



Analysis of Parent Survey Data Addressing

Part B SPP/APR Indicator #8

Bureau of Indian Education

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For the Bureau of Indian Education

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SECTION 1

EXECUTIVE SUMMARY

In accordance with federal reporting requirements mandated by the U.S. Department of Education, Office of Special Education Programs (OSEP) under the Individuals with Disabilities Education Act, the Bureau of Indian Education (BIE) must report annually on 20 performance indicators related to the provision of special education services to children ages 3-21. This report presents findings of a survey conducted by the BIE to address Indicator #8, the “percent of parents with a child receiving special education services who reported that schools facilitated parent involvement as a means of improving services and results for children with disabilities.”

The survey administered by the BIE consisted of a 25-item rating scale, the Schools’ Efforts to Partner with Parents Scale (SEPPS), developed and validated by the National Center for Special Education Accountability Monitoring (NCSEAM). Demographic items addressing the student’s race/ethnicity, grade, and primary exceptionality were also included. A total of 8,214 surveys were distributed to 173 sites; 4,285 surveys were returned from 156 sites for an overall response rate of 52.17%. The number of returned surveys exceeds the minimum number required for an adequate confidence level based on established survey sample guidelines (e.g., <http://www.surveysystem.com/sscalc.htm>). The data set submitted for analysis contained no personally identifiable information on the respondents.

Data from the rating scale were analyzed through the Rasch measurement framework. The analysis produces a measure for each survey respondent on a scale from 0 to 1,000. Each measure reflects the extent to which the parent indicated that schools facilitated that parent’s involvement. The measures of all respondents were averaged to yield a mean measure reflecting the overall performance of the BIE sites in regard to schools’ facilitation of parent involvement.

OSEP requires that states’ performance be reported as the *percent* of parents who report that schools facilitated their involvement. Deriving a percent from a continuous

distribution requires application of a standard, or cut-score. The BIE elected to apply the standard recommended by a nationally representative stakeholder group convened by NCSEAM. The recommended standard, established based on item content expressed in the scale, was operationalized as a measure of 600. Thus, the percent of parents who report that schools facilitated their involvement was calculated as the percent of parents with a measure of 600 or above on the SEPPS.

The following points represent the major findings related to Indicator #8.

1. BIE Mean Measure on the SEPPS

The BIE mean measure on the SEPPS is 591, with a standard deviation of 143. The standard error of the sample mean is 2.2. The 95% confidence interval for the sample mean is 586.4 – 595.0. This means that there is a 95% likelihood that the true value of the Bureau-level mean is within this range.

Descriptively, a mean measure of 591 indicates that schools are facilitating parent involvement in many ways. For example, approximately 94%-95% of parents of students receiving special education services at BIE sites agreed (with over 48% agreeing strongly or very strongly) with statements to the effect that teachers are available to speak with parents, parents are considered equal partners with teachers and other professionals in planning their child's program, and all of the parent's concerns and recommendations were documented on the IEP. In other respects, schools' facilitation of parent involvement is less consistent. Parents expressed weaker agreement – with approximately 87%-91% agreeing overall, and 39%-49% expressing strong or very strong agreement - with statements to the effect that teachers and administrators show sensitivity to the needs of students with disabilities, teachers and administrators seek out parent input, and schools explain what options parents have if they disagree with a decision of the school. In still other areas, schools have even greater room for improvement. Only 79%-84% of parents of students with disabilities at BIE sites agreed (and

only 34%-38% agreed strongly or very strongly) with statements to the effect that parents were given information about organizations that offer support for parents of students with disabilities, schools offer parents training about special education issues, and parents were given information on agencies that can assist with transition from school.

2. BIE Percent on Indicator #8

The percent of parents who reported that schools facilitated parent involvement, calculated as the percentage of respondents with a SEPPS measure at or above the adopted standard of 600, is 40%. The standard error of the sample percentage is 0.8%. The 95% confidence interval for the sample percentage is 38.7% - 41.7%. This means that there is a 95% likelihood that the true value of the Bureau percentage is between 38.7% and 41.7%.

Descriptively, a parent with a measure at or above 600 would have a very high likelihood (95% or greater) of having agreed with the item that calibrates at 600 (see Section 5 for an explanation of item calibrations, and Table 11 for SEPPS item calibration values). In other words, a parent with a measure of 600 would typically have expressed strong or very strong agreement with all the items having calibrations at or below 600, and would have expressed simple agreement with items having higher calibrations. Close to two-fifths of parents of students with disabilities served at BIE sites had measures high enough to support the claim that schools facilitate parent involvement at the level deemed desirable and appropriate by the BIE.

SECTION 2

METHOD

Federal Requirements

Lead Agencies under Part B of the Individuals with Disabilities Education Improvement Act (IDEA 2004) are currently required to report data annually addressing 20 key performance indicators. Each Lead Agency was required to submit a State Performance Plan (SPP) to OSEP detailing its plan to collect data addressing the 20 indicators, as well as baseline data and targets for each indicator. State-level performance on the indicator must be reported annually. Districts with an average daily membership (ADM) of 50,000 or more must be included in each year's data collection. Data addressing each district's performance on the indicator must be collected at least once in the 6-year period of the SPP.

Survey Administration

The surveys were printed double-sided on letter-size paper in English and included modified race and primary exceptionality demographic items. The survey also included the Paperwork Reduction Act Statement and OMB Control Number 1040-0001.

Each site was responsible for distributing surveys to all of their parents of students with disabilities. Site distribution methodologies included mailing surveys, sending surveys home with students, administering surveys during home visits, and handing out surveys at meetings/gatherings. Surveys were distributed in mid-March 2012. Sites were asked to return surveys by May 14, 2012. Once data collection efforts were concluded, sites shipped completed surveys directly to Piedra Data Services (PDS) for processing.

A total of 8,214 surveys were distributed to 173 sites; 4,285 surveys were returned from 156 sites for an overall response rate of 52.17%. The number of returned surveys exceeds the minimum number required for an adequate confidence level based on established survey sample guidelines (e.g., <http://www.surveysystem.com/sscalc.htm>).

Survey Instrument

The Schools' Efforts to Partner with Parents Scale (SEPPS) was developed by the National Center for Special Education Accountability Monitoring (NCSEAM) to provide states with a valid and reliable instrument for measuring the extent to which parents perceive that schools facilitate their involvement. Potential items to measure schools' facilitation of parent involvement, as well as other aspects of parents' involvement with and perceptions about special education services, were developed with substantial input from parents and other key stakeholders across the country. A full description of the development of the item content is available at www.accountabilitydata.org.

As part of its National Item Validation Study, NCSEAM collected data from a nationally representative sample of over 2,500 parents of children receiving special education services. Results of NCSEAM's data analyses supported the high reliability and validity of the SEPPS. Additionally, the study yielded a large bank of items that could be used to measure schools' facilitation of parent involvement. It was determined that a reliability of .90 or above could be achieved with 25 items. NCSEAM provided states with an appropriate 25-item set that represented the full range of available items.

Standard

The BIE elected to apply the standard recommended by NCSEAM as a way of deriving the percent to be reported on Indicator #8, based on the distribution of measures on the SEPPS.

To establish a recommended standard, NCSEAM convened a group of nationally representative stakeholders, including parents of children with disabilities, state directors of special education, state early intervention coordinators, district and program personnel, advocates, attorneys, and community representatives. Participants were invited to examine a

set of items from the SEPPS, laid out in their calibration order (see Table 11). The items towards the bottom of the scale, with lower calibrations, are items that parents tend to agree with most. The items towards the top of the scale, with higher calibrations, are items that parents tend to agree with least. Because of the robust structure of the scale, a parent who agrees with a given statement will have a very high likelihood of agreeing, or agreeing even more strongly, with all the items below it on the scale.

The consensus of the stakeholder group was that schools could only be said to have adequately facilitated parent involvement if parents agreed with all the items on the scale up to, and including, the item, “The school explains what options parents have if they disagree with a decision of the school.” The metric of the SEPPS is such that to achieve this level of agreement, parents would have to have a measure of 600 or above. Thus, states adopting the recommended standard would calculate their percentage on Indicator #8 as the percent of parents with measures at or above 600 on the SEPPS.

SECTION 3

CHARACTERISTICS OF THE SAMPLE

This section describes characteristics of the obtained sample of 4,285 survey respondents. Table 1 presents the distribution of the sample by racial/ethnic group. As expected, the overwhelming majority of respondents identified themselves as American Indian/Alaskan Native.

Table 1. Distribution of Race/Ethnicity in the Sample		
Race/Ethnicity	N	Percentage*
American Indian or Alaskan Native	3,702	86%
Black/African American	6	<1%
Native Hawaiian or other Pacific Islander	167	4%
White	29	<1%
Hispanic	158	4%
Multi-racial/More than one race	136	3%
Missing	87	2%

Table 2 presents the distribution of the sample by students' grade level.

Table 2. Distribution of Grade Level in the Sample		
Grade Level	N	Percentage*
Pre-Kindergarten	18	<1%
Kindergarten – Grade 5	2,269	53%
Grades 6 – 8	1,046	24%
Grades 9 – 12+	863	20%
Missing	89	2%

* Percentages have been rounded and may not sum to exactly 100%.

