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ABSTRACT

The profiles of the California Statewide assessment program permit comparison of a district's test performance with that of previous years and of other districts. After a brief explanation of the tests' development, content, administration, and limitations, this interpretive guide explains how the results are displayed in the district profiles. A sample profile from a fictitious school district is included to illustrate the five sections of the profile. Section A, district mean score, reports average percent of questions answered correctly in the district for reading in grades 2, 3, 6, and 12, and for written expression, spelling, and mathematics in grades 6 and 12; section C is a parallel report of scores for the past 3 or 4 years. The comparison band in section B is the percent correct score range in which similar districts scored. The similarities among districts are determined by using the background factors listed in section D, such as socioeconomic status and previous achievement. Background factors not used to develop score bands but useful for appraising a school district's operating conditions appear in section E. Questions and answers about the program are presented, as well as percentile ranks for district mean scores and for background factors. (Author/CP)

Profiles of School District Performance 1977-78

A Guide to Interpretation

California Assessment Program

CALIFORNIA STATE DEPARTMENT OF EDUCATION • Wilson Riles, Superintendent of Public Instruction • Sacramento, 1978

California Assessment Program

Profiles of School District Performance 1977-78

A Guide to Interpretation

Prepared Under the Direction of
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1978

Preface

Education Code Section 60660 requires the California State Department of Education to prepare an annual report of the district-by-district results of the statewide testing program. It further specifies that the testing results be analyzed in the light of other school factors which have a bearing on those results. The latest report, California Assessment Program, Profiles on School District Performance, 1977-78, is the ninth such report.

The purpose of this document, Profiles of School District Performance, 1977-78: A Guide to Interpretation, is to help the reader understand and interpret the district profiles. A companion document, Student Achievement in California Schools, 1977-78 Annual Report, presents the statewide findings.

The profiles allow the reader to compare a district's performance with that of previous years and other districts, especially districts with similar characteristics and resources. The procedures used to prepare the scores and comparative indexes were improved several times and are now basically stabilized. This stabilization has increased the effectiveness of the profiles as a source of comparative information about school district performance.

The profile contains the scores for four years for grades two and three because the test used for both grades has been the same over that period of time. For grades six and twelve, the districts' scores are presented for the last three years since the tests have remained the same for that time period.

Minor modifications were made in the background factors used to calculate the comparison score bands. The background factor information on the profiles reflects these changes.

Although they are not used in calculating comparison score bands, the additional background factors that may be of interest to the user have been updated. In particular, the percent of minority pupils reported is for fall, 1977. The prior complete ethnic survey was conducted in 1973.

This guide is designed to aid in the interpretation of the profile of school district performance, and we welcome your comments and suggestions to improve the guide.

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Contents

Introduction to the Guide

California has had a state testing program since 1961. Throughout the program's history different grade levels, different tests, and different reporting procedures have been employed. The current testing, known as the California Assessment Program, is based upon sections 60600 through 60672 of the Education Code.

The purpose of the legislation enacting those sections was stated in the Legislative Intent section of the law:

> It is the intent of the Legislature in enacting this chapter to determine the effectiveness of school districts and schools in assisting pupils to master the fundamental educational skills toward which instruction is directed. The program of statewide testing shall provide the public, the Legislature, and school districts evaluative information regarding the various levels of proficiency achieved by different groups of pupils of varying socio-economic backgrounds, so that the Legislature and individual school districts may allocate educational resources in a manner to assure the maximum educational opportunity for all pupils.
>
> Education Code Section 60601

According to the legislation, there are three audiences for the data gathered by the California Assessment Program:

1. The public
2. The Legislature
3. School districts

The California Assessment Program produces various reports and publications to meet the differing needs of these audiences.

Purpose of the California Assessment Program

Each of these audiences needs objective information to assess the quality of education of a district or the state. The objective information provided by the California Assessment Program assists the three audiences in addressing the fundamental question: "At what level are students achieving after X years of schooling?" The purpose of the California Assessment Program of the State Department of Education is to answer that question for each school district in the state and for the state as a whole.

Through the California Assessment Program, students are tested on the basic skills, and the average score for the district is calculated. These scores are then presented in a school district profile. The scores for a given district can be compared with those of the other districts in the state by using tables provided in this guide. The assessment program also gathers background information about the districts and uses a statistical procedure to analyze the relationship between the background factors and test scores.

What Are Some of the Limitations of the School District Profile?

The chief limitation of a school district profile is that it contains an analysis of average student achievement in a limited number of cognitive content areas as measured by paper-and-pencil tests. Some of the limitations of these tests may be elaborated as follows:

1. The tests in the state assessment program are designed to measure achievement only in the areas of reading, written expression, spelling, and mathematics. Thus, many other subjects, such as history, geography, science, art, music, and social science, are not included in the assessment program; neither are such noncognitive areas as self-esteem, citizenship, or cultural appreciation. Districts emphasizing areas other than those examined in the assessment program have an obligation to present objective information about achievement in those areas.

2. The scores presented are the <u>average</u> scores for a district. Even the lowest-scoring district has some students achieving at a high level. Likewise, even the highest-scoring district has its share of low-achieving students.

3. Many factors might influence whether a student will succeed in school. For example, test results do not reveal anything about the discipline present, or absent, in a school or about other factors which affect the learning climate.

The goals of education are complex, and standardized tests are available to measure the degree of attainment of only a few of those goals. Standardized test scores should not be the only criteria used to evaluate a total educational program; but to the extent that the tests measure the achievement of program objectives, the test scores represent valid measures and are meaningful indicators.

Evaluation of a program implies more than measurement; it also implies looking at measurement in the light of objectives and costs and making decisions about the value of the outcomes obtained. In short, the reader must realize that only <u>some</u> of the information that is required for the total evaluation process is provided in the district profiles.

Why Was This Guide Prepared?

Each district profile consists of the test results in grades two, three, six, and twelve, plus a number of background factors for the district. Some of the background data were collected as part of or for the assessment program and have been used in the analysis of test results. The background factors employed in the calculation of the comparison score bands are listed on the profile in the lower left corner under the appropriate test heading. Seven other background factors not related directly to the assessment process are also listed on the profile in the lower right corner to give a more complete description of the district.

This interpretive guide contains explanations of how the tests were developed, what they measure, how they were administered, and how the results are displayed in the district profiles. The profiles contain names, numbers, and column headings but no explanations; this guide was designed to provide the explanations.

Development and Content of the Tests

All the tests now administered in the California Assessment Program have been developed by California educators for use in California Schools. Four advisory committees assisted the Office of Program Evaluation and Research in developing the specifications for the test contents and in selecting or writing items for the tests. The advisory committees were composed of leading educational specialists from throughout California.

The first task undertaken by the advisory committees was to review and outline (1) official California frameworks in reading, English, and mathematics; (2) state-adopted instructional materials; and (3) locally developed instructional objectives prepared by California school districts. The objectives selected for the assessment program were those that appeared to be common in most instructional materials and in the curricula of most school districts.

The objectives of the assessment program were arranged into content areas, and skills were defined for each content area. The final documents containing descriptions of the test objectives were reviewed by personnel in 171 randomly selected school districts. The objectives selected for the assessment program were then published in three documents:

- Test Content Specifications for California State Reading Tests
- Test Content Specifications for the Survey of Basic Skills: Mathematics
- Test Content Specifications for the Survey of Basic Skills: Written Expression and Spelling

A set of the cited publications was mailed in 1975 to each school district in California and to selected libraries in the state. Additional copies may be purchased from the Bureau of Publications Sales, State Department of Education, P.O. Box 271, Sacramento, CA 95802. The cost of each document is 85 cents, plus sales tax for California residents.

The resulting test content specifications, or test objectives, were so lengthy that one test measuring even a major portion of them would take hours to administer. Yet one of the goals of the assessment program was to shorten the testing time. Thus, a methodology had to be employed to

accomplish the goals of both shortening the testing time and providing a test that was comprehensive and relevant to California. The testing procedure finally adopted--matrix sampling--allowed the long test to be divided into a number of forms, with each student taking only one of the test forms. For example, the 250-item Reading Test is divided into ten forms so that each pupil in the second and third grades takes only one-tenth (25 items) of the entire test. The matrix sampling procedure is employed in all California Assessment Program tests except the Entry Level Test.

Statistical calculations in the matrix sampling procedure enable preparation of a district profile corresponding to the profile that would be obtained if all students took all items in a long test. Matrix sampling is an efficient testing procedure when the purpose of the testing is to obtain information about the performance of groups of students.

The content and skill areas that were assessed are presented in Table 1. Also displayed in the table are the number of test items, the test format, the number of test forms, and the number of items per test form.

The Entry Level Test and the Reading Test have been the same for four years, so the 1977-78 results can be compared with those of the preceding three years for grades one, two, and three. The Survey of Basic Skills: Grade 6 and the Survey of Basic Skills: Grade 12 have been the same for three years, so the 1977-78 results can be compared with those for the two previous years.

Table 1

Contents and Format of Tests Administered in the California Assessment Program, 1977-78

Grade	Name of test and content areas	Number of items	Matrix sampling	Number of forms	Number of items per form	Skills tested
One	Entry Level Test	35	No	1	35	Immediate recall, letter recognition, auditory discrimination, visual discrimination, language development
Two and three	Reading Test	250	Yes	10	25	Word identification (phonetic analysis); vocabulary; comprehension (literal and interpretive); study-locational
Six	Survey of Basic Skills: Grade 6	480	Yes	16	30	
	Reading	128			8	Word identification; vocabulary; comprehension (literal, interpretive-critical); study-locational
	Written expression	128			8	Sentence recognition, sentence manipulation, capitalization, punctuation, word forms, language choices, standard usage
	Spelling	64			4	Recognition of misspelled word in a set of words
	Mathematics	160			10	Arithmetic (number concepts, whole numbers, fractions, decimals); geometry; measurement and graphs; probability and statistics
Twelve	Survey of Basic Skills: Grade 12	558	Yes	18	31	
	Reading	144			8	Vocabulary; comprehension (literal, interpretive-critical); study-locational
	Written expression	144			8	Sentence recognition, sentence manipulation, capitalization and punctuation, paragraphs, word forms, language choices
	Spelling	72			4	Recognition of a misspelled word in the context of a sentence
	Mathematics	198			11	Arithmetic (number concepts, whole numbers, fractions, decimals); algebra; geometry; measurement; probability and statistics

Administration Procedures for Testing

The 1977-78 tests for the California Assessment Program were administered according to the schedule in Table 2.

Table 2

Testing Schedule for the California Assessment Program, 1977-78

Date	Grade level	Test
Eleventh through the twentieth day of instruction	One	Entry Level Test
December 1--14, 1977	Twelve	Survey of Basic Skills: Grade 12
April 17--28, 1978*	Six	Survey of Basic Skills: Grade 6
April 24--May 19, 1978*	Two and three	Reading Test

* Testing dates in year-round schools were extended by two weeks

Distribution of Test Materials

A few weeks before testing, the contractor who scores the test mails the appropriate number of tests to each school district. Then the district test coordinator distributes the correct number of test packets to each school. Included in each packet is an examiner's manual, containing an outline of the administration procedures to be followed to standardize the testing conditions as nearly as possible. Schools are urged to conduct testing in small, classroom-size groups; however, at the higher grade levels, schools are permitted to test in larger groups.

For the matrix sampling, which was discussed on page 5, tests are packaged in class packs. The Reading Test, for example, is divided into ten forms of 25 items each. The forms are arranged in sequence (Form 1, Form 2, . . . , Form 10), and the teacher gives out the tests in that order. Each form of the test is constructed so that it contains about the same number of easy and difficult items.

Administration of Tests

The directions for taking the tests are read aloud to the students, who are instructed to mark their answers directly on the test booklets. Neither the Entry Level Test nor the Reading Test is timed.

For the purpose of simplifying the administrative procedures for the Survey of Basic Skills for grades six and twelve, a time limit of 30 minutes is included in the directions. However, in both grades these 30-minute time limits were chosen to be generous, not restrictive. Almost every student can complete the test in the time allotted.

After the students have completed their tests (except for the Survey of Basic Skills: Grade 12), the teacher codes information about each student on the back of the student's test booklet. Some of these data are used in the school reports as background information with which to interpret the results for the school. Other information is collected only for analysis of statewide results or trends.

The principal of each school completes a School Information Form and also certifies that the tests were administered properly. The principal returns the form along with the completed tests to the district test coordinator.

Contents of a District Profile

The school district profile contains a summary of the district test results. For discussion purposes the profile (see Figure 1 for a sample) was divided into five sections:

Section A: District Mean Score

Section B: Comparison Score Band

Section C: Year-to-Year Comparisons of District Mean Scores

Section D: Background Factors Used to Develop Comparison Score Bands

Section E: Additional Background Factors (Not Used to Develop Comparison Score Bands)

Section A: District Mean Score

In the district mean score column, the percent of questions answered correctly by all the students in the district is presented. This score can be viewed as the average percent of the items answered correctly by all students. Scores are not presented for 1974-75 for grades six and twelve because different tests were used that year, and the district mean scores are therefore not comparable.

> Example: In the sample profile for the fictional Calwest Unified School District (Figure 1), the district mean score for 1977-78 on the Reading Test in second grade was 77.1. This signifies that of all the test items presented to the grade two pupils, 77.1 percent of those items were answered correctly. Or, viewed another way, the average second grade pupil answered 77.1 percent of the reading items correctly. The scores for the previous years were 76.7, 76.4, and 76.3. Thus, the performance of Calwest's second grade pupils has increased over the past four years.

In evaluating the profiles, many people confronted with a district mean score (such as the 77.1 score for second grade reading in the sample profile) will ask, "How does this score 77.1 compare with . . . ?"

