

February 12, 2004

TO: Judy Miner  
Interim President, De Anza College

FROM: Andrew LaManque  
De Anza College Researcher

SUBJECT: Math Department Enrollments

Please find below information on the Math Department enrollments at De Anza College. As outlined in the observations listed below, the department provides a wide array of math courses, ranging from arithmetic to discrete mathematics.

Observations:

- As depicted in Figures 1 and 2, the department runs about 150 sections with course enrollments of about 5,000 students each quarter; more than half of the sections and enrollments are above Math 200-101-105 in content.
- Historically underrepresented minorities make up 35-40% of Math 200-101-105 enrollments but only 15-20% of the enrollments in all other math courses (see Figures 3 and 7). The general pattern has remained steady over the last 4 academic years.
- Less than 60% of students pass (with a grade of A, B, or C) Math 200-101-105, while 65% or more pass all other math courses (Figure 4).
- Figure 5 shows course success rates by zip code of the students' address. Zip codes beginning with 951 are predominately in East San Jose (not including 95120 and 95125, which represent Willow Glen and Almaden Valley). Success rates are about 5% points lower for East San Jose students than all other students across the math curriculum. Many of the elementary schools in this area perform below the national average on indicators of performance such as reading tests (see Figure 13 for example).
- Course success rates shown on Figure 6 tend to be higher for more advanced courses such as calculus (about 70%) compared with basic skills courses such as elementary algebra (about 50%).
- About 6% of associate degree recipients completed Math 101 as their highest math course at De Anza (Figure 8). Of those with Math 101 as their highest De Anza math course, more than 40% selected White as their ethnicity on the application.
- Statewide, less than 60% of students pass (with a grade of A, B, or C) basic skills courses, which include English as well as math. Similar rates were found for San Francisco City College (see Figures 11 and 12). The De Anza Math 200-101-105 course success rate was about 56% for 2002-03, suggesting that the De Anza success rate for these math courses is likely above the statewide average.

Figure 1

	Number of Sections		
	2002F	2003W	2003S
MATH 200-101-105	66	51	54
All Other Math Courses	89	90	92
Total	155	141	146

Figure 2

	Course Enrollment		
	2002F	2003W	2003S
MATH 200-101-105	2,392	1,813	1,736
All Other Math Courses	3,135	3,136	3,026
Total	5,527	4,949	4,762

Figure 3

	MATH 200-101-105						All Other Math Courses					
	2002F		2003W		2003S		2002F		2003W		2003S	
Asian	481	20%	329	18%	306	18%	1,435	47%	1,382	46%	1,283	44%
Black	126	5%	111	6%	111	6%	63	2%	71	2%	72	2%
Filipino	197	8%	111	6%	123	7%	110	4%	126	4%	146	5%
Hispanic	479	20%	353	19%	330	19%	201	7%	226	7%	251	8%
Native American	14	1%	14	1%	12	1%	6	0%	8	0%	6	0%
Other	54	2%	46	3%	39	2%	76	3%	63	2%	58	2%
Pacific Islander	34	1%	29	2%	33	2%	34	1%	34	1%	30	1%
White	608	25%	471	26%	434	25%	526	17%	534	17%	492	17%
*Unrecorded	399	17%	349	19%	346	20%	590	19%	598	19%	569	20%
Total	2,392	100%	1,813	100%	1,734	100%	3,041	100%	3,042	100%	2,907	100%

Figure 4

		De Anza College						Total	
		<i>Pass</i>		<i>Did Not Pass</i>		<i>Withdrew</i>			
		Num	Per	Num	Per	Num	Per	Num	Per
MATH 200-101-105	<b>2002F</b>	1,391	58%	529	22%	472	20%	2,392	100%
	<b>2003W</b>	1,063	59%	377	21%	373	21%	1,813	100%
	<b>2003S</b>	880	51%	374	22%	480	28%	1,734	100%
All Other Math Courses	<b>2002F</b>	2,026	66%	431	14%	616	20%	3,073	100%
	<b>2003W</b>	1,986	65%	454	15%	628	20%	3,068	100%
	<b>2003S</b>	2,014	69%	358	12%	571	19%	2,943	100%

