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# HIGH-STAKES TESTING OF STUDENTS WITH DISABILITIES

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*States and districts are required by the Individuals With Disabilities Education Act Amendments of 1997 (Public Law 105-17) to have students with disabilities participate in state and district assessments and to report on their performance. High-stakes testing is a significant part of standards-based reform and educational accountability. However, there are both intended and unintended consequences of high-stakes testing on students with disabilities. There is the potential for these assessments to result in many benefits for students with disabilities, but educators need to know about the ways to ensure that this happens. Participation on Individualized Education Plan teams, good decisions about accommodations and alternate assessments, and careful thought about diploma options and related issues can help students realize the benefits of high-stakes testing.*

High-stakes testing is becoming a common component of educational reform. When the stakes are high for students, there is always concern about the potential for unintended consequences, such as increased rates of students dropping out of school. There are increased concerns when students have disabilities. Despite the apparent potential for unintended consequences, there are also intended effects to be considered—benefits to students and others. In this article, we explore both the intended benefits of high-stakes testing and the possible unintended consequences. We also present several ways to increase the possibility that students with disabilities will realize the benefits of high-stakes testing.

Testing students with disabilities is not something new. These students take a series of individualized assessments when their eligibility for special education services is first under consideration. After that, they may be given additional tests to measure their progress toward the

goals listed on their Individualized Education Plans (IEPs). Every 3 years, they are again administered a wide range of assessments designed to determine whether they are still eligible for services. These kinds of assessments have been in place for 25 years, since the enactment of Public Law 94-142, the Education of All Handicapped Children Act.

What is new is the requirement that students with disabilities participate in assessments that in many places were developed for students not receiving special education services. These tests include the state and district tests used to document how students are performing. Sometimes these tests are norm referenced, providing comparisons of children across the nation, and sometimes they are standards based or criterion referenced, providing comparisons with specific standards. The requirement that students with disabilities participate in these tests comes from federal law governing the provision of services to students with disabilities, the Individuals

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With Disabilities Education Act Amendments of 1997 (IDEA 97). In fact, states must document the number of students participating in the tests, report on their performance, and develop alternate assessments for students unable to participate in existing state or district tests. Guidelines must be developed to assist in deciding which students take state and district assessments and which take an alternate assessment. Performance reports are to be made available to the public with the same frequency and in the same detail as reports that are provided to the public for students without disabilities.

IDEA 97 added these new requirements for several reasons. Researchers had documented that when students are excluded from state or district assessments, several unintended consequences occur (e.g., Allington & McGill-Franzen, 1992; McGrew, Thurlow, Shriner, & Spiegel, 1992; Zlatos, 1994). In addition to concerns about inappropriate referrals to special education and increased rates of retention in grades prior to those tested, there are concerns about the focus of instruction for students not included in assessments. Teachers had reported how their students with disabilities were sent on field trips on the day of districtwide testing; parents told of receiving phone calls from the school principal suggesting that their son or daughter stay home on the day of testing to avoid a testing process that would be much too stressful for their child ("Why Johnny Stayed Home," 1997). These students, however, missed important experiences and instruction that other students received, simply because they were not taking the test. Eventually, excluded students suffered in many ways because expectations for them were lowered, and their access to the general education curriculum and to the benefits of standards-based reform was limited (McDonnell, McLaughlin, & Morison, 1997; McGill-Smith, 1992; Ysseldyke, Thurlow, McGrew, & Shriner, 1994; Ysseldyke, Thurlow, McGrew, & Vanderwood, 1994). Requirements to include students with disabilities in state and district assessments and to report on their performance recognize that students with disabilities benefit from being held to high standards,

from having access to the general education curriculum, and from being part of the student body for which educators are held accountable for teaching (McDonnell et al., 1997; U.S. Department of Education, 1999).

