



Santa Clara County Office of Education

Charles Weis, Ph.D.
County Superintendent of Schools

August 16, 2010

TO: Charles Weis, Ph.D., County Superintendent of Schools

FROM: Linda Aceves, Chief Academic Officer, Educational Services Branch
Bill Conrad, Ed.D., Director, Assessment and Accountability
Diana Wilmot, Ph.D., Coordinator, Assessment and Accountability

SUBJECT: August 16, 2010 CST Release

The California Department of Education (CDE) released the 2010 California Standards Tests (CST) results to districts. They are scheduled for public release on August 16, 2010. CST scores are used to calculate Academic Performance Index (API) and are compared to Adequate Yearly Progress (AYP) accountability targets (See Appendix for AYP accountability targets). AYP and API reports are scheduled for public release on August 31, 2010.

Dr. Bill Conrad and Linda Aceves from our office have analyzed the data and their findings are presented in two parts: Part 1 compares performance of Santa Clara County (SCC) students with all California (CA) students; Part 2 summarizes performance of students in SCC on the CSTs from 2003 to 2010, both overall and for selected ethnic subgroups. Spring 2010 data are also analyzed for SCC students who are Economically Disadvantaged (ED), English Learners (ELs), Students with Disabilities (SWD), and five ethnic subgroups. Throughout this memo, students are reported as proficient or above, which is considered to be an indicator for students on a better track towards attending a four-year college.

The Santa Clara County Office of Education seeks to provide high quality service to all of our school districts. As one key element of this goal, we seek to analyze state test data in ways that provide useable information to our school districts; analyze data to celebrate success, and identify academic growth areas. You can find a glossary of key terms at the end of the document. We have also hyperlinked the tables in this memo for easy access. The initial analyses of the 2010 data include the following key findings:

Key Findings

- 1) The Hispanic subgroup demonstrated academic growth on all four academic areas assessed by the CST between 2009 and 2010:
 - Hispanic students demonstrated a 9 percentage point gain on the Grade 5 Science CST assessment between 2009 and 2010 moving from 33% proficient or above to 42% proficient or above ([Figure 15](#)).
 - Hispanic students demonstrated a 5 percentage point gain on the Mathematics Grades 2-7 CST assessment between 2009 and 2010 by moving from 44% proficient or above to 49% proficient or above ([Figure 11](#)).

- Hispanic students demonstrated a 6 percentage point gain on the History-Social Science Grade 8 CST assessment between 2009 and 2010 by moving from 25% proficient or above to 31% proficient or above ([Figure 18](#)).
- Hispanic students demonstrated a 3 percentage point gain on the English-Language Arts (ELA) Grades 2-11 CST assessment between 2009 and 2010 by moving from 36% proficient or above to 39% proficient or above ([Figure 7](#)).

2) Not only did Hispanic students demonstrate growth in academic areas measured by the CST, they also reduced the achievement gap with the White subgroup (who also demonstrated academic growth) in ELA and Math between 2003 and 2010:

- Between 2003 and 2010, the Hispanic/White achievement gap on the ELA CST assessment was reduced from an initial gap of 43 percentage points to 39 percentage points ([Figure 7](#)).
- Between 2003 and 2010, the Hispanic/White achievement gap on the Math Grades 2-7 CST assessment was reduced from an initial gap of 40 percentage points to 32 percentage points ([Figure 11](#)).

3) Between 2007 and 2010, there has been a widespread increase in student participation on the Algebra I CST – both overall and among the Hispanic and African-American 7th and 8th grade students ([Table 1](#), [Table 3](#), [Table 4](#)). This increase in participation exceeds the change in population between 2007 and 2010 ([Table 2](#)). During the same time interval, the percentage of students performing at the proficient or above levels demonstrated modest growth.

- Between 2007 and 2010, 7th grade student participation in the Algebra I CST increased 30%. The percent of students scoring proficient or above during the same time period increased from 92% to 93% ([Table 1](#)).
- Between 2007 and 2010, 8th grade student participation in the Algebra I CST increased by 20%. The percent of students scoring proficient or above during the same time period increased from 52% to 55% ([Table 1](#)).
- Hispanic student participation in 7th grade Algebra increased by 23%. Hispanic 8th grade participation in Algebra 1 increased by 29% while proficiency rose by 4 percentage points ([Table 3](#)).
- African-American student participation in 7th grade Algebra increased by 4% ([Table 4](#)), while the student population decreased by 24% ([Table 2](#)). African-American participation in 8th Algebra increased by 6%, ([Table 4](#)), while the population decreased by 19% ([Table 2](#)). At the same time, proficiency also increased for 7th and 8th grade African American students ([Table 4](#)).

4) Student participation in advanced science end of course (EOC) CST assessments increased strongly between 2007 and 2010 ([Table 5](#)). During the same time interval, the percent of students performing at the proficient or above levels also demonstrated growth ([Table 5](#)). This increase in participation exceeds the change in population between 2007 and 2010 ([Table 6](#)).

- Between 2007 and 2008, high school student participation in the Biology EOC CST assessment increased by 8% ([Table 5](#)). The percentage of students scoring proficient or above during the same time period increased by 6 percentage points ([Table 5](#)).
- Between 2007 and 2010, high school student participation in the Chemistry EOC CST assessment increased by 6%. The percent of students scoring proficient or above during the same time period increased by 8 percentage points ([Table 5](#)).
- Between 2007 and 2010, high school student participation in the Physics End of Course CST assessment between 2007 and 2010 increased by 36%. The percent of students scoring proficient or above during the same time period increased by 9 percentage points ([Table 5](#)).
- Between 2007 and 2010, Hispanic participation in the Biology EOC CST assessment increased by 22%, in Chemistry increased by 28% and in Physics increased by 100%. At the same time, proficiency also increased ([Table 7](#)).
- Between 2007 and 2010, African-American participation in the Biology EOC CST assessment decreased by 13%, while the population decreased by 16%. African-American participation in the Chemistry EOC CST assessment increased by 6% and in the Physics EOC CST assessment the participation increased by 46%. At the same time, proficiency increased in all three subjects ([Table 8](#)).

Part 1: Santa Clara County Compared to California

This section details the following findings for the 2010 CSTs:

- (1) Comparison between SCC and CA students scoring proficient or above for ELA, Mathematics, Science, and History/Social Science,
- (2) Comparison between SCC and CA subgroups scoring proficient or above for ELA and Mathematics.

		2010 Santa Clara County & California Findings	Figure
English-Language Arts (ELA)	Overall	63% of SCC students scored proficient or above compared to 53% statewide.	Figure 1
	All Subgroups	For all subgroups, except Hispanic and Filipino, a higher percentage of SCC students scored proficient or above than students statewide.	Figure 2
Mathematics	Overall	69% of SCC students scored proficient or above compared to 59% statewide.	Figure 1
	All Subgroups	For all subgroups, except Hispanic and Filipino, a higher percentage of SCC students (grades 2-7) scored proficient or above than students statewide.	Figure 3
Science	Overall	A higher percentage of SCC students scored proficient or above than students statewide.	Figure 4
History/ Social Science	Overall	A higher percentage of SCC students scored proficient or above than students statewide.	Figure 5

Part 2: Santa Clara County Scores over Time

This section details four major findings for each CST:

- (1) Percent of SCC students scoring proficient or above on the 2010 CST,
- (2) Differences across SCC subgroups performance on the 2010 CST,
- (3) Grade level trends, and
- (4) Ethnic Subgroup trends over time.

English-Language Arts - Grades 2-11			
		2010 Santa Clara County Findings	Figure
2010 Snapshot	Overall	63% of SCC students scored proficient or above.	Figure 1
	All Subgroups	A greater percentage of Asian and White students scored at proficient or above (83% and 78% respectively) than the other subgroups.	Figure 2
Trends	Grade Level	All SCC grades except 3 rd and 11 th improved from 2009 to 2010. (Grades 3 and 11 each decreased by 1%.) 4 th graders showed the greatest improvement from 2003 to 2010 (+21 percentage points).	Figure 6
	Ethnic Subgroups	The trend of Asian and White students scoring higher than other ethnic subgroups has been consistent over the past seven years. All subgroups are improving over time. From 2003 to 2010, the achievement gap between White and Hispanic students decreased by 4% and the achievement gap between Asian and Hispanic students decreased by 1 percentage point.	Figure 7

Mathematics			
		2010 Santa Clara County Findings	Figure
2010 Snapshot	Overall	69% of SCC students (grades 2-7) were proficient or above.	Figure 1
		SCC student performance ranged from 28% to 72% proficient or above on end-of-course (EOC) mathematics tests (including General Math, Algebra I, Geometry, Algebra II, and Summative Math).	Figure 9
	All Subgroups	With the exception of General Math, a greater percentage of Asian and White students scored at proficient or above than the other subgroups on all grade level and EOC math tests.	Figure 10
Trends	Grade Level/ EOC	All SCC grades 2 through 7 improved from 2009 to 2010, with grade 7 showing the largest increase, from 51% to 58% proficient or above. 5 th graders showed the greatest improvement over the eight-year period from 2003 to 2010 (+23 percentage points), from 46% proficient or above to 69% proficient or above. Proficiency has improved over time in all end-of-course math tests except General Math, which was the same in 2010 as it was in 2003 (28% proficient or above).	Figure 8 Figure 9
	Ethnic Subgroups	Though Asian and White students have consistently scored higher than all other ethnic subgroups since 2003, all ethnic subgroups have improved over the eight-year period. From 2003 to 2010, the achievement gap between Hispanic and Asian students decreased by 10 percentage points and the gap between Hispanic and White students decreased by 8 percentage points.	Figure 11

Science			
		2010 Santa Clara County Findings	Figure
2010 Snapshot	Overall	64% percent of SCC students (grades 5, 8, and 10) scored proficient or above on the grade level science tests.	Figure 4
		Student performance ranged from 39% to 63% proficient or above on end-of-course (EOC) science tests (including Biology, Chemistry, Earth Science, and Physics).	Figure 4
	All Subgroups	A greater percentage of Asian and White students scored at proficient or above than the other subgroups on grade levels and end-of-course Science tests.	Figure 13 Figure 14
Trends	Grade Level/ EOC	Students improved in all areas of science from 2009 to 2010. 5 th graders showed the greatest improvement over the past seven years (+31 percentage points).	Figure 12
	Ethnic Subgroups	Asian and White students scored higher than all other ethnic subgroups on the fifth grade Science test. This trend has been consistent over the past seven years. Performance of Hispanic students on the 5 th grade Science test increased by 9 percentage points, from 33% proficient or above in 2009 to 42% proficient or above in 2010.	Figure 15