One of these comparative questions addressed in the guide is "How does a score of 77.1 in grade two reading compare with the scores of other districts in California?" The district means of all California school districts are

PROFILE OF SCHOOL DISTRICT PERFORMANCE
1977-78

California Assessment Program

County

District CALWEST UNIFIED SCHOOL DISTRICT

Grade and Content Area Tested	1977-78 Scores: District Mean Score	1977-78 Scores: Comparison Score Band
Grade 2 Reading	77.1	74.6-77.9
Grade 3 Reading	88.1	87.2-89.3
Grade 6 Reading	70.8	71.7-74.5
Written Expression	68.1	68.8-71.2
Spelling	66.3	65.9-68.5
Mathematics	60.1	61.5-65.3
Grade 12 Reading	64.9	64.2-66.8
Written Expression	63.5	62.9-65.5
Spelling	70.0	68.3-70.3
Mathematics	68.1	67.2-70.2

Year-to-Year Comparisons of District Mean Scores
(Including the Score Assigned to Non-English-Speaking Pupils)

1974-75	1975-76	1976-77	1977-78
76.3	76.4	76.7	77.0
87.8	88.4	88.3	88.0
	70.1	70.6	70.8
	67.3	67.9	68.1
	66.3	67.2	66.3
	59.9	60.4	60.1
	65.6	64.5	64.9
	62.6	62.4	63.5
	68.2	68.4	70.0
	66.9	67.3	68.1

Background Factors Used to Develop Comparison Score Bands	District Value: 1974-75	1975-76	1976-77	1977-78
Grades 2 and 3				
Entry Level Test	28.69	28.64	28.66	28.57
Socioeconomic Index	2.27	2.30	2.30	2.34
Percent AFDC	———	6.2	5.1	6.0
Percent Bilingual[a]	9.3	8.3	8.8	———
Percent LES/NES Pupils[a]	———	———	2.3	1.7
Pupil Mobility[b]	33.8	37.8	34.5	35.6
Grade 6				
Grade 3 Achievement Index		88.0	88.7	87.6
Percent AFDC		5.3	4.5	5.4
Percent Bilingual[a]		4.5	6.9	———
Percent LES/NES Pupils[a]		———	0.2	0.3
Grade 12				
Grade 6 Achievement Index		58.9	66.7	67.3
Percent AFDC		3.5	3.4	3.0

Additional Background Factors (Not Used to Develop Comparison Score Bands)	District Value
Average daily attendance	28,236
Percent minority pupils, total	18.0
Percent American Indian or Alaskan Native	1.4
Percent Asian or Pacific Islander	2.5
Percent Filipino	1.0
Percent Black, not of Hispanic Origin	2.4
Percent Hispanic	10.7
Average class size, elementary	28.5
Average class size, high school	27.6
Assessed valuation per unit of a.d.a.	$19,567
General purpose tax rate	$3.89
Expenditures per unit of a.d.a.	$1,251

[a] In 1977-78 LES/NES factor was used in the Comparison Score Band calculations. Prior to 1977-78 Percent Bilingual was used.
[b] In 1977-78 Pupil Mobility was not used in the Comparison Score Band calculations.

Fig. 1. Sample profile of school district performance, 1977-78

rank ordered, making it possible to determine what percent of the districts have a mean score in a given test area higher or lower than that of the district in question. Because some educators feel that comparative information inhibits use and communication of test results, this information is not printed on each profile. These percentile ranks for each grade and content area can be found in appendixes A, B, and C of this guide.

To use the appendixes, the reader should look in the appropriate column ("Reading Test Grade 2," of Appendix A in this case) and find the range of scores that includes the district mean score (77.1). The corresponding state percentile rank (67) then can be found either on the left or right side of the page. The state percentile rank of 67 indicates that 67 percent of the districts in the state had lower average scores in grade two reading than did this district; it also means that 33 percent of the districts in the state had higher average scores.

Three issues related to using percentile ranks often arise in discussions of student achievement testing: (1) the discrepancy between percentile rankings based on state tests and those based on publishers' standardized tests; (2) the advisability of using annually computed norms; and (3) the seemingly disproportionate effect of small changes in percent correct scores on percentile rankings. A brief treatment of each of these three may be useful in explaining local testing results.

Discrepancies in Percentile Ranks

Questions sometimes arise when a district's percentile score as reported by the California Assessment Program differs from its score on a publisher's standardized test, even though both were administered to the same students. A typical question might be stated this way: "In our district we gave a commercially prepared, nationally normed test. Looking in the publisher's norm charts, we found that the score of our average (usually median) student was at the 36th percentile. But our district California Assessment Program score was the 18th percentile. Why do we get different results?"

Several factors might account for the apparent discrepancy, such as variations in content assessed by the two tests. However, such variations are not likely to result in major differences in percentiles. In most cases the differences result from the fact that the California Assessment Program percentile ranks are based on the distribution of district scores, and the percentile ranks yielded by published tests are based on a distribution of student scores. Individual students should be compared with other students, and districts should be compared with districts. When considering the test results for groups, such as schools and districts, it is appropriate to use group percentile ranks. The American Psychological Association's publication Standards for Educational and Psychological Tests* notes that: "It is inappropriate to evaluate schools by using norms developed for the evaluation of individuals."

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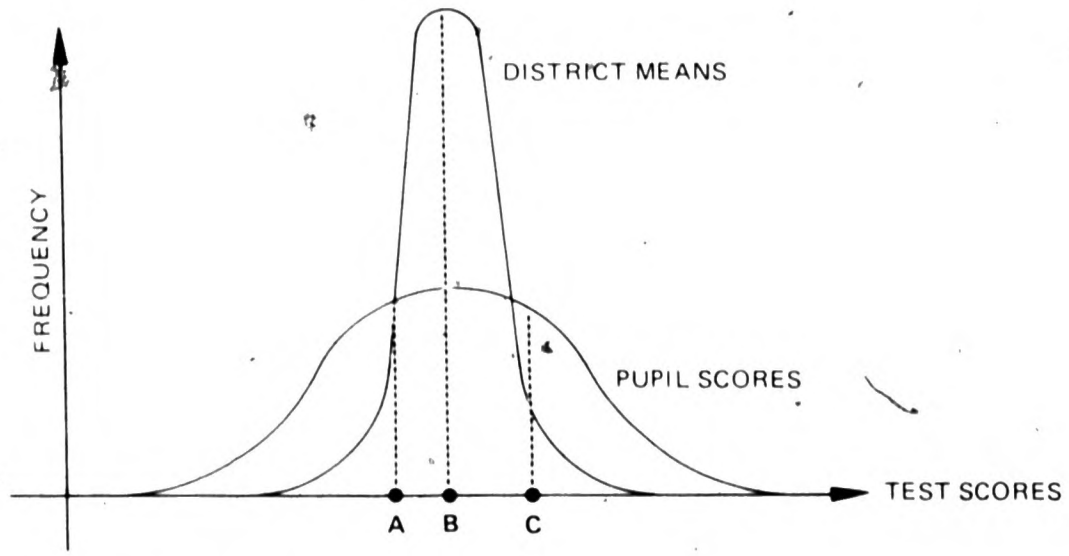
* Standards for Educational and Psychological Tests. Washington, D.C.: American Psychological Association, 1974, p. 24.

The difference between the two percentile ranks can be explained by a brief look at some general principles of statistics. District mean scores tend to be much less varied and therefore closer to the overall mean than do the scores of individual students. This is because district scores themselves are aggregates, and aggregates (such as averages) of scores are less varied than individual student scores. Figure 2 is an illustration of the difference between a distribution of student scores and a distribution of district mean scores. Student scores are spread across a wider range because the actual scores vary to a greater extent. District scores are clustered nearer the mean. Thus, the same percent correct score will convert to a different percentile rank depending on whether it is compared with student or district norms. In the case illustrated in Figure 2, for example, a percentile rank of 36 based upon student norms is equivalent to a percentile rank of 18 based on a distribution of district mean scores. Thus, it can be said that the two different percentile ranks, 36 and 18, represent the same level of student achievement reported on different scales.



	A	B	C
STATE PUPIL PERCENTILE RANK	36	46	74
STATE DISTRICT PERCENTILE RANK	18	38	95

Fig. 2. Comparison of pupil and district percentile ranks

Annually Computed Norms

California testing directors sometimes ask, "Why does the California Assessment Program calculate and publish new percentile rank norms each year rather than use fixed norms?" The annually computed norms used by the state are often thus contrasted with the fixed norms that publishers may use for as long as seven to ten years. Unlike the state assessment program, commercial test publishers are unable to revise their norms each year because of the cost and the extreme difficulty of obtaining a representative sample each year.

The purpose of the California Assessment Program is to provide each California school district with the information necessary to assess the achievement of its students compared with that of students in other districts in the current year. The emphasis is on achievement in the current year, not on the comparison of current and past achievement levels. While the norms do not change dramatically from year to year, the norms developed for the current year are the proper ones to use.

The percentile ranks under discussion here are designed as a basis of comparison of the mean scores of students in one district with those of students in other districts. The question of whether the students are achieving at a higher or lower level this year than students at the same grade level in previous years is a more complex issue to be addressed in "Section C: Year-to-Year Comparisons of District Mean Scores" later in this chapter.

The Effect of "Small" Differences in Percent Correct Scores

Another frequently asked question is this: "Even though our percent correct score decreased very slightly from last year, our statewide rank decreased several percentile ranks. Doesn't this exaggerate the effect on our percentile rank of a few more incorrect test answers?"

By the statistical nature of group scores, a large number of district scores cluster near the 50th percentile. A small change in the district mean may move a district above or below several other districts with similar percent correct scores. Therefore, a small change in district means may result in what appears to be a large change in percentile rank for districts in the middle of the distribution. But this statistical phenemenon is only part of the answer.

Even numerically small changes in district mean scores often do represent true changes in group performance, because group scores are much more stable than are the scores for individual students. In measurement terms every student's test score contains some error; some correct answers and some incorrect answers are the result of chance factors involved in the testing situation. When individual student scores are combined into group scores, these measurement errors tend to cancel each other out. The larger the group tested, the smaller the measurement error and hence the more meaningful the change.

District personnel also often ask, "Even though our district is at the 10th percentile, we are not many points below districts at the 50th percentile. Doesn't this indicate that a district at the 10th percentile is not nearly as far below the others as the 10th percentile would indicate?"

This is really a question of how important the difference is between district means at various percentile ranks. An analysis of second and third grade state assessment program results shows that a district scoring at the 10th percentile in grade three is at about the state average for grade two--or about a year behind. At the sixth grade level, the difference between the 10th and 50th percentile is closer to two years, and the difference at the twelfth grade level is at least as great as for grade six. A district scoring

at the 10th percentile should consider that its achievement is substantially below the state average.

Stanines

Stanines provide another way of comparing a district's mean scores with those of other districts in the state. The stanine scale is like a percentile scale except that it consists of nine points instead of 100. Each district's mean score is placed into one of nine groups, from the lowest group (stanine 1) to the highest (stanine 9).

Stanine 1 contains the lowest 4 percent (percentiles 1 through 4); stanine 2 contains the next 7 percent (percentiles 5 through 11); stanine 3, the next 12 percent (percentiles 12 through 23); stanines 5, 6, 7, 8, and 9 represent the next 17, 20, 12, 7, and 4 percents, respectively. The middle stanine (5) will contain the statewide mean score. Therefore, stanines lower than 5 indicate a district mean score lower than the state average; stanines greater than 5 indicate a district mean score higher than the state average. Stanines are relatively easy to use because they are all one-digit numbers. However, the information provided by stanines is less precise than that provided by percentile ranks because it is not possible to distinguish two scores in the same stanine.

The appendixes provide the stanines for district mean scores and background factor values. The stanines can be found by reading down the appropriate column in the appropriate appendix to locate the range that includes the district's score or background factor. The corresponding stanine can be found on the side of the table.

This is the first year that stanines have been provided in this guide. It should be noted that, as with percentile ranks, the stanines provided in the appendixes are group stanines; that is, the stanines are based upon the distribution of district mean scores, not individual scores.

Section B: Comparison Score Band

The comparison score band in Section B of the district profile is the percent correct score range in which similar districts scored. The similarities among districts are determined by using the background factors listed in Section D of the profile. They include socioeconomic and previous achievement factors. The factors are listed under each grade level in their order of importance; the first factor listed is the one most highly correlated with the test scores.

The comparison score band includes only the middle 50 percent of districts. The upper and lower 25 percent fall outside the band. If a district score falls above the range of its comparison score band, the district is in the upper 25 percent of the districts having similar reported background factors. If the district falls below its comparison score band, it is in the lower 25 percent of such districts. The comparison score band is not an indicator of where a district should score, only where districts with a similar set of background factors did score.

Example: Calwest's district mean score of 77.1 appears quite favorable when the district's grade two reading score is compared with the scores of all other districts in the state. However, the fact that Calwest's score is within its comparison score band indicates that about half of the districts with background characteristics for grades two and three similar to those reported for Calwest also had grade two reading scores between the 74.6 and 77.9 percent correct; about 25 percent had scores above 77.9 percent correct, and about 25 percent scored below 74.6 percent correct. In other words, on the second grade Reading Test, the Calwest District's mean score was in the middle 50 percent of California districts with a similar set of background characteristics.

Section C: Year-to-Year Comparisons of District Mean Scores

In Section C of the profile, district mean scores are reported for the past several years. Districts with any non-English-speaking (NES) pupils will note that the district mean score reported in Section C will be slightly less than the district mean score reported in Section A.

In past years, NES pupils in the elementary grades were not tested but were assigned a fixed score. The fixed score assigned for NES pupils, previously referred to as a chance score, is computed on the basis of the number of items in the test and the number of choices for each item. For example, for a multiple-choice question that has four choices, the probability of obtaining a correct answer by chance alone is 0.25 (¼), or 25 percent for a test composed of four-choice items. These fixed scores are included in the district mean score reported in Section C.

