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## Second Annual Report of the Independent Evaluation of the California Master Plan for Special Education Volume 2

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# **INDEPENDENT EVALUATION OF THE CALIFORNIA MASTER PLAN FOR SPECIAL EDUCATION**

## **Second Annual Report Volume II — Technical Appendix**

April 1980

Presented to the State Department of Education  
for transmittal to the Governor and the  
California State Legislature

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THE CALIFORNIA MASTER PLAN  
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**Second Annual Report  
Volume II — Technical Appendix**

April 1980

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## INTRODUCTION

This volume of the Second Annual Report on the California Master Plan for Special Education contains supporting technical information for the findings reported in Volume I. In the first section of this appendix, the method used to select the 25 sample areas is described. The second section details the methodology used for selecting teachers and parents for the questionnaire survey and presents response rates by area for each group surveyed. The third section explains the methodology used to develop the indices of knowledge, satisfaction, and skill. The fourth section describes the procedures used for the follow-up of survey activities, presents the results of the nonresponse bias survey, and contains tables of the standard errors and confidence intervals for questions used in the parent and teacher questionnaires.



## SELECTION OF SAMPLE AREAS AND OF TEACHER AND PARENT POPULATIONS

### Sample Area Selection

Because organizational structure was considered to be an important variable in the evaluation of the Master Plan (MP), Special Education Service Regions (SESRs)--as opposed to school districts--were selected as the most appropriate unit of analysis. For MP areas, an SESR consists of all school districts or counties organized within a comprehensive planning unit administered by the RLA; for NMP areas, it corresponds to a configuration of districts and county offices as they have been organized for participation under PL 94-142. Administratively, however, NMP SESRs are more loosely knit in terms of the provision of services throughout the SESR than are MP SESRs.

As Figure 1 shows, 25 SESRs throughout California were selected--all 17 RLAs participating in the MP program during the 1978-79 school year and 8 NMP SESRs. On the basis of Comprehensive Plans submitted to the state, the RLAs were selected by the state to implement Master Plan. In selecting the NMP sites, we attempted to assure a diversity similar to that existing in the MP sites. Therefore, an effort was made to match the NMP areas with MP SESRs on such characteristics as student population, urbanization, population density, ethnic balance, and per pupil expenditures in special education. This design for site selection was based on a heuristic rather than a statistical model; it should not be confused with an experimental design in which the rationale for NMP site selection would have been to match sites to derive an experimental, "no-treatment" baseline with which to assess the impact of the program. In this evaluation, applying such an experimental design was not feasible, nor was it possible to achieve a perfect match on all relevant factors possible. Therefore, the matching scheme used only approximates a true "matched-pair" design. In some cases, we could not find a matching unit; in others, several alternative regions were identified, and the region judged to be the best match was selected. Table 1 outlines the characteristics of the SESR sample.

From the 25 SESRs, 12 individual districts were selected for site visits during 1978-79. The following factors were considered in the selection process to ensure diversity among these site visit areas: size of district enrollment, number of handicapped students served, percentage of students receiving Aid to Families with Dependent Children (AFDC), per-pupil expenditures on education, ethnic composition, and geographic dispersion throughout the state. Table 2 summarizes pertinent characteristics of the selected site visit districts.



FIGURE 1 LOCATION OF SAMPLE AREAS

Table 1

SUMMARY OF CHARACTERISTICS OF SESR SAMPLE

<u>Characteristic</u>	<u>Master Plan</u>	<u>Non-Master Plan</u>	<u>Total</u>
Number of SESRs	17	8	25
Number of districts	248	123	371
Total student population	567,302	368,136	935,438
Range in percentage of handicapped students	6%-12%	6%-10%	6%-12%
Range in student density (number of students per square mile)	3.7-663	1.2-755	1.2-755

Table 2

## SUMMARY OF CHARACTERISTICS OF SITE VISIT DISTRICTS

<u>Characteristic</u>	<u>Master Plan</u>	<u>Non-Master Plan</u>	<u>Total</u>
Number of students	232,428	123,379	355,807
Range in number of handi- capped students	131-5,740	23-3,948	23-5,740
Range in percentage of handicapped students	6-12%	6-10%	6-12%
Range in district pupil count	1,690-122,213	1,600-42,894	1,600-122,213
Range in percentage of students on AFDC	1-12%	5-32%	1-32%
Range in per pupil expenditures	\$1,303-2,233	\$1,364-1,711	\$1,303-2,233
Ethnicity			
Range in per- centage White	63.8-95.8%	44.2-92.6%	44.2-95.8%
Range in per- centage Black	.1-14.9%	.1-15.9%	.1-15.9%
Range in per- centage Hispanic	1.9-26.4%	1.2-29.6%	1.2-29.6%

Population Selection

District and county personnel directories were used as sampling frames for the selection of teachers to be sent questionnaires. The following categories of school personnel were included within the sampling frame:

- Special education teacher
- Special class teacher
- Master Plan teacher
- Adaptive P.E.
- Teacher Resource Specialist

- EH, TMR, EMR, LH\* teachers
- Learning Disability Group (LDG) teacher
- Regular elementary and secondary classroom teachers
- Secondary school speech teacher (as in speech and drama).

The following personnel were not included in the sampling frame:

- Superintendents
- Principal, assistant principals, or deans
- District coordinators of any type, including special education
- Adult school teachers, including teachers of handicapped adults
- Continuation school teachers
- Preschool teachers
- Early childhood education teachers
- Educational consultants
- Community Liaison Primary School Reading Specialists
- Primary Reading and Mathematics Development Program teachers
- Secondary school reading teachers
- Remedial teachers
- Title I teachers
- Miller/Unruh (MU) reading specialists
- Gifted Program teachers
- Resource teacher
- ROTC teachers
- Secretaries and other nonteaching staff
- Trustees.

For selection of parents, 23 of the 25 areas provided student identification numbers or names of students in special education programs during the 1978-79 school year. From these lists, we randomly selected a sample of students whose parents would be sent questionnaires. For the selection of parents of special education students, we had hoped to stratify the sample on the basis of the student's type of handicap. However, because of inconsistencies in the sophistication of management information systems, we could not obtain information from all areas stratified in this manner. Thus, we used a random selection strategy stratifying only on the basis of elementary (kindergarten through sixth) and secondary (seventh through twelfth) grade levels.

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\* Educationally handicapped, trainable mentally retarded, educable mentally retarded, learning handicapped.





## SIZE OF THE SAMPLE POPULATIONS SURVEYED

Calculation of the number of questionnaires to be sent was based on achieving a specified precision in estimation, given the size of the population and assuming an overall response rate of approximately 70%. The sampling plan was designed to ensure a specified precision for each site visit district as well as for each SESR. Each population to be surveyed was also stratified by grade level to ensure the same precision for elementary grades as for secondary grades, given the overall precision for a district or SESR.

The degree of precision was specified such that in a large SESR or district, about 100 members each of the special and regular education teacher population and parent population would respond. The degree of precision obtained with these numbers of respondents can be described in terms of the width of a 95% confidence interval for the estimate of a proportion. With 100 respondents, if 50% are found to have some trait, the 95% confidence interval is between 40 and 60%; if 10% are found to have some trait, the 95% confidence interval is between 4 and 16%.

The specific formulas used for determining the sample sizes were based on controlling the maximum width of confidence intervals for proportions while obtaining the same level of precision at the elementary and secondary grade levels. In the most complicated situation, where a site visit district was contained within a larger SESR, the following methodology was applied:

Let

$N_1$  = the size of elementary-level population in the site visit district

$n_1$  = the target number of elementary-level respondents in the site visit district

$N_2$  = the size of the secondary-level population in the site visit district

$n_2$  = the target number of secondary-level respondents in the site visit district

$N_3$  = the size of the elementary-level population in the remainder of the SESR

$n_3$  = the target number of elementary-level respondents in the remainder of the SESR

$N_4$  = the size of the secondary-level population in the remainder of the SESR

$n_4$  = the target number of secondary-level respondents in the remainder of the SESR

$p_i$  = the proportion of the indexed population with some characteristic of interest

$\hat{p}_i$  = estimate of the proportion for the indexed population.

Then the variance of  $\hat{p}_i$  is

$$p_i (1 - p_i) \frac{1}{n_i} \frac{(N_i - n_i)}{(N_i - 1)}$$

$$\text{Let } V_i = \frac{1}{n_i} \frac{(N_i - n_i)}{(N_i - 1)}$$

The proportions of interest are for the elementary level, the secondary level, and the entire population, as follows:

For the site visit district,

$$p_1, p_2, \text{ and } (N_1 p_1 + N_2 p_2) / (N_1 + N_2).$$

For the SESR sample,

$$(N_1 p_1 + N_3 p_3) / (N_1 + N_3), (N_2 p_2 + N_4 p_4) / (N_2 + N_4), (\sum_{i=1}^4 N_i p_i) / (\sum_{i=1}^4 N_i)$$

The conditions regarding the precision of the corresponding estimators may be expressed as follows:

$$(N_1^2 V_1 + N_2^2 V_2) / (N_1 + N_2)^2 = .01 \quad (1)$$

$$V_1 = V_2 \quad (2)$$

$$(N_1^2 V_1 + N_2^2 V_2 + N_3^2 V_3 + N_4^2 V_4) / (N_1 + N_2 + N_3 + N_4)^2 = .01 \quad (3)$$

$$(N_1^2 V_1 + N_3^2 V_3) / (N_1 + N_3)^2 = (N_2^2 V_2 + N_4^2 V_4) / (N_2 + N_4)^2. \quad (4)$$

Equations (1) and (3) specify the precision for the estimates of proportions at the site visit and extended sample levels, respectively. Equations (2) and (4) specify that the precision for the estimates at the elementary and secondary levels will be the same.

The specification of the precision of the estimates is in terms of the variance of the estimator. For example, the variance of the estimator of a proportion at the district level will be:

$$(N_1^2 p_1 (1-p_1) V_1 + N_2^2 p_2 (1-p_2) V_2) / (N_1 + N_2)^2.$$

This will be at its maximum when  $p_1 = p_2 = .5$ . In this case, Eq. (1) specifies that the variance will be  $(.5)(1-.5)(.01)$ . This corresponds to a standard error of .05.

From Eq. (1) and (2), we obtain:

$$V_1 = V_2 = .01 (N_1 + N_2)^2 / (N_1^2 + N_2^2).$$

From Eq. (3) and (4), we obtain:

$$V_3 = \frac{1}{N_3^2} \left[ \frac{.01N.}{1 + (N_2 + N_4)^2 / (N_1 + N_3)^2} - N_1^2 z \right]$$

$$V_4 = \frac{1}{N_4^2} \left[ \frac{.01N.}{1 + (N_1 + N_3)^2 / (N_2 + N_4)^2} - N_2^2 z \right]$$

$$\text{where } N. = N_1 + N_2 + N_3 + N_4$$

$$z = V_1 = V_2$$

The solution for the sample size is:

$$n_i = N_i / \left[ V_i (N. - 1) + 1 \right] \text{ for } i = 1, 2, 3, 4$$

If  $b = N_1 / (N_1 + N_2)$ ---the proportion of the population of interest associated with the elementary-level respondents---then:

$$V_1 = V_2 = .01 / (b^2 + (1-b)^2)$$

As  $b$  ranges from 0 to 1,  $V_1$  and  $V_2$  will increase from .01 to a maximum of .02 at  $b = .5$  and then decrease to .01. The sample size  $n_i$  can be reexpressed as:

$$1 / \left[ V_i (1 - 1/N_i) + 1/N_i \right]$$

For large populations, the sample size will be approximately  $1/V_i$ . Therefore, the sample size for each level of respondents will vary between 50 and 100. In those cases where the proportion of the population is divided equally between the elementary and secondary levels, about 50 respondents would be selected from each level.

When the site visit district coincided with the SESR sample or when there was only an SESR, the equations for  $n_1$  and  $n_2$  were used to specify the target sample size. To specify the actual sample sizes, we multiplied the target sample sizes by 1.25 to account for nonresponse.

Table 3 provides an example of the method used to select the sample size for teachers in a single-district SESR. The same approach was used for determining the parent sample, with the exceptions noted above.

Table 3  
 SAMPLE SPECIFICATION FOR TEACHERS  
 IN A SINGLE-DISTRICT SESR

	<u>Elementary</u>	<u>Secondary</u>
	(N <sub>1</sub> )	(N <sub>2</sub> )
Population size	1840	1966

$$V_1 = V_2 = .01 (1840 + 1966)^2 / (1840^2 + 1966^2)$$

$$= .01998$$

$$n_1 = 1840 / [(.01998)(1839) + 1] = 48.75$$

$$\text{Sample size} = (48.75)(1.25) = 60.93$$

$$n_2 = 1966 / [(.01998)(1965) + 1] = 48.83$$

$$\text{Sample size} = (48.83)(1.25) = 61.03$$

Systematic random samples were drawn according to the following scheme. We derived a sampling interval for each population in each area by calculating  $N/n$  and rounding to the lower integer. The resulting number was designated as  $k$ . The random start was determined by first selecting an integer at random between 1 and  $k$ ; the resulting number was labeled  $r$ . Then, starting from the  $r$ th listing in each sampling frame, every  $k$ th element was selected: i.e.,  $r$ ,  $r + k$ ,  $r + 2k$ , and so on. Using this method, we could select  $n + 1$  rather than  $n$  elements. Where this occurred, the extra selection was included in the sample.

Three follow-ups were mailed to teachers and parents who did not return the questionnaires. Two weeks after the questionnaires were mailed, a postcard was sent asking the nonrespondents to complete and return the questionnaire. Two weeks later, another copy of the questionnaire was mailed with a cover letter emphasizing the importance of the study and the need for responses from both parents and teachers. Finally, a 1-page questionnaire was sent to the final group of nonrespondents, with a letter encouraging them to complete the original questionnaire but requesting that they at least respond to the short questionnaire. This final mailing was used as a nonresponse bias survey to determine whether the characteristics or opinions of those who did not complete full questionnaires were significantly different from those who did. (The results of the nonresponse bias survey are reported in the last section of this appendix).

Tables 4 through 6 present the overall response rates by population and by each area in the sample.

Table 4

## NUMBER OF REGULAR EDUCATION TEACHERS SAMPLED AND RESPONSE RATE BY AREA

Sample Area	Elementary			Secondary			Total		
	Number Sampled	Number Responded	Response Rate (%)	Number Sampled	Number Responded	Response Rate (%)	Number Sampled	Number Responded	Response Rate (%)
MP1									
1*	92	56	61	94	16	45	186	72	39
2	60	29	48	60	35	58	120	64	53
3*	125	75	60	66	33	50	191	108	57
4	64	30	47	59	31	53	123	61	50
5	62	29	47	64	37	58	126	66	52
6	55	27	49	51	20	39	106	47	44
Subtotal	458	246	54	394	172	44	852	418	49
MP2									
7	54	36	67	65	33	51	119	69	58
8	88	52	59	88	41	47	176	93	53
9	61	43	70	59	36	61	120	79	66
10	60	36	60	60	26	43	120	62	52
Subtotal	263	167	64	272	136	50	535	303	57
MP3									
11*	61	34	56	62	37	56	123	71	58
12	60	38	63	61	34	56	121	72	60
13	60	45	75	62	41	66	122	86	70
14*	81	45	56	71	42	59	152	87	57
15	58	29	50	58	28	48	116	57	49
16	59	33	56	57	26	46	116	59	51
17*	51	21	41	51	26	51	102	47	46
Subtotal	430	245	57	422	234	55	852	479	56
NMP									
18	60	36	60	62	26	42	122	62	51
19*	99	51	52	100	55	55	199	106	53
20	59	33	56	62	34	55	121	67	55
21*	58	32	55	57	24	42	115	56	49
22*	57	33	58	57	29	51	114	62	54
23*	56	16	29	57	27	47	113	43	38
24	56	31	55	55	20	36	111	51	46
25*	51	31	61	60	30	50	111	61	55
Subtotal	496	263	53	510	245	48	1,006	508	51
Total	1,647	921	56%	1,598	787	49%	3,245	1,708	53%
Questionnaires returned with area identification label removed		5	0.30%		7	0.44%			

\* Site visit district.

