

Disability and the Education System

Laudan Aron and Pamela Loprest

Summary

Education is important for all children, but even more so for children with disabilities, whose social and economic opportunities may be limited. In this article, Laudan Aron and Pamela Loprest assess how well the nation's education system is serving students with disabilities.

Aron and Loprest trace the evolution of the special education system in the United States from its origins in the civil rights movement of the mid-twentieth century. They note the dual character of federal legislation, which both guarantees eligible children with disabilities the right to a “free, appropriate public education in the least restrictive setting” and establishes a federal funding program to help meet this goal. They then review the types of services and accommodations these children receive from infancy through young adulthood.

The special education system has given children with disabilities much greater access to public education, established an infrastructure for educating them, helped with the earlier identification of disabilities, and promoted greater inclusion of these children alongside their nondisabled peers. Despite these advances, many problems remain, including the over- and underidentification of certain subgroups of students, delays in identifying and serving students, and bureaucratic, regulatory, and financial barriers that complicate the program for everyone involved.

More important, the authors show that special education students still lag behind their nondisabled peers in educational achievements, are often held to lower expectations, are less likely to take the full academic curriculum in high school, and are more likely to drop out of school. Only limited evidence is available on the effectiveness of specific special education services or on how to improve student achievement for this important subgroup of students.

Improving the system will require better ways of understanding and measuring both ends of the special education continuum, namely, what services special education children need and receive, and what academic outcomes these students achieve. Without stronger evidence linking these two aspects of the system, Aron and Loprest argue, researchers will be unable to gauge the efficacy of the services now being delivered or to formulate effective reforms to the system as a whole.

www.futureofchildren.org

Laudan Aron is a senior program officer in the Division of Behavioral and Social Sciences and Education at the National Research Council in Washington, D.C. Pamela Loprest is director of the Income and Benefits Policy Center at the Urban Institute in Washington, D.C.

It is difficult to overstate the importance of the nation's education system for children with disabilities and their families. Education is important for all children, of course, but for those with disabilities or special needs it can mean the difference between a socially fulfilling, intellectually stimulating, and economically productive life and a future with few of these qualities. Education also has the potential to affect children's health by influencing their ability to advocate for themselves, manage chronic health conditions, and navigate complex medical, insurance, and social service systems during childhood and later in life.

An early childhood or preschool program or a child's elementary school is often the first regular contact a family has with a professional child-serving system. While children with obvious congenital, physical, or sensory disabilities are likely to have been identified and served within the health care system before starting school, many disabilities (particularly learning disabilities and behavioral disorders) and developmental delays are not identified or may not emerge before a child begins school. Many disabilities, moreover, are actually manifestations of physical or mental limitations within specific social or environmental contexts, and of the behavioral or performance expectations of socially defined roles within those contexts. In these cases, school represents a new and changing context within the life of a child, so new approaches and accommodations may be needed even for children whose conditions and limitations have been long known.

In this article, we offer a brief history of the legal underpinnings of the nation's special education system, explaining how and why the existing system has evolved as it has. We

highlight the dual nature of the law, which both defines civil rights for a class of protected persons and establishes a funding stream for programs and services to support these persons.

We then present basic information profiling special education students in the United States and the types of services and accommodations they receive. These services in principle are wide ranging, from providing early intervention to coordinating care to helping students transition from high school to postsecondary education or employment and training. The critical importance of early identification and prevention of childhood disabilities is now widely established. Intervening early and effectively can redirect the health and educational trajectory of many children with disabilities, especially those with specific learning disabilities, and can also prevent the onset of secondary disabilities. In addition to offering regular educational activities and any special educational services and interventions a child with a disability may need, schools are settings where a variety of other child- and family-centered services can be delivered and coordinated.¹ These services can be critical for children with disabilities and their families, especially for those who are poor, have limited English skills, or are precariously housed. Schools also have a particularly important role to play in helping students (and teens who leave school) transition successfully to postsecondary education and job training, employment, and independent living in adulthood. These transition points in the lives of children are important and can be especially challenging for young people with disabilities and their families.²

The discussion then turns to a review of the costs of special education (and related funding issues) and the educational outcomes

that children with disabilities are achieving. These two aspects of the system often raise the greatest concerns: not only is the system expensive and growing more so over time, but a substantial gap in educational outcomes remains between children with disabilities and other children. A final section discusses some implications for practice and policy.