This year the district mean score reported in Section A of the profile does not contain scores for NES pupils. However, to provide comparability with previous years' data (when the fixed score was assigned to NES pupils), the 1977-78 values reported under the heading "Year-to-Year Comparisons of District Mean Scores" again contain the fixed scores for NES pupils.

Example: For Calwest, the district mean score in grade two reading in Section A is 77.1. The district has some NES pupils. Accordingly, the mean score in Section C, including an assigned score for the NES pupils, is 77.0.

Trends in Scores

Another method of interpreting test results is to look at trends. The most straightforward comparisons of scores over several years at a single grade can be made using district mean scores. Thus, a district's mean score in second grade reading, for example, may be compared with the scores reported for the second graders in the past several years in order to discern a trend.

Examples of a convenient way of examining a trend over years in a content area is presented in Figure 3. Each year's score for the content area is represented by a dot. Figure 3 contains several possible patterns of scores

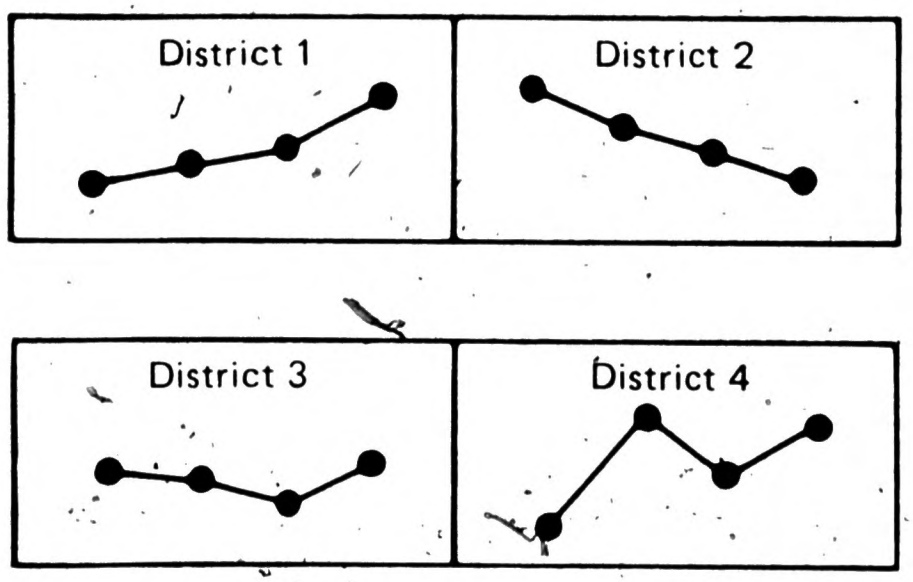


Fig. 3. Possible trend patterns for district mean scores

over three years. The scores for District 1 have been increasing over the three years, while those for District 2 have been decreasing. For District 3 the scores have remained essentially the same, while the District 4 scores have fluctuated.

Many factors can account for changes in scores over years. Changes in the community, resulting in changes in the characteristics of the district's student body, may account for changes in scores. Fluctuations in the composition of classes from year to year, especially in small districts, may account for some changes, as may differences in the testing situation from year to year.

It is difficult to determine the relative influence of each of these and other possible reasons for changes in district scores. Generally speaking, changes that are not accounted for by changes in community and student characteristics could well be attributed to the educational program. Information provided by the California Assessment Program cannot provide full answers to questions concerning such changes, but it can serve to signal areas deserving further analysis.

Section D: Background Factors Used to Develop Comparison Score Bands

Several types of data on background characteristics are collected as part of the California Assessment Program. For the tests at the elementary school

level, teachers record background characteristics information on the back of the pupils' test booklets. Other data (such as the percent of families receiving Aid to Families with Dependent Children funds) come from the school district office. Test scores in earlier grades are also treated as a background factor.

Section D of the district profile contains the data for those factors that were used to calculate the comparison score band for each grade level test. However, additional background factors are presented at the bottom right of the profile (Section E) to describe more completely the characteristics of a district.

All of the profile background factors, their source, and how they were quantified are discussed in the following paragraphs in the order in which the factors appear in the profile. A careful reading of how each factor was quantified is necessary to understand the value of the factor reported. A high value, and therefore a high percentile rank, does not necessarily mean a district is operating under favorable circumstances; it merely represents the presence or absence of the characteristic in question. For example, a district with a large number of limited- or non-English-speaking pupils would have a high percentile rank for percent LES/NES pupils. District percentile ranks for these factors can be found in the appendixes according to areas and grades being tested.

Background Factors for Grades Two and Three Reading Test

Four background factors were used in 1977-78 in calculating the district comparison score bands for reading in grades two and three: (1) Entry Level Test scores; (2) socioeconomic index; (3) percent AFDC; and (4) percent LES/NES. These factors are described below in their order of importance in influencing the values of the comparison score bands. District percentile ranks for these factors can be found in Appendix A. Because pupil mobility was also used in calculating comparison score bands in previous years, it is listed in this section; however, pupil mobility was not used in the calculations of comparison score bands for 1977-78 because it failed to contribute to the calculation of the comparison score band.

Entry Level Test. The first factor reported was the mean score obtained in the fall of 1977 by the first grade pupils in the district. The test included items measuring the learning skills of immediate recall, letter recognition, auditory discrimination, visual discrimination, and language development.

The selection of skills assessed by the Entry Level Test was based on the need to know what level of skills children have when they enter the first grade as well as the need to account for initial differences in readiness when analyzing subsequent pupil reading achievements in the second and third grades. A high score on the Entry Level Test indicated that a district's entering first graders tended to have a greater readiness for learning than those from districts with lower scores.

Socioeconomic index. The socioeconomic index is an indicator of the occupations of the parents of second and third grade pupils. On the back of each pupil's Reading Test booklet, the teacher identified from the following list the occupational category that corresponded most closely to the occupation of the pupil's father, mother, of guardian:

1 — Unknown
1 — Unskilled employees (and welfare)
2 — Skilled and semiskilled employees
3 — Semiprofessionals, clerical and sales workers, and technicians
3 — Executives, professionals, and managers

The first two categories were assigned a value of 1; the third, a value of 2; and the last two, a value of 3. The socioeconomic index is the average (mean) of these values for all second and third grade pupils in the district. A high value indicates that the district serves a community with a large percentage of people engaged in professional and semiprofessional occupations.

Percent AFDC. The AFDC figure is the percent of pupils whose families are receiving assistance under the Aid to Families with Dependent Children program. Late in 1977 each district completed a questionnaire in which it was asked to give the enrollment of each school in the district and the number of pupils in each school whose families were receiving AFDC assistance as of October, 1977.

For each school with second or third grades, the number of pupils from AFDC families was divided by the school enrollment to yield a percent AFDC figure. The district AFDC value presented on the profile was calculated by weighting the percent AFDC figure for each school by the number of second or third grade pupils tested in the school. Because the percent AFDC figures were collected for the first time in 1975-76, no value is presented for 1974-75.

Percent LES/NES. The percent LES/NES is the percent of limited- or non-English-speaking pupils. The figure was derived from data filled in on the back of each pupil's Reading Test. Teachers were asked to classify the pupil according to four language-use categories:

1. English only
2. Fluent English and a second language
3. Limited English and a second language
4. Non-English speaking

The percent LES/NES pupils is the percentage of pupils belonging to categories 3 and 4. This factor was used to calculate the comparison score bands for 1977-78. Note that the percent bilingual was used in previous years in the

calculation of comparison score bands. The percent bilingual is the percent of pupils who were identified as being in categories 2, 3, and 4.

The information for 1976-77 was recalculated to produce a percent LES/NES figure in addition to the percent bilingual figure originally calculated. Thus, the 1976-77 figures act as a transition between the previous years (when percent bilingual was used) and the current year (when only the LES/NES figure was used).

Pupil mobility. Teachers were asked to indicate on each pupil's test booklet the grade in which that pupil was first enrolled in his or her current school and whether he or she had been continuously enrolled since that time. The pupil mobility value was the percent of pupils who had not been continuously enrolled since kindergarten or first grade.

The mobility factor was not used in the calculation of the comparison score band in 1977-78, because its relationship to district test scores was too low.

> Example: Most of Calwest's second and third grade pupils come from families that score high on the socioeconomic index (2.34), putting the district in the 77th percentile in that area. The district has relatively few disadvantaged pupils (6.0 percent AFDC or the 29th percentile). The number of LES/NES pupils (1.7 percent) and the pupil mobility value (35.6 percent) are just slightly below the state average--in the 48th and 49th percentiles, respectively.

Background Factors for Survey of Basic Skills: Grade Six

Three background factors were used in calculating the comparison score bands for the Survey of Basic Skills: Grade 6: (1) grade three achievement index; (2) percent AFDC; and (3) percent LES/NES pupils. Values are presented for the last three years. A summary of the data, including percentile rankings, relating to district performance on the Survey of Basic Skills: Grade 6 can be found in Appendix B.

Grade three achievement index. The 1977-78 achievement index is the grade three score a school achieved on the state Reading Test in May, 1978. Scores from feeder schools were used if a school with grade six did not have third grade pupils. The district value presented on the profile was calculated by weighting the grade three achievement index for each school by the number of sixth grade pupils tested in that school.

Percent AFDC. The AFDC figure is the percent of pupils whose families were receiving assistance under the Aid to Families with Dependent Children program. Late in 1977 each district completed a questionnaire in which it was asked to give the enrollment of each school in the district and the number of pupils in each school whose families were receiving AFDC assistance as of October, 1977.

For each school with a sixth grade, the number of pupils from families receiving AFDC was divided by the school enrollment to yield a percent AFDC

figure. The district AFDC value presented on the profile was calculated by weighting the percent AFDC figure for each school by the number of sixth grade pupils tested in the school.

Percent LES/NES pupils. The percent LES/NES is the percent of limited- or non-English-speaking pupils. The figure was derived from data filled in on the back of each pupil's Reading Test. Teachers were asked to classify the pupil according to four language-use categories:

1. English only
2. Fluent English and a second language
3. Limited English and a second language
4. Non-English speaking

The percent LES/NES is the percent of pupils who were identified as being in categories 3 and 4. This value was used to calculate comparison score bands for 1977-78. Note that the percent bilingual was used in previous years in the calculation of comparison score bands. The percent bilingual is the percentage of pupils belonging to categories 2, 3, and 4.

The information for 1976-77 was recalculated to produce a percent LES/NES figure in addition to the percent bilingual figure originally calculated. Thus, the 1976-77 figures act as a transition between the previous years (when percent bilingual was used) and the current year (when only the LES/NES figure was used).

> Example: The grade three achievement index of Calwest's sixth grade pupils was 87.6, placing the district in the 62nd percentile in that category, somewhat above the state average. The district had relatively few disadvantaged pupils (5.4 percent AFDC), placing the district in the 23rd percentile in that category. The district's percent of LES/NES pupils (0.3) is slightly below the state average, placing it in the 46th percentile. The weighted combination of these factors for Calwest and similar districts is used to develop the reading comparison score band of 71.7-74.5, for example, which is slightly above Calwest's reading mean of 70.8.

Background Factors for Survey of Basic Skills: Grade Twelve

Two background factors were used to compute the comparison score bands for the Survey of Basic Skills: Grade 12: (1) grade six achievement index; and (2) percent AFDC. Values are presented for the last three years. A summary of the data, including percentile ranks, related to district performance on the Survey of Basic Skills: Grade 12 can be found in Appendix C.

Grade six achievement index. The grade six achievement index for 1977-78 is a composite of the grade six scores on the reading and mathematics subtests of the Survey of Basic Skills: Grade Six, which was administered in April, 1977, to the pupils in the schools that feed into the district's high schools. The score for each sixth grade feeder school was calculated according to the following formula:

$$\text{Grade six achievement index} = \frac{2\ (\text{reading score}) + (\text{math score})}{3}.$$

The achievement index for each sixth grade feeder school was weighted by the number of sixth grade pupils currently feeding into a high school to obtain the grade six achievement index for the high school. If a district had more than one high school, the district value (as presented on the profile) for the grade six achievement index was calculated by weighting the achievement index for each of the high schools by the number of twelfth grade students tested in each high school.

Percent AFDC. The AFDC figure is the percent of students whose families are receiving assistance under the Aid to Families with Dependent Children program. Late in 1977 each district completed a questionnaire in which it was asked to give the enrollment of each school in the district and the number of students in the school whose families were receiving AFDC assistance as of October, 1977.

For each school with a twelfth grade, the number of students from AFDC families was divided by the school enrollment to yield a percent AFDC figure. The district AFDC value presented on the profile was calculated by weighting the percent AFDC figure for each high school by the number of twelfth grade students tested in the school.

> Example: Calwest's grade six achievement index was 67.3, indicating that in 1977-78 the high schools of Calwest Unified were receiving from the elementary schools pupils with above-average achievement levels in reading and mathematics (72nd percentile). As is apparent from the background factors collected in grades two, three, and six, very few students came from economically disadvantaged homes as measured by percent AFDC (3 percent, 17th percentile).

Section E: Additional Background Factors (Not Used to Develop Comparison Score Bands

In addition to the background factors used in the computation of the comparison score bands for the respective tests, several other background factors are presented on the district profiles under the heading "Additional Background Factors." These additional factors can contribute to a more complete understanding of a district's background and therefore the conditions under which the district was operating. The information for the additional factors was not collected as part of the assessment program; it was obtained from the State Department of Education agencies which require reports from districts. The meaning of each additional background factor and the sources for the data are listed below in the order in which the factors appear in Section E of the profile.

Average Daily Attendance

The average daily attendance (a.d.a.) reported is the total second period a.d.a. reported to the Local Assistance Bureau (formerly the Bureau of School Apportionments and Reports) for 1977-78 on Forms J18 and J19.