Table 3 presents the distribution of the sample by students' primary exceptionality.

Table 3. Distribution of Primary Exceptionality in the Sample		
Primary Exceptionality	N	Percentage*
Autism	79	2%
Deaf Blindness	4	<1%
Deafness	8	<1%
Developmental Delay	292	7%
Emotional Disturbance	114	3%
Hearing Impairment	29	<1%
Mental Retardation	128	3%
Multiple Disabilities	75	2%
Orthopedic	10	<1%
Other Health	273	6%
Specific Learning Disability	1,569	37%
Speech or Language Impairment	829	19%
Traumatic Brain Injury	15	<1%
Visual Impairment	22	<1%
More than one disability	392	9%
Missing	446	10%

* Percentages have been rounded and may not sum to exactly 100%.

SECTION 4

RESULTS PERTAINING TO MEASURES ON THE SEPPS AND BIE

SITES' PERFORMANCE ON INDICATOR #8

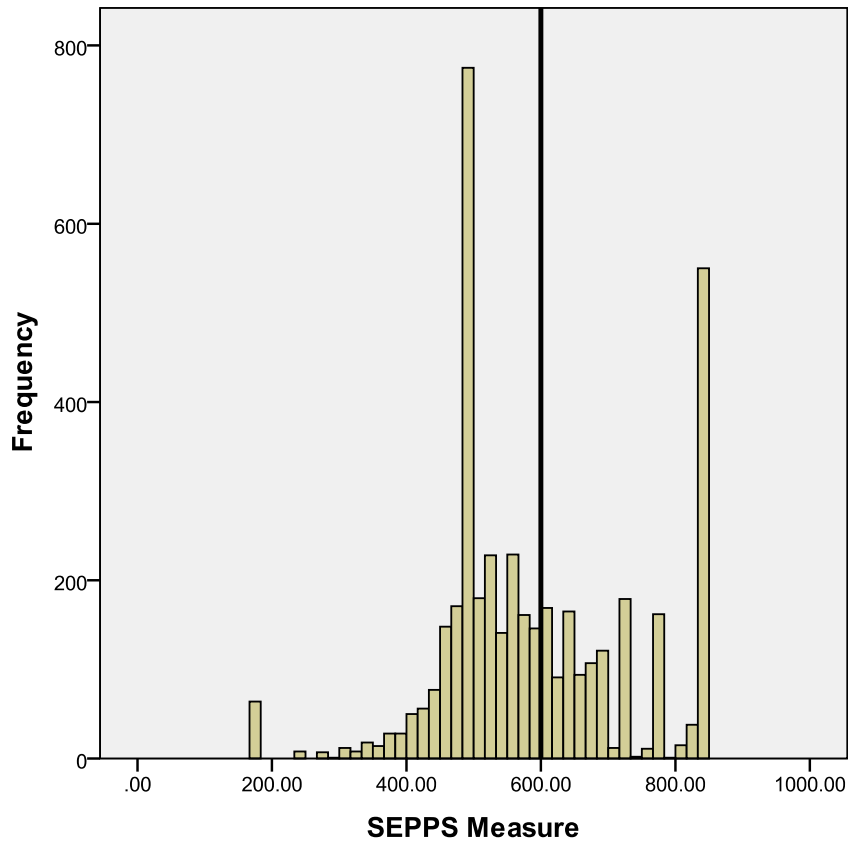
4.1. Distribution of the SEPPS Measures

The results described in this section are based on the 4,285 respondents 4,267 of whom provided sufficient data to estimate a measure on the SEPPS. The properties of the distribution of SEPPS measures for the sample of 4,267 respondents are shown in Table 4 below. The sample mean was 591. The standard deviation of measures was 143, indicating that the average distance of measures from the mean measure was 143 units. The standard error of the sample mean, that is, the expected error of the sample mean in estimating the true population mean for BIE sites, was 2.2. The 95% confidence interval for the true population mean for BIE sites extended from 586.4 to 595.0, indicating that we are 95% confident that the true population mean for parents of students served at BIE sites lies somewhere in the range of 586.4 to 595.0.

Table 4. Properties of SEPPS Measures			
Sample Mean	Standard Deviation	Standard Error of the Sample Mean	95% Confidence Interval for the Population Mean
591	143	2.2	586.4 to 595.0

The distribution of SEPPS measures obtained for the 4,267 respondents is shown in Figure 1. Each bar represents the number of respondents who had a measure at a particular value. The black line corresponds to a measure of 600, applied as the standard. As seen in the graph, most parents had measures below the standard value of 600.

Figure 1. Distribution of SEPPS Measures



The distribution of measures approximates a normal distribution, with the exception of an unexpectedly high number of respondents with measures at the positive end of the scale (represented by the high bars at the extreme right and left of the graph) and at the measure of 500. Respondents at the far right of the graph responded in the “very strongly agree” category to each and every item. Individuals that had SEEPS scores of roughly 500 answered “agree” to every item. When individuals fail to make any distinction among items that are known to have different levels of agreeability, they are said to display a “response set,” that is, a uniform way of responding that makes it hard to judge whether the responses are authentic or are, in effect, a way of complying with the task that does not really provide useful information. This phenomenon should be taken into consideration when interpreting the findings.

4.2. Interpretation of the Mean SEPPS Measure

Descriptively, a mean measure of 591 indicates that schools are facilitating parent involvement in many ways. For example, approximately 94%-95% of parents of students receiving special education services at BIE sites agreed (with over 48% agreeing strongly or very strongly) with statements to the effect that teachers are available to speak with parents, parents are considered equal partners with teachers and other professionals in planning their child's program, and all of the parent's concerns and recommendations were documented on the IEP.

In other respects, schools' facilitation of parent involvement is less consistent. Parents expressed weaker agreement – with approximately 87%-91% agreeing overall, and 39%-49% expressing strong or very strong agreement - with statements to the effect that teachers and administrators show sensitivity to the needs of students with disabilities, teachers and administrators seek out parent input, and schools explain what options parents have if they disagree with a decision of the school.

In still other areas, schools have even greater room for improvement. Only 79%-84% of parents of students with disabilities at BIE sites agreed (and only 34%-38% agreed strongly or very strongly) with statements to the effect that parents were given information about organizations that offer support for parents of students with disabilities, schools offer parents training about special education issues, and parents were given information about options their child will have after high school.

For reference, the frequency distribution of responses to all the items in the SEPPS is provided in Appendix A.

4.3. BIE Performance on Indicator #8: Percent of Parents at or above the Standard

The percentage of parents of a child receiving special education services who reported that “schools facilitated parent involvement as a means of improving services and results for children with disabilities,” calculated as the percentage of respondents with a SEPPS measure that met or exceeded the standard of 600, was 40%. Table 5 presents statistical information relevant to the percentage of respondents at or above the standard of 600.

Table 5. Percent of Parents at or above the Standard		
Percent at or above the Standard Value of 600	Standard Error of the Sample Percentage	95% Confidence Interval for Population Percentage
40% (1,717 of 4,267 met criterion)	0.8%	38.7% - 41.7%

The standard error of the sample percentage, that is, the expected error of the sample percentage in estimating the true percentage of measures at or above the standard in the population of parents whose children are served at BIE sites, equaled 0.8%. Equations for computing the standard error of the sample percentage can be found in Moore & McCabe, 1998, p. 382.

The 95% confidence interval for the population percentage ranged from 38.7% to 41.7%. Confidence intervals for percentages, in contrast to confidence intervals for means, are asymmetrical. The asymmetric confidence interval reported here is the interval proposed by Wilson (1927), and is described in greater detail in Agresti (1996) and Penfield (2003).

4.4. Percent of Parents at or above the Standard by Racial/Ethnic Category

Table 6 presents the percentage of respondents with measures that met or exceeded the standard, by racial/ethnic category. When considering these data, it is important to bear in mind that the sampling plan was not designed to yield a representative sample of parents *within* each racial/ethnic category. Therefore, the data are presented for illustrative purposes only.

Table 6. Percent of Parents at or above Standard by Racial/Ethnic Category				
Race/Ethnicity	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
American Indian or Alaskan Native	3,701	1,499	41%	39% - 42%
Black/African American	6	2	33%	10% - 70%
Native Hawaiian or other Pacific Islander	167	58	35%	28% - 42%
White	29	17	59%	41% - 74%
Hispanic	158	63	40%	33% - 48%
Multi-racial/More than one race	136	55	40%	33% - 49%
Missing	70	23	33%	23% - 44%

4.5. Percent of Parents at or above the Standard by Student's Grade

Table 7 presents the percentage of parents meeting or exceeding the standard of 600 as a function of their child's grade level. Grades were grouped into four meaningful categories, so that moderate sample sizes would exist in each category. The four categories are as follows: (a) Pre-Kindergarten, (b) Kindergarten to Grade 5, (c) Grade 6 to Grade 8, and (d) Grade 9 to Grade 12. As seen in the table, the percentage meeting or exceeding the standard of 600 was higher for parents of students in grades K-5 than for parents of students in grades 6-12.

