

2003

CALIFORNIA

Standardized Testing and Reporting

Stanford 9 – CAT/6 Linking Study



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The Stanford 9 – CAT6 Linking Study...

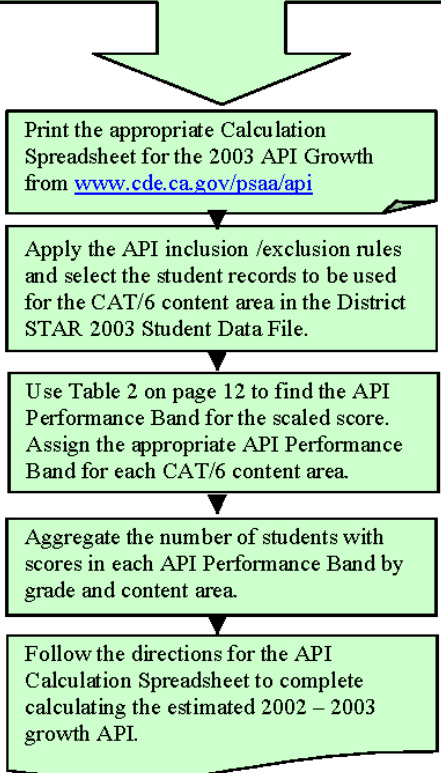
Using Normal Curve Equivalent (NCE) Equivalents (NCEs)

School and district staff members may use tables 1 and/or the Stanford 9 – CAT/6 Linking Tables in this document to:

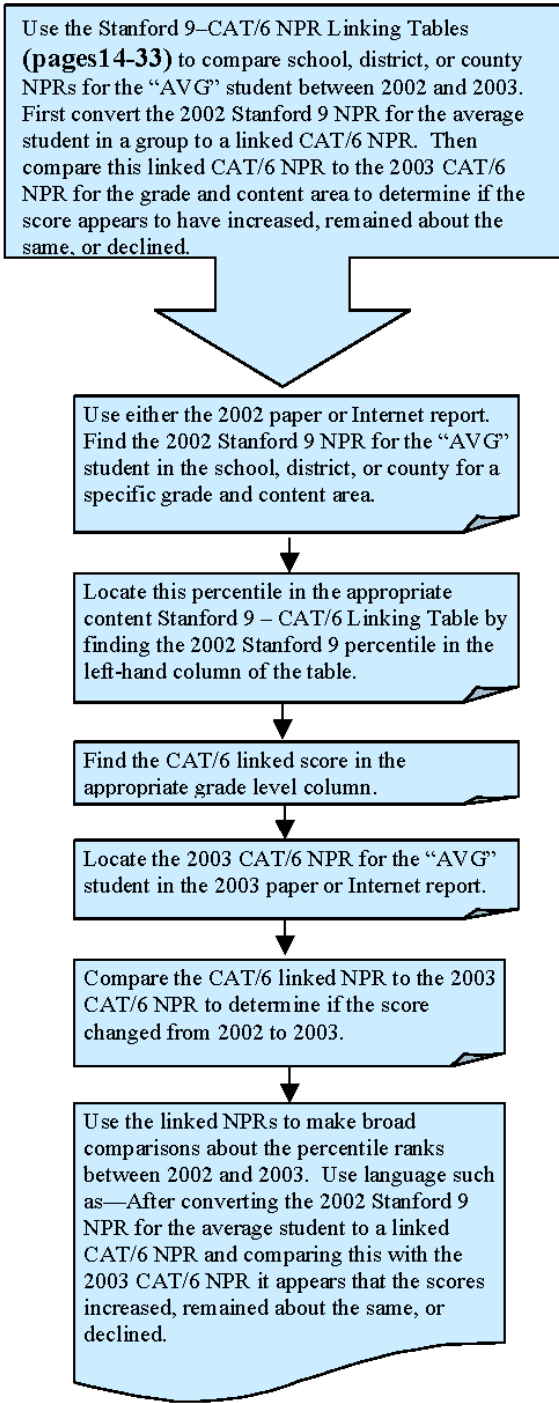
Recalculate the 2003 CAT/6 percentile ranks for the “average” student using the Mean NCEs on the CAT/6 Group Summary Reports.	Calculate percentile ranks for the “average” student in various groups by averaging the NCEs for the students in the groups.
See page 9	See page 10

Calculating Estimated 2002-2003 Growth APIs

Table 2 on page 12 may be used to calculate estimated 2002 – 2003 growth APIs. School and district staff members should remember that these estimates may differ from the official APIs due to the criteria used to include or exclude student scores from the calculations. To calculate estimated growth APIs do the following:



Comparing 2002 Stanford 9 NPRs with 2003 CAT/6 NPRs



Study

Overview

This year the norm-referenced tests used for the Standardized Testing and Reporting (STAR) Program changed from the *Stanford Achievement Test, Ninth Edition, Form T* (Stanford 9) to the *California Achievement Tests, Sixth Edition Survey* (CAT/6). Although the Stanford 9 and CAT/6 are both widely accepted national norm-referenced tests, the CAT/6 was developed by a different publisher five years later than the Stanford 9, and the test has a different format, content emphasis, and difficulty level than the Stanford 9. Therefore, districts, schools, parents/guardians, and students will see differences in the test results.

The State's STAR contractor, ETS, conducted a technical study that examined the relationship between CAT/6 and Stanford 9 national percentile ranks for the state. The results of this study will be used in determining 2002-2003 growth Academic Performance Indexes (API) for schools.

Note: The tables produced by this study should not be used to compare 2002 Stanford 9 and 2003 CAT/6 results for individual students.

Questions and Answers

Why did the state change the norm-referenced test used for the STAR Program?

The STAR Program was initially authorized and funded for five years (1997-1998 school year through the 2001-2002 school year). When the Program was reauthorized for an additional three years, the California Department of Education (CDE) issued a request for potential contractors to submit proposals for administering the Program for three years: 2002-2003, 2003-2004, and 2004-2005. The CDE specified that the national norm-referenced test proposed by any potential contractor was to have the most current national norms available. Nationally norm-referenced tests like the Stanford 9 and the CAT/6 become outdated, since the questions and the national norming samples remain unchanged during the time the test is used. Therefore, these tests should be replaced every five or six years.

Are the norm-referenced scores reported differently for the CAT/6?

No. Students continue to receive percentile rankings that indicate how their scores compare to those of a national sample of students in their grade, tested at about the same time of the school year. The national samples or norm groups were tested with the CAT/6 during spring 2000. In addition, scaled scores, normal curve equivalents, and stanines continue to be reported for individual students.

The bulk of each student's report continues to focus on how the student performed on the California Standards Tests (CSTs), the more important tests in the STAR Program. These tests focus on each student's achievement of California's Academic Content Standards.

How were the percentiles for the “average” student in a school or district calculated?

There are two methods that may be used for calculating average scores. One is to average the scaled scores for the students in the group. The second averages the normal curve equivalents (NCEs) for the students in the group. The average scaled score or NCE is then used to look up the corresponding percentile. While both methods are correct, they may produce slightly different percentile ranks. Average scaled scores were converted to percentile ranks and reported on the CAT/6 Group Summary Reports sent to schools and districts. Average scaled scores were also used to determine the “NPR for the ‘AVG’ Student” on the August and September Internet reports. Average NCEs will be used to calculate the “NPR for the ‘AVG’ Student” on the final 2003 Internet reports.

