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AUTHOR Holt, Albert; Scanlon, Brian R.
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ABSTRACT

This study examines the magnitude of the difference between estimates from the 1990-91 Schools and Staffing Survey (SASS) using a Common Core of Data (CCD) definition of a school and a Quality Education Data (QED) definition of a school. The 1990-91 SASS sample design allows for the development of school and administrator estimates using either the QED definition or the definition from the CCD. The first section of the report explains the background and purpose of the study and describes the variables of interest chosen for the study. The second section describes the steps involved in converting the 1990-91 SASS to a QED-defined survey, identifies the file variables that indicate which CCD schools map to a QED school, and describes the use of those variables in mapping from the CCD definition to the QED definition. The third section presents selected tables based on the QED definition of a school to allow comparisons, and the fourth section analyzes the estimates from both definitions and makes recommendations based on the magnitude of the difference in school characteristics between the two estimates. An appendix contains a sample of the Statistical Analysis System programs used in this study. (Contains 25 tables.) (SLD)

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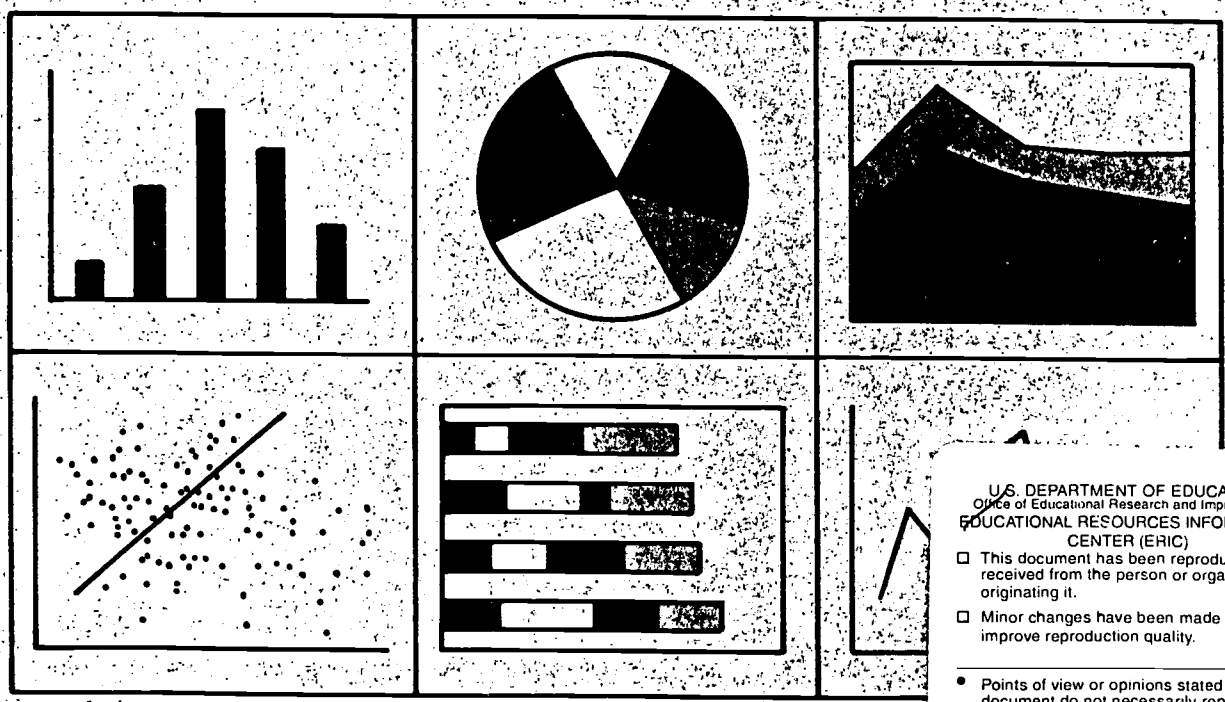

U.S. Department of Education
Office of Educational Research and Improvement

QED Estimates of the 1990-91 Schools and Staffing Survey: Deriving and Comparing QED School Estimates with CCD Estimates

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Contact: Dan Kasprzyk
Special Surveys and Analysis Branch
(202) 219-1325

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January 1995

Foreword

Each year a large number of written documents are generated by NCES staff and individuals commissioned by NCES which provide preliminary analyses of survey results and address technical, methodological, and evaluation issues. Even though they are not formally published, these documents reflect a tremendous amount of unique expertise, knowledge, and experience.

The ***Working Paper Series*** was created in order to preserve the valuable information contained in these documents and to promote the sharing of valuable work experience and knowledge. However, these documents were prepared under different formats and did not undergo vigorous NCES publication review and editing prior to their inclusion in the series. Consequently, we encourage users of the series to consult the individual authors for citations.

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Susan Ahmed
Acting Associate Commissioner
Statistical Standards and
Methodology Division

Samuel S. Peng
Branch Chief
Statistical Service and
Methodological Research Branch

QED Estimates of the 1990-91 Schools and Staffing Survey:

Deriving and Comparing QED School Estimates with CCD Estimates

Prepared for

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Prepared by

Albert Holt and Brian R. Scanlon

Synectics for Management Decisions, Inc.
3030 Clarendon Boulevard, Suite 305
Arlington, VA 22201

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Preface

This report compares derived QED estimates and the original estimates of the same or similar variables from the 1990-91 Schools and Staffing Survey (SASS). It was prepared by Synectics for Management Decision Inc., a contractor to the National Center for Education Statistics, as Task 20B.1 under Contract No. RN-91-0600.01.

This report was prepared by Albert Holt, a research analyst for Synectics. Additional assistance from the Synectics staff was provided by Sameena Salvucci, Fan Zhang, Mehrdad Saba, and Brian R. Scanlon, all working under the direction of Wray Smith, Research Director.

Several key people from National Center for Education Statistics are also worth mentioning. Daniel Kasprzyk, Kerry Gruber, and Steve Kaufman were instrumental in reviewing and providing helpful comments on all drafts. This report would not have been possible without their valuable support.

1. INTRODUCTION

1.1 - Overview

This study examines the magnitude of the difference between estimates from the 1990-91 Schools and Staffing Survey (SASS) using a Common Core of Data (CCD) definition of a school and a Quality Education Data (QED) definition of a school.[1] The 1990-91 SASS sample design allows for the development of school and administrator estimates using either the QED definition of a school or the CCD definition of a school.

This report will develop and compare QED-defined school and administrator estimates for the 1990-91 SASS, then compare them to existing CCD-defined estimates from the same survey. For the purposes of comparing these two estimates, specific tables have been selected from "Schools and Staffing in the United States: A Statistical Profile, 1990-91."[2]

A comparison of newly generated QED-defined tables and existing CCD-defined tables from the 1990-91 SASS will indicate the differences in estimates of the same survey using separate criteria for defining the sample.

The four sections of this report will:

(1) Explain the background and purpose of this study and describe the variables of interest chosen for this study.

(2) Describe the necessary steps involved in converting the 1990-91 SASS to a QED-defined survey. Identify the file variable(s) that indicate which CCD schools map to a QED school, and describe the use of those variable(s) in mapping from the CCD definition to the QED definition of a school.

(3) Produce a set of selected tables from the 1990-91 SASS Statistical Profile based upon the QED definition of school for comparing to CCD-defined survey estimates.

(4) Analyze the estimates from both a QED-defined survey and the 1990-91 SASS, a CCD-defined survey, and make recommendations based upon the magnitude of the difference in school characteristics between the two estimates.

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[1]The QED defined a school as a physical location, while the CCD defined it as an administrative unit. When the CCD and QED frames are matched, multiple CCD schools can map to one QED school.

[2]"Schools and Staffing in the United States: A Statistical Profile, 1990-91." U.S. Department of Education, Office of Education Research and Improvement." NCES 93-146.

1.2 - Background

The Schools and Staffing Survey (SASS) was first conducted during the 1987-88 school year. The public school sampling frame for the initial SASS was constructed by Quality Education Data, Inc. (QED). In this frame, a public school was defined as a physical unit or location. In the 1990-91 SASS, the public school frame was based on the 1988-89 Common Core of Data (CCD). The information in the CCD database is collected by the National Center for Education Statistics (NCES) annually, and is believed to be the most comprehensive list of public schools available. The CCD-defined school is not a physical location, but an administrative unit. This difference in definition presented some concerns; some (CCD-defined) schools have two or more administrative units within one (QED-defined) physical location. In some cases, multiple CCD-defined schools map to a single QED-defined school. This suggests that the estimates for the number of schools would be higher based on the CCD definition. The 1990-91 SASS sample design has a flexibility (for researchers using the NCES Restricted Use Datasets) in that it facilitates the production of school, administrator, and teacher estimates using either the QED or the CCD definition of a school.

1.3 - Purpose

The purpose of this report is to measure the magnitude of the differences in estimates due to the difference in the CCD and QED definitions of a public school using the flexibility that has been built into the 1990-91 SASS sample design. A major component of such a measurement will be the number of schools that are affected by this difference in definition. This effort will investigate the proportion of schools which are affected with respect to the total number of schools, and will look at the characteristics of the affected schools. Examining the characteristics of affected schools may help to determine whether or not there are common traits in those schools which do not map from a CCD-defined school to a QED-defined school, such as community type. In the broadest sense, a determination will be made regarding the statistical significance of the difference in CCD and QED estimates based on the difference in definitions of a school.

2. TECHNICAL APPROACH

2.1 - Identification of Variables of Interest

Several tables in the "Schools and Staffing in the United States: A Statistical Profile, 1990-91" (July 1993)"[3] are reasonable to use for comparison of estimates based on the CCD and QED definitions. The generation of these tables included use of variables in the SASS, and constructed variables where necessary to produce estimates or groups of estimates.

Variables from the School, Administrator, and Teacher surveys are used to provide estimates for comparing CCD to QED defined totals and to create guidelines for grouping into SASS tables. Tables 1 through 3 on pages 4,5, and 6 list the constructed variables, and the variables of interest for schools and school administrators.

[3]"Schools and Staffing in the United States: A Statistical Profile, 1990-91." U.S. Department of Education, Office of Education Research and Improvement." NCES 93-146.

Table 1.-- Constructed Variables Using Variables in the SASS Files

Variable	Data Type	Label
SURVEY	NUMERIC	SASS SURVEY CODE
COMTYPE	NUMERIC	COMMUNITY TYPE
LOCALE	NUMERIC	TYPE OF LOCALE
SCHLEVEL	NUMERIC	SCHLEVEL
SCH_SIZE	NUMERIC	SCHOOL SIZE
MIN_STAT	NUMERIC	MINORITY ENROLLMENT
TOTENRLL	NUMERIC	TOTAL ENROLLMENT
ADMIN	NUMERIC	ADMINISTRATOR
TEACHER	NUMERIC	TEACHER
AVGSTD	NUMERIC	AVERAGE STUDENT TO FULL-TIME EQUIVALENT TEACHER
N	NUMERIC	WEIGHTED NUMBER OF SCHOOLS
SCHOOLP	NUMERIC	PERCENT DISTRICT SCHOOLS
STUDENTP	NUMERIC	PERCENT DISTRICT STUDENTS
AVGSIZE	NUMERIC	AVERAGE ENROLLMENT
WHITEP	NUMERIC	PERCENTAGE WHITE
BLACKP	NUMERIC	PERCENTAGE BLACK
HISPVP	NUMERIC	PERCENTAGE HISPANIC
AMINDP	NUMERIC	PERCENTAGE AMERICAN INDIAN
ASIANP	NUMERIC	PERCENTAGE ASIAN
MINORP	NUMERIC	PERCENT MINORITY
MALEP	NUMERIC	PERCENT MALE
FEMALEP	NUMERIC	PERCENT FEMALE
AVGAGE	NUMERIC	AVERAGE AGE (ADMIN)
NEWAGE	NUMERIC	AGE (ADMIN)

Sources: 1990-91 SASS School and Administrator Questionnaires. 1990-91 Schools and Staffing Survey: Data File User's Manual, Volumes I-II.

Table 2.--Variables of Interest from the School Questionnaire

Variable	Data Type	Label
NUMBRUG	NUMERIC	NUMBER OF STUDENTS ENROLLED IN UNGRADED
NUMBRKG	NUMERIC	NUMBER OF STUDENTS ENROLLED IN KINDERGARTEN
NUMBR1	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 1ST GRADE
NUMBR2	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 2ND GRADE
NUMBR3	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 3RD GRADE
NUMBR4	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 4TH GRADE
NUMBR5	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 5TH GRADE
NUMBR6	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 6TH GRADE
NUMBR7	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 7TH GRADE
NUMBR8	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 8TH GRADE
NUMBR9	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 9TH GRADE
NUMBR10	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 10TH GRADE
NUMBR11	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 11TH GRADE
NUMBR12	NUMERIC	NUMBER OF STUDENTS ENROLLED IN 12TH GRADE
SCHLEVEL	NUMERIC	SCHOOL LEVEL
WHITESTU	NUMERIC	NUMBER OF K-12 STUDENTS ARE WHITE/NONHISPANIC
BLACKSTU	NUMERIC	NUMBER OF K-12 STUDENTS ARE BLACK/NONHISPANIC
HISPNSTU	NUMERIC	NUMBER OF K-12 STUDENTS ARE HISPANIC
AMINDSTU	NUMERIC	NUMBER OF K-12 STUDENTS ARE AMIND/ALASKAN
ASIANSTU	NUMERIC	NUMBER OF K-12 STUDENTS ARE ASIAN/PACIFIC ISLANDER

Sources: 1990-91 SASS School Questionnaire. 1990-91 Schools and Staffing Survey: Data File User's Manual, Volumes I-II.

Table 3.--Variables of Interest from the School Administrator Questionnaire

Variable	Data Type	Label
ASC121	NUMERIC	MALE OR FEMALE
ASC122	NUMERIC	RACE
ASC124	NUMERIC	HISPANIC ORIGIN
ASC125	NUMERIC	YEAR OF BIRTH

Sources: 1990-91 SASS Administrator Questionnaire. 1990-91 Schools and Staffing Survey: Data File User's Manual, Volumes I-II.

2.2 - Definitions and Descriptions for Stratification Variables

COMMUNITY TYPE. For the 1990-91 SASS Statistical Profile, "Community Type" was derived from a locale code based on the school's mailing address matched to Bureau of the Census data files containing population density data, Standard Metropolitan Statistical Area (SMSA) codes, and a Census code defining Urban and Rural areas.[4] The locale codes were aggregated into three community types: Central City, Urban Fringe/Large Town, and Rural/Small City. The seven categories for the Census locale code are as follows:

locale 1 — Large Central City (Central city of SMSA with population of greater than or equal to 400,000 or population density of greater than or equal to 6,000 persons per square mile)

locale 2 — Mid-Size Central City (Central City of SMSA but not designated Large Central City)

locale 3 — Urban Fringe of Large City (Place within an SMSA of Large Central City and defined as Urban by U.S. Bureau of Census)

locale 4 — Urban Fringe of Mid-Size City (Place within an SMSA OF Mid-Size Central City and defined as Urban by U.S. Bureau of Census)

locale 5 — Large Town (Place not within an SMSA, but with population greater than or equal to 25,000 and defined as Urban by U.S. Bureau of Census)

locale 6 — Small Town (Place not within an SMSA, with population less than 25,000 but greater than or equal to 2,500 and defined as Urban by U.S. Bureau of Census)

locale 7 — Rural (Place with population less than 2,500 and defined as Rural by U.S. Bureau of Census)

[4]Johnson, Frank. (1989). *Assigning Type of Locale Codes to the 1987-88 CCD Public School Universe.* NCES Technical Report CS 89-194. Washington: Office of Educational Research and Improvement.

COMTYPE represents Community Type.

The 7 value variable LOCALE was collapsed the following way:

If the community was defined as a large or mid-size central city (locale codes 1 and 2), it was designated as a central city. If the community was defined as being an urban fringe of a large or mid-size city, or a large town (locale codes 3, 4, and 5) it was designated as an urban fringe/large town. If the community was defined as a small town, or rural (locale codes 6 and 7), it was designated as rural/small town.