History and Legal Context

The nation's current approach to educating children with disabilities is the product of dramatic shifts in disability law and public policy over the past four decades. Before the 1970s no major federal laws specifically protected the civil or constitutional rights of Americans with disabilities. Public policies were generally directed at veterans with disabilities returning home from two world wars. The civil rights movement of the 1960s led to a major shift in the "disability rights movement" from one primarily focused on social and therapeutic services to one focused on political and civil rights.³

A critical turning point came with the passage of the Rehabilitation Act of 1973—especially Section 504 of the act, which banned recipients of federal funds from discriminating against people with disabilities. For the first time, a federal law stated that excluding or segregating an individual with a disability constituted discrimination. It also challenged the assumption that disadvantages faced by people with disabilities, such as low educational attainment or unemployment, were the inevitable result of limitations stemming from the disability itself rather than from societal barriers or prejudices. Because almost all public schools receive federal funds, Section 504 also applied to them. The law entitles children to a public education comparable to that provided to children who do not have

disabilities, with disability broadly defined to include any person who has a physical or mental impairment that substantially limits one or more major life activities, has a record of such impairment, or is regarded as having such an impairment.⁴

While Section 504 helped establish greater access to an education by removing intentional and unintentional barriers, a more proactive law protecting the educational rights of children with disabilities came two years later with the passage in 1975 of the Individuals with Disabilities Education Act (IDEA).⁵ IDEA established the right of children with disabilities to attend public schools, to receive services designed to meet their needs free of charge, and, to the greatest extent possible, to receive instruction in regular education classrooms alongside nondisabled children. These core substantive rights at the heart of IDEA are embodied in the phrase "a free, appropriate, public education in the least restrictive environment." Part B of IDEA authorizes federal grants to states to cover some of the costs of special education services for pre-school and school-aged children aged three to twenty-one.

Unlike Section 504, IDEA does not cover all children with disabilities. The law has a two-pronged eligibility standard—children must have at least one of a list of specific impairments, and they must need special education and related services *by reason of such impairments* (note that this definition is primarily a medical or diagnostic one, with some functional criteria added). The specific impairments and disabilities listed in the law are mental retardation (also known as intellectual disabilities); hearing impairments, including deafness; speech or language impairments; visual impairments, including blindness; serious emotional disturbance; orthopedic

impairments; autism; traumatic brain injury; other health impairments; specific learning disabilities; deaf-blindness; and multiple disabilities requiring special education and related services. Children aged three through nine who experience “developmental delays” in their physical, cognitive, communication, social or emotional, or adaptive development are also eligible for special education and related services.

In 1986 Part C of IDEA was established as a federal grant program focused on younger children (birth through age two) with disabilities. Its goals are to enhance the development of infants and toddlers with disabilities; reduce educational costs by minimizing the future need for special education; maximize the likelihood of independent living in adulthood; and enhance families’ capacity to meet their children’s needs. Part C provides states with federal grants to develop and administer a comprehensive statewide system of early-intervention services for any child under age three who has a disability or significant delay in development.