May districts and schools average NCEs to determine the national percentile for the average student?

Yes, there is a NCE-to-percentile table on page 9 of this document.

Is the CAT/6 harder or easier than the Stanford 9?

There are differences in the difficulty levels of the tests depending on the content area and grade level.

Will scores be lower on the CAT/6 than they were on the Stanford 9?

Often when a state changes a norm-referenced test, initial scores are somewhat lower. The changes in scores are generally more attributable to the change in tests rather than to changes in student achievement.

How will the results of the Stanford 9 – CAT/6 linking study be presented?

The linking study was used to prepare the tables included in this document. Table 2 on page 12 presents the CAT/6 scaled scores that are linked to the Stanford 9 20th, 40th, 60th, and 80th percentiles. NPR-to-NPR tables linking Stanford 9 NPRs with the CAT/6 NPRs are on pages 14 through 33. Stanford 9 percentiles from 99 to 1 are printed on the left-hand side of each table. The CAT/6 linked NPRs are shown in grade-level columns in the body of each table. There are separate tables for reading, language, mathematics, spelling, and science.

How can the NPRs in the linking tables be used?

The NPRs in the tables can be used to make general comments about the differences in scores for groups of students that are attributable to the change in tests. For example, using a CAT/6 linked score in place of the calculated 2002 Stanford 9 score for a school, district, county, or the state may result in noting that the “average” student’s percentile rank for this grade and content area appears to have increased, remained about the same, or declined. Instructions for using these tables can be found on page 13 of this document.

Can the Stanford 9 – CAT/6 linking tables be used to make comparisons for individual students?

No, the statistical analysis was designed to produce aggregate results that are appropriate for school, district, county, or state summaries, not to make comparisons at the individual student level. Since the study was not conducted to produce links for individual students, using the tables to link scores for individual students is inappropriate.

Can the Stanford 9 – CAT/6 NPR linking tables be used to calculate 2002 growth APIs for schools and districts?

Districts and schools should use only CAT/6 scaled scores in conjunction with Table 2 in this document to calculate estimated 2002 – 2003 growth APIs. Use of the NPR-to-NPR linking tables to do this would produce inaccurate results. Table 2 presents the CAT/6 scaled scores at the cut points for the API Performance Bands for each content area and grade. These CAT/6 scaled scores are linked to the Stanford 9 20th, 40th, 60th, and 80th percentiles.

What additional information will be available from the linking study?

ETS is producing a technical report describing how the linking study was conducted. This report will be available during the fall.

Using This Document

School and district staff members may use tables 1, 2 and/or the Stanford 9 – CAT/6 NPR Linking Tables in this document to:

- Recalculate the 2003 CAT/6 percentile ranks for the “average” student using the Mean NCEs on the CAT/6 Group Summary Reports. See page 9.
- Calculate percentile ranks for the “average” student in various groups by averaging the NCEs for the students in the groups. See page 10.
- Calculate estimated 2002-2003 growth Academic Performance Indexes (APIs). See page 11.
- Compare 2002 Stanford 9 national percentile ranks for the “average” student with the 2003 CAT/6 national percentiles for the “average” student. See page 13.

Trends in Linking Study Results

The linking study tables in this document provide 2003 CAT/6 NPRs that are predicted for each 2002 Stanford 9 NPR from 99 down to 1. The tables are organized in this manner to facilitate the updating of Stanford 9 longitudinal information to the metric of the CAT/6. In general, the linking tables indicate that, for most grades and content areas, the NPRs based on the CAT/6 are lower than the NPRs for the Stanford 9. This result is not surprising and is consistent with findings reported in the assessment literature.¹

Figures 1 to 5 present results of the linking study by plotting the predicted CAT/6 percentile ranks that correspond to NPRs of 25, 50, and 75 on the Stanford 9. In each figure, results are presented for a different test by grade level.

For reading (see Figure 1), the NPRs based on the CAT/6 were lower than the Stanford 9 NPRs for grade 2 through grade 8. At grades 9, 10, and 11, CAT/6 reading NPRs were higher than the Stanford 9 NPRs.

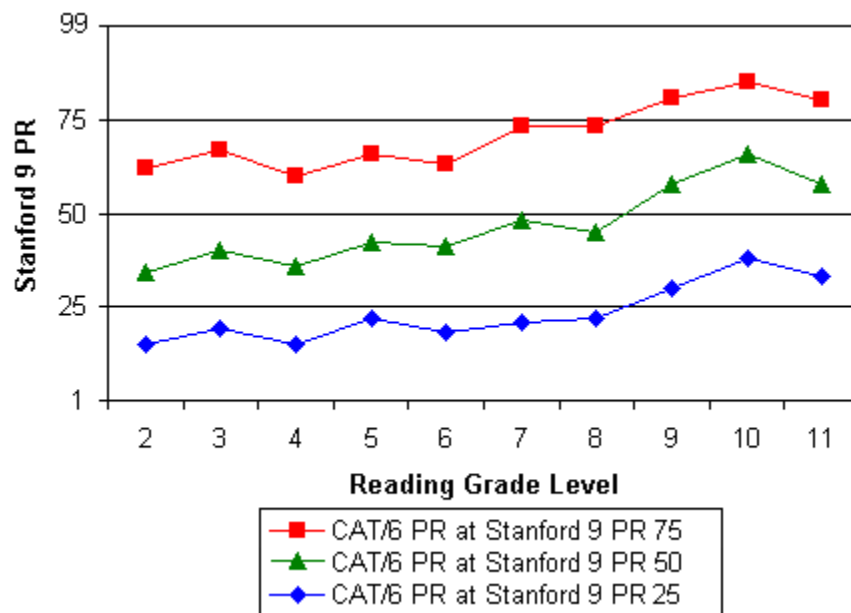


Figure 1: CAT/6 Reading NPRs Corresponding to Stanford 9 NPRs of 25, 50, and 75

For language (see Figure 2), only at grade 10 were the CAT/6 NPRs higher than the Stanford 9 NPRs. For all other grade levels, the predicted CAT/6 NPRs corresponding to the Stanford 9 NPRs of 25, 50, and 75 were lower than 25, 50, and 75, respectively (with the exception of the 25th percentile at grade 11, where the predicted CAT/6 NPR was 26).

¹Linn, R. L. (2000). Assessments and accountability. *Educational Researcher*, *29*, 4-16.

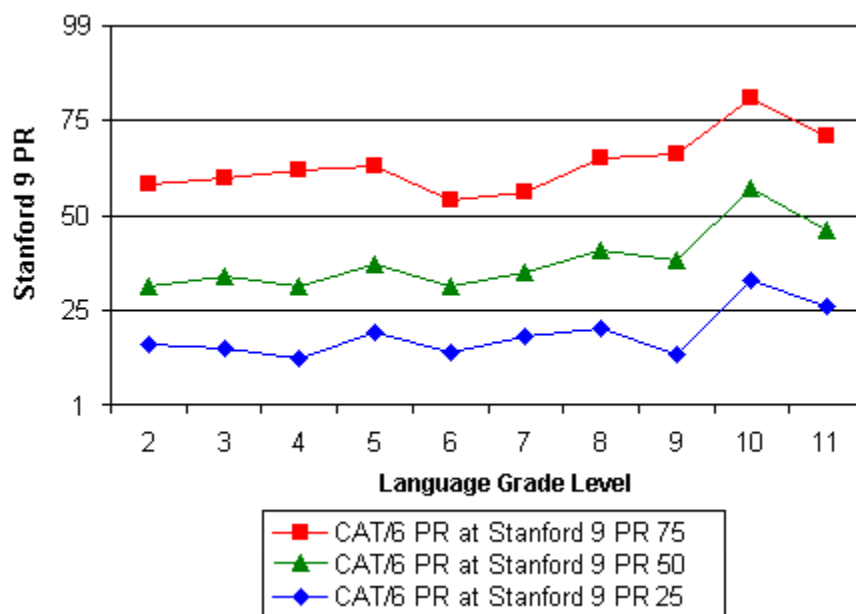


Figure 2: CAT/6 Language NPRs Corresponding to Stanford 9 NPRs of 25, 50, and 75

The spelling tests are administered only through grade 8. As shown in Figure 3, for grades 2 through 7, the predicted CAT/6 NPRs were lower than the Stanford 9 NPRs of 25, 50, and 75. At grade 8, the CAT/6 NPRs were higher than the corresponding Stanford 9 NPRs.