Table 5  
NUMBER OF SPECIAL EDUCATION TEACHERS SAMPLED AND RESPONSE RATE BY AREA

Sample Area	Elementary			Secondary			Total		
	Number Sampled	Number Responded	Response Rate (%)	Number Sampled	Number Responded	Response Rate (%)	Number Sampled	Number Responded	Response Rate (%)
MP1									
1*	71	55	77	57	43	75	128	98	76
2	50	38	76	40	35	88	90	73	81
3*	78	61	78	57	38	67	135	99	73
4	48	36	75	37	31	84	85	67	79
5	45	33	73	30	23	70	75	54	72
6	35	18	51	19	11	58	54	29	54
Subtotal	327	241	74	240	181	75	567	420	74
MP2									
7	51	36	71	34	22	65	85	58	68
8*	78	66	85	46	38	83	124	104	84
9*	58	38	66	48	33	69	106	71	67
10	55	45	82	44	35	80	99	80	81
Subtotal	242	185	76	172	128	74	414	313	76
MP									
11*	70	50	71	57	45	79	127	95	75
12	52	40	77	55	30	55	107	70	65
13	58	53	91	38	33	87	96	86	90
14*	52	42	81	40	31	78	92	73	79
15	56	42	75	31	27	87	87	69	79
16	52	41	79	18	18	100	70	59	84
17*	16	12	75	9	6	67	25	18	72
Subtotal	356	280	79	248	190	77	604	470	78
NMP									
18	60	52	81	46	32	70	106	84	79
19*	84	68	81	55	40	73	139	108	78
20	56	37	66	46	36	78	102	73	72
21*	43	29	67	29	19	66	72	48	67
22*	33	28	85	16	13	81	49	41	84
23*	56	47	84	25	16	64	81	63	78
24	44	33	75	28	16	57	72	49	68
25*	31	28	90	4	3	75	35	31	89
Subtotal	407	322	79	249	175	70	656	497	76
Total	1,332	1,028	77%	909	674	74%	2,241	1,700	76%
Questionnaires returned with area identification label removed		14	1%	--	--	--	--	--	--

\* Site visit districts.

Table 6  
NUMBER OF PARENTS SAMPLED AND RESPONSE RATE BY AREA

Sample Area	Elementary			Secondary			Total		
	Number Sampled	Number Responded	Response Rate (%)	Number Sampled	Number Responded	Response Rate (%)	Number Sampled	Number Responded	Response Rate (%)
MP1									
1*	108	76	70	104	56	54	212	132	62
2	67	29	43	71	34	48	138	63	46
3*	--	--	--	--	--	--	--	--	--
4	63	37	59	65	31	48	128	68	53
5	32	24	75	31	15	48	63	39	62
6*	--	--	--	--	--	--	--	--	--
Subtotal	270	166	61	271	136	50	541	302	56
MP2									
7	69	39	57	68	27	40	137	66	48
8*	110	56	31	102	52	51	212	108	51
9*	63	31	49	63	25	40	126	56	44
10	67	43	64	67	33	49	134	76	57
Subtotal	309	169	55	300	137	46	609	306	50
MP3									
11*	71	40	56	69	31	45	140	71	51
12	66	37	56	68	31	46	134	68	51
13	67	41	61	65	34	52	132	75	57
14*	90	58	64	77	51	66	167	109	65
15	84	50	60	79	44	56	163	94	58
16	63	36	57	66	39	59	129	75	58
17*	81	41	51	72	39	54	153	80	52
Subtotal	522	303	58	496	269	54	1,018	572	56
NMP									
18	59	39	66	20	11	55	79	50	63
19*	120	72	60	110	70	64	230	142	62
20	132	67	51	76	54	71	208	121	58
21*	62	34	55	61	35	57	123	69	56
22*	56	31	55	49	23	47	105	54	51
23*	67	37	55	66	34	52	133	71	53
24	78	47	60	63	31	49	141	78	55
25*	105	51	49	68	35	52	173	86	50
Subtotal	679	378	56	513	293	57	1,192	671	56
Total	1,780	1,016	57%	1,580	835	53%	3,360	1,850	55%
Questionnaires returned with area identification label removed		11	0.62%		--	--			

\* Site visit districts.





## TEACHER AND PARENT INDICES

### Index Development

Items from the teacher questionnaires were combined into indices to measure the following:

- Knowledge of assessment procedures.
- Skill in assessment.
- Procedural content of inservice training.
- Perception of student's attitude change.
- Experience.
- Knowledge of the law and parents' rights.
- Knowledge of referral and assessment procedures.
- Knowledge of special education programs, services, and resources.
- Skill in assessment and placement procedures.
- Skill in instruction.
- Skill in using special education resources.
- Procedural coverage in inservice training.
- Instructional content of inservice training.
- Teachers' evaluation of the procedural content of inservice training.
- Teachers' evaluation of the instructional content of inservice training.

Items from the questionnaires sent to parents were combined into indices to measure--

- Familiarity with special education criteria, procedures, and parents' rights.
- General involvement in special education programs.
- Participation in the child's special education program.
- Perception of school and district effort to inform and involve them in the special education program.
- Satisfaction with special education processes and personnel.

The construction of the indices entailed both substantive and empirical validation of questionnaire index items. Items in the questionnaires were selected initially and refined on the basis of their face validity.

For empirical validation, data from subsamples of the respondent population were used to generate group interitem correlations. These correlations and item-total correlations (corrected for part-whole spuriousness) guided final index composition.

If empirical evidence did not substantiate the initial item groupings, we did not use the item clusters as a basis of construct measurement. The only index result that was an exception to this general two-stage index construction procedure was the measure of teacher experience. For that indicator, we combined items about teaching experience, degrees, and credentials, without requiring strong empirical support for the item combinations. For the most part, no strong association exists between measures such as the number of years of teaching experience and the types of credentials and/or degrees.

The subsections that follow describe the teacher and parent indices. First are detailed those indices that were the same (identical survey items) for regular education and special education teachers, and then indices unique to regular education and special education teachers are discussed. The indices based on parent questionnaire items are presented last.

### Indices Based on Items in the Questionnaires for Both Regular and Special Education Teachers

#### Index of Knowledge of Assessment

To measure the teachers' knowledge of assessment procedures, we developed an index of six items from the questionnaire designed to reveal how familiar the teachers were with:

- Assessment instruments and techniques for identifying the needs of special education students.
- Individual Education Programs (IEP) procedures.
- Referral procedures.
- Assessment procedures.
- Screening procedures.
- Placement procedures.

The teachers could respond that they were "not at all familiar" (0 points), "somewhat familiar" (1 point), or "very familiar" (2 points). Index scores ranged from 0 to 12 points for the combined six items.

The index scores were then grouped into four categories: not at all familiar (0 to 3 points), fairly familiar (4 to 6 points), somewhat familiar (7 to 9 points), and very familiar (10 to 12 points). Teachers were grouped in these categories as follows:

- Not at all familiar--Teachers in this group were not at all familiar with three or more items and only somewhat familiar with the remaining items.

- Fairly familiar--Teachers were somewhat familiar with all the procedures but not very familiar (2 points) with any of them.
- Somewhat familiar--Teachers were somewhat familiar with three or more of the procedures and very familiar with three or fewer items.
- Very familiar--Teachers were very familiar with at least four of the procedures and somewhat familiar with the remaining ones.

Table 7 provides the statistics for this knowledge index.

#### Index of Skill in Assessment

To measure the teachers' skill in assessment procedures, we developed an index of six items from the questionnaire asking teachers for a self-assessment of their skills in:

- Screening students.
- Using tests for assessing the education needs of special education students.
- Using tests for assessing the social needs of special education students.
- Using observations for assessing the needs of special education students.
- Developing tests for assessing the needs of special education students.
- Developing IEPs for special education students.

The teachers could respond that they were "not skilled" (0 points), "somewhat skilled" (1 point), or "very skilled" (2 points) or that the item was "not applicable" (0 points). The index scores for the combination of the six items ranged from 0 to 12 points. Table 8 contains the statistics relevant to this index.

The index scores were divided into four categories: not at all skilled (0 to 3 points), fairly skilled (4 to 6 points), somewhat skilled (7 to 9 points), and very skilled (10 to 12 points). The basis for placing teachers in each category was as follows:

- Not at all skilled--Teachers were only somewhat skilled in three or fewer of the assessment techniques and were not skilled in the remaining ones.
- Fairly skilled--Teachers were generally skilled in most of the techniques but not very skilled in any of them.
- Somewhat skilled--Teachers were somewhat skilled in three or more techniques and were very skilled in three or fewer.
- Very skilled--Teachers were very skilled in at least four of the procedures and somewhat skilled in the remaining ones.

Table 7

## STATISTICS ON KNOWLEDGE OF ASSESSMENT INDEX\*

<u>Item Addressing Familiarity with:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Assessment instruments and techniques for identifying special education students	0-2	1.2	0.7	6.6	11.0	.77	.62	.94
2 IEP procedures	0-2	1.4	0.7	6.3	11.5	.77	.61	.94
3 Referral procedures	0-2	1.3	0.7	6.5	10.5	.90	.83	.92
4 Assessment procedures	0-2	1.2	0.7	6.5	10.6	.88	.83	.92
5 Screening procedures	0-2	1.3	0.8	6.4	10.5	.78	.62	.94
6 Placement procedures	0-2	1.3	0.7	6.5	10.5	.88	.81	.93

\* Statistics for index: Mean, 7.7; variance, 15.3; standard deviation (SD), 3.9; number of variables, 6; range, 0-12; alpha, .94; cases, 3,232.

Table 8

## STATISTICS ON SKILL IN ASSESSMENT INDEX\*

Item Addressing Self-Assessment of Skills in:	Points	Mean	SD	Item Total Statistics				
				Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
1 Screening students for special education	0-2	1.0	.8	4.6	10.3	.68	.47	.89
2 Using tests for assessing educational needs of special education students	0-2	1.0	.8	4.7	9.5	.82	.67	.86
3 Using tests for assessing social needs of special education students	0-2	.6	.7	5.0	10.7	.69	.50	.88
4 Using observation for assessing needs of special education students	0-2	1.3	.7	4.4	10.4	.71	.50	.88
5 Developing tests for assessing needs of special education students	0-2	.6	.7	5.0	10.4	.72	.52	.88
6 Developing IEPs for special education students	0-2	1.1	.8	4.6	9.5	.75	.59	.87

\* Statistics for index: Mean, 5.6; variance, 14.3; standard deviation (SD), 3.8; number of variables, 6; range, 0-12; alpha, .90; cases, 3,100.

### Index of Assessment Coverage in Inservice Training

We developed an index of five items to measure the number of assessment-related procedural topics that teachers reported were covered in inservice training. The items used were those from the questionnaires asking teachers whether the following topics had been covered in inservice training during the year:

- Procedures for identifying special education students.
- Procedures for writing IEPs for special education students.
- Procedures for developing student instructional programs for special education.
- Procedures for completing required forms.
- Procedures for assessing special education students.

The teachers could respond "no" (0 points) or "yes" (1 point) to these items. Index scores ranged from 0 to 5 points for the combination of five items.

This index score range was divided into three categories: low coverage (0 to 1 point), moderate coverage (2 to 3 points), and high coverage (4 to 5 points). The breakdown for placement in these categories was as follows:

- Low coverage--Teachers knew, at most, of only one inservice training topic that dealt with assessment issues.
- Moderate coverage--Teachers reported knowing of two or three inservice training sessions about assessment topics.
- High coverage--Teachers knew of four or five training sessions that dealt with assessment issues.

Tables 9 and 10 provide statistics on this index.

### Index of Perceived Changes in Students' Attitudes

We developed an index that combined four items to measure teachers' opinions about the change in the attitudes of mainstreamed students. The questionnaire items were those asking teachers how programs and services have affected the majority of the students' attitudes about:

- School
- Their own special education program and services
- Other students
- Themselves.

Teachers could respond that students' attitudes became more positive (1 point), did not change (0 points), or became more negative (-1 point). Index scores ranged from -4 to +4 points for the combination of the four items.

Table 9

STATISTICS ON INDEX OF ASSESSMENT-PROCEDURE COVERAGE  
IN INSERVICE TRAINING FOR REGULAR EDUCATION TEACHERS\*

Item Addressing Inservice Training in:	Points	Mean	SD	Item Total Statistics				
				Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
1 Procedures for identifying special education students	0-1	.6	.5	1.8	2.6	.71	.51	.83
2 Procedures for writing IEPs	0-1	.4	.5	2.0	2.7	.66	.45	.85
3 Procedures for developing instructional programs for special education students	0-1	.4	.5	2.0	2.6	.70	.52	.84
4 Procedures for completing required forms	0-1	.5	.5	1.9	2.7	.64	.42	.85
5 Procedures for assessing special education students	0-1	.5	.5	1.9	2.5	.76	.60	.82

\* Statistics for index: Mean, 2.4; variance, 3.9; standard deviation (SD), 1.9; number of variables, 5; range, 0-5; alpha, .87; cases, 810.



Table 10

STATISTICS ON INDEX OF ASSESSMENT-PROCEDURE COVERAGE  
IN INSERVICE TRAINING FOR SPECIAL EDUCATION TEACHERS\*

<u>Item Addressing Inservice Training in:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Procedures for identifying special education students	0-1	.5	.5	2.5	1.8	.54	.32	.70
2 Procedures for writing IEPs	0-1	.8	.4	2.3	1.9	.54	.34	.70
3 Procedures for developing instructional programs for special education students	0-1	.5	.5	2.6	1.8	.51	.27	.71
4 Procedures for completing required forms	0-1	.8	.4	2.3	1.9	.50	.31	.71
5 Procedures for assessing special education students	0-1	.5	.5	2.5	1.8	.56	.34	.69

\*Statistics for index: Mean, 3.0; variance, 2.7; standard deviation (SD), 1.6; number of variables, 5; range, 0-5; alpha, .74; cases, 1,376.

Index scores were divided into three categories: negative changes (-4 to -2 points), no change (-1 to +1 point), and positive change (+2 to +4 points). The rationale for this scoring pattern was as follows:

- Negative change--The teachers generally believed that the students' attitudes had become more negative on at least two of the items.
- No change--The teachers generally scored the student as not having changed on three of the items and scored either a positive or negative change on the remaining item.
- Positive change--The teachers indicated that the students' attitudes had become more positive on at least two of the items, with the remaining items usually scored as no change or positive change.

Tables 11 and 12 provide item and index statistics for these attitude change indices.