Including students with disabilities in state and district assessments has always been done to some extent. Typically, however, only those students who could take the test in the same way that everyone else took the test (i.e., under standard administration conditions) were included in the assessments. Now that all students are to be included, it is important to ask what must be done to ensure that all students participate in a way that best reflects what they know and are able to do.

### *What It Takes for Students With Disabilities to Participate in Assessment Systems*

Beginning from the assumption that it is beneficial for students with disabilities to participate in state and district assessments, and also beginning from the need to comply with federal law, it is important to ask what is required for these students to take state and district assessments in a way that best reflects what they have learned—what they know and can do. There are three basic considerations: (a) purpose of the assessment, (b) accommodations, and (c) alternate assessments.

*Purpose.* Most of the initial discussion about the need for students with disabilities to participate in assessments occurred without considering the different purposes of state or district assessments. Initial concern was that schools were not being held accountable for teaching these students. Little thought was given to the assessments that were used for student accountability—to determine whether students were promoted from one grade to the next or whether they received a diploma. High-stakes testing that has consequences for students with disabilities, however, becomes a tricky issue because of the students' disabilities, which may interfere with learning and with the student being able to actually demonstrate what she or he knows and can do.

*Accommodations.* It is generally recognized that providing accommodations increases the participation of students with disabilities in assessments (Thurlow, Elliott, & Ysseldyke, 1998). Yet, controversy surrounds the use of accommodations, especially certain accommodations. This is evident in court cases about the use of scribes and word processors (see also Shriner, 2000) as well as new cases involving the use of spell checkers and readers. States and districts often have complex policies about the use of accommodations, and these policies often differ from one place to the next (Thurlow, House, Scott, & Ysseldyke, in press).

Despite the controversy, it is generally recognized that accommodations are an important aspect of the assessment of students with disabilities, just as they are for instruction (Elliott, Thurlow, & Ysseldyke, 1996). Examples of accommodations used during assessments are extended testing time, marking answers in the test booklet rather than on a separate sheet, being tested individually, and having directions repeated. There is much variability in the nature of accommodations, from setting and timing changes to changes in how the test is presented or how the student responds. There is also variability in how easy it is to provide accommodations to students. The logistics of providing accommodations is a concern with which schools are now dealing, sometimes with more resistance than necessary (Elliott & Thurlow, 2000).

*Alternate assessments.* Alternate assessments are new in most states and districts. They are measures for students unable to take state or district assessments, usually less than 2% of the total student population (about 20% of students with disabilities). Most states are in the process of developing these assessments. Surveys indicate that states are taking a variety of approaches to alternate assessment procedures, from versions of paper-and-pencil tests to checklists to portfolios (Thompson, Erickson, Thurlow, Ysseldyke, & Callendar, 1999; Thompson & Thurlow, 1999). Alternate assessments also are being used for different purposes. In some places, alternate assessments are a way for some students to show that they have met the graduation requirement.

### ***Including Students With Disabilities in Assessments With High Stakes for Students***

The consequences of educational accountability systems for schools and educators are much better understood than are those for students (Education Commission of the States, 1999; Madaus, 1988). The consequences of high-stakes systems for students with disabilities are much less understood. Tests should be considered as high stakes for students with disabilities when the results are used to make critical decisions about the individual's access to educational opportunity, grade-level retention or promotion, graduation from high school, or receipt of a standard diploma versus an alternative diploma (e.g., special education diploma, certificate of completion). The decisions all have immediate and long-range implications for the student. The use of exit exams to determine whether a student earns a high school diploma, for example, has lifelong consequences and directly affects an individual's economic self-sufficiency and well-being as an adult.

### ***Access to Educational Opportunity***

For students with disabilities and for others who experience difficulties on these tests, there is a variety of possible system responses. Test results, either favorable or unfavorable, are designed to have an effect on the content in focus as a curriculum, instructional strategies, intervention strategies to improve the learning of all students, professional development support for teachers and administrators, the use of assessment results, and the use and nature of test preparation materials (Koretz, Barron, Mitchell, & Stecher, 1996; Linn, 1993). These and other examples are the intended consequences of using student test scores as an index of system performance. Information on student test scores can be used to revisit and modify the curriculum, instructional approaches, and strategies and to identify the skills teachers and administrators may need to address critical areas where students' scores are found to be poor.