Table 7. Percent of Parents at or above Standard by Grade Category				
Grade Category	N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Pre-Kindergarten	18	12	67%	44% - 84%
Kindergarten – Grade 5	2,269	978	43%	41% - 45%
Grades 6 – 8	1,045	409	39%	36% - 42%
Grades 9 – 12+	862	293	34%	31% - 37%
Missing	73	25	34%	24% - 46%

4.6. BIE Performance on Indicator #8 by Part B vs. 619 Administration

Table 8 presents the percentage of parents at or above the standard of 600, separately for children ages 3-5 receiving services under Section 619 and students 6-21 receiving services under Part B, along with the associated 95% confidence intervals for the true population percentages.

Table 8. Percent of Parents at or above Standard by Part B Administration				
Grade Category	N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
619 Preschool (PK)	18	12	67%	44% - 84%
Part B School Age (KG-12+)	4,176	1,680	40%	39% - 42%

4.7. Percent of Parents at or above the Standard by Student's Primary Exceptionality

Table 9 presents the percentage of parents meeting or exceeding the standard of 600 as a function of their child's primary exceptionality. It should be noted that owing to the small number of students in some of the categories, the confidence intervals are very large, meaning that the percentage given may not be a very accurate estimate of the true percentage for that category.

Table 9. Percent of Parents at or above Standard by Primary Exceptionality				
Student's Primary Exceptionality	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Autism	79	38	48%	37% - 59%
Deaf-Blindness	4	0	0%	--
Deafness	8	3	38%	14% - 69%
Developmental Delay	292	126	43%	38% - 49%
Emotional Disturbance	114	52	46%	37% - 55%
Hearing Impairment	29	13	45%	28% - 62%
Mental Retardation	128	58	45%	37% - 54%
Multiple Disabilities	75	32	43%	32% - 54%
Orthopedic	10	5	50%	24% - 76%
Other Health	273	109	40%	34% - 46%
Specific Learning Disability	1,568	639	41%	38% - 43%
Speech or Language Impairment	829	351	42%	39% - 46%
Traumatic Brain Injury	15	8	53%	30% - 75%
Visual Impairment	22	4	18%	7% - 39%
More than one disability	392	141	36%	31% - 41%
Missing	429	138	32%	28% - 37%

4.8. Percent of Parents at or above the Standard by Site

Table 10 presents the percentage of parents meeting or exceeding the standard of 600 as a function of the BIE site where their child is served. As mentioned with regard to the breakdown by primary exceptionality, the small number of students per site means that these percentages should be interpreted with caution.

Table 10. Percent of Parents at or above Standard by Site				
Site	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Ahfachkee Day School	25	11	44%	27% - 63%
Alamo Navajo School	44	13	30%	18% - 44%
American Horse School	37	14	38%	24% - 54%
Aneth Community School	15	7	47%	25% - 70%
Atsa` Biya`a`zh Community	13	0	0%	--
Baca/Dlo'Azhi Community School	20	5	25%	11% - 47%
Beatrice Rafferty School	22	9	41%	23% - 61%
Beclabito Day School	11	9	82%	52% - 95%
Blackwater Community School	13	8	62%	36% - 82%
Bogue Chitto Elementary	15	3	20%	7% - 45%
Bread Springs Day School	7	1	14%	3% - 51%
Bug-O-Nay-Ge-Shig School	42	16	38%	25% - 53%
Ch'ooshgai Community School (Chuska)	50	25	50%	37% - 63%

Table 10. Percent of Parents at or above Standard by Site

Site	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Chemawa Indian School	4	0	0%	--
Cherokee Central Elementary School	65	29	45%	33% - 57%
Cherokee Central High School	40	14	35%	22% - 50%
Cheyenne-Eagle Butte School	87	32	37%	27% - 47%
Chi Chil Tah (Jones Ranch Community School)	12	2	17%	5% - 45%
Chief Leschi School (Puyallup)	86	48	56%	45% - 66%
Chilchinbeto Community School	11	5	45%	21% - 72%
Chitimacha Tribal School	17	12	71%	47% - 87%
Choctaw Central High School	60	17	28%	19% - 41%
Choctaw Central Middle School	22	6	27%	13% - 48%
Circle of Life School	21	6	29%	14% - 50%
Circle of Nations-Wahpeton Indian Boarding School	11	4	36%	15% - 65%
Coeur d'Alene Tribal School	10	6	60%	31% - 83%
Conehatta Elementary	57	42	74%	61% - 83%
Cottonwood Day School	15	3	20%	7% - 45%
Cove Day School	7	1	14%	3% - 51%
Crazy Horse School	22	5	23%	10% - 43%
Crow Creek Reservation High School	19	7	37%	19% - 59%

Table 10. Percent of Parents at or above Standard by Site

Site	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Crow Creek Sioux Tribal Elementary School	15	6	40%	20% - 64%
Crystal Boarding School	7	0	0%	--
Dennehotso Boarding School	19	7	37%	19% - 59%
Dibe Yazhi Hablti'n O'lt'a Inc. (Borrego Pass)	12	6	50%	25% - 75%
Dilcon Community School Inc.	18	16	89%	67% - 97%
Dishchii'bikoh Community School (Cibeqe)	36	12	33%	20% - 50%
Duckwater Shoshone Elementary	2	1	50%	9% - 91%
Dunseith Day School	40	9	23%	12% - 38%
Dzilth-Na-O-Dith-Hle Community School	19	3	16%	6% - 38%
Enemy Swim Day School	26	18	69%	50% - 83%
Flandreau Indian School	37	7	19%	9% - 34%
Fond du Lac Ojibwe School	38	17	45%	30% - 60%
Gila Crossing Community School	62	20	32%	22% - 45%
Greasewood Springs Community School	7	4	57%	25% - 84%
Greyhills Academy High School	57	15	26%	17% - 39%
Hanaa'dli School/Dormitory Inc. (Huerfano)	2	1	50%	9% - 91%
Hopi Jr./Sr. High School	40	11	28%	16% - 43%
Hotevilla Bacavi Community School	14	6	43%	21% - 67%

Table 10. Percent of Parents at or above Standard by Site

Site	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Hunters Point Boarding School	7	6	86%	49% - 97%
Indian Island School	17	11	65%	41% - 83%
Indian Township School	17	7	41%	22% - 64%
Isleta Elementary School	19	9	47%	27% - 68%
Jeehdeez'a Academy (Low Mountain)	22	12	55%	35% - 73%
Jemez Day School	16	8	50%	28% - 72%
John F. Kennedy Day School	27	10	37%	22% - 56%
Kaibeto Boarding School	21	10	48%	28% - 68%
Keams Canyon Elementary School	6	4	67%	30% - 90%
Kickapoo Nation School	2	0	0%	--
Kin Dah Lichi'i Olta	10	6	60%	31% - 83%
Lac Courte Oreilles Ojibwe School	45	20	44%	31% - 59%
Laguna Elementary School	24	12	50%	31% - 69%
Laguna Middle School	18	5	28%	12% - 51%
Leupp Schools Inc.	29	11	38%	23% - 56%
Little Singer Community School	7	2	29%	8% - 64%
Little Wound Day School	90	25	28%	20% - 38%
Loneman Day School	5	3	60%	23% - 88%

Table 10. Percent of Parents at or above Standard by Site

Site	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Lower Brule Tribal School	28	7	25%	13% - 43%
Lukachukai Community School	21	15	71%	50% - 86%
Lummi High School	24	4	17%	7% - 36%
Lummi Tribal School	65	20	31%	21% - 43%
Mandaree Day School	26	6	23%	11% - 42%
Many Farms Community School (Chinle Boarding School)	31	14	45%	29% - 62%
Many Farms High School	60	14	23%	14% - 35%
Mariano Lake Community School	26	6	23%	11% - 42%
Marty Indian School	31	9	29%	16% - 47%
Menominee Tribal School	10	5	50%	24% - 76%
Mescalero Apache School	45	10	22%	13% - 36%
Meskwaki Settlement School	42	32	76%	61% - 87%
Miccosukee Indian School	23	11	48%	29% - 67%
Moencopi Day School	23	9	39%	22% - 59%
Muckleshoot Tribal School	29	13	45%	28% - 62%
Na`Neelzhinn Ji`Olta (Torreon Day School)	20	4	20%	8% - 42%
Naa Tsis'Aan Community School (Navajo Mountain)	13	2	15%	4% - 42%
Nay-Ah-Shing School	26	23	88%	71% - 96%

Table 10. Percent of Parents at or above Standard by Site

Site	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Nenahnezad Community School	32	4	13%	5% - 28%
Noli Indian School	2	2	100%	--
Northern Cheyenne Tribal School	22	6	27%	13% - 48%
Ohkay Owingeh Community School (San Juan)	14	5	36%	16% - 61%
Ojibwa Indian School	40	10	25%	14% - 40%
Ojo Encino Day School	16	2	13%	3% - 36%
Oneida Nation Tribal School	59	24	41%	29% - 53%
Paschal Sherman Indian School	29	7	24%	12% - 42%
Pearl River Elementary School	95	44	46%	37% - 56%
Pierre Indian Learning Center	11	4	36%	15% - 65%
Pine Hill School	41	4	10%	4% - 23%
Pine Ridge School	28	12	43%	27% - 61%
Pine Springs Day School	7	4	57%	25% - 84%
Pinon Community School	3	1	33%	6% - 79%
Porcupine Day School	41	19	46%	32% - 61%
Pueblo Pintado Community School	21	12	57%	37% - 76%
Quileute Tribal School	21	4	19%	8% - 40%
Red Rock Day School	42	17	40%	27% - 56%