Percent Minority Pupils

Data on the number of minority pupils enrolled in the schools were collected in fall, 1977, by the Local Assistance Bureau on Form BSAR R-30 S.

American Indian or Alaskan native. A person who has origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition.

Asian or Pacific islander. A person who has origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific islands excluding the Philippines (for example, China, India, Japan, Korea, and Samoa).

Filipino. A person who has origins in any of the original peoples of the Philippines.

Black, not of Hispanic origin. A non-Hispanic person who has origins in any of the black racial groups of Africa.

Hispanic. A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

It is important to note that many districts have no minority pupils, or at least none in a particular category. The state distribution of minority students contributes to erratic appearing percentile rankings for a district, as demonstrated in Appendix D. For example, 35 percent of the districts have no black students, and half of the districts have fewer than 0.3 percent blacks; thus, a district with 0.3 percent black population would be at the 50th percentile, and another district with only a 1.6 percent black population would be at the 75th percentile. In statistical terms, the distribution of black students and other minorities among districts is strongly positively skewed. In other words, more districts will register above the 50th percentile (the state mean) than below it.

Average Class Size, Elementary

Information on average class size in kindergarten through grade eight is collected annually by the Local Assistance Bureau on Form J111A. The figure shown in the profile is the average number of pupils per class for 1977-78. A high average and high percentile rank indicate large elementary grade class sizes.

Average Class Size, High School

Information on average class size in grades nine through twelve is collected annually by the Local Assistance Bureau of Form J111A. For purposes of the report, grades seven, eight, and nine of a junior high school are included with high school grades in calculating the average. The figure shown in the profile is the average number of pupils per class for 1977-78. A high average and high percentile rank indicate large high school class sizes.

Assessed Valuation per Unit of A.D.A.

The assessed valuation per unit of average daily attendance is a measure of the ability of a school district to provide local revenues. The valuation figure was derived from the modified assessed valuation of 1977-78 reported to the Local Assistance Bureau. The a.d.a. used to calculate the figure is described in the section headed "Average Daily Attendance" above.

General Purpose Tax Rate

General purpose tax rate data were taken from information furnished by school districts to the Local Assistance Bureau on Form J29B. It is the rate levied in conjunction with the district revenue limit--plus the areawide tax levied, if any. The tax rate is determined annually to provide local revenues sufficient to complement state apportionments in meeting the district revenue limit amount. The rate shown is that levied by the district for 1977-78. In some instances the rate shown may be lower than that authorized if the district has chosen to operate at a revenue limit lower than the computed rate.

Expenditures per Unit of A.D.A.

The expenditures per unit of a.d.a. figure shown on the profile is the total current expense of education reported to the Local Assistance Bureau on Form J41 divided by the a.d.a. for the fiscal year. It does not include expenditures for food services, community services, and capital outlay; these expenditures are not considered part of the total current expense of education because of the variation of expenditures in these classes among school districts. The expenditures reported are for 1976-77, the latest school year for which data were available.

Example: In the Calwest Unified School District, 18 percent of the students were classified as minority, over half of them with Spanish surnames (Hispanic). Average class sizes in the district (28.5 for elementary and 27.6 for high school) were larger than the state averages (86th and 79th percentiles, respectively). The district, with an average daily attendance of 28,326, was in the top 5 percent in size of the 1,043 districts in the state. The assessed valuation of $19,567 per student (based on units of a.d.a.) was fairly low (31st percentile) for unified districts. The tax rate of $3.89 per $100 of assessed valuation was somewhat below average (42nd percentile), while the expenditure per pupil was far below average (8th percentile).

Questions and Answers

Q. Is it true that the state changes the tests every year?

A. No. However, it may have seemed that way in the past during the transition from publishers' standardized tests to state-developed tests and the subsequent revision of the state tests to accommodate the suggestions of teachers and members of the test advisory committees. This year's profile is designed to show the stability that now exists: the Entry Level Test and Reading Test have now been used in the same form for four successive years. The Surveys were implemented one year later and hence have been the same for three years.

Q. Is it true that if my district's percent correct score in second grade reading, for example, were only 1 percent higher than last year, my percentile rank would increase by 20 percentile points?

A. No. Even at the middle of the distribution (where the sensitivity to change is greatest because of the peakedness of the frequency distribution curve), a 1 percent change in percent correct will translate into a change of approximately 5 percentile points. However, the spread or dispersion of district scores does decrease at the higher grade levels, particularly grade twelve, where districts tend to be large composites of diverse subgroups, therefore differing less from each other than small elementary districts do. The distribution of test score means of high school districts, for example, is a more compressed distribution. This compression results in a larger ratio of percentile rank differences to mean raw (percent correct) score differences. The case is most dramatic with spelling where high- and low-scoring districts do not have dramatically different scores.

Q. What background factors are most influential in determining the comparison score bands?

A. The factors used for the calculations are listed under each test in the order of their importance. By the time that the third- or fourth-ranked background factor is considered, the information provided by the remaining factors becomes redundant, and very little new information can be extracted. The score band calculations for the Reading Test illustrate this principle. Once the Entry Level Test scores and socioeconimic index for a district are known, very little significant information about a district is added by including the percent AFDC and the percent LES/NES pupils values; because pupil mobility values added no new information, they were not used in calculating comparison score bands this year. All three of these factors are correlated with Entry Level Test scores and the socioeconomic

index. Thus, while these three factors have informational value, they tell little more about a district's probable test scores than the Entry Level Test scores and the socioeconomic index.

Q. Why use 1977 Entry Level Test scores as a predictor of current second or third grade pupils' scores? Wouldn't longitudinal comparisons be better? That is, why not use the scores for the fall, 1976, Entry Level Test (the one actually taken by the current second graders) as predictors for the current second grade?

A. If true longitudinal data were available, they might be better predictors of scores. However, the scores of last year's first grade are not likely to be for the same pupils as this year's second grade as long as any of the first graders moved from the community or any new second grader entered the school since the Entry Level Test was administered. No better predictions resulted when such quasi-longitudinal comparisons were attempted. If there is any pupil mobility, the changes in scores caused by the entering of new pupils and the leaving of old will be spread fairly evenly over all grade levels. The most recent test results will reflect those changes and will therefore be the most accurate predictors.

Because of the greater span of years, the quasi-longitudinal comparisons from grade three to grade six and from grade six to grade twelve would suffer even more from pupil mobility.

Q. Why aren't the comparison score bands the same width for all grade levels and content areas for a district?

A. Some grade level and content area scores are more predictable than others. For example, at both grades six and twelve, spelling is the most difficult content area to predict. Background factors are not as closely correlated with spelling scores as they are with reading, for example.

The width of the comparison score band is also a function of the number of students tested. Thus, a small district with a limited number of students tested has a large measurement error, which is reflected in wider comparison score bands than those of large districts.

Q. Does a district's scoring below its comparison score band indicate that the instructional program is poor?

A. Not necessarily, but the low score should serve as a signal to examine the situation thoroughly. The following questions must be considered before concluding that the instructional program is failing:

1. Are the test results consistent with teacher observations? However, when considering teacher observations, one should be alert to the possible bias in the statement "This is a particularly bad class." Furthermore, when considering the average

score of 200 to 300 students, one must realize that the students would have to be quite systematically and dramatically different to affect a district average.

2. Did the testing coordinator report any unusual conditions arising during the administration of the tests? A fire drill? Inattentive proctors? Apathy apparent in the students? (Any disruptions should have been reported at the time. If they are reported after the fact, they tend to sound like rationalizations or excuses rather than valid explanations or reasons.)

3. Do the reported background factors present a reasonable profile of the district? Selected factors are, of course, the basis of the predicted score, so if one of these should falsely inflate the comparison score band, there is a greater likelihood that the district's score will fall below its comparison score band.

4. Two other extreme--and antithetical--reasons could account for a score's being below the comparison score band:

   a. The district is not, in fact, performing as well as those similar to it.

   b. Perhaps even after rejecting all competing explanations, it cannot be said with certainty that the instructional program is at fault since the prediction system is not foolproof. A small chance exists that the district could have scored below its comparison score band even when it deserved to score within.

Q. Does scoring above one's comparison score band mean that the instructional program is outstanding?

A. To analyze fairly and completely the test results, a district scoring above its comparison score band should ask itself the same questions as districts that score below (see the previous question and answer).

Q. Does being within one's comparison score bands in all grades and all content areas indicate that the district is doing about as well as can be expected?

A. It is doing about as well as other districts with similar characteristics. The possibility remains that all districts with those characteristics could be doing better. District personnel must be aware of the possible self-fulfilling prophecy implicit in using comparison score bands. If the scores create complacency, the district's programs probably will not improve.

The relationship of a district's score to its comparison score band should not be viewed without keeping in mind the percentile rank. A good example would be a district that is scoring within its comparison score band but is only at the 1st percentile. Such a position can hardly be seen as laudatory or even reason for self-satisfaction.

Some of the same warnings can be directed to higher-scoring districts, regardless of the interpretation index. Being at the 95th percentile does mean the district's students are doing relatively well. However, since any rank ordering is a comparative process, the results will only demonstrate where a district stands in relation to the group with which the district is being compared. It is still possible to conclude that, in terms of some other group or some external criterion, a district should be doing even better.

Q. Is the size of the school district an important consideration in analyzing a district profile?

A. Yes. In the smallest school districts, in which a small number of students have determined the district average, caution must be used in interpreting scores. In these cases extreme scores, absenteeism, or other aberrations can have a marked influence on the district average.

This same limitation has been taken into account in calculating the comparison score band. The width of this band must be greater for smaller school districts. For the very smallest districts, this width becomes so great that the relationship of the district average to the comparison score band is of little value.

Q. What can be learned from the background factors?

A. Often documentation of the background factors may be used to affirm or refute claims made concerning a district's operations. The following are examples:

1. A taxpayers' group may think the district has the highest tax rate around. The percentile rank will show how accurate the group's perceptions are.

2. The teachers may think their average class size is too large. In absolute terms, who is to say? In relative terms, the percentile rank will show how the district's average class size compares with that of other districts in the state.

Appendix A

Percentile Ranks for District *Reading Test* Scores
and Corresponding Background Factors, Grades Two and Three, May, 1978

Stanine	State Percentile Ranks	Reading Test Grade 2	Reading Test Grade 3	Entry Level Test	Socio-economic Index	Percent AFDC	Percent LES/NES Pupils	Pupil Mobility	State Percentile Ranks	Stanine
9	99	92.2–100.0	96.1–100.0	32.00–34.33	2.92–3.00	39.2–93.8	42.4–76.9	70.0–100.0	99	
	98	91.8–92.1	95.4–96.0	31.46–31.99	2.88–2.91	32.9–39.1	36.2–42.3	61.5–69.9	98	9
	97	90.5–91.7	94.8–95.3	31.16–31.45	2.80–2.87	31.2–32.8	30.6–36.1	59.1–61.4	97	
	96	89.1–90.4	94.2–94.7	31.00–31.15	2.74–2.79	28.4–31.1	25.6–30.5	57.1–59.0	96	
	95	88.0–89.0	93.8–94.1	30.83–30.99	2.70–2.73	27.0–28.3	24.2–25.5	54.7–57.0	95	
	94	86.4–87.9	93.4–93.7	30.58–30.82	2.67–2.69	26.0–26.9	22.7–24.1	53.5–54.6	94	
8	93	85.4–86.3	93.3	30.47–30.57	2.64–2.66	25.1–25.9	21.1–22.6	52.0–53.4	93	8
	92	85.1–85.3	93.0–93.2	30.37–30.46	2.61–2.63	24.2–25.0	20.1–21.0	50.5–51.9	92	
	91	84.8–85.0	92.8–92.9	30.28–30.36	2.57–2.60	23.2–24.1	18.8–20.0	50.1–50.4	91	
	90	84.2–84.7	92.6–92.7	30.20–30.27	2.55–2.56	22.7–23.1	17.5–18.7	50.0	90	
	89	83.7–84.1	92.3–92.5	30.15–30.19	2.53–2.54	22.1–22.6	16.6–17.4	49.5–49.9	89	
	88	83.2–83.6	92.1–92.2	30.07–30.14	2.51-2.52	21.4–22.0	15.1–16.5	48.7–49.4	88	
	87	82.8–83.1	92.0	29.99–30.06	2.49–2.50	20.8–21.3	14.1–15.0	48.0–48.6	87	
	86	82.5–82.7	91.7–91.9	29.88–29.98	2.47–2.48	20.3–20.7	13.1–14.0	47.5–47.9	86	
	85	82.1–82.4	91.6	29.80–29.87	2.46	19.6–20.2	12.5–13.0	47.2–47.4	85	
	84	81.4–82.0	91.4–91.5	29.71–29.79	2.44–2.45	19.2–19.5	11.3–12.4	46.6–47.1	84	
7	83	81.1–81.3	91.2–91.3	29.67–29.70	2.43	18.6–19.1	11.0–11.2	46.1–46.5	83	7
	82	80.7–81.0	91.0–91.1	29.57–29.66	2.41–2.42	18.3–18.5	10.4–10.9	45.3–46.0	82	
	81	80.4–80.6	90.8–90.9	29.53–29.56	2.39–2.40	17.9–18.2	10.1–10.3	44.9–45.2	81	
	80	80.1–80.3	90.6–90.7	29.50–29.52	2.38	17.5–17.8	9.5–10.0	44.7–44.8	80	
	79	80.0	90.4–90.5	29.43–29.49	2.36–2.37	17.2–17.4	9.0–9.4	44.2–44.6	79	
	78	79.8–79.9	90.3	29.38–29.42	2.35	16.8–17.1	8.4–8.9	43.6–44.1	78	
	77	79.5–79.7	90.1–90.2	29.33–29.37	2.34	16.6–16.7	7.9–8.3	43.1–43.5	77	
	76	79.0–79.4	90.0	29.29–29.32	2.33	16.2–16.5	7.6–7.8	42.8–43.0	76	
	75	78.8–78.9	89.8–89.9	29.25–29.28	—	15.9–16.1	7.2–7.5	42.4-42.7	75	
	74	78.5–78.7	89.6–89.7	29.22–29.24	2.32	15.3–15.8	6.7–7.1	41.8–42.3	74	
	73	78.2–78.4	89.4–89.5	29.20–29.21	2.31	15.1–15.2	6.6	41.3–41.7	73	
	72	77.9–78.1	89.3	29.14–29.19	2.30	14.7–15.0	6.3–6.5	41.0–41.2	72	
	71	77.7–77.8	89.1–89.2	29.08-29.13	2.29	14.2–14.6	6.0–6.2	40.7–40.9	71	
	70	77.6	88.9–89.0	29.03–29.07	2.28	13.9–14.1	5.7–5.9	40.3–40.6	70	
6	69	77.4–77.5	88.8	29.00–29.02	2.27	13.8	5.6	40.1–40.2	69	6
	68	77.2–77.3	88.7	28.98–28.99	2.26	13.6–13.7	5.3–5.5	40.0	68	
	67	77.0–77.1	88.5–88.6	28.95–28.97	2.25	13.4–13.5	5.1–5.2	39.6–39.9	67	
	66	76.7–76.9	88.3-88.4	28.88–28.94	2.24	13.2–13.3	4.8–5.0	39.4–39.5	66	
	65	76.5–76.6	88.2	28.85–28.87	2.22–2.23	12.9–13.1	4.6–4.7	39.1–39.3	65	
	64	76.3–76.4	88.1	28.78–28.84	—	12.6–12.8	4.4–4.5	38.9–39.0	64	
	63	76.0–76.2	88.0	28.72–28.77	2.21	12.3–12.5	4.1–4.3	38.7–38.8	63	
	62	75.7–75.9	87.8–87.9	28.66–28.71	2.20	12.1–12.2	3.9–4.0	38.5–38.6	62	
	61	75.5–75.6	87.7	28.63–28.65	2.19	11.9–12.0	3.7–3.8	38.1–38.4	61	
	60	75.2–75.4	87.5–87.6	28.59–28.62	—	11.7–11.8	3.5–3.6	37.8–38.0	60	
	59	75.0–75.1	87.4	28.52–28.58	2.18	11.5–11.6	3.3–3.4	37.7	59	
	58	74.7–74.9	87.3	28.49–28.51	2.17	11.4	3.1–3.2	37.6	58	
	57	74.3–74.6	87.1–87.2	28.43–28.48	—	11.3	2.9–3.0	37.4–37.5	57	
	56	74.1–74.2	87.0	28.37–28.42	2.16	11.1–11.2	2.6–2.8	37.2–37.3	56	
	55	73.8–74.0	86.9	28.33–28.36	2.15	10.9–11.0	2.5	36.9–37.1	55	
	54	73.5–73.7	86.8	28.30–28.32	2.14	10.6–10.8	2.4	36.8	54	
	53	73.2–73.4	86.7	28.25–28.29	2.12–2.13	10.5	2.3	36.6–36.7	53	
	52	73.0–73.1	86.6	28.20–28.24	—	10.4	2.1–2.2	36.4–36.5	52	
5	51	72.8–72.9	86.4–86.5	28.13–28.19	2.11	10.2–10.3	2.0	36.2–36.3	51	5