History/Social Science			
		2010 Santa Clara County Findings	Figure
2010 Snapshot	Overall	57% of SCC students scored proficient or above on the 8 th grade history/social science test. 53% of students were proficient or above in World History. 54% were proficient or above in U.S. History.	Figure 16
	All Subgroups	A greater percentage of Asian and White students scored at proficient or above on the grade level and end-of-course (EOC) tests than did the other subgroups.	Figure 17
Trends	Grade Level/ EOC	Of the three grade level and EOC assessments, students showed the greatest gains on the World History test with a gain of 15 percentage points between 2003 and 2010.	Figure 16
	Ethnic Subgroups	Over the past seven years, the achievement gap between Hispanic and Asian students increased by 10 percentage points and the gap between Hispanic and White students increased by 6 percentage points.	Figure 18

Table 1: Increase in participation and proficiency in 7th and 8th Grade Algebra 1 (Overall)

OVERALL	2007 % Proficient or Above and Students with scores (n)	2010 % Proficient or Above and Students with scores (n)	2007-2010 Percent Change in Students with scores	Change in Students Scoring Proficient or Above (% points) 2007-2010
Algebra I (7 th grade)	92% (1,823)	93% (2,371)	+30%	+1% points
Algebra I (8 th grade)	52% (9,729)	55% (11,655)	+20%	+3% points
Algebra I (9 th grade)	26% (10,501)	27% (9,227)	-12%	+1% points

Table 2: Change in Population between 2007 and 2010

Population* Grade	Overall			Hispanic			African-American		
	2007	2010	Change	2007	2010	Change	2007	2010	Change
7	18,904	18,393	-3%	6,900	6,715	-3%	669	510	-24%
8	18,685	18,892	1%	6,831	6,916	1%	644	519	-19%
9	18,890	19,004	1%	6,521	6,827	5%	658	518	-21%

*Based on number of Students with Scores on CST in Mathematics (7th Grade Math, General Math, Algebra 1, Geometry, Integrated Math 1, Integrated Math 2, Algebra 2, Summative HS Math)

Table 3: Increase in participation and proficiency in 7th and 8th Grade Algebra (Hispanic)

HISPANIC	2007 % Proficient or Above and Students with scores (n)	2010 % Proficient or Above and Students with scores (n)	2007-2010 Percent Change in Students with scores	Change in Students Scoring Proficient or Above (% points) 2007-2010
Algebra I (7 th grade - Hispanic)	74% (188)	74% (231)	+23%	+0% points
Algebra I (8 th grade - Hispanic)	25% (3,006)	29% (3,889)	+29%	+4% points
Algebra I (9 th grade - Hispanic)	14% (4,744)	16% (4,642)	-2%	+2% points

Table 4: Increase in participation and proficiency in 7th and 8th Grade Algebra (African-American)

AFRICAN-AMERICAN	2007 % Proficient or Above and Students with scores (n)	2010 % Proficient or Above and Students with scores (n)	2007-2010 Percent Change in Students with scores	Change in Students Scoring Proficient or Above (% points) 2007-2010
Algebra I (7 th grade- African- American)	68% (25)	77% (26)	+4%	+9% points
Algebra I (8 th grade - African- American)	26% (284)	35% (302)	+6%	+9% points
Algebra I (9 th grade- African- American)	18% (453)	19% (330)	-27%	+1% points

Table 5: Increase in participation and proficiency in higher-level Science (Overall)

	2007 % Proficient or Above and Students with scores (n)	2010 % Proficient or Above and Students with scores (n)	2007-2010 Percent Change in Students with scores	Change in Students Scoring Proficient or Above (% points) 2007-2010
Biology/Life Sciences	51% (20,855)	57% (22,559)	8%	+6 % points
Chemistry	41% (11,812)	49% (12,547)	6%	+8% points
Physics	54% (3,754)	63% (5,103)	36%	+9% points

Table 6: Change in Population between 2007 and 2010

Population*	Overall			Hispanic			African-American		
Grade	2007	2010	Change	2007	2010	Change	2007	2010	Change
10	18,027	18,635	+3%	5,726	6,607	+15%	651	548	-16%

*Based on number of Students with Scores on CST in 10th Grade Life Science

Table 7: Increase in participation and proficiency in higher-level Science (Hispanic)

	2007 % Proficient or Above and Students with scores (n)	2010 % Proficient or Above and Students with scores (n)	2007-2010 Percent Change in Students with scores	Change in Students Scoring Proficient or Above (% points) 2007-2010
Biology/Life Sciences (Hispanic)	22% (6325)	31% (7708)	22%	+9 % points
Chemistry (Hispanic)	14% (2,209)	22% (2,828)	28%	+8% points
Physics (Hispanic)	23% (467)	27% (964)	100%	+4% points

Table 8: Increase in participation and proficiency in higher-level Science (African-American)

	2007 % Proficient or Above and Students with scores (n)	2010 % Proficient or Above and Students with scores (n)	2007-2010 Percent Change in Students with scores	Change in Students Scoring Proficient or Above (% points) 2007-2010
Biology/Life Sciences (African-American)	29% (702)	34% (610)	-13%	+ 5% points
Chemistry (African-American)	22% (300)	22% (317)	+6%	+0% points
Physics (African-American)	19% (71)	37% (104)	+46%	+18% points

Figure 1

**Santa Clara County vs. California
 2010 CST English-Language Arts and Mathematics
 Students Percent Proficient or Above**

