



---

## Special Education Testing Accommodations in West Virginia: An Overview of Practices in 2003-2004

Georgia K. Hughes, M.A.  
Juan M. D'Brot IV, M.A.  
Karen Bradley, M.A.  
Joseph L. Holloway, B.S.  
Caitlin W. Howley, Ph.D.  
Kristine L. Chadwick, Ph.D.

September 2006

**EDVANTIA**<sup>TM</sup>  
Partners in education. Focused on results.

Edvantia is a nonprofit education research and development corporation, founded in 1966, that partners with practitioners, education agencies, publishers, and service providers to improve learning and advance student success. Edvantia provides clients with a range of services, including research, evaluation, professional development, and consulting.

For information about Edvantia research, products, or services, contact



P.O. Box 1348, Charleston, WV 25325 • 304.347.0400 • 800.624.912 • fax 304.347.0487  
One Vantage Way, Suite D-210, Nashville, TN 37228 • 615.565.0101 • fax 615.565.0112  
info@edvantia.org • www.edvantia.org

© 2006 by Edvantia, Inc.

Edvantia was founded in 1966 as the Appalachia Educational Laboratory, Inc. (AEL); on September 1, 2005, AEL became Edvantia, Inc.

This publication is based on work sponsored wholly by the West Virginia Department of Education. Its contents do not necessarily reflect the views of the West Virginia Department of Education or its staff.

Edvantia is an equal employment opportunity/affirmative action employer.

## TABLE OF CONTENTS

LIST OF TABLES .....	v
LIST OF FIGURES .....	vi
EXECUTIVE SUMMARY .....	vii
INTRODUCTION .....	1
Background .....	1
Types of Accommodations .....	2
Research Results .....	2
Research Questions .....	4
Research Design .....	4
Audience .....	4
PHASE I FINDINGS .....	5
Special Education WESTEST Population .....	6
WESTEST Performance .....	10
Prevalence of Accommodations for Special Education Students .....	10
Order of Accommodations .....	11
Accommodation Bundles .....	12
Disaggregated Special Education Student Accommodation Information .....	13
Accommodations by Gender .....	13
Accommodations by Race .....	13
Accommodations by SES .....	14
Accommodations by Locale (RESA) .....	14
Accommodations by Special Education Exceptionality .....	14
Average Number of Accommodations by Group .....	15
Summary of Disaggregated Accommodations .....	18
Disaggregated Special Education Student Achievement Information .....	18
Student Achievement Performance Levels by Gender .....	19
Student Achievement Performance Levels by Race .....	19
Student Achievement Performance Levels by SES .....	20
Student Achievement Performance Levels by RESA .....	21
Student Achievement Performance Levels by Special Education Exceptionality .....	23
Student Achievement Performance Levels by Number of Accommodations .....	25
SUMMARY .....	27
Recommendations for Future Investigations .....	28
REFERENCES .....	30

## APPENDIXES

- A: Information About Special Education Students Receiving the Alternate Assessment (2003-2004)
- B: Distribution of Economically Disadvantaged and Non-Economically Disadvantaged Students by Demographic Characteristics
- C: Descriptive Tables: Accommodations for Special Education Students
- D: Descriptive Tables: Special Education Students' WESTEST Performance Levels

## LIST OF TABLES

1. Frequency of Exceptionality in 2003-2004 WV Special Education Student Dataset.....	5
2. Distribution of Students by Grade Level Among Special Education Student WESTEST Population .....	6
3. Frequency of Students by RESA in Special Education WESTEST Population.....	7
4. Frequency of Exceptionality in Special Education WESTEST Population.....	7
5. Distribution of Exceptionality Across Grade Levels in Special Education WESTEST Population .....	9
6. Frequency of Exceptionality per Grade Level in Special Education WESTEST Population .....	9
7. WESTEST Performance Levels in Mathematics and Reading/Language Arts.....	10
8. Number of Accommodations per Students in the Special Education WESTEST Population .....	10
9. Average Number of Accommodations by Gender.....	15
10. Average Number of Accommodations by Race .....	16
11. Average Number of Accommodations by SES .....	16
12. Average Number of Accommodations by RESA .....	17
13. Average Number of Accommodations by Special Education Exceptionality .....	17

## LIST OF FIGURES

1. Percentage of students at each performance level for Mathematics and Reading/Language Arts by gender.....	19
2. Percentage of students at each performance level for Mathematics and Reading/Language Arts by race.....	20
3. Percentage of students at each performance level for Mathematics and Reading/Language Arts by SES.....	21
4. Percentage of students at each performance level for Mathematics by RESA.....	22
5. Percentage of students at each performance level for Reading/Language Arts by RESA.....	23
6. Percentage of students at each performance level for Mathematics by special education exceptionality.....	24
7. Percentage of students at each performance level for Reading/Language Arts by special education exceptionality.....	24
8. Percentage of Students at each performance level for Mathematics by number of accommodations.....	25
9. Percentage of Students at each performance level for Reading/Language Arts by number of accommodations.....	26

## EXECUTIVE SUMMARY

This report summarizes descriptive analyses of West Virginia special education students' testing accommodations and achievement test performance during the 2003-2004 school year. The frequency with which various testing accommodations were included in students' individualized education programs (IEPs) was examined, as was the frequency with which accommodations were bundled together. Researchers also disaggregated accommodation and achievement data by student characteristics including gender, race, SES, locale, special education exceptionality, and number of accommodations. The findings are summarized by research question.

### ***What testing accommodations are recommended for students identified for special education services?***

A total of 34 accommodations (14 of which are no longer in use by WVDE) were included in West Virginia special education students' IEPs at varying frequencies. The most frequent testing accommodation was having the test read aloud verbatim for mathematics, science, and social studies tests. The second most often occurring accommodation was allowing the use of extra time for any timed test. Three other accommodations each appeared in the IEPs of more than 3,000 students: providing extra breaks, having flexible scheduling, and having the directions only read aloud for Reading/Language Arts assessments.

### ***What accommodations are typically bundled?***

The most common accommodation bundle includes two accommodations: having the test read aloud for math, science, and social studies tests combined with allowing the use of extra time for any timed test. The second and third most frequent accommodation bundles also include two accommodations: reading the test aloud in combination with either providing extra breaks or having flexible scheduling, respectively.

### ***To what degree does accommodation vary by key student or school characteristics, such as free or reduced-price lunch status, race/ethnicity, locale, or disability?***

The tables presented in this report offer the reader information about the rate at which various groups receive each testing accommodation. The five most frequent accommodations remained fairly constant regardless of students' gender, race, SES, and locale. The average number of accommodations per student varied for different groups of students based on gender, race, locale, and exceptionality designation. This average generally ranged from 2.00 to 2.99 for the various groups.

The findings of Phase I provide descriptive data on the number of students in various categories (e.g., mastery achievement, accommodations, special education exceptionality). However, future research should focus on how the presence of accommodations may affect students' achievement scores. An effective means of determining the efficacy of accommodations may be to use a regression study to examine the effect of accommodations on achievement scores. This research question will be addressed in the Phase II study to be implemented in the 2006-2007 school year. Researchers will examine the effects of receiving accommodations on students' performance on achievement assessments.

## INTRODUCTION

The West Virginia Department of Education (WVDE) contracted with Edvantia, Inc. (formerly AEL) to conduct a study of the extent to which various testing accommodations are recommended for students with disabilities in the state. WVDE also sought to examine the effects of such accommodations on student performance. Phase I of the resulting study is described in this report.

### Background

Since the 1990s, federal education reforms have been aimed at improving educational results for all students (i.e., the Americans with Disabilities Act of 1990, Goals 2000: Educate America Act, and the No Child Left Behind Act of 2001). The 1997 and 2004 amendments to the Individuals with Disabilities Education Act (IDEA) reinforced the federal requirement to include students with disabilities in regular education reform initiatives, including statewide assessments (Landau, Vohs, & Romano, 1998; National Center on Educational Outcomes, 2005).

According to the U.S. Department of Education (2003), the 13 disability categories within IDEA can be classified into three major types:

1. sensory disabilities such as visual impairments, hearing impairments, deaf-blindness;
2. physical and neurological disabilities such as orthopedic impairments, other health impairments, traumatic brain injury, multiple disabilities, autism; and
3. developmental disabilities such as specific learning disabilities (SLD), speech and language impairments, emotional disturbance, mild mental retardation, and developmental delay. (U.S. Department of Education, 2003, p. 2)

Children receiving special education services under IDEA must meet criteria of one of the disability categories and must have a demonstrable educational need such as difficulty learning or adapting to the school environment (U.S. Department of Education, 2003). Students with disabilities are now expected to participate in statewide assessments, using accommodations as appropriate, with alternate assessments for those few students with disabilities so severe they are unable to participate in regular assessments, even with accommodations.<sup>1</sup>

Accommodations are changes in testing to enable students with disabilities to participate in a way that “allows abilities to be assessed rather than disabilities” (National Center on Educational Outcomes, 2005). Such accommodations can “level the playing field” by accurately measuring students’ knowledge and skills. Testing accommodations refer to “those changes that aid in the measurement of a given construct” (Bolt & Thurlow, 2004, p. 142).

---

<sup>1</sup> Alternate assessments are beyond the scope of this literature review.

## Types of Accommodations

Testing accommodations can be classified into five categories<sup>2</sup>: timing/scheduling accommodations, setting accommodations, presentation accommodations, response accommodations, and equipment and materials (Landau, Vohs, & Romano, 1998; National Center for Educational Outcomes, 2005; Thurlow, Lazarus, Thompson, & Morse, 2005). Timing/scheduling accommodations include testing at a particular time of day or week most beneficial to the student, offering multiple testing sessions with rest breaks interspersed throughout, extended time to complete testing, and untimed testing. Setting accommodations include individual or small group testing; testing in special locations such as a separate location, at the student's home, in the special education classroom, and so on; special lighting or acoustics; and the use of special or adaptive furniture. Presentation accommodations focus on the format of the test, such as large-print, Braille, and read-aloud directions or test items, and the use of sign language, listening devices, aides, and so forth. Response accommodations allow students to respond by writing directly in test booklets or by using machines, dictation, special writing equipment, computers, a scribe, and the like. Equipment and material accommodations include the use of such things as calculators or manipulatives.

## Research Results

In their research of state policies on assessment and accommodations, Thurlow, Lazarus, Thompson, and Morse (2005) identified Braille, scribes, writing in test booklets, and small-group administration as the most frequently mentioned accommodations in state policies. They found that reading directions or test items aloud, calculators, and the use of scribes to be the most controversial accommodations. Thurlow, Lazarus, Thompson, and Robey (2002) noted that the most common testing accommodation was the size or grip of pencils. Other common accommodations include extended time and extra breaks during the testing session (Thompson, Johnstone, & Thurlow, 2002).

Bolt and Thurlow (2004) conducted a review of the literature to identify those testing accommodations most frequently allowed in state policies. For the most part, the findings of Thurlow and colleagues (2005) were consistent with those of Bolt and Thurlow (2004) in terms of state policies allowing or mentioning accommodations. Excluding two least controversial accommodations (individual and small-group administration), Bolt and Thurlow identified five most frequently allowed testing accommodations: dictating responses to a scribe (43 states), large print (40 states), Braille (38 states), extended time (37 states), and using a sign language interpreter for instructions (36 states). These are the most frequently *allowed* testing accommodations—they are not necessarily the most frequently *used* accommodations. Bolt and Thurlow identified 36 relevant studies pertaining to the five accommodations. They found very limited research for the Braille and the use of an interpreter for instructions accommodations, some indication that the dictated response accommodation is effective in increasing students'

---

<sup>2</sup> West Virginia permits four categories of accommodations (presentation, response, setting, and timing/scheduling) for students with IEPs or Section 504 Plans. According to the West Virginia Department of Education (WVDE), "Testing accommodations are changes in the administration of an assessment, such as setting scheduling, timing, presentation format, response mode or others, including any combination of these, that does not change what is intended to be measured by the assessment or the meaning of the resulting scores" (p. 4, WVDE, 2005).

scores, and a mix of support and nonsupport for the accommodations of large print and extended time. Bolt and Thurlow suggest further empirical investigations on the effects of testing accommodations for students with disabilities.

For their 2006 study of state practices for reporting test scores for students with disabilities, Thurlow and Wiley collected statewide assessment data reported by the 50 states in 2001-2002. They found that 48 of the 50 states reported performance data for students with disabilities—39 states provided such results for all their assessments and 9 provided results for some assessments. For reading, about 15 of the 48 states (32%) reported that less than 20% of their elementary students with disabilities were proficient; by high school, the percent of states reporting less than 20% proficiency for students with disabilities rose to 93%. The authors found a similar trend for math. As students with disabilities progressed throughout grade levels, fewer scored as high as their peers without disabilities—the gap between the two groups increased. Further, earlier research by Thurlow (2002) found that accommodations are used to a greater degree at the elementary level than at the middle or high school levels.

In a summary of 2002-2003 state assessment data, Thurlow, Moen, and Wiley (2005) reported on reading and mathematics “proficient” rates. Of the 45 states for which rates could be calculated for reading and mathematics assessments, “generally less than 30% of students on IEPs performed at a level considered proficient” (p. 22). The following number of states reported proficiency rates higher than 30% for reading: 25 at the elementary level, 7 at the middle school level, and 10 at the high school level. For mathematics, the following number of states reported proficiency rates higher than 30% for students with disabilities: 26 at the elementary level, 4 at the middle school level, and 7 at the high school level.

Thompson, Johnstone, Thurlow, and Altman (2005) reported on the results of the tenth survey of state directors of special education conducted by the National Center on Educational Outcomes at the University of Minnesota. Forty-four states can now document trends for at least 3 years on the statewide assessments of students with disabilities. In 2005, 37 of those 44 states (84%) noted a positive trend in achievement for these students. Respondents attributed these trends to the following six factors:

1. clearly communicated participation policy (72%)
2. better alignment of individualized education programs (IEPs) with standards (64%)
3. improved professional development (56%)
4. development and provision of accommodation guidelines and training (54%)
5. increased access to standards-based instruction (52%)
6. improved data collection (52%)

Thompson and colleagues (2005) found four emerging assessment practices for students with disabilities: “field testing in alternate formats, item analysis for students with disabilities, disaggregated results by disability and language group, and universally designed assessments” (p. 17).

As schools, districts, and states strive to meet the goals for adequate yearly progress (AYP) as required by the No Child Left Behind (NCLB) Act of 2001, students must receive the

instruction needed to reach grade-level proficiency and the support needed to demonstrate that proficiency. According to Thompson, Johnstone, Thurlow, and Altman (2005), “one of the greatest improvements is the increased trend toward proficiency on state assessments by students with disabilities” (p. 1).

## **Research Questions**

This study is the first phase of a two-phase project being conducted for the West Virginia Department of Education (WVDE) by Edvantia. The purpose of the first phase is to provide a descriptive analysis of the use of testing accommodations for special education students in West Virginia. Research questions for the current phase are listed below.

- What testing accommodations are recommended for students identified for special education services?
- What accommodations are typically bundled?
- To what degree does accommodation vary by key student or school characteristics, such as free or reduced-price meal status, race/ethnicity, locale, or disability?

During the next phase of the project, to be completed in 2007, Edvantia researchers will analyze the effects of accommodations on student achievement (i.e., performance on the WESTEST). This second phase of the project will be detailed in subsequent reports. Researchers will compare the accommodated scores of special education students with non-accommodated scores for those same students to determine the influence of accommodations.

## **Research Design**

The study described in this report included analysis of an existing dataset. WVDE provided Edvantia with statewide assessment data from the West Virginia Education Information System (WVEIS) for all special education students. Edvantia staff cleaned and prepared the special education student dataset for analysis. Staff then performed descriptive analyses of accommodations employed during the 2003-2004 administration of the WESTEST. Analyses included the calculation of percentages, measures of central tendency, and cross tabulations, as appropriate. Data were also disaggregated by various significant student variables (e.g., race, gender, socioeconomic status).

## **Audience**

The primary audience for this report includes WVDE staff. Secondary audiences may include policymakers, district and school special education staff, and staff involved in assessment.

## PHASE I FINDINGS

The statewide database of special education students in Grades 3-8 and 10 included 24,936 cases for analysis. The 24,936 special education students represented in the database account for about 9% of all West Virginia students during the 2003-2004 school year ( $n = 281,215$ ). Among these students, 8,476 (34%) were female and 16,460 (66%) were male. Almost all students (23,356; 94%) were White; African American students (1,357) accounted for 5% of the population, and other ethnicities (Asian/Pacific Islander, Hispanic, and American Indian) combined accounted for about 1%. Nearly three-fourths of the students (17,873; 72%) were classified as economically disadvantaged (as operationalized by qualification for free or reduced-price meals)<sup>3</sup>. Students were evenly distributed across the seven grade levels represented in the dataset, with students in each grade representing between 12% and 15% of the total population. Only 68 students (0.3%) had limited proficiency in English, and only 10 (less than 0.01%) were migrants. Two hundred forty-seven students (1%) fell under Section 504, which means that they have been identified to receive services based on Section 504 of federal law but are not designated as active special education students.

Special education students in West Virginia are coded across multiple exceptionality classifications. Table 1 presents the frequency with which each exceptionality was represented in the full dataset. For two students, no information about exceptionality designation was available.