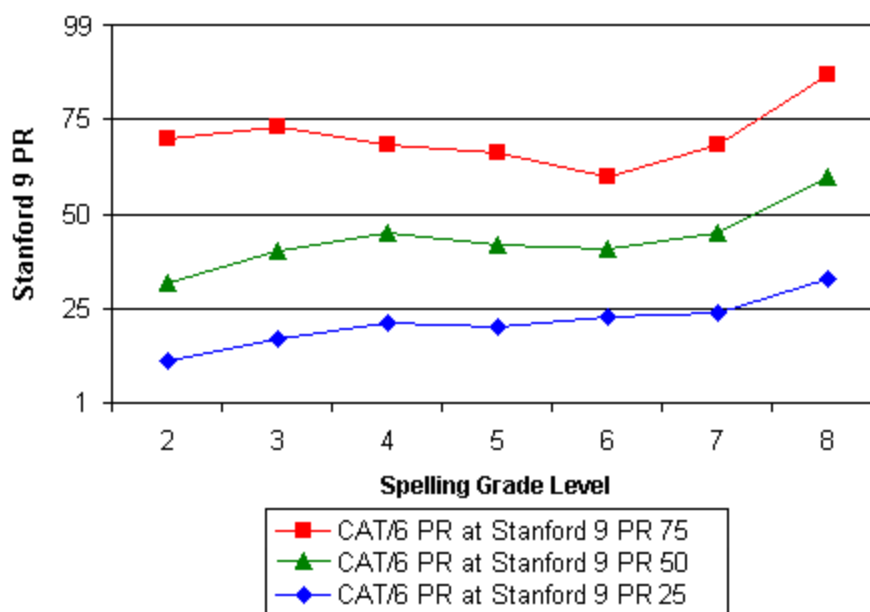


Figure 3: CAT/6 Spelling NPRs Corresponding to Stanford 9 NPRs of 25, 50, and 75

For mathematics, Figure 4 indicates that the pattern between CAT/6 and Stanford 9 NPRs is similar to those seen for reading and language. At grades 10 and 11, the predicted CAT/6 NPRs were higher than the corresponding Stanford 9 NPRs of 25, 50, and 75.

However, at grades 2 through 9, the CAT/6 NPRs were consistently lower than the corresponding Stanford 9 NPRs.

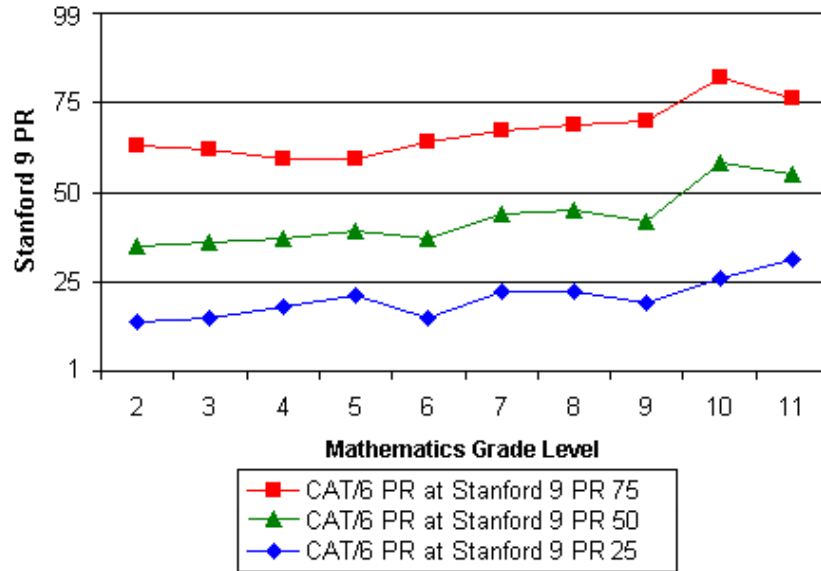


Figure 4: CAT/6 Mathematics NPRs Corresponding to Stanford 9 NPRs of 25, 50, and 75

Science is administered at grades 9, 10, and 11 only, and as presented in Figure 5, the NPRs based on the CAT/6 science tests were similar to those based on the Stanford 9 at the 25th, 50th, and 75th percentiles across these three grades.

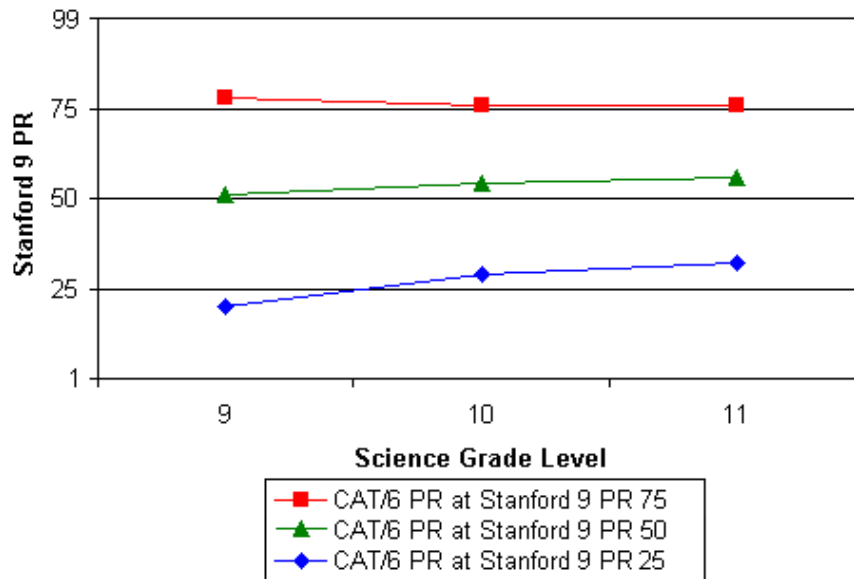


Figure 5: CAT/6 Science NPRs Corresponding to Stanford 9 NPRs of 25, 50, and 75

Using Normal Curve Equivalents (NCEs)

For the CAT/6, there are two statistically defensible methods to determine the NPR for the “average student.” One method computes the average scaled score for a group of students, and another method computes the average Normal Curve Equivalent (NCE) for a group of students. The score (scaled score or NCE) for the “average student” is then referenced to a table of corresponding NPR values. For STAR 2003 CAT/6 results, ETS used the “scaled score” method for computing the NPR for the average student. CTB/McGraw-Hill uses the NCE method for computing the NPR for the average student in states outside of California. The two methodologies may result in slight differences in results, depending upon the ability range of the group being averaged.