	50	72.6–72.7	86.1–86.3	28.09–28.12	2.10	10.1	1.9	35.8–36.1	50	
	49	72.4–72.5	86.0	28.05–28.08	2.09	9.7–10.0	1.8	35.6–35.7	49	
	48	72.2–72.3	85.9	28.01–28.04	2.08	9.6	1.7	35.3–35.5	48	
	47	71.8–72.1	85.7–85.8	27.97–28.00	2.07	9.4–9.5	1.6	35.1–35.2	47	
	46	71.7	85.5–85.6	27.92–27.96	2.06	9.2–9.3	1.5	34.8–35.0	46	
	45	71.4–71.6	85.4	27.85–27.91	—	9.0–9.1	1.4	34.6–34.7	45	
	44	71.3	85.3	27.81–27.84	2.05	8.9	1.3	34.3–34.5	44	
	43	71.1–71.2	85.1–85.2	27.77–27.80	2.04	8.7–8.8	1.2	34.1–34.2	43	
	42	70.9–71.0	85.0	27.71–27.76	2.03	8.5–8.6	1.1	33.8–34.0	42	
	41	70.4–70.8	84.8–84.9	27.67–27.70	2.01–2.02	8.3–8.4	1.0	33.6–33.7	41	
	40	70.1–70.3	84.5–84.7	27.64–27.66	2.00	8.1–8.2	0.9	33.4–33.5	40	
	39	69.8–70.0	84.4	27.56–27.63	—	7.9–8.0	0.8	33.3	39	
	38	69.5–69.7	84.2–84.3	27.50–27.55	1.99	7.7–7.8	0.7	33.0–33.2	38	
	37	69.3–69.4	84.0–84.1	27.44–27.49	—	7.5–7.6	—	32.7–32.9	37	
	36	69.1–69.2	83.8–83.9	27.37–27.43	1.98	7.3–7.4	0.6	32.5–32.6	36	
	35	68.8–69.0	83.5–83.7	27.29–27.36	1.97	7.1–7.2	0.5	32.2–32.4	35	
	34	68.4–68.7	83.3–83.4	27.23–27.28	1.96	7.0	0.4	31.9–32.1	34	
	33	68.1–68.3	83.0–83.2	27.18–27.22	1.95	6.8–6.9	—	31.6–31.8	33	
4	32	67.8–68.0	82.8–82.9	27.14–27.17	—	6.5–6.7	0.2–0.3	31.2–31.5	32	4
	31	67.5–67.7	82.5–82.7	27.08–27.13	1.94	6.4	0.1	30.9–31.1	31	
	30	67.1–67.4	82.3–82.4	27.00–27.07	1.93	6.3	—	30.5–30.8	30	
	29	66.8–67.0	82.1–82.2	26.92–26.99	1.92	6.0–6.2	—	30.0–30.4	29	
	28	66.6–66.7	81.9–82.0	26.84–26.91	1.91	5.9	—	29.7–29.9	28	
	27	66.1–66.5	81.6–81.8	26.78–26.83	1.89–1.90	5.7–5.8	—	29.4–29.6	27	
	26	65.7–66.0	81.3–81.5	26.67–26.77	1.88	5.5–5.6	—	29.1–29.3	26	
	25	65.4–65.6	80.8–81.2	26.59–26.66	1.87	5.3–5.4	—	28.7–29.0	25	
	24	65.0–65.3	80.5–80.7	26.50–26.58	1.86	5.2	—	28.6	24	
	23	64.5–64.9	80.2–80.4	26.40–26.49	1.84–1.85	5.0–5.1	—	28.3–28.5	23	
	22	64.2–64.4	80.0–80.1	26.31–26.39	1.82–1.83	4.7–4.9	—	28.1–28.2	22	
	21	63.4–64.1	79.7–79.9	26.22–26.30	1.81	4.4–4.6	—	27.7–28.0	21	
	20	63.1–63.3	79.3–79.6	26.11–26.21	1.79–1.80	4.0–4.3	—	27.4–27.6	20	
	19	62.5–63.0	79.0–79.2	26.03–26.10	1.78	3.7–3.9	—	27.1–27.3	19	
3	18	61.6–62.4	78.5–78.9	25.96–26.02	1.76–1.77	3.5–3.6	—	26.8–27.0	18	3
	17	61.1–61.5	78.0–78.4	25.73–25.95	1.75	3.4	—	26.4–26.7	17	
	16	60.6–61.0	77.3–77.9	25.57–25.72	1.74	3.2–3.3	—	25.7–26.3	16	
	15	60.1–60.5	76.9–77.2	25.48–25.56	1.72–1.73	3.0–3.1	—	25.1–25.6	15	
	14	59.1–60.0	76.5–76.8	25.36–25.47	1.70–1.71	2.8–2.9	—	25.0	14	
	13	58.5–59.0	76.0–76.4	25.21–25.35	1.68–1.69	2.4–2.7	—	24.4–24.9	13	
	12	58.0–58.4	75.4–75.9	25.07–25.20	1.66–1.67	2.2–2.3	—	24.0–24.3	12	
	11	57.5–57.9	74.8–75.3	24.68–25.06	1.63–1.65	2.0–2.1	—	23.2–23.9	11	
	10	56.7–57.4	73.9–74.7	24.50–24.67	1.61–1.62	1.7–1.9	—	22.6–23.1	10	
	9	55.6–56.6	73.0–73.8	24.27–24.49	1.59–1.60	1.3–1.6	—	22.0–22.5	9	
2	8	55.2–55.5	72.5–72.9	24.14–24.26	1.53–1.58	0.9–1.2	—	21.1–21.9	8	2
	7	54.7–55.1	71.6–72.4	23.80–24.13	1.50–1.52	0.4–0.8	—	20.1–21.0	7	
	6	53.9–54.6	71.0–71.5	23.34–23.79	1.47–1.49	0.1–0.3	—	19.9–20.0	6	
	5	51.3–53.8	70.0–70.9	23.09–23.33	1.41–1.46	—	—	18.5–19.8	5	
	4	49.1–51.2	67.4–69.9	22.53–23.08	1.37–1.40	—	—	16.3–18.4	4	
1	3	47.1–49.0	64.0–67.3	22.17–22.52	1.31–1.36	—	—	12.8–16.2	3	1
	2	44.1–47.0	61.3–63.9	21.16–22.16	1.24–1.30	—	—	7.0–12.7	2	
	1	18.0–44.0	51.5–61.2	18.27–21.15	1.00–1.23	0.0	0.0	0.0–6.9	1	

Appendix B

Percentile Ranks for District Mean Scores
on the *Survey of Basic Skills: Grade 6* and Corresponding Background Factors, April, 1978

Stanine	State Percentile Ranks	Reading	Written Expression	Spelling	Mathematics	Grade 3 Achievement Index	Percent AFDC	Percent LES/NES Pupils	State Percentile Ranks	Stanine
	99	87.5-100.0	87.5-100.0	87.5-100.0	81.4-100.0	96.1-100.0	40.6-100.0	32.5-67.9	99	
9	98	85.2-87.4	83.6-87.4	82.1-87.4	79.0-81.3	95.1-96.0	35.6-40.5	26.8-32.4	98	9
	97	82.9-85.1	81.7-83.5	79.5-82.0	76.2-78.9	94.4-95.0	32.4-35.5	22.7-26.7	97	
	96	81.7-82.8	80.1-81.6	76.2-79.4	75.0-76.1	93.9-94.3	29.4-32.3	20.0-22.6	96	
	95	80.6-81.6	79.4-80.0	75.6-76.1	73.3-74.9	93.6-93.8	27.6-29.3	16.7-19.9	95	
	94	80.0-80.5	78.5-79.3	75.0-75.5	72.5-73.2	93.3-93.5	26.5-27.5	14.3-16.6	94	
8	93	79.5-79.9	77.5-78.4	74.0-74.9	71.5-72.4	93.1-93.2	25.1-26.4	13.0-14.2	93	8
	92	78.9-79.4	76.8-77.4	—	70.5-71.4	92.9-93.0	24.1-25.0	12.2-12.9	92	
	91	78.2-78.8	76.5-76.7	72.9-73.9	70.0-70.4	92.6-92.8	23.3-24.0	11.2-12.1	91	
	90	77.7-78.1	76.1-76.4	72.5-72.8	69.6-69.9	92.3-92.5	22.9-23.2	10.5-11.1	90	
	89	77.4-77.6	75.3-76.0	72.1-72.4	69.0-69.5	92.1-92.2	22.1-22.8	10.0-10.4	89	
	88	76.9-77.3	75.2	71.5-72.0	68.2-68.9	92.0	21.4-22.0	9.1-9.9	88	
	87	76.5-76.8	75.0-75.1	71.2-71.4	67.7-68.1	91.7-91.9	20.8-21.3	8.6-9.0	87	
	86	76.2-76.4	74.3-74.9	70.8-71.1	67.2-67.6	91.6	20.2-20.7	8.0-8.5	86	
	85	75.7-76.1	73.9-74.2	70.5-70.7	66.8-67.1	91.4-91.5	19.7-20.1	7.2-7.9	85	
7	84	75.3-75.6	73.3-73.8	70.1-70.4	66.4-66.7	91.2-91.3	19.2-19.6	6.8-7.1	84	7
	83	75.1-75.2	73.0-73.2	69.9-70.0	65.9-66.3	91.0-91.1	18.8-19.1	6.4-6.7	83	
	82	75.0	72.5-72.9	69.7-69.8	65.5-65.8	90.8-90.9	18.4-18.7	6.1-6.3	82	
	81	74.6-74.9	72.1-72.4	69.4-69.6	65.1-65.4	90.6-90.7	18.1-18.3	5.5-6.0	81	
	80	74.3-74.5	71.7-72.0	69.2-69.3	64.9-65.0	90.4-90.5	17.7-18.0	5.2-5.4	80	
	79	74.0-74.2	71.3-71.6	68.9-69.1	64.6-64.8	90.2-90.3	17.3-17.6	4.9-5.1	79	
	78	73.8-73.9	71.1-71.2	68.6-68.8	64.3-64.5	90.1	17.1-17.2	4.5-4.8	78	
	77	73.4-73.7	70.9-71.0	68.5	64.1-64.2	89.9-90.0	16.9-17.0	4.4	77	
	76	73.1-73.3	70.7-70.8	68.3-68.4	63.9-64.0	89.7-89.8	16.7-16.8	4.2-4.3	76	
	75	72.9-73.0	70.5-70.6	68.1-68.2	63.6-63.8	89.5-89.6	16.3-16.6	4.0-4.1	75	
	74	72.7-72.8	70.3-70.4	67.8-68.0	63.3-63.5	89.3-89.4	15.8-16.2	3.8-3.9	74	
	73	72.5-72.6	70.1-70.2	67.7	63.2	89.1-89.2	15.5-15.7	3.7	73	
	72	72.4	69.9-70.0	67.5-67.6	63.1	89.0	15.1-15.4	3.4-3.6	72	
	71	72.2-72.3	69.7-69.8	67.4	62.9-63.0	88.8-88.9	14.8-15.0	3.2-3.3	71	
	70	72.0-72.1	69.6	67.2-67.3	62.7-62.8	88.7	14.4-14.7	3.0-3.1	70	
6	69	71.8-71.9	69.3-69.5	66.9-67.1	62.3-62.6	88.4-88.6	14.1-14.3	2.8-2.9	69	6
	68	71.7	69.1-69.2	66.8	62.1-62.2	88.3	13.9-14.0	2.6-2.7	68	
	67	71.4-71.6	68.9-69.0	66.6-66.7	62.0	88.2	13.7-13.8	2.5	67	
	66	71.2-71.3	68.8	66.4-66.5	61.9	88.1	13.6	2.3-2.4	66	
	65	71.0-71.1	68.5-68.7	66.3	61.6-61.8	88.0	13.4-13.5	2.1-2.2	65	
	64	70.8-70.9	68.4	66.0-66.2	61.5	87.8-87.9	13.3	2.0	64	
	63	70.7	68.2-68.3	65.9	61.4	87.7	13.1-13.2	1.8-1.9	63	
	62	70.5-70.6	68.1	65.8	61.1-61.3	87.6	12.9-13.0	1.6-1.7	62	
	61	70.1-70.4	67.8-68.0	65.6-65.7	60.8-61.0	87.4-87.5	12.5-12.8	1.5	61	
	60	69.9-70.0	67.7	65.5	60.7	87.2-87.3	12.3-12.4	1.4	60	
	59	69.7-69.8	67.5-67.6	65.4	60.5-60.6	87.1	12.0-12.2	1.3	59	
	58	69.5-69.6	67.1-67.4	65.3	60.2-60.4	87.0	11.9	1.2	58	
	57	69.4	66.9-67.0	65.2	60.1	86.9	11.7-11.8	—	57	
5	56	69.2-69.3	66.8	65.1	60.0	86.7-86.8	11.5-11.6	1.1	56	5
	55	69.1	66.7	65.0	59.8-59.9	86.5-86.6	11.3-11.4	1.0	55	
	54	68.9-69.0	66.5-66.6	64.9	59.6-59.7	—	11.1-11.2	—	54	
	53	68.8	66.4	64.8	59.4-59.5	86.3-86.4	10.8-11.0	0.9	53	
	52	68.6-68.7	66.2-66.3	64.6-64.7	59.2-59.3	86.1-86.2	10.6-10.7	0.8	52	
	51	68.4-68.5	66.0-66.1	64.5	59.1	86.0	10.4-10.5	0.7	51	