There are, however, several unintended consequences for students, including students with disabilities who perform poorly on state and

local tests. Observable consequences may include (a) increased referrals to special education for services, (b) lowered expectations of students as learners, (c) narrowing of the curriculum and instruction to focus on the specific learning outcomes assessed in state tests, (d) teaching to tests, (e) using test preparation materials that are closely linked to the assessment without making changes to the curriculum, (f) limiting the range of program options students can participate in because of intensified efforts to concentrate on areas of weakness identified by testing, and (g) the overall impact test scores have on judging whether a student will graduate from school with a standard education diploma (Education Commission of the States, 1998; Lane, Park, & Stone, 1998; Langenfeld, Thurlow, & Scott, 1997; Nelson, 1999). Although these consequences certainly affect all students, students with disabilities in particular are significantly affected by high-stakes testing programs.

These and other consequences potentially limit access to educational opportunities. A primary concern is that scores on high-stakes tests will be used to place students with disabilities in low-track classes, where they learn less than they are capable of learning. Research shows that when students with disabilities are placed in low-track classes, they do not catch up with their peers in other tracks (Gamoran & Berends, 1987). For students with disabilities, the IEP team, with general education involvement, should strive to maintain high standards and expectations for students, to provide meaningful access to the general education curriculum through appropriate accommodations and support systems, and to actively engage general education and special education teachers in collaborative instructional arrangements to support students in meeting state standards.

### ***Retention and Social Promotion***

State tests also become high stakes when they are used for grade-level retention and promotion decisions. Increasingly, states are requiring that schools and school districts use state test scores to determine whether students should be

promoted to the next grade level. Several states use test cutoff scores to make student retention and promotion decisions. Retention has been referred to as a kind of academic *redshirting*, that is, the act of keeping students back a grade to improve test scores (Langenfeld et al., 1997; Zlatos, 1994). Retaining students could be viewed as an appropriate intervention; however, there is little research evidence to suggest that this is the case. Persuasive evidence indicates that repeating a grade does not improve the achievement of students with disabilities overall (Allington & McGill-Franzen, 1992; Holmes, 1989).

A second concern is based on documented increases in the dropout rate for students who have been retained (Darling-Hammond & Falk, 1995; Reardon, 1996; Sinclair, Christensen, Thurlow, & Evelo, 1994). Dropping out of school is one of the most serious and pervasive problems facing special education programs nationally, yet very limited data are presently available on dropout rates among youth with disabilities. The last congressionally mandated study of the secondary school experiences of students with disabilities found that nearly 40% had left school by dropping out (Wagner et al., 1991).

### ***Graduation Requirements and Diploma Options***

Some states have attached high-stakes exit exams to graduation since the late 1960s and early 1970s. Requirements that states set for graduation can range from Carnegie unit requirements (a certain number of class credits earned in specific areas) to the successful passing of minimum competency tests, high school exit exams, and/or a series of benchmark exams (Thurlow, Ysseldyke, & Anderson, 1995). States may also require almost any combination of these. Diversity in graduation requirements is complicated further by an increasingly diverse set of possible graduation diploma options. The standard high school diploma is not the only exit document available to students, including students with disabilities, at high school completion. Among the array of diploma options are special education diplomas, certificates of