MINORITY ENROLLMENT. For many of the tables included in the 1990-91 SASS Statistical Profile, a stratification was created for percentage of minority enrollment at less than 20 percent / greater than or equal to 20 percent. This percentage was determined by taking the sum of the enrollment of students by ethnicity for all but white students over the sum of enrollment by ethnicity for all students.

Aminstu represents American Indian student, *asianstu* represents Asian/Pacific Islander student, *hispnstu* represents Hispanic student, and *blackstu* represents black student.

MIN_STAT represents Minority Enrollment, calculated the following way:
percent minority=100*(sum(amindstu,asianstu,hispnstu,blackstu) /
sum(amindstu,asianstu,hispnstu,blackstu,whitestu));

MIN_STAT=1 Minority Enrollment Less Than 20 percent
MIN_STAT=2 Minority Enrollment Greater Than or equal to 20 percent

SCHOOL SIZE. In the 1990-91 SASS Statistical Profile, a four-category variable was constructed based on the total enrollment of a school. The categories are:

1. < 150 students
2. 150-499 students
3. 500-749 students
4. 750 + students

SCH_SIZE represents School Size (Enrollment); totenrll represents Total Enrollment. It was defined as the sum of grades K through 12 plus ungraded. Enrollment is categorized the following way:

```
if 0 le totenrll lt 150 then sch_size=1;
  else if 150 le totenrll lt 500 then sch_size=2;
  else if 500 le totenrll lt 750 then sch_size=3;
  else if 750 le totenrll then sch_size=4;
```

SCHOOL LEVEL. The school level variable "SCHLEVEL" is available in the SASS files. It consists of the following three categories:

1. elementary school
2. secondary school
3. combined elementary and secondary school

A school is defined as elementary if the school has only grades below 8th grade. A school defined as secondary has grades between 7th and 12th. A school is considered to be combined elementary and secondary if the school has any other combination of grades. Two examples of a combined school level are 4-8 and 5-12. Secondary schools can have any combination of grades between 7th and 12th grade.

2.3 - Constructed Variables of Interest

The following is a list of some of the formulas used to construct variables of interest for comparison of QED and CCD estimates. This is not a complete list of all the variables that were constructed, but it does demonstrate the formulas and method for computing constructed variables from the 1990-91 SASS.

STUDENT-TEACHER RATIO. To determine the student-teacher ratio, it is necessary to include both full-time teachers and some measurement of part-time teachers. Using as a guide the approach taken in construction of "Schools and Staffing in the United States: A Statistical Profile, 1990-91," a full-time teacher equivalent was determined by totalling the number of full-time teachers and one-half the number of part-time teachers. To ascertain the student-teacher ratio, the total number of students was divided by the number of full-time teacher equivalents.

AVGSTD represents Average number of Students per Full-time Equivalent Teacher. *Totenrll* represents total enrollment, *fulteach* represents full-time teacher, and *parteach* represents part-time teacher. This variable is calculated as:

Avgstd = totenrll / (fulteach + (.5 * parteach))

AVERAGE SCHOOL SIZE. For any particular subgroup of analysis, average school size was determined by dividing the total number of students by the weighted number of schools.

AVGSIZE represents the Average Enrollment per School (in the schools being analyzed). It is calculated as:

Avgsize = totenrll / N; (where N is the weighted number of schools for a given subgroup of analysis)

WHITEP represents Percent Distribution of White Non-Hispanic Students. It is calculated as:

Whitep = whitestu /
sum(whitestu,blackstu,hispnstu,amindstu,asianstu); (for any given subgroup of analysis)

BLACKSTU represents Percent Distribution of Black Non-Hispanic Students. It is calculated as:

blackp = blackstu /
sum(whitestu,blackstu,hispnstu,amindstu,asianstu); (for any given subgroup of analysis)

HISPNP represents the Percent Distribution of Hispanic Students. It is calculated as:

hispnp = hispnstu /
sum(whitestu,blackstu,hispnstu,amindstu,asianstu); (for any given subgroup of analysis)

AMINDSTU represents the Percent Distribution of American Indian Students. It is calculated as:

compute amindp = amindstu /
sum(whitestu,blackstu,hispnstu,amindstu,asianstu); (for any given subgroup of analysis)

ASIANSTU represents Percent Distribution of Asian/Pacific Islander Students. It is calculated as:

asianp = asianstu /
sum(whitestu,blackstu,hispnstu,amindstu,asianstu); (for any given subgroup of analysis)

2.4 - Determination of CCD / QED Identifier

The 1990-91 SASS (Round 2) public school sampling frame, the 1988-89 CCD, differed from the 1987-88 SASS (Round 1) public school frame, a listing of schools obtained from the QED. The sample frame for the 1990-91 SASS (1988-89 CCD) defined a school as an administrative unit. The sample frame for the 1987-88 SASS (QED) defined a school as a physical location. The 1990-91 SASS has variables that contain QED and CCD identification numbers. For sample selection purposes, the school sample units in the Round 2 frame were either CCD schools or groups of CCD schools corresponding to a single QED school.

The variable for the CCD number is CCDIDSCH. The variable for the QED number is APIN. In the 1990-91 SASS public school survey, there are 681 records with missing APIN values. As instructed by NCES, these schools had the CCD identification number assigned to the variable APIN. It follows that the records which have a CCD number assigned to the

APIN variable will not be candidates for collapsing to the QED definition, since the input file is based on unique CCD numbers. At this stage, all public school records have both CCD and QED identifiers. Due to differences in the CCD and QED definitions, there are multiple CCD-defined schools that map to one QED-defined school. For this reason, there are more schools in the CCD-defined file than in the QED-defined file.

2.5 - Collapsing of CCD Schools to QED Definition

The 1990-91 SASS Public School Survey used the 1988-89 school year CCD as the frame for the sample of public schools', therefore, construction of CCD-defined tables (the original files) is accomplished using the SASS Public School file in its present form. Each record in the file contains a unique CCD identification number. Proc WESVAR (a SAS procedure developed by WESTAT, Inc.) generated CCD-defined estimates for comparison between the CCD and QED-defined files. Some schools must be collapsed together to accommodate the QED definition of a school. Collapsing is accomplished by executing several steps. First, the QED identification number in each record is examined. If no number is present, the CCD identification number is assigned the QED identification number. Second, records with matching CCD identification numbers are collected together. Third, variables of interest are summed, as is the school's final sample weight. Fourth, the final sample weight is averaged across the number of schools that have matching CCD numbers. Fifth, flags are then set to identify schools which can be collapsed from the CCD to QED-defined schools.

By design, the 1990-91 SASS can produce estimates using either the CCD or the QED definition of school. The variable APIN is used to identify CCD-defined schools which map to one school using the QED definition. CCD schools that map to one QED-defined school are collapsed, with the variables of interest summed, averaged, or quantified as a percentage.

2.6 - Adjustment of Weights for the QED Definition

School Survey

Each CCD school collapsed to fit a QED definition has the same basic weight. This basic weight is the inverse of the probability of selection of a school. In this study, the final weight (SCHWGT) is used for table generation. It is the basic weight times a sampling adjustment factor times a school noninterview factor times a frame ratio adjustment factor. As instructed by NCES, the QED school weight is the average of the CCD school's final weights within a QED-defined school. The calculation of the new final weight is:

$$QEDWGT = (SCHWGT1 + SCHWGT2 + SCHWGT3 + \ldots + SCHWGTN) / N$$

Administrator Survey

Weighting for the administrator survey was conducted in the same fashion as described for the school survey. The final weight (ADMWGT), which is the basic weight adjusted for nonresponse, a sampling adjustment factor, and a frame ratio adjustment factor, is used for table generation. NCES suggested the QED school administrator weight should be the average of the CCD school administrator final weights within a QED school. The calculation for the new final weight is:

$$QEDWGT = (ADMWGT1 + ADMWGT2 + ADMWGT3 + \ldots + ADMWGTN) / N$$

3. RESULTS

3.1 - QED and CCD Tables

Tables four through 15 on pages 12 through 25 express QED-defined estimates and CCD-defined estimates for seven groupings of public school characteristics: number of public schools and students, and average number of students per full-time teacher; percentage distribution of schools and students, and average school size; percentage distribution of students by racial-ethnic background, and percent minority students; percentage distribution of principals by sex and average age; percentage distribution of principals by race-ethnicity and percent minority; number of public schools and students, and average number of students per full-time teacher by state; and, percentage distribution of principals in public schools by highest degree earned, teacher's average years of teaching experience, and percentage of principals who taught and their average years of teaching experience before becoming principal by state.

Tables 4 through 9 demonstrate the QED-defined estimates for these seven characteristics and tables 10 through 15 demonstrate the CCD-defined estimates for the same characteristics. Table 4 correlates with table 10; table 5 correlates with table 11; table 6 correlates with table 12, etc. Tables 7 and 13 are divided into two tables (7A and 7B, 13A and 13B).

Table 4.--QED-Defined estimates for number of public schools and students, average number of students per full-time teacher

		Number of Schools	Number of Students	Student/Teacher
Total		**78,759**	**40,096,401**	**16.6**
Central City		18,669	11,893,291	17.1
School Level	Elementary	14,144	7,692,421	17.5
	Secondary	3,773	3,987,307	17.0
	Combined	752	213,563	10.1
Minority Enrollment	LT 20%	4,625	2,675,145	17.5
	GE 20%	14,044	9,218,146	17.0
School Size	LT 150	984	92,347	9.3
	150 to 499	7,377	2,632,666	15.5
	500 to 749	5,324	3,247,708	17.4
	750 or more	4,984	5,920,571	17.9
Urban Fringe		20,827	12,508,381	17.1
School Level	Elementary	15,452	7,902,682	17.9
	Secondary	4,762	4,437,601	16.0
	Combined	612	168,098	12.4
Minority Enrollment	LT 20%	11,618	6,732,891	16.8
	GE 20%	9,209	5,775,490	17.5
School Size	LT 150	1,013	73,658	8.8
	150 to 499	9,099	3,289,973	16.6
	500 to 749	5,848	3,504,653	17.3
	750 or more	4,866	5,640,096	17.5
Rural		39,263	15,694,730	16.0
School Level	Elementary	25,715	9,395,915	16.8
	Secondary	10,967	5,359,209	15.1
	Combined	2,581	939,606	13.8
Minority Enrollment	LT 20%	29,021	10,938,818	15.8
	GE 20%	10,242	4,755,912	16.3
School Size	LT 150	7,343	699,276	12.5
	150 to 499	20,952	6,723,350	15.5
	500 to 749	7,213	4,384,648	16.7
	750 or more	3,754	3,887,456	17.0

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91)

Table 5.--QED-Defined estimates for percentage distribution of schools and students, average school size

		Number of Schools	Number of Students	Average Size
Total		100.0	100.0	509
Central City		23.7	29.7	637
School Level	Elementary	75.8	64.7	544
	Secondary	20.2	33.5	1,057
	Combined	4.0	1.8	284
Minority Enrollment	LT 20%	24.8	22.5	578
	GE 20%	75.2	77.5	656
School Size	LT 150	5.8	0.8	94
	150 to 499	39.5	22.1	357
	500 to 749	28.5	27.3	610
	750 or more	26.7	49.8	1,188
Urban Fringe		26.4	31.2	601
School Level	Elementary	74.2	63.2	511
	Secondary	22.9	35.5	932
	Combined	2.9	1.3	274
Minority Enrollment	LT 20%	55.8	53.8	580
	GE 20%	44.2	46.1	627
School Size	LT 150	4.9	0.6	73
	150 to 499	43.7	26.3	366
	500 to 749	28.1	28.0	599
	750 or more	23.4	45.1	1,159
Rural		49.9	39.1	400
School Level	Elementary	65.5	59.9	365
	Secondary	27.9	34.1	489
	Combined	6.6	6.0	364
Minority Enrollment	LT 20%	73.9	69.7	377
	GE 20%	26.1	30.3	464
School Size	LT 150	18.7	4.6	95
	150 to 499	53.4	42.8	321
	500 to 749	18.4	27.9	608
	750 or more	9.6	24.8	1,035

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91)

Table 6.--QED-Defined estimates for percentage distribution of students by racial-ethnic background, and percent minority students

		White	Black	Hispanic	Indian	Asian	Minority
Total*		**69.2**	**16.3**	**11.2**	**1.1**	**2.9**	**31.5**
Central City		47.0	28.7	19.5	0.7	4.1	53.1
School Level	Elementary	45.4	29.7	20.3	0.7	3.8	54.6
	Secondary	50.2	26.4	17.9	0.7	4.9	49.8
	Combined	42.2	34.4	21.1	0.3	3.0	57.8
Minority Enrollment	LT 20%	91.2	3.8	2.5	0.7	1.7	8.7
	GE 20%	34.2	35.9	24.5	0.7	4.8	65.9
School Size	LT 150	55.6	21.2	22.1	0.8	1.4	45.5
	150 to 499	53.0	31.8	11.2	1.1	2.9	47.0
	500 to 749	46.5	31.6	17.8	0.7	3.5	53.5
	750 or more	44.5	25.8	24.2	0.6	5.1	55.6
Urban Fringe		72.2	12.8	10.3	0.6	4.3	27.9
School Level	Elementary	72.3	13.1	9.8	0.6	4.4	27.9
	Secondary	72.3	12.0	11.0	0.6	4.2	27.8
	Combined	65.7	19.8	13.7	0.2	1.5	35.1
Minority Enrollment	LT 20%	91.9	3.3	2.3	0.4	2.4	8.3
	GE 20%	49.3	23.8	19.5	0.8	6.6	50.7
School Size	LT 150	75.7	16.2	4.9	1.2	1.9	24.3
	150 to 499	74.2	13.1	8.5	0.6	4.1	26.2
	500 to 749	73.7	12.0	9.9	0.7	3.7	26.3
	750 or more	70.1	13.0	11.6	0.5	4.9	30.0
Rural		83.7	9.5	5.4	1.8	0.9	17.7
School Level	Elementary	82.9	9.7	5.2	1.9	0.9	17.6
	Secondary	85.1	9.3	5.8	1.7	1.0	17.8
	Combined	85.0	9.4	5.2	2.7	1.0	18.4
Minority Enrollment	LT 20%	97.2	1.9	1.4	0.6	0.7	4.6
	GE 20%	53.1	26.9	14.5	4.8	1.4	47.5
School Size	LT 150	98.7	2.8	5.2	5.0	0.7	13.7
	150 to 499	85.7	7.8	5.3	2.3	0.7	16.0
	500 to 749	82.7	11.2	4.3	1.4	1.0	17.9
	750 or more	79.3	11.8	7.0	1.1	1.2	21.1

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91)
* Percentages for "Totals" are rounded to one decimal point.