### Index of Experience

To describe the background of a teacher, we defined general teacher experience as a combination of degree, credential, and years of teaching experience. Our scoring scheme emphasized teaching experience as the key indicator of teacher preparation. Teachers scored 1 point for having a Master's degree, for 1 to 2 years of teaching experience, and for each credential they held. They received 2 points for a Doctorate or for 3 or 4 years of teaching experience. They scored 3 points for 5 to 6 years of teaching experience and 4 points for 7 or more years. Emergency credentials and Bachelor's degrees were not given a score, inasmuch as a Bachelor's degree is required of all teachers and does not reflect specialized training.

Scores ranged from 2 to 16 points, indicating that some respondents had no previous teaching experience, advanced degrees, or extra credentials, whereas others had various combinations of credentials, degrees and years of teaching experience. Table 13 describes the scoring scheme. On the basis of these scores, teachers received one of four experience ratings: slightly experienced, moderately experienced, very experienced, or extremely experienced.

### Index of Knowledge About Special Education Legislation and Parents' Rights

To report teachers' familiarity with special education legislation and parents' rights, we asked teachers to rate their familiarity with:

- Public Law 94-142 (the Education for All Handicapped Children Act of 1975).
- The California Master Plan for Special Education (AB 1250).
- Due process procedures regarding parents' rights.

Table 11

STATISTICS ON INDEX OF CHANGE IN STUDENTS' ATTITUDES PERCEIVED BY REGULAR EDUCATION TEACHERS \*

<u>Item Addressing Students' Change in:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Attitudes about school	-1/+1	.6	.6	1.6	2.1	.79	.63	.82
2 Attitudes about their own special education program and services	-1/+1	.6	.6	1.6	2.3	.65	.45	.87
3 Attitudes about other students	-1/+1	.5	.6	1.7	2.3	.70	.53	.85
4 Attitudes about themselves	-1/+1	.6	.6	1.5	2.2	.79	.64	.82

\* Statistics for index: Mean, 2.1; variance, 3.8; standard deviation (SD), 1.9; number of variables, 4; range, -4 to +4; alpha, .88; cases, 1,037.

Table 12

STATISTICS ON INDEX OF CHANGE IN STUDENTS' ATTITUDES PERCEIVED BY SPECIAL EDUCATION TEACHERS\*

<u>Item Addressing Students' Change in:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Attitudes about school	-1/+1	.7	.5	1.9	1.8	.65	.51	.71
2 Attitudes about their own special education program and services	-1/+1	.5	.6	2.0	1.9	.45	.39	.82
3 Attitudes about other students	-1/+1	.7	.5	1.8	1.8	.68	.54	.70
4 Attitudes about themselves	-1/+1	.6	.6	1.9	1.8	.67	.46	.70

\* Statistics for index: Mean, 2.5; variance, 3.1; standard deviation (SD), 1.8; number of variables, 4; range, -4 to +4; alpha, .79; cases, 1,164.

Table 13

TEACHER EXPERIENCE SCORING

<u>Points</u>	<u>Qualifications</u>
0	Emergency credentials Bachelor's degree
1	Master's degree Elementary, secondary, LH, or SH credential 1 or 2 years of teaching experience
2	Ph.D. 3 or 4 years of teaching experience
3	5 or 6 years of teaching experience
4	7 or more years of teaching experience

Teachers could respond in one of three ways: "not at all familiar" (0 points), "somewhat familiar" (1 point), or "very familiar" (2 points). Under the scoring scheme, a teacher's knowledge index score could range from 0 to 6 points. On the basis of their index scores, teachers with 0 points received a familiarity rating of not at all familiar. Those with 1 or 2 points were rated as fairly familiar, and those with 3 to 6 points were rated as somewhat to very familiar. Table 14 provides statistics for this knowledge index.

#### Index of Knowledge About Referral and Assessment Procedures

To measure teachers' familiarity with referral and assessment procedures, we asked teachers to rate their familiarity with those two activities. The teachers could respond in one of three ways: "not at all familiar" (0 points), "somewhat familiar" (1 point), or "very familiar" (2 points). Total scores for the index ranged from 0 to 4 points.

Teacher index scores were divided into three categories: not at all familiar (0 points), somewhat familiar (1 or 2 points), and very familiar (3 or 4 points). We regarded any knowledge about either item as adequate for the purpose of linking unidentified students with special education assessment; teachers with 0 points were the only ones labeled "not at all familiar." In the middle category we identified teachers who were somewhat familiar with one or two items or very familiar with one item. Teachers received the highest rating if they were very familiar with both items or if they were very familiar with one item and somewhat familiar with the other item. Table 15 provides statistics for this index.

#### Index of Knowledge About Special Education Programs, Services, and Resources

To measure teachers' knowledge about services, programs, and resources that are not part of the regular education program, we asked teachers to rate their familiarity with the following eight special education elements:

- Special day classes
- Speech and language programs
- Counseling services
- Health services
- Special instructional materials
- Special equipment
- Classroom aides
- Psychological services.

Teachers could respond that they were "not at all familiar" (0 points), "somewhat familiar" (1 point), or "very familiar" (2 points) with these programs and services. The total scores for the index ranged from 0 to 16 points.

Table 14

## STATISTICS ON INDEX OF TEACHERS' KNOWLEDGE OF THE LAW AND PARENTS' RIGHTS\*

<u>Item Addressing Knowledge of:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 PL 94-142	0-2	1.1	.7	2.4	1.7	.71	.51	.74
2 The California Master Plan for Special Education (AB 1250)	0-2	1.1	.7	2.4	1.8	.71	.51	.74
3 Due process procedures regarding parents' rights	0-2	1.3	.7	2.2	1.8	.65	.43	.80

\*Statistics for index: Mean, 3.5; variance, 3.6; standard deviation (SD), 1.9; number of variables, 3; range, 0-6; alpha, .83; cases, 2.945.

Table 15

## STATISTICS ON INDEX OF TEACHERS' KNOWLEDGE ABOUT REFERRAL AND ASSESSMENT PROCEDURES \*

<u>Item Addressing Knowledge of:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>			
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>
1 Referral procedures	0-2	1.2	.7	1.3	.6	.77	.59
2 Assessment procedures	0-2	1.3	.8	1.2	.6	.77	.59

\* Statistics for index: Mean, 2.5; variance, 2.0; standard deviation (SD), 1.4; number of variables, 2; range, 0-4; alpha, .87; cases, 2,945.



Teacher index scores were divided into four categories: not at all familiar (0 points), fairly familiar (1 to 4 points), somewhat familiar (5 to 8 points), and very familiar (9 to 16 points). Teachers in the fairly familiar category were somewhat familiar with no more than half of the items, or they were very familiar with no more than two items. Teachers in this category were considered to have a limited understanding of special education services, programs, and resources. Teachers in the somewhat familiar category reported they were somewhat familiar with more than half of the items and very familiar with no more than four items, or they gave some combination of those responses. Teachers receiving the very familiar rating reported that they were somewhat familiar with seven items and very familiar with one item or that they were very familiar with at least five items. This score indicated the teachers had either a general knowledge of all items or a relatively thorough knowledge of a variety of programs, resources, and services. Table 16 reports index statistics.

#### Index of Skill in Implementing Assessment and Placement Procedures

This index recorded teachers' reports of their skill in the following six specialized identification and placement activities:

- Screening students for special education.
- Using tests for assessing the educational needs of special education students.
- Using tests for assessing the social needs of special education students.
- Using observations for assessing the needs of special education students.
- Developing tests for assessing the needs of special education students.
- Developing an IEP for special education students.

The three responses available were: "not skilled" (0 points), "somewhat skilled" (1 point), or "very skilled" (2 points). "Not applicable" responses were available but were not used in the tabulation because they did not exceed 5% of the total responses. Total scores for the index ranged from 0 to 12 points.

Teachers' responses were divided into four categories on the basis of the total index score: not skilled (0 to 2 points), fairly skilled, (3 to 6 points), somewhat skilled (7 to 9 points), and very skilled (10 to 12 points). The assessment and placement skill index statistics are shown in Table 17.

Table 16

STATISTICS ON INDEX OF TEACHERS' KNOWLEDGE ABOUT  
SPECIAL EDUCATION PROGRAMS, SERVICES, AND RESOURCES\*

<u>Item Addressing Knowledge of:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Special day classes	0-2	1.3	.7	7.6	16.5	.69	.50	.90
2 Speech and language programs	0-2	1.3	.7	7.6	17.2	.62	.41	.91
3 Counseling services	0-2	1.0	.7	7.8	17.2	.61	.42	.91
4 Health services	0-2	.8	.7	8.0	16.6	.71	.52	.90
5 Special instructional materials	0-2	1.1	.8	7.7	15.7	.81	.74	.89
6 Special equipment	0-2	1.0	.8	7.9	16.1	.77	.70	.89
7 Classroom aides	0-2	1.1	.8	7.7	16.2	.72	.54	.90
8 Psychological services	0-2	1.2	.7	7.6	16.3	.75	.58	.89

\* Statistics for index: Mean, 8.8; variance, 21.3; standard deviation (SD), 4.6; number of variables, 8; range, 0-16; alpha, .91; cases, 2,945.

Table 17

## STATISTICS ON INDEX OF TEACHERS' ASSESSMENT AND PLACEMENT SKILLS\*

Item Addressing Skill in:	Points	Mean	SD	Item Total Statistics				
				Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
1 Screening students for special education	0-2	1.0	.8	4.6	10.3	.68	.47	.89
2 Using tests for assessing educational needs of special education students	0-2	1.0	.8	4.7	9.5	.82	.67	.86
3 Using tests for assessing social needs of special education students	0-2	.6	.7	5.0	10.7	.69	.50	.88
4 Using observation for assessing needs of special education students	0-2	1.3	.7	4.4	10.4	.71	.50	.88
5 Developing tests for assessing needs of special education students	0-2	.6	.7	5.0	10.4	.72	.52	.88
6 Developing IEPs for special education students	0-2	1.1	.8	4.6	9.5	.75	.59	.87

\*Statistics for index: Mean, 5.6; variance, 14.3; standard deviation (SD), 3.8; number of variables, 6; range, 0-12; alpha, .90; cases, 3,100.

### Index of Skill in Instructing Special Education Students

We designed an index to record teachers' reports of their skill in the following two instruction-related activities:

- Using the IEP for instructional purposes
- Instructing special education students in academic areas.

Teachers could respond that they were: "not skilled" (0 points), "somewhat skilled" (1 point), or "very skilled" (2 points). "Not applicable" responses were also available but were not used in this tabulation because those responses did not exceed 5% of the total responses in this index. Total scores for the index ranged from 0 to 4 points.

On the basis of the index score, teachers received skill ratings as follows: not skilled (0 points), somewhat skilled (1 to 2 points), and very skilled (3 to 4 points). Teachers in the first category reported that they did not have either skill, whereas teachers with the somewhat skilled rating were either somewhat skilled in both activities or somewhat or very skilled in one. The very skilled category indicated that teachers were either very skilled in both activities or very skilled in one and somewhat skilled in the other activity. Table 18 presents the index statistics.

### Index Skill in Using Special Education Resources

To report teachers' skill in using special education resources, we asked teachers to rate their skill in the following liaison activities:

- Coordinating resources and services for special education students
- Working with other educational personnel in providing services to special education students.

Teachers could respond that they were: "not skilled" (0 points), "somewhat skilled" (1 point), or "very skilled" (2 points). "Not applicable" responses were available but were not used in this tabulation because they did not exceed 5% of the total responses in this index. Under this scoring scheme, teachers could score a total of 0 to 4 points.

Teacher responses were divided into three categories: not skilled (0 points), somewhat skilled (1 or 2 points), and very skilled (3 or 4 points). Index statistics are provided in Table 19.

### Index of Procedural Coverage in Inservice Training

Teachers were asked whether any of the following procedure-related topics were covered in inservice training sessions during the school year and whether the coverage was needed and helpful:

- Procedures for identifying special education students
- Writing IEPs for special education students

Table 18

STATISTICS ON INDEX OF TEACHERS' SKILLS IN INSTRUCTING  
SPECIAL EDUCATION STUDENTS\*

<u>Item Addressing Skill in:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>			
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>
1 Using the IEP for instructional purposes	0-2	1.1	.9	1.2	.6	.65	.45
2 Instructing special education students in academic areas	0-2	1.2	.8	1.1	.8	.65	.45

\*Statistics for index: Mean, 2.3; variance, 2.3; standard deviation (SD), 1.5; number of variables, 2; range, 0-4; alpha, .78, cases, 3,100.

Table 19

STATISTICS ON INDEX OF TEACHERS' SKILL  
IN USING SPECIAL EDUCATION RESOURCES\*

<u>Item Addressing Skill in:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>			
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>
1 Coordinating resources and services for special education students	0-2	.9	.8	1.3	.5	.66	.44
2 Working with other education personnel in providing services to special education students	0-2	1.3	.7	.9	.6	.66	.44

\* Statistics for index: Mean, 2.2; variance, 1.9; standard deviation (SD), 1.4; number of variables, 2; range, 0-4; alpha, .79; cases, 3,100.

- Developing instructional programs for special education students
- Procedures for completing required forms
- Procedures for assessing special education students.

Teachers were also asked whether additional inservice training topics were covered. Less than 1% of the regular education teachers indicated coverage of any additional topics.

Teachers could respond "yes" or "no" to each topic; they received 1 point for each yes response. Therefore, index score totals for these items ranged from 0 to 5 points.

On the basis of index scores, teachers were divided into three groups describing inservice training topic coverage as low (0 to 1 point), moderate (2 or 3 points), and high (4 or 5 points). We considered coverage of only one topic insufficient for adequate teacher preparation for special education student identification and referral. Refer to Tables 9 and 10.

#### Index of Instructional Coverage in Inservice Training

Teachers were asked to indicate which of the following eight instruction-related topics were covered during the school year in inservice training sessions:

- Communication skills with other education personnel.
- Characteristics of special education students.
- Characteristics of special education legislation.
- Social integration of special education students into regular education environments.
- Use of special education materials and equipment.
- Instruction for special education students.
- Behavior management skills.
- Modification of regular education programs for special education students.

Teachers could respond "yes" or "no" to each topic and received 1 point for each "yes" response. Total scores for the index ranged from 0 to 8 points.

On the basis of index scores, responses were divided into three groups describing inservice training coverage: none (0 point), moderate (1 or 2 points), and high (3 to 8 points). The first category indicates teachers who reported that none of these instruction-related topics were covered. Teachers in the moderate group knew of training on a limited range of topics, and teachers in the high group were aware of a broad range of topics. Tables 20 and 21 provide index statistics.

Table 20

STATISTICS ON INDEX OF INSTRUCTIONAL COVERAGE IN INSERVICE TRAINING  
FOR REGULAR EDUCATION TEACHERS\*

	<u>Item Addressing Coverage of:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
					<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
	1 Communication skills with other education personnel	0-1	.5	.5	2.6	7.1	.70	.52	.90
	2 Characteristics of special education students	0-1	.5	.5	3.6	7.2	.67	.54	.90
39	3 Characteristics of special education legislation	0-1	.3	.5	2.8	7.4	.62	.48	.91
	4 Social integration of special education students into regular education environments	0-1	.4	.5	2.7	7.1	.74	.57	.90
	5 Use of special education materials and equipment	0-1	.3	.4	2.9	7.4	.70	.56	.90
	6 Instruction of special education students	0-1	.3	.5	2.8	7.1	.74	.66	.90
	7 Behavior management skills	0-1	.4	.5	2.8	7.1	.74	.66	.90
	8 Modification of regular education programs for special education students	0-1	.4	.5	2.7	7.0	.77	.63	.89

\* Statistics for index: Mean, 3.0; variance, 9.2; standard deviation (SD), 3.0; number of variables, 8; range, 0-8; alpha, .91; cases, 680.