Figure 5

			De Anza College						Total	
			<i>Pass</i>		<i>Did Not Pass</i>		<i>Withdrew</i>			
			Num	Per	Num	Per	Num	Per	Num	Per
MATH 200-101-105	<b>2002F</b>	951XX East SJ	657	55%	270	23%	259	22%	1,186	100%
		All Other Zip Codes	734	61%	259	21%	213	18%	1,206	100%
	<b>2003W</b>	951XX East SJ	525	56%	206	22%	200	21%	931	100%
		All Other Zip Codes	538	61%	171	19%	173	20%	882	100%
	<b>2003S</b>	951XX East SJ	415	50%	191	23%	230	28%	836	100%
		All Other Zip Codes	467	52%	183	20%	250	28%	900	100%
All Other Math Courses	<b>2002F</b>	951XX East SJ	869	63%	213	15%	298	22%	1,380	100%
		All Other Zip Codes	1,210	69%	221	13%	324	18%	1,755	100%
	<b>2003W</b>	951XX East SJ	850	62%	223	16%	303	22%	1,376	100%
		All Other Zip Codes	1,198	68%	234	13%	328	19%	1,760	100%
	<b>2003S</b>	951XX East SJ	881	67%	174	13%	265	20%	1,320	100%
		All Other Zip Codes	1,210	71%	186	11%	310	18%	1,706	100%

Note: Pass = A,B,C Grades

IRP DW=Deborah, DL sections not included

Figure 6

			De Anza College							
			Pass		Did Not Pass		Withdraw		Total	
			Num	Per	Num	Per	Num	Per	Num	Per
*MATH001A-D	CALCULUS	2002F	675	70%	131	13%	165	17%	971	100%
		2003W	604	67%	122	14%	172	19%	898	100%
		2003S	612	73%	91	11%	138	16%	841	100%
MATH002A	DIFFERENTIAL EQUATIONS	2002F	59	83%	4	6%	8	11%	71	100%
		2003W	41	98%	1	2%			42	100%
		2003S	46	87%	2	4%	5	9%	53	100%
MATH002B	LINEAR ALGEBRA	2002F	14	58%	4	17%	6	25%	24	100%
		2003W	70	89%	5	6%	4	5%	79	100%
		2003S	29	88%			4	12%	33	100%
MATH010.	ELEM STATS/PROBABILITY	2002F	460	71%	71	11%	120	18%	651	100%
		2003W	474	66%	87	12%	153	21%	714	100%
		2003S	544	72%	69	9%	142	19%	755	100%
MATH011.	FINITE MATHEMATICS	2002F	244	66%	52	14%	74	20%	370	100%
		2003W	244	68%	46	13%	70	19%	360	100%
		2003S	281	71%	39	10%	78	20%	398	100%
MATH022.	DISCRETE MATHEMATICS	2002F	63	69%	7	8%	21	23%	91	100%
		2003W	62	77%	8	10%	11	14%	81	100%
		2003S	53	73%	12	16%	8	11%	73	100%
MATH044.	INTRO CONTEMP MATH	2002F	19	53%	12	33%	5	14%	36	100%
		2003W	17	53%	8	25%	7	22%	32	100%
		2003S	13	43%	6	20%	11	37%	30	100%
MATH046.	MATH FOR ELEM EDUC	2002F	36	88%	3	7%	2	5%	41	100%
		2003W	21	91%			2	9%	23	100%
		2003S	30	91%	1	3%	2	6%	33	100%
MATH049A	PRE-CALCULUS ALGEBRA	2002F	146	56%	51	20%	64	25%	261	100%
		2003W	153	63%	43	18%	46	19%	242	100%
		2003S	180	75%	31	13%	28	12%	239	100%
MATH049B	PRE-CALCULUS ALGEBRA	2002F	174	68%	25	10%	57	22%	256	100%
		2003W	153	66%	36	15%	44	19%	233	100%
		2003S	127	59%	35	16%	55	25%	217	100%
MATH051.	TRIGONOMETRY	2002F	181	51%	74	21%	98	28%	353	100%
		2003W	209	48%	101	23%	122	28%	432	100%
		2003S	167	49%	72	21%	103	30%	342	100%
MATH101.	ELEMENTARY ALGEBRA	2002F	413	52%	189	24%	189	24%	791	100%
		2003W	315	53%	142	24%	143	24%	600	100%
		2003S	267	47%	121	21%	179	32%	567	100%
MATH105.	INTERMED ALGEBRA	2002F	660	61%	216	20%	205	19%	1081	100%
		2003W	505	61%	159	19%	163	20%	827	100%
		2003S	443	53%	169	20%	219	26%	831	100%
*MATH149A-B	ACAD EXCEL PRECALC	2002F	8	80%			2	20%	10	100%
MATH200.	PREALGEBRA	2002F	318	61%	124	24%	78	15%	520	100%
		2003W	243	63%	76	20%	67	17%	386	100%
		2003S	172	51%	84	25%	82	24%	338	100%
MATH250.	MATH REV/APPLIC FOR	2003S	9	75%	2	17%	1	8%	12	100%