	50	68.3	65.7-65.9	64.4	58.9-59.0	85.8-85.9	10.2-10.3	0.7	50	
	49	68.1-68.2	65.5-65.6	64.3	58.7-58.8	85.7	10.1	0.6	49	
	48	67.9-68.0	65.3-65.4	64.1-64.2	58.5-58.6	85.5-85.6	9.8-10.0	0.5	48	
	47	67.6-67.8	65.1-65.2	64.0	58.3-58.4	85.4	9.5-9.7	0.4	47	
5	46	67.4-67.5	64.9-65.0	63.8-63.9	58.2	85.3	9.3-9.4	0.3	46	5
	45	67.2-67.3	64.7-64.8	63.7	58.0-58.1	85.1-85.2	9.2	0.2	45	
	44	67.0-67.1	64.5-64.6	63.6	57.8-57.9	84.8-85.0	9.1	—	44	
	43	66.7-66.9	64.2-64.4	63.3-63.5	57.6-57.7	84.6-84.7	8.9-9.0	—	43	
	42	66.5-66.6	64.1	63.2	57.4-57.5	84.4-84.5	8.8	—	42	
	41	66.2-66.4	63.8-64.0	62.8-63.1	57.2-57.3	84.3	8.6-8.7	—	41	
	40	66.0-66.1	63.6-63.7	62.7	57.0-57.1	84.1-84.2	8.4-8.5	—	40	
	39	65.7-65.9	63.5	62.6	56.7-56.9	84.0	8.2-8.3	—	39	
	38	65.5-65.6	63.2-63.4	62.5	56.5-56.6	83.8-83.9	8.0-8.1	—	38	
	37	65.3-65.4	62.9-63.1	62.3-62.4	56.4	83.5-83.7	7.8-7.9	—	37	
	36	65.0-65.2	62.6-62.8	62.1-62.2	56.2-56.3	83.3-83.4	7.7	—	36	
	35	64.9	62.4-62.5	61.8-62.0	56.0-56.1	83.0-83.2	7.4-7.6	—	35	
	34	64.7-64.8	62.0-62.3	61.5-61.7	55.8-55.9	82.8-82.9	7.2-7.3	—	34	
	33	64.5-64.6	61.8-61.9	61.4	55.7	82.5-82.7	7.1	—	33	
4	32	64.0-64.4	61.7	61.2-61.3	55.4-55.6	82.4	6.9-7.0	—	32	4
	31	63.7-63.9	61.4-61.6	61.1	55.2-55.3	82.1-82.3	6.8	—	31	
	30	63.4-63.6	61.1-61.3	60.8-61.0	55.0-55.1	81.9-82.0	6.6-6.7	—	30	
	29	63.1-63.3	60.7-61.0	60.5-60.7	54.6-54.9	81.7-81.8	6.4-6.5	—	29	
	28	62.6-63.0	60.3-60.6	60.3-60.4	54.3-54.5	81.5-81.6	6.2-6.3	—	28	
	27	62.5	60.1-60.2	60.1-60.2	54.1-54.2	81.3-81.4	6.0-6.1	—	27	
	26	62.1-62.4	59.7-60.0	60.0	53.6-54.0	80.9-81.2	5.8-5.9	—	26	
	25	61.8-62.0	59.5-59.6	59.8-59.9	53.4-53.5	80.6-80.8	5.7	—	25	
	24	61.5-61.7	59.4	59.5-59.7	53.1-53.3	80.1-80.5	5.5-5.6	—	24	
	23	61.2-61.4	59.0-59.3	59.2-59.4	52.7-53.0	80.0	5.3-5.4	—	23	
	22	60.8-61.1	58.7-58.9	58.9-59.1	52.6	79.6-79.9	5.1-5.2	—	22	
	21	60.6-60.7	58.2-58.6	58.8	52.5	79.4-79.5	5.0	—	21	
	20	60.2-60.5	57.9-58.1	58.5-58.7	52.2-52.4	79.0-79.3	4.6-4.9	—	20	
	19	59.8-60.1	57.5-57.8	58.4	52.0-52.1	78.6-78.9	4.4-4.5	—	19	
3	18	59.4-59.7	57.2-57.4	58.2-58.3	51.6-51.9	78.0-78.5	4.1-4.3	—	18	3
	17	59.0-59.3	57.0-57.1	57.9-58.1	51.4-51.5	77.3-77.9	3.9-4.0	—	17	
	16	58.3-58.9	56.7-56.9	57.4-57.8	51.0-51.3	76.7-77.2	3.6-3.8	—	16	
	15	57.8-58.2	56.2-56.6	57.0-57.3	50.6-50.9	76.3-76.6	3.5	—	15	
	14	57.2-57.7	55.8-56.1	56.6-56.9	50.4-50.5	76.0-76.2	3.3-3.4	—	14	
	13	56.9-57.1	55.1-55.7	56.4-56.5	50.0-50.3	75.4-75.9	3.1-3.2	—	13	
	12	56.5-56.8	54.7-55.0	56.3	49.6-49.9	74.9-75.3	2.8-3.0	—	12	
	11	56.1-56.4	54.4-54.6	55.7-56.2	49.1-49.5	73.7-74.8	2.6-2.7	—	11	
	10	55.3-56.0	53.4-54.3	55.1-55.6	48.9-49.0	73.0-73.6	2.4-2.5	—	10	
	9	54.4-55.2	52.7-53.3	54.2-55.0	48.3-48.8	72.5-72.9	2.3	—	9	
2	8	53.9-54.3	51.6-52.6	53.3-54.1	47.5-48.2	71.9-72.4	2.0-2.2	—	8	2
	7	52.7-53.8	50.9-51.5	52.3-53.2	46.9-47.4	71.0-71.8	1.7-1.9	—	7	
	6	51.9-52.6	50.2-50.8	50.4-52.2	46.3-46.8	69.2-70.9	1.3-1.6	—	6	
	5	50.2-51.8	49.7-50.1	50.1-50.3	45.2-46.2	67.6-69.1	0.7-1.2	—	5	
	4	50.0-50.1	48.2-49.6	50.0	44.3-45.1	65.8-67.5	0.1-0.6	—	4	
1	3	46.9-49.9	45.6-48.1	47.7-49.9	42.0-44.2	63.7-65.7	—	—	3	1
	2	44.8-46.8	44.0-45.5	45.8-47.6	39.2-41.9	59.1-63.6	—	—	2	
	1	0.0-44.7	0.0-43.9	25.0-45.7	10.0-39.1	47.3-59.0	0.0	0.0-0.1	1	

Appendix C

Percentile Ranks for District Mean Scores on the *Survey of Basic Skills: Grade 12* and Corresponding Background Factors, December, 1977

Stanine	State Percentile Ranks	Reading	Written Expression	Spelling	Mathematics	Grade 6 Achievement Index	Percent AFDC	State Percentile Ranks	Stanine
	99	72.6-73.8	72.5-75.1	76.1-82.5	77.7-80.3	77.6-79.0	33.7-53.0	99	
9	98	72.2-72.5	71.2-72.4	75.8-76.0	77.3-77.6	76.4-77.5	27.3-33.6	98	9
	97	71.0-72.1	69.7-71.1	75.0-75.7	75.9-77.2	75.0-76.3	25.4-27.2	97	
	96	70.2-70.9	69.2-69.6	74.4-74.9	74.3-75.8	74.3-74.9	24.6-25.3	96	
	95	69.9-70.1	68.7-69.1	73.9-74.3	74.0-74.2	73.5-74.2	22.5-24.5	95	
	94	69.5-69.8	68.3-68.6	73.4-73.8	73.3-73.9	73.4	20.0-22.4	94	
8	93	69.3-69.4	68.0-68.2	73.0-73.3	72.9-73.2	72.9-73.3	19.1-19.9	93	8
	92	68.4-69.2	67.7-67.9	72.5-72.9	72.1-72.8	72.4-72.8	18.9-19.0	92	
	91	68.3	67.4-67.6	72.0-72.4	71.8-72.0	72.2-72.3	18.1-18.8	91	
	90	67.9-68.2	67.2-67.3	71.8-71.9	71.4-71.7	71.6-72.1	17.6-18.0	90	
	89	67.7-67.8	66.6-67.1	71.6-71.7	71.2-71.3	70.7-71.5	16.9-17.5	89	
	88	67.6	66.3-66.5	71.4-71.5	71.0-71.1	70.3-70.6	16.7-16.8	88	
	87	67.4-67.5	66.2	71.2-71.3	70.8-70.9	70.0-70.2	16.4-16.6	87	
	86	67.3	66.0-66.1	71.0-71.1	70.5-70.7	69.9	15.9-16.3	86	
	85	67.2	65.9	70.8-70.9	70.3-70.4	69.8	15.6-15.8	85	
7	84	67.1	65.8	70.6-70.7	70.2	69.3-69.7	15.3-15.5	84	7
	83	66.9-67.0	65.6-65.7	70.4-70.5	—	69.1-69.2	15.0-15.2	83	
	82	66.7-66.8	65.5	70.3	70.0-70.1	68.9-69.0	14.4-14.9	82	
	81	66.6	65.4	70.1-70.2	69.9	68.7-68.8	13.7-14.3	81	
	80	66.5	65.2-65.3	70.0	69.7-69.8	68.6	13.6	80	
	79	66.4	65.0-65.1	69.9	69.3-69.6	68.4-68.5	13.2-13.5	79	
	78	—	64.8-64.9	—	69.2	68.2-68.3	13.0-13.1	78	
	77	66.3	64.6-64.7	69.8	69.0-69.1	68.1	12.7-12.9	77	
	76	66.2	—	69.7	68.7-68.9	67.8-68.0	12.3-12.6	76	
	75	66.0-66.1	64.5	69.6	68.6	67.7	12.2	75	
	74	—	64.4	—	68.4-68.5	67.5-67.6	12.0-12.1	74	
	73	65.9	64.3	69.5	68.3	67.4	11.7-11.9	73	
	72	65.8	64.1-64.2	69.4	68.2	67.3	11.2-11.6	72	
	71	65.6-65.7	64.0	69.3	68.1	67.1-67.2	10.9-11.1	71	
	70	65.5	63.8-63.9	69.2	68.0	—	10.6-10.8	70	
6	69	65.4	63.7	69.1	67.9	66.9-67.0	10.4-10.5	69	6
	68	65.3	63.6	—	67.8	66.7-66.8	10.2-10.3	68	
	67	65.1-65.2	63.5	69.0	67.7	66.4-66.6	10.0-10.1	67	
	66	65.0	63.4	—	67.6	66.3	9.8-9.9	66	
	65	64.9	63.3	68.9	67.5	66.1-66.2	9.5-9.7	65	
	64	—	63.2	68.8	67.4	66.0	9.1-9.4	64	
	63	64.6-64.8	63.1	—	67.2-67.3	65.9	8.8-9.0	63	
	62	64.5	63.0	68.7	67.1	65.8	8.6-8.7	62	
	61	64.3-64.4	62.9	—	67.0	65.7	8.5	61	
	60	64.2	62.8	68.6	66.9	65.6	8.4	60	
	59	64.1	62.6-62.7	68.5	66.8	65.4-65.5	8.3	59	
	58	64.0	62.4-62.5	68.4	66.6-66.7	65.1-65.3	8.1-8.2	58	
	57	—	62.3	—	66.5	64.9-65.0	7.9-8.0	57	
5	56	63.8-63.9	62.2	68.3	66.4	64.7-64.8	7.7-7.8	56	5
	55	63.7	62.1	—	66.3	64.5-64.6	—	55	
	54	63.6	62.0	68.2	66.2	—	7.5-7.6	54	
	53	63.5	61.9	68.1	—	64.3-64.4	7.4	53	
	52	63.4	61.8	—	66.1	64.1-64.2	7.1-7.3	52	
	51	63.3	61.6-61.7	68.0	65.9-66.0	63.9-64.0	6.9-7.0	51	