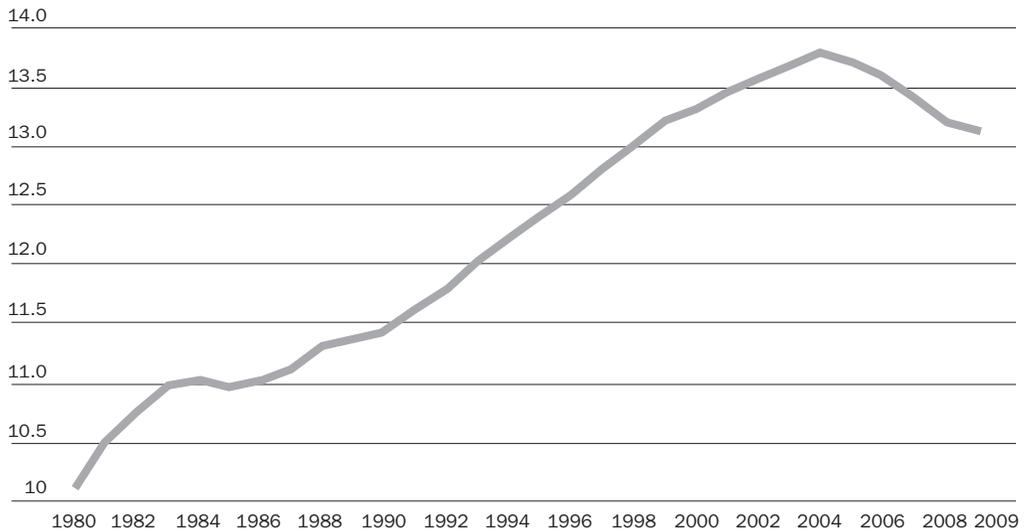
As a relatively young program, IDEA continues to evolve. Amendments to the law in 1997 focused on improving students’ access to the general education classroom and curriculum, developing more accurate and appropriate assessments of academic achievement, implementing better disciplinary procedures and alternative placement options, and bolstering transition services and supports for students aging out of special education. The most recent amendments, enacted in 2004, were designed to promote better accountability for results, enhance parent involvement, encourage the use of proven practices and materials, and reduce administrative burdens for teachers, states, and local school districts.

The development of the nation’s special education system has come in the midst of major and ongoing attempts to reform the general public education system. Significant influences include the standards-based reform movement, which led to and was then accelerated by the federal No Child Left Behind law of 2002; the school choice and public charter school movement; and the growing need for “alternative” schools and programs for students who for a variety of reasons are not succeeding in regular public schools.⁶

Special Education Students

IDEA has thrown open the doors of public education to children with disabilities. Before its passage in 1975, only one in five children with identified disabilities attended public school, and many states explicitly excluded children with certain types of disabilities from school; these included children who were blind or deaf, and children labeled “emotionally disturbed” or “mentally retarded.” More than 1 million children with disabilities had no access to the public school system and often lived in state institutions with limited or no educational or rehabilitation services. Many of the 3.5 million children with disabilities who did attend school were warehoused in segregated facilities with little or no effective instruction. By the 2004–05 school year, thirty years after IDEA was first enacted, more than 6.7 million children (13.8 percent of all students nationally) were receiving special education services through the law. Another 295,000 infants and toddlers and their families were served under Part C.⁷ Since peaking in the middle of the decade, the number of special education students has been gradually declining, and as of the 2009–10 school year, stood at 6.5 million, or 13.1 percent, of all students (figure 1).

Figure 1. Proportion of the National Student Population in Special Education, 1980–81 to 2009–10