Table 7A.--QED-Defined estimates for percentage distribution of principals by sex and average age

		Male	Female	Average Principal Age
Total		**70.3**	**29.7**	**48.3**
Central City		58.7	41.3	49.4
School Level	Elementary	53.2	46.8	49.4
	Secondary	79.5	20.6	49.7
	Combined	59.8	40.2	48.5
Minority Enrollment	LT 20%	47.6	52.4	47.9
	GE 20%	58.8	41.2	49.4
School Size	LT 150	48.2	51.8	49.0
	150 to 499	54.4	45.6	49.5
	500 to 749	58.3	41.7	49.1
	750 or more	67.3	32.7	49.7
Urban Fringe		65.9	34.1	49.0
School Level	Elementary	60.5	39.5	49.0
	Secondary	85.2	14.8	49.5
	Combined	55.9	44.1	47.2
Minority Enrollment	LT 20%	70.4	29.6	46.8
	GE 20%	65.8	34.2	49.1
School Size	LT 150	58.3	41.8	48.2
	150 to 499	60.9	39.1	49.3
	500 to 749	67.0	33.0	49.2
	750 or more	75.3	24.7	48.5
Rural		78.0	22.0	47.3
School Level	Elementary	70.8	29.2	47.5
	Secondary	93.7	6.3	47.1
	Combined	82.7	17.3	46.7
Minority Enrollment	LT 20%	82.0	18.0	46.9
	GE 20%	77.2	22.8	47.4
School Size	LT 150	74.3	25.7	46.9
	150 to 499	77.3	22.7	47.2
	500 to 749	78.4	21.6	47.7
	750 or more	87.3	12.7	48.1

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91)

7B.--QED-Defined estimates for percentage distribution of principals by racial-ethnicity, and percent minority

		White	Black	Hispanic	Indian	Asian	Percent Minority
Total		**86.1**	**8.5**	**3.9**	**0.8**	**0.7**	**13.9**
Central City		70.0	20.2	7.8	0.4	1.6	30.0
School Level	Elementary	68.5	20.9	8.3	0.3	1.9	31.4
	Secondary	73.0	18.7	6.4	0.9	1.0	27.0
	Combined	79.9	13.6	6.3	0.0	0.2	20.1
Minority Enrollment	LT 20%	96.7	3.3	0.0	0.0	0.0	3.3
	GE 20%	69.7	20.4	7.9	0.4	1.6	30.3
School Size	LT 150	82.4	7.2	10.4	0.0	0.0	17.6
	150 to 499	70.9	22.7	4.8	0.6	1.0	29.1
	500 to 749	66.8	20.4	10.0	0.1	2.7	33.2
	750 or more	69.5	18.7	9.5	0.7	1.6	30.5
Urban Fringe		86.8	8.1	3.6	0.7	0.8	13.2
School Level	Elementary	86.5	8.6	3.8	0.2	0.9	13.5
	Secondary	88.2	6.5	3.3	1.7	0.7	11.8
	Combined	83.4	11.0	1.2	3.8	0.6	16.6
Minority Enrollment	LT 20%	100	0.0	0.0	0.0	0.0	0.0
	GE 20%	86.6	8.2	3.7	0.7	0.7	13.3
School Size	LT 150	87.9	2.3	0.6	8.7	0.5	12.1
	150 to 499	86.6	9.4	3.5	0.2	0.3	13.4
	500 to 749	86.9	7.9	3.0	0.2	0.6	13.1
	750 or more	86.7	7.1	5.2	0.1	0.9	13.3
Rural		93.2	3.2	2.2	1.2	0.2	6.8
School Level	Elementary	92.9	3.1	2.7	1.2	0.1	7.1
	Secondary	94.1	2.9	1.2	1.6	0.2	5.9
	Combined	92.2	5.0	1.9	0.4	0.4	7.7
Minority Enrollment	LT 20%	97.0	1.0	1.0	1.0	0.0	3.0
	GE 20%	92.4	3.7	2.5	1.2	0.2	7.5
School Size	LT 150	95.7	1.4	2.0	0.8	0.1	4.3
	150 to 499	92.6	3.3	2.5	1.5	0.1	7.4
	500 to 749	92.9	4.2	2.1	0.5	0.3	7.1
	750 or more	92.7	4.1	1.6	0.9	0.6	7.3

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91)

Table 8.--QED-Defined estimates for number of public schools & students, average number of students per full-time teacher, by state

State	Schools	Students	Student/Teacher
Alabama	1,241	688,980	16.9
Alaska	423	109,112	16.6
Arizona	992	590,529	19.3
Arkansas	1,025	416,027	15.4
California	7,171	4,791,612	23.3
Colorado	1,286	575,806	16.8
Connecticut	932	453,788	13.3
Delaware	161	96,375	16.4
Washington, D.C.	170	78,415	13.0
Florida	2,267	1,766,890	16.8
Georgia	1,647	1,102,763	16.6
Hawaii	231	176,149	17.3
Idaho	538	215,693	18.8
Illinois	3,930	1,804,729	15.5
Indiana	1,852	894,521	16.2
Iowa	1,445	478,912	14.3
Kansas	1,433	453,170	14.4
Kentucky	1,308	617,640	16.5
Louisiana	1,439	738,326	16.4
Maine	735	218,614	13.7
Maryland	1,128	675,491	17.3
Massachusetts	1,774	810,755	13.7
Michigan	3,094	1,418,931	18.2
Minnesota	1,346	719,460	16.3
Mississippi	910	506,697	17.7
Missouri	2,017	818,211	15.3
Montana	697	157,447	15.1
Nebraska	1,325	260,211	14.0
Nevada	301	198,844	19.2
New Hampshire	417	147,023	13.6
New Jersey	2,220	1,112,879	12.5
New Mexico	622	292,482	16.8
New York	3,831	2,385,196	14.2
North Carolina	1,917	1,069,603	16.0
North Dakota	516	118,799	14.7
Ohio	3,603	1,716,992	16.7
Oklahoma	1,678	574,484	15.0
Oregon	1,152	459,105	17.8
Pennsylvania	3,195	1,722,170	15.8
Rhode Island	294	148,027	14.0
South Carolina	1,084	649,828	16.7
South Dakota	579	147,591	14.9
Tennessee	1,485	789,393	18.0
Texas	5,606	3,323,498	15.7
Utah	713	438,908	24.0
Vermont	331	90,632	13.2
Virginia	1,737	943,179	15.3
Washington	1,764	897,996	20.2
West Virginia	1,007	336,584	15.2
Wisconsin	1,820	796,230	14.3
Wyoming	373	101,705	13.9

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91)

Table 9.--QED-Defined estimates for percentage distribution of principals by highest degree earned, average years of teaching experience, percentage who taught and average years of teaching experience before becoming a principal, by state 1990-91

State	Less Than Masters	Masters	Greater Than Masters	Taught Before Principal (in percent)	Average Years Teaching Before Principal
Alabama	0.0	39.5	60.5	99.2	10.1
Alaska	5.0	71.4	23.6	99.6	9.2
Arizona	8.6	62.4	29.0	96.5	9.6
Arkansas	0.5	74.6	24.9	98.0	10.2
California	3.5	66.6	29.9	99.8	11.5
Colorado	1.5	56.3	42.2	100.0	11.1
Connecticut	0.0	11.6	88.4	99.6	10.8
Delaware	0.0	62.4	37.6	100.0	9.0
Washington D.C.	0.0	65.2	34.8	100.0	13.0
Florida	0.0	73.0	27.0	98.1	10.4
Georgia	0.0	18.4	81.6	97.3	10.2
Hawaii	20.5	39.7	39.8	100.0	13.2
Idaho	1.2	62.1	36.7	98.0	9.8
Illinois	0.0	69.0	31.0	99.1	9.4
Indiana	0.0	49.9	50.1	100.0	10.2
Iowa	0.7	75.1	24.2	99.7	9.8
Kansas	0.7	74.3	25.0	100.0	10.0
Kentucky	0.6	33.1	66.3	98.7	10.8
Louisiana	0.0	63.9	36.1	98.8	14.2
Maine	9.8	63.6	26.6	100.0	9.6
Maryland	0.0	66.7	33.3	99.4	10.7
Massachusetts	1.9	55.2	43.0	100.0	11.7
Michigan	1.4	59.2	39.4	99.9	10.7
Minnesota	0.5	25.6	73.9	99.4	9.7
Mississippi	0.0	52.0	48.0	99.4	11.1
Missouri	1.6	46.3	52.1	99.1	9.4
Montana	5.5	81.7	12.8	94.9	10.0
Nebraska	5.5	56.1	38.4	98.9	8.8
Nevada	0.0	72.3	27.7	98.9	10.8
New Hampshire	6.4	54.1	39.5	98.1	11.0
New Jersey	0.0	68.9	31.1	97.5	10.2
New Mexico	1.4	64.9	33.7	99.0	10.2
New York	1.5	38.0	60.6	97.5	12.3
North Carolina	2.0	41.7	56.3	98.2	9.5
North Dakota	31.2	58.1	10.7	96.2	8.9
Ohio	0.0	81.9	18.1	98.9	10.7
Oklahoma	4.1	61.8	34.2	96.3	10.6
Oregon	4.8	57.3	37.8	97.3	8.9
Pennsylvania	1.4	62.1	36.5	99.9	11.4
Rhode Island	0.0	62.6	37.4	100.0	13.0
South Carolina	0.0	50.7	49.3	95.6	9.1
South Dakota	0.0	83.3	16.7	97.4	9.1
Tennessee	2.1	61.8	36.1	96.5	10.1
Texas	0.4	74.3	25.3	98.4	10.8
Utah	4.8	42.1	53.1	97.6	11.4
Vermont	16.6	58.3	25.1	100.0	9.1
Virginia	0.0	72.0	28.0	100.0	9.6
Washington	0.0	74.0	26.0	100.0	9.6
West Virginia	0.1	73.9	26.0	100.0	9.6
Wisconsin	0.0	66.2	33.8	97.6	8.9
Wyoming	0.0	71.1	28.9	100.0	10.0

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91)

Table 10.--CCD-Defined estimates for number of public schools & students, average number of students per full-time teacher

		Schools	Students	Student/Teacher
Total		**79,885**	**40,103,699**	**16.5**
Central City		18,684	11,892,503	17.1
School Level	Elementary	14,154	7,698,492	17.5
	Secondary	3,777	3,980,447	16.9
	Combined	752	213,563	10.1
Minority Enrollment	LT 20%	4,628	2,675,140	17.5
	GE 20%	14,056	9,217,363	16.9
School Size	LT 150	987	91,606	9.1
	150 to 499	7,382	2,633,655	15.5
	500 to 749	5,324	3,247,363	17.4
	750 or more	4,991	5,919,879	17.9
Urban Fringe		20,849	12,515,609	17.1
School Level	Elementary	15,459	7,892,312	17.9
	Secondary	4,776	4,455,200	16.0
	Combined	615	168,098	12.3
Minority Enrollment	LT 20%	11,629	6,720,382	16.7
	GE 20%	9,220	5,795,228	17.5
School Size	LT 150	1,014	73,768	8.8
	150 to 499	9,107	3,277,633	16.5
	500 to 749	5,850	3,504,567	17.3
	750 or more	4,878	5,659,641	17.5
Rural		40,352	15,695,586	15.7
School Level	Elementary	26,508	9,495,515	16.7
	Secondary	11,170	5,257,121	14.7
	Combined	2,674	942,951	13.4
Minority Enrollment	LT 20%	29,974	10,938,435	15.5
	GE 20%	10,378	4,757,151	16.2
School Size	LT 150	7,843	664,432	11.1
	150 to 499	21,477	6,746,207	15.2
	500 to 749	7,252	4,383,991	16.6
	750 or more	3,780	3,900,956	17.0

Source: U.S. Department of Education, Schools and Staffing Survey (Administrator File) (1990-91)

Table 11.--CCD-Defined estimates for percentage distribution of schools and students, average school size

		Schools	Students	Average Size
Total		**100.0**	**100.0**	**502**
Central City		23.4	29.7	637
School Level	Elementary	75.8	64.7	544
	Secondary	20.2	33.5	1,054
	Combined	4.0	1.8	284
Minority Enrollment	LT 20%	24.8	22.5	578
	GE 20%	75.2	77.5	656
School Size	LT 150	5.3	0.8	93
	150 to 499	39.5	22.1	357
	500 to 749	28.5	27.3	610
	750 or more	26.7	49.8	1,186
Urban Fringe		26.1	31.2	600
School Level	Elementary	74.1	63.1	511
	Secondary	22.9	35.6	933
	Combined	2.9	1.3	276
Minority Enrollment	LT 20%	55.8	53.7	578
	GE 20%	44.2	46.3	629
School Size	LT 150	4.9	0.6	73
	150 to 499	43.7	26.2	360
	500 to 749	28.1	28.0	599
	750 or more	23.4	45.2	1,160
Rural		50.5	39.1	389
School Level	Elementary	65.7	60.5	358
	Secondary	27.7	33.5	471
	Combined	6.6	6.0	353
Minority Enrollment	LT 20%	74.3	69.7	365
	GE 20%	25.7	30.3	458
School Size	LT 150	19.4	4.2	85
	150 to 499	53.2	43.0	314
	500 to 749	18.0	27.9	605
	750 or more	9.3	24.9	1,032

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91) (Administrator File)

Table 12.--CCD-Defined estimates for percentage distribution of students by racial-ethnic background, and percent minority students

		White	Black	Hispanic	Native American	Asian	Percent Minority
Total		**68.7**	**16.2**	**11.1**	**1.1**	**2.9**	**31.3**
Central City		47.0	28.6	19.5	0.7	4.1	53.0
School Level	Elementary	45.4	29.7	20.4	0.7	3.8	54.6
	Secondary	50.4	26.3	17.8	0.7	4.9	49.6
	Combined	42.2	33.4	21.1	0.3	3.0	57.8
Minority Enrollment	LT 20%	91.3	3.8	2.5	0.7	1.7	8.7
	GE 20%	34.1	35.9	24.4	0.7	4.8	65.9
School Size	LT 150	54.9	21.1	21.9	0.8	1.3	45.1
	150 to 499	53.0	31.8	11.2	1.1	2.9	47.0
	500 to 749	46.5	31.6	17.8	0.7	3.5	53.5
	750 or more	44.5	25.8	24.1	0.6	5.1	55.5
Urban Fringe		72.1	12.7	10.3	0.6	4.3	27.9
School Level	Elementary	72.2	13.1	9.7	0.6	4.4	27.8
	Secondary	72.0	11.9	11.1	0.6	4.3	28.0
	Combined	65.2	19.7	13.6	0.2	1.4	34.9
Minority Enrollment	LT 20%	91.9	3.3	2.2	0.4	2.3	8.2
	GE 20%	49.2	23.7	19.6	0.8	6.6	50.8
School Size	LT 150	75.7	16.3	4.9	1.2	1.9	24.3
	150 to 499	74.1	13.0	8.2	0.6	4.0	25.9
	500 to 749	73.7	12.0	9.9	0.7	3.7	26.3
	750 or more	69.9	12.9	11.8	0.5	4.9	30.1
Rural		82.5	9.4	5.3	1.8	0.9	17.4
School Level	Elementary	82.6	9.5	5.1	1.9	0.9	17.4
	Secondary	82.5	9.2	5.8	1.5	0.9	17.5
	Combined	82.1	9.1	5.1	2.7	1.01	17.9
Minority Enrollment	LT 20%	95.5	1.9	1.4	0.5	0.7	4.5
	GE 20%	52.8	26.7	14.4	4.8	1.4	47.2
School Size	LT 150	87.8	2.5	4.8	4.3	0.6	12.2
	150 to 499	84.2	7.6	5.2	2.3	0.7	15.8
	500 to 749	82.2	11.2	4.2	1.4	0.9	17.8
	750 or more	79.0	11.7	7.0	1.0	1.2	21.0

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91) (Administrator File)

13A.--CCD-Defined estimates for percentage distribution of principals by sex and average age

		Male	Female	Average Principal Age
Total		**70.3**	**29.7**	**48.3**
Central City		58.7	41.3	49.4
School Level	Elementary	53.2	46.8	49.4
	Secondary	79.4	20.6	49.7
	Combined	59.8	40.2	48.5
Minority Enrollment	LT 20%	47.6	52.4	47.9
	GE 20%	58.8	41.2	49.4
School Size	LT 150	48.3	51.7	49.0
	150 to 499	54.4	45.6	49.5
	500 to 749	58.3	41.7	49.1
	750 or more	67.3	32.7	49.7
Urban Fringe		65.9	34.1	49.0
School Level	Elementary	60.5	39.5	49.0
	Secondary	85.3	14.7	49.5
	Combined	55.9	44.1	47.2
Minority Enrollment	LT 20%	70.4	29.6	46.8
	GE 20%	65.8	34.2	49.1
School Size	LT 150	58.3	41.7	48.2
	150 to 499	60.9	39.1	49.3
	500 to 749	67.0	33.0	49.2
	750 or more	75.3	24.7	48.5
Rural		78.0	22.0	47.3
School Level	Elementary	70.8	29.2	47.5
	Secondary	93.6	6.4	47.1
	Combined	82.3	17.7	46.8
Minority Enrollment	LT 20%	81.6	18.4	46.9
	GE 20%	77.3	22.7	47.4
School Size	LT 150	74.3	25.7	47.0
	150 to 499	77.5	22.6	47.2
	500 to 749	78.4	21.7	47.7
	750 or more	87.3	12.7	48.1