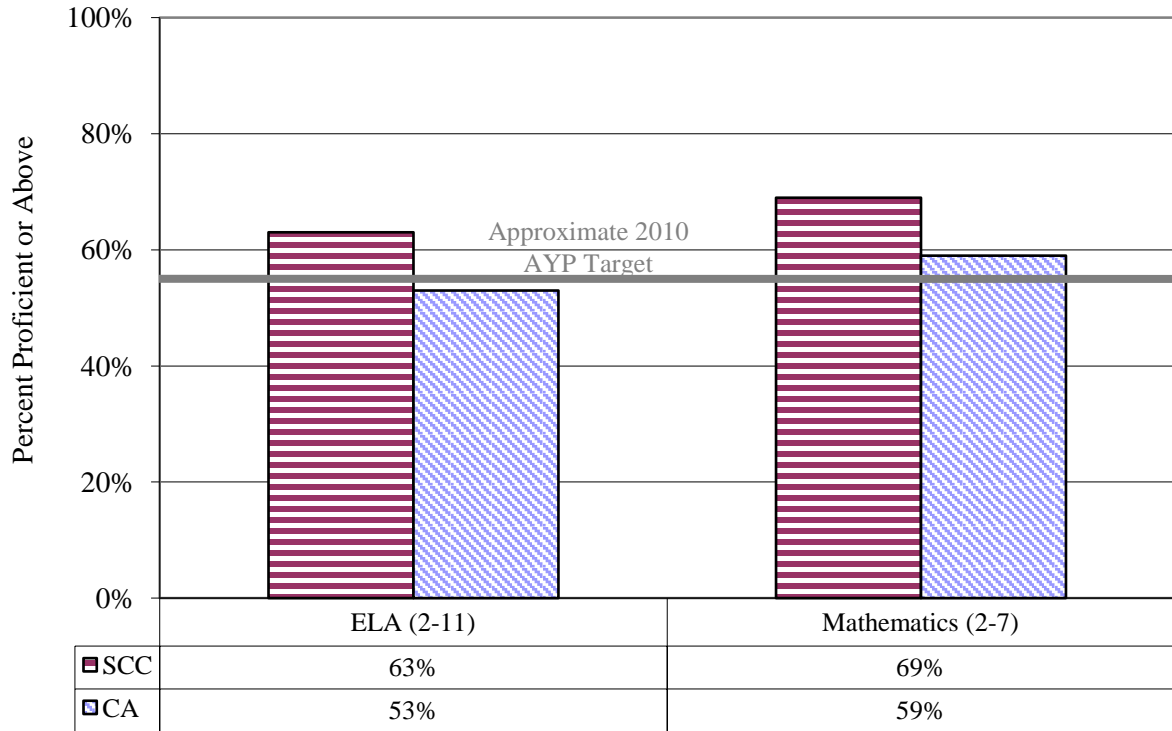


Figure 2

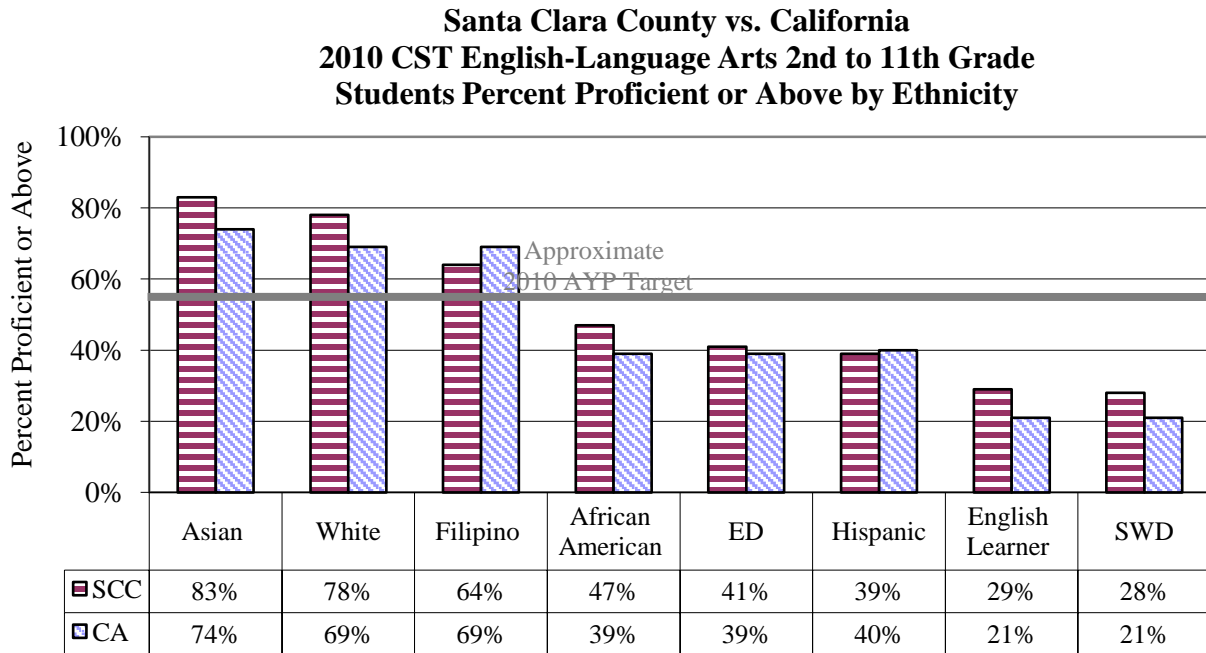


Figure 3

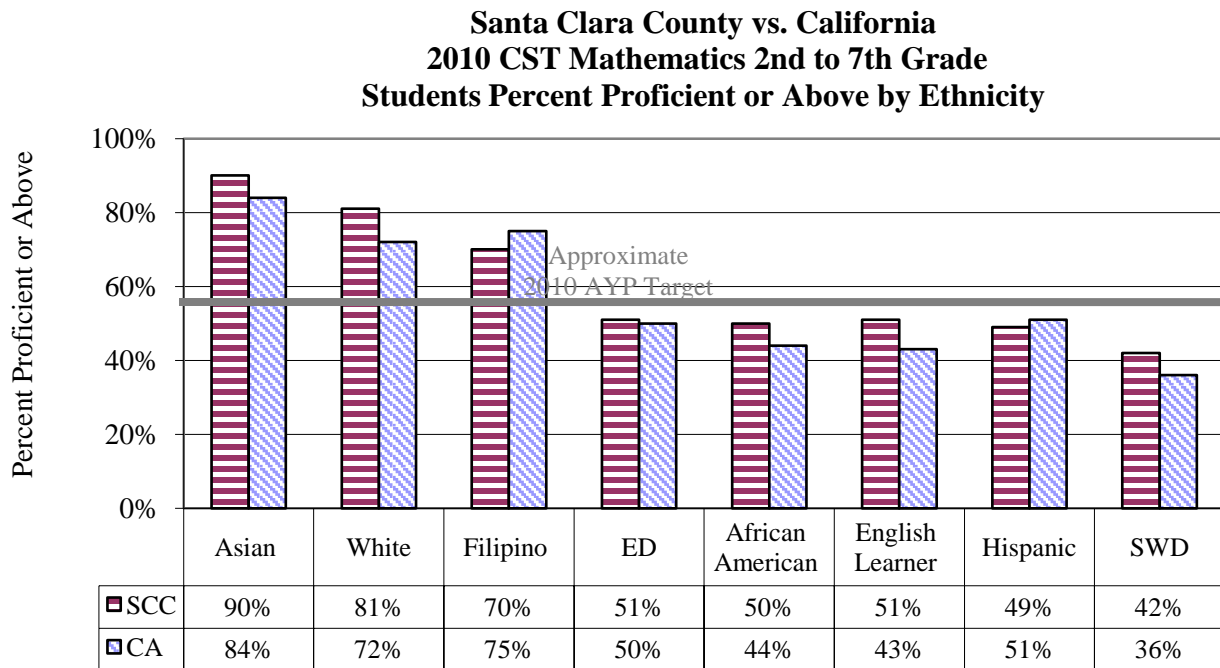


Figure 4

**Santa Clara County vs. California
 2010 CST Science
 Students Percent Proficient or Above**

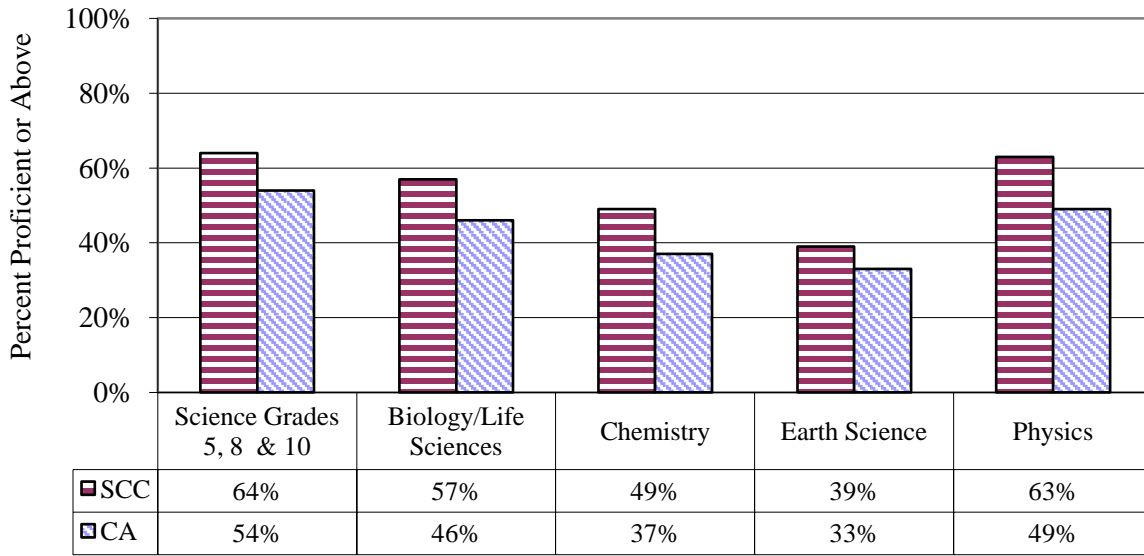


Figure 5

**Santa Clara County vs. California
 2010 CST History-Social Science 8th to 11th Grade
 Students Percent Proficient or Above**