Figure 7

MATH200.								
	1999-00		2000-01		2001-02		2002-03	
	Num	Per	Num	Per	Num	Per	Num	Per
Asian	120	12%	114	12%	146	13%	145	12%
Black	85	8%	73	8%	89	8%	118	9%
Filipino	49	5%	62	7%	63	6%	86	7%
Hispanic	260	26%	269	28%	287	26%	305	24%
Native American	9	1%	13	1%	9	1%	12	1%
Other	16	2%	24	3%	31	3%	37	3%
Pacific Islander	19	2%	19	2%	17	2%	22	2%
Unrecorded	145	14%	150	16%	192	17%	218	18%
White	299	30%	227	24%	270	24%	302	24%
Total	1,002	100%	951	100%	1,104	100%	1,245	100%
MATH101.								
	1999-00		2000-01		2001-02		2002-03	
	Num	Per	Num	Per	Num	Per	Num	Per
Asian	298	15%	274	15%	277	14%	296	15%
Black	115	6%	105	6%	99	5%	113	6%
Filipino	110	6%	133	7%	132	7%	154	8%
Hispanic	404	21%	377	20%	398	21%	366	19%
Native American	9	0%	14	1%	15	1%	17	1%
Other	45	2%	50	3%	52	3%	42	2%
Pacific Islander	23	1%	34	2%	49	3%	34	2%
Unrecorded	307	16%	327	17%	334	17%	385	20%
White	652	33%	568	30%	569	30%	551	28%
Total	1,963	100%	1,882	100%	1,925	100%	1,958	100%
MATH105.								
	1999-00		2000-01		2001-02		2002-03	
	Num	Per	Num	Per	Num	Per	Num	Per
Asian	574	23%	587	25%	655	26%	652	24%
Black	95	4%	100	4%	117	5%	116	4%
Filipino	171	7%	162	7%	180	7%	186	7%
Hispanic	387	16%	358	15%	369	14%	463	17%
Native American	19	1%	14	1%	20	1%	14	1%
Other	54	2%	52	2%	61	2%	60	2%
Pacific Islander	31	1%	26	1%	44	2%	42	2%
Unrecorded	410	17%	413	17%	420	16%	538	20%
White	714	29%	670	28%	697	27%	666	24%
Total	2,455	100%	2,382	100%	2,563	100%	2,737	100%
All Other MATH Courses								
	1999-00		2000-01		2001-02		2002-03	
	Num	Per	Num	Per	Num	Per	Num	Per
Asian	3,678	42%	4,287	46%	4,407	45%	4,208	45%
Black	220	3%	204	2%	249	3%	204	2%
Filipino	422	5%	441	5%	431	4%	373	4%
Hispanic	685	8%	627	7%	766	8%	684	7%
Native American	45	1%	36	0%	27	0%	23	0%
Other	148	2%	189	2%	212	2%	205	2%
Pacific Islander	114	1%	88	1%	82	1%	109	1%
Unrecorded	1,478	17%	1,579	17%	1,845	19%	1,902	20%
White	1,932	22%	1,818	20%	1,864	19%	1,602	17%
Total	8,722	100%	9,269	100%	9,883	100%	9,310	100%

Figure 8

**De Anza College Associate Degree Recipients  
By Highest Math Course Completion and Fiscal Year**

Highest Math Course Completed	1999-00		2000-01		2001-02		2002-03	
	#	%	#	%	#	%	#	%
MATH 101	73	6%	66	6%	67	5%	66	5%
MATH 105	53	4%	49	4%	67	5%	62	5%
Other MATH	790	67%	803	70%	896	71%	947	71%
No MATH at De Anza	268	23%	235	20%	227	18%	263	20%
<b>Total</b>	<b>1,184</b>	<b>100%</b>	<b>1,153</b>	<b>100%</b>	<b>1,257</b>	<b>100%</b>	<b>1,338</b>	<b>100%</b>

Note: Includes only De Anza Courses. Other Math includes all other math courses.  
'No Math' includes students placing into Math 105 or higher, and students applying courses taken at other colleges.