**Table 1. Frequency of Exceptionality in 2003-2004  
WV Special Education Student Dataset**

<b>Exceptionality Designation</b>	<b>Exceptionality Codes</b>	<b><i>n</i></b>	<b>%</b>
Specific Learning Disabilities	LD	10,850	43.51
Mildly Mentally Impaired	MM	4,745	19.03
Speech/Language Impairment	CD	3,632	14.57
Other Health Impaired	OH	2,905	11.65
Behavior Disorders	BD	1,375	5.51
Moderately Mentally Impaired	MD	496	1.99
Autism	AU	298	1.20
Deaf and Hard of Hearing	HI	213	0.85
Blind and Partially Sighted	VI	109	0.44
Orthopedically Impaired	PH	97	0.39
Severely Mentally Impaired	MS	93	0.37
Traumatic Brain Injury	TB	77	0.31
Profoundly Mentally Impaired	MP	44	0.18

*Note.* The percentages represent the percentage of the total special education student population within each exceptionality designation.

Of the nearly 25,000 students represented in the database, 23,266 were administered form B or C of the WESTEST, and six were given the Braille form of the assessment. Another 1,100

<sup>3</sup> In conversations with WVDE personnel, staff members expressed great interest in examining the distribution of economically disadvantaged students by other demographic characteristics. These data are presented in Appendix B.

were administered the alternate form of the WESTEST. Additionally, 566 student cases were missing information about what form of the state assessment was administered. Because the students were administered the alternate form of the assessment or because there was no information about which form the student received, these 1,666 cases were excluded from further analyses. However, because WVDE personnel expressed an interest in the performance of students who completed the alternate assessment, basic descriptive statistics for those students' performance levels on the alternate assessment are presented in Appendix A.

### Special Education WESTEST Population

The students in the dataset who were administered form B or C of the WESTEST and those who received the Braille form of the assessment ( $N = 23,270$ ) form the population of special education students under analysis for this paper. Almost all students in the analysis (23,211; 99.7%) received Form B of the WESTEST. Form C was administered to 55 students (0.2%), and the Braille form of the assessment was given to six students (less than 0.01%). From this point forward, these 23,270 students will be referred to as the “special education WESTEST population.”

Representation of gender, ethnic, SES, limited English proficient (LEP), and migrant groups in this population remained unchanged from the full special education population described in the previous section. Among these students, 7,904 (34%) were female, and 15,366 (66%) were male. Nearly all (21,798; 94%) were White. African American students (1,267) accounted for 5% of the population, and other ethnicities (Asian/Pacific Islander, Hispanic, and American Indian) together accounted for about 1%. Most students (16,719; 72%) were classified as economically disadvantaged (as operationalized by qualification for free or reduced-price meals). Only 65 students (0.3%) were classified as LEP, and 8 students (less than 0.01%) were migrants. Two hundred forty-one students (1%) had Section 504 plans in place. Students were evenly distributed across the seven grade levels represented. The distribution of students by grade level is presented in Table 2.

**Table 2. Distribution of Students by Grade Level Among Special Education Student WESTEST Population**

Grade Level	<i>n</i>	%
Third	3,593	15.4
Fourth	3,422	14.7
Fifth	3,367	14.5
Sixth	3,223	13.8
Seventh	3,427	14.7
Eighth	3,480	15.0
Tenth	2,758	11.9

*Note.* The percentages represent the percentage of the special education student population at each grade level.

West Virginia's school districts are organized into Regional Education Service Agency (RESA) areas. RESAs were established in 1972 when the West Virginia Legislature enacted

legislation that led the West Virginia Board of Education to establish multicounty agencies for the purpose of providing high-quality, cost-effective educational programs and services to county school systems. Each RESA provides services to a particular region encompassing several county school districts. Table 3 presents the number of students in each RESA for the special education WESTEST population.

**Table 3. Frequency of Students by RESA in Special Education WESTEST Population**

RESA	Counties	<i>n</i>	%
I	Raleigh, Wyoming, McDowell, Summers, Mercer, Monroe	2,665	11.5
II	Cabell, Lincoln, Logan, Mason, Mingo, Wayne	3,245	13.9
III	Boone, Clay, Kanawha, Putnam	3,413	14.7
IV	Braxton, Fayette, Greenbrier, Nicholas, Pocahontas, Webster	1,928	8.3
V	Calhoun, Jackson, Pleasants, Ritchie, Roane, Tyler, Wirt, Wood	2,228	9.6
VI	Hancock, Brooke, Ohio, Marshall, Wetzel	1,772	7.6
VII	Barbour, Doddridge, Gilmer, Harrison, Lewis, Marion, Monongalia, Preston, Randolph, Taylor, Tucker, Upshur	4,687	20.1
VIII	Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton	3,332	14.3

*Note.* The percentages represent the percentage of the special education student population in each RESA.

The special education exceptionality that was noted most frequently in the analysis population was specific learning disability (46% of students). Students who were mildly mentally impaired were the second largest group (18.3%). Table 4 presents the distribution of exceptionality classifications represented among the students in the special education WESTEST population. For two students, no special education classification was available.

**Table 4. Frequency of Exceptionality in Special Education WESTEST Population**

Exceptionality Designation	Exceptionality Codes	<i>n</i>	%
Specific Learning Disabilities	LD	10,651	45.8
Mildly Mentally Impaired	MM	4,265	18.3
Speech/language Impairment	CD	3,616	15.5
Other Health Impaired	OH	2,783	12.0
Behavior Disorders	BD	1,290	5.5
Deaf and Hard of Hearing	HI	209	0.9
Autism	AU	158	0.7
Blind and Partially Sighted	VI	107	0.5
Orthopedically Impaired	PH	72	0.3
Traumatic Brain Injury	TB	60	0.3
Moderately Mentally Impaired	MD	57	0.2
Profoundly Mentally Impaired	MP	0	0
Severely Mentally Impaired	MS	0	0

*Note.* The percentages represent the percentage of the special education student population within each exceptionality designation.

Some variations were found in the distribution of exceptionalities across grade levels. For instance, 44% of students with speech/language impairments were third-grade students, and tenth-grade students accounted for less than 1% of students with those impairments. Some

exceptionalities were distributed slightly more equitably across grade levels, although no exceptionality was distributed equally across grades. For example, of all students with specific learning disabilities, about 10% were third-grade students, 12% were fourth-grade students, 14% were fifth-grade students, 15% were sixth-grade students, 17% were seventh-grade students, 18% were eighth-grade students, and 16% were tenth-grade students. Table 5 presents distribution of exceptionality classifications across grades represented among the special education WESTEST population.

The percentage of students in each grade level who were classified within each exceptionality designation also varied. For instance, 28% of all third grade students had specific learning disabilities, while 60% of all tenth grade students were identified as having specific learning disabilities. Third-grade students were most likely to have a speech/language impairment (44% of all third-grade students). Students at all other grade levels were most likely to have specific learning disabilities. Students in most grade levels were generally least likely to have moderate mental impairment (0.2% of fourth-grade students, 0.3% of fifth-grade students, 0.3% of sixth-grade students, 0.3% of tenth-grade students), orthopedic impairment (0.3% of sixth-grade students, 0.1% of seventh-grade students, 0.2% of eighth-grade students), traumatic brain injury (0.1% of third-grade students), or autism (0.3% of tenth-grade students). For each grade level, the percentage of students with each exceptionality also differed from the overall distribution of exceptionality designations (presented in Table 4). Table 6 presents the distribution of exceptionality classifications for students in each grade level.

**Table 5. Distribution of Exceptionality Across Grade Levels in Special Education WESTEST Population**

Exceptionality Designation	N	Grade Level													
		3		4		5		6		7		8		10	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
Specific Learning Disabilities	10,651	1,021	9.6	1,268	11.9	1,436	13.5	1,547	14.5	1,854	17.4	1,867	17.5	1,658	15.6
Mildly Mentally Impaired	4,265	465	10.9	526	12.3	619	14.5	665	15.6	673	15.8	738	17.3	579	13.6
Speech/language Impairment	3,616	1,583	43.8	1,019	28.2	562	15.5	250	6.9	107	3.0	78	2.2	17	0.5
Other Health Impaired	2,783	299	10.7	387	13.9	413	14.8	455	16.3	461	16.6	475	17.1	293	10.5
Behavior Disorders	1,290	123	9.5	141	10.9	216	16.7	205	15.9	230	17.8	237	18.4	138	10.7
Deaf and Hard of Hearing	209	24	11.5	29	13.9	37	17.7	27	12.9	36	17.2	23	11.0	33	15.8
Autism	158	40	25.3	19	12.0	33	20.9	21	13.3	21	13.3	17	10.8	7	4.4
Blind and Partially Sighted	107	15	14.0	11	10.3	14	13.1	21	19.6	19	17.8	18	16.8	9	8.4
Orthopedically Impaired	72	16	22.2	9	12.5	18	25.0	9	12.5	4	5.6	7	9.7	9	12.5
Traumatic Brain Injury	60	2	3.3	7	11.7	10	16.7	13	21.7	10	16.7	10	16.7	8	13.3
Moderately Mentally Impaired	57	5	8.8	6	10.5	9	15.8	9	15.8	11	19.3	10	17.5	7	12.3

Note. The percentages represent the percentage of special education students within each exceptionality designation represented in each grade level.

**Table 6. Frequency of Exceptionality per Grade Level in Special Education WESTEST Population**

Exceptionality Designation	Grade Level													
	3		4		5		6		7		8		10	
	(N = 3,593)		(N = 3,422)		(N = 3,367)		(N = 3,223)		(N = 3,427)		(N = 3,480)		(N = 2,758)	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Specific Learning Disabilities	1,021	28.4	1,268	37.1	1,436	42.6	1,547	48.0	1,854	54.1	1,867	53.6	1,658	60.1
Mildly Mentally Impaired	465	12.9	526	15.4	619	18.4	665	20.6	673	19.6	738	21.2	579	21.0
Speech/language Impairment	1,583	44.1	1,019	29.8	562	16.7	250	7.8	107	3.1	78	2.2	17	0.6
Other Health Impaired	299	8.3	387	11.3	413	12.3	455	14.1	461	13.5	475	13.6	293	10.6
Behavior Disorders	123	3.4	141	4.1	216	6.4	205	6.4	230	6.7	237	6.8	138	5.0
Deaf and Hard of Hearing	24	0.7	29	0.8	37	1.1	27	0.8	36	1.1	23	0.7	33	1.2
Autism	40	1.1	19	0.6	33	1.0	21	0.7	21	0.6	17	0.5	7	0.3
Blind and Partially Sighted	15	0.4	11	0.3	14	0.4	21	0.7	19	0.6	18	0.5	9	0.3
Orthopedically Impaired	16	0.4	9	0.3	18	0.5	9	0.3	4	0.1	7	0.2	9	0.3
Traumatic Brain Injury	2	0.1	7	0.2	10	0.3	13	0.4	10	0.3	10	0.3	8	0.3
Moderately Mentally Impaired	5	0.1	6	0.2	9	0.3	9	0.3	11	0.3	10	0.3	7	0.3

Note. The percentages represent the percentage of special education students in each grade level classified within each exceptionality designation.

## WESTEST Performance

Researchers examined the WESTEST scores of special education students included in the 2003-2004 dataset. Mathematics and reading/language arts scores were selected because, at the present time, *NCLB* requirements focus only on those particular areas of student performance. The WESTEST mathematics and reading/language arts (RLA) scores of students in the analysis dataset indicate that most students are at or below *Partial Mastery*. For one student, the mathematics proficiency level was not available. RLA proficiency level information was not available for 99 students. Table 7 presents WESTEST math and RLA performance information for students included in the special education WESTEST population.

**Table 7. WESTEST Performance Levels in Mathematics and Reading/Language Arts**

Performance Level	Mathematics		Reading/Language Arts	
	<i>n</i>	%	<i>n</i>	%
Novice	6,516	28.0	5,413	23.3
Partial Mastery	8,792	37.8	9,548	41.0
Mastery	6,391	27.5	6,636	28.5
Above Mastery	1,283	5.5	1,381	5.9
Distinguished	287	1.2	193	0.8

### Prevalence of Accommodations for Special Education Students

In West Virginia, up to six accommodations may be made for special education students during testing<sup>4</sup>. Slightly more than one third (8,785; 38%) of students included in the special education WESTEST population had no assessment accommodations associated with their cases. Slightly less than half of the students (9,812; 42%) had either one or two accommodations. See Table 8 for the frequency with which students received varying numbers of accommodations.

**Table 8. Number of Accommodations per Student Included in the Special Education WESTEST Population**

Number of Accommodations	<i>n</i>	%
0	8,785	37.8
1	4,994	21.5
2	4,818	20.7
3	2,664	11.4
4	1,240	5.3
5	495	2.1
6	274	1.2

<sup>4</sup> WVDE bases testing accommodations on available research and collaborations with experts and stakeholder groups. IEP Teams and Section 504 Committees select accommodations for students from a list of approved and allowable accommodations.

The 2003-2004 dataset contained coded information for 34 testing accommodations. Of those 34 accommodations, 14 are no longer in use by WVDE<sup>5</sup> (please refer to Table C.1 in Appendix C for a complete list of current and out-of-date accommodations). However, for the purpose of this report, they are included (by code and description, where known) in the analyses. In total, 31,701 accommodations were included in the individualized education programs (IEPs) of the 23,270 students. Of the total number of accommodations, the 20 active accommodation codes accounted for 29,942 (94.5%) accommodations; the 14 out-of-date codes accounted for 1,759 accommodations (5.5%). Table C.1 (found in Appendix C) presents the frequency with which each accommodation was included in students' IEPs.

The most frequent accommodation in 2003-2004 was having the test read aloud (except for RLA assessments), which was present for 12,525 students (53.8% of all students; 39.5% of all accommodations). The second most frequently occurring accommodation was the use of extra time for any timed test (e.g., PLAN, EXPLORE). Nearly 6,300 students (27.1% of all students; 19.9% of all accommodations) received this accommodation. Use of extra time, however, is not applicable to the WESTEST, which is not a timed assessment. The least frequent currently used accommodation was use of a secure electronic Braille note taker for test directions and stimulus material (4 students; less than 0.1% of students and of accommodations). Among the out-of-date accommodation codes, use of a calculator or arithmetic tables (except where prohibited) was present most frequently in students' IEPs; 1,003 students (4.3% of students; 3.2% of accommodations) were to receive that accommodation. The accommodation promoting use of a calculator (coded R06) was the sixth most-frequent accommodation overall. Refer to Table C.1 for complete information about the frequency with which each accommodation appeared in the database.

### **Order of Accommodations**

Students in West Virginia may receive up to six testing accommodations. Information in the 2003-2004 special education student dataset specified the order in which accommodations were included in students' IEPs. The most frequently occurring first accommodation was reading the test aloud (including all directions, stimulus materials, questions, response options, and so on) verbatim for all tests but RLA assessments; that accommodation was present for 11,745 students, representing 81.1% of all first-order accommodations. The most frequently occurring second accommodation was use of extra time for any timed test, present for 3,036 students (32% of all second accommodations). Use of extra time was the most frequent third accommodation (1,466 students; 31.4% of all third accommodations). The most frequently occurring accommodation for the remaining positions (four through six) was use of flexible scheduling for tests (687 students, 34.2% of fourth accommodations; 308 students, 39.8% of fifth; and 132 students, 47.0% of sixth). Table C.2 (found in Appendix C) presents the most frequent accommodations for each IEP accommodation position (first through sixth).

---

<sup>5</sup> WVDE periodically reviews testing accommodations and makes additions and deletions to reflect current practices. Some of the 14 out-of-date accommodations were removed during the 2004-2005 testing year, and some were removed prior to that year.

## Accommodation Bundles

Because students may have more than one accommodation, it is important to look at the data to determine whether certain combinations of accommodations occur frequently for special education students. Edvantia researchers examined each student's accommodations and determined patterns of accommodation combinations, or "bundles." The bundles then were tallied to determine the number of special education students receiving each bundle of accommodations.

Researchers found more than 500 bundles of two or more accommodations for at least one student. In 248 of those cases, the bundle was present for only one student. For another 237 bundles, more than one but fewer than 50 students were to receive the bundle of accommodations (accounting for 1,861 students). Bundles provided to 50 or more students were determined to be of sufficient magnitude to include in this report. In all, 26 bundles of accommodations occurred for 50 or more students. These 26 accommodation bundles accounted for 7,382 students. Table C.3 (found in Appendix C) presents the number of students who received each accommodation bundle (listed by accommodation code).

The 26 accommodation bundles were composed of various combinations of eleven accommodations. The accommodation most frequently combined with others—appearing in 24 of the 26 bundles—was code P02, having the test read aloud for non-RLA assessments (e.g., mathematics, science). Another presentation accommodation (P15, having directions only read aloud for RLA assessments) and a time accommodation (T04, using extra time for any timed test) were the second most frequently bundled accommodations, appearing in 11 bundles each. The reader is reminded that the WESTEST is not a timed test, and the use of extra time is not applicable to WESTEST. Two other accommodations were included in nine bundles each: code T03, providing extra breaks during testing, and code T07, using flexible scheduling.