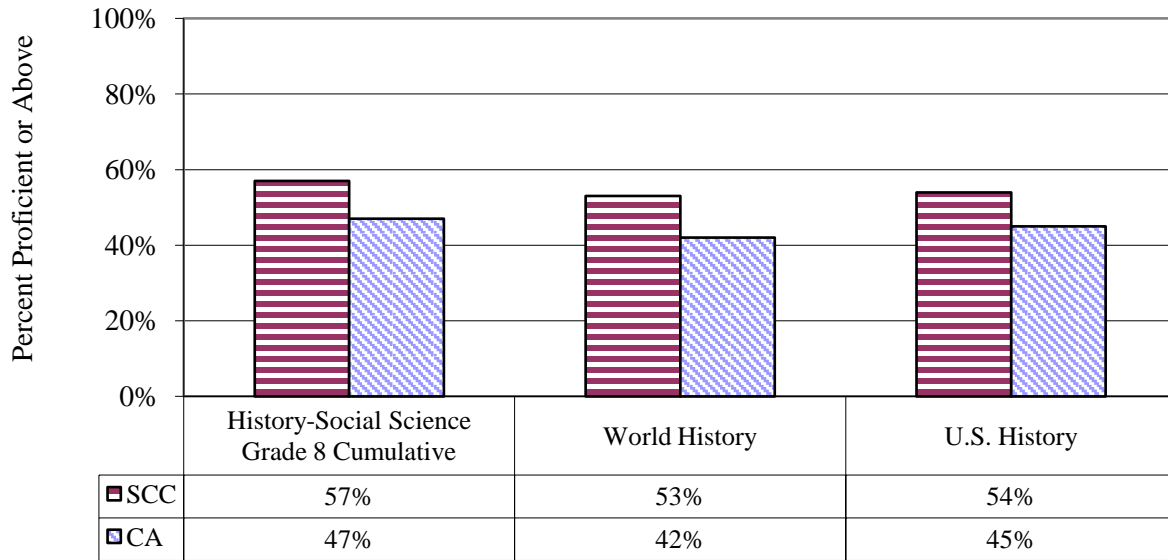


Figure 6

**Santa Clara County
2003 to 2010 CST English-Language Arts
Students Percent Proficient or Above by Grade Level**

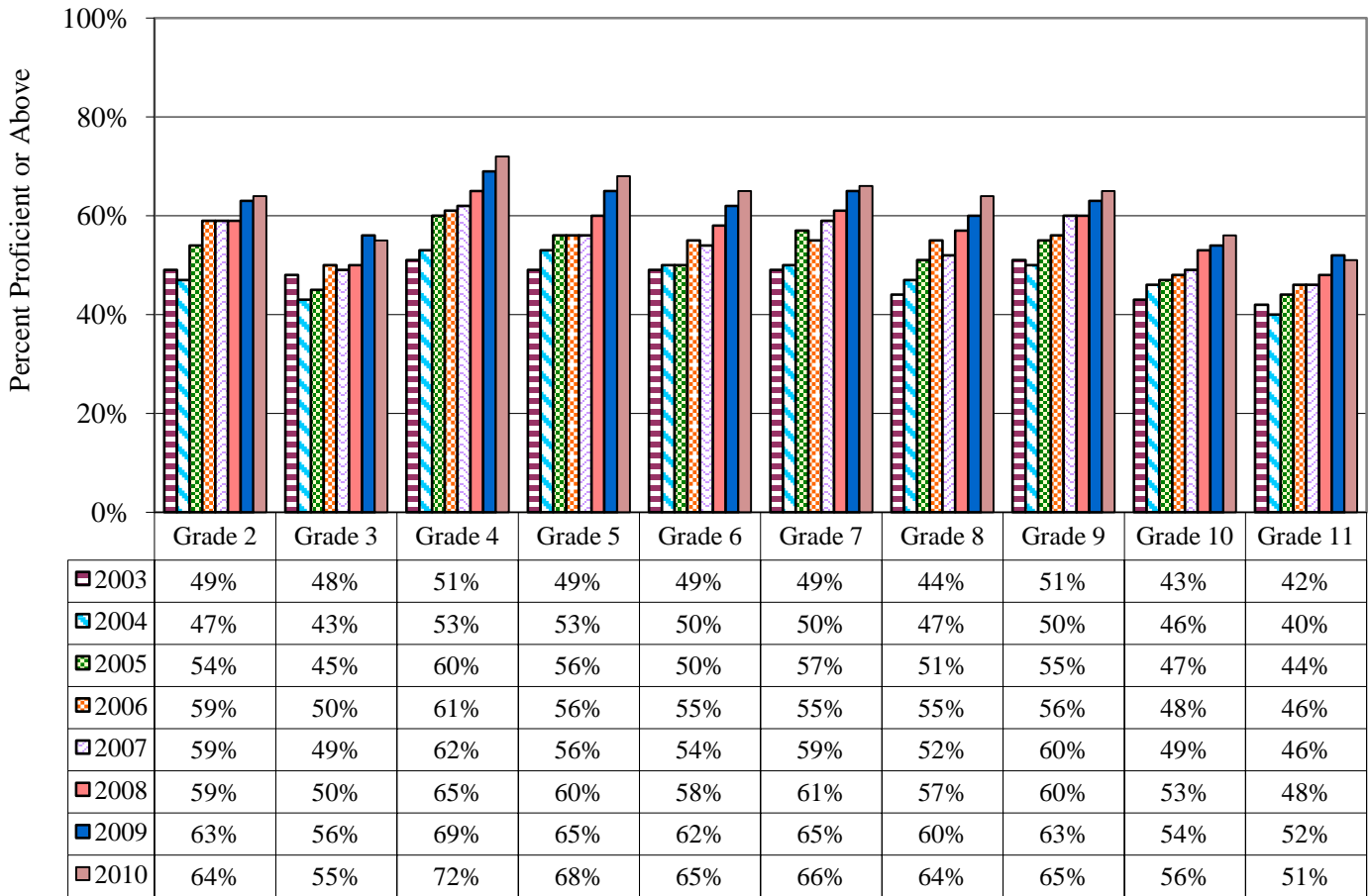


Figure 7

**Santa Clara County
 2003 to 2010 CST English-Language Arts 2nd to 11th Grade
 Selected Student Subgroups Percent Proficient or Above**

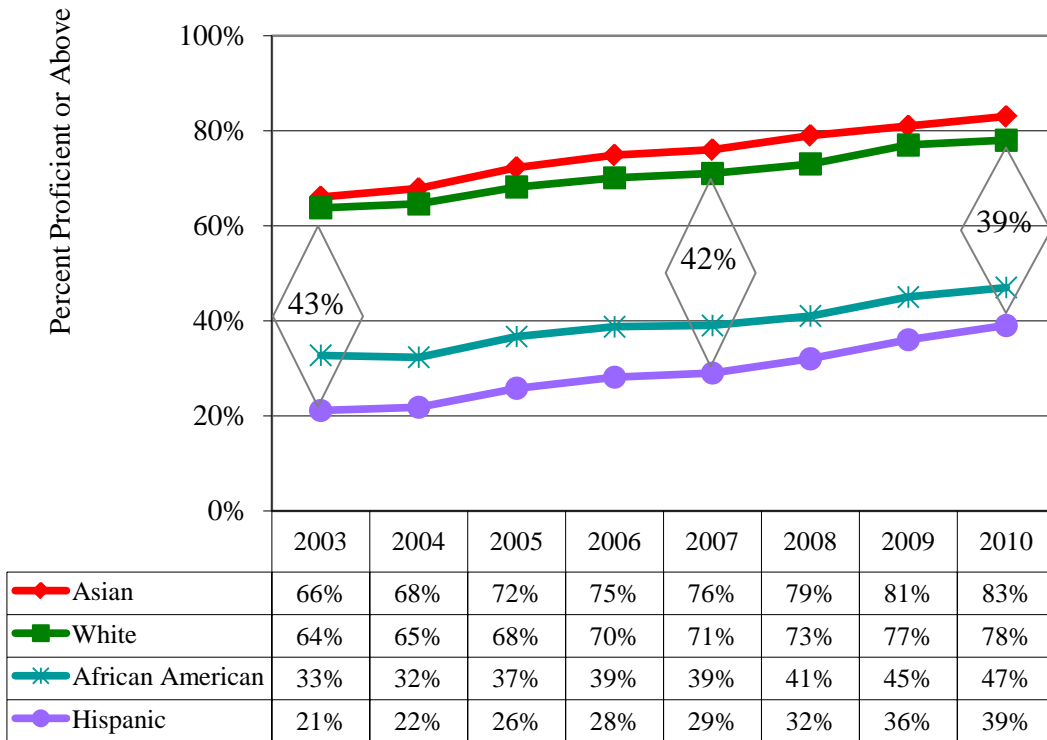


Figure 8

**Santa Clara County
2003 to 2010 CST Mathematics
Students Percent Proficient or Above by Grade Level**

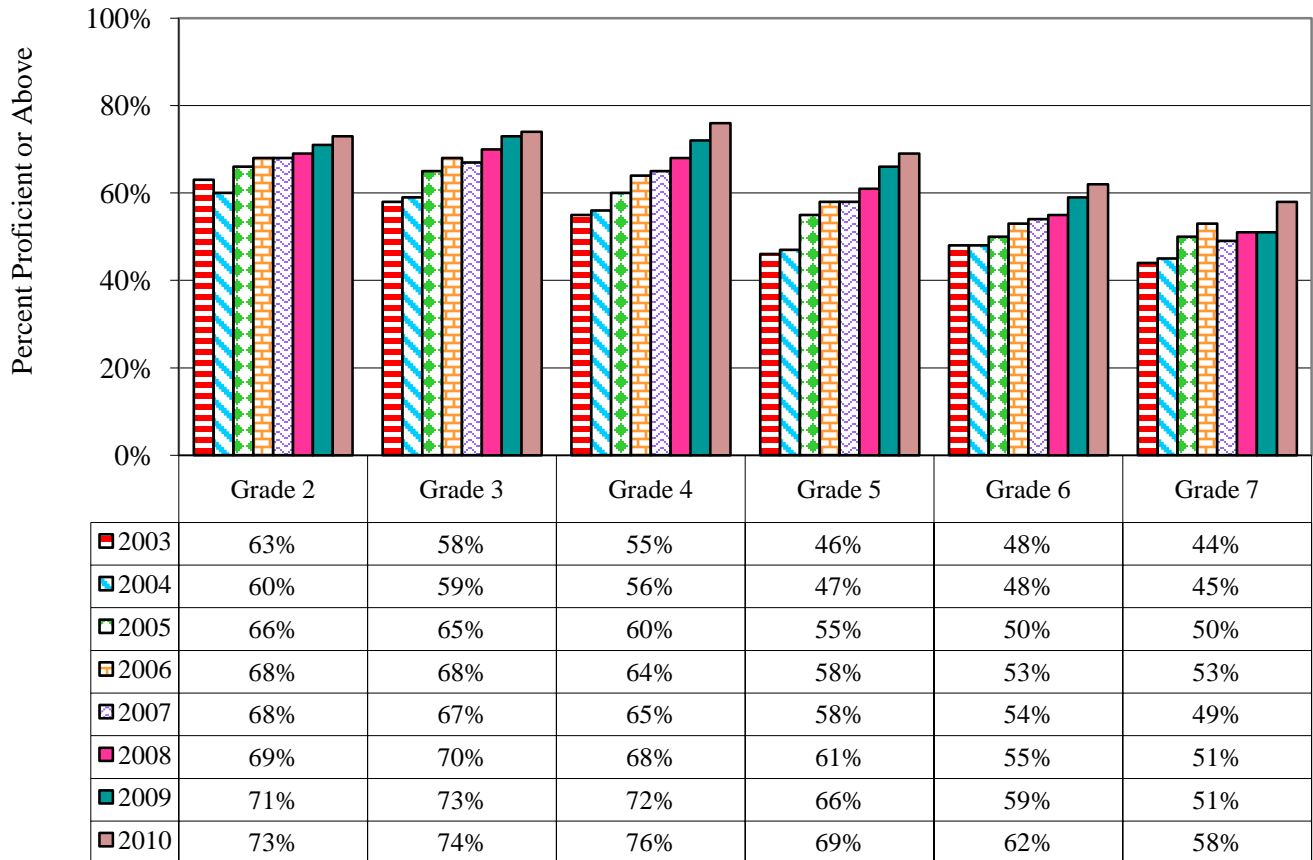


Figure 9

**Santa Clara County 2004 to 2010 CST
High School End of Course Mathematics Assessments
Students Percent Proficient or Above**