Table 10. Percent of Parents at or above Standard by Site

Site	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Red Water Elementary School	27	22	81%	63% - 92%
Riverside Indian School	25	10	40%	23% - 59%
Rocky Ridge Boarding School	15	10	67%	42% - 85%
Rough Rock Community School	45	21	47%	33% - 61%
Salt River Elementary School	33	14	42%	27% - 59%
San Felipe Pueblo Elementary School	16	9	56%	33% - 77%
San Ildefonso Day School	3	0	0%	--
San Simon School	29	3	10%	4% - 26%
Sanostee Day School	5	1	20%	4% - 62%
Santa Clara Day School	9	2	22%	6% - 55%
Santa Fe Indian School	29	14	48%	31% - 66%
Santa Rosa Ranch School	32	8	25%	13% - 42%
Seba Dalkai Boarding School	18	7	39%	20% - 61%
Second Mesa Day School	20	8	40%	22% - 61%
Sequoyah High School	22	11	50%	31% - 69%
Sherman Indian High School	25	13	52%	33% - 70%
Shiprock Northwest High School	26	16	62%	43% - 78%
Shonto Preparatory School	32	11	34%	20% - 52%

Table 10. Percent of Parents at or above Standard by Site

Site	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Shoshone-Bannock Jr/Sr High School	5	3	60%	23% - 88%
Sitting Bull Day School (Tatanka Wakanyeja Oti)	18	11	61%	39% - 80%
Sky City Community School	37	16	43%	29% - 59%
St. Francis Indian School (Sicangu Oyate Ho, Inc.)	44	17	39%	26% - 53%
St. Stephens Indian School	35	16	46%	30% - 62%
Standing Pine Elementary School	32	23	72%	55% - 84%
Standing Rock Community School	71	37	52%	41% - 63%
T'iis Nazbas Community School (Teecnospos)	13	2	15%	4% - 42%
T'iis Ts'ozí Bi'olta' (Crownpoint) Community School	47	22	47%	33% - 61%
T'siya Day School	8	0	0%	--
Takini School	13	3	23%	8% - 50%
Taos Day School	17	4	24%	10% - 47%
Tate Topa Elementary School	51	23	45%	32% - 59%
Theodore Jamerson Elementary School	29	26	90%	74% - 96%
Theodore Roosevelt School	13	2	15%	4% - 42%
Tiospa Zina Tribal School	13	7	54%	29% - 77%
Tiospaye Topa School	21	7	33%	17% - 55%

Table 10. Percent of Parents at or above Standard by Site

Site	Total N	N at or above the Standard Value of 600	Percent at or above the Standard Value of 600	95% Confidence Interval for the Population Percentage
Tohaali' Community School (Toadlena)	26	13	50%	32% - 68%
Tohono O'odham High School	32	13	41%	26% - 58%
Tonalea Day School (Red Lake)	15	6	40%	20% - 64%
Tse'ii'ahi' Community School (Standing Rock)	21	12	57%	37% - 76%
Tuba City Boarding School	108	46	43%	34% - 52%
Tucker Elementary School	20	5	25%	11% - 47%
Turtle Mountain Community Elementary School	105	56	53%	44% - 63%
Turtle Mountain Community High School	59	23	39%	28% - 52%
Turtle Mountain Community Middle School	57	13	23%	14% - 35%
Twin Buttes Day School	3	1	33%	6% - 79%
Two Eagle River School	6	2	33%	10% - 70%
Wah-He-Lut Indian School	11	7	64%	35% - 85%
White Shield School	19	4	21%	9% - 43%
Wide Ruins Community School	8	3	38%	14% - 69%
Wingate Elementary School	55	26	47%	35% - 60%
Wingate High School	45	18	40%	27% - 55%
Wounded Knee Elementary School	14	4	29%	12% - 55%
Yakama Nation Tribal School	5	1	20%	4% - 62%

SECTION 5

THE RASCH MEASUREMENT FRAMEWORK

The measurement approach used by NCSEAM, known as the Rasch framework, applies a series of parametric models to estimate the properties of each survey item and each respondent in a way that places individuals and items on a common metric (Bond & Fox, 2001; Fischer & Molenaar, 1995; Rasch, 1960; Wright & Masters, 1982). The Rasch approach offers many advantages over typical approaches to survey development. First, it is possible to test whether the items administered belong together, that is, whether they are all related to the construct that the scale is supposed to measure. Ongoing confirmation of the fit of the items helps to maintain the quality of the measurement system. It is also possible to test whether the response categories are operating in the expected fashion. Often, the way in which respondents actually use the response categories does not correspond to the equidistant way in which they are laid out on paper. Extreme categories (e.g., “very strongly disagree”) are sometimes used so infrequently that it makes sense to combine them with an adjacent, less extreme, category (“very strongly disagree/strongly disagree”).

Second, it is possible to determine where each item is located on the measurement ruler. The item’s location is referred to as the item’s “calibration.” Typically, items in a test or survey are not all equal with respect to the amount of the attribute or quality that the items are measuring. It has been empirically demonstrated, in fact, that items in the SEPPS scale are not all of equal agreeability. Items range from those that are most likely to draw agree responses to those that are least likely to draw agree responses. Highly agreeable items have low calibrations; less agreeable items have higher calibrations. Table 11 displays the SEPPS items in calibration order. The item, “At the IEP meeting, we discussed accommodations and modifications that my child would need,” which calibrated at 490, was the most agreeable item

in this item set. The item, “I was given information about options my child will have after high school” which calibrated at 673, was the least agreeable item in the item set.

Table 11. SEPPS Items in Calibration Order	
Item Calibration	Item
673	I was offered special assistance (such as child care) so that I could participate in the Individualized Educational Program (IEP) meeting.
653	The school offers parents training about special education issues.
647	I was given information about organizations that offer support for parents of students with disabilities.
634	The school provides information on agencies that can assist my child in the transition from school.
600	The school explains what options parents have if they disagree with a decision of the school.
591	I have been asked for my opinion about how well special education services are meeting my child's needs.
581	The school gives parents the help they may need to play an active role in their child's education.
573	Written justification was given for the extent that my child would not receive services in the regular classroom.
570	The school gives me choices with regard to services that address my child's needs.
564	At the IEP meeting, we discussed how my child would participate in statewide assessments.
561	The school offers parents a variety of ways to communicate with teachers.
550	The school communicates regularly with me regarding my child's progress on IEP goals.
544	Teachers and administrators seek out parent input.
533	Teachers and administrators show sensitivity to the needs of students with disabilities and their families.
528	Teachers and administrators ensure that I have fully understood the Procedural Safeguards [the rules in federal law that protect the rights of parents].
526	Teachers and administrators encourage me to participate in the decision-making process.
523	The school has a person on staff who is available to answer parents' questions.
513	All of my concerns and recommendations were documented on the IEP.
511	Teachers treat me as a team member.
507	I am considered an equal partner with teachers and other professionals in planning my child's program.
505	My child's evaluation report is written in terms I understand.
505	Written information I receive is written in an understandable way.
504	Teachers and administrators respect my cultural heritage.
492	Teachers are available to speak with me.
490	At the IEP meeting, we discussed accommodations and modifications that my child would need.

The fact that items have highly stable calibrations (agreeability levels) regardless of the population that is asked to respond to the items is a very important attribute of well-constructed measurement scales. This stability means that items with similar calibrations are, for all intents and purposes, interchangeable. As an example, this is why the SAT is the “same” test each time it is administered, even though it contains different items each time. The score achieved on any particular version of the SAT is comparable to the score achieved on any other version. Thus, a state can change some of the items on the survey from year to year, and still have validly comparable SEPPS measures across successive years. Guidelines for creating comparable item sets are available at: www.accountabilitydata.org.

Third, a Rasch analysis condenses information from a person’s responses to all the items in a scale into a single number. That number is the person’s measure on the scale. Since the Rasch framework puts measures on the same metric as item calibrations, a person’s measure on a scale can be meaningfully interpreted in terms of the items on the scale. A person with a higher measure is expressing more agreement with items, overall, than a person with a lower measure. When SEPPS measures from a representative sample of parents are aggregated, the average value represents a reliable and highly interpretable measure of the extent to which schools are facilitating parent involvement.

Fourth, a Rasch analysis yields an estimate of the reliability of both the calibration values (related to the items) and the measures (related to people’s responses). Scientific approaches to measurement require that the amount of “error,” or imprecision, in the system be estimated, so that interpretations based on the measures can take this into consideration.

For a more detailed explanation of these concepts, please refer to Bond and Fox (2001) and Wright and Masters (1982).

SECTION 6

PSYCHOMETRIC PROPERTIES OF THE SEPPS

6.1. Psychometric Properties of SEPPS Measures

The quality of a measurement instrument, and by implication the usefulness of inferences drawn from measures derived from the instrument, is assessed in terms of two characteristics of the instrument, namely, reliability and validity. The reliability of the obtained SEPPS measures pertains to the extent to which a particular individual would be expected to attain the same SEPPS measure if the SEPPS were administered to the individual multiple times. That is, reliability concerns the stability of the SEPPS measure¹ (Crocker & Algina, 1986; Lord, 1980; Traub, 1994). Validity, on the other hand, concerns the extent to which the scale actually measures the intended attribute, in this case, schools' facilitation of parent involvement.² The validity of the SEPPS measures can be evaluated using numerous approaches, several of which are described below.