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91) (Administrator File)

13B.--CCD-Defined estimates for percentage distribution of principals by racial-ethnicity and percent minority

		White	Black	Hispanic	Indian	Asian	Percent Minority
Total		**86.2**	**8.4**	**3.9**	**0.9**	**0.6**	**13.8**
Central City		70.0	20.2	7.8	0.4	1.6	30.0
School Level	Elementary	68.6	20.9	8.3	0.3	1.9	31.4
	Secondary	73.0	18.7	6.4	0.9	1.0	27.0
	Combined	79.9	13.6	6.3	0.0	0.2	20.1
Minority Enrollment	LT 20%	96.7	3.3	0.0	0.0	0.0	3.3
	GE 20%	69.7	20.4	7.9	0.4	1.6	30.7
School Size	LT 150	82.4	7.3	10.3	0.0	0.0	17.6
	150 to 499	70.9	22.8	4.8	0.6	1.0	29.1
	500 to 749	66.8	20.4	10.0	0.1	2.7	33.2
	750 or more	69.9	18.7	9.6	0.7	1.7	30.1
Urban Fringe		86.8	8.1	3.6	0.7	0.8	13.2
School Level	Elementary	86.5	8.6	3.8	0.3	0.8	13.5
	Secondary	88.2	6.1	3.3	1.7	0.7	11.8
	Combined	83.4	11.0	1.2	3.8	0.6	16.6
Minority Enrollment	LT 20%	100	0.0	0.0	0.0	0.0	0.0
	GE 20%	86.6	8.2	3.7	0.7	0.8	13.4
School Size	LT 150	88.0	2.4	0.6	8.7	0.3	12.0
	150 to 499	86.7	9.3	3.5	0.2	0.3	13.3
	500 to 749	86.9	7.9	3.0	0.6	1.6	13.1
	750 or more	86.7	7.4	5.2	0.1	0.6	13.3
Rural		93.3	3.1	2.2	1.2	0.2	6.7
School Level	Elementary	93.0	3.1	2.7	1.1	0.1	7.0
	Secondary	94.2	2.8	1.2	1.6	0.2	5.8
	Combined	92.2	5.0	2.0	0.4	0.4	7.8
Minority Enrollment	LT 20%	96.9	1.1	1.0	1.2	0.0	3.2
	GE 20%	92.6	3.6	2.5	1.2	0.2	7.4
School Size	LT 150	95.7	1.2	1.9	1.1	0.1	4.3
	150 to 499	92.7	3.3	2.5	1.4	0.1	7.3
	500 to 749	93.0	4.2	2.1	0.5	0.2	7.0
	750 or more	92.7	4.2	1.6	0.9	0.6	7.3

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91) (Administrator File)

Table 14.--CCD-Defined estimates for number of public schools & students, average number of students per full-time teacher, by state

State	Schools	Students	Student/Teacher
Alabama	1,243	688,980	16.9
Alaska	425	109,112	16.6
Arizona	992	590,529	19.3
Arkansas	1,074	415,981	15.4
California	7,193	4,798,136	23.3
Colorado	1,304	575,845	16.8
Connecticut	933	453,813	13.3
Delaware	161	96,375	16.4
Washington D.C.	170	78,415	13.0
Florida	2,269	1,766,890	16.8
Georgia	1,650	1,102,779	16.6
Hawaii	231	176,149	17.3
Idaho	545	215,692	18.8
Illinois	3,949	1,804,706	15.5
Indiana	1,856	894,518	16.2
Iowa	1,530	479,023	14.3
Kansas	1,442	453,170	14.4
Kentucky	1,323	617,625	16.5
Louisiana	1,449	738,300	16.4
Maine	738	218,614	13.7
Maryland	1,128	675,491	17.3
Massachusetts	1,775	810,755	13.7
Michigan	3,110	1,418,907	18.2
Minnesota	1,434	719,581	16.4
Mississippi	913	506,697	17.7
Missouri	2,063	818,239	15.3
Montana	739	157,530	15.1
Nebraska	1,455	260,030	14.0
Nevada	319	198,751	19.2
New Hampshire	417	147,023	13.6
New Jersey	2,224	1,112,872	12.5
New Mexico	626	292,482	16.8
New York	3,889	2,384,989	14.2
North Carolina	1,917	1,069,603	16.0
North Dakota	647	118,778	14.7
Ohio	3,623	1,716,955	16.7
Oklahoma	1,730	574,546	15.0
Oregon	1,164	459,106	17.8
Pennsylvania	3,205	1,722.046	15.8
Rhode Island	294	148,027	14.0
South Carolina	1,085	649,828	16.7
South Dakota	732	148,790	14.9
Tennessee	1,485	789,393	18.0
Texas	5,651	3,323,523	15.7
Utah	718	438,875	24.0
Vermont	331	90,632	13.2
Virginia	1,737	943,179	15.3
Washington	1,772	897,997	20.2
West Virginia	1,007	336,584	15.2
Wisconsin	1,845	796,131	14.3
Wyoming	376	101,710	13.9

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91) (Administrator File)

Table 15.--CCD-Defined estimates for percentage distribution of principals by highest degree earned, average years of teaching experience, percentage who taught and average years of teaching experience before becoming a principal, by state 1990-91

State	Less Than Masters	Masters	Greater Than Masters	Taught Before Principal (in percent)	Average Years Teaching Before Principal
Alabama	0.0	39.6	60.4	99.2	10.1
Alaska	4.9	71.0	24.1	99.6	9.2
Arizona	8.6	62.4	29.0	96.5	9.6
Arkansas	0.5	74.0	25.5	97.1	10.1
California	3.5	66.6	29.9	99.8	11.6
Colorado	1.5	56.6	41.9	100.0	11.1
Connecticut	0.0	11.7	88.3	99.5	10.8
Delaware	0.0	62.4	37.6	100.0	9.0
Washington D.C.	0.0	65.2	34.8	100.0	13.0
Florida	0.0	72.9	27.1	98.1	10.2
Georgia	0.0	18.6	81.4	97.3	10.2
Hawaii	20.5	39.7	39.8	100.0	13.2
Idaho	1.2	62.3	36.5	98.0	9.8
Illinois	0.0	68.9	31.1	99.1	9.4
Indiana	0.0	49.9	50.1	100.0	10.2
Iowa	1.0	74.2	24.8	99.4	9.8
Kansas	0.7	74.5	24.8	100.0	10.0
Kentucky	0.6	33.2	66.2	98.8	10.8
Louisiana	0.0	63.7	36.3	98.8	14.1
Maine	10.1	63.3	26.5	100.0	9.6
Maryland	0.0	66.7	33.3	99.4	10.7
Maine	1.9	55.2	42.9	100.0	11.7
Michigan	1.4	59.3	39.3	99.9	10.7
Minnesota	0.0	26.8	72.7	99.4	9.7
Mississippi	0.0	52.1	47.9	99.4	11.1
Missouri	1.6	47.1	51.4	99.0	9.3
Montana	5.2	82.9	11.9	95.3	10.2
Nebraska	4.9	52.5	42.6	99.1	8.9
Nevada	0.0	73.2	26.9	98.9	10.7
New Hampshire	6.4	54.1	39.5	98.1	11.0
New Jersey	0.0	68.9	31.1	97.5	10.2
New Mexico	1.3	65.1	33.5	99.0	10.2
New York	1.5	37.9	60.7	97.5	12.3
North Carolina	2.0	41.7	56.3	98.2	9.5
North Dakota	41.2	50.3	8.6	94.4	8.9
Ohio	0.0	82.0	18.0	98.9	10.4
Oklahoma	4.4	61.5	34.1	96.4	10.4
Oregon	4.8	57.3	37.9	97.3	8.9
Pennsylvania	1.4	62.0	36.6	99.9	11.3
Rhode Island	0.0	62.6	37.4	100.0	13.0
South Carolina	0.0	50.7	49.3	95.6	9.1
South Dakota	0.0	84.9	15.1	96.7	9.1
Tennessee	2.1	61.8	36.1	96.5	10.1
Texas	0.4	74.3	25.3	98.4	10.8
Utah	5.2	42.1	52.8	97.6	11.4
Vermont	16.6	58.3	25.1	100.0	9.1
Virginia	0.0	72.0	28.0	100.0	9.6
Washington	0.0	74.2	25.8	100.0	10.4
West Virginia	0.0	73.9	26.0	100.0	9.6
Wisconsin	0.0	66.6	33.4	97.3	10.0
Wyoming	0.0	71.3	28.7	100.0	10.0

Source: U.S. Department of Education, NCES, Schools and Staffing Survey (1990-91) (Administrator File)

3.2 - Comparison Tables

Tables number 16 through 23 on pages number 27 through 37 are comparisons of SASS estimates derived using both the QED and the CCD definition of a school, by selected school characteristics. The columns below QED and CCD represent actual total numbers and/or percentages for the given estimates. Under the section titled "Difference," the pound sign represents the difference calculated by subtracting the QED estimate from the CCD estimate. The percent difference (% sign) is calculated by dividing the aforementioned difference by the QED estimate to measure the percent difference.

Number of public schools and students and average number of students per full-time equivalent teacher, by selected school characteristics

	QED			CCD			SCHOOLS		STUDENTS		AVG SDNT /FTE TCHR	
	SCHOOLS	STUDENTS	AVG SDNT/ FTE TCHR	SCHOOLS	STUDENTS	AVG SDNT/ FTE TCHR	#	%	#	%	#	%
TOTAL	78,759	40,096,401	16.6	79,885	40,103,699	16.5	1,126	1.4	7,298	0.0	-0.1	-0.6
Central City	18,669	11,893,291	17.1	18,684	11,892,503	17.1	15	0.1	-788	0.0	0.0	0.0
School Level												
Elementary	14,144	7,692,421	17.5	14,154	7,698,492	17.5	10	0.1	6,071	0.1	0.0	0.0
Secondary	3,773	3,987,307	17	3,777	3,980,447	16.9	4	0.1	-6,860	-0.2	-0.1	-0.6
Combined	752	213,563	10.1	752	213,563	10.1	0	0.0	0	0.0	0.0	0.0
Minority enrollment												
Less than 20%	4625	2,675,145	17.5	4628	2,675,140	17.5	3	0.1	-5	0.0	0.0	0.0
20% or more	14,044	9,218,146	17	14,056	9,217,363	16.9	12	0.1	-783	0.0	-0.1	-0.6
School Size												
Less than 150	982	91,240	9.3	987	91,606	9.1	5	0.5	366	0.4	-0.2	-2.2
150 to 499	7,379	2,633,774	15.5	7,382	2,633,655	15.5	3	0.0	-119	0.0	0.0	0.0
500 to 749	5,324	3,247,708	17.4	5,324	3,247,363	17.4	0	0.0	-345	0.0	0.0	0.0
750 or more	4,984	5,920,571	17.9	4,991	5,919,879	17.9	7	0.1	-692	0.0	0.0	0.0
Urban fringe/ Urban fringe/ large town	20,827	12,508,381	17.1	20,849	12,515,609	17.1	22	0.1	7,228	0.1	0.0	0.0
School Level												
Elementary	15,452	7,902,682	17.9	15,459	7,892,312	17.9	7	0.0	-10,370	-0.1	0.0	0.0
Secondary	4,762	4,437,601	16	4,776	4,455,200	16	14	0.3	17,599	0.4	0.0	0.0
Combined	612	168,098	12.4	615	168,098	12.3	3	0.5	0	0.0	-0.1	-0.8
Minority enrollment												
Less than 20%	11,618	6,732,891	16.8	11,629	6,720,382	16.7	11	0.1	-12,509	-0.2	-0.1	-0.6
20% or more	9,209	5,775,490	17.5	9,220	5,795,228	17.5	11	0.1	19,738	0.3	0.0	0.0
School Size												
Less than 150	1,013	73,658	8.8	1,014	73,768	8.8	1	0.1	110	0.1	0.0	0.0
150 to 499	9,087	3,270,685	16.6	9,107	3,277,633	16.5	20	0.2	6,948	0.2	-0.1	-0.6
500 to 749	5,848	3,503,224	17.3	5,850	3,504,567	17.3	2	0.0	1,343	0.0	0.0	0.0
750 or more	4,878	5,660,813	17.5	4,878	5,659,641	17.5	0	0.0	-1,172	0.0	0.0	0.0
Rural/small town	39,263	15,694,730	16	40,352	15,695,586	15.7	1,089	2.8	856	0.0	-0.3	-1.9
School Level												
Elementary	25,715	9,395,915	16.8	26,508	9,495,515	16.7	793	3.1	99,600	1.1	-0.1	-0.6
Secondary	10,967	5,359,209	15.1	11,170	5,257,121	14.7	203	1.9	-102,088	-1.9	-0.4	-2.6
Combined	2,581	939,606	13.8	2,674	942,951	13.4	93	3.6	3,345	0.4	-0.4	-2.9
Minority enrollment												
Less than 20%	29,021	10,938,818	15.8	29,974	10,938,435	15.5	953	3.3	-383	0.0	-0.3	-1.9
20% or more	10,242	4,755,912	16.3	10,378	4,757,151	16.2	136	1.3	1,239	0.0	-0.1	-0.6
School Size												
Less than 150	6,938	594,261	12.5	7,843	664,432	11.1	905	13.0	70,171	11.8	-1.4	-11.2
150 to 499	21,179	6,700,298	15.5	21,477	6,746,207	15.2	298	1.4	45,909	0.7	-0.3	-1.9
500 to 749	7,304	4,418,856	16.7	7,252	4,383,991	16.6	-52	-0.7	-34,865	-0.8	-0.1	-0.6
750 or more	3,842	3,981,315	17.0	3,780	3,900,956	17	-62	-1.6	-80,359	-2.0	0.0	0.0

 # = (CCD Est. - QED Est.)
% = (# / QED Est.)
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

Table 17 Comparison of SASS Estimates using QED and CCD Definitions

Percentage distribution of schools and students and average school size, by selected school characteristics

