



The Study of State and Local Implementation and Impact of the  
**Individuals with Disabilities Education Act**



Taken from:

***Volume I:  
Final Interim Report  
(1999-2000 School Year)***

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***Volume II:  
Technical Appendices for Final  
Interim Report  
(1999-2000 School Year)***

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**Exhibit 3.6a**

**Percentages of Schools Where Students with Disabilities Used Various Presentation Accommodations During Assessments (1999–2000 School Year)**

Type of Accommodation	Percent of Schools Using Accommodation <sup>1</sup>				
	All Schools	Schools Known to Have One or More Students with the Following Types of Disabilities: <sup>2</sup>			
		Behavior impaired	Cognitive impaired	Physically impaired	Sensory impaired
<b>Presentation Accommodations</b>					
Directions read aloud <sup>5</sup>	88.4 <sup>3</sup> (1.7) <sup>4</sup>	90.4 (2.05)	88.9 (2.14)	92.6 (1.53)	90.3 (2.57)
Questions read aloud <sup>5</sup>	85.3 (1.9)	84.0 (2.39)	85.4 (2.00)	87.3 (2.23)	83.1 (3.37)
Simplified directions	48.5 (3.7)	48.2 (3.55)	47.5 (3.30)	44.6 (3.74)	47.7 (4.72)
Assistance with interpretation of directions	46.6 (3.4)	47.6 (3.58)	47.2 (3.30)	43.5 (3.74)	43.4 (4.65)
Test read aloud	31.4 (2.8)	34.2 (3.48)	30.5 (3.01)	30.6 (3.47)	34.1 (4.63)
Large-print edition of test <sup>6</sup>	12.5 (1.7)	13.6 (2.17)	12.0 (2.04)	12.7 (2.06)	20.8 (3.83)
Important words highlighted	9.2 (1.8)	9.2 (1.99)	9.0 (2.06)	7.3 (1.94)	6.1 (1.87)
Fewer lines/items per page	8.6 (2.0)	5.6 (1.59)	7.9 (2.30)	6.7 (2.58)	4.1 (1.92)
Magnifying equipment <sup>6</sup>	7.4 (1.3)	9.1 (1.93)	7.0 (1.43)	8.2 (1.79)	14.6 (3.40)
Templates to reduce visual print field	7.2 (1.7)	6.9 (1.94)	7.1 (1.87)	8.8 (2.57)	8.1 (2.68)
Signed directions <sup>6</sup>	6.1 (1.4)	6.2 (1.45)	6.2 (1.67)	4.9 (1.15)	7.8 (1.91)
Extra spacing between lines	5.3 (1.4)	3.7 (1.18)	4.6 (1.55)	2.7 (0.84)	3.5 (1.45)
Amplification equipment	5.2 (1.0)	5.1 (1.44)	4.6 (1.15)	4.6 (1.23)	9.4 (2.76)
Taped version of test	3.5 (1.0)	5.0 (1.46)	3.8 (1.06)	3.5 (1.13)	4.7 (1.77)
Braille edition of test <sup>6</sup>	2.3 (0.6)	2.7 (0.93)	2.0 (0.64)	2.9 (0.96)	6.0 (1.95)

<sup>1</sup> The percent of schools where one or more student(s) received the assessment accommodation.

<sup>2</sup> The four disabilities categories were not mutually exclusive. Schools reporting more than one type of disability appeared in more than one column. The data on disability categories of students served were not available for some schools. Those schools are not included in any of the four columns in this section. The “all schools” column includes all schools with either known or missing disability category data. Under the design contract, the 13 disability categories were collapsed into the four as described in Volume II of this *Final Interim* report.

<sup>3</sup> Percent

<sup>4</sup> Standard error

<sup>5</sup> Ninety percent or more of states allowed this type of accommodation.

<sup>6</sup> Ninety percent or more of districts provided this type of accommodation.