50	—	61.5	67.8-67.9	65.8	63.8	6.8	50
49	63.2	61.4	67.7	65.6-65.7	63.6-63.7	6.7	49
48	—	61.3	—	65.5	63.5	—	48
47	63.1	61.2	67.6	65.4	63.4	6.6	47
46	63.0	61.1	67.5	65.2-65.3	—	6.4-6.5	46
45	62.8-62.9	61.0	—	65.0-65.1	63.3	6.3	45
44	62.7	60.9	67.4	64.9	63.2	6.2	44
43	62.4-62.6	60.8	67.3	—	63.0-63.1	6.0-6.1	43
42	62.3	60.7	—	64.8	62.8-62.9	—	42
41	62.1-62.2	60.6	67.2	64.7	62.7	5.8-5.9	41
40	62.0	60.5	67.1	64.5-64.6	62.5-62.6	5.7	40
39	61.9	60.4	—	64.3-64.4	62.2-62.4	5.4-5.6	39
38	61.8	60.3	67.0	64.2	62.1	5.3	38
37	61.7	—	66.9	64.1	61.9-62.0	5.2	37
36	61.6	60.1-60.2	—	63.9-64.0	61.7-61.8	5.1	36
35	61.4-61.5	59.9-60.0	66.8	63.7-63.8	61.5-61.6	5.0	35
34	61.3	59.8	—	63.6	61.2-61.4	4.9	34
33	61.2	59.7	66.7	63.5	61.1	4.8	33
32	61.1	59.5-59.6	66.6	63.4	60.9-61.0	4.7	32
31	60.9-61.0	59.4	66.5	63.3	60.8	4.6	31
30	60.8	59.3	66.4	63.2	60.7	4.5	30
29	60.7	59.1-59.2	66.3	63.1	60.5-60.6	4.4	29
28	60.6	—	66.2	62.9-63.0	60.0-60.4	4.3	28
27	60.5	59.0	66.1	62.7-62.8	59.8-59.9	4.2	27
26	60.2-60.4	58.8-58.9	—	62.5-62.6	59.7	4.1	26
25	59.9-60.1	58.7	66.0	62.4	59.3-59.6	4.0	25
24	59.8	58.5-58.6	65.9	62.3	59.1-59.2	3.7-3.9	24
23	—	58.4	65.7-65.8	62.2	58.9-59.0	3.6	23
22	59.7	58.2-58.3	65.6	62.0-62.1	58.7-58.8	3.5	22
21	59.5-59.6	58.0-58.1	65.4-65.5	61.9	58.4-58.6	3.4	21
20	59.3-59.4	57.8-57.9	—	61.8	58.2-58.3	3.3	20
19	59.2	57.6-57.7	65.3	61.5-61.7	57.9-58.1	3.2	19
18	59.0-59.1	57.4-57.5	65.2	61.3-61.4	57.8	3.1	18
17	58.8-58.9	57.3	65.0-65.1	61.0-61.2	57.5-57.7	2.9-3.0	17
16	58.7	57.1-57.2	64.8-64.9	60.8-60.9	57.1-57.4	2.8	16
15	58.5-58.6	—	64.6-64.7	60.5-60.7	56.8-57.0	2.7	15
14	58.2-58.4	56.8-57.0	64.5	60.3-60.4	56.6-56.7	2.6	14
13	57.9-58.1	56.6-56.7	—	60.1-60.2	56.3-56.5	2.4-2.5	13
12	57.7-57.8	56.4-56.5	64.4	59.6-60.0	56.0-56.2	2.3	12
11	57.4-57.6	55.9-56.3	64.1-64.3	59.4-59.5	55.6-55.9	2.1-2.2	11
10	56.8-57.3	55.6-55.8	64.0	58.8-59.3	55.3-55.5	2.0	10
9	56.4-56.7	55.3-55.5	63.9	58.2-58.7	54.9-55.2	1.9	9
8	56.2-56.3	55.2	63.7-63.8	58.0-58.1	54.5-54.8	1.7-1.8	8
7	55.9-56.1	54.6-55.1	63.0-63.6	57.5-57.9	54.1-54.4	1.6	7
6	54.9-55.8	54.0-54.5	62.7-62.9	57.2-57.4	53.3-54.0	1.5	6
5	54.4-54.8	53.9	62.3-62.6	56.9-57.1	52.8-53.2	1.3-1.4	5
4	53.2-54.3	53.2-53.8	61.5-62.2	55.9-56.8	52.1-52.7	0.8-1.2	4
3	52.6-53.1	51.9-53.1	60.8-61.4	54.8-55.8	50.8-52.0	0.6-0.7	3
2	51.8-52.5	50.6-51.8	60.2-60.7	52.5-54.7	49.0-50.7	0.4-0.5	2
1	46.4-51.7	46.0-50.5	57.1-60.1	45.0-52.4	44.0-48.9	0.0-0.3	1

Appendix D

Percentile Ranks for Percents of Minority Students and Average Class Size in California School Districts, 1977-78

Stanine	State Percentile Ranks	Percent Total Minority	Percent American Indian or Alaskan Native	Percent Asian or Pacific Islander	Percent Filipino	Percent Black Not of Hispanic Origin	Percent Hispanic	Average Class Size		State Percentile Ranks	Stanine
								Elementary	High School		
	99	90.0	20.6	9.2	8.8	28.8	83.2	30.5	29.8	99	
9	98	84.3	14.8	7.8	6.2	19.7	77.9	30.0	29.6	98	9
	97	81.2	13.2	6.8	4.5	16.6	70.3	29.7	29.4	97	
	96	78.0	11.0	6.0	3.3	14.9	66.1	29.6	29.3	96	
	95	73.7	9.3	5.5	2.7	11.1	62.1	29.5	29.2	95	
	94	68.8	8.3	5.0	2.0	10.0	58.9	29.3	29.1	94	
8	93	66.1	7.6	4.8	1.8	8.8	57.1	29.2	28.9	93	8
	92	63.5	6.7	4.4	1.6	8.3	54.2	29.1	28.7	92	
	91	61.4	6.2	4.2	1.5	7.6	51.4	29.0	28.6	91	
	90	58.9	5.7	4.0	1.3	6.6	49.4	28.9	28.5	90	
	89	57.0	4.9	3.9	1.2	5.8	47.5	28.8	28.4	89	
	88	55.4	4.4	3.7	1.1	5.4	44.4	28.7	–	88	
	87	53.7	4.1	3.6	–	4.8	42.1	28.6	28.3	87	
	86	51.4	3.8	3.3	1.0	4.3	40.7	28.5	28.1	86	
	85	49.3	3.5	3.2	0.9	3.9	39.0	28.4	28.0	85	
7	84	48.3	3.3	3.1	0.8	3.7	36.8	28.3	–	84	7
	83	46.6	2.9	3.0	–	3.4	35.9	28.2	27.9	83	
	82	45.3	2.7	2.8	0.7	3.1	33.9	–	–	82	
	81	43.7	2.5	2.7	–	2.9	32.1	28.1	27.8	81	
	80	42.4	2.3	2.6	0.6	2.7	31.2	28.0	27.7	80	
	79	41.6	2.1	2.5	–	2.5	30.1	27.9	27.6	79	
	78	40.0	2.0	2.4	–	2.3	28.9	–	27.5	78	
	77	38.9	1.9	–	–	2.1	27.8	27.8	27.4	77	
	76	38.1	1.7	2.3	0.5	1.9	26.8	27.7	–	76	
	75	36.5	1.6	2.2	–	1.8	25.3	27.6	27.3	75	
	74	35.8	1.5	2.1	–	1.7	24.0	27.5	27.2	74	
	73	34.4	–	2.0	–	1.6	23.2	27.4	–	73	
	72	33.3	1.4	1.9	0.4	1.5	22.3	27.3	–	72	
	71	32.7	1.3	–	–	–	21.5	27.2	27.1	71	
	70	31.5	1.2	1.8	–	1.4	20.7	–	–	70	
6	69	30.4	1.1	–	–	1.3	20.0	27.1	27.0	69	6
	68	29.2	–	1.7	–	–	19.5	–	–	68	
	67	28.1	1.0	–	0.3	1.2	18.4	27.0	26.9	67	
	66	27.4	0.9	1.6	–	–	17.7	26.9	–	66	
	65	26.5	–	–	–	1.1	17.2	–	26.8	65	
	64	26.0	0.8	1.5	–	1.0	16.7	26.8	–	64	
	63	25.4	–	–	–	–	16.4	26.7	26.7	63	
	62	24.7	–	1.4	–	–	15.8	–	–	62	
	61	23.2	0.7	–	–	0.9	14.9	26.6	26.6	61	
	60	22.5	–	1.3	0.2	–	14.4	26.5	–	60	
	59	22.0	–	1.2	–	0.8	14.0	26.4	26.5	59	
	58	21.4	0.6	–	–	–	13.6	26.3	26.4	58	
	57	20.7	–	–	–	–	13.1	26.2	–	57	
	56	20.1	–	1.1	–	0.7	12.5	–	26.3	56	
5	55	19.6	0.5	–	–	–	12.0	26.1	26.2	55	5
	54	18.8	–	1.0	–	–	11.3	26.0	26.1	54	
	53	18.4	–	–	–	0.6	11.1	25.9	26.0	53	
	52	18.0	–	–	0.1	–	10.7	25.8	25.9	52	
	51	17.6	0.4	0.9	–	–	10.2	25.7	25.8	51	
	50	16.8	–	–	–	0.5	9.8	25.6	25.7	50	

	49	16.2	–	–	–	–	9.1	25.5	25.6	49	
	48	15.6	–	0.8	–	–	8.5	25.4	25.5	48	
	47	15.3	–	–	–	–	8.1	25.3	–	47	
	46	15.0	0.3	–	–	0.4	7.7	25.2	25.4	46	
5	45	14.5	–	0.7	–	–	7.3	–	25.3	45	5
	44	14.2	–	–	–	–	7.1	25.1	25.2	44	
	43	14.0	–	0.6	–	–	6.8	25.0	25.1	43	
	42	13.7	–	–	–	0.3	6.5	24.9	–	42	
	41	13.3	–	–	–	–	6.3	24.8	24.9	41	
	40	12.6	–	–	–	–	6.1	24.6	24.8	40	
	39	12.3	0.2	0.5	–	–	6.0	24.4	24.6	39	
	38	11.8	–	–	–	–	5.8	24.3	24.5	38	
	37	11.6	–	–	–	0.2	5.6	24.2	24.4	37	
	36	11.2	–	–	–	–	5.4	24.1	24.3	36	
	35	10.9	–	0.4	–	–	5.1	24.0	24.2	35	
	34	10.4	–	–	–	–	4.8	23.9	24.1	34	
	33	10.1	–	–	–	0.1	4.5	23.7	24.0	33	
4	32	9.8	0.1	0.3	–	–	4.3	23.5	23.9	32	4
	31	9.3	–	–	–	–	4.2	23.4	23.7	31	
	30	9.0	–	–	–	–	4.1	23.2	23.5	30	
	29	8.8	–	0.2	–	–	3.9	23.1	23.1	29	
	28	8.6	–	–	–	–	3.8	22.9	22.9	28	
	27	8.4	–	0.1	–	–	3.9	22.7	22.7	27	
	26	8.1	–	–	–	–	3.5	22.5	22.5	26	
	25	7.8	–	–	–	–	3.2	22.3	22.3	25	
	24	7.5	–	–	0.0	–	3.1	22.1	22.1	24	
	23	7.3	–	–	–	–	2.9	21.9	22.0	23	
	22	7.1	–	–	–	–	2.8	21.6	21.8	22	
	21	6.8	–	–	–	–	2.7	21.4	21.7	21	
	20	6.5	–	–	–	–	2.4	21.1	21.5	20	
	19	6.2	–	–	–	–	2.1	20.9	21.4	19	
	18	6.0	–	–	–	–	1.9	20.6	21.1	18	
3	17	5.8	–	–	–	–	1.8	20.1	20.8	17	3
	16	5.5	–	–	–	–	1.6	19.8	20.5	16	
	15	5.2	–	–	–	0.0	1.5	19.5	19.9	15	
	14	4.8	0.0	–	–	–	1.3	19.0	19.6	14	
	13	4.5	–	0.0	–	–	1.2	18.5	19.5	13	
	12	4.2	–	–	–	–	0.9	18.0	18.7	12	
	11	3.9	–	–	–	–	0.7	17.3	18.5	11	
	9	3.3	–	–	–	–	0.2	16.1	17.3	9	
2	8	2.9	–	–	–	–	–	15.8	16.9	8	2
	7	2.3	–	–	–	–	–	15.2	16.2	7	
	6	1.6	–	–	–	–	–	13.8	15.7	6	
	5	1.1	–	–	–	–	0.0	12.3	14.9	5	
	4	0.5	–	–	–	–	–	11.2	14.1	4	
	3	–	–	–	–	–	–	10.0	13.2	3	
1	2	0.0	–	–	–	–	–	9.0	12.2	2	1
	1	–	–	–	–	–	–	1.6	8.6	1	
Maximum Value		100.0	100.0	38.2	22.9	82.9	100.0	36.0	32.0		
Minimum Value		0.0	0.0	0.0	0.0	0.0	0.0	1.6	8.6		

NOTE: Rather than show the range for each percentile rank under each category, only the *low* value for each range is used here. For example, a district with 21.1 percent minority students ranks in the 57th percentile. The figure (20.7) that corresponds to the 57th percentile represents the range 20.7–21.3.