	QED			CCD			SCHOOLS		STUDENTS		AVG. SIZE	
	SCHOOLS	STUDENTS	AVG. SIZE	SCHOOLS	STUDENTS	AVG. SIZE	#	%	#	%	#	%
TOTAL	100.0	100.0	509	100.0	100.0	502	0.0	0.0	0.0	0.0	-7.0	-1.4
Central City	23.7	29.7	637	23.4	29.7	637	-0.3	-1.3	0.0	0.0	0.0	0.0
School Level												
Elementary	75.8	64.7	544	75.8	64.7	544	0.0	0.0	0.0	0.0	0.0	0.0
Secondary	20.2	33.5	1057	20.2	33.5	1054	0.0	0.0	0.0	0.0	-3.0	-0.3
Combined	4.0	1.8	289	4.0	1.8	284	0.0	0.0	0.0	0.0	-5.0	-1.7
Minority enrollment												
Less than 20%	24.8	22.5	578	24.8	22.5	578	0.0	0.0	0.0	0.0	0.0	0.0
20% or more	75.2	77.5	656	75.2	77.5	656	0.0	0.0	0.0	0.0	0.0	0.0
School Size												
Less than 150	5.3	0.8	94	5.3	0.8	93	0.0	0.0	0.0	0.0	-1.0	-1.1
150 to 499	39.5	22.1	357	39.5	22.1	357	0.0	0.0	0.0	0.0	0.0	0.0
500 to 749	28.5	27.3	610	28.5	27.3	610	0.0	0.0	0.0	0.0	0.0	0.0
750 or more	26.7	49.8	1188	26.7	49.8	1186	0.0	0.0	0.0	0.0	-2.0	-0.2
Urban fringe/ large town	26.4	31.2	601	26.1	31.3	600	-0.3	-1.1	0.1	0.3	-1.0	-0.2
School Level												
Elementary	74.2	63.3	511	74.1	63.1	511	-0.1	-0.1	-0.2	-0.3	0.0	0.0
Secondary	22.9	35.5	932	22.9	35.6	933	0.0	0.0	0.1	0.3	1.0	0.1
Combined	2.9	1.3	274	2.9	1.3	276	0.0	0.0	0.0	0.0	2.0	0.7
Minority enrollment												
Less than 20%	55.8	53.8	580	55.8	53.7	578	0.0	0.0	-0.1	-0.2	-2.0	-0.3
20% or more	44.2	46.2	627	44.2	46.3	629	0.0	0.0	0.1	0.2	2.0	0.3
School Size												
Less than 150	4.9	0.6	73	4.9	0.6	73	0.0	0.0	0.0	0.0	0.0	0.0
150 to 499	43.6	26.2	362	43.7	26.2	360	0.1	0.2	0.0	0.0	-2.0	-0.6
500 to 749	28.1	28.0	599	28.1	28.0	599	0.0	0.0	0.0	0.0	0.0	0.0
750 or more	23.4	45.3	1159	23.4	45.2	1160	0.0	0.0	-0.1	-0.2	1.0	0.1
Rural/small town	49.9	39.1	400	50.5	39.1	389	0.6	1.2	0.0	0.0	-11.0	-2.8
School Level												
Elementary	65.5	59.9	365	65.7	60.5	358	0.2	0.3	0.6	1.0	-7.0	-1.9
Secondary	27.9	34.1	489	27.7	33.5	471	-0.2	-0.7	-0.6	-1.8	-18.0	-3.7
Combined	6.6	6.0	364	6.6	6.0	353	0.0	0.0	0.0	0.0	-11.0	-3.0
Minority enrollment												
Less than 20%	73.9	69.7	377	74.3	69.7	365	0.4	0.5	0.0	0.0	-12.0	-3.2
20% or more	26.1	30.3	464	25.7	30.3	458	-0.4	-1.5	0.0	0.0	-6.0	-1.3
School Size												
Less than 150	17.7	3.9	95	19.4	4.2	85	1.7	9.6	0.3	7.7	-10.0	-10.5
150 to 499	53.9	42.7	321	53.2	43.0	314	-0.7	-1.3	0.3	0.7	-7.0	-2.2
500 to 749	18.6	28.2	608	18.0	27.9	605	-0.6	-3.2	-0.3	-1.1	-3.0	-0.5
750 or more	9.8	25.4	1035	9.3	24.9	1032	-0.5	-5.1	-0.5	-2.0	-3.0	-0.3

 # = (CCD Est. - QED Est.)
% = (# / QED Est.)
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

Table 18 Comparison of SASS Estimates using QED and CCD Definitions

Percentage distribution of students, by racial-ethnic background and percent minority students by selected school characteristics

	QED						CCD						WHT		BLK		HSP		IN	ASN		MIN	
	WHT	BLK	HSP	IND	ASN	MIN	WHT	BLK	HSP	IND	ASN	MIN	#	%	#	%	#	%	%	#	%	#	%
TOTAL	69.2	16.3	11.2	1.1	2.9	31.5	68.7	16.2	11.1	1.1	2.9	31.3	-0.5	-0.7	-0.1	-0.6	-0.1	-0.9	0.0	0.0	0.0	-0.2	-0.6
Central City	47.0	28.7	19.5	0.7	4.1	53.1	47.0	28.6	19.5	0.7	4.1	53.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2
School Level																							
Elementary	45.4	29.7	20.3	0.7	3.8	54.6	45.4	29.7	20.4	0.7	3.8	54.6	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.0	0.0
Secondary	50.2	26.4	17.9	0.7	4.9	49.8	50.4	26.3	17.8	0.7	4.9	49.6	0.2	0.4	-0.1	-0.4	-0.1	-0.6	0.0	0.0	0.0	-0.2	-0.4
Combined	42.2	34.4	21.1	0.3	3.0	57.8	42.2	33.4	21.1	0.3	3	57.8	0.0	0.0	-1.0	-2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority enrollment																							
Less than 20%	91.2	3.8	2.5	0.7	1.7	8.7	91.3	3.8	2.5	0.7	1.7	8.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20% or more	34.2	35.9	24.5	0.7	4.8	65.9	34.1	35.9	24.4	0.7	4.8	65.9	-0.1	-0.3	0.0	0.0	-0.1	-0.4	0.0	0.0	0.0	0.0	0.0
School Size																							
Less than 150	55.0	21.1	21.8	0.8	1.2	45	54.9	21.1	21.9	0.8	1.3	45.1	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2
150 to 499	53.0	31.8	11.2	1.1	2.9	47.0	53.0	31.8	11.2	1.1	2.9	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
500 to 749	46.5	31.6	17.8	0.7	3.5	53.5	46.5	31.6	17.8	0.7	3.5	53.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
750 or more	44.5	25.8	24.2	0.6	5.1	55.6	44.5	25.8	24.1	0.6	5.1	55.5	0.0	0.0	0.0	0.0	-0.1	-0.4	0.0	0.0	0.0	-0.1	-0.2
Urban fringe/ large town	72.2	12.8	10.3	0.6	4.3	27.9	72.1	12.7	10.3	0.6	4.3	27.9	-0.1	-0.1	-0.1	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
School Level																							
Elementary	72.3	13.1	9.8	0.6	4.4	27.9	72.2	13.1	9.7	0.6	4.4	27.8	-0.1	-0.1	0.0	0.0	-0.1	-1.0	0.0	0.0	0.0	-0.1	-0.4
Secondary	72.3	12.0	11	0.6	4.2	27.8	72.0	11.9	11.1	0.6	4.3	28.0	-0.3	-0.4	-0.1	-0.8	0.1	0.9	0.0	0.1	0.0	0.2	0.7
Combined	65.7	19.8	13.7	0.2	1.5	35.1	65.2	19.7	13.6	0.2	1.4	34.9	-0.5	-0.8	-0.1	-0.5	-0.1	-0.7	0.0	-0.1	0.0	-0.2	-0.6
Minority enrollment																							
Less than 20%	91.9	3.3	2.3	0.4	2.4	8.3	91.9	3.3	2.2	0.4	2.3	8.2	0.0	0.0	0.0	0.0	-0.1	-4.3	0.0	-0.1	0.0	-0.1	-1.2
20% or more	49.3	23.8	19.5	0.8	6.6	50.7	49.2	23.7	19.6	0.8	6.6	50.8	-0.1	-0.2	-0.1	-0.4	0.1	0.5	0.0	0.0	0.0	0.1	0.2
School Size																							
Less than 150	75.7	16.2	4.9	1.2	1.9	24.3	75.7	16.3	4.9	1.2	1.9	24.3	0.0	0.0	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 to 499	74.0	13.1	8.2	0.6	4.0	26.0	74.1	13.0	8.2	0.6	4	25.9	0.1	0.1	-0.1	-0.8	0.0	0.0	0.0	0.0	0.0	-0.1	-0.4
500 to 749	73.7	12.0	9.9	0.7	3.7	26.3	73.7	12.0	9.9	0.7	3.7	26.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
750 or more	70.2	13.0	11.7	0.5	4.9	30.1	69.9	12.9	11.8	0.5	4.9	30.1	-0.3	-0.4	-0.1	-0.8	0.1	0.9	0.0	0.0	0.0	0.0	0.0
Rural/small town	83.7	9.5	5.4	1.8	0.9	17.7	82.5	9.4	5.3	1.8	0.9	17.4	-1.2	-1.4	-0.1	-1.1	-0.1	-1.9	0.0	0.0	0.0	-0.3	-1.7
School Level																							
Elementary	82.9	9.7	5.2	1.9	0.9	17.6	82.6	9.5	5.1	1.9	0.9	17.4	-0.3	-0.4	-0.2	-2.1	-0.1	-1.9	0.0	0.0	0.0	-0.2	-1.1
Secondary	85.1	9.3	5.8	1.7	1.0	17.8	82.5	9.2	5.8	1.5	0.9	17.5	-2.6	-3.1	-0.1	-1.1	0.0	0.0	-11.8	-0.1	0.0	-0.3	-1.7
Combined	85.0	9.4	5.2	2.7	1.0	18.4	82.1	9.1	5.1	2.7	1	17.9	-2.9	-3.4	-0.3	-3.2	-0.1	-1.9	0.0	0.0	0.0	-0.5	-2.7
Minority enrollment																							
Less than 20%	97.2	1.9	1.4	0.6	0.7	4.6	95.5	1.9	1.4	0.5	0.7	4.5	-1.7	-1.7	0.0	0.0	0.0	0.0	-16.7	0.0	0.0	-0.1	-2.2
20% or more	53.1	26.9	14.5	4.8	1.4	47.5	52.8	26.7	14.4	4.8	1.4	47.2	-0.3	-0.6	-0.2	-0.7	-0.1	-0.7	0.0	0.0	0.0	-0.3	-0.6
School Size																							
Less than 150	88.9	2.7	5.3	4.3	0.7	13.0	87.8	2.5	4.8	4.3	0.6	12.2	-1.1	-1.2	-0.2	-7.4	-0.5	-9.4	0.0	-0.1	0.0	-0.8	-6.2
150 to 499	85.5	7.7	5.3	2.4	0.7	16.1	84.2	7.6	5.2	2.3	0.7	15.8	-1.3	-1.5	-0.1	-1.3	-0.1	-1.9	-4.2	0.0	0.0	-0.3	-1.9
500 to 749	83.1	11.2	4.3	1.5	1.0	17.9	82.2	11.2	4.2	1.4	0.9	17.8	-0.9	-1.1	0.0	0.0	-0.1	-2.3	-6.7	-0.1	0.0	-0.1	-0.6
750 or more	80.8	11.7	7.0	1.1	1.2	21.0	79.0	11.7	7.0	1.0	1.2	21.0	-1.8	-2.2	0.0	0.0	0.0	0.0	-9.1	0.0	0.0	0.0	0.0

 # = (CCD Est. - QED Est.)
% = (# / QED Est.)
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

Table 19 Comparison of SASS Estimates using QED and CCD Definitions

Percentage distribution of principals by race-ethnicity, percent minority principals, by selected school characteristics

	QED						CCD						WHT		BLK		HSP		IND		ASN		MIN	
	WHT	BLK	HSP	IND	ASN	MIN	WHT	BLK	HSP	IND	ASN	MIN	#	%	#	%	#	%	#	%	#	%	#	%
TOTAL	86.1	8.5	3.9	0.9	0.8	13.9	86.2	8.4	3.9	0.9	0.8	13.8	0.1	0.1	-0.1	-1.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.7
Central City	70.0	20.2	7.9	0.4	2.0	30.0	70.0	20.2	7.9	0.4	2.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
School Level																								
Elementary	68.9	20.9	8.3	0.3	2.4	31.1	68.6	20.9	8.3	0.3	2.4	31.4	-0.3	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0
Secondary	73.6	18.8	6.4	1.0	1.0	26.4	73.6	18.8	6.4	1.0	1.0	26.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combined	79.9	13.6	6.3	0.0	0.2	20.1	79.9	13.6	6.3	0.0	0.2	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	0.0	0.0	0.0
Minority enrollment																								
Less than 20%	96.7	3.3	0.0	0.0	0.0	3.3	96.7	3.3	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	*	0.0	0.0
20% or more	69.7	20.4	7.9	0.4	2.1	30.3	69.7	20.4	7.9	0.4	2.1	30.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
School Size																								
Less than 150	82.4	7.2	10.4	0.0	0.00	17.6	82.5	7.2	10.4	0.0	0.0	17.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	*	0.0	.*	-0.1	-0.6
150 to 499	70.9	22.7	4.8	0.6	1.8	29.1	70.9	22.7	4.8	0.6	1.8	29.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
500 to 749	66.8	20.4	10.0	0.1	2.7	33.2	66.8	20.4	10.0	0.1	2.7	33.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
750 or more	70.0	18.7	9.6	0.7	2.0	30.0	69.9	18.7	9.6	0.7	2.0	30.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
Urban fringe/ large town	86.8	8.1	3.6	0.7	0.8	13.2	86.8	8.1	3.6	0.7	0.8	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
School Level																								
Elementary	86.5	8.6	3.8	0.2	0.9	13.5	86.5	8.6	3.8	0.2	0.9	13.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Secondary	88.2	6.2	3.3	1.7	0.7	11.8	88.2	6.1	3.3	1.7	0.7	11.8	0.0	0.0	-0.1	-1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combined	83.4	11.0	1.2	3.8	0.6	16.6	83.4	11.0	1.2	3.8	0.6	16.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority enrollment																								
Less than 20%	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	*	0.0	*	0.0	*
20% or more	86.7	8.2	3.7	0.7	0.8	13.3	86.6	8.2	3.7	0.7	0.8	13.4	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
School Size																								
Less than 150	88.0	2.3	0.6	8.7	0.4	12.0	88.0	2.3	0.6	8.7	0.4	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 to 499	86.6	9.4	3.5	0.2	0.3	13.4	86.7	9.3	3.5	0.2	0.3	13.3	0.1	0.1	-0.1	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.7
500 to 749	86.9	7.9	3.0	0.5	1.6	13.1	86.9	7.9	3.0	0.5	1.6	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
750 or more	86.7	7.1	5.2	0.1	0.9	13.3	86.7	7.1	5.2	0.1	0.9	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
																•		•		•				
Rural/small town	93.2	3.3	2.3	1.2	0.2	6.8	93.3	3.2	2.2	1.2	0.2	6.7	0.1	0.1	-0.1	-3.0	-0.1	-4.3	0.0	0.0	0.0	0.0	-0.1	-1.5
School Level																								
Elementary	92.9	3.2	2.7	1.1	0.1	7.1	93.0	3.1	2.7	1.1	0.1	7.0	0.1	0.1	-0.1	-3.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.4
Secondary	94.1	2.9	1.2	1.6	0.2	5.9	94.2	2.8	1.2	1.6	0.2	5.8	0.1	0.1	-0.1	-3.4	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.7
Combined	92.3	5.0	2.0	0.4	0.4	7.7	92.2	5.0	2.0	0.4	0.4	7.8	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3
Minority enrollment																								
Less than 20%	96.9	1.1	1.0	1.0	0.0	3.1	96.8	1.1	1.0	1.1	0.0	3.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.1	10.0	0.0	*	0.1	3.2
20% or more	92.4	3.6	2.5	1.2	0.2	7.6	92.6	3.6	2.5	1.2	0.2	7.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-2.6
School Size																								
Less than 150	95.7	1.4	2.1	0.8	0.0	4.3	95.7	1.2	2.0	1.1	0.0	4.3	0.0	0.0	-0.2	-14.3	-0.1	-4.8	0.3	37.5	0.0	*	0.0	0.0
150 to 499	92.6	3.3	2.5	1.5	0.1	7.4	92.7	3.3	2.5	1.5	0.1	7.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.4
500 to 749	92.9	4.2	2.1	0.5	0.2	7.1	92.9	4.2	2.1	0.5	0.2	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
750 or more	92.8	4.1	1.6	0.9	0.6	7.2	92.7	4.2	1.6	1.0	0.7	7.3	-0.1	-0.1	0.1	2.4	0.0	0.0	0.1	11.1	0.1	16.7	0.1	1.4

= (CCD Est. - QED Est.)
% = (# / QED Est.)
* Denominator of zero
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School and Administrator Questionnaire)

Table 20 Comparison of SASS Estimates using QED and CCD Definitions

Percentage distribution of principals by highest degree earned, percentage of principals who taught and their average years of teaching experience before becoming principals, by selected school characteristics