**Exhibit 3.6b**

**Percentages of Schools Where Students with Disabilities Used Various Response Accommodations During Assessments (1999–2000 School Year)**

Type of Accommodation	Percent of Schools Using Accommodation <sup>1</sup>				
	All Schools	Schools Known to Have One or More Students with the Following Types of Disabilities: <sup>2</sup>			
		Behavior impaired	Cognitive impaired	Physically impaired	Sensory impaired
<b>Response Accommodations</b>					
Answers marked in test booklet	40.7 <sup>3</sup> (3.3) <sup>4</sup>	42.9 (3.65)	41.8 (3.38)	43.1 (3.94)	40.3 (4.67)
Oral responses	31.6 (3.6)	32.2 (3.43)	31.9 (3.21)	29.3 (3.53)	30.8 (4.65)
Calculator	29.2 (2.9)	34.6 (3.41)	28.7 (2.93)	28.1 (3.31)	34.0 (4.49)
Number tables or math fact sheets	18.2 (2.5)	20.3 (2.90)	18.7 (2.57)	17.8 (2.77)	17.5 (3.66)
Pointing to answers	15.2 (2.1)	14.7 (2.59)	14.7 (2.60)	14.3 (3.03)	12.5 (2.65)
Word lists/dictionaries	14.3 (2.6)	14.3 (2.50)	14.2 (2.52)	10.8 (2.17)	10.4 (2.79)
Computer/word processor used to respond	11.2 (1.6)	12.2 (2.03)	10.2 (1.60)	11.7 (2.00)	13.2 (2.70)
Spell checker	9.2 (1.7)	10.5 (2.05)	8.0 (1.47)	7.5 (1.57)	7.0 (1.99)
Altered worksheets/materials	7.1 (1.5)	7.1 (1.68)	6.9 (1.73)	4.9 (1.27)	3.7 (1.57)
Large pen or specially designed writing tool	4.3 (1.2)	3.7 (1.14)	4.2 (1.50)	3.1 (0.89)	5.0 (1.63)
Template used to respond	2.6 (1.2)	1.6 (0.92)	2.7 (1.44)	1.2 (0.54)	3.1 (1.87)
Response in sign language	2.1 (0.6)	2.1 (0.78)	1.7 (0.54)	2.2 (0.80)	3.2 (1.12)
Response in Braille	1.6 (0.5)	1.5 (0.59)	1.1(0.41)	1.6 (0.61)	3.4 (1.29)
Tape-recorded answers	1.2 (0.5)	1.8 (0.81)	1.2 (0.54)	1.0 (0.42)	3.0 (1.60)
Voice-activated computers	0.9 (0.6)	1.1 (0.89)	1.0 (0.63)	1.5 (0.94)	2.6 (1.88)

<sup>1</sup> The percent of schools where one or more student(s) received the assessment accommodation.

<sup>2</sup> The four disabilities categories were not mutually exclusive. Schools reporting more than one type of disability appeared in more than one column. The data on disability categories of students served were not available for some schools. Those schools are not included in any of the four columns in this section. The “all schools” column includes all schools with either known or missing disability category data. Under the design contract, the 13 disability categories were collapsed into the four as described in Volume II of this *Final Interim* report.

<sup>3</sup> Percent

<sup>4</sup> Standard error

**Exhibit 3.6c**

**Percentages of Schools Where Students with Disabilities Used Various Setting Accommodations During Assessments (1999–2000 School Year)**

Type of Accommodation	Percent of Schools Using Accommodation <sup>1</sup>				
	All Schools	Schools Known to Have One or More Students with the Following Types of Disabilities: <sup>2</sup>			
		Behavior impaired	Cognitive impaired	Physically impaired	Sensory impaired
<b>Setting Accommodations</b>					
Small group <sup>5</sup>	83.0 <sup>3</sup> (2.8) <sup>4</sup>	85.4 (2.58)	84.6 (2.31)	85.6 (2.80)	85.1 (3.68)
Separate room <sup>6</sup>	78.3 (2.6)	78.1 (2.86)	78.3 (2.62)	82.2 (2.57)	80.5 (3.69)
Special education class <sup>6</sup>	60.4 (3.7)	61.9 (3.57)	62.3 (3.19)	60.8 (3.88)	60.7 (4.94)
Special seating/proximity to monitor <sup>6</sup>	43.1 (2.7)	41.6 (3.59)	42.6 (3.38)	39.7 (3.89)	33.5 (4.49)
Behavioral support	38.0 (3.4)	38.0 (3.56)	37.4 (3.34)	35.8 (3.89)	31.5 (4.34)
Carrels <sup>6</sup>	16.6 (2.3)	17.0 (2.67)	15.8 (2.39)	19.1 (3.16)	17.7 (3.71)
Adaptive furniture <sup>6</sup>	10.4 (1.8)	12.9 (2.47)	10.2 (1.86)	12.2 (2.39)	18.4 (4.30)
Noise buffers	5.6 (1.1)	6.4 (1.55)	5.3 (1.13)	5.3 (1.21)	6.7 (2.22)
Home	3.4 (1.0)	4.9 (1.35)	3.7 (0.98)	5.0 (1.42)	6.1 (2.31)
Special lighting/acoustics	3.1 (0.9)	3.8 (1.27)	2.9 (0.92)	2.8 (0.90)	3.8 (1.80)

<sup>1</sup> The percent of schools where one or more student(s) received the assessment accommodation.