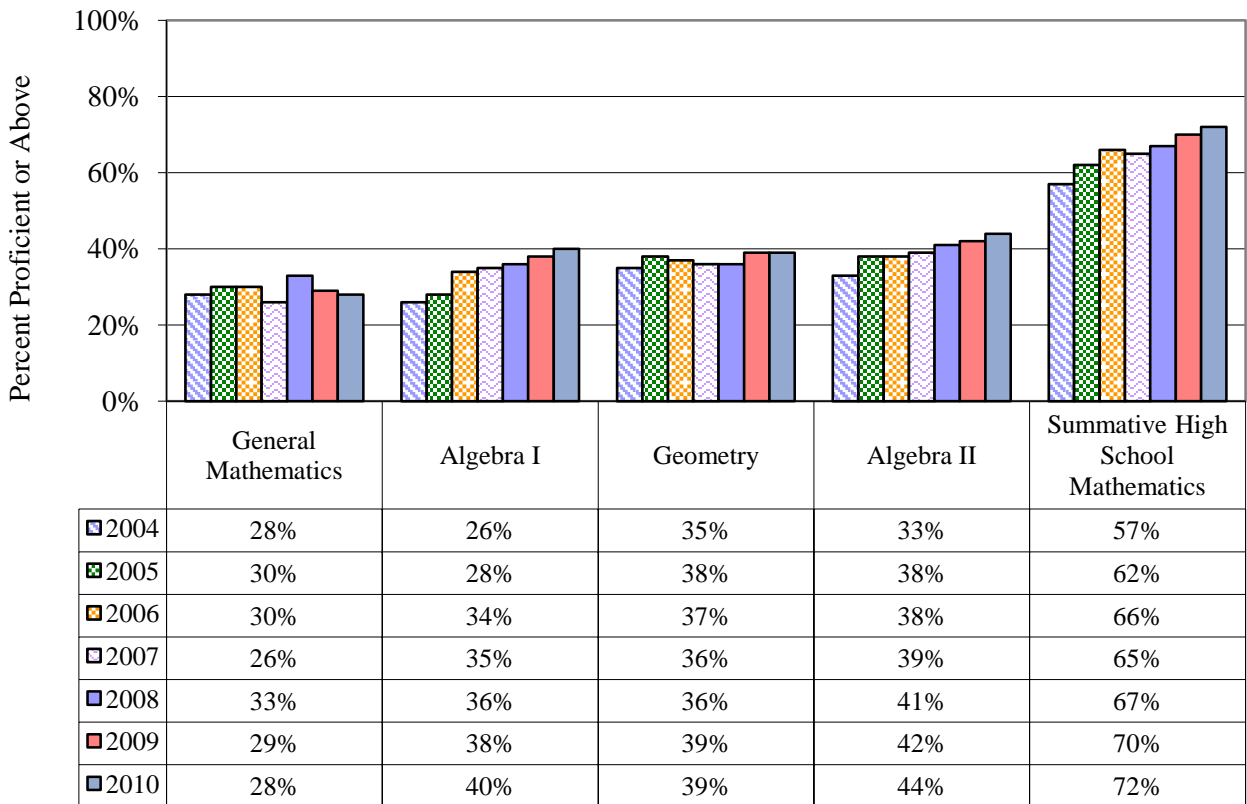
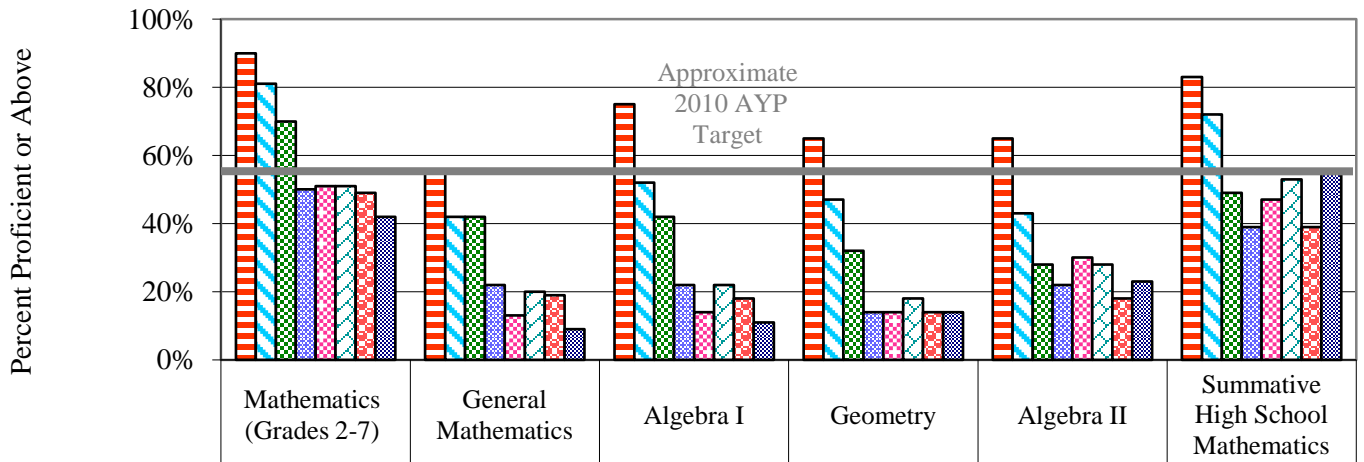


Figure 10

**Santa Clara County
2010 CST Mathematics
Students Percent Proficient or Above by Subgroup**



	Mathematics (Grades 2-7)	General Mathematics	Algebra I	Geometry	Algebra II	Summative High School Mathematics
Asian	90%	55%	75%	65%	65%	83%
White	81%	42%	52%	47%	43%	72%
Filipino	70%	42%	42%	32%	28%	49%
African American	50%	22%	22%	14%	22%	39%
English Learner	51%	13%	14%	14%	30%	47%
ED	51%	20%	22%	18%	28%	53%
Hispanic	49%	19%	18%	14%	18%	39%
SWD	42%	9%	11%	14%	23%	55%

Figure 11

**Santa Clara County
 2003 to 2010 CST Mathematics 2nd to 7th Grade
 Selected Student Subgroups Percent Proficient or Above**

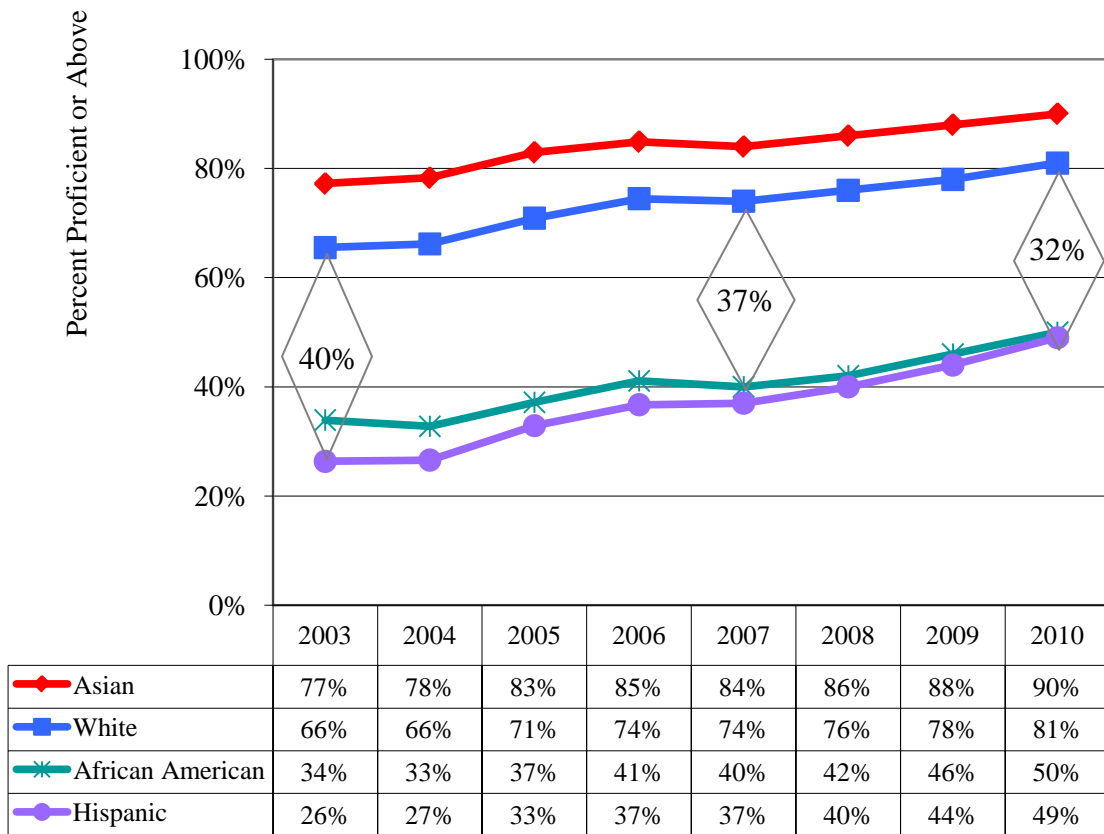
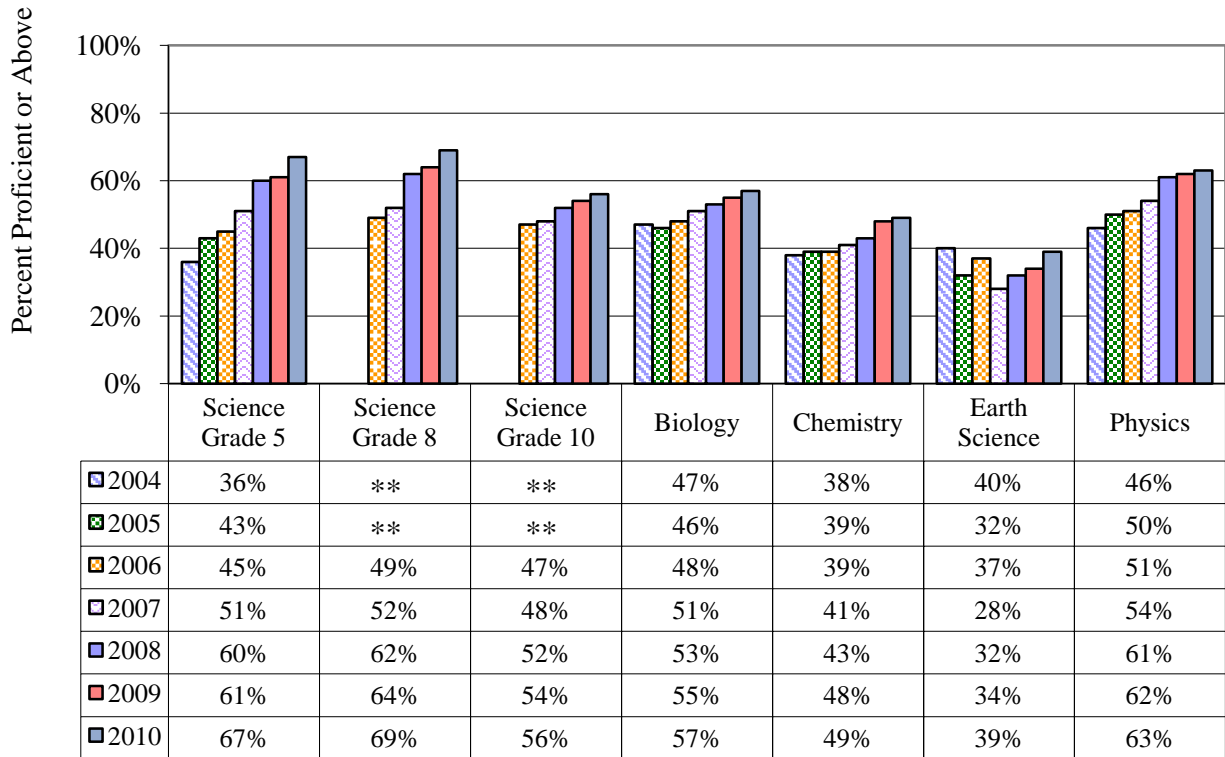


Figure 12

**Santa Clara County 2004 to 2010 CST Science
Grades 5, 8, 10 and High School End of Course Assessment
Students Percent Proficient or Above**



** No test administered

Figure 13

**Santa Clara County
2010 Grade 5, Grade 8, and Grade 10 Science (Life Science)
Students Percent Proficient or Above by Subgroup**