	QED					CCD					LSS		MST		MOR		%TC		AVG	
	LSS	MST	MOR	%TC	AVG	LSS	MST	MOR	%TC	AVG	#	%	#	%	#	%	#	%	#	%
TOTAL	1.7	60.6	37.6	98.8	10.5	1.8	60.6	37.6	98.7	10.5	0.1	5.9	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0
Central City	0.6	60.4	39.1	98.6	10.9	0.6	60.3	39.1	98.6	10.9	0.0	0.0	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
School Level																				
Elementary	0.4	61.3	38.3	98.4	11.1	0.4	61.3	38.3	98.4	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Secondary	1.0	58.1	41.0	99.1	10.1	1.0	58.1	41	99.1	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combined	2.4	52.7	44.9	98.2	9.9	2.4	52.7	44.9	98.2	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority enrollment																				
Less than 20%	0.0	74.0	26.0	95.0	11.8	0.0	74.0	26.0	95.0	11.8	0.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20% or more	0.6	60.2	39.3	98.6	10.9	0.6	60.2	39.3	98.6	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
School Size																				
Less than 150	2.6	51.9	45.5	97.4	10.0	2.6	51.9	45.5	97.4	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 to 499	0.2	63.1	36.8	99.1	11.3	0.2	63.1	36.7	99.1	11.3	0.0	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
500 to 749	0.1	60.4	39.6	98.0	10.9	0.1	60.4	39.6	98	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
750 or more	1.4	57.7	41.0	98.5	10.4	1.4	57.7	41.0	98.6	10.40	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Urban fringe/																				
Urban fringe/ large town	1.1	60.7	38.2	99.2	10.6	1.1	60.7	38.2	99.2	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
School Level																				
Elementary	1.3	61.1	37.6	99.3	10.6	1.3	61.1	37.6	99.3	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
Secondary	2.7	58.8	40.9	99.1	10.1	0.3	58.8	40.9	99.1	10.1	-2.4	-88.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combined	3.8	62.6	33.7	97.2	9.5	3.8	62.6	33.7	97.2	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority enrollment																				
Less than 20%	0.0	52.8	47.1	98.3	11.4	0.0	52.8	47.2	98.3	11.4	0.0	*	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0
20% or more	1.1	60.8	38.1	99.2	10.6	1.1	60.8	38.1	99.2	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
School Size																				
Less than 150	5.5	61.4	33.2	95.6	9.1	5.5	61.4	33.2	95.5	9.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0
150 to 499	0.8	59.5	39.8	99.7	11.2	0.8	59.4	39.8	99.7	11.2	0.0	0.0	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
500 to 749	1.6	62.1	36.3	99.9	10.7	1.6	62.1	36.2	99.9	10.7	0.0	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
750 or more	0.3	61.0	38.7	98.2	9.8	0.3	61.0	38.7	98.2	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rural/small town	2.6	60.8	36.7	98.6	10.3	2.8	60.7	36.5	98.5	10.3	0.2	7.7	-0.1	-0.2	-0.2	-0.5	-0.1	-0.1	0.0	0.0
School Level																				
Elementary	2.6	60.4	37.1	98.5	10.3	2.9	60.1	37.0	98.4	10.3	0.3	11.5	-0.3	-0.5	-0.1	-0.3	-0.1	-0.1	0.0	0.0
Secondary	2.2	62.8	35.0	99	10	2.3	63.2	34.5	99.0	10.0	0.1	4.5	0.4	0.6	-0.5	-1.4	0.0	0.0	0.0	0.0
Combined	3.7	56.2	40.1	98.3	10.8	3.6	56.4	40.0	98.3	10.7	-0.1	-2.7	0.2	0.4	-0.1	-0.2	0.0	0.0	-0.1	-0.1
Minority enrollment																				
Less than 20%	4.1	63.5	32.4	98.2	9.7	4.9	62.8	32.3	97.8	9.9	0.8	19.5	-0.7	-1.1	-0.1	-0.3	-0.4	-0.4	0.2	0.2
20% or more	2.3	60.2	37.5	98.7	10.3	2.4	60.3	37.3	98.7	10.3	0.1	4.3	0.1	0.2	-0.2	-0.5	0.0	0.0	0.0	0.0
School Size																				
Less than 150	9.0	66.5	24.6	97.8	10.1	9.8	65.7	24.4	97.4	10.0	0.8	8.9	-0.8	-1.2	-0.2	-0.8	-0.4	-0.4	-0.1	-0.1
150 to 499	1.7	62.1	36.2	98.8	10.4	1.7	61.8	36.5	98.8	10.4	0.0	0.0	-0.3	-0.5	0.3	0.8	0.0	0.0	0.0	0.0
500 to 749	0.4	55.2	44.4	98.7	10.2	0.4	55.3	44.3	98.7	10.2	0.0	0.0	0.1	0.2	-0.1	-0.2	0.0	0.0	0.0	0.0
750 or more	0.5	54.8	44.7	98.7	10.2	0.5	55.7	43.8	98.7	10.0	0.0	0.0	0.9	1.6	-0.9	-2.0	0.0	0.0	-0.2	-0.2

LSS - Less than bachelor's MST - Master's MOR - More than bachelor's %TC - Percent with teaching experience AVG - Average years of tch. exp.

= (CCD Est. - QED Est) % = (# / QED Est.) * Denominator of zero

Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

Table 21 Comparison of SASS Estimates using QED and CCD Definitions

Number of public schools and students and average number of students per full-time equivalent teacher, by state

	QED			CCD			DIFFERENCE					
							SCHOOLS		STUDENTS		AVG SDNT / FTE TCHR	
	SCHOOLS	STUDENTS	AVG SDNT/ FTE TCHR	SCHOOLS	STUDENTS	AVG SDNT/ FTE TCHR	#	%	#	%	#	%
AL	1,241	688,980	16.9	1,243	688,980	16.9	2	0.2	0	0.0	0.0	0.0
AK	423	109,112	16.6	425	109,112	16.6	2	0.5	0	0.0	0.0	0.0
AZ	992	590,529	19.3	992	590,529	19.3	0	0.0	0	0.0	0.0	0.0
AR	1,025	416,027	15.4	1,074	415,981	15.4	49	4.8	-46	0.0	0.0	0.0
CA	7,171	4,791,612	23.3	7,193	4,798,136	23.3	22	0.3	6,524	0.1	0.0	0.0
CO	1,286	575,806	16.8	1,304	575,845	16.8	18	1.4	39	0.0	0.0	0.0
CT	932	453,788	13.3	933	453,813	13.3	1	0.1	25	0.0	0.0	0.0
DE	161	96,375	16.4	161	96,375	16.4	0	0.0	0	0.0	0.0	0.0
DC	169	78,415	13.0	170	78,415	13.0	1	0.6	0	0.0	0.0	0.0
FL	2,267	1,766,890	16.8	2,269	1,766,890	16.8	2	0.1	0	0.0	0.0	0.0
GA	1,647	1,102,763	16.6	1,650	1,102,779	16.6	3	0.2	16	0.0	0.0	0.0
HI	231	176,149	17.3	231	176,149	17.3	0	0.0	0	0.0	0.0	0.0
ID	538	215,693	18.8	545	215,692	18.8	7	1.3	-1	0.0	0.0	0.0
IL	3,930	1,804,729	15.5	3,949	1,804,706	15.5	19	0.5	-23	0.0	0.0	0.0
IN	1,852	894,521	16.2	1,856	894,518	16.2	4	0.2	-3	0.0	0.0	0.0
IA	1,445	478,912	14.3	1,530	479,023	14.3	85	5.9	111	0.0	0.0	0.0
KS	1,433	453,170	14.4	1,442	453,170	14.4	9	0.6	0	0.0	0.0	0.0
KY	1,308	617,641	16.5	1,323	617,625	16.5	15	1.1	-16	0.0	0.0	0.0
LA	1,439	738,326	16.4	1,449	738,300	16.4	10	0.7	-26	0.0	0.0	0.0
ME	735	218,614	13.7	738	218,614	13.7	3	0.4	0	0.0	0.0	0.0
MD	1,128	675,491	17.3	1,128	675,491	17.3	0	0.0	0	0.0	0.0	0.0
MA	1,774	810,755	13.7	1,775	810,755	13.7	1	0.1	0	0.0	0.0	0.0
MI	3,094	1,418,931	18.2	3,110	1,418,907	18.2	16	0.5	-24	0.0	0.0	0.0
MN	1,346	719,459	16.3	1,434	719,581	16.4	88	6.5	122	0.0	0.1	0.6
MS	910	506,697	17.7	913	506,697	17.7	3	0.3	0	0.0	0.0	0.0
MO	2,017	818,211	15.3	2,063	818,239	15.3	46	2.3	28	0.0	0.0	0.0
MT	695	157,447	15.1	739	157,530	15.1	44	6.3	83	0.1	0.0	0.0
NE	1,325	260,211	14.0	1,455	260,030	14.0	130	9.8	-181	-0.1	0.0	0.0
NV	301	198,844	19.2	313	198,751	19.2	12	4.0	-93	0.0	0.0	0.0
NH	417	147,022	13.6	417	147,023	13.6	0	0.0	1	0.0	0.0	0.0
NJ	2,220	1,112,879	12.5	2,224	1,112,872	12.5	4	0.2	-7	0.0	0.0	0.0
NM	622	292,482	16.8	626	292,482	16.8	4	0.6	0	0.0	0.0	0.0
NY	3,831	2,385,196	14.2	3,889	2,384,989	14.2	58	1.5	-207	0.0	0.0	0.0
NC	1,917	1,069,603	16.0	1,917	1,069,603	16.0	0	0.0	0	0.0	0.0	0.0
ND	516	118,799	14.7	647	118,778	14.7	131	25.4	-21	0.0	0.0	0.0

= (CCD Est. - QED Est.)
% = (# / QED Est.)
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

Table 21 Comparison of SASS Estimates using QED and CCD Definitions

Number of public schools and students and average number of students per full-time equivalent teacher, by state

	QED			CCD			DIFFERENCE					
							SCHOOLS		STUDENTS		AVG SDNT / FTE TCHR	
	SCHOOLS	STUDENTS	AVG SDNT/ FTE TCHR	SCHOOLS	STUDENTS	AVG SDNT/ FTE TCHR	#	%	#	%	#	%
OH	3,603	1,716,992	16.7	3,623	1,716,955	16.7	20	0.6	-37	0.0	0.0	0.0
OK	1,678	574,484	15.0	1,730	574,549	15.0	52	3.1	65	0.0	0.0	0.0
OR	1,152	459,105	17.8	1,164	459,106	17.8	12	1.0	1	0.0	0.0	0.0
PA	3,195	1,722,170	15.8	3,205	1,722,046	15.8	10	0.3	-124	0.0	0.0	0.0
RI	294	148,027	14.0	294	148,027	14.0	0	0.0	0	0.0	0.0	0.0
SC	1,085	649,828	16.7	1,085	649,828	16.7	0	0.0	0	0.0	0.0	0.0
SD	579	147,591	14.9	732	148,790	14.9	153	26.4	1,199	0.8	0.0	0.0
TN	1,485	789,393	18.0	1,485	789,393	18.0	0	0.0	0	0.0	0.0	0.0
TX	5,606	3,323,498	15.7	5,651	3,323,523	15.7	45	0.8	25	0.0	0.0	0.0
UT	713	438,909	24.0	718	438,875	24.0	5	0.7	-34	0.0	0.0	0.0
VT	331	90,632	13.2	331	90,632	13.2	0	0.0	0	0.0	0.0	0.0
VA	1,737	943,179	15.3	1,737	943,179	15.3	0	0.0	0	0.0	0.0	0.0
WA	1,764	897,996	20.2	1,772	897,997	20.2	8	0.5	1	0.0	0.0	0.0
WV	1,006	336,584	15.2	1,007	336,584	15.2	1	0.1	0	0.0	0.0	0.0
WI	1,820	796,230	14.3	1,848	796,131	14.3	28	1.5	-99	0.0	0.0	0.0
WY	373	101,705	13.9	376	101,710	13.9	3	0.8	5	0.0	0.0	0.0

= (CCD Est. - QED Est.)
% = (# / QED Est.)
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

Table 22 Comparison of SASS Estimates using QED and CCD Definitions

Percent distribution of students by racial-ethnic background and percent minority students in public schools, by state

STATE	QED						CCD						DIFFERENCE											
													WHT		BLK		HSP		IND		ASN		MIN	
	WHT	BLK	HSP	IND	ASN	MIN	WHT	BLK	HSP	IND	ASN	MIN	#	%	#	%	#	%	#	%	#	%	#	%
AL	60.0	38.4	0.3	1.0	0.6	40.2	59.9	38.3	0.3	1.0	0.6	40.1	-0.1	-0.2	-0.1	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2
AK	69.8	4.7	2.2	20.3	3.8	31.0	69.3	4.7	2.2	20.1	3.8	30.7	-0.5	-0.7	0.0	0.0	0.0	0.0	-0.2	-1.0	0.0	0.0	-0.3	-1.0
AZ	61.2	3.7	26.4	7.2	1.4	38.8	61.2	3.7	26.4	7.2	1.4	38.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AR	74.9	25.5	0.8	0.4	0.6	27.3	73.3	24.9	0.8	0.4	0.6	26.7	-1.6	-2.1	-0.6	-2.4	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.2
CA	47.2	9.0	35.0	0.9	8.3	53.1	47.0	8.9	34.9	0.9	8.3	53.0	-0.2	-0.4	-0.1	-1.1	-0.1	-0.3	0.0	0.0	0.0	0.0	-0.1	-0.2
CO	74.9	5.7	16.9	1.0	2	25.6	74.6	5.7	16.8	1.0	1.9	25.4	-0.3	-0.4	0.0	0.0	-0.1	-0.6	0.0	0.0	0.0	0.0	-0.2	-0.8
CT	77.3	11.6	9.1	0.2	1.9	22.8	77.3	11.6	9.1	0.2	1.9	22.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.4
DE	70.5	25.2	2.4	0.1	1.9	29.5	70.5	25.2	2.4	0.1	1.9	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DC	5.2	85.0	8.8	0.1	1	94.8	5.2	85.0	8.8	0.1	1.0	94.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FL	59.6	25.7	13.4	0.1	1.3	40.6	59.5	25.7	13.4	0.1	1.3	40.5	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2
GA	63.0	35.1	0.9	0.1	1.1	37.2	62.9	35.1	0.9	0.1	1.1	37.1	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3
HI	24.3	2.7	4.0	0.6	68.3	75.7	24.3	2.7	4.0	0.6	68.4	75.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ID	92.8	0.3	5.4	1.0	0.8	7.5	92.5	0.3	5.4	1.0	0.8	7.5	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IL	65.6	23.7	7.6	0.6	2.7	34.6	65.5	23.6	7.6	0.6	2.7	34.5	-0.1	-0.2	-0.1	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3
IN	85.9	12.0	1.7	0.1	5.7	14.3	85.7	11.9	1.7	0.1	0.6	14.3	-0.2	-0.2	-0.1	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IA	95.3	4.4	1.3	0.4	1.9	8.0	92.3	4.2	1.2	0.4	1.8	7.7	-3.0	-3.1	-0.2	-4.5	-0.1	-7.7	0.0	0.0	0.0	0.0	-0.3	-3.8
KS	86.7	7.3	4.4	0.8	1.4	13.9	86.2	7.2	4.4	0.8	1.3	13.8	-0.5	-0.6	-0.1	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.7
KY	91.5	8.8	0.3	0.1	0.4	9.5	90.6	8.7	0.3	0.1	0.4	9.4	-0.9	-1.0	-0.1	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.1
LA	52.8	44.2	1.6	0.7	1.0	47.5	52.6	44.1	1.6	0.7	1.0	47.4	-0.2	-0.4	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2
ME	97.7	0.8	0.3	0.9	0.8	2.8	97.2	0.8	0.3	0.9	0.8	2.8	-0.5	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MD	62.4	34.0	1.6	0.4	1.7	37.6	62.4	33.9	1.6	0.4	1.7	37.6	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MA	79.3	8.9	8.8	0.1	2.9	20.8	79.2	8.9	8.8	0.1	2.9	20.8	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MI	77.8	17.4	2.5	1.0	1.6	22.5	77.6	17.3	2.5	1.0	1.6	22.4	-0.2	-0.3	-0.1	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.4
MN	93.3	4.1	1.5	1.5	3.3	10.5	90.0	4.0	1.5	1.4	3.2	10.1	-3.3	-3.5	-0.1	-2.4	0.0	0.0	-0.1	-6.7	0.0	0.0	-0.4	-3.8
MS	52.0	47.1	0.1	0.9	0.3	48.4	51.8	46.9	0.1	0.9	0.3	48.2	-0.2	-0.4	-0.2	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.4
MO	83.2	15.9	0.8	0.2	0.9	17.9	82.3	15.7	0.8	0.2	0.9	17.7	-0.9	-1.1	-0.2	-1.3	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-1.1
MT	92.7	0.4	1.3	10.1	0.8	12.5	88.1	0.3	1.2	9.6	0.8	11.9	-4.6	-5.0	-0.1	-25.0	-0.1	-7.7	-0.5	-5.0	0.0	0.0	-0.6	-4.8
NE	94.3	7.1	2.5	1.2	1.0	11.8	88.9	6.7	2.4	1.1	0.9	11.1	-5.4	-5.7	-0.4	-5.6	-0.1	-4.0	-0.1	-8.3	0.0	0.0	-0.7	-5.9
NV	75.3	9.7	11.0	2.8	3.5	27.0	73.6	9.5	10.8	2.7	3.4	26.4	-1.7	-2.3	-0.2	-2.1	-0.2	-1.8	-0.1	-3.6	0.0	0.0	-0.6	-2.2
NH	97.3	0.9	0.8	0.1	0.9	2.7	97.3	0.9	0.8	0.1	0.9	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NJ	67.8	16.4	12.1	0.1	3.7	32.2	67.8	16.4	12.1	0.1	3.7	32.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NM	42.0	3.2	44.4	9.5	1.2	58.3	41.9	3.2	44.3	9.5	1.2	58.1	-0.1	-0.2	0.0	0.0	-0.1	-0.2	0.0	0.0	0.0	0.0	-0.2	-0.3
NY	66.5	15.4	14.1	0.2	4.8	34.6	65.8	15.3	14.0	0.2	4.8	34.2	-0.7	-1.1	-0.1	-0.6	-0.1	-0.7	0.0	0.0	0.0	0.0	-0.4	-1.2
NC	68.4	28.6	0.7	1.7	0.6	31.6	68.4	28.6	0.7	1.7	0.6	31.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ND	105.8	0.7	0.7	7.7	0.7	9.7	91.5	0.6	0.6	6.7	0.5	8.5	-14.3	-13.5	-0.1	-14.3	-0.1	-14.3	-1.0	-13.0	0.0	0.0	-1.2	-12.4