Table 21

STATISTICS ON INDEX OF INSTRUCTIONAL COVERAGE IN INSERVICE TRAINING  
FOR SPECIAL EDUCATION TEACHERS\*

	<u>Item Addressing Coverage of:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
					<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
	1 Communication skills with other education personnel	0-1	.4	.5	2.6	4.7	.64	.42	.79
	2 Characteristics of special education students	0-1	.4	.5	2.6	4.6	.65	.43	.78
07	3 Characteristics of special education legislation	0-1	.6	.5	2.4	5.0	.45	.35	.81
	4 Social integration of special education students into regular education environments	0-1	.3	.4	2.7	4.8	.63	.45	.79
	5 Use of special education materials and equipment	0-1	.4	.5	2.5	4.6	.60	.41	.79
	6 Instruction of special education students	0-1	.4	.5	2.5	4.5	.72	.53	.77
	7 Behavior management skills	0-1	.4	.5	2.5	4.6	.63	.42	.78
	8 Modification of regular education programs for special education students	0-1	.2	.4	2.5	4.8	.64	.43	.78

\* Statistics for index: Mean, 2.9; variance, 6.0; standard deviation (SD), 2.4; number of variables, 8; range, 0-8; alpha, .81; cases, 1,314.

## Index of Teachers' Evaluation of Procedural and Instructional Coverage in Inservice Training

We also assessed the teachers' perceptions of an area's inservice training effort regarding the procedure- and instruction-related topics examined in the preceding subsection.

If teachers reported that a procedural topic was covered and that it was helpful or needed, the item was scored 1 point. If the topic was not covered but the teacher reported that it was needed, the topic was scored -1. If either of these conditions were true, an item received 0 points. Under this scoring scheme, an index score for an individual teacher ranged from -5 to +5 points. Positive point totals indicated some degree of positive reception by teachers of the areas' inservice training efforts. Negative scores indicate that the areas' training effort was relatively unsuccessful at meeting teachers' preparation needs. Tables 22 and 23 show the items and index statistics for this measure.

The same scoring approach was used to evaluate instructional topics covered or needed. Because there were 8 topics, the scores for this index ranged from -8 to +8 points. Positive point totals indicated that teachers thought the areas' inservice training efforts were appropriate to meet their needs; to the teachers' knowledge, the areas were delivering needed or helpful training. Negative scores indicated that teachers reported a lack of appropriate inservice training offerings. Tables 24 and 25 provide index statistics.

## Indices Based Only on Items from the Questionnaire for Regular Teachers

### Index of Participation in Assessment

To measure the extent to which regular education teachers participated in assessment processes, we developed an index from five items in the questionnaire asking whether teachers had participated in:

- Referring students for special education.
- Attending placement meetings for special education students.
- Deciding educational goals and objectives and developing the IEP.
- Evaluating individual progress and individual programs for special education students.
- Informally assessing students for placement for special education.

The teachers could respond either "no" or "yes." Yes responses were given one point, and "no" responses received 0 points. The index scores ranged from 0 to 5 points for the combination of five items. The index score was then divided into three categories: low participation (0 to 1 point), moderate participation (2 or 3 points), and high participation (4 or 5 points). The rationale for this scoring pattern was as follows:

Table 22

STATISTICS ON INDEX OF REGULAR EDUCATION TEACHERS'  
EVALUATION OF PROCEDURAL COVERAGE IN INSERVICE TRAINING\*

<u>Item Addressing Coverage:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>					
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alphas if Item Deleted</u>	
A Offered and helpful									
B 1 Procedures for identifying special education students	0 to 1	.6	.5	0	8.7	.71	.70	.86	
C 2 Procedures for writing IEPs	0 to 1	.3	.5	.3	9.0	.60	.52	.87	
D 3 Procedures for developing instructional programs	0 to 1	.4	.5	.3	8.9	.63	.62	.87	
E 4 Procedures for completing required forms	0 to 1	.4	.5	.2	9.0	.55	.52	.87	
L 5 Procedures for assessing special education students	0 to 1	-.3	.5	.2	8.8	.69	.69	.87	
A Not offered but needed									
A 6 Procedures for identifying special education students	-1 to 0	-.3	.5	.9	9.0	.66	.65	.87	
B 7 Procedures for writing IEPs	-1 to 0	-.3	.5	1.0	9.0	.60	.54	.87	
C 8 Procedures for developing instructional program	-1 to 0	-.3	.5	1.0	9.1	.60	.63	.87	
E 9 Procedures for completing	-1 to 0	-.2	.4	.9	9.6	.45	.48	.88	
L 10 Procedures for assessing special education students	-1 to 0	-.4	.5	1.0	8.8	.67	.57	.87	

\*Statistics for index: Mean, 0.6; variance, 10.9; standard deviation (SD), 3.3; number of variables, 10; range, -5 to +5; alpha, .88; cases, 680.

Table 23

STATISTICS ON INDEX OF SPECIAL EDUCATION TEACHERS'  
EVALUATION OF PROCEDURAL COVERAGE IN INSERVICE TRAINING\*

<u>Item Addressing Coverage:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
<b>Offered and helpful</b>								
1 Procedures for identifying special education students	0 to 1	.4	.5	1.1	4.7	.53	.52	.72
2 Procedures for writing IEPs	0 to 1	.6	.5	.9	4.8	.45	.62	.74
3 Procedures for developing instructional programs	0 to 1	.4	.5	1.1	4.7	.55	.61	.72
4 Procedures for completing required forms	0 to 1	.6	.5	1.1	4.9	.45	.56	.74
5 Procedures for assessing special education students	0 to 1	.4	.5	1.7	4.6	.55	.60	.72
<b>Not offered but needed</b>								
Item 1	-1 to 0	-.2	.4	1.6	5.2	.35	.45	.75
Item 2	-1 to 0	-.1	.3	1.8	5.4	.38	.45	.75
Item 3	-1 to 0	-.3	.5	1.6	5.2	.32	.58	.76
Item 4	-1 to 0	-.1	.3	1.7	5.5	.32	.40	.75
Item 5	-1 to 0	-.2	.4	--	5.2	.36	.51	.75

\* Statistics for index: Mean, 1.5; variance, 6.0; standard deviation (SD), 2.5; number of variables, 10; range, -5 to +5; alpha, .76; cases, 1,697.

Table 24

STATISTICS ON INDEX OF REGULAR EDUCATION TEACHERS' EVALUATION  
OF INSTRUCTIONAL COVERAGE IN INSERVICE TRAINING\*

Item Addressing Coverage	Points	Mean	SD	Item Total Statistics				
				Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Offered and helpful								
1 Communication skills with other education personnel	0 to 1	.5	.5	-.8	25.2	.60	.68	.92
2 Characteristics of special education students	0 to 1	.5	.5	-.8	25.1	.60	.79	.92
3 Characteristics of special education legislation	0 to 1	.3	.5	-.6	25.7	.54	.50	.92
4 Social integration of special education students into regular education environments	0 to 1	.4	.5	-.7	24.7	.73	.85	.92
5 Use of special education materials and equipment	0 to 1	.3	.4	-.6	25.4	.66	.81	.92
6 Instruction of special education students	0 to 1	.3	.5	-.7	25.0	.68	.82	.92
7 Behavior management skills	0 to 1	.4	.5	-.7	24.7	.73	.80	.92
8 Modification of regular education program for special education students	0 to 1	.4	.5	-.7	24.9	.69	.78	.92
Not offered but needed								
Item 1	-1 to 0	-.3	.5	0	25.3	.62	.60	.92
Item 2	-1 to 0	-.3	.5	0	25.3	.62	.74	.92
Item 3	-1 to 0	-.3	.5	0	26.2	.41	.44	.93
Item 4	-1 to 0	-.5	.5	0.1	24.7	.70	.84	.92
Item 5	-1 to 0	-.5	.5	.2	25.5	.54	.75	.92
Item 6	-1 to 0	-.5	.5	.1	24.6	.73	.81	.92
Item 7	-1 to 0	-.5	.5	.1	24.9	.65	.73	.92
Item 8	-1 to 0	-.4	.5	.1	24.9	.68	.75	.92

\*Statistics for index: Mean, -.3; variance, 28.4; standard deviation (SD), 5.3; number of variables, 16; range, -8 to +8; alpha, .93; cases, 680.

Table 25

STATISTICS ON INDEX OF SPECIAL EDUCATION TEACHERS' EVALUATION  
OF INSTRUCTIONAL COVERAGE IN INSERVICE TRAINING\*

Item Addressing Coverage:	Points	Mean	SD	Item Total Statistics				
				Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Offered and helpful								
1 Communication skills with other education personnel	0 to 1	.2	.4	-.5	13.5	.45	.50	.83
2 Characteristics of special education students	0 to 1	.3	.5	-.5	13.4	.44	.51	.83
3 Characteristics of special education legislation	0 to 1	.5	.5	-.7	13.8	.30	.53	.84
4 Social integration of special education students into regular education environments	0 to 1	.2	.4	.4	13.6	.46	.53	.83
5 Use of special education materials and equipment	0 to 1	.4	.5	-.6	13.5	.38	.60	.83
6 Instruction of special education students	0 to 1	.3	.5	-.6	13.3	.49	.60	.82
7 Behavior management skills	0 to 1	.3	.5	-.6	13.4	.44	.57	.83
8 Modification of regular education program for special education students	0 to 1	.2	.4	-.4	13.7	.45	.49	.83
Not offered but needed								
Item 1	-1 to 0	-.4	.5	.1	13.2	.47	.56	.83
Item 2	-1 to 0	-.3	.4	0	13.4	.47	.48	.83
Item 3	-1 to 0	-.3	.4	0	13.7	.40	.52	.83
Item 4	-1 to 0	-.4	.5	.2	13.2	.46	.61	.83
Item 5	-1 to 0	-.3	.4	0	13.4	.48	.58	.83
Item 6	-1 to 0	-.3	.5	0	13.1	.55	.63	.82
Item 7	-1 to 0	-.3	.5	.1	13.1	.53	.63	.82
Item 8	-1 to 0	-.4	.5	.2	13.2	.45	.58	.83

\* Statistics for index: Mean, -.3; variance, 15.1; standard deviation (SD), 3.9; number of variables, 16; range, -8 to +8; alpha, .84;

- Low participation--Teachers had participated in at most only one assessment process.
- Moderate participation--Teachers had participated in two or three assessment processes.
- High participation--Teachers participated in four or five assessment processes.

Table 26 provides index statistics.

Indices of Opportunity To Participate in Assessment and of Role in Assessment

Two indices were developed using a structure and items similar to those used for the participation in assessment index. These indices measured regular education teachers' opinions about their opportunity to participate in assessment processes and about whether they should participate in assessment processes. The range and scoring patterns for these two indices were exactly the same as those used in the participation in assessment index. Tables 27 and 28 provide index statistics for the two indices.

Indices Based Only on Items from the Questionnaire for Special Education Teachers

Index of Participation in Assessment

To measure the extent to which special education teachers participated assessment processes, we developed an index of four items. Teachers were asked whether they had participated in the following assessment processes:

- Processing referrals of students for special education
- Attending placement meetings for special education students
- Screening students for special education programs
- Assessing students for special education programs.

Teachers could respond "no" or "yes," and "no" responses were scored 0 and "yes" responses were given 1 point. The sum of these items yielded index scores ranging from 0 to 4 points. Table 29 lists the index statistics.

The index score range was divided into three categories: low participation (0 to 1 point), moderate participation (2 to 3 points), and high participation (four points). The rationale for this scoring pattern was the following:

- Low participation--Teachers had participated in at most only one assessment process.
- Moderate participation--Teachers had participated in two or three assessment processes.

Table 26

## STATISTICS ON INDEX OF REGULAR EDUCATION TEACHERS' PARTICIPATION IN ASSESSMENT\*

<u>Item Addressing Participation in:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Referring student for special education	0-1	.7	.5	1.8	2.1	.60	.50	.74
2 Attending placement meeting for special education student	0-1	.5	.5	2.0	2.0	.62	.40	.73
3 Deciding education goals and objectives and IEP development	0-1	.3	.4	2.2	2.3	.50	.30	.78
4 Evaluating individual progress and programs for special education students	0-1	.5	.5	2.0	2.1	.56	.37	.78
5 Informally assessing students for special education placement	0-1	.6	.5	1.9	2.0	.63	.50	.73

\* Statistics for index: Mean, 2.5; variance, 3.1; standard deviation (SD), 1.8; number of variables, 5; range, 0-5; alpha, .79; cases, 660.



Table 27

STATISTICS ON INDEX OF REGULAR EDUCATION TEACHERS'  
OPPORTUNITY TO PARTICIPATE IN ASSESSMENT\*

<u>Item Addressing Opportunity to:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Refer students for special education	0-1	.7	.4	1.9	2.1	.55	.42	.75
2 Attend placement meetings for special education students	0-1	.5	.5	2.1	1.9	.60	.36	.73
3 Participate in deciding educational goals and developing IEPs	0-1	.3	.4	2.4	2.2	.50	.33	.78
4 Evaluate individual progress and programs for special education students	0-1	.5	.5	2.2	1.9	.58	.39	.74
5 Informally assess students for special education placement	0-1	.6	.5	2.0	1.9	.61	.45	.74

\* Statistics for index: Mean, 2.7; variance, 3.0; standard deviation (SD), 1.7; number of variables, 5; range, 0-5; alpha, .78; cases, 660.

Table 28

## STATISTICS ON INDEX OF REGULAR EDUCATION TEACHERS' ROLE IN ASSESSMENT\*

<u>Item Addressing Whether Teachers Should:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Participate in referring students for special education	0-1	.9	.3	2.7	1.9	.50	.33	.74
2 Attend placement meetings for special education students	0-1	.7	.5	2.8	1.6	.54	.31	.71
3 Participate in decisions about educational goals and objectives	0-1	.5	.5	3.0	1.6	.50	.33	.74
4 Participate in the evaluation of individual progress and programs for special education students	0-1	.6	.5	2.9	1.5	.61	.41	.68
5 Informally assess students for special education placement	0-1	.8	.4	2.7	1.7	.55	.36	.71

\* Statistics for index: Mean, 3.5; variance, 2.4; standard deviation (SD), 1.6; number of variables, 5; range, 0-5; alpha, .76; cases, 660.

Table 29

STATISTICS ON INDEX OF SPECIAL EDUCATION TEACHERS'  
PARTICIPATION IN ASSESSMENT\*

<u>Item Addressing Participation in:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Processing referrals of students to special education	0-1	.9	.5	2.2	1.1	.65	.43	.72
2 Attending placement meetings for special education students	0-1	.9	.3	1.9	1.4	.45	.38	.80
3 Screening students for special education programs	0-1	.6	.5	2.3	1.0	.70	.50	.69
4 Assessing students for special education programs	0-1	.7	.5	2.1	1.1	.68	.47	.70

\* Statistics for index: Mean, 2.8; variance, 1.9; standard deviation (SD), 1.4; number of variables, 4; range, 0-4; alpha, .79; cases, 1,039.

- High participation--Teachers had participated in four of the assessment processes.