<sup>2</sup> The four disabilities categories were not mutually exclusive. Schools reporting more than one type of disability appeared in more than one column. The data on disability categories of students served were not available for some schools. Those schools are not included in any of the four columns in this section. The “all schools” column includes all schools with either known or missing disability category data. Under the design contract, the 13 disability categories were collapsed into the four as described in Volume II of this *Final Interim* report.

<sup>3</sup> Percent

<sup>4</sup> Standard error

<sup>5</sup> Ninety percent or more of states allowed this type of accommodation.

<sup>6</sup> Ninety percent or more of districts provided this type of accommodation.

**Exhibit 3.6d**

**Percentages of Schools Where Students with Disabilities Used Various Timing or Scheduling Accommodations During Assessments (1999–2000 School Year)**

Type of Accommodation	Percent of Schools Using Accommodation <sup>1</sup>				
	All Schools	Schools Known to Have One or More Students with the Following Types of Disabilities: <sup>2</sup>			
		Behavior impaired	Cognitive impaired	Physically impaired	Sensory impaired
<b>Timing or Scheduling Accommodations</b>					
Extended time <sup>6</sup>	81.4 <sup>3</sup> (2.5) <sup>4</sup>	80.1 (2.72)	81.5 (2.25)	79.3 (2.83)	78.7 (3.85)
Extra breaks during test	66.3 (3.0)	62.9 (3.41)	66.0 (2.92)	63.3 (3.58)	61.6 (4.65)
Multiple test sessions	62.1 (3.3)	59.9 (3.48)	62.7 (3.01)	59.0 (3.71)	55.2 (4.76)
Student-specific schedule	29.4 (3.0)	26.0 (3.19)	29.1 (3.22)	26.7 (3.60)	22.0 (4.15)

<sup>1</sup> The percent of schools where one or more student(s) received the assessment accommodation.

<sup>2</sup> The four disabilities categories were not mutually exclusive. Schools reporting more than one type of disability appeared in more than one column. The data on disability categories of students served were not available for some schools. Those schools are not included in any of the four columns in this section. The “all schools” column includes all schools with either known or missing disability category data. Under the design contract, the 13 disability categories were collapsed into the four as described in Volume II of this *Final Interim* report.

<sup>3</sup> Percent

<sup>4</sup> Standard error

<sup>5</sup> Ninety percent or more of states allowed this type of accommodation.

<sup>6</sup> Ninety percent or more of districts provided this type of accommodation.

# Appendix A. Design Objectives

In Appendix A, we describe each design objective for the Study of State and Local Implementation and Impact of the Individuals with Disabilities Act (SLIIDEA) under two phases: design and implementation. The design phase began in September of 1998, when the U.S. Department of Education (ED) contracted with the American Institutes for Research (AIR) to design SLIIDEA. The implementation phase began on April 7, 2000, when Abt Associates Inc. and its subcontractors, Westat and SRI, were charged with collecting, analyzing and reporting on SLIIDEA data as articulated under the design phase. The objectives under the design phase were to

- describe changes over time in the implementation of the 1997 Amendments to IDEA at the state, district and school levels;
- collect data that are nationally generalizable;
- produce statistical estimates with acceptable levels of precision;
- produce statistical estimates for subgroups of interest; and
- provide qualitative contextual information to enrich the interpretation of nationally representative findings.

Under the implementation phase, one more design objective was included: to minimize potential nonresponse bias in study estimates. Each of the objectives is described below.