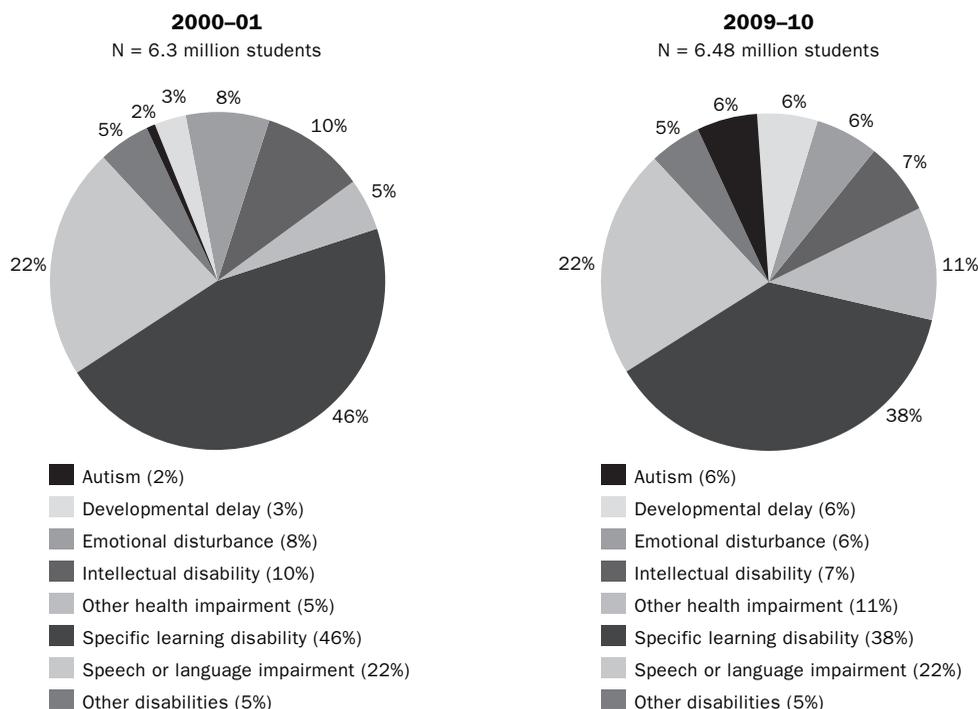
Source: National Center for Education Statistics, *Digest of Education Statistics* (Washington, D.C.: Institute of Education Sciences, U.S. Department of Education, various years).

Learning disabilities are the most common disability among special education students today. For many years, almost half of special education students were classified as having a specific learning disability as their primary disability. The share of special education students with learning disabilities fell from 46 percent in 2000–01 to 38 percent in 2009–10, but these students still remained the single largest disability group (figure 2).

Like many other childhood conditions that are on the rise (see the article in this volume by Halfon and others⁸), it is unclear how much of the growth in learning disabilities is a true increase in prevalence or a reflection of our new understanding and ability to identify the problem. When IDEA was passed, learning disabilities were neither well-known nor understood. Today, the causes of learning disabilities are still unclear, but an explosion of research and program and policy attention has focused on this class of disorders.

Definitions—both diagnostic and programmatic—have evolved over time. IDEA regulations define a specific learning disability as a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Contributing conditions include perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Specific learning disabilities can also affect executive function skills, such as impulse control, flexibility, planning, and organizing, as well as social and emotional skills. The regulations make clear, however, that learning problems resulting primarily from visual, hearing, or motor disabilities; mental retardation; emotional disturbance; or environmental, cultural, or economic disadvantage are not specific learning disabilities under the law. Specific learning disabilities

Figure 2. Special Education Population by Disability



Source: Janie Scull and Amber Winkler, “Shifting Trends in Special Education” (Washington, D.C.: Thomas B. Fordham Institute, 2011), figure 2.

are an important group of disorders for the special education population, both because so many students have them and because by definition they affect learning.

The next most common type of disability, affecting 22 percent of all special education students in 2009–10, is speech or language impairment. “Other health impairments,” a catchall category for students whose health conditions reduce their abilities to perform in the educational setting, account for 11 percent of special education students.⁹ Mental retardation accounts for 7 percent of special education students, and autism, developmental delay, and emotional disturbance each account for 6 percent. Like specific learning disabilities, the shares of students classified as having mental retardation and emotional

disturbance has declined since 2000, but other disabilities have increased. The share of students with autism rose from 2 percent to 6 percent of all special education students over the past decade, and the share of those with “other health impairments” more than doubled.