Figure 9

**De Anza College Associate Degrees Awarded By Fiscal Year and Ethnicity  
Students Completing Math 101 as Highest Course to Meet Degree Requirement**

Ethnicity	1999-00		2000-01		2001-02		2002-03	
	#	%	#	%	#	%	#	%
Asian	7	10%	7	11%	9	13%	4	6%
Black	3	4%	3	5%	5	7%	0	0%
Filipino	3	4%	6	9%	2	3%	6	9%
Hispanic	14	19%	10	15%	10	15%	13	20%
Native American	1	1%	0	0%	2	3%	0	0%
Other	0	0%	2	3%	2	3%	1	2%
Pacific Islander	0	0%	0	0%	0	0%	2	3%
Unrecorded	9	12%	9	14%	6	9%	13	20%
White	36	49%	29	44%	31	46%	27	41%
<b>Total</b>	<b>73</b>	<b>100%</b>	<b>66</b>	<b>100%</b>	<b>67</b>	<b>100%</b>	<b>66</b>	<b>100%</b>

## De Anza College Program Review

## Mathematics

	Actual			Projections		
	2000-01	2001-02	2002-03	2003-04	2005-06	2007-08
<b>Enrollment (Fiscal Year)</b>	16,293	17,404	17,446	17,620	17,795	17,969
Trend		+	+			
<b>WSCH (Fiscal Year)</b>	87,092	94,241	92,495	93,420	94,345	95,269
Trend		+	-			
<b>Retention % (Fiscal Year)</b>	81	81	79	80	81	82
<b>Success % (Fiscal Year)</b>	64	64	63	63	64	65
<b>Productivity (Fiscal Year)</b>	522	538	547			
<b>Projection Methodology</b>						
Enrollment and WSCH projections based on 1% annual increases from 2002-03. Retention and Success rate projections are one percentage point increases from 2002-03.						
<b>Classroom Teaching FTEF (Academic Year)</b>						
Full-time FTEF	23.78	27.66	28.61			
Part-time FTEF	26.17	24.42	21.52			
Total FTEF	49.96	52.08	50.13			
Percent Full-time	48	53	57			
Reassigned FTEF	2.44	2.11	0.89			
<b>Number of Sections (Fiscal Year)</b>	599					
% Vocational Education	0					
% Basic Skills	9					
% Degree Applicable	98					
% Transferable	55					

## Success Rates, Fiscal Year 2002-03

Characteristic	Success	Non-success	Withdraw	Percent Success	Percent Non-success	Percent Withdraw
<b>Ethnicity</b>						
Asian	4,217	921	1,130	67	15	18
Black	299	177	139	49	29	23
Filipino	478	206	199	54	23	23
Hispanic	1,052	406	537	53	20	27
Native American	43	8	23	58	11	31
Other	222	66	105	56	17	27
Pacific Islander	133	42	60	57	18	26
Unrecorded	2,254	534	717	64	15	20
White	2,244	553	680	65	16	20
<b>Total</b>	<b>10,942</b>	<b>2,913</b>	<b>3,590</b>	<b>63</b>	<b>17</b>	<b>21</b>
<b>Gender</b>						
Female	5,367	1,284	1,602	65	16	19
Male	5,506	1,613	1,963	61	18	22
Unrecorded	69	16	25	63	15	23
<b>Total</b>	<b>10,942</b>	<b>2,913</b>	<b>3,590</b>	<b>63</b>	<b>17</b>	<b>21</b>
<b>Age</b>						
19 or less	5,231	1,436	1,417	65	18	18
20 - 24	3,700	1,112	1,523	58	18	24
25 - 29	1,036	216	363	64	13	22
30 - 34	453	80	149	66	12	22
35 - 39	212	33	58	70	11	19
40 - 49	246	28	64	73	8	19
50 +	64	8	16	73	9	18
Unrecorded	0	0	0	0	0	0
<b>Total</b>	<b>10,942</b>	<b>2,913</b>	<b>3,590</b>	<b>63</b>	<b>17</b>	<b>21</b>