**TABLE 1 Advantages and Disadvantages of Different Diploma Options**

<i>Diploma Option/Policy</i>	<i>Advantages</i>	<i>Disadvantages</i>
Standard diploma or better; single criterion. A standard diploma or a more rigorous option (e.g., an honors diploma) is available to all students, with or without disabilities. All must meet the same criteria for earning the diploma.	Provides students the key to entry into postsecondary institutions or employment. Meaning of earning a diploma is clear because there is only one set of criteria.	Does not recognize the different learning styles of students with disabilities. May result in a significant number of students not receiving any kind of exit document from high school.
Standard diploma or better; multiple criteria. Students with disabilities are allowed to meet one or more of the requirements for the standard diploma in different ways from what is required of other students (e.g., different courses, meeting Individualized Education Plan goals, exemption).	Recognizes that students have different learning styles and skills that may not align with typical graduation criteria. Ensures that more students will get a diploma than would with a single set of criteria.	Reduces quality control on the knowledge and skills of students leaving schools. Results in nonstandard sets of knowledge and skills among students, all of whom have the same diploma.
Certificate options. Certificates for attendance, completion, achievement, attainment, and so on are available to all students, with or without disabilities. Requirements for certificates can vary considerably and may or may not allow students with disabilities to meet them in different ways.	Maintains the integrity of the requirements for earning a standard diploma. Provides other exit options for students not meeting the requirements for a standard diploma.	Produces students with diploma options about whose consequences we have little knowledge for postsecondary schooling or employment.
Special education diploma. Diploma or certificate available only to students receiving special education services. This type of diploma typically is added to other options available for students not having an Individualized Education Plan.	Recognizes that students with disabilities may be working on different standards from other students.	Flags those students receiving special education services.

Note: Table is adapted from Thurlow and Thompson (2000).

completion, occupational diplomas, and others. There is a critical need to better understand the implications of state graduation requirements because of findings that students with disabilities experience significant negative outcomes when they fail to earn a high school or equivalent diploma (Bruininks, Thurlow, Lewis, & Larson, 1988; Edgar, 1987; Johnson, McGrew, Bloomberg, Bruininks, & Lin, 1997; Wagner, 1992). There are also data to suggest that more stringent graduation requirements may be related to higher rates of dropping out of school among students with disabilities compared with the dropout rates of their counterparts without disabilities (Wagner et al., 1991).

Currently, 16 states have had their exams in place long enough to affect the graduating class of 2000 (Thurlow & Thompson, 2000). Approximately 9 other states have developed graduation exams that students in future graduating classes will have to pass to receive a standard diploma. Additional states have legislated exams that are now being developed; add to these numerous local exams to determine

whether students will receive diplomas. The states with active graduation exams have diploma options that reflect the array of diplomas and certificates and the criteria for earning them. The diploma and certificate options fall within four general categories, each of which has advantages and disadvantages (see Table 1). Although the table highlights what is happening at the state level, these same diploma options apply as well to the local level.

As with other students, those with disabilities are allowed multiple opportunities to take exit exams (Guy, Shin, Lee, & Thurlow, 1999). States with graduation exams generally have more diploma options available to students overall. Many states also offer students with disabilities additional flexibility in meeting standard diploma requirements. For example, most states with only course credit requirements for graduation allow their students with disabilities to meet requirements by taking modified coursework or completing IEPs or by having IEP teams or districts decide the requirements. More than half the states that require

both credits and exams to earn a standard diploma allow changes in requirements for students with disabilities.

### ***Implications for Teachers and Teacher Educators***

As more and more states and school districts implement performance standards and tests in an effort to improve educational accountability, they are faced with several critical questions. Many of these questions apply to all students, yet there are several that specifically address the experiences of students with disabilities as they participate in state testing and related standards-based practices. For example, how do we ensure that results on state tests do not unnecessarily limit educational experiences and opportunities? What steps must be taken to ensure that states carefully align current grade-level retention and promotion policies with newly emerging state tests and related performance standards? What do schools need to consider about using state test scores to retain or promote students with disabilities? What is the role and importance of accommodations in supporting student participation in these and other exams? Is the standard diploma the only option that should be available to students, or should there be some type of diploma for students who do not pass the test but who meet other criteria? If more than one type of diploma is available, what specific requirements should be aligned with each diploma option? These are difficult and complex questions. Exploring the answers to them produces several suggestions for including students with disabilities in high-stakes assessments.