The most frequently occurring bundle of accommodations was P02/T04, having the test read aloud for non-RLA assessments and using extra time for any timed test. In all, 2,234 students (9.6% of all students in the analysis population) received this accommodation bundle. The second and third most frequently occurring bundles were P02/T03, having tests read aloud for non-RLA assessments and providing extra breaks ( $n = 544$ ; 2.3% of all students) and P02/T07, having tests read aloud for non-RLA assessments and having flexible scheduling ( $n = 536$ ; 2.3% of all students). Among bundles consisting of three accommodations, the most common bundle was P02/P15/T04, having tests read aloud for non-RLA assessments, having directions only read aloud for RLA assessments, and using extra time for timed tests ( $n = 482$ ; 2.1% of all students). The most frequently occurring four-accommodation bundle consisted of codes P02/T03/T04/T07, read aloud for non-RLA assessments, providing extra breaks, using extra time, and allowing flexible scheduling. This four-accommodation bundle was present for 363 students (1.6% of all students). Only one five-accommodation bundle occurred for more than 50 students. The bundle of P02/P15/T03/T04/T07 (which is similar to the previously mentioned four-accommodation bundle with the addition of having directions read aloud for RLA assessments) was received by 158 students (0.7% of all students considered for analysis). Please refer to Table C.3 for a complete list of frequently occurring accommodation bundles.

## **Disaggregated Special Education Student Accommodation Information**

Edvantia researchers disaggregated the special education students' accommodations by various student characteristics including gender, ethnicity, SES (using eligibility for free or reduced-price meals as a proxy measure), RESA, and exceptionality designation. The following section presents the frequency with which each accommodation occurred for members of each group. Tables displaying these data are presented in Appendix C. Within each table, students with multiple accommodations are included in the counts for all applicable accommodations. Percentages displayed in each table (see Appendix C) represent the percentages of students per applicable group (e.g., female, male, low SES, Hispanic) with the accommodation.

### **Accommodations by Gender**

The data for the 23,270 students included in the dataset were disaggregated according to student gender. The most frequently occurring accommodation for both female and male students was having the test read aloud verbatim for mathematics, science, and social studies tests (54% of both male and female students). The second most frequently occurring accommodation for both female and male students was use of extra time for any timed test (about 27% of both female and male students). The third most frequent accommodation differed for each gender. For female students, the third most frequent accommodation was having flexible scheduling on the test day without providing extra study opportunities (13%); and for male students, providing extra breaks on the day of the test without extra study opportunities was the third most frequent accommodation (15%). Please refer to Table C.4 (found in Appendix C) for a complete list of accommodations by student gender.

### **Accommodations by Race**

Among the students under analysis, 48 were Asian (.2%), 1,267 were African American (5.4%), 122 were Hispanic (.5%), 35 were American Indian (.15%), and 21,798 were White (93.7%). The most frequent accommodation for all races was having the test read aloud verbatim for mathematics, science, and social studies tests (46% of Asians, 57% of African Americans, 61% of Hispanics, 40% of American Indians, and 54% of Whites). The second most frequently occurring accommodation for Asians, African Americans, Hispanics, and Whites was the use of extra time for any timed test (29% of Asians, 30% of African Americans, 28% of Hispanics, 27% of Whites). The second most frequently occurring accommodation for American Indians was having flexible scheduling on the test day without providing extra study opportunities for the student (17%).

The third most frequent accommodation for African American and White students was providing extra breaks on the test day without allowing extra study opportunities (17% of African Americans; 14% of Whites). The third most frequent accommodation for Asians was having flexible scheduling on the day of the test without providing extra study time (19%). For Hispanics, the third most frequent accommodations were providing extra breaks during the testing day (15%) and having directions only read aloud on the RLA portions of the test (15%). For American Indians, the third most frequent accommodations were using extra time for any

timed test (11%) and providing extra breaks during the test (11%). Please refer to Table C.5 (in Appendix C) for a complete list of accommodations by student race.

### **Accommodations by SES**

Edvantia researchers disaggregated the dataset according to student socioeconomic status (SES). The most frequent accommodation for both SES groups was having the test read aloud verbatim for mathematics, science, and social studies tests (58% of eligible and 42% of non-eligible students). The second most frequently occurring accommodation for both SES groups was the use of extra time for any timed test (28% eligible and 24% of non-eligible students). For both SES groups, the third most frequently occurring accommodation was providing extra breaks on the day of the test without allowing extra study opportunities. Please refer to Table C.6 (see Appendix C) for a complete list of accommodations by student SES.

### **Accommodations by Locale (RESA)**

The dataset also was disaggregated according to locale, as delineated by RESA. Please refer to Table 3 for the distributions of students by RESA. The most frequent accommodation for all locales was having the test read aloud verbatim for mathematics, science, and social studies tests. The second most frequent accommodation for all locales except RESA III was use of extra time for any timed test. For RESA III, the second most frequent accommodation was providing extra breaks on the day of the test without extra study opportunities. The third most frequent accommodation for RESAs I, II, IV, and VII was having directions read aloud only on the RLA portion of the test. For RESA III, the third most frequent accommodation was the use of extra time for any timed test, and for both RESA V and RESA VI, the third most frequent accommodation was providing extra breaks. The third most frequent accommodation for RESA VIII was having flexible scheduling on the day of the test without providing extra study opportunities. Table C.7 (found in Appendix C) presents a complete list of accommodations by RESA.

### **Accommodations by Special Education Exceptionality**

Special education exceptionality information was available for 23,268 students in the dataset. Table 4 provides a complete distribution of the number of students by exceptionality. The most prevalent accommodation for all special education students, except visually impaired students, was having the test read aloud verbatim for mathematics, science, and social studies tests. The most frequently occurring accommodation for visually impaired students was the use of large-print editions of the test when it is the student's typical mode of accessing written material. The second most prevalent accommodation for all special education students except two groups (blind or partially sighted and orthopedically impaired students) was the use of extra time for any timed test. For blind or partially sighted students, the second most frequent accommodation was having mathematics, science, and social studies tests read aloud; and for orthopedically impaired students, the second most frequent accommodation was indicating responses to a scribe for selected response items.

The use of extra time for any timed test was the third most frequent accommodation for blind or partially sighted and orthopedically impaired students. The third most frequent

accommodation for students with other health impairments, behavior disorders, autism, and traumatic brain injury was providing extra breaks on the day of the test. The third most frequent accommodation for learning disabled, hearing impaired, and moderately mentally impaired students was having flexible scheduling on the test day. The third most frequent accommodation for students with mild mental impairment and speech or language impairment was having directions only read aloud on the RLA portion of the test. Please refer to Table C.8 in Appendix C for a complete list of accommodations by special education exceptionality.

### **Average Number of Accommodations by Group**

Edvantia researchers examined the average number of accommodations for students in each of the groups previously described. The average number of accommodations for students in each group provides a common number for comparison. By examining the average, one can quickly determine whether accommodations in general occur more or less often for one group in comparison with another. Tables 9 through 13 present information about the average number of accommodations for students by gender, race, SES, locale, and special education exceptionality. These tables also present the number of students in each group who had no accommodations as well as those who had one or more accommodations in their IEPs.

Of the 23,270 special education students in the database, boys outnumbered girls by about 2 to 1. However, the percentage of each group with any accommodations was about the same (62% of females and 63% of male students had at least one accommodation). On average, female students with any accommodations had 2.15 accommodations. Male students had a slightly higher average number of accommodations (2.21 on average). Table 9 summarizes the information about students' average number of accommodations by gender.

**Table 9. Average Number of Accommodations by Gender**

<b>Gender</b>	<b># Students with No Accommodations</b>	<b># Students with Any Accommodations</b>	<b>Average Number of Accommodations per Student</b>
Female	3,027	4,877	2.15
Male	5,758	9,608	2.21

*Note.* The average number of accommodations per student was calculated based only on the data for students with any accommodations.

Edvantia researchers also examined the average number of accommodations by student race. The likelihood that special education students had at least one accommodation varied slightly by race. Although the rates of having at least one accommodation were similar for Asian (50%) and American Indian (51%) students, the rates were higher for White students (62%) and for both Hispanic and African American students (70% for both groups). American Indian students had the lowest average number of accommodations (2.11 accommodations per student), and Asian students had the highest number of accommodations (2.83 on average). The average number of accommodations for White, African American, and Hispanic students ranged from 2.19 to 2.38. Please see Table 10 for more information.

**Table 10. Average Number of Accommodations by Race**

<b>Race</b>	<b># Students with No Accommodations</b>	<b># Students with Any Accommodations</b>	<b>Average Number of Accommodations per Student</b>
Asian	24	24	2.83
African American	386	881	2.22
Hispanic	37	85	2.38
American Indian	17	18	2.11
White	8,321	13,477	2.19

*Note.* The average number of accommodations per student was calculated based only on the data for students with any accommodations.

In the special education student population under analysis in this study, students who were eligible for free and reduced-price meals outnumbered those who were not eligible by nearly 2.5 to 1. The rates at which these students were to receive accommodations did not differ quite so dramatically between the groups, however. About 66% of students who were economically disadvantaged had at least one accommodation, and about 52% of those who were not eligible had at least one accommodation. Both groups of students had the same number of accommodations (2.19 on average). Table 11 presents the information about the number of students with any accommodation and the average number of accommodation for both SES groups.

**Table 11. Average Number of Accommodations by SES**

<b>Economically Disadvantaged</b>	<b># Students with No Accommodations</b>	<b># Students with Any Accommodations</b>	<b>Average Number of Accommodations per Student</b>
Yes	5,642	11,077	2.19
No	3,143	3,408	2.19

*Note.* The average number of accommodations per student was calculated based only on the data for students with any accommodations.

Researchers examined the average number of accommodations per student in each of West Virginia's eight RESAs. The rates at which special education students received accommodations varied quite a bit among the RESAs. In RESA V, 53% of special education students had at least one accommodation; in RESA I, however, 73% of special education students had at least one accommodation in their IEPs. The rates within the other RESAs ranged from 60% (RESA II) to 66% (RESA VI). The average number of accommodations also varied widely. In RESA VII, special education students had 1.91 accommodations, and in RESA VI, the average number of accommodations was 2.58. Table 12 presents the average number of accommodations per student for each RESA.

**Table 12. Average Number of Accommodations by RESA**

<b>RESA</b>	<b># Students with No Accommodations</b>	<b># Students with Any Accommodations</b>	<b>Average Number of Accommodations per Student</b>
I	724	1,941	2.00
II	1,299	1,946	2.16
III	1,238	2,175	2.48
IV	744	1,184	2.41
V	1,039	1,189	2.03
VI	605	1,167	2.58
VII	1,821	2,866	1.91
VIII	1,315	2,017	2.23

*Note.* The average number of accommodations per student was calculated based only on the data for students with any accommodations.

Finally, Edvantia researchers examined the average number of accommodations for special education students based on their exceptionality designations. Fewer than 2% of students with speech or language impairment had any accommodations. For most groups of students, however, the percentages of students with one or more accommodations ranged from 55% to 87%. Table 13 presents information about the number of students per group who had at least one accommodation as well as those who did not have any accommodations. The average number of accommodations per student also varied tremendously across the special education exceptionality designations. Moderately mentally impaired students had the lowest average number of accommodations with 2.04. Autistic students, meanwhile, had almost 3 accommodations on average. For eight of the remaining groups, the average number of accommodations ranged between 2.10 and 2.40. The final group, orthopedically impaired students, had more than 2.8 accommodations in their IEPs on average. Table 13 presents the average number of accommodations for special education students based on their exceptionality designations.

**Table 13. Average Number of Accommodations by Special Education Exceptionality**

<b>Special Education Exceptionality</b>	<b>Code</b>	<b># Students with No Accommodations</b>	<b># Students with Any Accommodations</b>	<b>Average Number of Accommodations per Student</b>
Specific Learning Disabilities	LD	2,981	7,670	2.12
Mildly Mentally Impaired	MM	535	3,730	2.28
Speech/language Impairment	CD	3,549	67	2.10
Other Health Impaired	OH	956	1,827	2.21
Behavior Disorders	BD	578	712	2.17
Deaf and Hard of Hearing	HI	80	129	2.39
Autism	AU	25	133	2.99
Blind and Partially Sighted	VI	31	76	2.21
Orthopedically Impaired	PH	23	49	2.88
Traumatic Brain Injury	TB	19	41	2.34
Moderately Mentally Impaired	MD	8	49	2.04

*Note.* The average number of accommodations per student was calculated based only on the data for students with any accommodations.

## Summary of Disaggregated Accommodation Data

The 2003-2004 dataset was disaggregated by various student and school characteristics including gender, race, SES, locale, and special education exceptionality. With an exception for only one group (blind or partially sighted students), the most frequent testing accommodation for each group was having mathematics, science, and social studies tests read aloud. This finding is not surprising given that this accommodation is also the most frequent accommodation overall. The second and third most frequently accommodations varied somewhat for the various groups but tended to be the following accommodations: using extra time for any timed assessment, providing extra breaks during the test day, allowing flexible scheduling for the test, and reading aloud the directions only for RLA assessments. Among the out-of-date accommodations that are no longer used by WVDE, the most frequent accommodation for all groups was the use of a calculator or arithmetic tables except when such use was not permitted. The average number of accommodations for special education students varies with students' demographic characteristics such as gender, race, locale, and exceptionality designation. The only exception is for SES status; students in both the economically disadvantaged and non-disadvantaged groups had the same average number of accommodations. For the most part, the average number of accommodations ranges between 2.00 and 2.99.

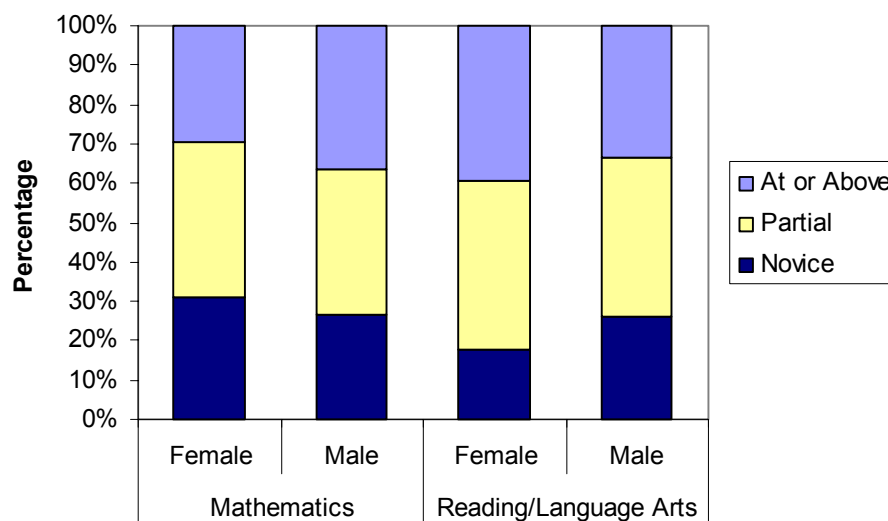
## Disaggregated Special Education Student Achievement Information

Edvantia researchers disaggregated West Virginia's special education students' WESTEST achievement data by the same characteristics used to disaggregate accommodation data: gender, ethnicity, SES, RESA, and exceptionality designation. In addition, researchers disaggregated WESTEST performance by the number of testing accommodations. The following section presents the student achievement performance levels of students in each of these groups. Tables displaying these data are presented in Appendix D. Percentages displayed in each table represent the percentage of students per applicable group (e.g., female, male, low SES, Hispanic) who achieved each mastery level. Within the table describing students' mastery levels by accommodations, students having multiple accommodations are included in the counts for all applicable accommodations (see Appendix D).

The WESTEST assesses students' mastery of the West Virginia Content Standards and Objectives (CSOs). Five performance levels describe students' mastery of the CSOs (as measured by the WESTEST): *Novice*, *Partial Mastery*, *Mastery*, *Above Mastery*, and *Distinguished*. For the purposes of this report, WESTEST achievement data were recoded into three categories: *Novice*, *Partial Mastery*, and *At or Above Mastery*. For the final category (*At or Above Mastery*), the performance levels of *Mastery*, *Above Mastery*, and *Distinguished* were combined to create a designation of having achieved mastery of the skills and concepts tested. The other two categories, *Novice* and *Partial Mastery*, were left as distinct categories to differentiate between student performance that was almost at an acceptable level of mastery and performance that was much below desired levels.

## Student Achievement Performance Levels by Gender

WESTEST data for the 23,270 students were disaggregated according to student gender. Of the female students, 31% performed at the *Novice* level and 39% performed at the *Partial Mastery* level on the mathematics portion of the WESTEST. Male students' performance on the mathematics assessment was slightly better than the female students' performance. About 26% of male students performed at the *Novice* level and 37% performed at the *Partial Mastery* level in math. Boys achieved or exceeded Mastery in mathematics at a slightly higher rate than girls (37% of boys versus 30% of girls). Girls, however, tended to achieve Mastery on the RLA assessment at a higher rate than boys. On the RLA portion of the test, 18% of the female students performed at the *Novice* level, 43% performed at the *Partial Mastery* level, and 39% performed *At or Above Mastery*. Of the male students, 26% scored at the *Novice* level, 40% scored at the *Partial Mastery* level, and 33% performed *At or Above Mastery* on the RLA assessment. Figure 1 displays the percentages of female and male students performing at each level for both assessments. Please refer to Table D.1 (found in Appendix D) for WESTEST performance level data by gender.