## Definitions

<b>Enrollment:</b> Sum of enrollment at the end of term.
<b>WSCH:</b> Sum of quarterly End-of-Term Weekly Student Contact Hours.
<b>Retention %:</b> Number of students receiving a successful or non-successful grade / total number of students receiving a grade.
<b>Success %:</b> Number of students receiving an A,B,C or CR grade / total number of students receiving a grade.
<b>FTEF:</b> Sum of teaching load factors for Fall, Winter, and Spring quarters by assignment type, excluding reassignments.
<b>Productivity:</b> Four-term total WSCH / four-term total FTEF, excluding reassignments.
<b>Reassigned FTEF:</b> Sum of load in 994, 995, 998, and 999 courses.

# *System Performance on Partnership for Excellence Goals*

**April 2003**

**Chancellor's Office  
California Community Colleges**

## STATEWIDE PROGRESS REPORT ON PARTNERSHIP GOALS

### SUMMARY OF STATEWIDE DATA

#### GOAL 3 - SUCCESSFUL COURSE COMPLETION

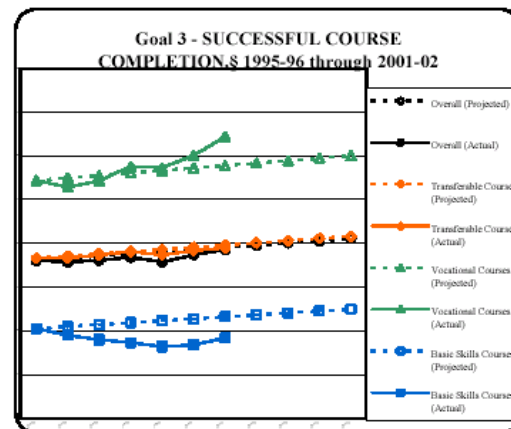
Achieve an increase from 68.1% in 1995-96 to 70.6% by 2005-06 in the overall rate of successful course completions.

**Transferable Courses sub-goal:** an increase from 68.3% to 70.8%.

**Vocational Courses sub-goal:** an increase from 77.2% to 80.0%.

**Basic Skills Courses sub-goal:** an increase from 60.3% to 62.5%.

	2000-01	2001-02
Transferable Courses (actual):	69.2%	69.5%
Vocational Courses (actual):	80.2%	82.2%
Basic Skills Courses (actual):	58.4%	59.2%
Overall Rate (actual):	68.6%	69.3%



## Successful Course Completion *2000-01 and 2001-02*

### Successful Course Completion Goal Statement (Base Year 1995-96 to 2005-06)

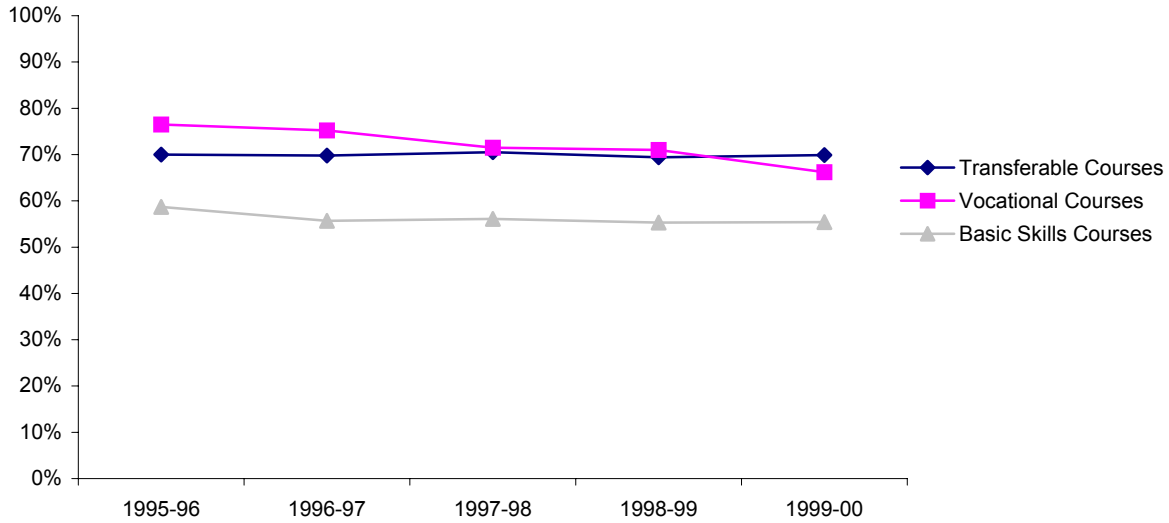
**An increase from 68.1% to 70.6% in the overall rate of successful course completions. An increase in the rate of successful course completions from 68.3% to 70.8% for transferable courses, from 77.2% to 80.0% for vocational courses, and from 60.3% to 62.5% for basic skills courses.**