*Maintain high expectations for students with disabilities.* For students with disabilities, the IEP team should serve as the focal point for discussions about student participation in state testing and standards-based accountability systems. The IEP must indicate whether the student is to participate in the assessment and the nature and scope of accommodations that might be required by the student. The IEP team is also responsible for engaging parents, general and special education professionals, administrators,

and the student (beginning at age 14) in active discussions about the student's overall educational plan and opportunities. The IEP team must work to ensure that high expectations for learning and achievement are maintained for students with disabilities. If students experience difficulties in passing state tests, efforts must be undertaken to ensure that they remain on a full curriculum track, with learning expectations that guide the instruction of general education students. All teachers must discuss how best to support students with disabilities in the mainstream instructional program. General education teachers, in collaboration with special education personnel, must determine the strategies, accommodations, and overall supports needed to ensure that students meet high standards and have access to the full range of curricular options available to other students. Difficulties in test performance should not result in lower expectations, narrowing of curricular options, or displacement of the student from the general education curriculum.

*Use of test scores in retention and promotion decisions.* Stake (1999) argued that if tests are used for promotion decisions, several strategies can help the validity and fairness of test score interpretations: (a) identify at-risk or struggling students (such as students with disabilities) early so they can be targeted for help, (b) provide multiple opportunities for students to demonstrate their knowledge through repeated testing with alternate forms or other appropriate means, and (c) take into account other relevant information about the student (e.g., school performance or related test information). This does not mean that students experiencing difficulties are automatically referred to special education. It is important, however, for students who need intervention and support to benefit fully from educational experiences. Special education teachers can play a consultative role for general education staff to determine whether a student needs to be formally referred for special education services. Clearly, social promotion has placed too many students at the end of their high school careers failing graduation exams because they lacked essential knowledge and skills.

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*Accommodating the test situation.* IEP team members need to think about the link between assessment accommodations and instructional accommodations (Elliott et al., 1996). It is important that assessment accommodations are familiar to students and that they be used prior to test administration. Classroom teachers, therefore, need to be integrally involved in determining the accommodations to which students have access during all state and district assessments.

*Nonapproved accommodations.* There are several accommodations that are considered to change the construct tested, such as reading a reading test to a student, and therefore are not approved for use. Nonapproved accommodations are needed for some students to be able to take the test. For example, students who are blind and have not learned Braille are essentially denied access to the test if it is not read to them regardless of whether the test's content is mathematics, reading, or some other content area. This same situation occurs for students with significant reading disabilities and other conditions as well. Denying access to the assessment because of the effects of a disability, especially when the assessment provides access to a benefit (such as a diploma), raises many concerns. Simply denying diplomas or providing certificates of attendance for these students does not seem to be reasonable because it can be argued that they have met standards and simply are not being allowed to appropriately show their mastery of them. One approach is to have a special request process, through which students needing nonapproved accommodations could request permission to use them, with the reason for needing each accommodation documented. For these students, test performance might be just one part of a larger body of evidence required for meeting graduation requirements.

*A phase-in approach to testing.* Historically, students with disabilities either have been excluded from the general education curriculum or have received a watered-down version of it. Although there are examples in which students have indeed had the same exposure and opportunities that other students have had to master the general education curriculum, for the most

part, this is not the case. As a result, questions can be raised about whether it is appropriate to expect that today's ninth-grade students have had equal access to the general education curriculum and standards. Because of questions about opportunity to learn, educators might want to ask for an extended phase-in of the requirements for students with disabilities. For example, those students now in elementary school would be the first required to meet state graduation requirements.

*Providing retesting opportunities.* How retesting interacts with disability issues should be considered. Retesting must be available to students with disabilities just as often as it is to other students. This means that special editions of the test are needed and that accommodations need to be provided during retesting. IEP teams need to determine whether to request additional accommodations with each retake, thereby recognizing the possibility that the accommodations are needed even though the student may have hoped not to use them. Changing rules about test format, administration procedures, or accommodations for retesting must be addressed.