ETS has recommended that for the scheduled final posting of the Web reports for STAR 2003, the currently posted “NPR for Avg. Student Score” be replaced with NCE-based values. The paper reports that districts have received based on average scaled scores are accurate and are not being replaced.

The relationship between NCEs and NPRs is mathematical in nature. NCEs may be obtained by converting percentiles to normalized z-scores and making the transformation: $NCE = 50 + 21.06z$. Table 1 is based on this relationship, and provides the NCE intervals corresponding to each percentile rank exactly as they are used by CTB/McGraw-Hill.

Even though the school and district 2003 CAT/6 Group Summaries are not being replaced, some schools and districts may be interested in seeing the results of the mean NCE method. Table 1 may be used to determine a school or district’s NPR for each grade and content area using the mean NCE method.

Table 1: *Percentile Ranks Corresponding to Normal Curve Equivalent (NCE) Ranges

Percentile		Percentile		Percentile		Percentile	
NCE Range	Rank	NCE Range	Rank	NCE Range	Rank	NCE Range	Rank
0.1 - 4.2	1	36.2 - 36.7	26	50.3 - 50.7	51	64.6 - 65.2	76
4.3 - 8.7	2	36.8 - 37.4	27	50.8 - 51.3	52	65.3 - 65.9	77
8.8 - 11.8	3	37.5 - 38.0	28	51.4 - 51.8	53	66.0 - 66.6	78
11.9 - 14.2	4	38.1 - 38.6	29	51.9 - 52.3	54	66.7 - 67.3	79
14.3 - 16.3	5	38.7 - 39.2	30	52.4 - 52.9	55	67.4 - 68.1	80
16.4 - 18.1	6	39.3 - 39.8	31	53.0 - 53.4	56	68.2 - 68.8	81
18.2 - 19.6	7	39.9 - 40.4	32	53.5 - 53.9	57	68.9 - 69.6	82
19.7 - 21.0	8	40.5 - 41.0	33	54.0 - 54.5	58	69.7 - 70.5	83
21.1 - 22.3	9	41.1 - 41.5	34	54.6 - 55.0	59	70.6 - 71.3	84
22.4 - 23.5	10	41.6 - 42.1	35	55.1 - 55.6	60	71.4 - 72.2	85
23.6 - 24.7	11	42.2 - 42.7	36	55.7 - 56.1	61	72.3 - 73.2	86
24.8 - 25.7	12	42.8 - 43.2	37	56.2 - 56.7	62	73.3 - 74.2	87
25.8 - 26.7	13	43.3 - 43.8	38	56.8 - 57.2	63	74.3 - 75.2	88
26.8 - 27.7	14	43.9 - 44.3	39	57.3 - 57.8	64	75.3 - 76.4	89
27.8 - 28.6	15	44.4 - 44.9	40	57.9 - 58.4	65	76.5 - 77.6	90
28.7 - 29.4	16	45.0 - 45.4	41	58.5 - 58.9	66	77.7 - 78.9	91
29.5 - 30.3	17	45.5 - 46.0	42	59.0 - 59.5	67	79.0 - 80.3	92
30.4 - 31.1	18	46.1 - 46.5	43	59.6 - 60.1	68	80.4 - 81.8	93
31.2 - 31.8	19	46.6 - 47.0	44	60.2 - 60.7	69	81.9 - 83.6	94
31.9 - 32.6	20	47.1 - 47.6	45	60.8 - 61.3	70	83.7 - 85.7	95
32.7 - 33.3	21	47.7 - 48.1	46	61.4 - 61.9	71	85.8 - 88.1	96
33.4 - 34.0	22	48.2 - 48.6	47	62.0 - 62.5	72	88.2 - 91.2	97
34.1 - 34.7	23	48.7 - 49.2	48	62.6 - 63.2	73	91.3 - 95.7	98
34.8 - 35.4	24	49.3 - 49.7	49	63.3 - 63.8	74	95.8 - 99.9	99
35.5 - 36.1	25	49.8 - 50.2	50	63.9 - 64.5	75		

Recalculating the 2003 CAT/6 Percentiles Using NCEs

1. Find the Mean NCE in the school, district, or county CAT/6 Group Summary report for the grade and content area of interest.
2. Locate the NCE in Table 1.
3. Note the percentile rank that corresponds to this Mean NCE. This is the percentile rank for the “average” student in the group based on averaging NCEs.
4. Compare this percentile rank with the percentile rank that was reported based on the scaled score averaging method to determine if the two methods produced different percentile ranks for the “average” student.

Note: Averaging scaled scores or NCEs may result in different percentile ranks for the “average” student within a group. Either method uses the scores generated for individual students. The two methods have no effect on the scores for individual students.

* Do not use table to make comparisons for individual students.

Calculating CAT/6 Percentile Ranks by Averaging NCEs

Schools or districts may average the CAT/6 NCEs for the students in a group for which an aggregate score is needed by doing the following:

1. Select the student records in the District STAR 2003 Student Data File for which aggregate scores are needed.
2. Identify the CAT/6 NCE fields for the content area to be aggregated—
 - a. Reading 703-704
 - b. Language 705-706
 - c. Spelling 707-708
 - d. Mathematics 709-710
 - e. Science 711-712
3. Average the NCEs for the selected students and content area.
4. Locate the average NCE in Table 1 of this document to identify the CAT/6 percentile rank for the “average” student in the selected group.

Using Linking Study Results for Calculating APIs

The NPR tables provided in this document are not appropriate for calculating API growth results. Table 2 on page 12 provides the CAT/6 scaled scores at the cut points for each API Performance Band quintile. Anyone wishing to calculate estimated growth APIs should use only Table 2 to do so. The CDE's Policy and Evaluation Division will be using similar tables to provide the most precise comparisons for API growth calculations. For the 2003 growth calculations, 2002 Stanford 9 results are compared with 2003 CAT/6 scaled scores linked to the Stanford 9 percentiles. That is, for the 2003 growth API, student scores will be classified into performance bands based on CAT/6 scaled scores linked to Stanford 9 percentiles. Table 2 shows the CAT/6 scaled scores at the Stanford 9 percentiles of 20, 40, 60, and 80 by content area and grade. For example, for grade-2 reading, CAT/6 scaled scores of 630 and higher correspond to Stanford 9 percentiles at or above the 80th percentile. These scores are in Performance Band 5, the highest performance band used for API calculations. CAT/6 scaled scores between 606 and 629 are in the 4th Performance Band, CAT/6 scaled scores between 589 and 605 are in the 3rd Performance Band, CAT/6 scaled scores between 566 and 588 are in the 2nd Performance Band, and CAT/6 scaled scores of 565 and lower are in the 1st or lowest performance band for API calculations.

Calculating Estimated 2002-2003 Growth APIs

Table 2 may be used to calculate estimated 2002 – 2003 growth APIs. School and district staff members should remember that these estimates may differ from the official APIs due to the criteria used to include or exclude student scores from the calculations. To calculate estimated growth APIs do the following:

1. Print the appropriate Calculation Spreadsheet for the 2003 API Growth from www.cde.ca.gov/psaa/api.
2. Apply the API inclusion /exclusion rules and select the student records to be used for the CAT/6 content area in the District STAR 2003 Student Data File.
3. Use Table 2 on page 12 to find the API Performance Band for the scaled score. Assign the appropriate API Performance Band for each CAT/6 content area. The CAT/6 scaled scores are found in the following fields of each student's record in the District STAR 2003 Student Data File:

a. Reading	673 – 675
b. Language	676 – 678
c. Spelling	679 – 681
d. Mathematics	682 – 684
e. Science	685 - 687
4. Aggregate the number of students with scores in each API Performance Band by grade and content area.
5. Follow the directions for the API Calculation Spreadsheet to complete calculating the estimated 2002 – 2003 growth API.