 # = (CCD Est. - QED Est.)
% = (# / QED Est.)
*** Denominator of zero**
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

Table 22 Comparison of SASS Estimates using QED and CCD Definitions

Percent distribution of students by racial-ethnic background and percent minority students in public schools, by state

STATE	QED						CCD						DIFFERENCE											
													WHT		BLK		HSP		IND		ASN		MIN	
	WHT	BLK	HSP	IND	ASN	MIN	WHT	BLK	HSP	IND	ASN	MIN	#	%	#	%	#	%	#	%	#	%	#	%
OH	85.9	12.3	1.7	0.1	0.9	15.0	85.2	12.2	1.7	0.1	0.9	14.8	-0.7	-0.8	-0.1	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-1.3
OK	73.5	11.7	2.5	13.0	0.8	28.0	72.4	11.5	2.4	12.8	0.8	27.6	-1.1	-1.5	-0.2	-1.7	-0.1	-4.0	-0.2	-1.5	0.0	0.0	-0.4	-1.4
OR	89.1	2.2	4.3	1.9	2.9	11.3	88.7	2.2	4.2	1.9	2.9	11.3	-0.4	-0.4	0.0	0	-0.1	-2.3	0.0	0.0	0.0	0.0	0	0
PA	84.2	12.3	2.6	0.1	1.4	16.3	83.8	12.2	2.6	0.1	1.4	16.2	-0.4	-0.5	-0.1	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.6
RI	83.1	6.9	6.3	0.3	3.3	16.9	83.1	6.9	6.3	0.3	3.3	16.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SC	57.4	41.3	0.4	0.3	0.6	42.6	57.4	41.3	0.4	0.3	0.6	42.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SD	100.3	0.7	0.6	13.0	0.6	14.9	87.1	0.6	0.5	11.2	0.6	12.9	-13.2	-13.1	-0.1	-14.3	-0.1	-16.7	-1.8	-13.8	0.0	0.0	-2.0	-13.4
TN	78.5	20.4	0.4	0.4	0.4	21.5	78.5	20.4	0.4	0.4	0.4	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TX	52.5	15.5	30.4	0.2	1.8	48.0	52.2	15.5	30.3	0.2	1.8	47.8	-0.3	-0.6	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0	-0.2	-0.4
UT	92.4	0.5	3.9	1.6	1.8	7.7	92.3	0.5	3.9	1.6	1.8	7.7	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VT	97.0	0.5	0.3	1.6	0.7	3.0	97.0	0.5	0.3	1.6	0.7	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VA	68.3	26.4	1.8	0.2	3.2	31.7	68.3	26.4	1.8	0.2	3.2	31.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WA	82.6	3.8	5.4	3.2	5.1	17.6	82.4	3.8	5.4	3.2	5.1	17.6	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WV	95.3	4.1	0.2	0.0	0.3	4.7	95.3	4.1	0.2	0.0	0.3	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	0.0	0.0
WI	86.1	9.1	1.9	1.9	1.9	14.9	85.3	9.0	1.9	1.9	1.9	14.7	-0.8	-0.9	-0.1	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-1.3
WY	91.0	1.0	5.7	2.3	0.6	9.7	90.4	1.0	5.7	2.3	0.6	9.6	-0.6	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.0

 # = (CCD Est. - QED Est.)
% = (# / QED Est.)
*** Denominator of zero**
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

Table 23 Comparison of QED and SASS Estimates

Percent distribution of school principals by race-ethnicity, percent minority principals, by state

STATE	QED						CCD						WHT		BLK		HSP		IND		ASN		MIN	
	WHT	BLK	HSP	IND	ASN	MIN	WHT	BLK	HSP	IND	ASN	MIN	#	%	#	%	#	%	#	%	#	%	#	%
AL	74.6	22.8	0.5	1.8	0.3	25.4	74.6	22.8	0.5	1.8	0.3	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AK	93.4	2.0	1.2	2.1	1.5	6.6	93.4	1.9	1.2	2.1	1.4	6.6	0.0	0.0	-0.1	-5.0	0.0	0.0	0.0	0.0	-0.1	-6.7	0.0	0.0
AZ	77.7	3.8	17.2	1.0	0.3	22.3	77.7	3.8	17.2	1.0	0.3	22.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AR	84.3	15.7	0.0	0.0	0.0	15.7	85.0	15.1	0.0	0.0	0.0	15.0	0.7	0.8	-0.6	-3.8	0.0	*	0.0	*	0.0	*	-0.7	-4.5
CA	76.2	6.9	13.4	1.4	3.2	23.8	76.3	6.9	13.4	1.4	3.2	23.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.4
CO	92.1	1.6	6.3	0.0	0.0	7.9	92.0	1.6	6.4	0.0	0.0	8.0	-0.1	-0.1	0.0	0.0	0.1	1.6	0.0	*	0.0	*	0.1	1.3
CT	96.9	3.1	0.0	0.0	0.0	3.1	96.9	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	*	0.0	0.0
DE	90.5	8.5	0.0	0.0	1.0	9.5	90.5	8.5	0.0	0.0	1.0	9.5	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	0.0	0.0	0.0
DC	3.9	91.7	4.5	0.0	0.0	96.1	3.9	91.7	4.5	0.0	0.0	96.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	0.0
FL	75.8	16.9	6.4	0.9	0.0	24.2	75.8	16.9	6.4	0.9	0.0	24.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	0.0
GA	79.7	19.8	0.2	0.0	0.3	20.3	79.5	20.0	0.2	0.0	0.3	20.5	-0.2	-0.3	0.2	1.0	0.0	0.0	0.0	*	0.0	0.0	0.2	1.0
HI	14.1	0.0	0.0	0.0	85.9	85.9	14.1	0.0	0.0	0.0	85.9	85.9	0.0	0.0	0.0	*	0.0	*	0.0	*	0.0	0.0	0.0	0.0
ID	99.1	0.0	0.0	0.0	0.9	0.9	99.1	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.0	*	0.0	*	0.0	*	0.0	0.0	0.0	0.0
IL	89.0	10.6	0.4	0.0	0.0	11.0	88.9	10.7	0.4	0.0	0.0	11.1	-0.1	-0.1	0.1	0.9	0.0	0.0	0.0	*	0.0	*	0.1	0.9
IN	88.2	9.5	1.1	1.2	0.0	11.8	88.2	9.5	1.1	0.0	10.7	11.8	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-100.0	10.7	*	0.0	0.0
IA	97.7	1.8	0.0	0.4	0.0	2.3	97.8	1.8	0.0	0.4	0.0	2.2	0.1	0.1	0.0	0.0	0.0	*	0.0	0.0	0.0	*	-0.1	-4.3
KS	97.3	2.3	0.4	0.0	0.0	2.7	97.3	2.3	0.4	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	0.0
KY	91.5	5.4	0.7	2.3	0.0	8.5	91.6	5.4	0.7	2.3	0.0	8.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	-0.1	-1.2
LA	66.0	33.0	1.0	0.0	0.0	34.0	66.2	32.8	1.0	0.0	0.0	33.8	0.2	0.3	-0.2	-0.6	0.0	0.0	0.0	*	0.0	*	-0.2	-0.6
ME	99.5	0.0	0.5	0.0	0.0	0.5	99.5	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	*	0.0	0.0	0.0	*	0.0	*	0.0	0.0
MD	73.9	26.1	0.0	0.0	0.0	26.1	73.9	26.1	0.0	0.0	0.0	26.1	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	*	0.0	0.0
MA	93.2	2.8	4.0	0.0	0.0	6.8	93.2	2.8	4.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	0.0
MI	88.1	10.1	1.0	0.8	0.0	11.9	88.1	10.1	1.0	0.8	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	0.0
MN	96.4	1.9	0.0	1.1	0.6	3.6	96.2	1.8	0.0	1.4	0.6	3.8	-0.2	-0.2	-0.1	-5.3	0.0	*	0.3	27.3	0.0	0.0	0.2	5.6
MS	71.1	28.4	0.5	0.0	0.0	28.9	71.2	28.3	0.5	0.0	0.0	28.8	0.1	0.1	-0.1	-0.4	0.0	0.0	0.0	*	0.0	*	-0.1	-0.3
MO	91.4	5.7	0.9	2.0	0.0	8.6	91.5	5.6	0.9	2.0	0.0	8.5	0.1	0.1	-0.1	-1.8	0.0	0.0	0.0	0.0	0.0	*	-0.1	-1.2
MT	98.4	0.0	0.0	1.6	0.0	1.6	98.5	0.0	0.0	1.5	0.0	1.5	0.1	0.1	0.0	*	0.0	*	-0.1	-6.3	0.0	*	-0.1	-6.2
NE	95.9	3.7	0.0	0.4	0.0	4.1	96.4	3.3	0.0	0.4	0.0	3.6	0.5	0.5	-0.4	-10.8	0.0	*	0.0	0.0	0.0	*	-0.5	-12.2
NV	87.4	6.1	5.4	0.3	0.8	12.6	87.8	5.9	5.2	0.3	0.8	12.2	0.4	0.5	-0.2	-3.3	-0.2	-3.7	0.0	0.0	0.0	0.0	-0.4	-3.2
NH	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	*	0.0	*	0.0	*
NJ	88.4	9.3	2.3	0.0	0.0	11.6	88.4	9.3	2.3	0.0	0.0	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	0.0
NM	58.8	0.0	38.1	3.2	0.0	41.2	59.0	0.0	37.8	3.2	0.0	41.0	0.2	0.3	0.0	*	-0.3	-0.8	0.0	0.0	0.0	*	-0.2	-0.5
NY	92.3	3.5	2.4	0.4	1.4	7.7	92.4	3.4	2.4	0.4	1.4	7.6	0.1	0.1	-0.1	-2.9	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.3
NC	79.5	19.5	0.0	1.1	0.0	20.5	79.5	19.5	0.0	1.1	0.0	20.5	0.0	0.0	0.0	0.0	0.0	*	0.0	0.0	0.0	*	0.0	0.0
ND	97.9	0.0	0.0	2.1	0.0	2.1	97.1	0.0	1.2	1.7	0.0	2.9	-0.8	-0.8	0.0	*	1.2	*	-0.4	-19.0	0.0	*	0.8	38.1

= (CCD Est. - QED Est.)
% = (# / QED Est.)
* Denominator of zero
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

Table 23 Comparison of QED and SASS Estimates

Percent distribution of school principals by race-ethnicity, percent minority principals, by state

STATE	QED						CCD						WHT		BLK		HSP		IND		ASN		MIN	
	WHT	BLK	HSP	IND	ASN	MIN	WHT	BLK	HSP	IND	ASN	MIN	#	%	#	%	#	%	#	%	#	%	#	%
OH	90.4	8.3	1.3	0.0	0.0	9.6	90.4	8.3	1.3	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	0.0
OK	85.3	4.2	0.9	9.6	0.1	14.7	85.2	4.1	0.9	9.8	0.1	14.8	-0.1	-0.1	-0.1	-2.4	0.0	0.0	0.2	2.1	0.0	0.0	0.1	0.7
OR	93.8	2.2	4.0	0.0	0.0	6.2	93.9	2.2	4.0	0.0	0.0	6.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	*	0.0	*	-0.1	-1.6
PA	95.3	3.4	1.0	0.1	0.3	4.7	95.3	3.3	1.0	0.1	0.3	4.7	0.0	0.0	-0.1	-2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RI	99.1	0.0	0.0	1.0	0.0	0.9	99.1	0.0	0.0	0.9	0.0	0.9	0.0	0.0	0.0	*	0.0	*	-0.1	-10.0	0.0	*	0.0	0.0
SC	71.3	28.7	0.0	0.0	0.0	28.7	71.3	28.7	0.0	0.0	0.0	28.7	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	*	0.0	0.0
SD	96.6	0.0	0.7	2.7	0.0	3.4	96.7	0.0	0.6	2.8	0.0	3.3	0.1	0.1	0.0	*	-0.1	-14.3	0.1	3.7	0.0	*	-0.1	-2.9
TN	89.9	8.3	1.7	0.0	0.1	10.1	89.9	8.3	1.7	0.0	0.1	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	0.0	0.0	0.0
TX	74.5	8.9	15.5	0.6	0.7	25.5	74.7	8.9	15.4	0.6	0.7	25.3	0.2	0.3	0.0	0.0	-0.1	-0.6	0.0	0.0	0.0	0.0	-0.2	-0.8
UT	96.1	0.0	3.2	0.4	0.3	3.9	96.2	0.0	3.2	0.4	0.3	3.8	0.1	0.1	0.0	*	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-2.6
VT	98.4	0.0	1.6	0.0	0.0	1.6	98.4	0.0	1.6	0.0	0.0	1.6	0.0	0.0	0.0	*	0.0	0.0	0.0	*	0.0	*	0.0	0.0
VA	87.7	12.1	0.2	0.0	0.0	12.3	87.7	12.1	0.2	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	0.0
WA	92.9	2.2	1.3	2.0	1.6	7.1	92.9	2.2	1.3	2.0	1.6	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WV	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	*	0.0	*	0.0	*	0.0	*
WI	94.6	2.4	0.8	2.3	0.0	5.4	94.6	2.4	0.8	2.3	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	0.0
WY	99.4	0.0	0.6	0.0	0.6	0.6	99.4	0.0	0.6	0.0	0.6	0.6	0.0	0.0	0.0	*	0.0	0.0	0.0	*	0.0	0.0	0.0	0.0

= (CCD Est. - QED Est.)
% = (# / QED Est.)
* Denominator of zero
Source: U.S. Dept. of Education, NCES, Schools and Staffing Survey: 1990-91 (School Questionnaire)

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4. ANALYSIS OF RESULTS AND RECOMMENDATION

The tables generated in Section 3 indicate that the largest differences between QED-defined schools and CCD-defined schools are in the characteristics of small town or rural schools versus urban fringe and large town schools. The states which demonstrate the largest difference between QED-defined and CCD-defined estimates are Iowa, North Dakota, and South Dakota. In Iowa, CCD-defined estimates of the total number of public schools are approximately 6 percent points higher than QED-defined estimates for the total number of public schools (table 18). In North Dakota, CCD-defined estimates are approximately 25 percentage points higher than QED-defined estimates for the same characteristic; and in South Dakota, CCD-defined estimates are approximately 38 percentage points higher than QED. In North Dakota CCD-defined estimates are approximately 12 percentage points less than QED-defined estimates for the percent minority students in public schools (table 19). In South Dakota, CCD-defined estimates are approximately 13 percentage points lower than QED-defined estimates for the same characteristic. The characteristics which possess the largest differences in estimates between CCD-defined schools and QED-defined schools occur as a result of the enrollment totals changing when two or more schools are collapsed into one school.