*Available appeals and waiver processes.* It is important that teachers and those who train them know whether any procedures are available for students to appeal a poor test score or to obtain a waiver from taking a test. An appeals process that ensures consideration of individual student needs or a process for requesting a waiver from testing may reduce the number of problems students encounter. However, it is important for these students to still be held to high standards. Alternative ways for them to show that they have met high standards should be pursued.

### ***Teacher Educators Influencing Policies on Inclusive Diploma Options and Graduation Policies***

It is critical for teacher educators to know about the existing policies that affect students, which in turn affect teachers. Beyond that, it is important for teacher educators to speak up



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about policies that are implemented or that are being considered. More than half the states do not yet have graduation exams, but most are thinking seriously about adding them. It is a good time to get involved in discussions about these exams. Many states that have graduation exams are rethinking some of their policies. Knowing what is being thought about and adding input to the discussion are equally important. There are several points that might be considered in relation to graduation requirements and graduation exams for students with disabilities.

Recognize that not all students demonstrate high knowledge and skills in the same way. Just as this calls for alternative testing practices, it also can mean that there should be other avenues to diplomas, such as an appeals process. Only 1% to 2% of the total student enrollment (i.e., students with severe disabilities) should require alternate tests or special accommodations to participate in testing programs at any level.

*Clarify the implications of different diploma options for continued special education services.* It is important for parents and educators to know that if a child graduates from high school with a standard high school diploma, the student is no longer entitled to special education services. Special and general education teachers should carefully work with students and families to consider what it actually means to receive a standard high school diploma. In some cases, it may be advisable to delay formal receipt of a standard high school diploma until the conditions (goals and objectives) of the student's IEP have been fully met, including all transition service requirements outlined in IDEA 97. A pressing concern is to ensure that the agreed-on goals and objectives in the student's IEP have been fulfilled by the educational agency and that students have been connected with the adult services needed to support postschool education, employment, and independent living needs.

*Consider the views of others about diploma options and policies.* Postsecondary education representatives need to determine whether they will accept an alternative diploma as part of

their admission requirements. The question is whether graduating from high school with a special education diploma or other certificate of completion grants students who earn them access to postsecondary education programs. High schools and postsecondary programs should thoroughly discuss the meaning and rigor of these alternative diplomas and agree on their use for postsecondary education admissions. This issue is not the same as concerns about the meaning of grade point averages or class ranks earned by students (regardless of disability) who have taken easier classes or programs of study.

Employers need to be consulted and informed about the types of diplomas students receive on graduation. Although it is unfair to generalize on the motivations of employers, it is fair to say that employers are interested in hiring the most qualified individuals they can. If members of the business community are not engaged in discussions about plans to use an array of alternative diplomas, employers may view these alternative diplomas as a convenient screening mechanism for new employees. Students who hold a standard high school diploma might thereby be viewed as more desirable candidates for employment than those with an alternative, or "lesser," diploma. It is important to engage representatives of postsecondary education programs, employers, union representatives, administrators, parents, and individuals with disabilities in discussions about having diploma options for all students, including students with disabilities.

## CONCLUSIONS

The consequences of high-stakes testing for students with disabilities, particularly of tests used to determine graduation status or type of diploma, last well beyond the time a student is in school. Participation in postsecondary education programs, employment and future earnings, civic participation, and the individual's overall social and emotional well-being are affected by the credentials they receive in high school and carry forward into adulthood. A substantial body of research has documented the negative consequences of dropping out of school, yet limited research has been conducted

on the consequences of receiving less than a standard high school diploma.

There may indeed be high-stakes consequences related to granting students an alternative diploma rather than the standard high school diploma. Some educators and policy makers have expressed concern that the current diploma and graduation requirements may give students with disabilities an unfair advantage over students without disabilities who may be held to higher standards. Alternatively, receiving less than a standard high school diploma may limit an individual's future opportunities to access postsecondary education and employment.