Some of these trends in the share of special education students with certain disabilities, such as autism, are mirroring changes documented in national population-based surveys of children’s health and, like these sources, may be reflecting both true changes in prevalence as well as improvements in awareness, identification, and diagnosis. Some observers have speculated that students who would have been classified as having a learning disability in the past are now classified as

having autism or “other health impairment.” Most of the information on special education students comes from administrative data, however, and is therefore influenced by many factors in addition to students’ disabling conditions. These factors include how students are referred, evaluated, and identified for special education services. Given the very real, and often perverse, financial incentive structures within the special education system, state and local policies and practices designed to influence if and how students are identified and served are another important factor. Large state-by-state variation in overall (and disability-specific) identification rates suggest that many considerations other than underlying prevalence of disability are at play.

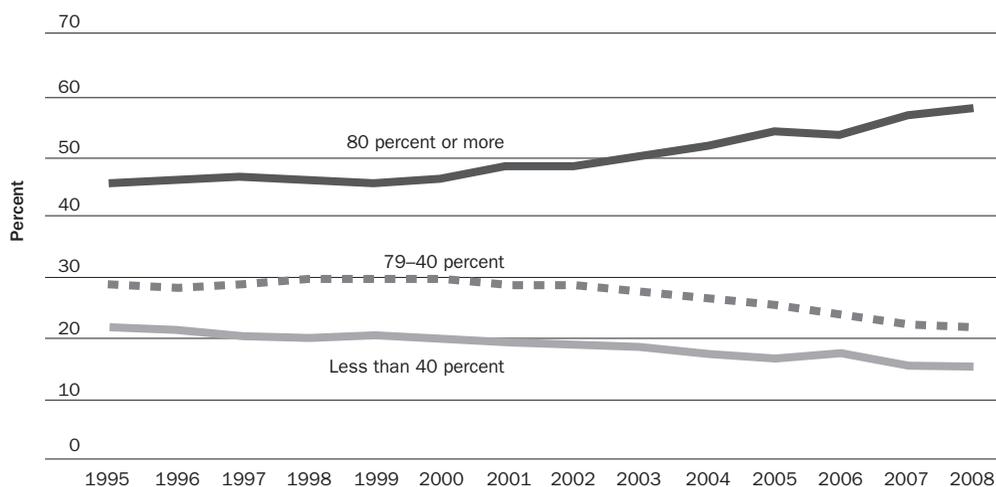
Disability profiles also vary with students’ age—speech or language impairments and developmental delays are common among preschoolers, while elementary school students are most commonly diagnosed with speech or language impairments and specific learning disabilities. Students aged twelve and older are most often diagnosed with learning disabilities, and they are less likely than their younger counterparts to be diagnosed with speech and language impairments and more likely to have mental retardation or an emotional disturbance.¹⁰

The limitations and service needs of children vary greatly depending on the types of disabilities involved. Combining special education students into small groups defined by disability types with similarities in service needs eases discussion of program outcomes, policies, and practices. In 2001 Wade Horn and Douglas Tynan proposed segmenting the special education student population into three distinct subgroups: children with significant developmental disabilities and sensory and physical impairments; children

with milder forms of neurological conditions, such as learning disabilities and attention-deficit/hyperactivity disorder; and those with conduct or behavioral problems (the groups can and do overlap with one another).¹¹ The first group includes children who were the primary target of the original IDEA legislation—a relatively small share of special education students today. Each of these groups requires a distinct set of services and disability-related accommodations, such as medical services, learning-related interventions, or behavioral supports. Alternate groupings have been used by several long-term special education studies—such as the Special Education Elementary Longitudinal Study and the National Longitudinal Transition Study—and recommended by the President’s Commission on Excellence in Special Education. These organizational schemes differ somewhat from one another, but all are efforts to simplify differences in service needs among special education students.