Statistics used to express measurement reliability range from 0 (indicating lack of any stability) to 1 (indicating perfect stability). The reliability of the SEPPS measures for the BIE sample was measured in the Rasch framework to be .89, indicating a high level of stability in the obtained SEPPS measures. An alternative approach to estimating the reliability of the SEPPS measures is to employ Cronbach's alpha, which makes no assumptions about the fit of the responses to any particular model (Cronbach's alpha is based on the simpler true score model, and is commonly used in the behavioral sciences as a model-free index of reliability). The value of Cronbach's alpha was .98, which is consistent with the value obtained from the Rasch

¹ A definition of reliability that is more theoretically accurate describes reliability as the extent to which a given respondent's score is determined by random error versus his or her true level of the trait being measured; low reliability coincides with a high level of measurement error, and high reliability coincides with a low level of measurement error (Crocker & Algina, 1986; Lord, 1980; Traub, 1994).

² This definition of validity is a simplification of the definition now endorsed by the technical measurement community. The contemporary definition of validity describes it as the extent to which evidence and theory support the interpretations of the scale scores entailed by the proposed use of the scale (AERA/APA/NCME, 1999; Osterlind, 2006). That is, the validity of the SEPPS measures is based on how much evidence we have that the measures support the intended purposes of the use of the measures. In the case of measures used to address system accountability, we will want to ascertain whether use of the measures leads to correct decisions (e.g., about need for intervention) at the state and district levels.

analysis. These results suggest that the measures obtained from the SEPPS contain relatively little error, and thus serve as stable measures of the underlying construct (i.e., schools' facilitation of parent involvement).

Support for the validity of the measures obtained by the SEPPS comes from several lines of evidence. First, items for the SEPPS were developed in consultation with multiple groups of individuals, including parents, school personnel, district-level administrators, and advocates, with direct and extensive experience related to schools' efforts to encourage parent involvement and to ensure that parents are active participants in decision-making related to their child's education. Subsequent review of the items by expert panels, researchers, and NCSEAM's Parent/Family Involvement Workgroup confirmed that the item content maps onto the intended content domain of the SEPPS. Second, dimensionality analysis (i.e., principal components analysis and factor analysis) indicates that the items of the SEPPS are all measuring one primary construct, which is likely the intended one, i.e., schools' facilitation of parent involvement. The results of the dimensionality analyses are presented in Winsteps output displayed in Appendix C. A third line of evidence is related to a characteristic of items known as discrimination. The high discrimination indices of the SEPPS items (see Table 12, below) indicate that the items are providing useful information concerning the construct that is intended to be measured. All of these types of evidence support the claim that the measures obtained using the SEPPS are valid.

6.2. Psychometric Properties of the SEPPS Items

To better understand the properties of the items included in the SEPPS (i.e., which items are located either low or high on the trait scale and which items seem to work well versus those that may require revision), several aspects of each item can be examined. The results of the Rasch analysis provide information concerning two aspects of the items. The first is the location of each item with respect to the underlying construct being measured, specifically, what overall

level of endorsement of school efforts is required to provide a positive endorsement of the item. The second relates to how well the item fits the measurement model, in other words, how accurate the Rasch model is in describing the properties of the item.

Table 12, below, gives the calibration of each item (previously presented in Table 11 above), along with indices of the item's fit to the Rasch model. The column labeled "Item Calibration" provides the value of the location parameter of the item. The higher the value of the item calibration, the greater the level of overall endorsement of schools' efforts to facilitate parent involvement that is required to provide an agreeable response to the item (i.e., a response of agree, strongly agree, or very strongly agree). The "Infit" and "Outfit" columns provide two measures of how well the Rasch model fits the responses provided to each item. In general, values of 1.0 indicate very good fit. Values approaching 2, or less than 0.5, suggest poorer fit (Bond & Fox, 2001). Only one item, Item #2 ("I was offered special assistance, such as child care, so that I could participate in the IEP meeting") exhibited less than ideal levels of fit.

Table 12. Calibration, Fit, and Discrimination of the SEPPS Items				
Item	Item Calibration	Infit	Outfit	Discrimination
1	507	0.87	1.56	0.72
2	673	1.97	2.34	0.64
3	564	0.81	0.97	0.74
4	490	0.91	1.15	0.74
5	513	0.69	0.79	0.75
6	573	1.05	1.40	0.71
7	647	1.33	1.32	0.73
8	591	0.76	0.72	0.77
9	505	0.65	0.74	0.77
10	505	0.67	0.76	0.77
11	492	0.81	0.94	0.75
12	511	0.60	0.60	0.78
13	544	0.56	0.55	0.79
14	533	0.64	0.64	0.78
15	526	0.58	0.57	0.78
16	504	0.69	0.77	0.76
17	528	0.56	0.55	0.79
18	523	0.77	1.10	0.77
19	550	0.56	0.57	0.78
20	570	0.52	0.51	0.80
21	653	1.40	1.43	0.72
22	561	0.65	0.69	0.79
23	581	0.60	0.58	0.80
24	634	1.07	1.07	0.76
25	600	0.70	0.71	0.79

The rightmost column of the table presents an index of discrimination for each item, calculated as the corrected item-total correlation coefficient. The values in this column are all relatively high (≥ 0.64), indicating that each item is discriminating well between respondents who had more positive versus more negative perceptions of schools' facilitation of parent involvement.

While Item #2 displays a less than ideal level of fit, it nevertheless has a strong discrimination index, which provides evidence that it is a useful item. Therefore, this item appears to be measuring the intended construct relatively well, but is not a very good fit for the

Rasch framework, which employs specific assumptions concerning the properties of the items. The poor fit of Item #2 makes this item a possible candidate for revision and/or replacement in future administrations of the SEPPS.

Table 13 is provided to assist in interpretation of the item calibrations in relation to the observed distribution of responses to items for parents in the sample (Appendix A). The table displays the observed percentage of responses in (a) any of the three agree categories (A=agree, SA=strongly agree, VSA=very strongly agree) and (b) only the strongly and very strongly agree categories for each of the items. As seen in the table, the percentage of agree responses is highest for items with the lowest calibrations. Conversely, the percentage of agree responses is lowest for items with the highest calibrations. The percentage of responses in the two strongest categories of agreement ranged from 30% to 54%; the percentage of responses in any of the agree categories ranged from 71% to 95%.

The fact that the rank ordering of items by the percentage of agree responses does not correspond exactly to the rank ordering by item calibration is expected, based on the measurement model and the calibration methodology that were applied (see Section 7).

Table 13. SEPPS Item Calibrations, Observed Percentage of Responses in the Strongly Agree/Very Strongly Agree Categories, and Observed Percentage of Responses in Any Agree Category				
Item #	Item Calibration	% SA/ VSA	% A/SA/ VSA	Item
4	490	53%	94%	At the IEP meeting, we discussed accommodations and modifications that my child would need.
11	492	54%	95%	Teachers are available to speak with me.
16	504	53%	95%	Teachers and administrators respect my cultural heritage.
9	505	52%	95%	My child's evaluation report is written in terms I understand.
10	505	51%	95%	Written information I receive is written in an understandable way.
1	507	49%	95%	I am considered an equal partner with teachers and other professionals in planning my child's program.

Table 13. SEPPS Item Calibrations, Observed Percentage of Responses in the Strongly Agree/Very Strongly Agree Categories, and Observed Percentage of Responses in Any Agree Category

Item #	Item Calibration	% SA/ VSA	% A/SA/ VSA	Item
12	511	53%	94%	Teachers treat me as a team member.
5	513	52%	94%	All of my concerns and recommendations were documented on the IEP.
18	523	45%	92%	The school has a person on staff who is available to answer parents' questions.
15	526	50%	92%	Teachers and administrators encourage me to participate in the decision-making process.
17	528	49%	93%	Teachers and administrators ensure that I have fully understood the Procedural Safeguards.
14	533	49%	91%	Teachers and administrators show sensitivity to the needs of students with disabilities.
13	544	49%	91%	Teachers and administrators seek out parent input.
19	550	49%	92%	The school communicates regularly with me regarding my child's progress on IEP goals.
22	561	41%	90%	The school offers parents a variety of ways to communicate with teachers.
3	564	45%	90%	At the IEP meeting, we discussed how my child would participate in statewide assessments.
20	570	46%	91%	The school gives me choices with regard to services that address my child's needs.
6	573	39%	86%	Written justification was given for the extent that my child would not receive services.
23	581	43%	91%	The school gives parents the help they may need to play an active role in their child's education.
8	591	48%	90%	I have been asked for my opinion about how well the special education services my child receive are meeting my child's needs.
25	600	39%	87%	The school explains what options parents have if they disagree with a decision of the school.
24	634	38%	84%	The school provides information on agencies that can assist my child in the transition from school.
7	647	37%	81%	I was given information about organizations that offer support for parents of students with disabilities.
21	653	34%	79%	The school offers parents training about special education issues.
2	673	30%	71%	I was offered special assistance (such as child care) so that I could participate in the Individualized Educational Program (IEP) meeting.