SF City College, Environmental Scan, 2002

**Successful Course Completion, Grade of C or Better**

Credit, Academic Years 1995-96 to 1999-00



	1995-96	1996-97	1997-98	1998-99	1999-00
<b>Overall Course Completion</b>	<b>69.0%</b>	<b>68.8%</b>	<b>69.4%</b>	<b>68.3%</b>	<b>68.8%</b>
<b>Transferable Courses</b>	70.0%	69.8%	70.5%	69.4%	69.9%
<b>Vocational Courses</b>	76.5%	75.2%	71.5%	71.0%	66.2%
<b>Basic Skills Courses</b>	58.7%	55.7%	56.1%	55.3%	55.4%

Source: District Performance for Excellence Goals, Chancellor's Office of California Community Colleges, April 2001.

*Successful course complete (grade of C or better) has remained steady overall and for transfer courses at approximately 70% from 1995-96 through 1999-00. Basic skills course completion rates dropped from nearly 60% to 55%. Vocational course complete rates dropped from 77% to 66%.*

Source: [http://www.ccsf.edu/Offices/Research\\_Planning/pdf/estocis.pdf](http://www.ccsf.edu/Offices/Research_Planning/pdf/estocis.pdf) (No. 42)



Joint Ventures  
2004 Index

## 54% of Third Graders Reading Below National Median, Wide Disparities Among Schools

### WHY IS THIS IMPORTANT?

Research shows that students who do not achieve reading mastery by the end of third grade risk falling behind further in school.

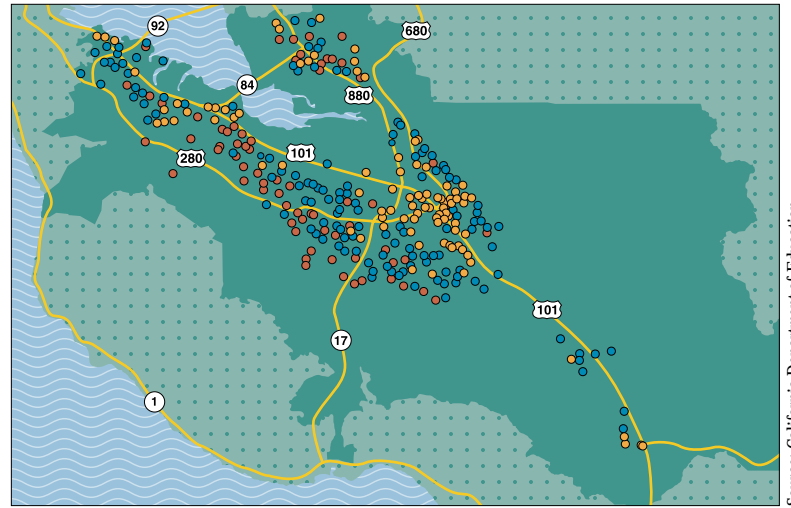
This indicator tracks third grade reading scores on the California Achievement Test, sixth edition (CAT/6), which measures performance relative to a national distribution.

### HOW ARE WE DOING?

In 2003, 54% of Silicon Valley's third graders scored at or below the national median in reading. Moreover, 29% scored in the lowest quartile, while 21% of third graders scored in the highest quartile in reading.