## Describing Changes Over Time

Changes over time can be measured in two ways: one is to collect data on different samples in successive years (cross-sectional samples), and the other is to collect data on the same sample across years (longitudinal samples). For the Core Survey, the design is such that data will be collected from the same longitudinal sample over time, in order to measure change in the intermediate and long-term outcomes of interest. For the Focus Study component, we will use a combination of cross-sectional and longitudinal samples. The sample selection and instrument design for both the Core Survey and the Focus Study components need to reflect issues in cross-sectional and longitudinal data collection and analysis. These include ensuring large enough sample sizes to account for attrition over time, and designing instruments that allow for analysis of items over time.

## Generalizability

The study findings must be generalizable to all school districts in the country and to all public schools. To meet this objective, the district and school samples needed to be selected in such a way that every school district in the country (and every school in the country) was represented in the study sample. The district sample becomes *nationally representative* by applying a sampling weight to each district, based upon each district's probability of being selected into the sample. Similarly, the school sample becomes *nationally representative* by applying a sampling weight to each school in the sample based upon each school's probability of being selected into the sample.

## Precision of Statistical Estimates

Precision refers to the width of the confidence intervals around the study estimates. The smaller the confidence intervals, the more precise the study estimates are, and thus, the more confidence we have in the study findings. Other things being equal, the larger the sample size, the narrower the width of the confidence interval (i.e., the more precise the study estimates). It should also be noted that, with a given sample size, the confidence intervals are widest (i.e., the estimates are least precise) for study estimates of 50 percent. The width of the confidence intervals decreases as the study estimates get closer to 0 percent and 100 percent.

There is no universally acceptable level of precision; acceptable precision is subjective and is usually based on the consequences of the decisions being made using the study estimates. However, at some point, the confidence intervals might be so wide that the estimates are essentially meaningless. For this study, the expected level of precision is plus or minus four percentage points for districts, and two and a half percentage points for schools.

## Subgroup Estimates

In addition to producing reasonably precise estimates for districts and public schools, the study must be capable of producing reasonably precise estimates for subgroups of interest. In SLIIDEA, the important subgroups are school level—including elementary, middle and high schools—and student disability classification. During the design phase of SLIIDEA, 13 federal disability categories were clustered into four major disability categories: cognitive, behavioral, physical and sensory disabilities. (See Exhibit A1 for the four clusters.)

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### Exhibit A1

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#### Clusters of Major Disability Categories Used in SLIIDEA

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<b>Cognitive</b>	<b>Behavioral</b>	<b>Physical</b>	<b>Sensory</b>
<ul style="list-style-type: none"><li>• Specific learning disabilities</li><li>• Speech or language impairments</li><li>• Mental retardation</li><li>• Developmental delay</li></ul>	<ul style="list-style-type: none"><li>• Emotional disturbance</li><li>• Autism</li></ul>	<ul style="list-style-type: none"><li>• Orthopedic impairments</li><li>• Other health impairments</li><li>• Traumatic brain injury</li><li>• Multiple disabilities</li></ul>	<ul style="list-style-type: none"><li>• Hearing impairments</li><li>• Visual impairments</li><li>• Deaf-blindness</li></ul>

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Any reasonably sized nationally representative sample of districts will almost certainly contain a nationally representative sample of schools that serves each school level and each of the major disability categories. The design issue is not the representativeness of the subgroup samples, but rather the size of the subgroup samples and the corresponding precision of the subgroup estimates. It should be noted that the precision of the subgroup estimates will always be less than that of estimates for the entire sample. For SLIIDEA, the expected level of precision for subgroup estimates is plus or minus five percentage points.

## **Contextual Information**

SLIIDEA is charged with not only obtaining quantitative data on a nationally representative sample of districts and schools, but also with collecting qualitative data in order to provide the overall study with rich contextualized information on how the translation of policy into practice occurs at the federal, state and district levels. This data will be collected and analyzed at state, district and school building levels, and will involve gathering information from a multiple of perspectives.

## **Nonresponse Bias**

Some sampled districts either have not or will not agree to participate in the study. This is problematic only to the extent that (1) nonresponders are different from responders in meaningful ways (i.e., in the outcomes of interest) **and** (2) the nonresponse rate is relatively high. Under these conditions the study estimates would be biased (i.e., the estimates would not be truly nationally representative). For example, it may not matter if nonresponders were larger or smaller; or more urban or less urban; or were more often located in the West rather than in another region. It would matter if nonresponders were implementing the 1997 Amendments of IDEA differently than responders. In general, the effects of potential nonresponse bias cause little concern if the nonresponse rate is less than 20 percent.