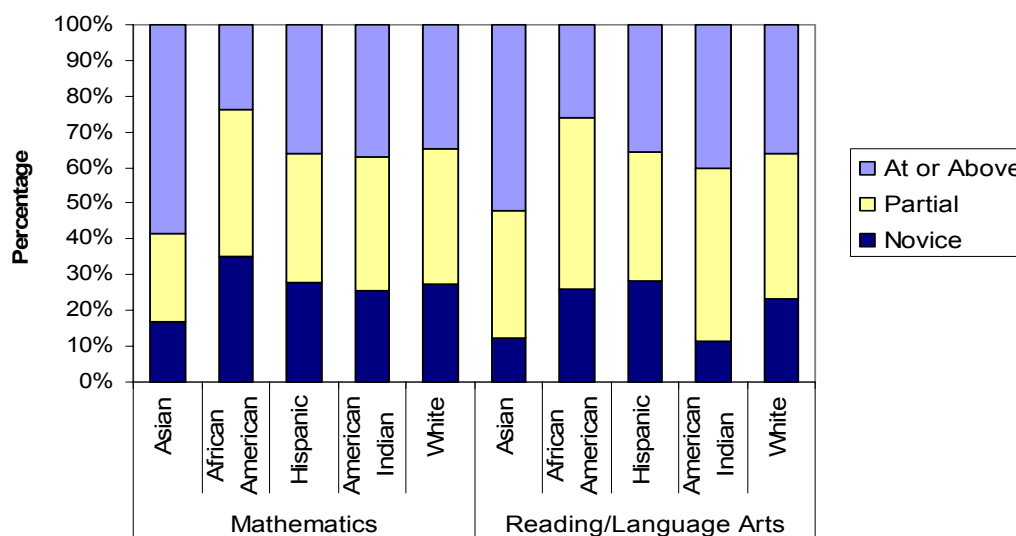
**Figure 1.** Percentage of students at each performance level for Mathematics and Reading/Language Arts by gender.

## Student Achievement Performance Levels by Race

The special education students' WESTEST performance data were disaggregated according to student race. Students identified as Asian consistently performed *At or Above Mastery* for both mathematics (58%) and RLA (52%) portions of the WESTEST. Asian students had the lowest *Novice* rate for math (17%) and the second lowest *Novice* rate on the RLA assessment (13%). American Indian students had the lowest *Novice* performance rate for RLA (11%) and the second lowest rate of *Novice* performance in math (26%). Students identified as American Indian also had the second highest rate of achieving or exceeding Mastery for both the math (37%) and RLA (40%) assessments.

Students identified as White and those identified as Hispanic performed comparably to one another on both portions of the WESTEST. On the mathematics assessment, 28% of White students and 28% of Hispanic students performed at the *Novice* level; 35% of White students and 36% of Hispanic students achieved or exceeded Mastery in math. On the RLA assessment, 23% of White students and 28% of Hispanic students performed at the *Novice* level. These groups of students achieved or exceeded Mastery for RLA skills and concepts at nearly equal rates (36% of White students and 35% of Hispanic students).

Those students identified as African American exhibited the fewest number of students who performed *At or Above Mastery* for both the mathematics (24%) and RLA (26%) portions of the WESTEST. African American students had the highest percentage of students performing at the *Novice* level for math (35%). However, a slightly smaller percentage of African American students than Hispanic students performed at the *Novice* level on the RLA assessment (26% for African American students versus 28% of Hispanic students). Figure 2 displays the percentage of students performing at each level by race for both the math and RLA assessments. Table D.2 (see Appendix D) presents students' WESTEST performance levels disaggregated by race.

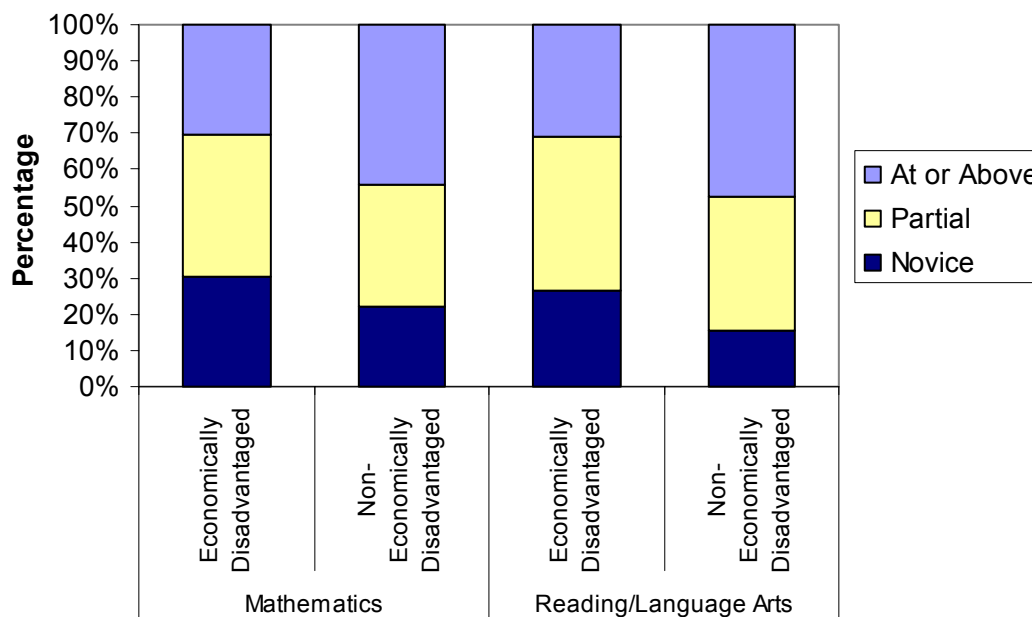


**Figure 2.** Percentage of students at each performance level for Mathematics and Reading/Language Arts by race.

### Student Achievement Performance Levels by SES

Students' SES was used as a characteristic for disaggregating students' WESTEST performance. Of those students who were economically disadvantaged, 30% scored at the *Novice* level and 39% scored at the *Partial Mastery* level on the mathematics portion of the WESTEST. Additionally, 26% and 43% of low-SES students scored at the *Novice* level and at the *Partial Mastery* level (respectively) for the RLA assessment. About 30% of low-SES students achieved or exceeded Mastery on both assessments. Students who were not economically disadvantaged tended to perform better on both the mathematics and RLA assessments. Of those students who were not economically disadvantaged, 22% scored at the *Novice* level and 34% scored at the

*Partial Mastery* level on the mathematics portion of the WESTEST, with another 44% achieving or exceeding Mastery. On the RLA assessment, 15% of non-disadvantaged students performed at the *Novice* level, 37% performed at the *Partial Mastery* level, and 47% achieved or exceeded Mastery. Please refer to Table D.3 in Appendix D for complete achievement information by SES. Figure 3 displays this information graphically for both assessments.



**Figure 3.** Percentage of students at each performance level for Mathematics and Reading/Language Arts by SES (economically disadvantaged, non-disadvantaged).

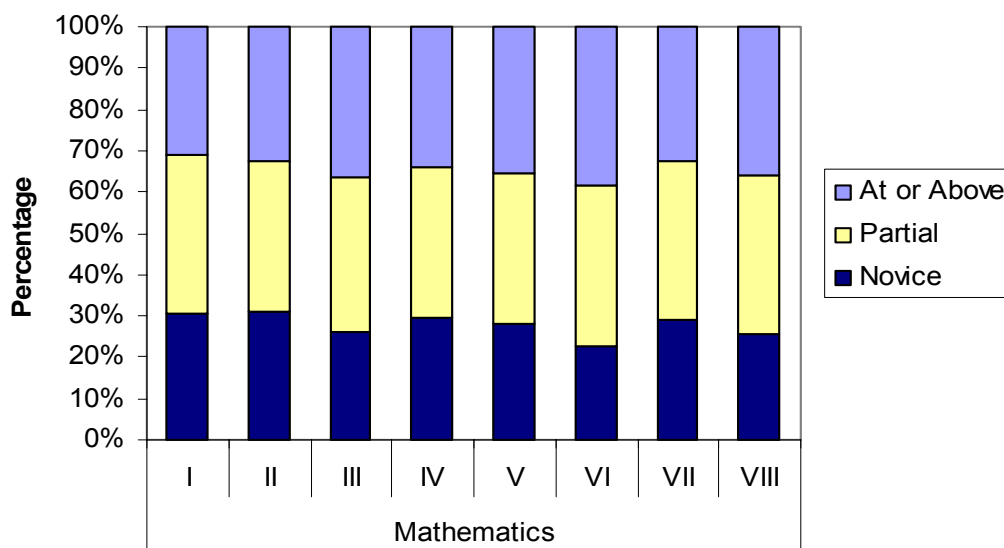
### Student Achievement Performance Levels by RESA

RESA was used as an indicator of locale for the purposes of disaggregating special education student achievement data. Refer to Table 3 for a complete distribution of students by RESA. When examining all locales, none had more than 40% of its students scoring *At or Above Mastery*. The highest percentage of students performing *At or Above Mastery* in mathematics was observed in RESA VI (39%). RESAs III and VIII had the next highest percentages of students achieving or exceeding mathematics Mastery performance levels (about 36% each). The percentages of students performing *At or Above Mastery* in other RESAs were 35% in RESA V, 34% in RESA IV, 33% in RESA VII, and 32% in RESA II. The smallest percentage of students achieving or exceeding mathematics Mastery was found in RESA I, in which 31% of students performed at that level.

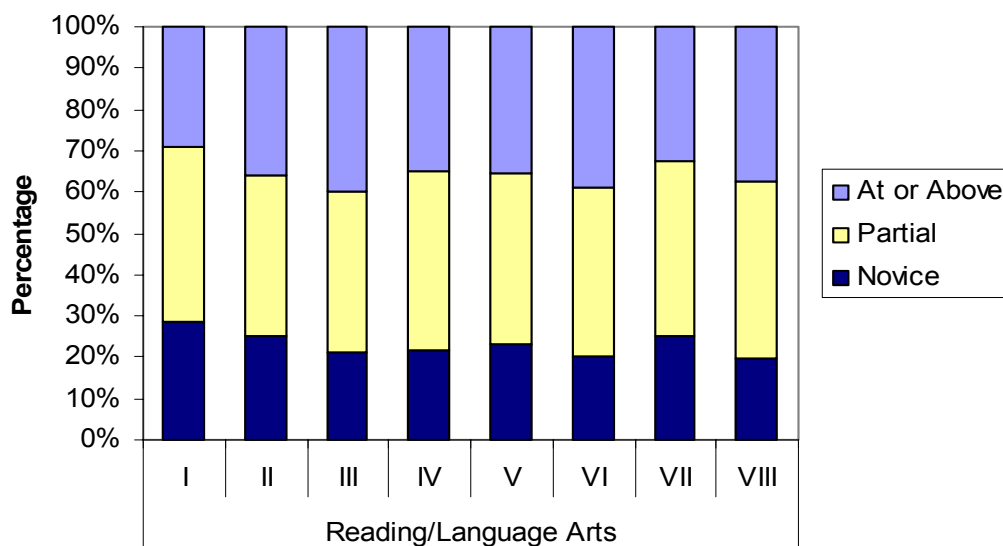
From 29% to 40% of students per RESA performed *At or Above Mastery* on the RLA portion of the WESTEST. RESA III had the highest percentage of students (40%) performing *At or Above Mastery* on the RLA assessment, followed by RESAs VI (39%), VIII (37%), II (36%), V (35%), IV (35%), and VII (32%). As with the mathematics assessment, RESA I had the lowest percentage of students (29%) achieving or exceeding Mastery on the RLA assessment.

Students performed at the *Partial Mastery* level for both math and RLA assessments at fairly comparable rates across locales. The percentages of students performing at the *Partial Mastery* level in mathematics ranged from 36% to 39% per RESA. Likewise, the percentages of students performing at the *Partial Mastery* level on the RLA assessment ranged from 39% to 43% in each locale.

RESAs I and II had the highest percentages of students performing at the *Novice* level on the mathematics assessment (31% each). Those RESAs were followed by RESAs IV (30%), VII (29%), V (28%), III (26%), and VIII (25%) in the frequency of students performing at the *Novice* level. RESA VI had the smallest percentage of students (23%) who performed at the *Novice* level in mathematics. In terms of *Novice* level performance on the RLA portion of the WESTEST, RESA I (29%) had the highest percentage of students at that performance level, followed by RESAs VII (25%), II (25%), V (23%), IV (22%), III (21%), and VI (20%). RESA VIII, with slightly less than 20% of its students performing at the *Novice* level, had the lowest percentage of students at the *Novice* level for RLA skills and concepts. Table D.4 (found in Appendix D) presents students' performance levels by RESA. Figure 4 presents the disaggregated performance data for the mathematics assessment, and Figure 5 presents the performance data by RESA for the RLA assessment.



**Figure 4.** Percentage of students at each performance level for Mathematics by RESA.



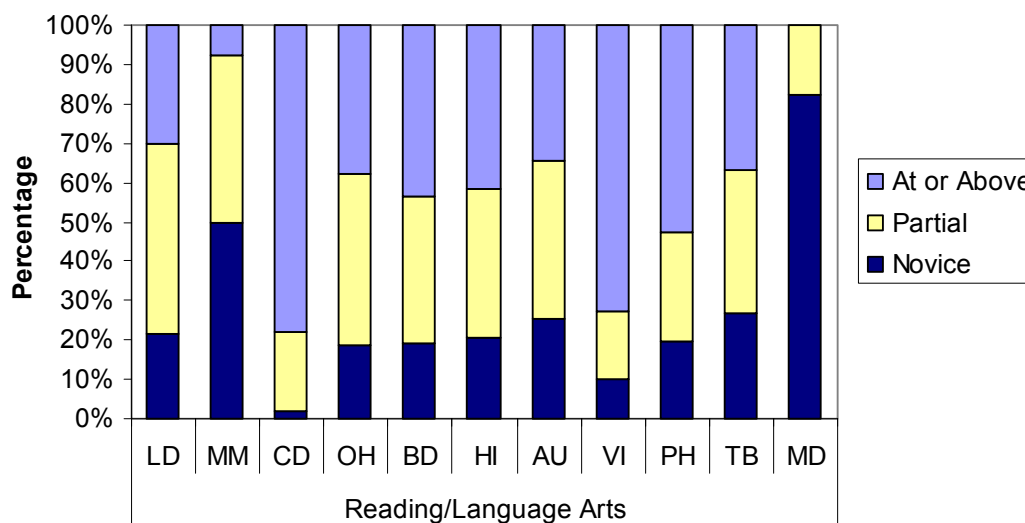
**Figure 5.** Percentage of students at each performance level for Reading/Language Arts by RESA.

### Student Achievement Performance Levels by Special Education Exceptionality

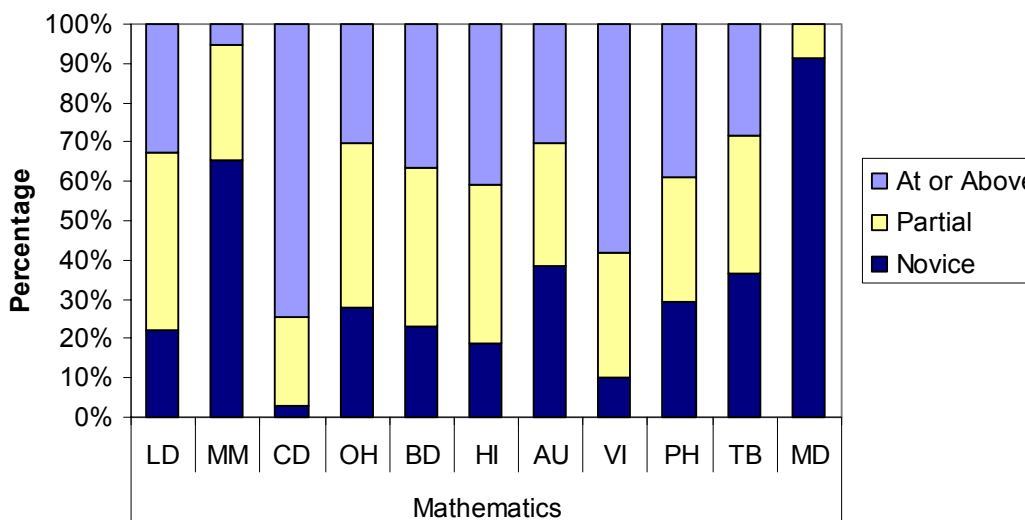
WESTEST data were disaggregated by special education exceptionality for the 23,268 students for whom such information was available. Table 4 presents the number of students with each exceptionality diagnosis. The percentages of students in each group who achieved or exceeded Mastery level performance on both assessments varied widely, ranging from 0% to 78%. On the mathematics assessment, 75% of students with speech or language impairments performed *At or Above Mastery*, the highest percentage among the groups. The following percentages of students in other groups attained mastery or better in math: visually impaired (58%), deaf and hard of hearing (41%), orthopedically impaired (39%), behavior disorders (37%), specific learning disabilities (33%), autistic (30%), other health impairments (30%), traumatic brain injury (28%), mildly mentally impaired (5%), and moderately mentally impaired (0%). On the RLA assessment, students with speech or language impairments again demonstrated the highest levels of performance *At or Above Mastery* levels (78%). The other groups of special education students achieved or exceeded Mastery of RLA skills and concepts at the following rates: 73% of blind and partially sighted students, 53% of orthopedically impaired students, 43% of students with behavior disorders, 42% of students who are deaf or hard of hearing, 38% of students with other health impairments, 37% of students with traumatic brain injuries, 34% of autistic students, 30% of students with specific learning disabilities, 7% of mildly mentally impaired students, and 0% of moderately mentally impaired students.