Table 2: CAT/6 Scaled Scores Cutoffs Corresponding to Stanford 9 NPRs at the API Growth Quintiles

Reading											
API Performance Band and Stanford 9 Quintile	2	3	4	5	6	7	8	9	10	11	
5	80 th and above	630	653	659	679	678	697	710	722	735	741
4	60 th to 79 th	606	631	638	659	660	675	682	699	711	718
3	40 th to 59 th	589	613	620	642	641	654	659	677	693	700
2	20 th to 39 th	566	590	592	619	615	624	634	649	667	675
1	1 st to 19 th ≤	565	589	591	618	614	623	633	648	666	674
Language											
API Performance Band and Stanford 9 Quintile	2	3	4	5	6	7	8	9	10	11	
5	80 th and above	622	640	660	672	668	675	691	697	722	725
4	60 th to 79 th	600	619	633	653	647	657	670	673	698	701
3	40 th to 59 th	586	604	612	637	632	642	652	652	680	682
2	20 th to 39 th	565	583	584	616	610	619	631	620	656	662
1	1 st to 19 th ≤	564	582	583	615	609	618	630	619	655	661
Mathematics											
API Performance Band and Stanford 9 Quintile	2	3	4	5	6	7	8	9	10	11	
5	80 th and above	585	625	646	663	686	697	718	730	755	764
4	60 th to 79 th	562	605	626	645	664	677	693	699	731	742
3	40 th to 59 th	544	586	609	629	643	659	673	676	707	724
2	20 th to 39 th	519	560	587	606	609	625	641	641	662	686
1	1 st to 19 th ≤	518	559	586	605	608	624	640	640	661	685
Spelling											
API Performance Band and Stanford 9 Quintile	2	3	4	5	6	7	8				
5	80 th and above	603	642	646	664	675	693	727			
4	60 th to 79 th	561	603	626	645	657	671	699			
3	40 th to 59 th	523	577	606	626	642	652	676			
2	20 th to 39 th	480	545	580	600	623	629	647			
1	1 st to 19 th ≤	479	544	579	599	622	628	646			
Science											
API Performance Band and Stanford 9 Quintile	9	10	11								
5	80 th and above	728	733	749							
4	60 th to 79 th	702	710	726							
3	40 th to 59 th	681	695	713							
2	20 th to 39 th	643	667	680							
1	1 st to 19 th ≤	642	666	679							

It should be noted that generally the CAT/6 scaled score needed to reach a particular Stanford 9 quintile increases at each grade level. However, in a few cases the CAT/6 scaled score needed to reach a particular Stanford 9 quintile is slightly lower (for example, to reach API Performance Band 5 for language requires a CAT/6 scaled score of 672 for grade 5 and a scaled score of 668 for grade 6). In some cases the scaled score is unchanged from the previous grade (language API Performance Band 3 for between grades 8 and 9 or mathematics API Performance Band 2 between grades 8 and 9). These results are correct. They reflect differences in the relationships between the vertical scales for the CAT/6 and the Stanford 9.

Comparing 2002 Stanford 9 NPRs with 2003 CAT/6 NPRs

Use the following Stanford 9–CAT/6 NPR Linking Tables to compare school, district, or county NPRs for the “AVG” student between 2002 and 2003. The following directions will result in first converting the 2002 Stanford 9 NPR for the average student in a group to a linked CAT/6 NPR. This linked CAT/6 NPR is then compared to the 2003 CAT/6 NPR for the grade and content area to determine if the score appears to have increased, remained about the same, or declined.

1. Use either the 2002 paper or Internet report.
2. Find the 2002 Stanford 9 NPR for the “AVG” student in the school, district, or county for a specific grade and content area.
3. Locate this percentile in the appropriate content Stanford 9 – CAT/6 NPR Linking Table by finding the 2002 Stanford 9 percentile in the left-hand column of the table.
4. Find the CAT/6 linked score in the appropriate grade level column.
5. Locate the 2003 CAT/6 NPR for the “AVG” student in the 2003 paper or Internet report.
6. Compare the CAT/6 linked NPR from step 4 to the 2003 CAT/6 NPR to determine if the score changed from 2002 to 2003.
7. Use the linked NPRs to make broad comparisons about the percentile ranks between 2002 and 2003. Use language such as—After converting the 2002 Stanford 9 NPR for the average student to a linked CAT/6 NPR and comparing this with the 2003 CAT/6 NPR it appears that the scores increased, remained about the same, or declined.

Stanford 9 – CAT/6 NPR Linking Tables

Reading

2002 Stanford 9 PR	Predicted 2003 CAT/6 Reading Percentile Rankings (PR) for Groups of Students*									
	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
99	99	99	99	99	99	99	99	99	99	99
98	98	99	99	99	96	98	99	99	99	99
97	97	98	97	98	94	97	99	99	99	98
96	96	97	93	97	92	96	98	99	99	98
95	95	95	91	97	89	95	97	99	99	97
94	93	93	89	95	87	94	96	98	99	96
93	92	91	86	93	85	92	95	97	98	95
92	91	90	84	92	84	91	94	97	98	94
91	89	89	82	91	82	90	92	96	98	93
90	88	88	82	89	81	89	91	96	97	93
89	86	85	80	88	80	87	90	95	96	92
88	84	84	79	86	78	87	89	94	96	91
87	82	84	78	85	78	85	88	93	95	90
86	81	82	76	82	76	85	87	92	94	89
85	80	80	75	81	75	83	85	91	93	89
84	78	79	73	80	73	83	84	90	92	88
83	76	78	71	78	72	81	82	89	92	88
82	74	76	70	77	71	81	82	88	91	87
81	72	75	68	75	70	80	80	87	90	86
80	70	74	67	74	69	79	79	86	90	85
79	70	72	65	72	67	78	78	85	89	84
78	68	70	64	71	67	77	77	84	88	83
77	65	70	63	69	66	75	75	83	87	82

† Do not use table to make comparisons for individual students.

Predicted 2003 CAT/6 Reading Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
76	63	68	62	68	64	74	75	82	86	82
75	62	67	60	66	63	73	73	81	85	80
74	61	66	59	65	62	71	71	81	84	80
73	60	64	58	64	61	70	71	80	83	79
72	58	64	56	63	60	69	70	78	82	77
71	57	63	56	62	59	69	69	78	81	76
70	57	61	55	61	59	68	68	77	81	75
69	55	60	53	60	58	67	66	76	80	75
68	53	60	53	58	57	66	65	75	79	74
67	52	58	52	57	56	65	64	74	78	73
66	51	57	49	56	55	64	63	73	78	72
65	50	56	48	55	54	63	62	72	77	71
64	50	55	47	55	53	62	60	71	76	69
63	48	54	47	54	52	61	59	70	75	68
62	47	52	46	53	51	60	57	70	75	67
61	46	52	45	52	50	59	57	69	74	66
60	44	50	44	52	50	58	56	68	73	65
59	43	49	43	51	49	57	55	67	72	65
58	42	48	43	50	48	56	54	66	70	64
57	41	47	42	49	47	55	53	64	70	63
56	40	46	41	48	46	53	52	64	70	62
55	39	45	40	47	45	52	50	63	69	61
54	38	43	38	46	44	51	49	62	68	61
53	36	43	38	45	44	50	48	61	68	60
52	35	42	37	45	43	49	46	61	67	59
51	35	41	36	43	42	48	45	59	66	58

* Do not use table to make comparisons for individual students.