These issues, coupled with the possibility of lower expectations, off-target teaching, and denial of responsibility for students with disabilities, form an unfortunate set of unintended consequences that surface when addressing the participation of students with disabilities in educational accountability systems. Balancing these against a desire to be fair to students and not to harm them creates significant challenges for states and districts today. Teachers must take a major role in raising and addressing the tough questions as high stakes affect students' educational opportunities, retention or promotion, and graduation from high school.

## REFERENCES

- Allington, R., & McGill-Franzen, A. (1992). Does high stakes testing improve school effectiveness? *Spectrum*, 10(2), 3-12.
- Bruininks, R. H., Thurlow, M. L., Lewis, D. R., & Larson, N. W. (1988). Post-school outcomes for students in special education and other students one to eight years after high school. In R. H. Bruininks, D. R. Lewis, & M. L. Thurlow (Eds.), *Assessing outcomes, costs, and benefits of special education programs* (Report No. 88-1). Minneapolis: University of Minnesota Department of Educational Psychology, University-Affiliated Program on Developmental Disabilities.
- Darling-Hammond, L., & Falk, B. (1995). Using standards and assessments to support student learning: Alternatives to grade retention. In National Center for Restructuring Education, Schools and Teaching (Ed.), *Reports to the chancellor's committee on grade transition standards*. New York: Teachers College, Columbia University.
- Edgar, E. (1987). Secondary programs in special education: Are many of them justifiable? *Exceptional Children*, 52(6), 555-561.
- Education Commission of the States. (1998). *Designing and implementing standard-based accountability systems*. Denver, CO: Author.
- Education Commission of the States. (1999). *Education accountability systems in 50 states*. Denver, CO: Author.
- Elliott, J. L., & Thurlow, M. L. (2000). *Improving test performance of students with disabilities in state and district assessments*. Thousand Oaks, CA: Corwin Press.
- Elliott, J., Thurlow, M. L., & Ysseldyke, J. (1996). *Assessment guidelines that maximize the participation of students with disabilities in large-scale assessments: Characteristics and considerations* (Synthesis Report 25). Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Gamaron, A., & Berends, M. (1987). The effects of stratification in secondary schools: Synthesis of survey and ethnographic research. *Review of Education Research*, 57(4), 415-435.
- Guy, B., Shin, H., Lee, S. Y., & Thurlow, M. L. (1999). *State graduation requirements for students with and without disabilities* (Technical Report 24). Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Holmes, C. T. (1989). Grade level retention effects: A meta-analysis of research studies. In L. A. Shepard & M. L. Smith (Eds.), *Flunking grades: Research and policies on retention* (pp. 16-33). London: Falmer.
- Johnson, D. R., McGrew, K., Bloomberg, L., Bruininks, R. H., & Lin, H. C. (1997). Results of a national follow-up study of young adults with severe disabilities. *Journal of Vocational Rehabilitation*, 8, 119-133.
- Koretz, D. M., Barron, S., Mitchell, K. J., & Stecher, B. M. (1996). *Perceived effects of the Kentucky Instructional Results Information district (MR-792-PCT/FF)*. Santa Monica, CA: RAND.
- Lane, S., Parke, C. S., & Stone, C. (1998). A framework for evaluating the consequences of assessment programs. *Educational Measurement*, 17(2), 24-28.
- Langenfeld, K. L., Thurlow, M. L., & Scott, D. L. (1997). *High stakes testing for students: Unanswered questions and implications for students with disabilities*. Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Linn, R. L. (1993). Educational assessment: Expanded expectations and challenges. *Educational Measurement: Issues and Practice*, 13(3), 5-16.
- Madaus, G. (1988). The influence of testing on the curriculum. In L. Tanner (Ed.), *Critical issues in curriculum: 87th yearbook of the NSSE, Part I*. Chicago: University of Chicago Press.
- McDonnell, L., McLaughlin, M., & Morison, P. (1997). *Educating one & all: Students with disabilities and standards-based reform*. Washington, DC: National Academy.
- McGill-Smith, P. (1992). Can't get on the train without a ticket. *Teaching Exceptional Children*, 25(1), 49.
- McGrew, K., Thurlow, M. L., Shriner, J. G., & Spiegel, A. N. (1992). *Inclusion of students with disabilities in national and state data collection programs* (Technical Report 2). Min-