The percentage of students in each exceptionality group who achieved *Partial Mastery* on the WESTEST mathematics assessment ranged from 9% (for moderately mentally impaired students) to 45% (students with specific learning disabilities). Performance at the *Novice* level ranged from 3% (students with speech or language impairments) to 91% (moderately mentally impaired students). *Partial Mastery* level performance on the RLA assessment also varied among the exceptionality groups, from 17% (for visually impaired students) to 48% (students with specific learning disabilities). The largest variations among the groups, however, were seen at the *Novice* performance level on the RLA assessment, at which the groups of students

performed with widely different frequency—from 2% of students with speech or language impairments to 82% of moderately mentally impaired students. Please refer to Table D.5 (in Appendix D) for a complete account of WESTEST performance by special education exceptionality. Figures 6 and 7 present the percentages of students at each performance level, disaggregated by exceptionality, for math and RLA assessments, respectively.



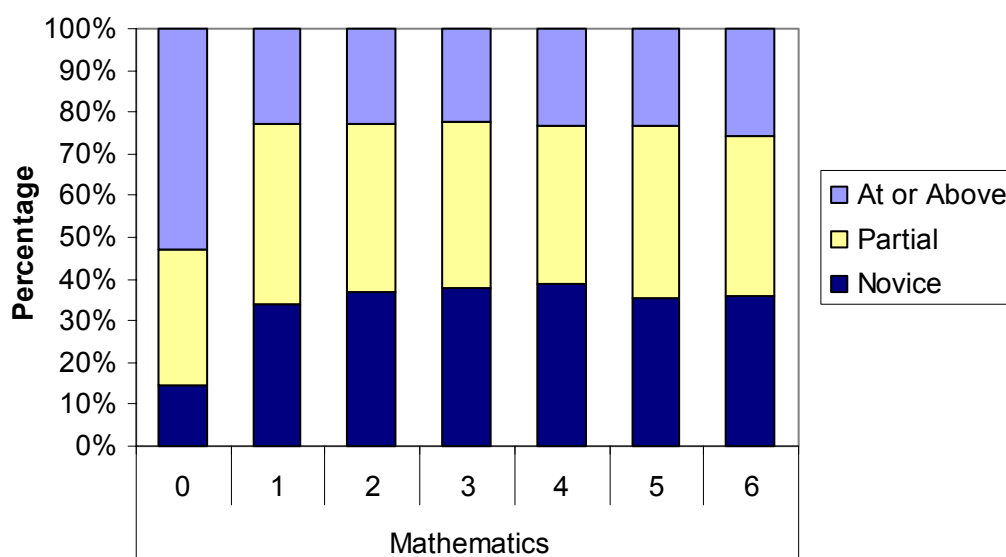
**Figure 6.** Percentage of students at each performance level for Mathematics by special education exceptionality.



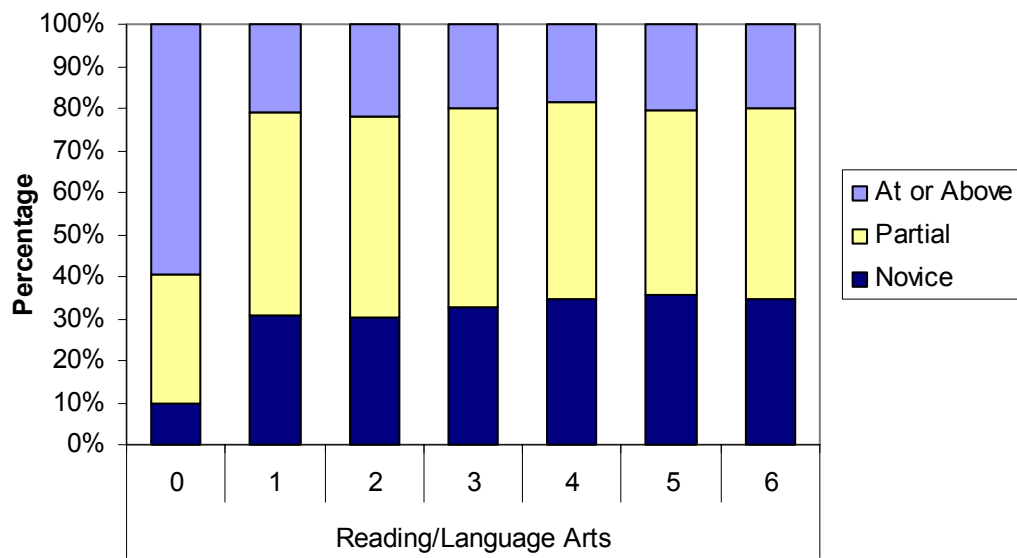
**Figure 7.** Percentage of students at each performance level for Reading/Language Arts by special education exceptionality.

### Student Achievement Performance Levels by Number of Accommodations

Students' performance levels for the mathematics and RLA portions of the WESTEST were disaggregated according to the number of accommodations. More than half of those students who needed no accommodations scored *At or Above Mastery* on the mathematics (53%) and RLA (59%) portions of the WESTEST. For all students needing any number of accommodations (from 1 to 6 accommodations), 22% to 25% scored *At or Above Mastery* on the mathematics portion of the WESTEST, and 20% to 21% scored *At or Above Mastery* on the RLA assessment. Of those students who needed no accommodations, 14% scored at the *Novice* level and 33% scored at the *Partial Mastery* level on the mathematics portion of the WESTEST. Additionally, about 10% of the students who needed no accommodations scored at the *Novice* level and 31% scored at the *Partial Mastery* level on the RLA assessment. For those students needing any number of accommodations (from 1 to 6), 33% to 38% of students scored at the *Novice* level, and 38% to 43% of students scored at the *Partial Mastery* level on the mathematics portion of the WESTEST. Of the students in need of accommodations, 30% to 35% scored at the *Novice* level and 44% to 48% scored at the *Partial Mastery* level on the RLA assessment. Please refer to Table D.6 in Appendix D for a complete description of students' performance levels by the number of accommodations; Figures 8 and 9 present this information for the mathematics and RLA assessments, respectively.



**Figure 8.** Percentage of students at each performance level for Mathematics by number of accommodations.



**Figure 9.** Percentage of students at each performance level for Reading/Language Arts by number of accommodations.

## SUMMARY

This report has summarized descriptive analyses of West Virginia special education students' testing accommodations and achievement test performance during the 2003-2004 school year. The frequency with which various testing accommodations were included in students' IEPs was examined, as was the frequency with which accommodations were bundled together. Researchers also disaggregated accommodation and achievement data by student characteristics including gender, race, SES, locale, special education exceptionality, and number of accommodations.

*What testing accommodations are recommended for students identified for special education services?*

In all, 34 accommodations (14 of which are no longer in use by WVDE) were included in West Virginia special education students' IEPs at varying frequencies. The most frequent testing accommodation was having the test read aloud verbatim for mathematics, science, and social studies tests. The second most often occurring accommodation was allowing the use of extra time for any timed test. This particular accommodation, however, is not applicable to the WESTEST because that assessment is not timed. Three other accommodations each appeared in the IEPs of more than 3,000 students: providing extra breaks, having flexible scheduling, and having the directions only read aloud for RLA assessments. Of the five most frequently accommodations, then, three relate to issues of time and two relate to issues of test presentation.

*What accommodations are typically bundled?*

Accommodation bundles, or groups of accommodations, typically include a presentation accommodation (most often, having the test or instructions read aloud) with another type of accommodation, most frequently a time consideration. In fact, of the 26 bundles considered in this report, every one has at least one presentation accommodation, and 21 also include at least one time accommodation. The most common accommodation bundle includes two accommodations: having the test read aloud for math, science, and social studies tests (presentation) combined with allowing the use of extra time for any timed test (time). The second and third most frequent accommodation bundles also include two accommodations: reading the test aloud in combination with a time accommodation (providing extra breaks and having flexible scheduling, respectively).

*To what degree do accommodations vary by key student or school characteristics, such as free or reduced-price meal status, race/ethnicity, locale, or disability?*

The tables presented in this report offer the reader information about the rate at which various groups receive each testing accommodation. The five most frequent accommodations remained fairly constant regardless of students' gender, race, SES, and locale. Although the frequency with which each individual accommodation occurred for various specific groups, the five most frequent accommodations were having tests read aloud for mathematics, science, and social studies tests; using extra time for timed assessments; providing more breaks on the testing day; having flexible scheduling during the test; and having directions only read aloud for RLA

assessments. In terms of the frequency of accommodations for groups of special education students, the most obvious differences were observed among special education exceptionality designations. The average number of accommodations per student varied quite a bit for different groups of students based on gender, race, locale, and exceptionality designation. This average generally ranged from 2.00 to 2.99 for the various groups. Unfortunately, however, meaningful statistical analyses could not be conducted with the available data to determine whether significant differences existed among various groups in terms of accommodations.

Although the research questions for the current phase of this research project do not explicitly address special education students' performance on the WESTEST, researchers examined these data to provide a preliminary summary of student achievement data. Differences in student performance were most noticeable for those groups based on student race, SES, and—particularly—special education exceptionality designation. It is important to note that 57 moderately mentally impaired students were administered a regular form of the WESTEST rather than an alternate assessment. The mathematics and RLA assessment data presented in this report indicate that none of these students were able to achieve mastery in those WESTEST subject areas. Such findings stress the importance of providing these students with sufficient and appropriate support to allow them to demonstrate their knowledge and skills.

### **Recommendations for Future Investigations**

Although the findings of Phase I provide descriptive data on the number of students in various categories (e.g., mastery achievement, accommodations, special education exceptionality), future research should focus on how the presence of accommodations may affect students' achievement scores. The information contained in the dataset used for this study allows one to determine students' WESTEST performance by accommodations, gender, SES, and a myriad of other factors. The data on the performance level of each student according to the number of accommodations may provide a preliminary insight into students' achievement with accommodations by allowing the examination of differences or similarities in rates of achievement of Mastery or higher performance levels. While the findings of the achievement by accommodation data indicate the highest percentage of students who score *At or Above Mastery* on the mathematics and reading/language arts portions of the WESTEST are those who have no accommodations, it is not possible to infer that those students scored higher because they have no accommodations.

An effective means of determining the efficacy of accommodations may be to examine the effect of accommodations on achievement scores via a methodologically appropriate research design. This research question will be addressed in the Phase II study to be implemented in the 2006-2007 school year. Researchers will examine the effects of receiving accommodations on students' performance on achievement assessments.

Additionally, future research should examine whether there are differences in achievement between accommodation status and type and whether those differences are significant and meaningful. Interaction effects may also need to be examined to determine if accommodation type, disability group, or any other significant school or student variables affect student achievement singularly or when combined. Although we have gleaned specific insights

into the accommodations and WESTEST performance for students of different genders, races, socioeconomic statuses, locales, and special education exceptionalities, more information needs to be gathered. With a greater understanding of the effects of accommodations, coupled with a more thorough examination of student and school variables, educators and researchers may be able to utilize accommodations more effectively and appropriately.

## REFERENCES

- Bolt, S. E., & Thurlow, M. L. (2004). Five of the most frequently allowed testing accommodations in state policy: Synthesis of research. *Remedial and Special Education, 25*(3), 141-152.
- Landau, J. K., Vohs, J. R., & Romano, C. A. (1998). *All kids count*. Boston, MA: Federation for Children with Special Needs. Retrieved February 2, 2006, from [http://www.ldonline.org/ld\\_indepth/special\\_education/thurlow\\_assessment.html](http://www.ldonline.org/ld_indepth/special_education/thurlow_assessment.html)
- National Center on Educational Outcomes. (2005). *Special topic area: Accommodations for students with disabilities. Introduction*. Retrieved February 10, 2006, from <http://education.umn.edu/NCEO/TopicAreas/Accommodations/Accomtopic.htm>
- Thompson, S. J., Johnstone, C. J., & Thurlow, M. L. (2002). *Universal design applied to large-scale assessments* (Synthesis Report 44). Minneapolis: University of Minnesota, National Center on Educational Outcomes. Retrieved February 10, 2006, from: <http://education.umn.edu/NCEO/OnlinePubs/Synthesis44.html>
- Thompson, S. J., Johnstone, C. J., Thurlow, M. L., & Altman, J. R. (2005). *2005 state special education outcomes: Steps forward in a decade of change*. Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Thurlow, M. (2002). *Accommodations for students with disabilities in high school. Issue brief*. Minneapolis, MN: National Center on Secondary Education and Transition.
- Thurlow, M. L., Lazarus, S. S., Thompson, S. J., & Morse, A. B. (2005). State policies on assessment participation and accommodations for students with disabilities. *Journal of Special Education, 38*(4), 232-240.
- Thurlow, M. L., Lazarus, S., Thompson, S., & Robey, J. (2002). *2001 state policies on assessment participation and accommodations* (Synthesis Report 46). Minneapolis: University of Minnesota, National Center on Educational Outcomes. Retrieved February 10, 2006, from <http://education.umn.edu/NCEO/OnlinePubs/Synthesis46.html>
- Thurlow, M. L., Moen, R. E., & Wiley, H. I. (2005). *Annual performance reports: 2002-2003, state assessment data*. Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Thurlow, M. L., & Wiley, H. I. (2006). A baseline perspective on disability subgroup reporting. *The Journal of Special Education, 39*(4), 246-254.
- U.S. Department of Education. (2003). *President's Commission on Excellence in Special Education Report: A new era: Revitalizing special education for children and their families*. Retrieved February 2, 2006, from [http://www.ldonline.org/ld\\_indepth/assessment/assessment\\_doe\\_report.html](http://www.ldonline.org/ld_indepth/assessment/assessment_doe_report.html)

West Virginia Department of Education. (2005). *2005-2006 Guidelines for participation of students with disabilities in WV measures of academic progress*. Retrieved July 20, 2006 from <http://wvde.state.wv.us/ose/WV0506GuidelinesforParticipationStAssessments.pdf>

## **APPENDIXES**

**Appendix A**

**Information About Special Education Students Receiving  
the Alternate Assessment (2003-2004)**

## **Information About Special Education Students Receiving the Alternate Assessment (2003-2004)**

The purpose of this appendix is to provide the West Virginia Department of Education (WVDE) with basic information about special education students who received the alternate assessment in lieu of the WESTEST during the 2003-2004 school year. The following sections outline demographic information about the students, the accommodations for the students, and their performance levels on the alternate assessment.

### **Demographic Information**

During the 2003-2004 school year, 1,100 West Virginia special education students received the alternate assessment in lieu of the WESTEST to assess academic proficiency. These students, in Grades 3-8 and 10, were mostly White (93%) and male (64%). The majority of these students (68%) were also eligible for free or reduced-price lunches, indicating a low SES. Only two students (0.2%) were classified as limited English proficient, and only one student (0.1%) was a migrant. None of these students were categorized under Section 504.

Grade-level information was available for 1,098 students in the dataset. Students were fairly evenly distributed throughout the grades (third through eighth and tenth). No grade level accounted for less than 12.2% of the students, nor did any grade level account for more than 15.5% of the students. Please refer to table A1 for the frequency of students by grade level.

**Table A1. Distribution of Students by Grade Level in 2003-2004 WV  
Special Education Alternate Assessment Student Dataset**

<b>Grade Level</b>	<b><i>n</i></b>	<b>%</b>
Third	150	13.6
Fourth	167	15.2
Fifth	134	12.2
Sixth	167	15.2
Seventh	160	14.5
Eighth	149	13.5
Tenth	171	15.5

*Note.* For two students, grade-level information was not available.

Most students who took the alternate assessment were White (93%). The largest student minority group represented in the population was African American, which accounted for 6.0% of the students. Hispanics, Asians, and American Indians together accounted for 1.0% of the students. Please refer to table A2 for complete information about the number of students by race.

**Table A2. Distribution of Students by Race in 2003-2004 WV  
Special Education Alternate Assessment Student Dataset**

<b>Race</b>	<b><i>n</i></b>	<b>%</b>
White	1,024	93.1
African American	66	6.0
Hispanic	5	0.5
Asian	4	0.4
American Indian	1	0.1

Information about student gender was available for all students. Nearly two-thirds of the students were male ( $n = 705$ ; 64.1%). The remaining 395 students were female (35.9% of students who took the alternate assessment in 2003-2004).

Students' socioeconomic status (SES) was determined by using as a proxy whether or not students were eligible for free and reduced-price meals. Two-thirds of students taking the alternate assessment during the 2003-2004 school year were economically disadvantaged ( $n = 744$ , 67.6%). These students, then, were classified as low SES. The students who were not classified as low SES included 356 students who were not economically disadvantaged (32.4% of students in the dataset).

Students' locale was determined by the RESA that serves the school they attend. The locale possessing the most students was RESA III ( $n = 234$ ; 21.3% of the students). The locale represented by the fewest students in the dataset was RESA IV ( $n = 55$ ; 5.0% of the students). Please refer to table A3 for the frequency of students by RESA.