### Indices of Opportunity To Participate in Assessment and of Role in Assessment

We developed two indices using the same structure and items similar to those used in the participation in assessment index. These indices measured special education teachers' opinions about their opportunity to participate in assessment processes and their opinions about whether they should participate in those processes. The range and scoring patterns for these two indices were exactly the same as those used in the participation in assessment index. Tables 30 and 31 provide item and index statistics for the two indices.

### Indices Based on Items in the Questionnaire for Parents

#### Familiarity with Special Education Criteria, Procedures, and Parents' Rights: The Familiarity Index

To measure parents' familiarity with special education criteria, procedures, and parents' rights, we developed a parent familiarity index. This familiarity index was based on reported familiarity based on the following items from the parent survey questionnaire:

- Identification and placement of students in special education programs.
- IEPs.
- Parents' rights.
- Referral of students to special education programs.
- Assessment of students for special education programs.
- Placement of students in special education programs.
- Public Law 94-142.
- The California State Master Plan for Special Education (AB 1250).

Parents could respond that they were "not familiar" (0 points), "somewhat familiar" (1 point), or "very familiar" (2 points) with these items. The sum of these eight item scores yielded index scores that ranged from 0 to 16 points. Item statistics are provided in Table 32.

At best, a parent with 3 points on the index would have responded not familiar to five of the eight items and somewhat familiar to three items. Scores of 8 points and above defined a score range in which parents demonstrated at least some familiarity with all items, considerable familiarity with at least half of the items, or a combination of the somewhat and very familiar responses for five or more of the items. We considered a parent score of 8 or more as demonstrating an acceptable degree of parent

Table 30

STATISTICS ON INDEX OF SPECIAL EDUCATION TEACHERS'  
OPPORTUNITY TO PARTICIPATE IN ASSESSMENT\*

<u>Item Addressing Opportunity to:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Process referrals of students to special education	0-1	.7	.5	2.2	1.1	.65	.42	.72
2 Attend placement meetings for special education students	0-1	.9	.3	2.0	1.4	.41	.37	.80
3 Screen students for special education programs	0-1	.6	.5	2.3	1.0	.70	.52	.69
4 Assess students for special education programs	0-1	.7	.5	2.2	1.0	.70	.50	.70

\* Statistics for index: Mean, 2.9; variance, 1.9; standard deviation (SD), 1.4; number of variables, 4; range, 0-4, alpha, .79; cases, 1,039.

Table 31

STATISTICS ON INDEX OF SPECIAL EDUCATION TEACHERS'  
ROLE IN ASSESSMENT\*

	<u>Item Addressing Whether Teacher Should:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
					<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
	1 Process referrals of students to special education	0-1	.8	.4	2.6	.5	.58	.34	.60
	2 Attend placement meeting for special education students	0-1	.9	.2	2.5	.8	.37	.27	.74
53	3 Screen students for special education programs	0-1	.8	.4	2.7	.5	.63	.39	.58
	4 Assess students for special education programs	0-1	.9	.4	2.6	.5	.60	.38	.60

\* Statistics for index: Mean, 3.5; variance, 1.0; standard deviation (SD), 1.0; number of variables, 4; range, 0-4; alpha, .70; cases, 1,039.

Table 32

## STATISTICS ON INDEX OF PARENTS' FAMILIARITY WITH SPECIAL EDUCATION\*

<u>Item Addressing Familiarity with:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Identification and placement of students in special education programs	0-2	.75	.69	4.9	15.8	.76	.59	.91
2 IEP	0-2	.70	.75	5.0	16.1	.70	.50	.91
3 Parents' rights	0-2	.87	.75	4.9	15.5	.75	.58	.91
4 Referral of students to special education programs	0-2	.67	.71	5.1	15.6	.80	.68	.91
5 Assessment of students for special education programs	0-2	.70	.72	5.0	15.3	.82	.72	.91
6 Placement of students in special education programs	0-2	.75	.72	4.9	15.4	.82	.79	.91
7 PL 94-142	0-2	.65	.68	5.1	16.9	.55	.44	.92
8 AB 1250 (Master Plan)	0-2	.63	.67	5.1	16.8	.57	.46	.92

\* Statistics for index: Mean, 5.7; variance, 19.8; standard deviation (SD), 4.45; number of variables, 8; range, 0-16; alpha, .91; cases, 1,822.

reported familiarity. The remaining range, the range from 4 points to 7 points, was a middle range defining a questionable degree of familiarity. The percentages for this range are not reported but are readily obtainable because area percentage scores over the three score ranges add to 100%.

### Index of General Involvement in Special Education Programs

An index of general involvement was constructed using three items from the parent survey questionnaire. The items inquired about the parents' involvement in school activities during the 1978-79 school year that were not specific to their children's special education programs. Two of the items offered a "yes" or "no" response category and were scored with a yes as 1 point. These questions were:

- Have you or your husband/wife worked as a volunteer in any of your children's schools or classrooms this school year?
- During this school year, have you served as a classroom aide?

The third item was for the parents to describe their general level of involvement with their school or district during the school year as "not at all involved," "somewhat involved", or "greatly involved"; respective scores of 0, 1, and 2 points were assigned those responses. Table 33 provides the index statistics.

The sum of these items yielded a parent's general involvement index score. This score could vary over the range of 0 to 4 points. A score of 0 indicates no general involvement. Such a score would mean that the parent had not served as an aide or volunteer and had not been involved at all in school or district activities. A score of 2 points or more would indicate considerable involvement. We considered those scoring 2 points or above to have reported average involvement and above-average involvement, respectively, in general school or district activities.

### Index of Involvement in the Child's Special Education Program

To measure parents' participation in activities directly related to their child's special education program, we added the scores on seven items from the parent survey questionnaire to yield an index score. All seven items offered "no"/yes" responses that were scored with 0 or 1 point. The resultant index scores varied over a range of 0 to 7 points. The items in this index asked parents whether they had participated in:

- Referring their child for special education classes and services.
- Deciding educational goals and priorities for their child.
- Aiding in developing the instructional program for their child.
- Aiding in evaluating the child's progress.
- Contributing information regarding the child's educational, social, or physical needs.



Table 33

## STATISTICS ON INDEX OF GENERAL PARENT INVOLVEMENT\*

<u>Item Addressing Involvement:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Worked as a volunteer in any school	0-1	.3	.4	1.0	.6	.54	.32	.49
2 Participated as a classroom aide	0-1	.2	.4	1.1	.8	.44	.28	.58
3 General level of involvement in the school or district during the school year	0-2	.8	.6	.4	.5	.44	.24	.62

\* Statistics for index: Mean, 1.2; variance, 1.2; standard deviation (SD), 1.1; number of variables, 3; range, 0-4; alpha, .65; cases, 1,851.

- Being involved in developing an IEP for the child.
- Attending the child's placement or annual review.

We believed that, for any school year, the parent should at least report attending the placement meeting or annual review and report participating in one other activity. This would be expected minimal participation. A score of 3 points or greater would indicate more than minimal participation, with a score of 6 or 7 points indicating substantial parent contribution to the child's special education program.

Index statistics are provided in Table 34.

#### Index of Parents' Perception of School and District Effort

We combined eight items from the parent survey questionnaire to determine the degree to which parents believed the school district was making an effort to inform, involve, and educate them about special education programs and activities. The "no"/"yes" responses to these items were scored with 0 or 1 point, so index scores ranged from 0 to 8 points. The items asked parents whether the district:

- Informed them about parents' rights regarding special education.
- Provided information on special education services available in the district.
- Provided information on special education services available in the county.
- Informed them about community services available to special education students.
- Explained criteria for identifying and placing students in special education programs and services.
- Described special education programs and services provided during the 1978-79 school year.
- Encouraged parent involvement in special education programs.
- Offered parent workshops or meetings about special education during this school year.

Table 35 gives the index statistics relevant to this measure.

An index score of 0 to 3 indicated that the parents believed the district had done little to inform them about special education programs, criteria, and procedures. To score in this range, parents would have responded "no" to more than one-half of the items. A score of 6 points or more indicated that parents believed the district had made a considerable effort to provide them with information. This score range would include those responding affirmatively to 75% of the index items.

Table 34

STATISTICS ON INDEX OF GENERAL PARENT PARTICIPATION  
WITH THE CHILD'S  
SPECIAL EDUCATION PROGRAM

<u>Item Addressing Participation:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Referring child for special education services	0-1	.7	.4	4.2	3.2	.52	.32	.78
2 Deciding child's education goals and priorities	0-1	.8	.4	4.2	3.0	.70	.51	.75
3 Aiding in the child's education plan development	0-1	.6	.5	4.4	3.0	.60	.38	.77
4 Aiding in evaluating child's progress	0-1	.7	.5	4.3	3.1	.57	.35	.77
5 Contributing information about the child's education, social, physical needs	0-1	.9	.3	4.1	3.4	.55	.32	.78
6 Placement meeting or annual review	0-1	.9	.3	4.1	3.5	.46	.25	.79
7 IEP development during the year	0-1	.5	.5	4.5	3.2	.45	.25	.80

\* Statistics for index: Mean 5.0; variance, 4.2; standard deviation (SD), 2.1; number of variables, 7; range, 0-7; alpha, .80; cases, 1,523.

Table 35

## STATISTICS ON INDEX OF PARENTS' PERCEPTION OF SCHOOL AND DISTRICT EFFORT\*

Item Addressing Effort in:	Points	Mean	SD	Item Total Statistics				
				Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
1 Informing parents of their rights	0-1	.8	.4	4.9	5.9	.72	.54	.88
2 Informing parents about special education services available in the district	0-1	.7	.4	4.9	5.6	.82	.75	.87
3 Informing parents about services available in the county	0-1	.7	.5	5.0	5.6	.75	.73	.88
4 Informing parents about services available in the community	0-1	.6	.5	5.1	5.6	.75	.68	.88
5 Explaining identification and placement criteria	0-1	.7	.4	4.9	5.7	.78	.68	.87
6 Describing special education programs and services provided during the 1978-79 school year	0-1	.7	.4	4.9	6.1	.60	.40	.89
7 Encouraging parents to become involved in the child's program	0-1	.6	.5	5.0	6.1	.50	.30	.90
8 Offering workshops or parent meetings during the 1978-79 school year	0-1	.8	.4	4.9	6.2	.55	.35	.89

\* Statistics for index: Mean, 5.7; variance, 7.5; standard deviation (SD), 2.7; number of variables, 8; range, 0-8; alpha, .90; cases, 1,851.

## Index of Satisfaction with Special Education Processes and Personnel

To measure parent satisfaction with special education programs, processes, and personnel, we combined six items from the parent survey questionnaire to form the parent satisfaction index. The items were:

- How would you rate the effectiveness of the professionals in your school district who make decisions regarding your child's program?
- How would you rate the general education programs and services offered by your school district this school year?
- How would you rate your communication with school personnel involved in your child's special education program this school year?
- Do you agree or disagree with this statement: "If I had a problem with my child's special education program I feel confident that I could resolve it at the school or district level"?
- In your opinion, have the regular educational personnel at your child's school been willing to learn about and adapt to your child's educational needs?
- How well do you believe your child has been accepted by the regular teaching staff who provide services for your child?

All but one of the items were scored with the following four response categories:

- Poor, adequate, good
- Poor, average, above average
- Not cooperative, somewhat cooperative, very cooperative
- Poor, adequate, outstanding.

These three-level responses were scored with 0, 1, or 2 points, respectively. The item that was an exception to this three-level scoring scheme offered "agree" or "disagree" response categories that were scored with 0 or 1 point. Therefore, the sum of the score on these six items varied from 0 to 11 points. Table 36 provides statistics for the parent satisfaction index.

A score of 0 to 3 points would mean that a parent would rate, at best, 3 of the 11 items with the middle response choice for those items. We considered a parent who reported a score in this range to be dissatisfied. A score of 9 or more points would mean that the parent had chosen the extreme response category (outstanding, good, above average, etc.) for two to four of the six items and the middle response category for most of the remaining items. We considered a parent scoring in the range of 9 points or above to be very satisfied.

Table 36

## STATISTICS ON INDEX OF PARENT SATISFACTION\*

<u>Item Addressing Satisfaction with:</u>	<u>Points</u>	<u>Mean</u>	<u>SD</u>	<u>Item Total Statistics</u>				
				<u>Scale Mean if Item Deleted</u>	<u>Scale Variance if Item Deleted</u>	<u>Corrected Item Total Correlation</u>	<u>Squared Multiple Correlation</u>	<u>Alpha if Item Deleted</u>
1 Effectiveness of professional decisionmakers in the school district	0-2	1.5	.6	6.4	4.4	.65	.50	.77
2 General education programs and services	0-2	1.2	.6	6.7	4.8	.50	.45	.79
3 Communications with school personnel involved in the child's special education program	0-2	1.5	.7	6.4	4.6	.53	.30	.79
4 Solution of problems with the child's program at the school/district level	0-1	.7	.5	7.2	5.0	.53	.30	.79
5 Staff cooperation in learning and adapting to the child's special education needs	0-2	1.6	.6	6.3	4.6	.60	.40	.78
6 Regular teaching staff's acceptance of the child	0-2	1.3	.6	6.6	4.7	.50	.30	.79

\* Statistics for index: Mean, 7.9; variance, 5.9; standard deviation (SD), 2.4; number of variables, 6; range, 0-11; alpha, .77; cases, 1,831.



## PARENT AND TEACHER RESPONSE BIAS STUDY

### The Parent Response Bias Study (RBS)

To evaluate the meaning of the responses to our questionnaire for parents, we gathered additional data on parents that would help in evaluating the parent population that did not respond to the questionnaire. We were interested in how, if at all, the initial parent respondents differed from the sample of nonrespondents, that is, how a parent self-selection process could generate a response bias in the initial survey results. Of particular interest was how well informed the nonrespondents believed they were, how involved they were in general school activities, how satisfied they were with their school district's general education programs, and if they reported having a child currently participating in a special education program. This section that follows describes the data from the third follow-up survey of parents, the Parent Response Bias Study (RBS).

### Initial Survey Response Rates

The overall response rates to the initial parent survey questionnaire was 55%. At the elementary level, 57% (or 1,016 of the 1,780 parents sampled) returned completed questionnaires. At the secondary level, 53% (or 835 of the 1,580 parents sampled) returned completed questionnaires. The 14-page questionnaire was detailed, and its completion demanded considerable commitment on the part of the parent. Even so, more than half of the parents returned questionnaires. However, we wanted to examine data that could help us understand circumstances associated with a parent's nonresponse to the initial survey.

### The RBS Instrument

To gather more evidence about the nature of the nonrespondents, we mailed an abbreviated follow-up questionnaire to parents who did not return the initial survey instrument, shown in Exhibit A. This follow-up questionnaire was of simple design to encourage parents to complete and return it. It was a 1-page, self-addressed, stamped, fold-and-mail instrument.

### The RBS Response Rates

Table 37 provides the response rates to the parent follow-up questionnaire. Results are reported separately for MP and NMP elementary and secondary parents.



Exhibit A

PARENT RESPONSE BIAS INSTRUMENT

1. How would you rate the general education programs and services offered by your school district this school year?

Poor  
 Adequate  
 Outstanding

2. Which of the following best describes your general level of involvement with your school or district this school year?

Not at all involved  
 Somewhat involved  
 Greatly involved

3. Did your district or school provide you with any information regarding special education programs or services this school year?