While the disability profile of special education students is largely similar for students from different racial or ethnic groups (the most common category for all groups, for example, is specific learning disabilities), overall rates of identification do vary by race and ethnicity. In 2005, for example, the share of students aged six through twenty-one identified for services under IDEA ranged from 6.3 percent of Asian school-age children to 14.1 percent of white children and 16.7 percent of African American children. For American Indian and Hispanic school-age children, the shares were 15.8 and 11.8 percent, respectively. Serious concerns have been raised for many years about the overrepresentation of African American students in special education. For example, non-Hispanic African American students are almost three times as likely as other students to be

Figure 3. Percentage Distribution of Students Aged 6 to 21 Served under IDEA, Part B, Placed in a Regular School Environment, by Time Spent in General Classes



Source: S. Aud and others, "The Condition of Education 2011," NCES 2011-033 (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 2011), figure 7-2.

identified as needing special education services for mental retardation and nearly two and a half times more likely to be identified as needing services for emotional disturbance.¹²

Disproportionate representation has also been documented along dimensions such as family income, native language, and gender (boys are more likely to be identified as needing special education than girls), but much of the policy and research focus has centered on the overrepresentation of African American students.¹³ The 2004 amendments to the law required states to establish policies to prevent inappropriate overidentification by race or ethnicity and to track (dis)proportionality on the basis of race and ethnicity over time. Many factors are thought to contribute to this problem, including poverty, institutional racism, biased standardized testing, and low numbers of teachers and other school professionals from diverse backgrounds. States typically respond to criticism regarding the overrepresentation of African American students by providing more

teacher awareness training, examining the way students are identified and placed, and improving the way students at risk for reading problems are monitored and served. There has been little systematic analysis of the causes and consequences of overrepresentation or of the effectiveness of attempted solutions.

A related challenge has been the identification of learning disabilities among English language learner students. Many of these students have been incorrectly identified as having learning disabilities, while others with true learning disabilities have gone unidentified. The needs of students who are both learning English and learning disabled represent an important and evolving area of attention within the educational research and practice communities.

A critical and closely monitored aspect of special education has to do with where students are served. In addition to providing them with "a free and appropriate

education,” IDEA requires schools to serve students in “the least restrictive environment,” meaning that to the greatest extent possible, special education students should be kept in “regular” classrooms alongside their nondisabled peers. While almost all (about 95 percent) special education students are enrolled in regular schools, many spend a portion of their school day outside this classroom.¹⁴ Gradually, an increasing number of these children have been spending most of their school day in general education classes. In 2008–09, for example, 58 percent of them spent 80 percent or more of their day in a regular classroom, up from 46 percent in 1995–96 (figure 3).

The educational environments of students also vary by their age and type of disability. Regular classrooms are the most common setting for special education students in all age groups, but older students are more likely than their younger counterparts to spend portions of their school day away from their regular classrooms, often going to separate classrooms for specialized instruction. Similarly, students with speech or language impairments, developmental delays, visual impairments, and specific learning disabilities are much more likely to spend large shares of their day in a regular classroom compared with students with mental retardation, multiple disabilities, or deaf-blindness.¹⁵

Education Services for Children with Disabilities

Once a child is deemed eligible for special education services, a team that includes the child’s parents and representatives of the public education system is charged with developing an individualized education program that outlines academic goals and incorporates all the services and supports necessary to meet the child’s unique needs.

Services and supports can include transportation; speech-language pathology and audiology services; psychological services; physical and occupational therapy; therapeutic recreation; counseling services including rehabilitation counseling, orientation, and mobility services; medical services for diagnostic or evaluation purposes; school health services; social work services in school; and parent counseling and training.

Within schools and classrooms, special education students can benefit from a variety of approaches and supports, including curriculum modification, small-group or individual instruction, and teachers who are especially skilled in motivating students, adapting instructional materials, teaching reading skills and language arts, and managing student behaviors. Specific accommodations might include tutors or aides, more time for students to take tests, alternative tests or assessments, modified grading standards, slower-paced instruction, shorter or different assignments, more frequent feedback, a reader or interpreter, a peer tutor, or special behavior management approaches and programs.

IDEA requires states to identify, locate, and evaluate all children from birth to age twenty-one who are in need of early intervention or special education services. In practice, children enter the program in many different ways, and they are also often assessed, identified, and then served quite differently. Two groups of students who have received more systematic attention by researchers and program planners are those who struggle with reading and those with behavioral problems. We describe recent innovative approaches for intervening successfully with these students. Because the importance of children’s experiences before they reach school age

(whether or not they have a disability) is also well established, we also discuss the types of services preschool-age children can receive through the Part C special education system before they start their formal schooling.