**Table A3. Distribution of Students by RESA in 2003-2004 WV  
Special Education Alternate Assessment Student Dataset**

<b>RESA</b>	<b><i>n</i></b>	<b>%</b>
I	156	14.2
II	193	17.5
III	234	21.3
IV	55	5.0
V	91	8.3
VI	72	6.5
VII	168	15.3
VIII	131	11.9

Special education students in West Virginia are coded across multiple exceptionality classifications. Thirteen exceptionality classifications were represented among the students who took the alternate assessment during the 2003-2004 school year. The two most frequently occurring exceptionalities were Moderate Mental Impairment ( $n = 420$ , 38.2%) and Mild Mental

Impairment ( $n = 355$ , 32.3%). Table A4 presents the frequency with which each exceptionality was represented in the set of special education students who received the alternate assessment.

**Table A4. Frequency of Exceptionality in 2003-2004 WV Special Education Alternate Assessment Student Dataset**

<b>Exceptionality Designation</b>	<b>Exceptionality Codes</b>	<b><i>n</i></b>	<b>%</b>
Moderately Mentally Impaired	MD	420	38.2
Mildly Mentally Impaired	MM	355	32.3
Autism	AU	132	12
Severely Mentally Impaired	MS	84	7.6
Profoundly Mentally Impaired	MP	39	3.5
Other Health Impaired	OH	29	2.6
Orthopedically Impaired	PH	18	1.6
Traumatic Brain Injury	TB	9	0.8
Behavior Disorders	BD	6	0.5
Specific Learning Disabilities	LD	3	0.3
Blind and Partially Sighted	VI	2	0.2
Deaf and Hard of Hearing	HI	2	0.2
Speech/language Impairment	CD	1	0.1

### **Accommodations**

The accommodations for the students taking the alternate assessment were examined. Only 6 total accommodations appeared in the dataset, and only 19 accommodations were made for a total of nine students. Three students received 1 accommodation each, and three other students had 2 accommodations. Three accommodations were offered for two students, and one student received 4 accommodations. Among those accommodations, eight students had the test read aloud to them, except for reading/language arts (RLA) assessments. Please refer to table A5 for the frequency of students by accommodation.

**Table A5. Frequency of Accommodations in 2003-2004 WV Special Education Alternate Assessment Student Dataset**

<b>Accommodation</b>	<b>Code</b>	<b><i>n</i></b>	<b>%</b>
Have the test read aloud (except RLA)	P02	8	42.11
Have directions only read aloud on RLA	P15	3	15.79
Take more breaks (no studying)	T03	2	10.53
Use extra time for any timed test <sup>a</sup>	T04	2	10.53
Flexible scheduling with extra time (same day)	T07	3	15.79
Use calculator or arithmetic table	R06	1	5.3

a. WESTEST is not a timed test; this accommodation is not applicable to WESTEST.

## Alternate Assessment Performance

Student achievement data were available for all 1,100 students who received the alternate assessment during the 2003-2004 school year. Achievement data were examined for these students by test portion (math or RLA). In terms of performance on the alternate mathematics assessment, most students (78.3%) attained Mastery or Above Mastery levels. Please refer to Table A6 for students' achievement on the mathematics portion of the alternate assessment.

**Table A6. Distribution of Students According to Math Performance in 2003-2004 WV Special Education Alternate Assessment Student Dataset**

<b>Proficiency Level</b>	<b><i>n</i></b>	<b>%</b>
Novice	125	11.4
Partial Mastery	114	10.4
Mastery	366	33.3
Above Mastery	495	45.0

In the Reading/Language Arts portion of the alternate assessment, slightly more students performed Above Mastery (48.5%) than had performed at that level on the math assessment. About one-third of students performed at Mastery level (31.8%). Of the sample, 80.3% of the students scored *At or Above Mastery*. Table A7 presents the number of students performing at each mastery level on the RLA portion of the alternate assessment.

**Table A7. Distribution of Students According to Reading/Language Arts Performance in 2003-2004 WV Special Education Alternate Assessment Student Dataset**

<b>Proficiency Level</b>	<b><i>n</i></b>	<b>%</b>
Novice	118	10.7
Partial Mastery	99	9.0
Mastery	350	31.8
Above Mastery	533	48.5

## **Appendix B**

### **Distribution of Economically Disadvantaged and Non-Economically Disadvantaged Students by Demographic Characteristics**

## Distribution of Economically Disadvantaged and Non-Economically Disadvantaged Students by Demographic Characteristics

In conversations with West Virginia Department of Education (WVDE) personnel about previous drafts of this report, staff members expressed interest in examining the distribution of students at low socioeconomic (SES) levels by various characteristics such as locale (using as a proxy, Regional Education Service Agency). The following tables present the number of economically disadvantaged and non-disadvantaged students in each of several demographic categories: grade, gender, race, RESA, special education exceptionality designation, and number of testing accommodations. Eligibility for free and reduced-cost meals is an indicator of socioeconomic status, with students who are eligible typically being classified as low-SES (i.e., economically disadvantaged).

The data in this appendix reflect the circumstances of the 23,270 students in the special education WESTEST population (as described on pages 6-7 of this report). Overall in the special education WESTEST population, 16,719 students (72%) were economically disadvantaged. The remaining 6,551 students (28%) were not economically disadvantaged.

Students were fairly evenly distributed by grade level in the special education WESTEST population. Students within grades 4, 5, 7, and 8 were classified at low-SES at roughly the same rate; at each of those four grade levels, approximately 73% to 74% of students were economically disadvantaged. Sixth-grade students were classified as low-SES at a slightly higher rate (75%). Students in these five grade levels were classified as low-SES at a slightly higher rate than the overall population rate (72%). Third-grade students, however, were classified as low-SES at a slightly lower rate (70%), and tenth-grade students were classified as low-SES at a much lower-rate (63%). Table B1 presents the numbers of economically disadvantaged and non-disadvantaged students by grade level.

**Table B1. Economic Disadvantage by Grade Level in Special Education WESTEST Population**

Grade Level	<i>N</i>	Economically Disadvantaged			
		No		Yes	
		<i>n</i>	%	<i>n</i>	%
3	3,593	1,076	30.0	2,517	70.0
4	3,422	918	26.8	2,504	73.2
5	3,367	888	26.4	2,479	73.6
6	3,223	805	25.0	2,418	75.0
7	3,427	921	26.9	2,506	73.1
8	3,480	933	26.8	2,547	73.2
10	2,758	1,010	36.6	1,748	63.4

Male students outnumbered female students by nearly 2-to-1 in the special education WESTEST population. However, girls were classified as low-SES slightly more often than boys

(74% to 71%, respectively). Table B2 presents the numbers of economically disadvantaged and non-disadvantaged students by gender.

**Table B2. Economic Disadvantage by Gender in Special Education WESTEST Population**

Gender	N	Economically Disadvantaged			
		No		Yes	
		n	%	n	%
Female	7,904	2,042	25.8	5,862	74.2
Male	15,366	4,509	29.3	10,857	70.7

In examining the data detailing the socioeconomic distribution of special education students by race, the reader will notice several differences. Only about one third of students identified as Asian were classified as low-SES (38%). Roughly the same percentages of American Indian and White students were classified as low-SES (71%,) and at a rate similar to that of the overall population (72%). Students identified as Hispanic were classified as low-SES at a slightly higher rate (77%), and African American students in special education were identified as economically disadvantaged at a much higher rate (82%) than the other racial groups and the overall 72% rate. Table B3 presents the numbers of economically disadvantaged and non-disadvantaged students by race.

**Table B3. Economic Disadvantage by Race in Special Education WESTEST Population**

Race	N	Economically Disadvantaged			
		No		Yes	
		n	%	n	%
American Indian	35	10	28.6	25	71.4
Asian	48	30	62.5	18	37.5
Hispanic	122	28	23.0	94	77.0
African American	1,267	226	17.8	1,041	82.5
White	21,798	6,257	28.7	15,541	71.30

The rate at which students in special education were identified as low-SES varied quite a bit by RESA. Most RESAs were quite a bit higher or quite a bit lower than the overall rate of 72% of students being identified as low-SES. The highest percentage of low-SES students was observed in RESA I (83%), and the lowest rate of economically disadvantaged students was observed in RESA VIII (59%). Table 3 in the main report lists the counties in each of the eight RESAs. Table B4 presents the numbers of economically disadvantaged and non-disadvantaged students by locale.

**Table B4. Economic Disadvantage by Locale (RESA)  
in Special Education WESTEST Population**

RESA	N	Economically Disadvantaged			
		No		Yes	
		n	%	n	%
I	2,665	463	17.4	2,202	82.6
II	3,245	780	24.0	2,465	76.0
III	3,413	1,058	31.0	2,355	69.0
IV	1,928	419	21.7	1,509	78.3
V	2,228	662	29.7	1,566	70.3
VI	1,772	587	33.1	1,185	66.9
VII	4,687	1,213	25.9	3,474	74.1
VIII	3,332	1,369	41.1	1,963	58.9

The rate at which students were identified as economically disadvantaged differed greatly by students' special education exceptionality designations. For the designations of autism and visual impairments, students were fairly evenly divided between economically disadvantaged and non-disadvantaged status; the rates at which students in those categories were classified as low-SES were 48% and 57%, respectively. Students who were moderately mentally impaired and mildly mentally impaired, however, were much more likely to be economically disadvantaged (89% and 85%, respectively). Most other categories of students had rates of economic disadvantage between 60% to 67%. Only for the designation of specific learning disabilities was the rate at which students were identified as low-SES equal to the overall rate of 72%. Table B5 presents the numbers of economically disadvantaged and non-disadvantaged students by special education exceptionality designation.

**Table B5. Economic Disadvantage by Special Education Exceptionality  
in Special Education WESTEST Population**

Exceptionality Designation	Exceptionality Code	N	Economically Disadvantaged			
			No		Yes	
			n	%	n	%
Specific Learning Disabilities	LD	10,651	2,987	28.0	7,664	72.0
Mildly Mentally Impaired	MM	4,265	635	14.9	3,630	85.1
Speech/language Impairment	CD	3,616	1,437	39.7	2,179	60.3
Other Health Impaired	OH	2,783	920	33.1	1,863	66.9
Behavior Disorders	BD	1,290	303	23.5	987	76.5
Deaf and Hard of Hearing	HI	209	82	39.2	127	60.8
Autism	AU	158	82	51.9	76	48.1
Blind and Partially Sighted	VI	107	46	43.0	61	57.0
Orthopedically Impaired	PH	72	29	40.3	43	59.7

Traumatic Brain Injury	TB	60	23	38.3	37	61.7
Moderately Mentally Impaired	MD	57	6	10.5	51	89.5

Students who had no accommodations were less likely to be economically disadvantaged than students with any number of accommodations; 64% of students with no accommodations were not economically disadvantaged. Students with six accommodations were less likely to be classified as low-SES (72% of those students) than students with from one to five accommodations (76% to 79%). Table B6 presents the numbers of economically disadvantaged and non-economically disadvantaged students by number of accommodations.

**Table B6. Economic Disadvantage by Number of Accommodations in Special Education WESTEST Population**

Number of Accommodations	N	Economically Disadvantaged			
		No		Yes	
		n	%	n	%
0	8,785	3,143	35.8	5,642	64.2
1	4,994	1,181	23.6	3,813	76.4
2	4,818	1,128	23.4	3,690	76.6
3	2,664	630	23.6	2,034	76.4
4	1,240	286	23.1	954	76.9
5	495	105	21.2	390	78.8
6	274	78	28.5	196	71.5

## **Appendix C**

### **Descriptive Tables: Accommodations for Special Education Students**

## **Appendix C.1**

### **Frequency of Accommodations**

## Frequency of Accommodations

Accommodation	Code	<i>n</i>	% Students	% Accommodations
Have test read aloud verbatim for Mathematics, Science, and Social Studies tests.	P02	12,525	53.82	39.51
Use extra time for any timed test (not applicable to WESTEST <sup>b</sup> ).	T04	6,296	27.05	19.86
Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).	T03	3,307	14.21	10.43
Have flexible scheduling (on same day it is begun and without extra study opportunities).	T07	3,087	13.26	9.74
Have directions only read aloud on Reading/Language Arts test.	P15	3,004	12.91	9.48
Have directions rephrased by trained examiner (does not breach test item security or give away answer).	P18	617	2.65	1.95
Indicate responses to a scribe for selected response items.	R02	421	1.81	1.33
Indicate responses to scribe for constructed-response items, when physically unable to respond otherwise.	R04	285	1.22	0.90
Use computer, typewriter, or other device to respond.	R11	110	0.47	0.35
Use large-print edition of test when it is student's typical mode of accessing written material.	P19	74	0.32	0.23
Present test through sign language for Mathematics, Science, and Social Studies tests.	P06	68	0.29	0.21
Have directions only presented through sign language for Reading/Language Arts test.	P16	33	0.14	0.10
Use text-talk converter to present test verbatim for blind/partially sighted student (when typical).	P13	26	0.11	0.08
Use Braille or other tactile form of print when it is student's typical mode of accessing written material.	P03	22	0.09	0.07
Use abacus on all parts of Mathematics test for blind students.	R05	20	0.09	0.06
Use Braille or other tactile form of print to respond when it is typical mode of responding.	R03	12	0.05	0.04
Provide physical support by aide if provided routinely and aide is trained examiner.	R13	12	0.05	0.04
Mark responses on large-print test booklet.	R16	11	0.05	0.03
Use electronic translator or sign-dictionary to present test for Mathematics, Science, and Social Studies.	R14	8	0.03	0.03
Use secure electronic Braille note taker for directions and test stimulus material.	P17	4	0.02	0.01
<b>Out-of-Date Accommodation Codes Included in 2003-2004 Dataset</b>				
Use calculator or arithmetic tables, except for WESTEST portions that do not permit calculator use.	R06 <sup>a</sup>	1,003	4.31	3.16
Take more breaks that result in extra time for any timed test.	T06 <sup>a</sup>	387	1.66	1.22
Use verbatim tape recording for test when read aloud permitted.	P07 <sup>a</sup>	169	0.73	0.53

<b>Accommodation</b>	<b>Code</b>	<b><i>n</i></b>	<b>% Students</b>	<b>% Accommodations</b>
Use directions that have been marked with highlighting.	P14 <sup>a</sup>	78	0.34	0.25
Use spell checker except with test for which spelling or writing will be scored.	R09 <sup>a</sup>	65	0.28	0.21
Use grammar checker except with test for which writing will be scored.	R12 <sup>a</sup>	32	0.14	0.10
Out-of-date Presentation accommodation code.	P01 <sup>a</sup>	5	0.02	0.02
Out-of-date Presentation accommodation code.	P04 <sup>a</sup>	5	0.02	0.02
Out-of-date Time/Scheduling accommodation code.	S01 <sup>a</sup>	5	0.02	0.02
Out-of-date Time/Scheduling accommodation code.	T02 <sup>a</sup>	5	0.02	0.02
Out-of-date Presentation accommodation code.	P05 <sup>a</sup>	2	0.01	0.01
Out-of-date Presentation accommodation code.	P11 <sup>a</sup>	1	0.00	0.00
Out-of-date Response accommodation code.	R01 <sup>a</sup>	1	0.00	0.00
Recording (e.g., audio) of responses (except for constructed response writing tests).	R08 <sup>a</sup>	1	0.00	0.00

a. Denotes an out-of-date accommodation, no longer in use by WVDE.

b. WESTEST is not a timed test; use of extra time is not an applicable accommodation for WESTEST.

## **Appendix C.2**

### **Frequency of Accommodation by Order (First through Sixth)**

### Frequency of Accommodation by Order (First through Sixth)

Accommodation	Code	<i>n</i>	% Accommodations
<b>First Accommodation</b>			
Have test read aloud verbatim for Mathematics, Science, and Social Studies tests.	P02	11,745	81.08
Use extra time for any timed test (not applicable to WESTEST <sup>a</sup> ).	T04	1,116	7.70
Have directions only read aloud on Reading/Language Arts test.	P15	627	4.33
<b>Second Accommodation</b>			
Use extra time for any timed test (not applicable to WESTEST <sup>a</sup> ).	T04	3,036	32.03
Have directions only read aloud on Reading/Language Arts test.	P15	1,824	19.24
Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).	T03	1,712	18.06
<b>Third Accommodation</b>			
Use extra time for any timed test (not applicable to WESTEST <sup>a</sup> ).	T04	1,466	31.36
Have flexible scheduling (on same day it is begun and without extra study opportunities).	T07	972	20.79
Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).	T03	860	18.40
<b>Fourth Accommodation</b>			
Have flexible scheduling (on same day it is begun and without extra study opportunities).	T07	687	34.21
Use extra time for any timed test (not applicable to WESTEST <sup>a</sup> ).	T04	529	26.34
Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).	T03	283	14.09
<b>Fifth Accommodation</b>			
Have flexible scheduling (on same day it is begun and without extra study opportunities).	T07	308	39.84
Use extra time for any timed test (not applicable to WESTEST <sup>a</sup> ).	T04	115	14.88
Take more breaks that result in extra time for any timed test.	T06 <sup>b</sup>	100	12.94
<b>Sixth Accommodation</b>			
Have flexible scheduling (on same day it is begun and without extra study opportunities).	T07	132	46.98
Use extra time for any timed test (not applicable to WESTEST <sup>a</sup> ).	T04	34	12.10
Take more breaks that result in extra time for any timed test.	T06 <sup>b</sup>	30	10.68

a. WESTEST is not a timed test; use of extra time is not an applicable accommodation for WESTEST.

b. Denotes an out-of-date accommodation, no longer in use by WVDE.