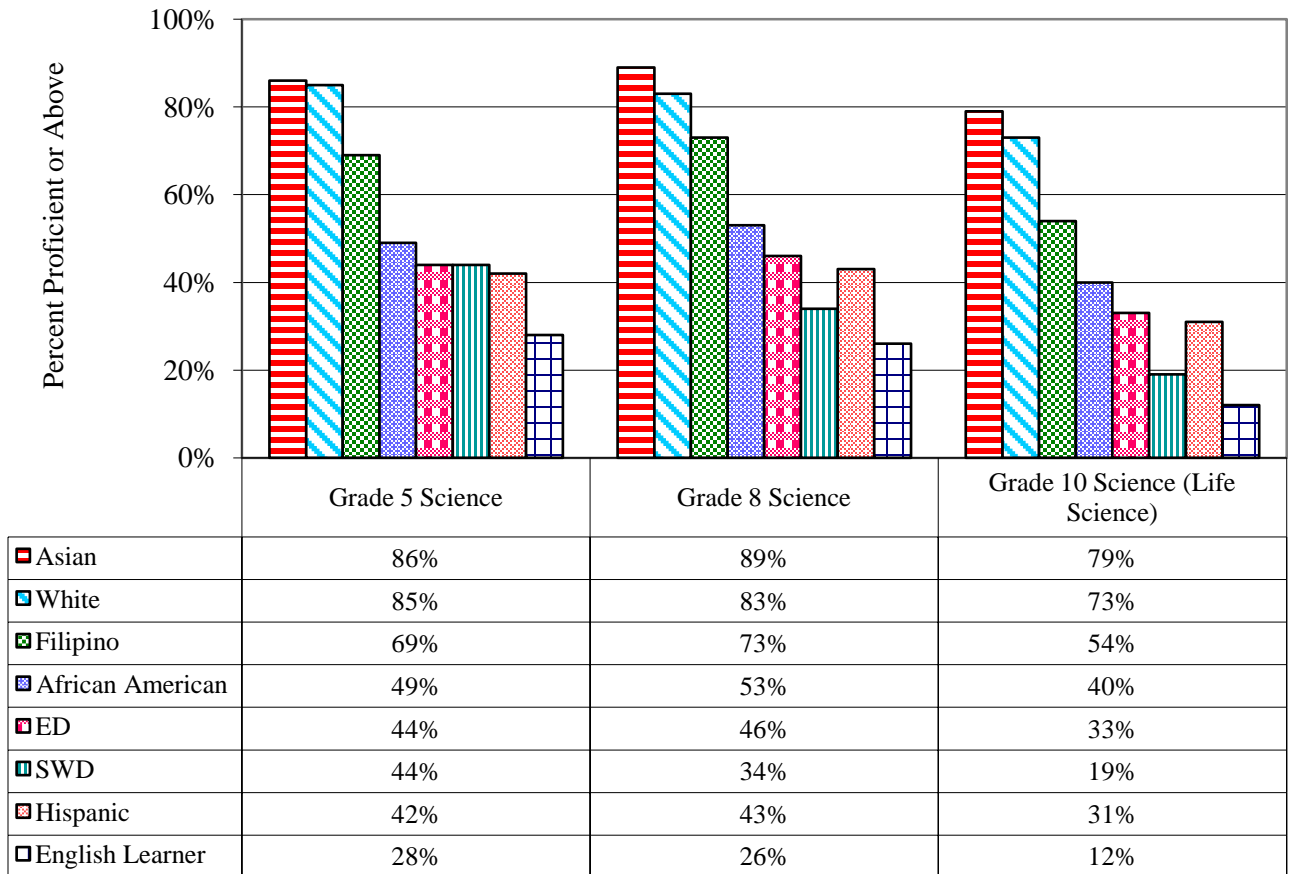


Figure 14

**Santa Clara County
2010 CST Science: High School Tests
Students Percent Proficient or Above by Subgroup**

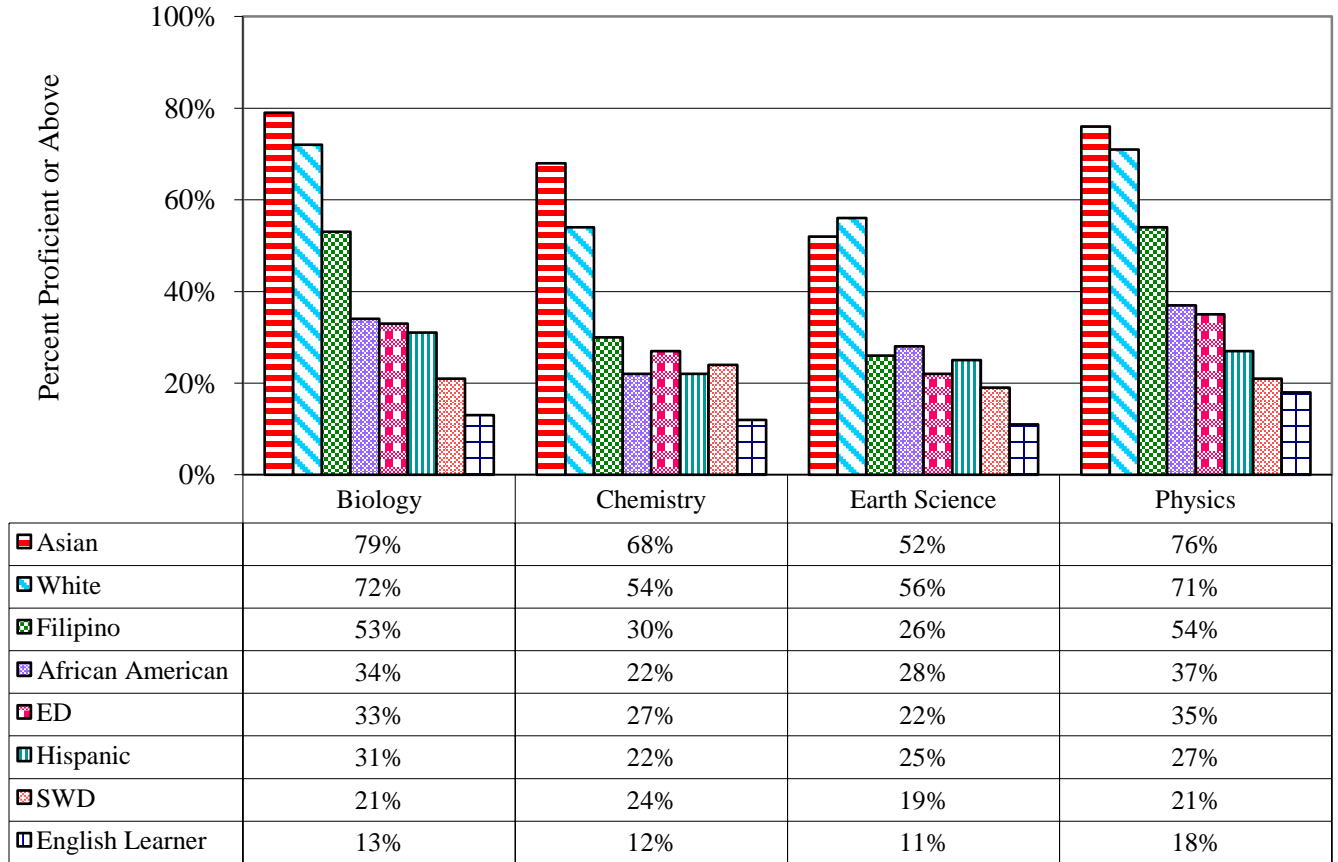


Figure 15

**Santa Clara County
2004 to 2010 CST Grade 5 Science
Selected Student Subgroups Percent Proficient or Above**

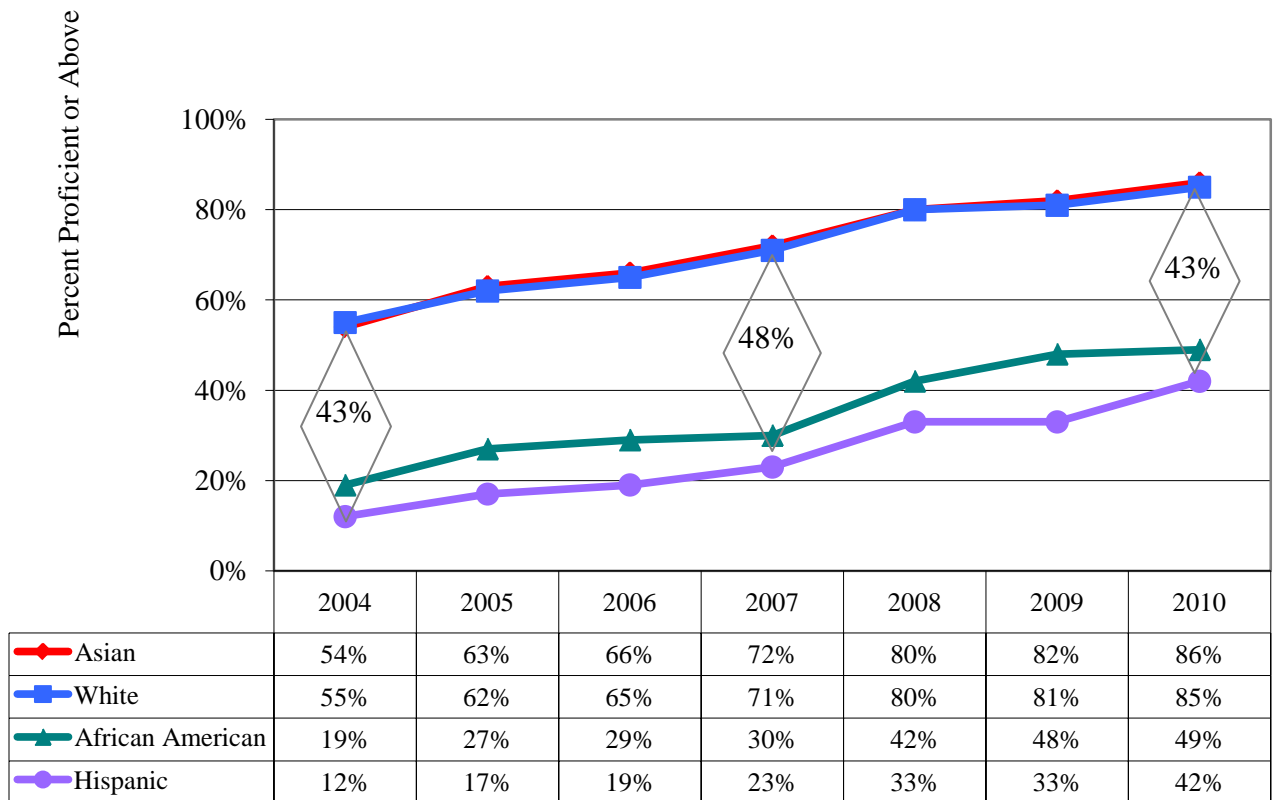


Figure 16

**Santa Clara County
2003 to 2010 CST History-Social Science 8th Grade through 11th Grade
Students Percent Proficient or Above**