Response to Intervention

The reauthorization of IDEA in 2004 changed the law about how children with specific learning disabilities could be identified by allowing an approach known as response to intervention (RTI). Rather than identify learning disabilities by documenting a discrepancy between a student's ability (usually measured by IQ) and his or her academic achievement (usually measured by grades and standardized test results), RTI calls for a tiered process of instruction in which schools identify struggling students early and then deliver a variety of appropriate instructional interventions.¹⁶ In theory, RTI should benefit all students (including those who previously did not qualify for special education services) because it requires that all essential components of reading instruction be delivered as part of the core curriculum.¹⁷ Schools using RTI must deliver scientific, research-based reading instruction to all students in the general education classroom; screen all children early to determine if they are at risk for learning disabilities; monitor the progress of all at-risk children to determine if they are benefiting from instruction; and use programs or curricula correctly and as intended.

Like many aspects of the special education system, RTI is still being developed and refined, and its effectiveness in reducing the number of students with specific learning disabilities remains unproven. At best, it may be an effective driver of schoolwide instructional improvement, one that also prevents the misidentification of learning disabilities

(poor instruction sometimes leads to children being identified as having a disability) and that allows schools to intervene early with students with true learning disabilities. But some observers are concerned that school districts can use RTI to delay and limit access to full-blown special education services. Because RTI often takes place over a number of years, with new teachers and approaches each year, it has the potential to serve as a bureaucratic means for delaying a full evaluation and identification of a learning disability. Districts' desires to contain high special education costs lend credibility to this viewpoint (more on this point later). These tensions reflect a more general discussion within education circles about the need to improve teaching by differentiating instruction for *all* students and to limit special education services to a smaller number of students with more disabling conditions.¹⁸

Positive Behavioral Interventions and Supports

Can and should students with behavioral problems and other disabilities be disciplined? This question has been a major focus of special education law and regulations, in part because schools are struggling with how to manage disciplinary problems, which appear to be increasing among students with disabilities, and in part because these students are most likely to be negatively affected by zero-tolerance discipline policies and other high-stakes testing and accountability measures. IDEA requires that disabilities be taken into account when students are disciplined. Schools must also conduct functional behavioral assessments and use positive behavioral supports with students who are at risk for expulsion, alternative school placement, or suspension of more than ten days. *Positive behavioral support* is a general term that refers to the application of behavioral analysis

to achieve functional behavior changes; positive behavioral interventions and supports are often based on functional behavioral assessments and involve long-term strategies designed to reduce inappropriate behavior, teach more appropriate behavior, and provide supports necessary for successful outcomes.¹⁹

Originally an alternative to traditional behavioral approaches for students with severe disabilities who engaged in extreme forms of self-injury and aggression, positive behavioral interventions and supports are now used both schoolwide and for individual students with and without disabilities.²⁰ Schoolwide interventions can include evaluating the school environment—classrooms, hallways, cafeteria—to determine where and when problems are likely to occur; creating strategies to prevent the identified problems; teaching all students rules and routines to encourage desirable behavior; responding to inappropriate student behavior with correction and reteaching procedures; establishing behavior support teams to monitor effectiveness of prevention strategies; and using data collection (direct behavioral observation, office discipline referrals, interviews with staff and family members) and analysis to identify students who are at risk for school failure. More intensive, individualized interventions include drawing on functional behavioral assessments to monitor and modify behavior plans as necessary (the responsibility of behavior support teams); ensuring that all adults in the school understand what skills these students are learning so that all settings in the school environment can be arranged in ways that reduce problem behavior and encourage appropriate behavior; and delivering effective instructional strategies, aggression replacement training, counseling, and classroom supports. Students with chronic or intense behavioral problems might also

receive “wraparound” services that coordinate services and input from home, community, and school.