*Note.* There were 14,485 first accommodations; 9,479 second; 4,675 third; 2,008 fourth; 773 fifth; and 281 sixth accommodations.

### **Appendix C.3**

#### **Frequency of Students Receiving Accommodation Bundles**

## Frequency of Students to Receiving Accommodation Bundles

Accommodation Bundle	<i>n</i>	% Students
<b>Bundles of Two Accommodations</b>		
P02, T04	2,234	9.60
P02, T03	544	2.34
P02, T07	536	2.30
P02, P15	423	1.82
P02, R06 <sup>a</sup>	104	0.45
P02, P18	97	0.42
P03, T04	91	0.39
P15, T03	83	0.36
P02, T06 <sup>a</sup>	59	0.25
P02, P07 <sup>a</sup>	52	0.22
P02, R02	52	0.22
<b>Bundles of Three Accommodations</b>		
P02, P15, T04	482	2.07
P02, T03, T04	448	1.93
P02, P15, T07	295	1.27
P02, T03, T07	230	0.99
P02, T04, R06 <sup>a</sup>	181	0.78
P02, T04, T07	144	0.62
P02, T07, R06 <sup>a</sup>	69	0.30
P02, P15, T03	67	0.29
P02, P15, P18	60	0.26
<b>Bundles of Four Accommodations</b>		
P02, T03, T04, T07	363	1.56
P02, P15, T03, T04	116	0.50
P02, P15, T04, T07	112	0.48
P02, P15, T03, T07	91	0.39
P02, P15, T04, R06 <sup>a</sup>	68	0.29
<b>Bundles of Five Accommodations</b>		
P02, P15, T03, T04, T07	158	0.68

a. Denotes an out-of-date accommodation, no longer in use by WVDE.

*Note.* Percent (%) refers to the percentage of total students (23,270) who received the accommodation bundle.

*Note.* Accommodation codes are defined as follows:

P02: Have test read aloud verbatim for Mathematics, Science, and Social Studies tests.

P03: Use Braille or other tactile form of print when it is student's typical mode of accessing written material.

P07: Use verbatim tape recording for test when read aloud permitted.

P15: Have directions only read aloud on Reading/Language Arts test.

P18: Have directions rephrased by trained examiner (does not breach test item security or give away answer).

R02: Indicate responses to a scribe for selected response items.

R06: Use calculator or arithmetic tables, except for WESTEST portions that do not permit calculator use.

T03: Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).

T04: Use extra time for any timed test (not applicable to WESTEST).

T06: Take more breaks that result in extra time for any timed test.

T07: Have flexible scheduling (on same day it is begun and without extra study opportunities).

## **Appendix C.4**

### **Frequency of Accommodation by Student Gender**

## Frequency of Accommodation by Student Gender

Accommodation	Code	Female (N = 7,904)		Male (N = 15,366)	
		n	%	n	%
Have test read aloud verbatim for Mathematics, Science, and Social Studies tests.	P02	4,255	53.83	8,270	53.82
Use extra time for any timed test (not applicable to WESTEST).	T04	2,107	26.66	4,189	27.26
Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).	T03	996	12.60	2,311	15.04
Have flexible scheduling (on same day it is begun and without extra study opportunities).	T07	1,013	12.82	2,074	13.50
Have directions only read aloud on Reading/Language Arts test.	P15	1,010	12.78	1,994	12.98
Have directions rephrased by trained examiner (does not breach test item security or give away answer).	P18	200	2.53	417	2.71
Indicate responses to a scribe for selected response items.	R02	101	1.28	320	2.08
Indicate responses to scribe for constructed-response items, when physically unable to respond otherwise.	R04	72	0.91	213	1.39
Use computer, typewriter, or other device to respond.	R11	30	0.38	80	0.52
Use large-print edition of test when it is student's typical mode of accessing written material.	P19	26	0.33	48	0.31
Present test through sign language for Mathematics, Science, and Social Studies tests.	P06	25	0.32	43	0.28
Have directions only presented through sign language for Reading/Language Arts test.	P16	14	0.18	19	0.12
Use text-talk converter to present test verbatim for blind/partially sighted student (when typical).	P13	5	0.06	21	0.14
Use Braille or other tactile form of print when it is student's typical mode of accessing written material.	P03	8	0.10	14	0.09
Use abacus on all parts of Mathematics test for blind students.	R05	8	0.10	12	0.08
Use Braille or other tactile form of print to respond when it is typical mode of responding.	R03	6	0.08	6	0.04
Provide physical support by aide if provided routinely and aide is trained examiner.	R13	4	0.05	8	0.05
Mark responses on large-print test booklet.	R16	4	0.05	7	0.05
Use electronic translator or sign-dictionary to present test for Mathematics, Science, and Social Studies.	R14	1	0.01	7	0.05
Use secure electronic Braille note taker for directions and test stimulus material.	P17	1	0.01	3	0.02
<b>Out-of-Date Accommodation Codes Included in 2003-2004 Dataset</b>					
Use calculator or arithmetic tables, except for WESTEST portions that do not permit calculator use.	R06	355	4.49	648	4.22
Take more breaks that result in extra time for any timed test.	T06	115	1.45	272	1.77
Use verbatim tape recording for test when read aloud permitted.	P07	58	0.73	111	0.72
Use directions that have been marked with highlighting.	P14	28	0.35	50	0.33
Use spell checker except with test for which spelling or writing will be scored.	R09	15	0.19	50	0.33
Use grammar checker except with test for which writing will be scored.	R12	9	0.11	23	0.15
Out-of-date Presentation accommodation code.	P01	0	0.0	5	0.03
Out-of-date Presentation accommodation code.	P04	0	0.0	5	0.03
Out-of-date Time/Scheduling accommodation code.	S01	2	0.03	3	0.02
Out-of-date Time/Scheduling accommodation code.	T02	0	0.0	5	0.03
Out-of-date Presentation accommodation code.	P05	1	0.01	1	0.01
Out-of-date Presentation accommodation code.	P11	0	0.0	1	0.01

<b>Accommodation</b>	<b>Code</b>	<b>Female (N = 7,904)</b>		<b>Male (N = 15,366)</b>	
		<i>n</i>	%	<i>n</i>	%
Out-of-date Response accommodation code.	R01	0	0.0	1	0.01
Recording (e.g., audio) of responses (except for constructed response writing tests).	R08	0	0.0	1	0.01

*Note.* Students are counted more than once in this table if they had more than one accommodation; individuals are counted in all accommodations categories that apply.

## **Appendix C.5**

### **Frequency of Accommodation by Student Race**

### Frequency of Accommodation by Student Race

Accommodation	Code	Race									
		Asian (N = 48)		African American (N = 1,267)		Hispanic (N = 122)		American Indian (N = 35)		White (N = 21,798)	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Have test read aloud verbatim for Mathematics, Science, and Social Studies tests.	P02	22	45.83	725	57.22	74	60.66	14	40.00	11,690	53.63
Use extra time for any timed test (not applicable to WESTEST).	T04	14	29.17	385	30.39	34	27.87	4	11.43	5,859	26.88
Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).	T03	8	16.67	216	17.05	18	14.75	4	11.43	3,061	14.04
Have flexible scheduling (on same day it is begun and without extra study opportunities).	T07	9	18.75	196	15.47	17	13.93	6	17.14	2,859	13.12
Have directions only read aloud on Reading/Language Arts test.	P15	7	14.58	196	15.47	18	14.75	5	14.29	2,778	12.74
Have directions rephrased by trained examiner (does not breach test item security or give away answer).	P18	2	4.17	57	4.50	10	8.20	1	2.86	547	2.51
Indicate responses to a scribe for selected response items.	R02	2	4.17	23	1.82	4	3.28	2	5.71	390	1.79
Indicate responses to scribe for constructed-response items, when physically unable to respond otherwise.	R04	0	0.0	19	0.0	2	1.64	0	0.0	264	1.21
Use computer, typewriter, or other device to respond.	R11	0	0.0	6	0.0	2	1.64	0	0.0	102	0.47
Use large-print edition of test when it is student's typical mode of accessing written material.	P19	0	0.0	4	0.0	0	0.00	0	0.0	70	0.32
Present test through sign language for Mathematics, Science, and Social Studies tests.	P06	0	0.0	4	0.0	1	0.82	0	0.0	63	0.29
Have directions only presented through sign language for Reading/Language Arts test.	P16	1	0.0	2	0.0	1	0.82	0	0.0	29	0.13
Use text-talk converter to present test verbatim for blind/partially sighted student (when typical).	P13	0	0.0	1	0.0	0	0.00	0	0.0	25	0.11
Use Braille or other tactile form of print when it is student's typical mode of accessing written material.	P03	0	0.0	1	0.0	0	0.00	0	0.0	21	0.10
Use abacus on all parts of Mathematics test for blind students.	R05	0	0.0	2	0.0	0	0.00	0	0.0	18	0.08
Use Braille or other tactile form of print to respond when it is typical mode of responding.	R03	0	0.0	1	0.0	0	0.00	0	0.0	11	0.05
Provide physical support by aide if provided routinely and aide is trained examiner.	R13	0	0.0	1	0.0	1	0.82	0	0.0	10	0.05
Mark responses on large-print test booklet.	R16	0	0.0	1	0.0	0	0.00	0	0.0	10	0.05
Use electronic translator or sign-dictionary to present test for Mathematics, Science, and Social Studies.	R14	0	0.0	0	0.0	6	4.92	0	0.0	2	0.01

Accommodation	Code	Race									
		Asian (N = 48)		African American (N = 1,267)		Hispanic (N = 122)		American Indian (N = 35)		White (N = 21,798)	
		n	%	n	%	n	%	n	%	n	%
Use secure electronic Braille note taker for directions and test stimulus material.	P17	0	0.0	0	0.0	4	3.28	0	0.0	0	0.0
<b>Out-of-Date Accommodation Codes Included in 2003-2004 Dataset</b>											
Use calculator or arithmetic tables, except for WESTEST portions that do not permit calculator use.	R06	3	6.25	73	5.76	5	4.10	1	2.86	921	4.23
Take more breaks that result in extra time for any timed test.	T06	0	0.0	14	1.10	2	1.64	0	0.0	371	1.70
Use verbatim tape recording for test when read aloud permitted.	P07	0	0.0	11	0.87	1	0.82	1	2.86	156	0.72
Use directions that have been marked with highlighting.	P14	0	0.0	9	0.71	1	0.82	0	0.0	68	0.31
Use spell checker except with test for which spelling or writing will be scored.	R09	0	0.0	4	0.32	1	0.82	0	0.0	60	0.28
Use grammar checker except with test for which writing will be scored.	R12	0	0.0	0	0.0	0	0.0	0	0.0	32	0.15
Out-of-date Presentation accommodation code.	P01	0	0.0	0	0.0	0	0.0	0	0.0	5	0.02
Out-of-date Presentation accommodation code.	P04	0	0.0	0	0.0	0	0.0	0	0.0	5	0.02
Out-of-date Time/Scheduling accommodation code.	S01	0	0.0	0	0.0	0	0.0	0	0.0	5	0.02
Out-of-date Time/Scheduling accommodation code.	T02	0	0.0	1	0.08	0	0.0	0	0.0	4	0.02
Out-of-date Presentation accommodation code.	P05	0	0.0	0	0.0	0	0.0	0	0.0	2	0.01
Out-of-date Presentation accommodation code.	P11	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Out-of-date Response accommodation code.	R01	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Recording (e.g., audio) of responses (except for constructed response writing tests).	R08	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

*Note.* Students are counted more than once in this table if they had more than one accommodation; individuals are counted in all accommodations categories that apply.

## **Appendix C.6**

### **Frequency of Accommodation by Student SES**

## Frequency of Accommodation by Student SES

Accommodation	Code	Economically Disadvantaged			
		Yes (N = 16,719)		No (N = 6,551)	
		n	%	n	%
Have test read aloud verbatim for Mathematics, Science, and Social Studies tests.	P02	9,768	58.42	2,757	42.09
Use extra time for any timed test (not applicable to WESTEST).	T04	4,751	28.42	1,545	23.58
Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).	T03	2,533	15.15	774	11.81
Have flexible scheduling (on same day it is begun and without extra study opportunities).	T07	2,337	13.98	750	11.45
Have directions only read aloud on Reading/Language Arts test.	P15	2,304	13.78	700	10.68
Have directions rephrased by trained examiner (does not breach test item security or give away answer).	P18	494	2.95	123	1.88
Indicate responses to a scribe for selected response items.	R02	297	1.78	124	1.89
Indicate responses to scribe for constructed-response items, when physically unable to respond otherwise.	R04	201	1.20	84	1.28
Use computer, typewriter, or other device to respond.	R11	72	0.43	38	0.58
Use large-print edition of test when it is student's typical mode of accessing written material.	P19	45	0.27	29	0.44
Present test through sign language for Mathematics, Science, and Social Studies tests.	P06	42	0.25	26	0.40
Have directions only presented through sign language for Reading/Language Arts test.	P16	19	0.11	14	0.21
Use text-talk converter to present test verbatim for blind/partially sighted student (when typical).	P13	18	0.11	8	0.12
Use Braille or other tactile form of print when it is student's typical mode of accessing written material.	P03	12	0.07	10	0.15
Use abacus on all parts of Mathematics test for blind students.	R05	16	0.10	4	0.06
Use Braille or other tactile form of print to respond when it is typical mode of responding.	R03	6	0.04	6	0.09
Provide physical support by aide if provided routinely and aide is trained examiner.	R13	10	0.06	2	0.03
Mark responses on large-print test booklet.	R16	6	0.04	5	0.08
Use electronic translator or sign-dictionary to present test for Mathematics, Science, and Social Studies.	R14	6	0.04	2	0.03
Use secure electronic Braille note taker for directions and test stimulus material.	P17	3	0.02	1	0.02
<b>Out-of-Date Accommodation Codes Included in 2003-2004 Dataset</b>					
Use calculator or arithmetic tables, except for WESTEST portions that do not permit calculator use.	R06	732	4.38	271	4.14
Take more breaks that result in extra time for any timed test.	T06	288	1.72	99	1.51
Use verbatim tape recording for test when read aloud permitted.	P07	139	0.83	30	0.46
Use directions that have been marked with highlighting.	P14	54	0.32	24	0.37
Use spell checker except with test for which spelling or writing will be scored.	R09	41	0.25	24	0.37
Use grammar checker except with test for which writing will be scored.	R12	21	0.13	11	0.17
Out-of-date Presentation accommodation code.	P01	4	0.02	1	0.02
Out-of-date Presentation accommodation code.	P04	4	0.02	1	0.02
Out-of-date Time/Scheduling accommodation code.	S01	4	0.02	1	0.02
Out-of-date Time/Scheduling accommodation code.	T02	5	0.03	0	0.0

<b>Accommodation</b>	<b>Code</b>	<b>Economically Disadvantaged</b>			
		<b>Yes (N = 16,719)</b>		<b>No (N = 6,551)</b>	
		<b><i>n</i></b>	<b>%</b>	<b><i>n</i></b>	<b>%</b>
Out-of-date Presentation accommodation code.	P05	2	0.01	0	0.0
Out-of-date Presentation accommodation code.	P11	1	0.01	0	0.0
Out-of-date Response accommodation code.	R01	1	0.01	0	0.0
Recording (e.g., audio) of responses (except for constructed response writing tests).	R08	1	0.01	0	0.0

*Note.* Students are counted more than once in this table if they had more than one accommodation; individuals are counted in all accommodations categories that apply.

*Note.* Students are considered economically disadvantaged if they are eligible for free and reduced-price meals.