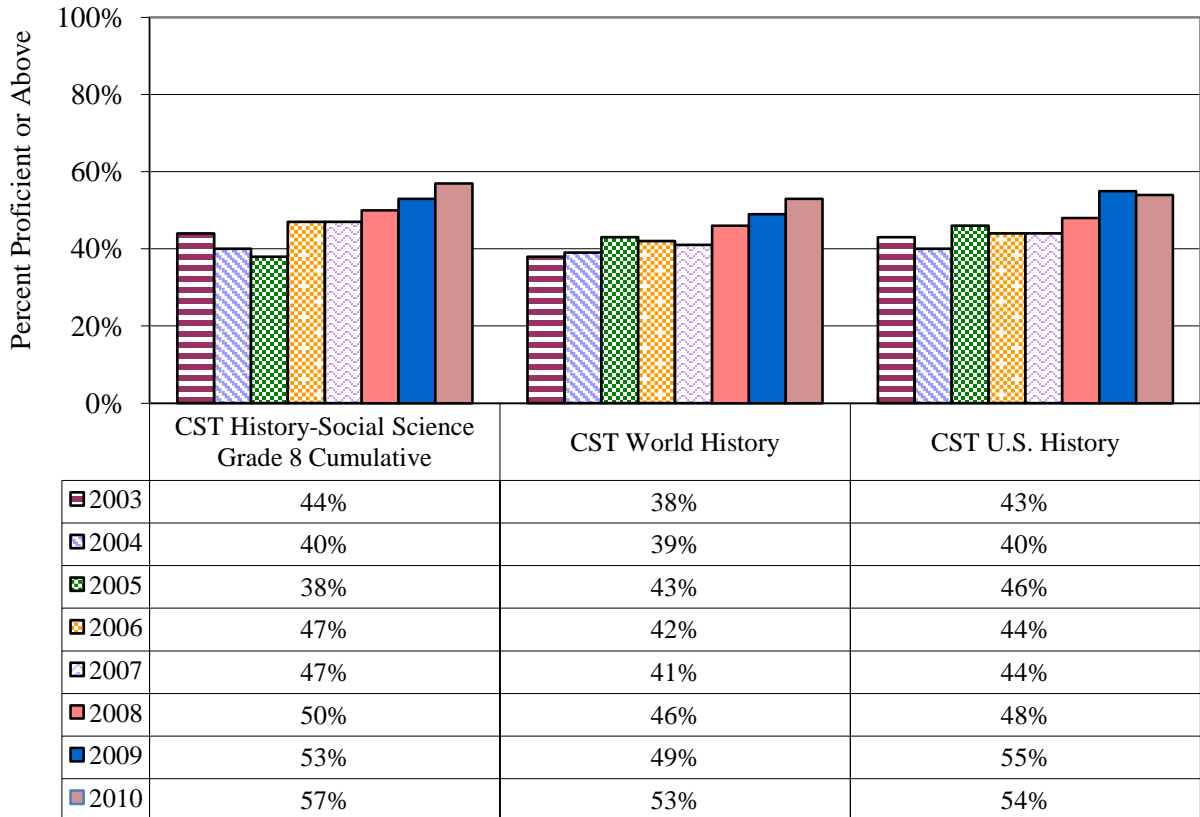


Figure 17

**Santa Clara County
2010 CST History-Social Science 8th Grade and High School History
Students Percent Proficient or Above by Subgroup**

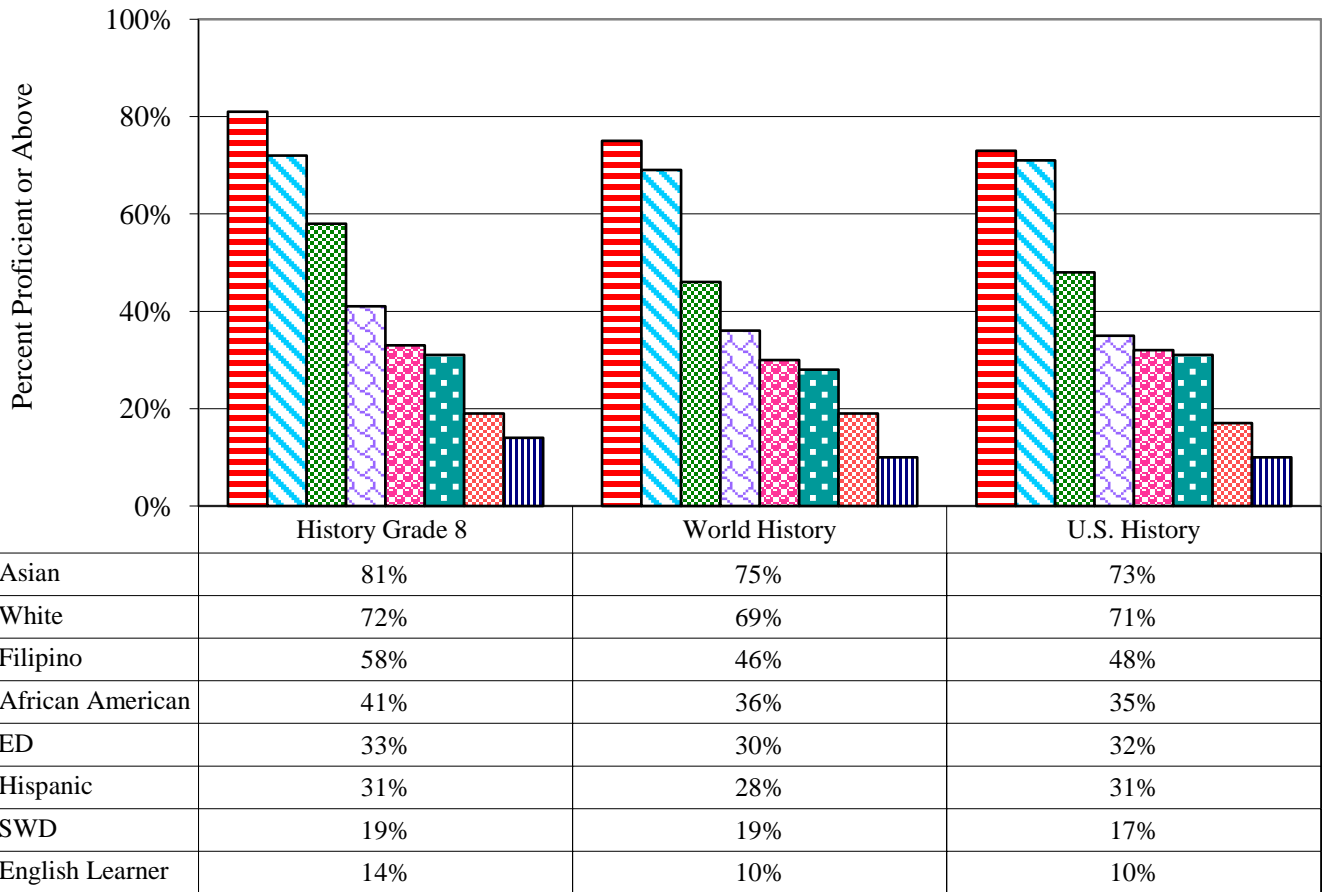
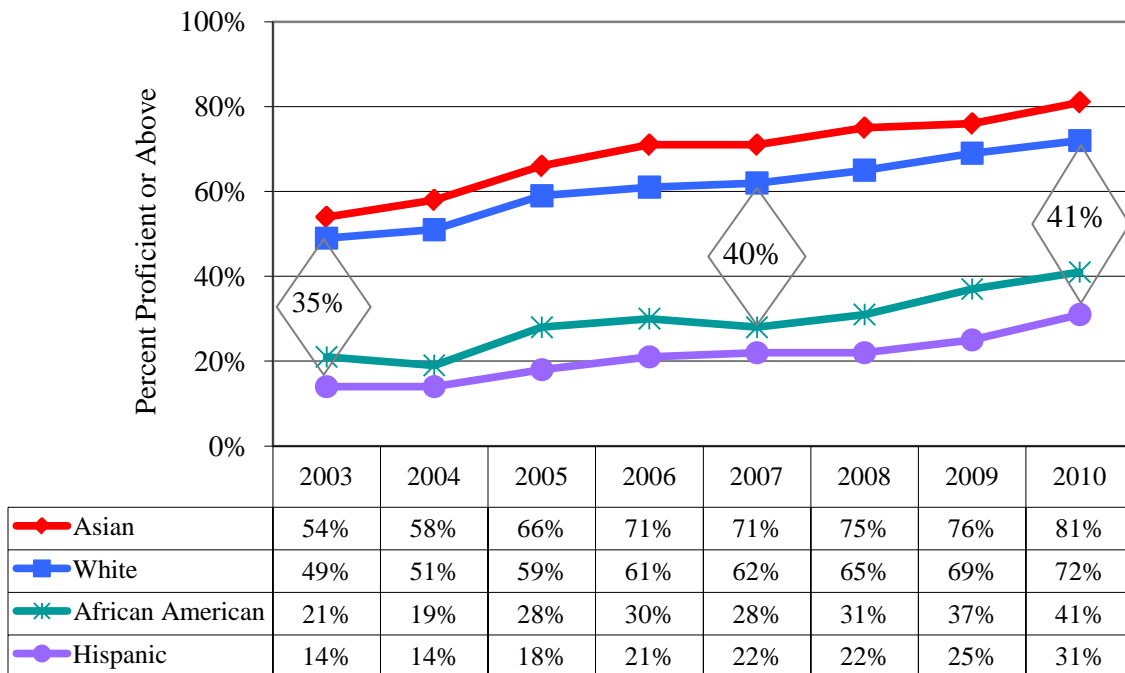