The following map shows the percentage of students at Silicon Valley elementary schools scoring at or above the national median. On average, schools in the lowest quartile had 18% of third graders scoring at or above the national median while schools in the highest quartile had 79% of students scoring at or above the national median.

SILICON VALLEY ELEMENTARY SCHOOLS BY PERCENTAGE OF THIRD GRADERS SCORING AT OR ABOVE NATIONAL MEDIAN ON CAT/6 READING TEST



Source: California Department of Education

■ LOWEST QUARTILE ■ MIDDLE QUARTILES ■ HIGHEST QUARTILE

## Intermediate Algebra Enrollment Shows Disparity Across Schools

### WHY IS THIS IMPORTANT?

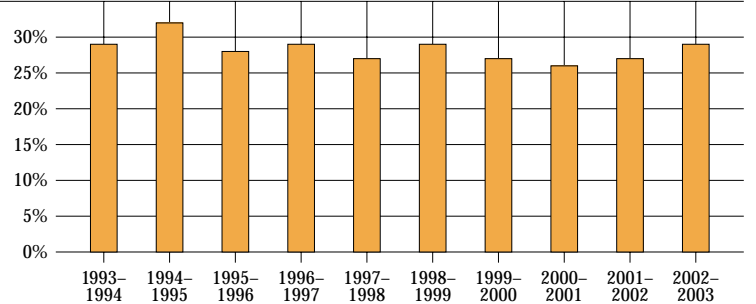
Completing Algebra I and moving on to advanced math courses is important for students planning to enter postsecondary education as well as for students entering the workforce after high school. This indicator shows the share of 10th- and 11th-grade students enrolled in Intermediate Algebra. Intermediate Algebra is one of the courses required for UC/CSU entry.

### HOW ARE WE DOING?

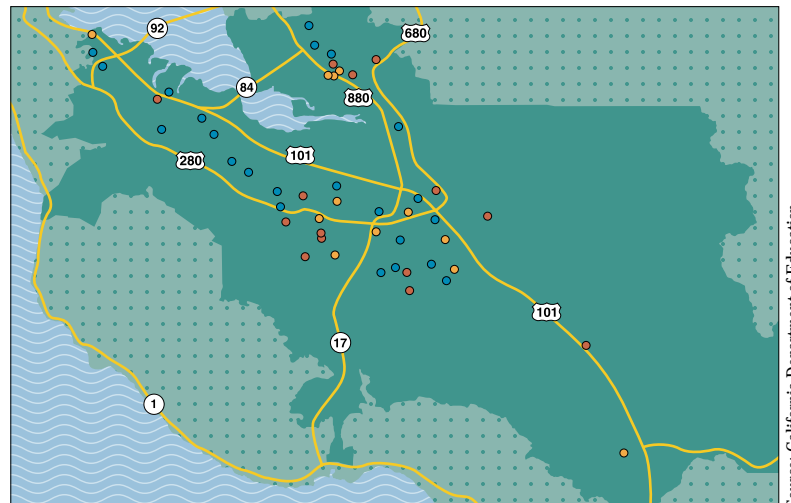
During the 2002–2003 school year, 29% of Silicon Valley's 10th- and 11th-graders were enrolled in Intermediate Algebra—an increase from 27% in 2001–2002. Enrollments have remained relatively steady at about 29% since 1993–1994.

A wide disparity in Intermediate Algebra enrollments persists across Silicon Valley's high schools. The following map shows Intermediate Algebra enrollments at Silicon Valley high schools in the lowest quartile (the lowest performing schools), in the middle quartiles, and at or above the highest quartile. At the lowest performing high schools, an average of 21% of students were enrolled in Intermediate Algebra compared to 58% at the highest performing high schools. The remaining high schools had an average of 35% of students enrolled in Intermediate Algebra.

PERCENTAGE OF 10TH- AND 11TH-GRADE STUDENTS ENROLLED IN INTERMEDIATE ALGEBRA



SILICON VALLEY HIGH SCHOOLS BY PERCENTAGE OF 10TH- AND 11TH-GRADE STUDENTS ENROLLED IN INTERMEDIATE ALGEBRA



Source: California Department of Education

■ LOWEST QUARTILE ■ MIDDLE QUARTILES ■ HIGHEST QUARTILE