No  
 Yes

4. Do you have any children in a special education program or receiving special education services this school year?

No  
 Yes

Please indicate the age(s) and grade level(s) of any of your children who are in special education:

Age(s) \_\_\_\_\_  
Grade level(s) \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ATENCION:**

Hace unas semanas SRI les envío un cuestionario para la evaluación del California Master Plan para Education Especial. Como hasta ahora no hemos recibido su respuesta, nos preocupa, que esto sea debido a que el cuestionario estaba escrito en Ingles.

Seria ud tan amable de tomar el tiempo y contestar las siguientes preguntas, así podremos saber la razor por la cual no recibimos su contestacion.

No conteste el cuestionario porque estaba escrito en Ingles.

Table 37

PARENT RESPONSE RATES TO THE  
RESPONSE BIAS STUDY QUESTIONNAIRE  
(Percent)

	Elementary (N=59)	Secondary (N=52)
MP rate	7.0	5.4
NMP rate	6.9	4.2
Overall rate	7.0	5.2

Response to the RBS was greater for MP parents and was greater at the elementary level. About 1 out of 14 nonrespondent parents at the elementary level and one 1 of 20 nonrespondent parents at the secondary level returned the follow-up instrument.

Comparison of Initial Survey and Bias Survey Results

Table 38 compares the RBS results for a parent involvement item with results for the identical item from the initial parent survey questionnaire. The overall percentages for the three response categories at the elementary and secondary level are fairly close. A slight tendency for RBS respondents to report greater general involvement was apparent. This tendency was also present in the scores at the MP and NMP levels. In general, the "not at all" response category was less popular among the RBS respondents.

The second RBS item results are documented in Table 39. This table shows percentage scores for parents' choice of three general education ratings: poor, adequate, outstanding. In general, the majority of RBS and initial survey responses were similar. However, percentage scores in the outstanding category differed. At the elementary level, the MP, NMP, and overall percentages from the initial sample were consistently higher than the RBS scores. This trend was also evident at the NMP level.

Table 40 presents the response percentages for the third follow-up questionnaire item concerning the provision of information by the district or school. At the secondary level, all scores were within 7 points of each other. At the elementary level, the overall percentages were close, but individual MP and NMP results differed by 10 points or more. The differences did not form a consistent pattern from MP to NMP areas. This variation is to be expected with the small numbers of respondents at this level.

Table 38

COMPARISON OF PARENTS' INVOLVEMENT  
AS DETERMINED FROM THE INITIAL QUESTIONNAIRE  
AND THE RESPONSE BIAS STUDY QUESTIONNAIRE  
(Category Percentage)

<u>Results</u>	<u>Elementary Level</u>		<u>Secondary Level</u>	
	<u>Initial Sample Results (N=999)</u>	<u>RBS Results (N= 59)</u>	<u>Initial Sample Results (N=816)</u>	<u>RBS Results (N= 52)</u>
Not at all	28	13	37	30
Somewhat	60	66	55	60
Greatly	12	21	8	10
Not at all	29	30	38	33
Somewhat	59	59	53	67
Greatly	12	11	9	0
Not at all	28	20	37	31
Somewhat	59	63	54	62
Greatly	12	17	9	8

Table 39

COMPARISON OF PARENTS' RATINGS OF PROGRAMS AND SERVICES  
AS DETERMINED FROM THE INITIAL QUESTIONNAIRE  
AND THE RESPONSE BIAS STUDY QUESTIONNAIRE  
(Category Percentages)

<u>Results</u>	<u>Elementary Level</u>		<u>Secondary Level</u>	
	<u>Initial Sample Results (N=990)</u>	<u>RBS Results (N= 59)</u>	<u>Initial Sample Results (N=804)</u>	<u>RBS Results (N= 52)</u>
Poor	7	16	11	10
Adequate	60	63	69	73
Outstanding	33	22	20	18
Poor	9	15	18	25
Adequate	65	74	62	67
Outstanding	26	11	20	8
Poor	8	15	13	13
Adequate	62	68	66	71
Outstanding	29	17	19	15

Table 40

COMPARISON OF PARENTS' RESPONSE TO ITEM  
 CONCERNING PROVISION OF INFORMATION  
 BY THE DISTRICT OR SCHOOL IN THE  
 INITIAL QUESTIONNAIRE AND THE  
 RESPONSE BIAS STUDY QUESTIONNAIRE  
 (Category Percentages)

<u>Response</u>	<u>Elementary Level</u>		<u>Secondary Level</u>	
	<u>Initial Sample Results (N=976)</u>	<u>RBS Results (N= 59)</u>	<u>Initial Sample Results (N=807)</u>	<u>RBS Results (N= 52)</u>
No	29	16	29	23
Yes	71	84	71	77
No	38	48	43	42
Yes	62	52	57	58
No	33	31	34	27
Yes	67	69	66	73

The last RBS item results, provided in Table 41, show the percentage of those parents who indicated that they had a child receiving special education services. One out of three (33%) secondary level RBS parents responded "no" to this item. The differential between RBS and initial survey results at this level varied from 13 to 17%, with the RBS results always considerably higher. At the elementary level, there is no such consistency apparent in scores and the overall percentages were identical.

### Conclusions and Implications

Fifty-nine parents returned the RBS instrument, and disparity was evident between their responses and those of parents who completed the initial questionnaire. Nonetheless, drawing conclusions about the nonrespondent population is not easy. In particular, percentages at the MP and NMP elementary and secondary levels are based on smaller numbers of respondents and hence, are less stable. Therefore, this discussion emphasizes overall percentage scores and consistent trends of score differences that appear throughout particular tables. On this basis, review of the parent RBS responses demonstrates that:

- Elementary parents in the initial survey were more laudatory when rating the general programs and services offered by the school district.
- A greater percentage of RBS respondents at the secondary level reported not having any children in a special education program or receiving special education services.
- In general, RBS and initial survey respondents did not differ in their feelings about the degree to which they were informed about or involved with special education programs and services.

The implications of these findings to the initial survey results are that:

- Those who returned a survey questionnaire at the secondary level were more likely to believe they had a child who was receiving special education services; also possible is that those in the sample who believed their child was not receiving special education services tended not to return the questionnaire.
- Most likely, respondents at the elementary level tended to be more satisfied in general than nonrespondents with the education their child was receiving.

The results from the parent RBS lead us to believe that the initial survey results are based on responses from those parents who knew they had children in the special education system and that those parents (at the elementary level) may well have been more satisfied with the education system than the overall target population. Certainly, the latter implication is supported by respondent parent satisfaction index scores. This interpretation of RBS results lends support to the assertion that the results from parents reported in Volume I may be more complimentary of MP and NMP special education programs than would have been the case if all of the sampled population had responded.

Table 41

COMPARISON OF PARENTS' RESPONSE TO ITEM ABOUT  
 THEIR CHILD'S RECEIPT OF SPECIAL EDUCATION SERVICES  
 IN THE INITIAL QUESTIONNAIRE  
 AND THE RESPONSE BIAS STUDY QUESTIONNAIRE  
 (Category Percentages)

<u>Response</u>	<u>Elementary Level</u>		<u>Secondary Level</u>	
	<u>Initial Sample Results (N=957)</u>	<u>RBS Results (N= 59)</u>	<u>Initial Sample Results (N=770)</u>	<u>RBS Results (N= 52)</u>
No	17	25	16	33
Yes	84	75	84	67
No	22	11	20	33
Yes	78	89	80	76
No	19	19	17	33
Yes	81	81	83	67

## The Teacher Response Bias Study

To evaluate the meaning of the responses to our questionnaires by special education and regular education teachers, we gathered data similar to those sought from the nonrespondent parent population. In the case of teachers, of particular interest was knowing whether the presence of special education students in the classroom was related to completion and return of the questionnaire. We also wanted to know if the respondents were more or less satisfied with procedures and practices than were the nonrespondents.

### Initial Survey Response Rates

The response rates for the initial teacher questionnaires were good. Even though the 17-page instrument required considerable time to complete, 77% of the special education teachers in the sample (1,730 teachers) and 53% of the regular education teachers (1,752 teachers) returned the questionnaires. These results are even better when one considers that in several areas where the population of teachers was small, most or all of that population was included in the sample. For such cases, a 60% response rate means that more than half the accessible population contributed to the sample data. In such cases, for conclusions directed to the majority of the area's populations, the question of response bias would not be important. However, for the other areas, the consideration of response bias and its effects on findings must be considered in interpreting findings.

### The RBS Instrument

To gather more information on the nature of the nonrespondents, we mailed an abbreviated follow-up questionnaire to teachers who did not return the initial survey instrument. That questionnaire was of simple design to encourage its completion and return; it was a 1-page, self-addressed, stamped, fold-and-mail instrument containing five questions. A copy of this questionnaire is provided in Exhibit B.

### The RBS Response Rates

Table 42 shows the response rates for the follow-up questionnaire. Results are reported separately for elementary and secondary levels, for both special education elementary and regular education teachers. The first column shows that 15.3% of the MP regular elementary teachers, or 64 teachers, who did not return the initial questionnaire responded to the abbreviated survey. Overall, 13.8% of the MP and NMP regular elementary teachers, or 90 teachers, returned the short follow-up questionnaire.



Exhibit B

TEACHER RESPONSE BIAS INSTRUMENT

1. Your position:

- Special Education teacher/DIS
- Regular classroom teacher
- Other \_\_\_\_\_ (specify)

2. What grade level(s) are you teaching this year?

\_\_\_\_\_ Grade(s)

3. If you are a regular classroom teacher, do you have any identified special education students in your classroom for either all or part of the school day?

- Yes
- No

4. If you are a special education teacher, what is your position this school year? (Circle as many as apply)

- 1 Special Class Teacher
- 2 Resource Specialist
- 3 Resource Room Teacher
- 4 Speech and Language Therapist
- 5 Itinerant Consulting Teacher
- 6 Counselor
- 7 Vocational Education Teacher
- 8 Diagnostician
- 11 Learning Disability Group Teacher
- 99 Other (Please specify): \_\_\_\_\_

5. If you have been involved in any of the following special education procedures and practices this year, please indicate how well you think they have worked for you. (Please circle one answer for each procedure/practice)

<u>Procedures/Practices</u>	<u>Not Well</u>	<u>All Right</u>	<u>Very Well</u>	<u>Not Involved</u>
a Identification procedures.	1	2	3	0
b Placement procedures.....	1	2	3	0
c Development of IEPs.....	1	2	3	0
d Implementation of IEPs....	1	2	3	0
e Informing parents of their rights .....	1	2	3	0
f Integration of special.... education students into regular classroom.	1	2	3	0

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Table 42

## RESPONSE RATES FOR THE TEACHER RESPONSE BIAS STUDY QUESTIONNAIRE

	Regular Education Teachers				Special Education Teachers			
	Elementary		Secondary		Elementary		Secondary	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Master Plan	15.3	64	19.0	78	14.4	34	20.6	21
Non-Master Plan	<u>10.4</u>	<u>26</u>	<u>13.1</u>	<u>33</u>	<u>26.8</u>	<u>22</u>	<u>17.7</u>	<u>10</u>
Total	13.8	90	17.2	111	18.0	56	19.8	31

Response rates were usually higher for special education teachers than for regular education teachers. The lowest response rate was for NMP regular education elementary teachers (10.4%), and the highest rate was for NMP special education elementary teachers (26.8%)

Comparison of Initial Survey and Bias Survey Results

Table 43 compares the results from the initial survey with those of the RBS for the item asking whether teachers had any identified special education students in their classroom for either all or part of the day. A higher percentage of regular education teachers in the initial survey than in the RBS study reported having special education children in their classroom.

The initial and follow-up questionnaires asked regular education teachers who had been involved in special education practices and procedures to indicate how well these activities had worked for them. Results for this item are compared in Tables 44 and 45. Each table presents percentages for MP areas and NMP areas, as well as total MP and NMP response percentages.

For regular education elementary teachers (Table 44), initial sample results and bias study results in the not well, all right, and very well categories were usually within 6 percentage points of each other. A higher percentage of the RBS respondents left the question blank, whereas a higher percentage of the initial sample respondents checked the not involved category.

Table 43

PERCENTAGE OF REGULAR EDUCATION TEACHERS REPORTING  
SPECIAL EDUCATION STUDENTS IN THEIR CLASSROOM

	<u>Elementary Teachers</u>		<u>Secondary Teachers</u>	
	<u>Initial Survey Results</u>	<u>RBS Results</u>	<u>Initial Survey Results</u>	<u>RBS Results</u>
Master Plan	87	67	77	51
Non- Master Plan	76	69	76	41
Total	84	67	77	48

Table 44

COMPARISON OF REGULAR EDUCATION ELEMENTARY TEACHERS' ASSESSMENT OF  
EFFECTIVENESS OF SPECIAL EDUCATION PROCEDURES AND  
PRACTICES AS DETERMINED FROM THE INITIAL  
QUESTIONNAIRE AND THE RESPONSE BIAS STUDY QUESTIONNAIRE

(Percent)

<u>Procedures or Practices</u>	<u>Not Well</u>		<u>All Right</u>		<u>Very Well</u>		<u>Not Involved</u>		<u>Missing</u>	
	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>
<b>Master Plan Teachers</b>										
Identification procedures	3.9	7.8	28.3	23.4	26.4	25.0	21.4	20.3	20.0	23.4
Placement procedures	7.6	10.9	20.3	18.8	25.4	21.9	26.4	23.4	20.3	25.0
Development of IEPs	3.7	3.1	11.1	17.2	12.0	10.9	47.5	35.9	25.6	32.8
Implementation of IEPs	3.7	3.1	13.0	18.8	11.2	12.5	46.6	34.4	25.5	31.2
Informing parents of their rights	2.3	1.6	10.7	9.4	19.2	28.1	43.6	26.6	24.2	34.4
Integration of SPED students into the regular classroom	6.0	12.5	23.1	10.9	28.1	29.7	23.4	23.4	19.4	23.4
<b>Non-Master Plan Teachers</b>										
Identification procedures	7.6	7.6	27.5	19.2	13.4	19.2	29.8	15.4	21.8	38.5
Placement procedures	11.8	3.8	21.0	26.9	9.2	11.5	35.1	15.4	22.9	42.3
Development of IEPs	3.8	7.7	14.9	11.5	5.7	3.8	49.2	30.8	26.3	46.1
Implementation of IEPs	3.8	7.7	12.6	3.8	6.1	7.7	51.1	30.8	26.3	50.0
Informing parents of their rights	1.5	3.8	17.6	3.8	6.9	11.5	50.0	34.6	24.0	46.1
Integration of special education students into the regular classroom	6.9	3.1	21.4	7.7	18.3	19.2	31.7	19.2	21.8	50.0

Table 44

(concluded)

	<u>Not Well</u>		<u>All Right</u>		<u>Very Well</u>		<u>Not Involved</u>		<u>Missing</u>	
	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>
Total										
Identification procedures	5.0	7.8	28.0	22.0	22.6	23.3	23.8	18.9	20.6	27.8
Placement procedures	8.8	8.9	20.5	21.1	20.7	18.9	28.9	21.1	21.1	30.0
Development of IEPs	3.7	4.4	12.2	15.6	10.2	8.9	48.0	34.4	25.8	36.7
Implementation of IEPs	3.8	4.4	12.9	14.4	9.7	11.1	47.9	33.3	25.7	36.7
Informing parents of their rights	2.1	2.2	12.7	7.8	15.7	23.3	45.4	28.9	24.1	37.8
Integration of special education students into the regular classroom	6.3	10.0	22.6	10.0	25.2	26.7	25.8	22.2	20.1	31.1

Table 45

COMPARISON OF REGULAR EDUCATION SECONDARY TEACHERS' ASSESSMENT  
OF EFFECTIVENESS OF SPECIAL EDUCATION PROCEDURES AND  
PRACTICES AS DETERMINED FROM THE INITIAL QUESTIONNAIRE  
AND THE RESPONSE BIAS STUDY QUESTIONNAIRE  
(Percent).