- neapolis: University of Minnesota, National Center on Educational Outcomes.
- Nelson, R. J. (1999). *Closing or widening the gap of inequality? The intended and unintended consequences of educational accountability systems for students with disabilities*. Unpublished manuscript, University of Minnesota at Minneapolis, National Center on Educational Outcomes.
- Reardon, S. (1996, April). *Eighth-grade minimum competency testing and early high school drop-out patterns*. Paper presented at the annual meeting of the American Educational Research Association, New York.
- Shriner, J. (2000). Legal perspectives on school outcomes assessment for students with disabilities. *Journal of Special Education, 33*(4), 232-239.
- Sinclair, M., Christenson, S., Thurlow, M. L., & Evelo, D. (1994). Are we pushing students in special education to drop out of school? *Research Policy Brief, 6*(1). Minneapolis: University of Minnesota, Research and Training Center on Residential Services and Community Living.
- Stake, R. (1999). The goods on American education. *Phi Delta Kappan, 80*(9), 668-672.
- Thompson, S., Erickson, R., Thurlow, M., Ysseldyke, J., & Callendar, S. (1999). *Status of the states in the development of alternate assessments* (Synthesis Report 31). Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Thompson, S., & Thurlow, M. (1999). *1999 state special education outcomes*. Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Thurlow, M. L., Elliott, J. L., & Ysseldyke, J. E. (1998). *Testing students with disabilities: Practical strategies for complying with district and state requirements*. Thousand Oaks, CA: Corwin Press.
- Thurlow, M. L., House, A., Scott, D., & Ysseldyke, J. E. (in press). Students with disabilities in large-scale assessments: State participation and accommodation policies. *Journal of Special Education*.
- Thurlow, M. L., & Thompson, S. J. (2000). *Diploma options and graduation policies for students with disabilities* (National Center of Educational Outcomes Policy Directions 10). Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Thurlow, M. L., Ysseldyke, J. E., & Anderson, C. L. (1995). *High school graduation requirements: What's happening for students with disabilities?* Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- U.S. Department of Education. (1999). *Testing, teaching, and learning*. Washington, DC: Author.
- Wagner, M. (1992). *What happens next? Trends in postschool outcomes of youth with disabilities. The second comprehensive report from the National Longitudinal Transition Study of Special Education Students* (ERIC Document Reproductions Service No. ED 356 603). Menlo Park, CA: SRI International.
- Wagner, M., Newman, L., D'Amigo, R., Jay, E. D., Butler-Nalin, P., Marder, C., & Cox, R. (1991). *Youth with disabilities: How are they doing?* Menlo Park, CA: SRI International.
- Why Johnny stayed home. (1997, October 6). *Newsweek, 130, 14, 60*.
- Ysseldyke, J. E., Thurlow, M. L., McGrew, K., & Shriner, J. (1994). *Recommendations for making decisions about the participation of students with disabilities in statewide assessment programs: A report on a working conference to develop guidelines for statewide assessments and students with disabilities* (Synthesis Report 15). Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Ysseldyke, J. E., Thurlow, M. L., McGrew, K., & Vanderwood, M. (1994). *Making decisions about the inclusion of students with disabilities in large-scale assessments: A report on a working conference to develop guidelines on inclusion and accommodations* (Synthesis Report 13). Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Zlatos, B. (1994). Don't test, don't tell: Is "academic red-shirting" skewing the way we rank our schools? *The American School Board Journal, 191*(11), 24-28.

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