A larger total enrollment is created when two or more CCD-defined schools are collapsed into one QED-defined school. Total enrollment (TOTENRLL) is used to determine the grouping variable school size (SCH_SIZE), therefore this group of estimates reflects a greater number of schools within a large school size category. This situation affects all estimates that use TOTENRLL. For example, the "average number of full-time equivalent teachers per student" decreases in central city and rural or small town schools from QED definition to CCD definition. In schools with less than 150 students, the difference is as high as 11 percentage points in rural or small town schools and over 2 percentage points for central city schools. Collapsing two or more CCD-defined schools into one QED-defined school also has an effect on minority enrollment estimates. In rural or small town schools, the percentage of minority principals increases approximately 3 percentage points from QED definition to CCD definition in schools with minority enrollment of less than 20 percentage points and decreases 2 and one-half percentage points in schools with 20 percent or more minority enrollment.

In looking at the minority status of principals of schools by state, only two states represent a significant difference in comparing QED school definitions to CCD school definitions. In Nevada, the percentage of minority principals decreases 12 percentage points from QED to CCD and in South Dakota, the same characteristic increases over 38 percentage points.

The average school size for rural or small town schools with less than 150 students decreases approximately 1 percentage point from QED definitions to CCD definitions. For all rural or small town schools the percentage decreases almost three percentage points from QED to CCD definition.

In the 1990-91 CCD file, there are 9,054 public school administrators of which 272 were eliminated because they did not have enrollment or school level information, leaving 8,782 public school administrators for the study. In the 1990-91 QED file, there are 8,515 public school administrators including 229 cases where two schools with different physical locations were collapsed into one administrative unit and 19 cases in which three schools were collapsed into one school administrator. The administrator selected to represent the collapsed schools was the administrator of the school with the largest enrollment.

4.1 - Schools With Missing Assigned Permanent Institutional Numbers (APIN)

In the 1990-91 SASS public school survey, there are 681 records with missing Assigned Permanent Institutional Numbers (APIN) values, the variable for the QED identification number. As instructed by NCES, these schools have had the CCD identification number assigned to the variable APIN. The records which have a CCD number assigned to the APIN variable are not candidates for collapsing to the QED definition because the input file is based on unique CCD numbers. These schools are, however, included in the overall total of 8,969 public schools. Assigning CCD identification numbers to the 681 schools with missing APINs affects the magnitude of the difference between CCD an QED estimates because they are not evaluated on the same basis as the other public schools. The possibility of these schools requiring collapsing in order to fit into the QED definition of a school is removed.

Twenty-three percent of the 681 schools are located in urban areas, 24 percent are located in suburban areas and 53 percent are located in rural areas. The states with the highest number of schools without a QED identification number are California, Illinois and Texas. Within California: 28 percent of these schools are in urban areas, 38 percent are in suburban areas and 34 percent are located in rural areas. Within Illinois: 18 percent are in urban areas, 38 percent are located in suburban and 44 percent in rural areas. Within Texas: 43 percent of these schools are in urban areas, 32 percent in suburban areas and 25 percent of these schools are located in rural areas.

4.2 - Collapsed Schools

The 1990-91 CCD file contains 8,969 public schools. The 1990-91 QED file contains 8,684 public schools, including 243 cases where two schools were collapsed into one definition and 21 cases where three schools were collapsed into one definition.

Fifty out of the 243 schools (20 percent) which have been collapsed from two schools into one definition are located in North and South Dakota. Other states which have a large number of schools which were collapsed from two schools into a single definition are Iowa, Minnesota and Texas. Ninety-four percent are located in rural areas and only six percent are located in suburban and urban areas.

The following table examines the 243 schools which were collapsed from two definitions into one definition by state, number of schools collapsed, geographic category, and school level.

Table 24.--Schools collapsed from two administrative units into one physical location

State	Number of Collapsed Schools	Geographic Category (in percent*)	School Level (in percent*)
Alabama	1	Rural	Combined
Alaska	1	Rural	Secondary
Arkansas	6	Rural	Secondary
California	8	Urban-50, Suburban-12, Rural-38	Elementary-38, Secondary-62
Colorado	6	Rural	Elementary-33, Secondary-67
Connecticut	1	Suburban	Secondary
Florida	1	Urban	Secondary
Georgia	1	Rural	Secondary
Idaho	3	Rural	Secondary
Illinois	9	Rural	Elem.-75, Second.-13, Comb.-12
Indiana	2	Rural	Secondary
Iowa	14	Rural	Elementary-64, Secondary-34
Kansas	1	Rural	Combined
Kentucky	7	Suburban-14, Rural-86	Elem.-14, Second.-43, Comb.-43
Louisiana	4	Rural	Elementary-75, Combined-25
Maine	1	Rural	Secondary
Massachusetts	1	Rural	Secondary
Michigan	7	Rural	Elem.-57, Second.-29, Comb.14
Minnesota	19	Rural	Elem.-5, Second.63, Comb.-32
Missouri	13	Rural	Secondary-93, Combined-8
Montana	11	Rural	Secondary
Nebraska	15	Urban-20, Rural-80	Secondary
Nevada	5	Rural	Elementary-20, Secondary-80
New Jersey	1	Rural	Elementary
New Mexico	1	Rural	Combined
New York	14	Urban-7, Suburban-15, Rural-78	Elem.-8, Second.-62, Comb.-30
North Dakota	36	Suburban-3, Rural-97	Secondary-94, Combined-6
Ohio	6	Suburban-17, Rural-83	Elementary-50, Secondary-50
Oklahoma	9	Rural	Elementary-11, Secondary-89
Oregon	4	Rural	Secondary
Pennsylvania	5	Rural	Elementary-80, Secondary-20
South Dakota	24	Rural	Elementary-14, Secondary-86
Texas	13	Rural	Elem.18, Second.-36, Comb.-46
Utah	2	Rural	Elementary-50, Secondary-50
Washington	1	Rural	Elementary
Wisconsin	5	Rural	Elementary-20, Secondary-80
Wyoming	2	Rural	Elementary-50, Combined-50

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91)
* no number represents 100 percent

Twenty-one schools were collapsed from three schools to one school. Twelve of these schools, or 57 percent, are located in South Dakota. Again, we see the same trend as in the 243 schools which were collapsed from two definitions of a school to one to meet QED standards. Ninety percent of these schools are located in rural areas, and ten percent are located in suburban and urban areas.

The following table examines the 21 schools which were collapsed from three schools into one school by state, number of schools collapsed, geographic category and school level.

Table 25.--Schools collapsed from three administrative units into one physical location

State	Number of Collapsed schools	Geographic Category (in percent*)	School Level (in percent*)
Illinois	1	Rural	Combined
Iowa	3	Rural	Elementary-67, Secondary-33
Michigan	1	Rural	Secondary
Mississippi	1	Rural	Secondary
New York	1	Suburban	Elementary
South Dakota	12	Rural	Elementary-17, Secondary-83
Texas	2	Urban-50, Rural-50	Elementary-50, Secondary-50

Source: U.S. Department of Education, Schools and Staffing Survey (1990-91)
* no number represents 100 percent

4.3 - Recommendations

We do not recommend converting the 1987-88 SASS to a system which uses a single administrative unit for its definition of a school (the CCD definition) or converting the 1990-91 SASS to a system which uses a physical address for its definition of a school (the QED definition). The percentage of CCD-defined schools which needed to be adjusted to meet the QED definition of a school is very small, 2 percent. In addition, the magnitude of the difference in school characteristics is not significant. In general, the majority of schools which needed to be altered to meet the QED definition can be isolated to certain states and rural areas.

The magnitude of the difference between estimates using the QED definition and CCD definition is not significant enough to warrant converting estimates for either the 1987-88 or the 1990-91 Schools and Staffing Survey. In only 264 out of possible 8,969 sampled public schools, 2 percent, do two or more public schools collapse into one school. In most categories of selected characteristics, the difference is less than one percentage point. There is not a statistically significant difference in characteristic information as a result of the QED adjustment. In addition, users of the data who are interested in comparing information from the 1887-88 SASS and the 1990-91 SASS only need to be concerned about the effect of the definitional difference in the sampling frames for 264 schools out of 8,969 sampled public schools on the 1990-91 survey.

There is, however, information about these 264 schools which users of the 1987-88 and 1990-91 SASS may need to know. In South Dakota, North Dakota, Iowa, and Texas among other states (tables 21 and 22) changes in the estimates of characteristics which are related to the number of public schools and total student enrollment in an individual state from the 1987-88 SASS to the 1990-91 SASS are affected by the difference in QED and CCD definition of a school. For example, in South Dakota, 36 sampled schools required collapsing to fit into a QED definition of a school; in North Dakota, the same number of schools required collapsing to fit into a QED definition of a school. In examining and comparing estimates from these two states related to total enrollment and number of public schools, users of the data should be sensitive to the how a school was defined in the sample frame, particularly if estimates of change between 1987-88 and 1990-91 are studied.

Rural states which demonstrate changes in estimates of the number of public schools and total enrollment from the 1987-88 SASS to the 1990-91 SASS should be examined in light of the number of administrative units which are located on one physical location. One hundred and thirty-three out of the 264 schools (approximately 50 percent) which required collapsing from two or more administrative units into one QED definition of a school are located in South Dakota, North Dakota, Iowa, Minnesota and Texas. Changes in estimates of the number of public schools and total enrollment in these states from the 1987-88 SASS to the 1990-91 SASS should be examined in light of the different definition of a public school on the sampling frame for both surveys, the QED (1987-88 SASS) and the 1988-89 CCD (1990-91 SASS).

We recommend identifying the 264 schools by state and individual CCD identification number on the 1990-91 SASS. Users of the data would then be able to compare estimates from the 1987-88 SASS to estimates from the 1990-91 SASS with an understanding of the effect of the difference in definition of a public school in the sampling frame for each survey. Users of the data may, however, wish to apply the QED weight (Section 2.6 of this report) to data from rural states in the 1990-91 survey for the purposes of comparing characteristics from the 1987-88 and 1990-91 SASS. Changes in the number of public schools and total enrollment from 1987-88 to 1990-91 could then be evaluated on the basis of actual increases or decreases versus increases attributed to the difference in the definition of a public school in the sampling frame from each survey.

APPENDIX A

SAMPLE OF SAS PROGRAMS USED IN THIS STUDY (TASK 20.B1)

APPENDIX A.-SAMPLE OF SAS PROGRAMS USED IN THIS STUDY (TASK 20.B1)

```
/*************************************************************************/
/* Task 20 b.1  QED Estimates of the 1991 School and Staffing Survey */
/*************************************************************************/


/*****************************************************************/
/* Preliminary test of 1991 SASS school file to determine the */
/* possible mapping between QED and CCD defined schools       */
/*****************************************************************/
/*****************************************/
/* Sort file by QED identification number */
/*****************************************/
proc sort data=in.school out=temp;
by apin;
run;

/*************************************************************/
/* Create a QED and a CCD file using QED identifier(APIN) */
/* and CCD identifier(CNTLNUM) respectively                  */
/*************************************************************/
data out1.qed out1.ccd;
set temp;
by apin;
if apin > . then output out1.qed;
if cntlnum > . then output out1.ccd;
** data set out1.qed has 8288 observations
** data set out1.ccd has 8969 observations

/*********************************/
/* Check for QED mapping to CCD */
/*********************************/
data qed;
set out1.qed;
by apin;
if (^first.apin or ^last.apin);
run;
** multiple CCD mapping to QED 547 observations
```

```
/*********************************/
/* Check for CCD mapping to QED */
/*********************************/
data ccd;
set out1.ccd;
by cntlnum;
if (^first.cntlnum or ^last.cntlnum);
run;
** multiple QED mapping to CCD 0 observations


/*************************************************************/
/* Sample: Program segment used to create the QED estimates */
/* in Table 21 of this report                                */
/*************************************************************/
/*************************************************************/
/* Open the school file and select public schools; create a */
/* new QED identifier tp reconcile the discrepancy between  */
/* the alphanumeric QED identifier and the numeric CCD      */
/* identifier; set records with missing QED identifers to   */
/* CCD identification number and set a flag to identify     */
/* create a total enroll enrollment variable for kg-12 and  */
/* ungraded; sort the file by QED identifier                */
/*************************************************************/
data xqed21;
set in1.school;
if survey = 3;
newapin = 100000000000;
recodefl = 0;
totenrll = sum(numbrkg,numbrug,numbr1,numbr2,numbr3,numbr4,numbr5
          numbr6,numbr7,numbr8,numbr9,numbr10,numbr11,numbr12);
label totenrll = 'Enrollment';
if apin = . then do;
        recodefl = 1;
        newapin = ccdidsch;
end;
if newapin = 100000000000 then
        newapin = apin;
proc sort data=xqed21;
by newapin;
run;
```

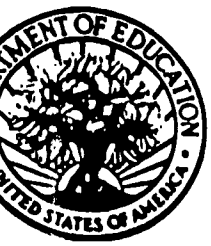
```
/*****************************************************************/
/* Code to collapse multiple CCD records to one QED record:   */
/* Open file by new QED identifier; initialize a record       */
/* to zero; increment the record counter; for records that    */
/* are multiple CCD records mapping to a single QED record    */
/* sum the weights, enrollment, teacher count; after each     */
/* collapsing, reset summing variables;                       */
/*****************************************************************/
data xcollaps;
set xqed21;
by newapin;
rec=0;run;
data xcollaps;
set xqed21;
by newapin;
rec + 1;
tmpwgt + schwgt;
stucoll + toternll;
fulcoll + fulteach;
partcoll + parteach;
if last.newapin the do;
        schwgt = tmpwgt / rec;
        totenrll = stucoll;
        fulteach = fulcoll;
        parteach = partcoll;
        output xcollaps;
        stucoll = 0;
        tmpwgt = 0;
        fulcoll = 0;
        partcoll = 0;
        rec = 0;
end;
run;
```

```
/*************************************************************/
/* Sort the file by state and use PROC WESVAR to calculate */
/* estimates                                                 */
/*************************************************************/
proc sort data = xcollaps;
by state;
run;

proc wesvar data = xcollaps outstat = qed21;
by state;
compute avgstd = totenrll / (fulteach + (.5 * parteach));
weight schwgt repwgt1--repwgt48;
title 'QED Estimates for Table 21 by State';
run;
```

Listing of NCES Working Papers to Date

Number	Title	Contact
94-01	Schools and Staffing Survey (SASS) Papers Presented at Meetings of the American Statistical Association	Dan Kasprzyk
94-02	Generalized Variance Estimate for Schools and Staffing Survey (SASS)	Dan Kasprzyk
94-03	1991 Schools and Staffing Survey (SASS) Reinterview Response Variance Report	Dan Kasprzyk
94-04	The Accuracy of Teachers' Self-reports on their Postsecondary Education: Teacher Transcript Study, Schools and Staffing Survey	Dan Kasprzyk
94-05	Cost-of-Education Differentials Across the States	William Fowler
94-06	Six Papers on Teachers from the 1990-91 SASS and Other Related Surveys	Dan Kasprzyk
94-07	Data Comparability and Public Policy: New Interest in Public Library Data Papers Presented at Meetings of the American Statistical Association	Carrol Kindel
95-01	Schools and Staffing Survey: 1994 papers presented at the 1994 Meeting of the American Statistical Association	Dan Kasprzyk
95-02	QED Estimates of the 1990-91 Schools and Staffing Survey: Deriving and Comparing QED School Estimates with CCD Estimates	Dan Kasprzyk



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