<u>Procedures or Practices</u>	<u>Not Well</u>		<u>All Right</u>		<u>Very Well</u>		<u>Not Involved</u>		<u>Missing</u>	
	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>
<b>Master Plan teachers</b>										
Identification procedures	4.3	5.1	19.2	9.0	10.1	7.7	41.0	28.2	25.4	50.0
Placement procedures	3.6	2.6	10.4	10.3	6.7	7.7	45.8	29.5	33.4	50.0
Development of IEPs	3.3	1.3	4.5	5.1	3.3	0.0	54.2	37.2	34.7	56.4
Implementation of IEPs	3.5	1.3	4.5	5.1	2.9	0.0	53.7	37.2	35.4	56.4
Informing parents of their rights	2.9	3.8	4.7	3.8	2.9	3.8	54.9	34.6	34.5	53.8
Integration of special education students into the regular classroom	6.2	5.1	20.2	14.1	9.8	9.0	31.9	25.6	31.8	46.1
<b>Non-Master Plan teachers</b>										
Identification procedures	3.7	6.1	16.9	6.1	6.9	0.0	55.6	15.2	16.9	72.7
Placement procedures	2.0	3.0	6.5	6.1	6.5	0.0	47.1	18.2	37.8	72.7
Development of IEPs	2.4	0.0	3.3	3.0	3.3	0.0	52.4	27.3	38.6	69.7
Implementation of IEPs	3.7	0.0	4.1	3.0	2.0	0.0	51.6	27.3	38.6	69.7
Informing parents of their rights	1.2	0.0	3.7	0.0	3.2	0.0	52.4	27.3	39.4	72.7
Integration of special education students into the regular classroom	5.3	3.0	17.6	12.1	9.8	0.0	32.8	21.2	34.4	63.6

Table 45 (concluded)

	<u>Not Well</u>		<u>All Right</u>		<u>Very Well</u>		<u>Not Involved</u>		<u>Missing</u>	
	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>
<b>Total</b>										
Identification procedures	4.2	5.4	18.6	8.1	9.3	5.4	44.8	24.3	23.2	56.8
Placement procedures	3.1	2.7	9.2	9.0	6.7	5.4	46.2	26.1	34.7	56.8
Development of IEPs	3.0	0.9	4.1	4.5	3.3	0.0	53.7	34.2	35.8	60.4
Implementation of IEPs	3.5	0.9	4.4	4.5	2.7	0.0	53.1	34.2	36.4	60.4
Informing parents of their rights	2.4	2.7	4.4	2.7	3.0	2.7	54.2	32.4	36.0	59.5
Integration of special education students into the regular classroom	5.9	4.5	19.4	13.5	9.8	6.3	32.2	24.3	32.6	51.3

Sample results and RBS results show similar response patterns for the regular education secondary teachers (Table 45), with most percentages within 6% of one another. No response trends were evident for the response categories of not well, all right, and very well. However, once again, more respondents in the RBS study chose to leave items blank and fewer bias study respondents selected the not involved category.

Special education teachers' response patterns to this item are delineated in Table 46. MP and NMP response percentages in the not well category at both the elementary and secondary levels are fairly similar. The special education teacher responses did not differ much from those of regular education teachers. However, for the all right and very well categories, responses varied more. The overall total scores indicated that a higher percentage of the RBS respondents chose these two response categories, and RBS response percentages were smaller in the not involved and missing categories.

Clearly, in both surveys, the special education teachers were more laudatory than were regular classroom teachers when evaluating identification procedures, placement procedures, and the development of IEPs.

## Conclusions and Implications

### Regular Classroom Teachers

Of the regular education teachers contacted, 201 responded to the RBS questionnaire. This group comprised 15.5% (almost 1 out of 6) of those who had not responded to the initial survey. For these RBS respondents, 67% of the elementary teachers and 48% of the secondary teachers responded that they had special education students in their classrooms. These percentage scores were considerably lower than those from the initial survey. Also, the regular teachers' evaluation of the six procedures and practices reflected a hesitancy to render judgment, with many leaving blank responses to these items. However, RBS regular teachers did not check the not involved category very often. These results indicate only limited contact with special education students and lead us to believe that the nonrespondent teachers may have been involved only to a limited extent with the six procedures and practices.

The implications of the findings from the initial survey are that the chance may have been greater that the regular education teachers responding to the initial survey had special education students in their classes and that the teachers had greater involvement with special education procedures and practices. Given the nature of the questionnaire, this supposition is not surprising. Certainly, we wanted to hear from regular teachers who were dealing with special education students in the classroom because these teachers were in the best position to provide us with answers to the questions asked. The RBS results do not indicate that disgruntled teachers, who believed practices were not working well, were those who failed to respond in the initial survey. On the contrary, initial survey respondents seemed to have been more critical of special education programs and practices than were nonrespondents.



Table 46

COMPARISON OF SPECIAL EDUCATION TEACHERS' ASSESSMENT OF EFFECTIVENESS  
OF SPECIAL EDUCATION PROCEDURES AND PRACTICES AS DETERMINED  
FROM THE INITIAL QUESTIONNAIRE AND THE RESPONSE BIAS STUDY QUESTIONNAIRE  
ELEMENTARY AND SECONDARY TEACHERS

(Percent)

<u>Procedures or Practices</u>	<u>Not Well</u>		<u>All Right</u>		<u>Very Well</u>		<u>Not Involved</u>		<u>Missing</u>	
	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>
<b>Master Plan elementary teachers</b>										
Identification procedures	3.7	6.1	24.0	30.3	36.4	54.5	23.9	6.1	12.0	3.0
Placement procedures	7.4	12.1	24.5	48.5	42.7	33.3	14.7	3.0	10.7	3.0
Development of IEPs	4.4	3.0	31.1	36.4	56.0	60.6	2.0	0.0	6.5	0.0
<b>Non-Master Plan elementary teachers</b>										
Identification procedures	3.7	9.1	21.5	40.9	26.2	22.7	35.2	18.2	13.4	9.1
Placement procedures	7.8	13.6	32.4	50.0	32.7	22.7	15.9	4.5	11.1	9.1
Development of IEPs	5.3	0.0	36.1	31.8	51.1	63.6	2.5	0.0	5.0	4.5
<b>Total elementary teachers</b>										
Identification procedures	3.7	7.3	23.2	34.5	33.2	41.8	27.4	10.9	12.4	5.4
Placement procedures	7.5	12.7	26.9	49.1	39.6	29.1	15.1	3.6	10.9	5.4
Development of IEPs	4.7	1.8	32.7	34.5	54.5	61.8	2.1	0.0	6.0	1.8

Table 46 (concluded)

	<u>Not Well</u>		<u>All Right</u>		<u>Very Well</u>		<u>Not Involved</u>		<u>Missing</u>	
	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>	<u>Initial Sample Results</u>	<u>RBS Results</u>
<b>Master Plan secondary teachers</b>										
Identification procedures	4.2	4.8	29.5	38.1	28.3	23.8	25.9	19.0	12.1	14.3
Placement procedures	5.7	9.5	35.6	57.1	36.0	19.0	13.1	14.3	9.7	0.0
Development of IEPs	4.4	14.3	39.0	47.6	47.9	28.6	3.6	9.5	5.1	0.0
<b>Non-Master Plan secondary teachers</b>										
Identification procedures	2.9	0.0	27.6	20.0	17.8	30.0	41.4	10.0	10.3	40.0
Placement procedures	4.6	0.0	33.9	20.0	28.2	30.0	23.6	20.0	9.8	30.0
Development of IEPs	6.3	0.0	39.1	30.0	46.6	70.0	2.9	0.0	5.2	0.0
<b>Total secondary teachers</b>										
Identification procedures	3.9	3.2	29.0	32.3	25.6	25.8	30.0	16.1	11.7	22.6
Placement procedures	5.4	6.4	35.1	45.2	33.9	22.6	15.8	16.1	9.7	9.7
Development of IEPs	4.9	9.7	39.0	41.9	47.5	41.9	3.4	6.4	5.1	0.0

## Special Education Teachers

Eighty-seven special education teachers, about 19% (1 out of 5) of those who did not respond to the initial survey, responded to the follow-up RBS questionnaire. This was a remarkable return for this follow-up study. The RBS, which focused on the special education teachers' evaluation of identification, placement, and IEP procedures, revealed little tendency to leave the item blank or indicate the not involved response. Most responses were in the all right and very well special education categories. Usually, RBS respondents tended to be as laudatory or even more laudatory than the initial respondents. This was demonstrated particularly by the total percentages at the elementary level. Relative to the variables reviewed, the special education teacher RBS results did not indicate in any way that those special education teachers who failed to respond to the initial survey were different from those special education teachers who did respond to the initial survey.

## The Standard Errors for Area Percentage Scores

The sampling plan provided for a stratified random sampling (SRS) scheme for both teachers and parents. Sampling frames were constructed for most of the areas of the study. Elementary and secondary school levels were used as the stratification variable. For those areas where establishing the necessary sampling frame was not possible, a cluster sampling routine (CSR) was used rather than the SRS strategy. Where a CSR was applied, schools were used as the clusters.

Because probability sampling techniques were used, we could calculate standard errors for sample percentage scores. These standard errors provide information to construct confidence intervals around sample percentage estimates. A predetermined alpha (the level of significance) can indicate the probability that the constructed interval may fail to capture the population parameter. The population parameter is the percentage value that would be obtained upon measuring all elements (teachers or parents) that constitute the area's population.

Standard errors were calculated for parent and teacher variables from all areas. Specifications were developed separately for SESRs that were a single district, SESRs that did not include a site visit district, and SESRs that did include a site visit district. The equations used for calculating these standard errors are documented below.

For SESRs with no site visit district and for all site visit districts, the equations were as follows:

$N_1$  = size of the elementary school population

$N_2$  = size of the secondary school population

$n_1$  = size of the elementary school sample with valid responses

$n_2$  = size of the secondary school sample with valid responses

$y_{ij}$  = observed value for the  $i$ th individual from the  $j$ th grade level (i.e., elementary, if  $j = 1$  and secondary if  $j = 2$ ).

$$\bar{y}_j = \left( \sum_i y_{ij} \right) / n_j \quad j = 1, 2$$

$$v_j = v(\bar{y}_j) = \left( 1 - \frac{n_j}{N_j} \right) \frac{\sum_i (y_{ij} - \bar{y}_j)^2}{n_j} = \left( 1 - \frac{n_j}{N_j} \right) \frac{1}{n_j} S_j^2$$

The standard error =  $\sqrt{v_j}$

$$\bar{y} = (N_1 \bar{y}_1 + N_2 \bar{y}_2) / (N_1 + N_2)$$

$$V(\bar{y}) = (N_1^2 v_1 + N_2^2 v_2) / (N_1 + N_2)^2$$

$$SE(\bar{y}) = \sqrt{V(\bar{y})}$$

Note that  $\bar{y}$  and  $V(\bar{y})$  can be calculated only for those variables that correspond to questions asked of both the elementary and secondary teachers.

The equations for an SESR that include a site visit district were as follows:

$N_1, N_2, n_1,$  and  $n_2$  are as previously defined for the site visit district.

$N_3, N_4, n_3,$  and  $n_4$  are the corresponding numbers for the remainder of the SESR (i.e., SESR without the site visit district).

$y_j, v_j$  are as defined in Eqs. (1) and (2), respectively, but  $j = 1, 2, 3, 4$ .

$$\bar{y}_p = (N_1 \bar{y}_1 + N_3 \bar{y}_3) / (N_1 + N_3) \quad (\text{mean for elementary level})$$

$$\bar{y}_s = (N_2 \bar{y}_2 + N_4 \bar{y}_4) / (N_2 + N_4) \quad (\text{mean for secondary level})$$

$$\bar{y} = \left( \sum_{i=1}^4 N_i \bar{y}_i \right) / \left( \sum_{i=1}^4 N_i \right) \quad (\text{overall mean})$$

$$v_p = (N_1^2 v_1 + N_3^2 v_3) / (N_1 + N_3)^2$$

$$v_s = (N_2^2 v_2 + N_4^2 v_4) / (N_2 + N_4)^2$$

$$v = (\sum_{i=1}^4 N_i^2 v_i) / (\sum_{i=1}^4 N_i)^2$$

The determination of a confidence interval for a particular variable depends on several factors: the variation of that variable in the area's sample, the size of the respondent sample from the area, and the size of the area's accessible populations. These three factors work together to yield unique standard errors for each variable in any given area. Therefore, to delineate the full extent of variation in the standard errors for variable percentage estimates, tables for each variable of interest would have to be constructed for each area--resulting in an excessive number of tables. Given that our purpose in reporting standard errors is to provide an overall estimate of the stability of sample results, a comprehensive delineation, as described above, does not seem reasonable.

Therefore, to present standard errors for items in a manner that is comprehensible yet not overwhelming, we have constructed Tables 47 through 52, which contain standard errors for particular groupings of parent and teacher variables. The standard errors reported in each table are the averages for the calculated standard errors that fall into any given 10-point percentage range. In some cases, the reported distribution of average standard errors for an area have been smoothed to yield a unimodal distribution. If an area had no percentage scores in a particular percentage range, we extrapolated estimated averages of standard errors to present a complete table.

Table 47

AVERAGE STANDARD ERRORS FOR ALL REGULAR  
EDUCATION TEACHERS' PERCENTAGE SCORES\*  
(Except Regular Education Teacher Index Scores)  
(Percent)

Area	Standard Errors for Observed Percentage Score Ranges									
	0- 9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-99.9
1	3.6	5.4	6.6	7.0	7.5	7.6	7.3	6.9	6.0	2.2
2	4.6	7.8	10.1	11.6	12.8	12.2	10.3	8.9	7.1	2.6
3	3.5	5.0	7.0	8.1	8.3	8.2	7.5	6.7	5.2	.7
4	3.1	5.8	7.0	7.7	8.3	8.3	7.7	7.0	5.5	1.5
5	2.9	4.7	5.8	6.4	6.7	7.0	7.5	7.9	5.2	1.8
6	3.4	6.7	7.5	8.1	9.2	10.2	11.3	9.6	7.0	1.4
7 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--
8	3.7	5.7	7.5	8.2	8.8	8.7	8.5	8.2	6.4	2.4
9	3.2	5.5	5.6	6.9	7.5	7.3	7.0	5.9	4.8	2.1
10	3.1	5.3	6.6	7.6	7.9	8.9	7.9	6.2	4.0	1.5
11	3.3	5.3	6.6	7.1	7.5	8.1	7.8	7.1	5.0	1.5
12	2.4	4.8	5.6	6.2	6.6	6.7	6.7	6.3	5.2	1.6
13	2.8	4.8	5.9	6.7	6.9	7.5	8.3	6.8	5.8	.5
14	3.6	5.1	6.5	7.5	8.3	7.9	7.5	7.0	6.1	2.6
15	3.4	5.1	6.7	7.8	8.2	8.5	8.0	6.7	5.8	3.1
16	2.9	5.1	6.4	7.8	7.9	7.8	7.7	6.5	4.1	2.6
17	4.2	6.1	7.2	8.1	8.3	8.0	7.6	7.3	6.5	2.2
18	3.3	5.3	7.0	7.6	8.1	8.5	8.4	8.1	6.8	1.5
19	4.0	5.1	6.9	7.7	8.4	9.6	9.1	8.1	7.1	1.9
20	3.3	5.6	7.1	7.5	8.3	8.4	8.1	7.5	5.7	2.2
21	2.7	5.3	7.3	8.5	9.2	9.3	9.1	8.3	8.2	2.6
22	3.2	5.4	6.6	7.1	7.6	8.2	8.1	7.6	6.5	2.0
23	4.4	7.8	9.4	12.2	13.4	13.8	13.2	11.8	3.0	2.0
24	3.6	6.7	7.5	9.0	9.0	9.9	10.0	7.8	6.5	1.5
25	3.8	6.3	8.3	8.9	9.1	9.2	9.0	8.8	8.1	3.5

\* Averaged over all regular education teacher percentage scores reported in the particular score ranges, except for regular education teacher index scores. Reported standard error in each observed score range is a weighted average of elementary and secondary results.

