



Math Course Rankings

Rank	Description
0	Independent Study
1	Basic Math (Math 7, Foundations, CAHSEE Prep, etc)
2	Pre-Algebra
3	Algebra
4	Geometry
5	Intermediate Algebra/Algebra II
6	Statistics/Finite/Discrete
7	Pre-calculus/Math Analysis/Trigonometry
8	Calculus
9	Linear Algebra

Math Trajectory

13457.

Math Trajectory

What do you think the modal pattern is?