**Appendix C.7**

**Frequency of Accommodation by RESA**

### Frequency of Accommodation by RESA

Accommodation Code	RESA															
	I (N = 2,665)		II (N = 3,245)		III (N = 3,413)		IV (N = 1,928)		V (N = 2,228)		VI (N = 1,772)		VII (N = 4,687)		VIII (N = 3,332)	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
P02	1,710	64.17	1,631	50.26	1,694	49.63	1,024	53.11	1,073	48.16	1,009	56.94	2,608	55.64	1,776	53.30
T04	826	30.99	1,179	36.33	913	26.75	491	25.47	467	20.96	611	34.48	929	19.82	880	26.41
T03	282	10.58	265	8.17	917	26.87	305	15.82	293	13.15	387	21.84	471	10.05	387	11.61
T07	312	11.71	233	7.18	749	21.95	288	14.94	232	10.41	288	16.25	466	9.94	519	15.58
P15	460	17.26	410	12.63	509	14.91	343	17.79	170	7.63	298	16.82	492	10.50	322	9.66
P18	70	2.63	72	2.22	69	2.02	105	5.45	70	3.14	97	5.47	56	1.19	78	2.34
R02	29	1.09	44	1.36	73	2.14	45	2.33	39	1.75	50	2.82	96	2.05	45	1.35
R04	19	0.71	36	1.11	64	1.88	29	1.50	20	0.90	23	1.30	67	1.43	27	0.81
R11	1	0.04	9	0.28	10	0.29	28	1.45	10	0.45	25	1.41	11	0.23	16	0.48
P19	9	0.34	15	0.46	8	0.23	12	0.62	7	0.31	5	0.28	15	0.32	3	0.09
P06	5	0.19	15	0.46	10	0.29	5	0.26	10	0.45	5	0.28	12	0.26	6	0.18
P16	3	0.11	5	0.15	3	0.09	3	0.16	5	0.22	6	0.34	3	0.06	5	0.15
P13	14	0.53	1	0.03	1	0.03	1	0.05	0	0.0	9	0.51	0	0.0	0	0.0
P03	2	0.08	5	0.15	2	0.06	1	0.05	1	0.04	2	0.11	8	0.17	1	0.03
R05	4	0.15	8	0.25	2	0.06	2	0.10	1	0.04	1	0.06	2	0.04	0	0.0
R03	2	0.08	1	0.03	2	0.06	1	0.05	1	0.04	1	0.06	4	0.09	0	0.0
R13	1	0.04	5	0.15	3	0.09	1	0.05	1	0.04	0	0.0	0	0.0	1	0.03
R16	0	0.0	2	0.06	4	0.12	0	0.0	1	0.04	0	0.0	3	0.06	1	0.03
R14	0	0.0	1	0.03	2	0.06	0	0.0	0	0.0	0	0.0	2	0.04	3	0.09
P17	0	0.0	1	0.03	0	0.0	0	0.0	0	0.0	0	0.0	1	0.02	2	0.06
<b>Out-of-Date Accommodation Codes Included in 2003-2004 Dataset</b>																
R06	63	2.36	162	4.99	224	6.56	103	5.34	10	0.45	111	6.26	107	2.28	223	6.69
T06	42	1.58	47	1.45	99	2.90	27	1.40	6	0.27	59	3.33	49	1.05	58	1.74
P07	11	0.41	31	0.96	10	0.29	25	1.30	1	0.04	5	0.28	37	0.79	49	1.47
P14	6	0.23	0	0.00	7	0.21	10	0.52	0	0.0	8	0.45	1	0.02	46	1.38
R09	3	0.11	7	0.22	6	0.18	0	0.0	0	0.0	9	0.51	4	0.09	36	1.08
R12	0	0.0	6	0.18	4	0.12	1	0.05	0	0.0	6	0.34	2	0.04	13	0.39
P01	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.11	0	0.0
P04	0	0.0	0	0.0	0	0.0	1	0.05	0	0.0	0	0.0	3	0.06	1	0.03

Accommodation Code	RESA															
	I (N = 2,665)		II (N = 3,245)		III (N = 3,413)		IV (N = 1,928)		V (N = 2,228)		VI (N = 1,772)		VII (N = 4,687)		VIII (N = 3,332)	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
S01	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	0.09	1	0.03
T02	0	0.0	1	0.03	0	0.0	1	0.05	0	0.0	0	0.0	2	0.04	1	0.03
P05	0	0.0	1	0.03	0	0.0	0	0.0	0	0.0	0	0.0	1	0.02	0	0.0
P11	0	0.0	1	0.03	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
R01	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.02	0	0.0
R08	0	0.0	1	0.03	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

*Note.* Students are counted more than once in this table if they had more than one accommodation; individuals are counted in all accommodations categories that apply.

*Note.* Accommodation codes are defined as follows:

#### Active Accommodation Codes

- P02: Have test read aloud verbatim for Mathematics, Science, and Social Studies tests.
- P03: Use Braille or other tactile form of print when it is student's typical mode of accessing written material.
- P06: Present test through sign language for Mathematics, Science, and Social Studies tests.
- P13: Use text-talk converter to present test verbatim for blind/partially sighted student (when typical).
- P15: Have directions only read aloud on Reading/Language Arts test.
- P16: Have directions only presented through sign language for Reading/Language Arts test.
- P17: Use secure electronic Braille note taker for directions and test stimulus material.
- P18: Have directions rephrased by trained examiner (does not breach test item security or give away answer).
- P19: Use large-print edition of test when it is student's typical mode of accessing written material.
- R02: Indicate responses to a scribe for selected response items.
- R03: Use Braille or other tactile form of print to respond when it is typical mode of responding.
- R04: Indicate responses to scribe for constructed-response items, when physically unable to respond otherwise.
- R05: Use abacus on all parts of Mathematics test for blind students.
- R11: Use computer, typewriter, or other device to respond.
- R13: Provide physical support by aide if provided routinely and aide is trained examiner.
- R14: Use electronic translator or sign-dictionary to present test for Mathematics, Science, and Social Studies.
- R16: Mark responses on large-print test booklet.
- T03: Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).
- T04: Use extra time for any timed test (not applicable to WESTEST).
- T07: Have flexible scheduling (on same day it is begun and without extra study opportunities).

#### Out-of-Date Accommodation Codes

- P01: Out-of-date Presentation accommodation code.
- P04: Out-of-date Presentation accommodation code.
- P05: Out-of-date Presentation accommodation code.
- P07: Use verbatim tape recording for test when read aloud permitted.
- P11: Out-of-date Presentation accommodation code.
- P14: Use directions that have been marked with highlighting.
- R01: Out-of-date Response accommodation code.
- R06: Use calculator or arithmetic tables, except for WESTEST portions that do not permit calculator use.
- R08: Recording (e.g., audio) of responses (except for constructed response writing tests).
- R09: Use spell checker except with test for which spelling or writing will be scored.
- R12: Use grammar checker except with test for which writing will be scored.
- S01: Out-of-date Time/Scheduling accommodation code.
- T02: Out-of-date Time/Scheduling accommodation code.
- T06: Take more breaks that result in extra time for any timed test.

## **Appendix C.8**

### **Frequency of Accommodation by Special Education Exceptionality**



Accommodation Code	Exceptionality Designation																					
	LD		MM		CD		OH		BD		HI		AU		VI		PH		TB		MD	
	(N = 10,651)		(N = 4,265)		(N = 3,616)		(N = 2,783)		(N = 1,290)		(N = 209)		(N = 158)		(N = 107)		(N = 72)		(N = 60)		(N = 57)	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
R01	0	0.0	1	0.02	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
R08	0	0.0	0	0.0	0	0.0	1	0.04	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Note. Students are counted more than once in this table if they had more than one accommodation; individuals are counted in all accommodations categories that apply.

Note. Accommodation codes are defined as follows:

#### Active Accommodation Codes

- P02: Have test read aloud verbatim for Mathematics, Science, and Social Studies tests.
- P03: Use Braille or other tactile form of print when it is student's typical mode of accessing written material.
- P06: Present test through sign language for Mathematics, Science, and Social Studies tests.
- P13: Use text-talk converter to present test verbatim for blind/partially sighted student (when typical).
- P15: Have directions only read aloud on Reading/Language Arts test.
- P16: Have directions only presented through sign language for Reading/Language Arts test.
- P17: Use secure electronic Braille note taker for directions and test stimulus material.
- P18: Have directions rephrased by trained examiner (does not breach test item security or give away answer).
- P19: Use large-print edition of test when it is student's typical mode of accessing written material.
- R02: Indicate responses to a scribe for selected response items.
- R03: Use Braille or other tactile form of print to respond when it is typical mode of responding.
- R04: Indicate responses to scribe for constructed-response items, when physically unable to respond otherwise.
- R05: Use abacus on all parts of Mathematics test for blind students.
- R11: Use computer, typewriter, or other device to respond.
- R13: Provide physical support by aide if provided routinely and aide is trained examiner.
- R14: Use electronic translator or sign-dictionary to present test for Mathematics, Science, and Social Studies.
- R16: Mark responses on large-print test booklet.
- T03: Provide more breaks (test to be completed on same day it is begun; no extra study opportunities).
- T04: Use extra time for any timed test (not applicable to WESTEST).
- T07: Have flexible scheduling (on same day it is begun and without extra study opportunities).

#### Out-of-Date Accommodation Codes

- P01: Out-of-date Presentation accommodation code.
- P04: Out-of-date Presentation accommodation code.
- P05: Out-of-date Presentation accommodation code.
- P07: Use verbatim tape recording for test when read aloud permitted.
- P11: Out-of-date Presentation accommodation code.
- P14: Use directions that have been marked with highlighting.
- R01: Out-of-date Response accommodation code.
- R06: Use calculator or arithmetic tables, except for WESTEST portions that do not permit calculator use.
- R08: Recording (e.g., audio) of responses (except for constructed response writing tests).
- R09: Use spell checker except with test for which spelling or writing will be scored.
- R12: Use grammar checker except with test for which writing will be scored.
- S01: Out-of-date Time/Scheduling accommodation code.
- T02: Out-of-date Time/Scheduling accommodation code.
- T06: Take more breaks that result in extra time for any timed test.

Note. Exceptionality codes are defined as follows:

- LD: Specific Learning Disabilities
- MM: Mildly Mentally Impaired
- CD: Speech/language Impairment
- OH: Other Health Impaired
- BD: Behavior Disorders
- HI: Deaf and Hard of Hearing
- AU: Autism
- VI: Blind and Partially Sighted
- PH: Orthopedically Impaired
- TB: Traumatic Brain Injury
- MD: Moderately Mentally Impaired

## **Appendix D**

### **Descriptive Tables: Special Education Students' WESTEST Performance Levels**

## **Appendix D.1**

### **Students' Performance Levels on WESTEST Assessments by Gender**

**Students' Performance Levels on WESTEST Assessments by Gender**

WESTEST Mastery Level	Female ( <i>N</i> = 7,904)		Male ( <i>N</i> = 15,366)	
	<i>n</i>	%	<i>n</i>	%
<b>Mathematics</b>				
Novice	2,462	31.1	4,054	26.4
Partial	3,110	39.3	5,682	37.0
At or Above	2,331	29.5	5,630	36.6
<b>Reading/Language Arts</b>				
Novice	1,391	17.6	4,022	26.3
Partial	3,390	42.9	6,158	40.1
At or Above	3,088	39.1	5,122	33.3

*Note.* There were no Mathematics achievement data for one student. RLA achievement data were missing for 99 students.

## **Appendix D.2**

### **Students' Performance Levels on WESTEST Assessments by Race**

**Students' Performance Levels on WESTEST Assessments by Race**

<b>WESTEST Mastery Level</b>	<b>Asian (N = 48)</b>		<b>African American (N = 1,267)</b>		<b>Hispanic (N = 122)</b>		<b>American Indian (N = 35)</b>		<b>White (N = 21,798)</b>	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<b>Mathematics</b>										
Novice	8	16.7	447	35.3	34	27.9	9	25.7	6,018	27.6
Partial	12	25.0	517	40.8	44	36.1	13	37.1	8,206	37.6
At or Above	28	58.3	303	23.9	44	36.1	13	37.1	7,573	34.7
<b>Reading/Language Arts</b>										
Novice	6	12.5	330	26.1	34	27.9	4	11.4	5,039	23.1
Partial	17	35.4	604	47.7	44	36.1	17	48.6	8,866	40.7
At or Above	25	52.1	330	26.1	43	35.2	14	40.0	7,798	35.8

*Note.* There were no Mathematics achievement data for one student. RLA achievement data were missing for 99 students.

### **Appendix D.3**

#### **Students' Performance Levels on WESTEST Assessments by SES**

**Students' Performance Levels on WESTEST Assessments by SES**

WESTEST Mastery Level	Economically Disadvantaged			
	Yes (N = 16,719)		No (N = 6,551)	
	<i>n</i>	%	<i>n</i>	%
<b>Mathematics</b>				
Novice	5,072	30.3	1,444	22.0
Partial	6,564	39.3	2,228	34.0
At or Above	5,082	30.4	2,879	43.9
<b>Reading/Language Arts</b>				
Novice	4,414	26.4	999	15.2
Partial	7,124	42.6	2,424	37.0
At or Above	5,103	30.5	3,107	47.4

*Note.* There were no Mathematics achievement data for one student. RLA achievement data were missing for 99 students.

*Note.* Students are considered economically disadvantaged if they are eligible for free and reduced-price meals.

## **Appendix D.4**

### **Students' Performance Levels on WESTEST Assessments by RESA**

**Students' Performance Levels on WESTEST Assessments by RESA**

WESTEST Mastery Level	RESA															
	I (N = 2,665)		II (N = 3,245)		III (N = 3,413)		IV (N = 1,928)		V (N = 2,228)		VI (N = 1,772)		VII (N = 4,687)		VIII (N = 3,332)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<b>Mathematics</b>																
Novice	817	30.7	1,005	31.0	891	26.1	570	29.6	631	28.3	400	22.6	1,355	28.9	847	25.4
Partial	1,026	38.5	1,191	36.7	1,279	37.5	701	36.4	811	36.4	687	38.8	1,804	38.5	1,293	38.8
At or Above	822	30.8	1,049	32.3	1,243	36.4	657	34.1	786	35.3	685	38.7	1,528	32.6	1,191	35.7
<b>Reading/Language Arts</b>																
Novice	763	28.6	806	24.8	713	20.9	419	21.7	517	23.2	357	20.2	1,180	25.2	658	19.7
Partial	1,115	41.8	1,263	38.9	1,331	39.0	831	43.1	918	41.2	722	40.7	1,966	41.9	1,402	42.1
At or Above	777	29.2	1,165	35.9	1,358	39.8	669	34.7	788	35.4	687	38.8	1,522	32.5	1,244	37.3

*Note.* There were no Mathematics achievement data for one student. RLA achievement data were missing for 99 students.

**Appendix D.5**

**Students' Performance Levels on WESTEST Assessments  
by Special Education Exceptionality**

## Students' Performance Levels on WESTEST Assessments by Special Education Exceptionality

WESTEST Mastery Level	Exceptionality Designation																					
	LD		MM		CD		OH		BD		HI		AU		VI		PH		TB		MD	
	(N = 10,651)		(N = 4,265)		(N = 3,616)		(N = 2,783)		(N = 1,290)		(N = 209)		(N = 158)		(N = 107)		(N = 72)		(N = 60)		(N = 57)	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<b>Mathematics</b>																						
Novice	2,344	22.0	2,797	65.6	96	2.7	774	27.8	298	23.1	39	18.7	61	38.6	11	10.3	21	29.2	22	36.7	52	91.2
Partial	4,822	45.3	1,242	29.1	822	22.7	1,167	41.9	521	40.4	85	40.7	49	31.0	34	31.8	23	31.9	21	35.0	5	8.8
At or Above	3,484	32.7	226	5.3	2,698	74.6	842	30.3	471	36.5	85	40.7	48	30.4	62	57.9	28	38.9	17	28.3	0	0.0
<b>Reading/Language Arts</b>																						
Novice	2,291	21.5	2,109	49.4	77	2.1	519	18.6	244	18.9	43	20.6	40	25.3	11	10.3	14	19.4	16	26.7	47	82.5
Partial	5,127	48.1	1,811	42.5	722	20.0	1,198	43.0	479	37.1	78	37.3	63	39.9	18	16.8	20	27.8	22	36.7	10	17.5
At or Above	3,185	29.9	318	7.5	2,816	77.9	1,053	37.8	559	43.3	87	41.6	54	34.2	78	72.9	38	52.8	22	36.7	0	0.0

*Note.* There were no Mathematics achievement data for one student. RLA achievement data were missing for 99 students.

*Note.* Exceptionality codes are defined as follows:

- LD: Specific Learning Disabilities
- MM: Mildly Mentally Impaired
- CD: Speech/language Impairment
- OH: Other Health Impaired
- BD: Behavior Disorders
- HI: Deaf and Hard of Hearing
- AU: Autism
- VI: Blind and Partially Sighted
- PH: Orthopedically Impaired
- TB: Traumatic Brain Injury
- MD: Moderately Mentally Impaired

## **Appendix D.6**

### **Students' Performance Levels on WESTEST Assessments by Number of Accommodations**

**Students' Performance Levels on WESTEST Assessments by Number of Accommodations**

<b>WESTEST Mastery Level</b>	<b>Number of Accommodations</b>													
	<b>0</b>		<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>		<b>5</b>		<b>6</b>	
	<i>(N = 8,785)</i>		<i>(N = 4,994)</i>		<i>(N = 4,818)</i>		<i>(N = 2,664)</i>		<i>(N = 1,240)</i>		<i>(N = 495)</i>		<i>(N = 274)</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
<b>Mathematics</b>														
Novice	1,261	14.4	1,695	33.9	1,788	37.1	1,015	38.1	483	39.0	175	35.4	99	36.1
Partial	2,870	32.7	2,149	43.0	1,941	40.3	1,051	39.5	471	38.0	205	41.4	105	38.3
At or Above	4,654	53.0	1,150	23.0	1,088	22.6	598	22.4	286	23.1	115	23.2	70	25.5
<b>Reading/Language Arts</b>														
Novice	861	9.8	1,527	30.6	1,453	30.2	873	32.8	428	34.5	175	35.4	95	34.7
Partial	2,700	30.7	2,390	47.9	2,285	47.4	1,256	47.1	578	46.6	216	43.6	123	44.9
At or Above	5,192	59.1	1,051	21.0	1,054	21.9	530	19.9	227	18.3	101	20.4	55	20.1

*Note.* There were no Mathematics achievement data for one student. RLA achievement data were missing for 99 students.