Stanford 9 – CAT/6 NPR Linking Tables

Predicted 2003 CAT/6 Reading Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
50	34	40	36	42	41	48	45	58	66	58
49	33	39	35	42	40	47	44	56	64	57
48	32	39	34	41	38	46	43	55	63	56
47	31	38	33	40	38	45	43	54	63	55
46	31	37	33	39	37	44	42	53	63	55
45	30	37	32	38	36	42	41	52	62	54
44	30	35	31	37	35	41	39	51	61	53
43	29	34	30	36	34	40	38	50	60	51
42	28	34	30	35	33	39	37	49	59	50
41	27	33	29	34	32	38	36	48	58	49
40	27	31	28	34	32	37	35	47	57	48
39	26	31	27	33	32	36	34	47	56	47
38	26	30	26	33	31	36	34	46	54	46
37	25	28	26	32	30	35	33	45	53	45
36	24	28	25	31	29	34	32	44	52	45
35	23	28	24	30	28	33	32	42	51	44
34	22	26	23	30	27	32	31	41	50	43
33	21	25	22	29	26	31	31	40	49	42
32	20	24	22	28	25	29	30	39	48	41
31	20	24	20	27	24	28	29	38	47	39
30	19	23	20	26	23	27	28	37	46	38
29	19	22	20	26	23	26	27	37	45	37
28	17	22	19	25	21	24	25	34	44	36
27	17	21	17	24	20	24	25	33	42	35
26	16	20	17	23	20	22	24	31	40	34
25	15	19	15	22	18	21	22	30	38	33

* Do not use table to make comparisons for individual students.

Predicted 2003 CAT/6 Reading Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
24	15	18	15	21	17	20	21	29	37	32
23	14	18	15	20	17	19	20	28	37	31
22	13	17	14	19	15	18	20	27	35	30
21	13	16	13	18	14	17	18	25	34	29
20	12	16	12	17	14	16	18	24	33	27
19	11	15	12	16	13	16	17	23	31	27
18	11	14	11	16	12	14	16	22	30	25
17	10	13	10	15	11	13	15	20	28	25
16	9	13	9	14	10	12	14	18	26	23
15	9	12	8	13	9	11	13	17	24	23
14	8	11	7	13	9	10	12	14	23	22
13	7	10	7	12	8	9	11	13	21	20
12	7	10	6	10	7	8	9	11	19	19
11	6	9	5	9	6	7	8	10	17	18
10	5	8	4	8	5	6	7	8	15	17
9	4	7	4	7	4	5	6	7	14	15
8	3	6	3	6	4	4	5	5	11	14
7	2	5	2	5	3	3	3	3	9	13
6	2	4	1	4	2	2	2	2	7	11
5	1	3	1	3	1	1	1	1	5	8
4	1	2	1	2	1	1	1	1	2	6
3	1	1	1	1	1	1	1	1	1	2
2	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1

* Do not use table to make comparisons for individual students.

Language

Predicted 2003 CAT/6 Language Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
99	97	98	99	99	99	99	99	99	99	99
98	95	97	99	99	97	95	96	98	99	99
97	93	95	98	98	94	93	92	97	99	98
96	91	92	97	95	91	91	90	94	98	97
95	90	89	96	93	88	88	89	93	98	95
94	87	87	94	91	86	85	88	91	97	94
93	86	85	92	89	83	84	86	89	96	92
92	84	83	90	87	82	82	85	88	95	91
91	81	82	88	85	80	80	83	86	94	90
90	80	80	87	83	79	79	83	85	93	89
89	78	79	85	82	77	77	81	84	93	87
88	76	78	83	81	75	75	80	83	91	86
87	76	76	82	79	73	73	78	81	91	85
86	74	75	80	77	72	72	78	80	90	84
85	73	73	78	76	71	71	77	79	89	83
84	71	72	76	74	69	69	76	78	89	82
83	70	70	75	73	66	68	74	76	88	81
82	68	69	73	71	64	66	74	76	87	80
81	67	67	72	70	63	65	72	73	86	79
80	65	66	70	69	61	63	71	72	85	77
79	64	64	70	68	61	62	70	71	84	76
78	62	64	67	66	59	59	69	70	83	74
77	61	62	66	65	58	58	68	68	82	73
76	60	61	64	64	56	56	67	67	81	72
75	58	60	62	63	54	56	65	66	81	71

* Do not use table to make comparisons for individual students.

Predicted 2003 CAT/6 Language Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
74	57	58	59	60	53	55	64	64	79	69
73	55	57	58	59	52	54	63	63	78	68
72	54	56	56	59	51	52	62	62	78	67
71	53	55	55	58	50	51	61	61	76	66
70	51	54	54	57	49	50	60	59	75	65
69	51	52	51	57	48	49	59	58	74	64
68	50	50	49	56	47	48	58	57	73	63
67	49	49	48	54	45	48	57	56	72	62
66	49	49	47	53	44	47	56	54	71	61
65	47	48	47	52	43	46	55	53	70	60
64	46	46	46	51	42	46	54	52	69	59
63	45	44	45	50	41	45	53	51	69	58
62	44	44	44	49	40	44	52	50	68	57
61	43	43	41	47	39	43	51	49	67	56
60	42	42	40	47	38	42	50	48	66	55
59	41	41	40	46	37	42	49	47	65	54
58	39	41	39	45	36	41	48	46	64	54
57	37	40	37	44	36	39	47	45	64	52
56	36	39	36	43	35	38	46	44	63	51
55	35	38	35	43	34	38	45	43	62	50
54	34	38	34	42	33	38	44	42	61	49
53	33	37	33	41	33	37	43	41	61	49
52	32	36	32	40	32	36	43	40	60	48
51	32	34	32	39	31	35	42	39	58	47
50	31	34	31	37	31	35	41	38	57	46
49	30	33	30	37	30	34	40	37	56	45

* Do not use table to make comparisons for individual students.

Stanford 9 – CAT/6 NPR Linking Tables

Predicted 2003 CAT/6 Language Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
48	30	32	29	36	30	33	39	36	55	44
47	29	32	28	35	30	33	38	35	54	43
46	29	31	27	34	29	32	37	34	53	42
45	29	30	26	33	28	32	36	33	52	41
44	29	30	26	33	27	31	35	31	51	41
43	28	29	25	32	26	30	34	30	51	40
42	28	28	24	31	26	29	33	29	50	39
41	27	27	23	30	25	29	33	28	49	38
40	26	26	23	30	24	29	32	27	48	37
39	26	26	21	29	23	28	31	26	48	36
38	26	25	21	28	22	26	30	25	47	35
37	25	25	21	27	22	26	30	24	46	35
36	24	24	20	27	21	25	29	23	45	35
35	23	23	19	26	20	25	28	22	44	34
34	22	22	18	25	20	25	26	22	43	33
33	21	21	17	24	19	24	25	21	42	32
32	21	20	17	23	18	23	25	20	41	31
31	20	20	16	22	18	23	24	19	40	30
30	19	19	15	22	17	22	24	19	40	29
29	19	18	15	21	16	21	23	18	38	29
28	18	17	14	21	16	20	22	16	37	28
27	17	17	13	20	15	20	22	16	36	27
26	17	16	12	19	15	19	21	15	35	26
25	16	15	12	19	14	18	20	13	33	26
24	15	15	11	18	14	17	20	12	31	25
23	14	14	10	18	13	17	19	11	30	24

* Do not use table to make comparisons for individual students.