+ Standard errors were not calculated for this area.

Table 48

AVERAGE STANDARD ERRORS FOR ALL REGULAR  
EDUCATION TEACHERS' INDEX PERCENTAGE SCORES\*  
(Percent)

Area	Standard Errors for Observed Percentage Score Ranges									
	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-99.9
1	3.0	4.5	5.7	6.4	7.0	6.7	6.3	5.7	4.5	3.0
2	2.8	4.7	5.9	6.2	6.4	7.0	6.8	6.2	4.7	2.5
3	2.9	4.3	5.5	6.0	7.0	6.4	6.1	5.5	4.7	3.1
4	2.9	4.8	6.3	6.4	6.5	7.0	6.5	5.9	5.1	3.1
5	2.9	4.5	5.3	5.7	5.9	6.3	6.2	5.3	4.5	3.0
6	2.7	5.0	5.9	6.4	7.4	6.9	6.4	5.1	4.8	2.7
7	2.9	4.3	5.5	5.9	6.0	7.2	7.0	6.0	4.6	3.0
8	3.0	5.1	6.1	6.2	7.0	6.4	6.2	5.8	4.9	3.0
9	2.5	4.0	4.8	5.5	6.5	6.5	6.1	4.6	4.0	2.5
10	2.3	4.4	5.7	6.2	6.3	6.1	6.0	5.1	4.4	3.0
11	2.9	4.4	5.7	6.2	6.5	7.0	5.7	5.1	4.6	3.2
12	2.6	4.2	4.6	5.2	5.7	6.4	5.5	4.8	4.1	2.6
13	2.7	3.6	4.4	5.0	6.5	6.1	5.8	4.7	3.3	2.5
14	3.5	4.7	5.7	6.3	6.4	6.2	6.1	6.0	5.0	3.9
15	2.4	4.7	5.8	6.2	6.6	6.4	5.9	5.3	4.6	4.0
16	2.9	4.3	5.5	5.9	6.4	6.5	6.3	6.2	5.0	4.0
17	3.5	5.2	5.9	6.5	6.8	7.5	6.8	6.7	5.8	4.2
18	2.7	5.1	5.7	6.4	7.0	7.0	6.4	5.9	5.1	3.0
19	3.3	4.7	5.8	6.7	6.9	6.5	6.4	5.5	4.5	3.3
20	2.9	4.8	5.6	5.8	6.8	7.6	6.1	5.6	4.5	3.2
21	3.4	5.1	5.9	6.5	7.4	6.3	6.0	5.8	5.1	4.0
22	2.7	4.2	4.5	5.9	7.4	6.2	5.9	5.3	4.9	3.5
23	3.9	5.8	7.0	7.7	8.0	7.8	7.0	6.2	5.8	4.8
24	2.6	4.9	6.3	6.7	7.4	6.9	6.7	6.5	5.2	4.3
25	2.4	4.1	5.3	6.6	7.2	6.7	6.4	5.2	4.0	2.8

\* Average over all regular teacher index percentage scores reported in the particular score range. Reported standard error in each observed score range is a weighted average of elementary and secondary results.

Table 49

AVERAGE STANDARD ERRORS FOR ALL SPECIAL  
EDUCATION TEACHERS'S PERCENTAGE SCORES\*

Not Including Index Scores  
(Percent)

Area	Standard Errors for Observed Percentage Score Ranges									
	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-99.9
1	3.3	4.9	5.3	5.4	5.9	7.0	5.9	5.8	5.3	4.5
2	3.3	5.0	6.1	7.0	7.2	7.5	7.0	6.2	5.0	4.0
3	2.2	3.9	4.9	5.4	5.6	5.7	5.6	5.4	4.9	3.9
4	2.3	4.0	4.8	5.5	5.6	5.8	5.6	5.5	4.8	4.0
5	2.3	4.3	5.5	5.6	5.7	5.8	6.0	4.7	4.3	3.0
6	4.0	5.5	7.1	7.7	7.9	8.1	7.8	7.0	5.2	4.2
7 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--
8	1.9	4.0	5.2	5.4	6.2	6.3	5.7	5.6	5.0	4.0
9	2.1	3.9	5.0	5.4	5.6	6.1	5.7	5.4	5.0	3.9
10	2.6	4.5	5.0	5.4	5.6	6.7	6.6	5.5	5.0	4.5
11	3.9	5.3	5.5	6.1	7.0	8.4	6.5	6.4	5.5	4.7
12	2.2	4.2	5.3	5.4	5.5	6.4	6.0	5.0	4.0	3.0
13	1.8	4.2	4.5	5.0	5.1	6.5	6.3	5.3	4.5	4.0
14	3.9	4.5	5.9	6.1	6.2	7.1	7.5	6.6	6.0	4.4
15	2.0	3.7	5.0	5.3	5.4	5.7	5.6	5.5	5.0	3.7
16	1.5	5.0	5.2	5.3	5.5	6.5	7.3	6.0	5.1	4.0
17	4.0	5.6	6.0	7.5	7.7	7.9	8.7	6.5	5.6	4.0
18	2.3	3.9	4.5	5.0	6.8	6.2	5.4	5.2	4.9	4.0
19	3.4	5.1	5.2	5.5	5.8	6.0	7.4	6.9	5.5	4.8
20	3.2	4.0	5.2	5.4	5.6	6.0	6.8	4.3	4.0	3.2
21	5.4	6.2	6.3	6.4	6.7	8.5	9.0	8.7	6.8	6.0
22	3.3	4.0	4.9	5.0	5.4	6.4	6.0	5.3	4.8	4.0
23	3.1	4.3	5.3	5.4	5.6	5.7	6.9	5.6	5.3	4.5
24	2.7	4.6	5.5	6.0	6.7	6.9	6.6	6.0	5.7	4.9
25 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--

\* Averaged over all special education teacher single-variables percentage scores reported in a particular score range. Reported standard error in each observed score range is a weighted average of elementary and secondary results.

<sup>+</sup> Standard errors were not calculated for this area.



Table 50

AVERAGE STANDARD ERRORS FOR ALL SPECIAL  
EDUCATION TEACHERS' INDEX PERCENTAGE SCORES\*  
(Percent)

Area	Standard Errors for Observed Percentage Score Ranges									
	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-99.9
1	3.0	3.9	5.0	5.2	5.4	5.5	5.7	5.4	3.9	3.0
2	3.6	4.0	4.7	5.0	5.4	5.7	5.4	4.8	3.5	3.2
3	2.6	3.8	4.5	4.9	5.0	5.1	5.3	4.8	3.9	2.8
4	1.4	3.7	5.1	5.5	5.7	5.3	5.1	5.0	3.9	2.0
5	2.1	3.5	4.7	5.4	5.8	5.4	5.2	3.5	2.4	2.3
6	3.1	5.8	7.1	7.5	7.6	8.5	7.7	7.2	5.6	3.4
7 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--
8	3.0	3.7	4.5	5.1	5.3	5.8	5.2	4.8	3.8	3.1
9	1.4	3.7	5.0	5.3	5.6	5.7	5.8	5.4	3.7	2.0
10	2.5	4.0	5.0	5.1	5.2	5.3	6.0	5.4	4.2	3.0
11	2.1	4.6	5.4	5.5	5.7	6.2	5.4	4.6	4.0	3.0
12	2.2	3.8	5.0	5.4	5.6	5.8	5.6	5.2	4.2	3.0
13	1.2	4.0	4.1	4.6	4.9	5.0	4.8	4.7	4.1	3.5
14	2.8	4.4	5.2	5.3	5.8	6.0	5.0	4.7	4.6	3.7
15	1.1	3.6	4.8	5.1	5.2	5.5	5.2	5.1	4.8	3.5
16	2.1	4.0	4.5	4.9	5.0	5.2	6.0	5.0	4.5	4.0
17	3.0	4.9	7.0	7.2	7.6	8.0	7.3	7.2	4.2	3.5
18	2.3	3.9	4.3	4.8	4.9	5.4	5.1	5.0	4.8	4.3
19	2.6	4.3	5.1	5.2	5.5	5.6	6.0	5.9	5.2	4.3
20	1.8	4.6	4.8	5.3	5.6	5.7	5.4	5.2	4.8	4.0
21	2.6	4.6	5.4	6.6	6.8	6.3	6.2	5.8	4.8	3.0
22	2.2	3.7	4.4	4.5	4.6	5.4	5.2	5.0	3.4	2.4
23	2.4	4.4	5.0	5.4	6.0	5.3	5.2	5.0	4.4	2.5
24	2.4	3.8	5.2	6.0	6.1	5.8	5.7	5.6	3.8	2.5
25 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--

\* Averaged over all special education teacher index reported in the particular score range. Reported standard error in each observed score range is a weighted average of elementary and secondary results.

<sup>+</sup> Standard errors were not calculated for this area.

Table 51

AVERAGE STANDARD ERRORS FOR ALL PARENTS' PERCENTAGE SCORES\*  
Not Including Index Scores  
(Percent)

Area	Standard Errors for Observed Percentage Score Ranges									
	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-99.9
1	2.7	4.1	5.0	5.4	6.1	5.7	5.4	5.1	4.5	3.1
2	2.7	5.1	6.2	6.8	7.1	7.3	6.6	6.0	5.0	4.1
3 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--
4	2.8	4.8	5.9	6.4	7.0	6.8	6.4	6.2	5.3	4.5
5 <sup>‡</sup>	--	--	--	--	--	--	--	--	--	--
6 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--
7	2.7	4.4	5.5	6.2	6.5	6.4	6.1	5.4	4.2	3.0
8	2.8	4.3	5.4	6.0	6.4	6.2	6.1	5.8	5.0	4.0
9	3.0	4.9	6.0	6.8	6.9	7.0	6.9	6.0	5.0	3.9
10	2.7	4.4	4.5	6.2	6.5	6.1	5.9	5.2	4.2	3.5
11	3.1	4.6	5.7	6.2	6.6	6.5	6.0	5.6	5.1	4.5
12	2.6	4.6	5.3	6.1	6.3	6.4	6.1	5.6	4.4	3.8
13	2.5	4.9	5.4	6.2	6.3	6.4	6.5	5.5	5.4	4.9
14	2.5	3.9	4.9	5.7	6.1	5.9	5.7	5.4	4.6	3.6
15	3.2	4.6	5.6	6.0	6.3	6.6	6.0	5.9	4.0	3.5
16	1.9	4.6	5.6	6.2	6.4	6.6	6.1	5.5	4.4	3.0
17	2.6	4.3	5.4	5.9	6.3	6.6	6.4	6.0	4.7	3.3
18	3.2	5.8	6.6	7.6	7.7	8.0	7.9	6.6	6.3	4.0
19	4.1	4.7	5.4	6.5	7.0	7.1	6.5	6.4	5.0	4.5
20 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--
21	3.4	4.3	5.2	5.9	6.1	6.2	5.7	5.2	5.0	4.3
22	3.0	4.9	5.9	6.3	6.9	6.7	6.4	6.0	5.0	3.7
23	3.6	4.2	5.4	6.3	6.4	6.6	6.5	5.4	4.5	3.7
24	1.9	4.5	5.5	6.1	7.3	6.5	6.4	6.2	5.8	4.7
25 <sup>‡</sup>	--	--	--	--	--	--	--	--	--	--

\* Averaged over all parent percentage scores reported in the particular score range. Reported standard error in each observed score range is a weighted average of elementary and secondary results.

+ No parent data were collected for this area.

‡ Standard errors were not calculated for this area.

Table 52

AVERAGE STANDARD ERRORS FOR ALL PARENTS' INDEX SCORES\*  
(Percent)

Area	Standard Errors for Observed Percentage Score Ranges									
	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-99.9
1	4.0	4.7	6.0	6.4	6.7	6.8	7.0	6.9	6.4	6.0
2	3.8	6.8	9.4	9.5	9.6	9.1	8.5	8.4	8.1	7.0
3 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--
4	3.8	8.8	9.1	9.4	9.5	9.5	9.4	9.1	8.8	3.8
5 <sup>†</sup>	--	--	--	--	--	--	--	--	--	--
6 <sup>+</sup>	--	--	--	--	--	--	--	--	--	--
7	4.9	5.6	6.7	7.8	8.0	8.5	9.0	8.0	7.0	6.0
8	2.7	6.6	6.8	7.5	7.7	7.7	7.5	6.8	6.6	3.0
9	3.8	4.9	7.9	8.0	9.0	9.3	9.0	8.9	7.9	5.0
10	4.4	6.0	7.6	8.2	9.0	9.1	8.6	8.2	6.0	4.5
11	3.6	6.2	7.1	7.7	8.1	8.5	8.6	8.0	7.1	6.2
12	4.2	7.9	8.0	8.1	8.9	9.3	9.3	8.1	7.5	6.5
13	4.7	6.8	8.0	8.4	9.5	9.0	8.4	8.0	6.8	5.0
14	5.0	6.2	6.7	7.0	7.5	7.8	7.5	7.0	6.7	6.2
15	2.9	6.0	7.3	8.0	9.0	9.5	9.2	9.0	8.0	7.0
16	3.4	5.2	6.6	7.3	7.4	8.0	9.4	8.2	7.6	6.4
17	6.6	7.0	8.6	8.9	9.5	10.1	7.6	7.0	6.0	5.0
18	4.0	7.2	8.4	8.6	9.6	9.3	7.8	7.2	6.5	4.5
19	4.0	6.7	7.7	8.3	9.0	9.5	9.0	8.3	7.7	6.7
20 <sup>†</sup>	--	--	--	--	--	--	--	--	--	--
21	3.2	6.3	7.1	7.2	8.0	8.1	9.0	8.1	7.2	6.3
22	4.7	6.6	7.4	8.2	8.4	9.0	8.7	8.6	7.4	6.6
23	5.0	6.8	7.4	9.1	9.5	8.5	7.4	6.8	6.2	5.0
24	5.0	6.7	7.0	7.4	7.5	8.2	8.4	7.5	7.0	6.7
25 <sup>†</sup>	--	--	--	--	--	--	--	--	--	--

\* Averaged over all parent index percentage scores reported in the particular score range. Reported standard error in each observed score range is a weighted average of elementary and secondary results.

<sup>+</sup> No parent data were collected for this area.

<sup>†</sup> Standard errors were not calculated for this area.