SECTION 7

CALIBRATION METHODOLOGY

The Rasch calibrations were conducted using the Winsteps software program. The original six-category response structure was reduced to a three-category response structure by collapsing the bottom three categories (very strongly disagree, strongly disagree, disagree) into one category, and the top two categories (strongly agree, very strongly agree) into a single category. The rationale for combining the categories was based on two factors: (a) low response rates (i.e., < 5%) in the extreme categories, making their corresponding threshold parameter estimates relatively unstable, and (b) the extreme category threshold estimates were not far enough apart to indicate that the distinct categories served to meaningfully distinguish between individuals having substantially different levels of the trait being measured.

The SEPPS was calibrated using the Rating Scale Model (Wright & Masters, 1982). An initial calibration was conducted with all item parameters freed, and on a standard metric (mean = 0 and 1 scale unit per logit). The resulting item location parameter estimates were then correlated with the values obtained by Dr. William P. Fisher, Jr., consultant to NCSEAM, on a larger multi-state database for the same items. The resulting correlation was 0.98, indicating a very strong linear relationship between the locations of the items for the BIE sample and the larger multi-state sample. In addition, the structure of the two thresholds was very similar to that obtained in the multi-state calibration. As a result of the nearly perfect relationship between the initial BIE calibration and the multi-state calibration, a second calibration of the BIE data was conducted in which all item location parameters and threshold values were fixed to the values obtained in the multi-state analysis (the values of the fixed parameters are documented in the Winsteps control file shown in Appendix B). The purpose of fixing the item parameter values to the multi-state analysis values was to set the metric of the items such that the resulting item and person location measures are on an equivalent metric with the multi-state analysis, thus

permitting an exact comparison of the BIE results to those of other states employing a Rasch calibration.

It should be noted that in the multi-state calibration, efforts were taken to ensure that at a measure of 600 there would be a 95% chance of observing an agreeable response (agree, strongly agree, or very strongly agree) on the item that the national stakeholder group convened by NCSEAM identified as the threshold item for the recommended standard (Item #25, “The school explains what options parents have if they disagree with a decision of the school”). Specifically, the values of the threshold parameters were established so that a respondent with a measure of 600 would have a .95 likelihood of having an agreeable response to the item.

The control file used in the current analysis of the SEPPS is given in Appendix B. The pertinent output related to the properties of each item on the SEPPS scale is given in Appendix C.

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APPENDIX A: RESPONSE FREQUENCIES BY ITEM

Q1 - I am considered an equal partner with teachers and other professionals in planning my child's program.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	71	1.7	1.7	1.7
	Strongly Disagree	46	1.1	1.1	2.7
	Disagree	105	2.5	2.5	5.2
	Agree	1930	45.0	45.3	50.5
	Strongly Agree	979	22.8	23.0	73.5
	Very Strongly Agree	1127	26.3	26.5	100.0
	Total	4258	99.4	100.0	
Missing	System	27	.6		
Total		4285	100.0		

Q2 - I was offered special assistance (such as child care) so that I could participate in the Individualized Educational Program (IEP) meeting.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	197	4.6	4.9	4.9
	Strongly Disagree	80	1.9	2.0	6.9
	Disagree	887	20.7	22.0	28.8
	Agree	1680	39.2	41.6	70.4
	Strongly Agree	635	14.8	15.7	86.1
	Very Strongly Agree	562	13.1	13.9	100.0
	Total	4041	94.3	100.0	
Missing	System	244	5.7		
Total		4285	100.0		

Q3 - At the IEP meeting, we discussed how my child would participate in statewide assessments.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	77	1.8	1.8	1.8
	Strongly Disagree	40	.9	1.0	2.8
	Disagree	302	7.0	7.2	10.0
	Agree	1889	44.1	45.2	55.2
	Strongly Agree	941	22.0	22.5	77.7
	Very Strongly Agree	933	21.8	22.3	100.0
	Total	4182	97.6	100.0	
Missing	System	103	2.4		
Total		4285	100.0		

Q4 - At the IEP meeting, we discussed accommodations and modifications that my child would need.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	67	1.6	1.6	1.6
	Strongly Disagree	30	.7	.7	2.3
	Disagree	138	3.2	3.3	5.6
	Agree	1762	41.1	41.6	47.2
	Strongly Agree	1067	24.9	25.2	72.4
	Very Strongly Agree	1167	27.2	27.6	100.0
	Total	4231	98.7	100.0	
Missing	System	54	1.3		
Total		4285	100.0		

Q5 - All of my concerns and recommendations were documented on the IEP.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	68	1.6	1.6	1.6
	Strongly Disagree	36	.8	.9	2.5
	Disagree	136	3.2	3.2	5.7
	Agree	1770	41.3	41.9	47.6
	Strongly Agree	1056	24.6	25.0	72.6
	Very Strongly Agree	1157	27.0	27.4	100.0
	Total	4223	98.6	100.0	
Missing	System	62	1.4		
Total		4285	100.0		

Q6 - Written justification was given for the extent that my child would not receive services in the regular classroom.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	87	2.0	2.1	2.1
	Strongly Disagree	52	1.2	1.3	3.4
	Disagree	441	10.3	10.7	14.1
	Agree	1921	44.8	46.6	60.7
	Strongly Agree	822	19.2	20.0	80.7
	Very Strongly Agree	795	18.6	19.3	100.0
	Total	4118	96.1	100.0	
Missing	System	167	3.9		
Total		4285	100.0		

Q7 - I was given information about organizations that offer support for parents of students with disabilities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	133	3.1	3.2	3.2
	Strongly Disagree	82	1.9	2.0	5.1
	Disagree	579	13.5	13.8	18.9
	Agree	1832	42.8	43.7	62.6
	Strongly Agree	813	19.0	19.4	82.0
	Very Strongly Agree	755	17.6	18.0	100.0
	Total	4194	97.9	100.0	
Missing	System	91	2.1		
Total		4285	100.0		

Q8 - I have been asked for my opinion about how well the special education services my child receives are meeting my child's needs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	85	2.0	2.0	2.0
	Strongly Disagree	57	1.3	1.3	3.4
	Disagree	262	6.1	6.2	9.6
	Agree	1784	41.6	42.2	51.8
	Strongly Agree	973	22.7	23.0	74.8
	Very Strongly Agree	1067	24.9	25.2	100.0
	Total	4228	98.7	100.0	
Missing	System	57	1.3		
Total		4285	100.0		

Q9 - My child's evaluation report is written in terms I understand.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	61	1.4	1.4	1.4
	Strongly Disagree	32	.7	.8	2.2
	Disagree	106	2.5	2.5	4.7
	Agree	1840	42.9	43.3	48.0
	Strongly Agree	1035	24.2	24.4	72.3
	Very Strongly Agree	1175	27.4	27.7	100.0
	Total	4249	99.2	100.0	
Missing	System	36	.8		
Total		4285	100.0		

Q10 - Written information I receive is written in an understandable way.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	62	1.4	1.5	1.5
	Strongly Disagree	37	.9	.9	2.3
	Disagree	103	2.4	2.4	4.8
	Agree	1887	44.0	44.5	49.2
	Strongly Agree	991	23.1	23.4	72.6
	Very Strongly Agree	1164	27.2	27.4	100.0
	Total	4244	99.0	100.0	
Missing	System	41	1.0		
Total		4285	100.0		

Q11 - Teachers are available to speak with me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	62	1.4	1.5	1.5
	Strongly Disagree	39	.9	.9	2.4
	Disagree	132	3.1	3.1	5.5
	Agree	1739	40.6	40.9	46.4
	Strongly Agree	960	22.4	22.6	68.9
	Very Strongly Agree	1322	30.9	31.1	100.0
	Total	4254	99.3	100.0	
Missing	System	31	.7		
Total		4285	100.0		

Q12 - Teachers treat me as a team member.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	63	1.5	1.5	1.5
	Strongly Disagree	36	.8	.9	2.3
	Disagree	144	3.4	3.4	5.8
	Agree	1763	41.1	41.7	47.5
	Strongly Agree	953	22.2	22.6	70.1
	Very Strongly Agree	1265	29.5	29.9	100.0
	Total	4224	98.6	100.0	
Missing	System	61	1.4		
Total		4285	100.0		

Q13 - Teachers and administrators: -seek out parent input.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	76	1.8	1.8	1.8
	Strongly Disagree	44	1.0	1.0	2.8
	Disagree	273	6.4	6.5	9.3
	Agree	1748	40.8	41.5	50.8
	Strongly Agree	924	21.6	21.9	72.7
	Very Strongly Agree	1152	26.9	27.3	100.0
	Total	4217	98.4	100.0	
Missing	System	68	1.6		
Total		4285	100.0		

Q14 - Teachers and administrators: -show sensitivity to the needs of students with disabilities and their families.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	78	1.8	1.8	1.8
	Strongly Disagree	67	1.6	1.6	3.4
	Disagree	243	5.7	5.8	9.2
	Agree	1768	41.3	41.9	51.1
	Strongly Agree	936	21.8	22.2	73.2
	Very Strongly Agree	1130	26.4	26.8	100.0
	Total	4222	98.5	100.0	
Missing	System	63	1.5		
Total		4285	100.0		

Q15 - Teachers and administrators: -encourage me to participate in the decision-making process.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	78	1.8	1.8	1.8
	Strongly Disagree	44	1.0	1.0	2.9
	Disagree	204	4.8	4.8	7.7
	Agree	1794	41.9	42.3	49.9
	Strongly Agree	985	23.0	23.2	73.1
	Very Strongly Agree	1140	26.6	26.9	100.0
	Total	4245	99.1	100.0	
Missing	System	40	.9		
Total		4285	100.0		

Q16 - Teachers and administrators: -respect my cultural heritage.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	69	1.6	1.6	1.6
	Strongly Disagree	33	.8	.8	2.4
	Disagree	103	2.4	2.4	4.9
	Agree	1795	41.9	42.6	47.5
	Strongly Agree	934	21.8	22.2	69.6
	Very Strongly Agree	1279	29.8	30.4	100.0
	Total	4213	98.3	100.0	
Missing	System	72	1.7		
Total		4285	100.0		

Q17 - Teachers and administrators: -ensure that I have fully understood the Procedural Safeguards [the rules in federal law that protect the rights of parents].