Predicted 2003 CAT/6 Language Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
22	14	14	9	16	12	16	18	10	28	23
21	13	13	9	15	12	15	18	9	27	22
20	12	12	8	15	11	14	16	8	26	21
19	12	11	7	14	10	13	15	7	24	20
18	11	11	7	13	10	13	14	6	24	20
17	11	10	6	13	9	12	13	5	22	18
16	10	10	5	12	8	11	12	5	21	17
15	10	9	4	11	8	10	11	3	20	16
14	8	9	3	10	7	9	9	2	19	15
13	8	8	2	9	6	8	9	2	17	14
12	8	8	2	8	6	7	8	1	16	13
11	7	7	1	7	5	6	7	1	14	12
10	6	7	1	7	4	5	5	1	13	11
9	5	6	1	6	3	4	4	1	12	10
8	4	5	1	4	2	3	3	1	10	8
7	4	4	1	3	2	1	2	1	9	7
6	3	2	1	2	1	1	2	1	7	5
5	2	1	1	2	1	1	1	1	4	2
4	2	1	1	1	1	1	1	1	2	1
3	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1

* Do not use table to make comparisons for individual students.

Spelling

Predicted 2003 CAT/6 Spelling Percentile Rankings (PR) for Groups of Students*							
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
99	98	99	99	99	99	99	99
98	96	98	95	96	91	96	99
97	96	97	93	95	89	94	99
96	95	96	92	93	87	93	99
95	94	96	90	92	85	92	98
94	93	95	89	91	84	91	98
93	93	94	88	90	83	89	98
92	92	94	87	88	81	88	97
91	91	93	86	86	80	87	97
90	90	92	85	85	78	86	96
89	89	91	84	84	78	85	96
88	88	89	83	83	76	84	95
87	87	88	82	82	75	83	95
86	86	87	81	80	74	81	95
85	84	86	80	79	72	81	94
84	82	85	78	78	71	79	93
83	81	84	78	76	70	78	92
82	79	83	77	75	69	77	92
81	78	82	75	74	67	75	92
80	77	80	74	72	66	74	91
79	76	79	72	70	64	73	90
78	75	77	71	69	63	70	89
77	73	76	70	68	62	69	88
76	71	74	68	67	61	68	87
75	70	73	68	66	60	68	87

* Do not use table to make comparisons for individual students.

Predicted 2003 CAT/6 Spelling Percentile Rankings (PR) for Groups of Students*							
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
74	68	71	67	65	58	67	85
73	67	70	66	64	58	66	85
72	66	69	65	63	58	65	84
71	64	67	64	62	57	63	83
70	62	67	63	61	56	62	81
69	61	65	62	60	55	61	80
68	59	64	61	59	54	60	80
67	58	63	61	58	53	59	79
66	56	61	60	58	53	58	78
65	55	60	59	57	52	58	77
64	53	59	58	56	51	57	76
63	52	56	57	55	51	56	75
62	50	55	56	54	50	56	74
61	49	54	55	53	49	55	73
60	47	52	54	53	48	53	72
59	47	50	53	52	47	52	70
58	44	50	52	51	47	51	70
57	43	49	51	50	46	50	69
56	41	47	50	48	45	49	68
55	39	46	50	47	45	49	66
54	38	45	49	46	44	48	65
53	36	44	48	45	43	47	64
52	35	43	47	44	42	46	63
51	33	42	46	43	41	46	61
50	32	40	45	42	41	45	60
49	31	40	44	41	40	43	59
48	31	38	43	41	39	42	59

* Do not use table to make comparisons for individual students.

Predicted 2003 CAT/6 Spelling Percentile Rankings (PR) for Groups of Students*							
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
47	30	37	42	40	38	41	58
46	29	36	41	39	37	40	56
45	28	35	40	38	37	40	55
44	26	34	39	37	36	39	54
43	26	33	38	36	35	39	52
42	25	32	37	35	34	38	51
41	23	31	36	34	34	37	50
40	22	30	36	33	34	36	49
39	21	30	34	32	33	35	49
38	20	29	34	31	32	34	48
37	19	28	33	30	31	34	46
36	18	27	32	30	30	33	45
35	18	25	30	29	29	33	44
34	17	24	29	28	29	31	42
33	16	24	28	27	29	30	41
32	15	23	28	26	28	29	40
31	14	22	27	25	27	29	39
30	14	21	26	25	26	28	38
29	13	20	25	24	25	27	37
28	12	19	24	22	25	26	36
27	12	19	24	22	25	26	35
26	11	18	21	21	24	25	34
25	11	17	21	20	23	24	33
24	10	16	20	19	23	23	32
23	9	15	19	18	21	22	30
22	9	14	18	17	21	21	28
21	8	14	17	16	20	20	27

* Do not use table to make comparisons for individual students.

Predicted 2003 CAT/6 Spelling Percentile Rankings (PR) for Groups of Students*							
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
20	8	13	16	15	19	19	25
19	7	12	14	14	19	18	23
18	7	12	13	13	17	17	22
17	6	11	12	12	17	16	21
16	6	11	11	12	16	15	19
15	5	10	11	11	16	14	18
14	5	9	10	10	14	13	16
13	5	8	9	9	14	12	15
12	4	8	8	8	12	12	14
11	4	7	7	8	11	10	12
10	3	7	7	7	11	9	9
9	3	6	6	7	10	8	7
8	2	5	5	6	9	6	4
7	2	4	3	5	6	4	2
6	2	3	3	4	3	2	1
5	1	2	2	4	2	1	1
4	1	2	1	2	1	1	1
3	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1

* Do not use table to make comparisons for individual students.

Mathematics

Predicted 2003 CAT/6 Mathematics Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
99	99	99	99	99	99	99	99	99	99	99
98	99	97	98	95	96	94	97	99	97	97
97	98	93	96	92	94	91	95	98	97	96
96	96	91	93	88	92	89	94	96	96	94
95	93	89	92	86	90	87	92	95	95	93
94	91	87	90	84	89	85	91	94	95	92
93	90	85	88	82	87	84	89	92	94	91
92	88	84	87	80	86	83	88	91	93	90
91	86	82	85	79	85	82	87	90	93	89
90	85	81	83	77	84	80	86	89	92	88
89	83	79	81	75	83	80	86	88	92	88
88	82	79	79	74	82	78	84	87	91	87
87	80	77	77	72	81	77	83	86	90	86
86	79	75	76	72	79	77	82	84	90	86
85	77	75	74	71	78	76	81	83	89	85
84	76	73	73	70	76	74	80	82	88	83
83	75	72	71	68	75	73	79	81	88	82
82	73	71	70	67	74	73	78	79	87	82
81	72	70	69	66	72	72	76	79	86	81
80	70	68	67	65	70	71	76	77	86	80
79	69	68	65	64	69	70	74	76	85	80
78	67	66	63	63	68	69	73	74	84	79
77	66	65	62	61	66	68	72	74	83	78
76	64	64	61	60	66	67	71	71	83	77
75	63	62	59	59	64	67	69	70	82	76

* Do not use table to make comparisons for individual students.