Appendix E

Percentile Ranks for Attendance and Financial Variables for Unified, Elementary, and High School Districts in California, 1977-78

Stanine	State Percentile Ranks	UNIFIED DISTRICTS				ELEMENTARY DISTRICTS				HIGH SCHOOL DISTRICTS			
		Average Daily Attendance	Assessed Valuation per Unit of A.D.A.	General Purpose Tax Rate	Expenditures per Unit of A.D.A.	Average Daily Attendance	Assessed Valuation per Unit of A.D.A.	General Purpose Tax Rate	Expenditures per Unit of A.D.A.	Average Daily Attendance	Assessed Valuation per Unit of A.D.A.	General Purpose Tax Rate	Expenditures per Unit of A.D.A.
	99	57,523	$99,041	$5.23	$2,559	13,024	$468,144	$3.40	$3,433	23,601	$215,000	$2.66	$2,662
9	98	52,865	89,896	5.18	2,411	9,936	362,333	3.22	2,867	22,192	192,683	2.43	2,617
	97	43,203	85,298	5.09	2,300	8,024	285,650	3.13	2,602	21,497	182,589	2.33	2,427
	96	32,437	76,915	4.98	2,234	7,400	235,091	3.10	2,376	18,986	177,227	2.32	–
	95	30,881	74,269	4.95	2,176	6,383	193,979	3.03	2,269	16,791	166,306	2.31	2,382
	94	28,236	72,730	4.92	2,171	6,096	181,135	2.98	2,171	15,459	154,930	2.28	2,342
8	93	27,800	68,972	4.87	2,158	5,500	160,225	2.91	2,111	13,814	144,114	2.26	2,233
	92	25,369	62,790	4.81	2,115	4,930	150,602	2.90	2,094	13,672	137,580	2.25	2,200
	91	24,489	58,537	4.70	2,015	4,358	137,426	2.86	2,025	12,885	137,269	2.24	2,101
	90	23,612	56,830	4.67	2,001	3,963	130,668	2.84	1,952	11,484	137,185	2.21	2,060
	89	20,833	56,124	4.64	1,998	3,580	124,749	2.82	1,887	11,306	136,228	2.20	2,051
	88	18,778	53,480	4.58	1,991	3,387	118,044	2.80	1,843	10,065	134,855	–	2,044
	87	18,405	51,915	4.57	1,922	3,192	112,205	2.77	1,816	9,010	112,805	2.19	1,996
	86	17,053	51,324	4.56	1,860	3,026	109,091	2.74	1,793	8,928	111,117	–	1,968
	85	15,945	50,289	4.55	1,799	2,838	104,623	2.72	1,771	8,501	109,814	2.18	1,962
	84	14,915	48,518	4.49	1,729	2,687	99,549	2.69	1,757	7,735	107,072	–	1,938
7	83	14,440	47,014	4.46	1,720	2,477	96,443	2.68	1,728	7,672	104,868	2.15	1,935
	82	14,060	45,138	4.45	1,705	2,229	92,821	2.66	1,702	7,517	102,703	2.14	1,931
	81	13,744	44,428	4.44	1,696	2,089	90,588	2.65	1,682	7,334	102,318	2.11	1,913
	80	13,493	43,693	4.43	1,686	1,947	89,403	2.63	1,643	6,988	101,453	2.10	1,883
	79	13,066	43,355	4.41	1,671	1,714	86,393	2.62	1,630	6,755	98,746	–	1,860
	78	12,448	42,418	4.36	1,656	1,573	83,754	2.61	1,614	6,651	97,713	2.09	1,845
	77	12,142	40,349	4.34	1,631	1,517	81,841	2.59	1,594	5,929	96,639	2.08	1,844
	76	11,992	39,394	4.31	1,627	1,415	79,198	2.58	1,584	5,768	96,023	2.07	1,835
	75	11,304	38,741	4.28	1,609	1,305	76,078	2.57	1,575	5,696	95,802	–	1,822
	74	10,980	37,261	4.27	1,598	1,225	73,518	2.56	1,565	5,553	94,293	2.06	1,818
	73	10,839	36,538	4.26	1,590	1,175	69,814	2.55	1,556	5,299	91,522	2.04	1,800
	72	10,575	35,202	4.25	1,579	1,118	66,740	2.54	1,545	4,909	91,280	2.03	–
	71	10,239	34,265	4.24	1,563	1,098	64,836	–	1,532	4,844	90,589	2.00	1,785
	70	10,069	34,016	4.22	1,559	1,063	63,690	2.53	1,515	4,717	88,687	1.98	1,783
6	69	9,866	33,616	4.20	1,551	992	62,303	2.51	1,504	4,454	88,544	1.97	1,782
	68	9,330	33,546	4.18	1,541	959	61,361	–	1,496	4,392	87,254	–	1,772
	67	9,183	31,977	4.17	1,537	910	59,736	2.49	1,477	4,161	85,940	1.96	1,751
	66	8,696	31,066	4.16	1,518	847	58,630	2.48	1,467	4,051	84,815	–	1,734
	65	8,400	30,484	–	1,512	787	57,080	2.47	1,463	3,825	83,927	–	1,722
	64	8,073	29,733	4.15	1,509	744	55,833	2.46	1,458	3,538	83,833	1.93	1,719
	63	7,816	29,559	4.14	1,505	709	54,756	2.45	1,448	3,475	80,631	–	1,716
	62	7,544	29,475	4.13	1,496	667	52,570	2.44	1,443	3,264	79,345	1.92	1,710
	61	7,480	28,932	4.12	1,485	628	51,662	2.43	1,436	3,099	77,867	–	1,707
	60	7,306	28,407	4.11	1,480	592	50,858	2.42	1,431	2,598	77,576	1.89	1,691
	59	6,713	28,182	4.10	1,474	560	50,005	2.41	1,424	2,575	77,398	1.88	1,688
	58	6,532	27,938	–	1,473	541	49,306	2.40	1,413	2,436	76,495	–	1,668
	57	6,272	27,708	4.08	1,470	507	48,665	2.39	1,406	2,421	75,451	1.87	1,661
5	56	6,181	26,936	4.07	1,459	475	47,840	–	1,401	2,323	75,363	–	1,659
	55	5,966	26,817	–	1,450	461	45,690	2.38	1,397	2,239	74,328	1.86	1,657
	54	5,741	26,589	4.05	1,443	451	44,773	2.37	1,389	2,187	73,702	–	1,654
	53	5,428	26,067	4.03	1,434	432	43,701	2.36	1,383	2,131	73,308	1.84	1,649
	52	5,024	25,864	4.02	1,432	408	42,873	–	1,376	2,051	71,799	1.83	–
	51	4,611	25,676	4.01	1,426	389	41,805	2.35	1,369	1,976	70,589	–	1,645

	50	4,540	25,617	3.99	1,424	377	41,412	2.34	1,363	1,923	70,331	1.82	1,642
	49	4,306	25,163	3.98	1,420	366	40,889	2.33	1,357	1,827	70,233	1.79	1,641
	48	4,265	25,027	3.97	1,417	351	40,249	2.31	1,353	1,690	69,988	1.78	1,628
	47	4,167	24,810	3.96	1,414	334	39,679	2.30	1,348	1,585	69,432	1.76	1,589
5	46	3,898	24,553	3.95	1,404	323	38,660	2.29	1,340	1,430	69,313	1.75	1,583
	45	3,530	24,467	3.91	1,403	313	37,845	2.28	1,334	1,362	67,619	–	1,567
	44	3,451	23,960	3.90	1,400	300	37,303	2.27	1,327	1,355	67,364	–	1,560
	43	3,449	23,934	–	1,395	291	36,552	2.25	1,324	1,349	66,706	1.73	1,552
	42	3,267	23,519	3.88	1,392	281	36,220	2.24	1,320	1,255	66,366	–	–
	41	3,085	23,013	3.87	1,386	267	35,984	2.23	1,312	1,224	66,124	1.72	1,551
	40	3,026	22,447	3.84	1,383	256	35,049	2.22	1,303	1,158	64,567	–	1,534
	39	2,774	22,242	3.83	1,379	250	34,282	2.20	1,299	1,101	64,540	1.71	1,532
	38	2,584	22,044	3.82	1,374	234	33,829	2.18	1,292	1,091	63,901	–	1,522
	37	2,566	21,895	3.79	1,370	230	32,871	2.17	1,286	1,069	63,375	1.70	1,521
	36	2,502	21,670	3.75	1,368	217	32,304	2.15	1,280	1,065	62,734	1.69	1,506
	35	2,377	21,293	3.72	1,364	210	31,787	2.14	1,274	1,062	61,940	–	1,504
	34	2,312	20,616	3.70	1,362	201	30,674	2.11	1,271	1,030	61,331	1.68	1,503
	33	2,216	20,324	3.69	1,357	183	29,863	2.08	1,267	958	59,781	1.67	1,496
4	32	2,167	19,790	3.68	1,347	175	29,596	2.07	1,259	955	59,143	1.66	1,492
	31	1,943	19,561	3.62	1,342	166	29,214	2.06	1,255	931	59,133	–	1,484
	30	1,922	19,537	3.60	1,340	157	28,387	2.03	1,251	930	59,021	1.65	1,483
	29	1,758	18,763	3.57	1,339	152	28,130	2.01	1,245	883	58,768	–	1,481
	28	1,739	18,487	3.52	1,337	142	27,744	1.99	1,240	871	58,516	1.64	–
	27	1,572	18,040	3.47	1,335	137	27,227	1.98	1,233	853	57,201	1.60	1,474
	26	1,492	17,483	3.42	–	130	26,842	1.96	1,230	835	56,844	1.59	1,472
	25	1,440	17,686	3.40	1,332	124	26,411	1.94	1,221	740	56,720	1.56	1,470
	24	1,254	17,412	3.34	1,328	115	25,999	1.92	1,216	729	56,051	–	1,464
	23	1,230	17,169	3.29	1,326	108	25,296	1.89	1,211	703	55,879	1.55	1,463
	22	1,199	16,789	3.22	1,309	103	24,783	1.87	1,208	701	54,576	1.54	1,461
	21	1,164	16,268	3.18	1,305	99	24,041	1.85	1,201	695	53,804	1.53	1,457
	20	1,080	16,112	3.11	1,304	87	23,524	1.81	1,192	667	52,545	–	1,447
	19	990	15,846	3.10	1,302	85	22,788	1.75	1,186	661	51,586	1.48	1,434
3	18	903	15,560	3.03	1,299	80	22,347	1.72	1,173	637	51,071	1.45	1,426
	17	798	15,184	3.00	1,296	75	21,570	1.68	1,168	621	51,037	1.44	1,419
	16	770	15,020	2.95	1,291	71	21,413	1.64	1,157	574	51,011	1.43	1,411
	15	741	14,920	2.91	1,287	66	20,843	1.61	1,149	571	50,987	1.42	1,403
	14	724	14,518	2.85	1,283	61	20,390	1.57	1,138	519	50,938	–	–
	13	654	14,239	2.78	1,275	57	19,878	1.52	1,135	478	48,862	1.37	1,388
	12	633	14,175	2.71	1,272	53	19,681	1.50	1,127	474	48,680	–	1,387
	11	589	13,403	2.70	1,267	49	18,659	1.46	1,115	473	48,593	1.35	1,386
	10	491	13,356	2.64	1,263	44	18,198	1.41	1,102	455	48,366	1.34	1,383
	9	450	13,013	2.58	1,256	38	17,166	1.36	1,098	418	48,218	1.31	1,378
2	8	430	12,928	2.50	1,251	34	16,776	1.32	1,084	403	47,928	–	1,376
	7	395	12,562	2.40	1,242	31	16,274	1.29	1,072	284	46,760	1.30	1,366
	6	323	12,198	2.28	1,236	28	15,578	1.24	1,050	268	45,671	1.28	1,349
	5	303	11,481	2.20	1,231	24	14,008	1.12	1,026	241	44,756	1.08	1,337
	4	239	10,703	2.04	1,224	20	12,432	1.07	998	230	44,391	0.99	1,336
1	3	208	9,843	1.97	1,202	17	11,505	1.06	974	229	42,056	0.91	1,334
	2	192	8,981	1.63	1,184	15	9,108	0.98	928	221	41,531	0.87	1,330
	1	147	4,919	0.82	1,147	7	144	0.16	745	182	31,679	0.41	1,183
Maximum Value		604,751	$250,128	$6.39	$3,100	20,892	$3,491,712	$6.46	$6,006	24,903	$600,513	$2.92	$2,754
Minimum Value		147	$4,919	$0.82	$1,147	7	$144	$0.16	$745	182	$31,697	$0.41	$1,183

NOTE: Rather than show the range for each percentile rank under each category, only the *low* value for each range is used here. For example, a unified district with an average daily attendance of 12,070 ranks in the 76th percentile. The figure (11,992) that corresponds to the 76th percentile represents the range 11,992–12,141.

78-68 03-0348 300 10-78 2,700