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	79	1.8	1.9	1.9
	Strongly Disagree	39	.9	.9	2.8
	Disagree	159	3.7	3.7	6.5
	Agree	1881	43.9	44.3	50.9
	Strongly Agree	929	21.7	21.9	72.8
	Very Strongly Agree	1155	27.0	27.2	100.0
	Total	4242	99.0	100.0	
Missing	System	43	1.0		
Total		4285	100.0		

Q18 - The school: -has a person on staff who is available to answer parents' questions.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	70	1.6	1.7	1.7
	Strongly Disagree	56	1.3	1.3	3.0
	Disagree	208	4.9	4.9	7.9
	Agree	1991	46.5	47.1	55.0
	Strongly Agree	883	20.6	20.9	75.8
	Very Strongly Agree	1023	23.9	24.2	100.0
	Total	4231	98.7	100.0	
Missing	System	54	1.3		
Total		4285	100.0		

Q19 - The school: -communicates regularly with me regarding my child's progress on IEP goals.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	76	1.8	1.8	1.8
	Strongly Disagree	44	1.0	1.0	2.8
	Disagree	213	5.0	5.0	7.9
	Agree	1829	42.7	43.2	51.1
	Strongly Agree	984	23.0	23.3	74.3
	Very Strongly Agree	1086	25.3	25.7	100.0
	Total	4232	98.8	100.0	
Missing	System	53	1.2		
Total		4285	100.0		

Q20 - The school: -gives me choices with regard to services that address my child's needs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	74	1.7	1.8	1.8
	Strongly Disagree	53	1.2	1.3	3.0
	Disagree	249	5.8	5.9	8.9
	Agree	1889	44.1	44.8	53.7
	Strongly Agree	961	22.4	22.8	76.5
	Very Strongly Agree	991	23.1	23.5	100.0
	Total	4217	98.4	100.0	
Missing	System	68	1.6		
Total		4285	100.0		

Q21 - The school: -offers parents training about special education issues.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	128	3.0	3.1	3.1
	Strongly Disagree	81	1.9	1.9	5.0
	Disagree	675	15.8	16.2	21.3
	Agree	1844	43.0	44.3	65.6
	Strongly Agree	687	16.0	16.5	82.1
	Very Strongly Agree	743	17.3	17.9	100.0
	Total	4158	97.0	100.0	
Missing	System	127	3.0		
Total		4285	100.0		

Q22 - The school: -offers parents a variety of ways to communicate with teachers.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	76	1.8	1.8	1.8
	Strongly Disagree	65	1.5	1.5	3.4
	Disagree	297	6.9	7.1	10.4
	Agree	2041	47.6	48.5	58.9
	Strongly Agree	853	19.9	20.3	79.2
	Very Strongly Agree	875	20.4	20.8	100.0
	Total	4207	98.2	100.0	
Missing	System	78	1.8		
Total		4285	100.0		

Q23 - The school: -gives parents the help they may need to play an active role in their child's education.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	71	1.7	1.7	1.7
	Strongly Disagree	58	1.4	1.4	3.1
	Disagree	248	5.8	5.9	8.9
	Agree	2009	46.9	47.7	56.6
	Strongly Agree	884	20.6	21.0	77.6
	Very Strongly Agree	946	22.1	22.4	100.0
	Total	4216	98.4	100.0	
Missing	System	69	1.6		
Total		4285	100.0		

Q24 - The school: -provides information on agencies that can assist my child in the transition from school.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	93	2.2	2.3	2.3
	Strongly Disagree	71	1.7	1.7	4.0
	Disagree	507	11.8	12.3	16.3
	Agree	1894	44.2	45.9	62.2
	Strongly Agree	753	17.6	18.2	80.4
	Very Strongly Agree	809	18.9	19.6	100.0
	Total	4127	96.3	100.0	
Missing	System	158	3.7		
Total		4285	100.0		

Q25 - The school: -explains what options parents have if they disagree with a decision of the school.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Strongly Disagree	103	2.4	2.5	2.5
	Strongly Disagree	65	1.5	1.6	4.0
	Disagree	363	8.5	8.7	12.7
	Agree	2034	47.5	48.5	61.2
	Strongly Agree	795	18.6	19.0	80.2
	Very Strongly Agree	831	19.4	19.8	100.0
	Total	4191	97.8	100.0	
Missing	System	94	2.2		
Total		4285	100.0		