Predicted 2003 CAT/6 Mathematics Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
74	61	60	58	57	63	66	68	68	81	74
73	60	59	57	56	62	64	68	67	80	74
72	59	58	56	56	60	63	67	66	80	73
71	58	57	55	55	59	62	66	64	79	72
70	57	56	54	54	58	62	65	63	78	72
69	56	55	52	54	56	60	63	62	78	71
68	54	53	51	53	55	59	62	61	76	70
67	53	52	51	52	54	58	62	60	76	69
66	52	51	50	51	53	57	60	59	75	69
65	51	50	49	51	52	56	59	58	74	68
64	50	50	48	50	52	56	58	57	73	68
63	49	49	47	49	51	55	57	56	73	67
62	48	48	46	48	49	54	56	55	72	66
61	46	47	45	47	48	53	55	54	71	65
60	45	45	44	46	47	52	54	52	70	65
59	44	45	43	45	46	52	53	52	69	63
58	43	44	43	45	45	51	52	50	67	62
57	42	42	42	44	44	50	51	49	67	61
56	42	41	41	43	42	49	50	47	65	61
55	41	40	40	42	41	48	49	47	64	60
54	40	39	39	41	40	47	48	46	63	59
53	38	38	39	40	39	46	48	44	61	58
52	38	38	38	39	39	46	47	43	60	57
51	36	37	37	39	38	45	46	42	59	57
50	35	36	37	39	37	44	45	42	58	55
49	34	35	35	38	37	43	44	41	56	54

* Do not use table to make comparisons for individual students.

Stanford 9 – CAT/6 NPR Linking Tables

Predicted 2003 CAT/6 Mathematics Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
48	33	34	34	38	35	43	44	41	56	54
47	33	33	33	37	34	42	42	38	55	53
46	32	32	33	37	34	41	41	38	55	53
45	31	31	32	36	33	41	41	38	53	53
44	30	30	31	35	32	40	41	37	53	53
43	29	30	30	34	31	39	40	35	52	51
42	28	29	30	34	30	38	39	34	52	51
41	27	28	29	33	29	38	37	34	51	50
40	26	27	28	31	28	36	36	34	49	49
39	26	27	27	31	27	35	36	33	49	49
38	25	26	26	30	26	34	35	32	47	48
37	24	25	26	29	25	34	34	31	46	47
36	23	24	26	28	25	33	33	30	44	45
35	22	23	25	28	24	32	32	29	42	44
34	20	22	25	27	23	31	31	27	42	42
33	20	22	24	27	22	30	30	26	40	41
32	19	21	23	26	21	29	29	25	38	40
31	19	20	23	25	20	28	29	24	36	39
30	18	19	22	25	19	27	28	23	34	37
29	17	18	22	24	18	26	26	22	32	36
28	16	18	21	23	17	25	26	21	31	35
27	15	17	20	23	17	24	24	21	29	34
26	15	16	19	22	16	23	24	20	27	32
25	14	15	18	21	15	22	22	19	26	31
24	13	15	17	21	14	20	22	18	25	29
23	12	14	16	19	13	19	21	17	23	28

* Do not use table to make comparisons for individual students.

Predicted 2003 CAT/6 Mathematics Percentile Rankings (PR) for Groups of Students*										
2002 Stanford 9 PR	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
22	11	13	15	19	13	18	19	17	22	26
21	11	12	15	17	11	16	18	15	20	24
20	10	11	14	17	10	15	16	14	18	23
19	9	11	14	16	9	14	15	13	17	22
18	8	10	13	15	8	13	14	12	16	20
17	7	9	13	14	8	12	13	11	15	19
16	7	9	12	13	7	11	12	10	14	17
15	7	8	11	12	6	10	11	8	12	15
14	6	7	11	12	5	8	10	8	10	13
13	5	7	10	11	5	7	8	7	9	12
12	5	6	9	10	4	7	7	5	7	10
11	4	5	8	10	3	5	6	4	4	8
10	4	5	7	9	3	5	5	3	3	6
9	3	4	6	8	2	3	4	2	2	3
8	3	4	6	7	1	2	3	1	1	2
7	3	3	5	6	1	1	2	1	1	1
6	2	2	4	5	1	1	1	1	1	1
5	2	2	3	4	1	1	1	1	1	1
4	1	1	2	2	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1

* Do not use table to make comparisons for individual students.

Science

Predicted 2003 CAT/6 Science Percentile Rankings (PR) for Groups of Students*			
2002 Stanford 9 PR	Grade 9	Grade 10	Grade 11
99	99	99	99
98	99	99	98
97	99	98	97
96	99	97	96
95	99	96	95
94	98	95	94
93	97	94	93
92	95	93	92
91	94	92	92
90	93	91	91
89	92	90	90
88	91	89	89
87	90	88	88
86	89	88	87
85	89	87	86
84	88	85	85
83	87	84	84
82	86	84	83
81	84	82	82
80	84	81	82
79	82	80	80
78	82	79	80
77	80	77	77
76	80	77	77
75	78	76	76

* Do not use table to make comparisons for individual students.

2002 Stanford 9 PR	Predicted 2003 CAT/6 Science Percentile Rankings (PR) for Groups of Students*		
	Grade 9	Grade 10	Grade 11
74	76	74	74
73	76	73	73
72	75	72	72
71	74	72	71
70	73	71	71
69	72	70	70
68	71	69	69
67	70	68	68
66	68	67	67
65	68	66	66
64	67	65	65
63	65	64	64
62	64	63	63
61	62	62	62
60	61	61	62
59	60	60	60
58	59	59	59
57	58	58	59
56	57	57	58
55	56	57	58
54	54	56	58
53	53	55	58
52	52	55	56
51	52	54	56
50	51	54	56
49	49	52	55
48	49	52	55

* Do not use table to make comparisons for individual students.

Stanford 9 – CAT/6 NPR Linking Tables

2002 Stanford 9 PR	Predicted 2003 CAT/6 Science Percentile Rankings (PR) for Groups of Students*		
	Grade 9	Grade 10	Grade 11
47	48	51	54
46	46	51	54
45	46	50	53
44	45	50	53
43	44	48	51
42	42	48	51
41	41	47	50
40	40	47	50
39	39	46	48
38	38	45	47
37	37	45	47
36	35	43	46
35	33	42	44
34	32	41	43
33	30	39	41
32	29	39	41
31	28	37	39
30	27	36	37
29	26	34	37
28	23	32	35
27	22	32	34
26	21	31	33
25	20	29	32
24	18	28	31
23	18	27	30
22	17	26	29
21	16	25	27

* Do not use table to make comparisons for individual students.

2002 Stanford 9 PR	Predicted 2003 CAT/6 Science Percentile Rankings (PR) for Groups of Students*		
	Grade 9	Grade 10	Grade 11
20	14	24	26
19	13	23	25
18	12	22	24
17	11	20	22
16	9	19	20
15	9	18	19
14	7	16	18
13	6	15	16
12	5	14	15
11	4	12	12
10	3	11	10
9	2	9	8
8	1	7	6
7	1	5	4
6	1	3	2
5	1	1	1
4	1	1	1
3	1	1	1
2	1	1	1
1	1	1	1

* Do not use table to make comparisons for individual students.