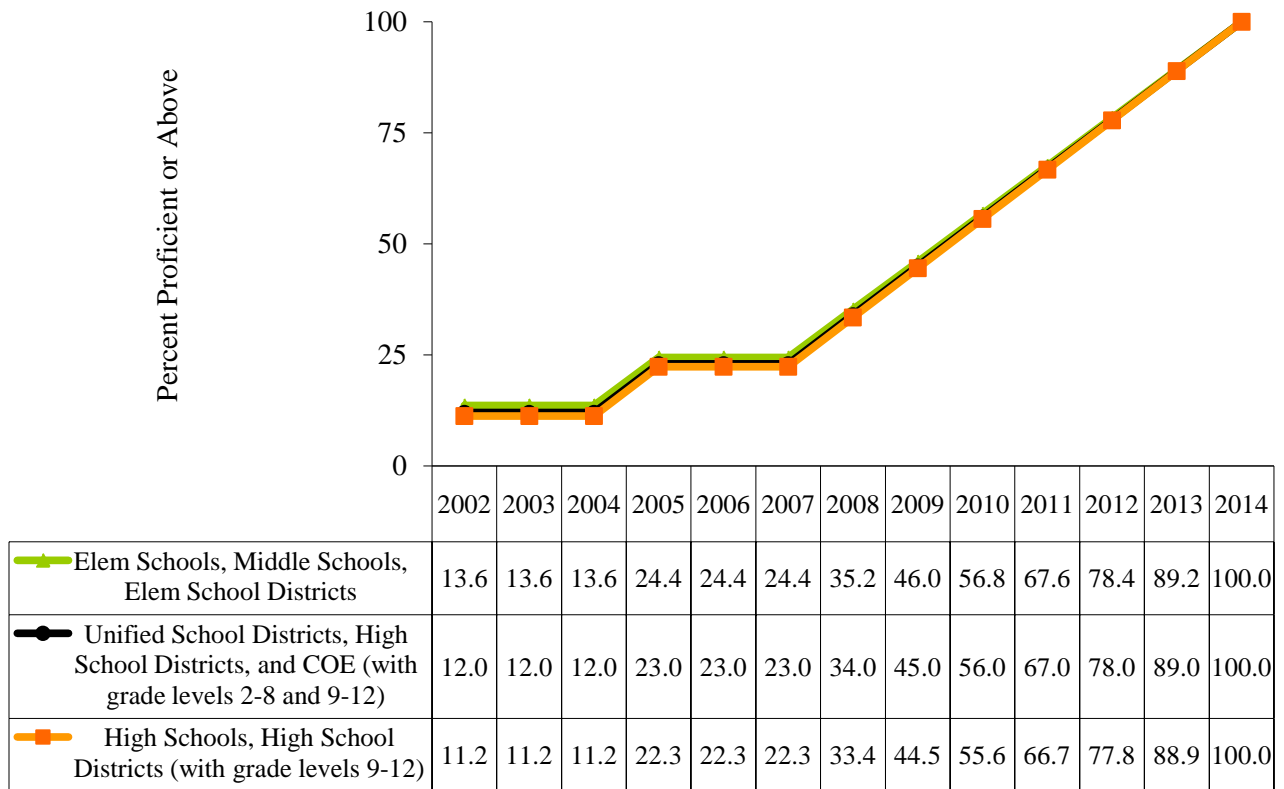
Figure 18

**Santa Clara County
2003 to 2010 CST Grade 8 History-Social Science
Selected Student Subgroups Percent Proficient or Above**

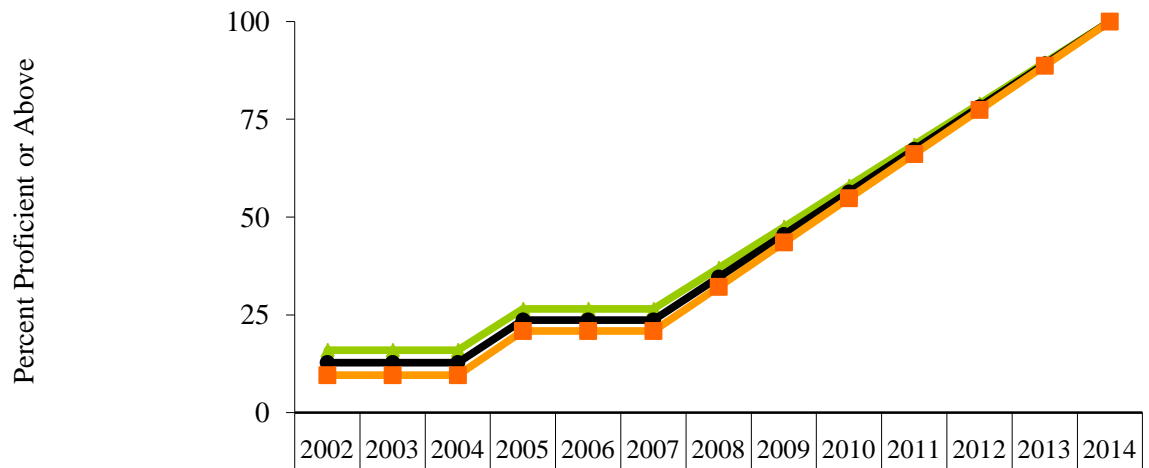


Appendix: AYP Targets

**AYP English/Language Arts Target Percent Proficient or Above
by School/District Level**



**AYP Mathematics Targets Percent Proficient or Above
by School/District Level**



Elem Schools, Middle Schools, and Elem School Districts	16.0	16.0	16.0	26.5	26.5	26.5	37.0	47.5	58.0	68.5	79.0	89.5	100.0
Unified School Districts, High School Districts, and COE (with grade levels 2-8 and 9-12)	12.8	12.8	12.8	23.7	23.7	23.7	34.6	45.5	56.4	67.3	78.2	89.1	100.0
High Schools, High School Districts (with grade levels 9-12)	9.6	9.6	9.6	20.9	20.9	20.9	32.2	43.5	54.8	66.1	77.4	88.7	100.0

Numbers of Students with scores on the 2010 CST by Subject and Course

	SCC	CA
CST English-Language Arts (Grades 2-11)	191,470	4,507,261
CST Mathematics (Grades 2-7)	114,274	2,613,439
CST General Mathematics (Grades 6 & 7 Standards)	6,433	221,165
CST Algebra I	28,833	748,443
CST Integrated Math 1	16	11,327
CST Geometry	17,772	409,586
CST Integrated Math 2	11	3,853
CST Algebra II	12,934	265,175
CST Integrated Math 3	29	797
CST Summative High School Mathematics (Grades 9-11)	8,363	130,588
CST History-Social Science Grade 8 Cumulative	19,100	467,715
CST World History	18,599	475,421
CST U.S. History	17,912	442,083
CST Science Grade 5	18,769	432,541
CST Science Grade 8	18,503	450,218
CST Science Grade 10 (Life Science)	18,635	465,956
CST Biology	22,559	544,938
CST Chemistry	12,547	256,573
CST Earth Science	3,078	217,870
CST Physics	5,103	72,766
CST Integrated/Coordinated Science 1	5,447	64,056
CST Integrated/Coordinated Science 2	8	5,364
CST Integrated/Coordinated Science 3	0	1,346
CST Integrated/Coordinated Science 4	0	365

Glossary of Terms

Academic Performance Index (API)

The cornerstone of California's Public Schools Accountability Act of 1999. The API measures the academic performance and growth of schools based on a variety of tests and establishes a statewide ranking of schools according to those scores. Most schools have an API, a state ranking (by elementary, middle, or high school), a ranking in comparison to 100 similar schools, and growth targets for the following year.

Adequate Yearly Progress (AYP)

A goal of the 2001 federal law No Child Left Behind (NCLB) that requires schools and districts to measure and report students' annual progress toward proficiency in English-Language Arts and Mathematics by 2013-14. Progress is based on whether the school or district met its Annual Measurable Objectives and demonstrated 95% participation on standardized tests, achieved its target on the Academic Performance Index and, for high schools, met target graduation rates.

California Department of Education (CDE)

The California Department of Education is a California agency that oversees public education. The Department oversees funding, testing, and holds local educational agencies accountable for student achievement. Its stated mission is to provide leadership, assistance, oversight, and resources in the form of teaching and teaching materials so that every Californian has access to a good education.

California Standards Tests (CSTs)

Tests in English-Language Arts and Mathematics in grades 2-11, Science in grades 5 and 9-11, and History-Social Science in grades 8, 10 and 11 based on California's academic content standards. This is the core of California's statewide Standardized Testing and Reporting Program (STAR).

End of Course Test (EOC)

These are CST tests that are administered at the end of high school classes in Mathematics and Science such as Algebra I, Algebra II, Geometry, Biology, Chemistry, and Physics.

English Learner (EL)

A student who is not sufficiently proficient in the English language to succeed in the school's regular instructional programs. The former designation was Limited English Proficient (LEP). Students' English proficiency is assessed annually.

Ethnicity

This is a designation of students and staff according to seven ethnic/racial groups for the California Department of Education's California Basic Educational Data System (CBEDS). These include Black or African American, American Indian/Alaska Native, Asian, Filipino, Hispanic or Latino, Native Hawaiian/Pacific Islander, and White.

General Math

This CST assessment is given to students in grades 2-7 and assesses pre-Algebra mathematics standards. It is not intended for use beyond the 7th grade.

Integrated/Coordinated Science

This CST assessment options includes Earth Science, Biology, Chemistry and Physics. As with math, this test reflects an "integrated" approach to science.

Integrated Math

In California, the Integrated Mathematics option refers specifically to an alternative to the Algebra I, Geometry, Algebra II secondary sequence wherein districts are allowed to provide the same content but in a different sequence over three years.

Socio-economically Disadvantaged (ED)

A student who participates in the free or reduced-price lunch program, also known as the National School Lunch Program (NSLP).

Students with Disabilities (SWD)

A student who receives special education services, has a valid disability code or a student who was previously identified as special education but who is no longer receiving special education services for two years after exiting special education.

Summative High School Mathematics Test

The Summative High School Math test is a CST is a higher level math test for students who have completed a sequence of math courses that includes Algebra I in 8th grade, Geometry in grade 9, and Algebra II in 10th grade.