APPENDIX B: WINSTEPS CONTROL FILE

```
&INST ; THIS FILE MUST BE SAVED AS ASCII DOS TEXT BEFORE USE WITH WINSTEPS
Title="BIA 2012 partnership scale: Equated to William Fisher's calibration"
ITEM1=2
DELIMITER=TAB ;           specifies a tab as a delimiter
;FITI=7
;FITP=7
ITLEN=10 ;max length of item label
LCONV=0.0001
RCONV=0.001
RESCOR=2
NEWSCR="111233"
DATA=C:\Users\Valued Customer\Documents\Consulting\IndianAffairs\2012\Data_BIA_B_2012.TXT
; Name of data file
NI=25
XWIDE = 1
CODES = "123456"

;ISELECT=E
IAFILE=*
1 507
2 673
3 564
4 490
5 513
6 573
7 647
8 591
9 505
10 505
11 492
12 511
13 544
14 533
15 526
16 504
17 528
18 523
19 550
20 570
21 653
22 561
23 581
24 634
25 600
*
SAFILE=*
  2 = -128.28
  3 = 14.28
*
NAME1 = 1; Column containing person name
NAMLEN = 15; Length of person name
PRCOMP=S
UDECIM=1
UMEAN=553
USCALE=54.105
CFILE=*
1 VS/S/Disagree
2 Agree
3 S/VSAgree
*
CSV=S
HLINES=N
IFILE=ItemStats.sav ;Name of file containing item-level statistics
PFILE=PersonStats.sav ;Name of file containing person-level statistics
REALSE=Y
TABLES=1110000001001100000000100011
&END
q1
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q25
END NAMES

TABLE 3.1 BIA 2012 partnership scale: Equated to ZOU719WS.TXT Jun 12 18:55 2012
 INPUT: 4285 PERSONS 25 ITEMS MEASURED: 4267 PERSONS 25 ITEMS 3 CATS 3.66.0

SUMMARY OF 3593 MEASURED (NON-EXTREME) PERSONS

	RAW SCORE	COUNT	MEASURE	REAL ERROR	INFIT		OUTFIT	
					MNSQ	ZSTD	MNSQ	ZSTD
MEAN	56.1	24.6	556.97	26.22	.89	-.8	.91	-.7
S.D.	11.4	1.3	99.46	10.87	.50	2.0	.68	1.9
MAX.	74.0	25.0	767.96	91.61	3.92	6.6	9.90	7.1
MIN.	2.0	1.0	236.42	18.80	.00	-5.3	.00	-5.1
REAL RMSE	28.38	ADJ.SD	95.32	SEPARATION	3.36	PERSON RELIABILITY	.92	
MODEL RMSE	26.27	ADJ.SD	95.93	SEPARATION	3.65	PERSON RELIABILITY	.93	
S.E. OF PERSON MEAN = 1.66								
MAXIMUM EXTREME SCORE: 610 PERSONS								
MINIMUM EXTREME SCORE: 64 PERSONS								
LACKING RESPONSES: 18 PERSONS								
VALID RESPONSES: 98.5%								

SUMMARY OF 4267 MEASURED (EXTREME AND NON-EXTREME) PERSONS

	RAW SCORE	COUNT	MEASURE	REAL ERROR	INFIT		OUTFIT	
					MNSQ	ZSTD	MNSQ	ZSTD
MEAN	58.2	24.6	590.81	37.88				
S.D.	13.0	1.3	142.98	28.70				
MAX.	75.0	25.0	836.36	103.71				
MIN.	2.0	1.0	169.34	18.80				
REAL RMSE	47.52	ADJ.SD	134.85	SEPARATION	2.84	PERSON RELIABILITY	.89	
MODEL RMSE	46.49	ADJ.SD	135.21	SEPARATION	2.91	PERSON RELIABILITY	.89	
S.E. OF PERSON MEAN = 2.19								

PERSON RAW SCORE-TO-MEASURE CORRELATION = .94 (approximate due to missing data)
 CRONBACH ALPHA (KR-20) PERSON RAW SCORE RELIABILITY = .98 (approximate due to missing data)

SUMMARY OF 25 MEASURED (NON-EXTREME) ITEMS

	RAW SCORE	COUNT	MEASURE	REAL ERROR	INFIT		OUTFIT	
					MNSQ	ZSTD	MNSQ	ZSTD
MEAN	9929.7	4206.6	555.12	1.87	.82	-6.0	.92	-2.9
S.D.	600.7	48.6	52.12	.17	.33	6.8	.42	7.5
MAX.	10557.0	4258.0	673.00	2.58	1.97	9.9	2.34	9.9
MIN.	8115.0	4041.0	490.00	1.72	.52	-9.9	.51	-9.9
REAL RMSE	1.88	ADJ.SD	52.09	SEPARATION	27.72	ITEM RELIABILITY	1.00	
MODEL RMSE	1.82	ADJ.SD	52.09	SEPARATION	28.70	ITEM RELIABILITY	1.00	
S.E. OF ITEM MEAN = 10.64								

UMEAN=553.000 USCALE=54.105
 ITEM RAW SCORE-TO-MEASURE CORRELATION = -.93 (approximate due to missing data)
 88519 DATA POINTS. LOG-LIKELIHOOD CHI-SQUARE: 111711.50 with 84901 d.f. p=.0000

TABLE 3.2 BIA 2012 partnership scale: Equated to ZOU719WS.TXT Jun 12 18:55 2012
 INPUT: 4285 PERSONS 25 ITEMS MEASURED: 4267 PERSONS 25 ITEMS 3 CATS 3.66.0

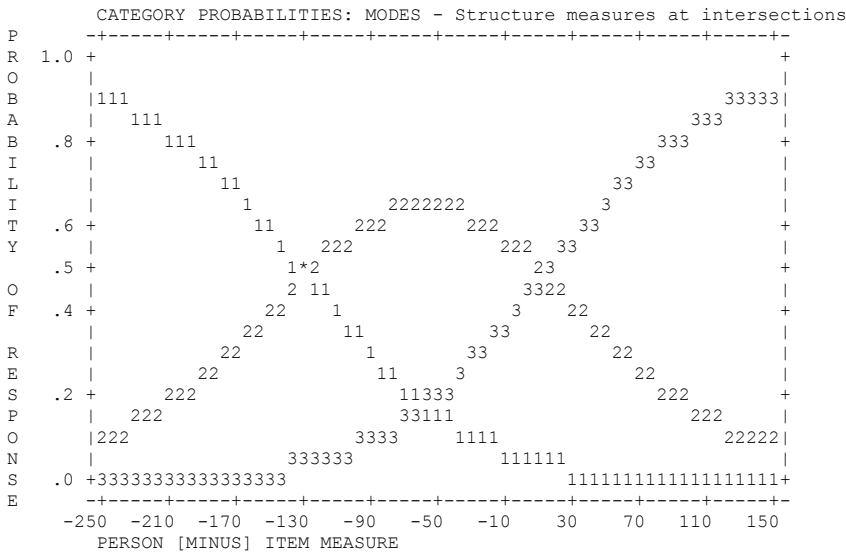
SUMMARY OF CATEGORY STRUCTURE. Model="R"

CATEGORY LABEL	OBSERVED SCORE	OBSVD COUNT	SAMPLE %	INAVRGE	OUTFIT EXPECT	INFINIT MNSQ	OUTFIT MNSQ	STRUCTURE CALIBRATN	CATEGORY MEASURE
1	1	8876	10	-133.9	-202.	1.03	1.18	NONE	-190.51
2	2	46314	52	-41.1	-26.6	.96	.90	-128.28A	-57.00
3	3	33329	38	99.6	97.9	.78	.86	14.28A (76.51)	5 S/VSAgree
MISSING		1306	1	-49.1					

OBSERVED AVERAGE is mean of measures in category. It is not a parameter estimate.

CATEGORY LABEL	STRUCTURE MEASURE	SCORE-TO-MEASURE S.E.	AT CAT.	50% CUM. PROBABILITY	COHERENCE M->C	ESTIM C->M	DISCR	OBSERVED-EXPECTED RESIDUAL DIFFERENCE
1	NONE		-190.51	-INF -137.33	49%	48%		-37.8% -5395.3
2	-128.28A	.62	-57.00	-137.33 23.33	-131.78	77%	76%	1.11 30.4% 10791.5
3	14.28A	.49	(76.51)	23.33 +INF	17.78	79%	80%	1.14 -13.9% -5396.3

M->C = Does Measure imply Category?
 C->M = Does Category imply Measure?



1 = VS/S/Disagree
 2 = Agree
 3 = S/VSAgree

TABLE 10.1 BIA 2012 partnership scale: Equated to ZOU719WS.TXT Jun 12 18:55 2012
 INPUT: 4285 PERSONS 25 ITEMS MEASURED: 4267 PERSONS 25 ITEMS 3 CATS 3.66.0

PERSON: REAL SEP.: 3.36 REL.: .92 ... ITEM: REAL SEP.: 27.72 REL.: 1.00

ITEM STATISTICS: MISFIT ORDER

ENTRY NUMBER	TOTAL SCORE	COUNT	MEASURE	REAL S.E.	INFIIT MNSQ	OUTFIT ZSTD	PT-MEASURE CORR.	EXACT EXP.	MATCH OBS%	DISPLACE	ITEM		
2	8115	4041	673.0A	2.6	1.97	9.9	2.34	9.9	A .64 .78	42.5	67.5	-35.2	q2
1	10400	4258	507.0A	1.9	.87	-5.5	1.56	9.0	B .72 .64	75.6	70.7	29.7	q1
21	8862	4158	653.0A	2.1	1.40	9.9	1.43	9.9	C .72 .78	49.3	65.3	-42.9	q21
6	9273	4118	573.0A	1.8	1.05	2.2	1.40	9.9	D .71 .72	70.4	67.2	9.8	q6
7	9162	4194	647.0A	2.0	1.33	9.9	1.32	9.9	E .73 .77	48.9	64.6	-49.2	q7
4	10461	4231	490.0A	2.0	.91	-3.6	1.15	2.3	F .74 .62	79.3	71.4	39.2	q4
18	10034	4231	523.0A	1.8	.77	-9.9	1.10	2.1	G .77 .67	76.6	70.3	31.4	q18
24	9145	4127	634.0A	1.8	1.07	3.0	1.07	2.3	H .76 .77	67.4	62.4	-43.0	q24
3	9819	4182	564.0A	1.8	.81	-8.4	.97	-9.9	I .74 .71	73.9	67.9	-4.3	q3
11	10557	4254	492.0A	1.9	.81	-8.2	.94	-1.0	J .75 .62	81.0	71.4	34.8	q11
5	10419	4223	513.0A	1.9	.69	-9.9	.79	-4.5	K .75 .65	80.7	70.7	17.5	q5
16	10434	4213	504.0A	1.9	.69	-9.9	.77	-4.6	L .76 .64	82.8	71.0	24.3	q16
10	10441	4244	505.0A	1.9	.67	-9.9	.76	-4.8	M .77 .64	82.4	71.0	27.3	q10
8	10092	4228	591.0A	1.7	.76	-9.9	.72	-9.9	l .77 .74	75.9	65.5	-41.6	q8
9	10509	4249	505.0A	1.9	.65	-9.9	.74	-5.3	k .77 .64	83.0	71.0	24.0	q9
25	9477	4191	600.0A	1.7	.70	-9.9	.71	-9.9	j .79 .74	79.1	64.6	-19.9	q25
22	9704	4207	561.0A	1.8	.65	-9.9	.69	-9.7	i .79 .71	78.3	68.1	8.6	q22
14	10122	4222	533.0A	1.8	.64	-9.9	.64	-9.6	h .78 .68	81.1	69.9	14.9	q14
12	10423	4224	511.0A	1.9	.60	-9.9	.60	-9.1	g .78 .65	83.3	70.8	20.0	q12
23	9885	4216	581.0A	1.7	.60	-9.9	.58	-9.9	f .80 .73	79.7	66.5	-20.7	q23
15	10289	4245	526.0A	1.8	.58	-9.9	.57	-9.9	e .78 .67	82.8	70.2	15.3	q15
19	10201	4232	550.0A	1.8	.56	-9.9	.57	-9.9	d .78 .70	80.3	68.8	-5.7	q19
13	10117	4217	544.0A	1.8	.56	-9.9	.55	-9.9	c .79 .69	81.7	69.3	3.7	q13
17	10291	4242	528.0A	1.8	.56	-9.9	.55	-9.9	b .79 .67	83.3	70.0	12.9	q17
20	10010	4217	570.0A	1.7	.52	-9.9	.51	-9.9	a .80 .72	81.6	67.4	-17.0	q20
MEAN	9929.7	4206.6	555.1	1.9	.82	-6.0	.92	-2.9		75.2	68.5		
S.D.	600.7	48.6	52.1	.2	.33	6.8	.42	7.5		11.2	2.5		