Early Intervention and Transition to Schooling

Early intervention is based on the now widely accepted idea that identifying children’s needs and providing services early in their lives can avoid or alleviate future service needs by lessening the effects of a disabling condition and in some cases actually reducing the occurrence of additional disabling conditions. Early intervention services include screening, assessment, referral, and treatment and tend to be less specialized, intrusive, and costly than “higher order” services.

Early intervention services are provided to children with disabilities through several public programs. In addition to Part C of IDEA, states offer early intervention services under Title V of the Maternal and Child Health program and the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) component of Medicaid. Part B of IDEA also provides services to children aged three to five. The group of children receiving early intervention services through Part C includes infants and toddlers with diagnosed medical conditions (many of whom had low birth weight) that put them at risk for developmental delay and toddlers who are showing developmental delay, meaning a gap between their actual development and age-appropriate expectations.²¹ In 2005 about 2.4 percent of the population under age three and their families were receiving services through Part C. It is unclear what fraction of the eligible population this represents, since each state has different criteria and to date no study has estimated the numbers of eligible children.

Other programs that provide educational services to low-income preschool children with disabilities include Head Start (three- and four-year-olds) and Early Head Start (under age three). About 12 percent of Head Start students have disabilities, half of which are identified during the program year and half before joining the program. Almost all of these children receive special education and related services.²² A similar percentage of children in Early Head Start has disabilities.

Despite the widespread recognition of the value of early intervention, the programs face several challenges to their effectiveness: reaching eligible children is difficult (often the neediest children are hardest to reach), resources are limited, needed services are not always available for eligible children, and transitioning from programs serving young children to those serving preschool and school children can be complicated and uneven. Evidence shows that high-quality early intervention at young ages can provide long-term cost savings.²³ However, because these savings accrue over time and across public programs (such as education, health, or criminal justice), the full impact of long-term savings may not be taken into account in individual program decisions.

Eligibility, services, program structures, and access to early intervention programs vary greatly from state to state. Under Part C, for example, states must serve all eligible children and families but have a great deal of latitude in setting eligibility criteria. State choices in developing their eligibility criteria are influenced by concerns over numbers of eligible children and costs. For example, states are allowed to serve children who are *at risk* of a developmental delay, but only four states have opted to do so, in part because of funding concerns.²⁴

Identification and access to screening services constitute another challenge. Each state is responsible for implementing a Child Find program that locates, identifies, and refers all children in need of early intervention or special education services. Each Child Find program is required to include procedures for screening child health and development. Screening is also mandated under Medicaid's EPSDT Program and is required of pediatric health care providers who deliver routine health supervision services such as preventive care and well-child visits. For low-income children with disabilities, screening through EPSDT is a potentially powerful tool because it mandates coverage for certain medically necessary health care services identified through the screening. But many families do not have access to these screening services. A recent report found that, in nine states, four of ten Medicaid-enrolled children eligible for EPSDT did not receive any of the required screenings and that the screenings were incomplete for nearly 60 percent of those who did receive them. This record comes despite requirements that all eligible Medicaid recipients be notified within sixty days of enrollment about available EPSDT services and amid multiple other forms of state outreach activities and provider incentives. According to the states, barriers to completing screenings include cultural or family beliefs that screenings are not necessary, the unwillingness or inability of families to take time off work to take their child to the screening, limited access to providers, and incorrect contact information for beneficiaries.²⁵

Finally, transitions for young children from early childhood programs to preschool to school are not always smooth.²⁶ When a child receiving Part C services reaches age two and a half, IDEA requires a meeting between the Part C service agency, parents, and the

Despite the widespread recognition of the value of early intervention, the programs face several challenges to their effectiveness.

local education agency to determine continuing eligibility for special education services and to ensure a smooth effective transition to preschool. Disconnects can and do occur, however, because of the number of agencies involved in determining eligibility for preschool special services, the number of agencies in the community (private, nonprofit, for profit, and Early Head Start programs) involved in providing these services, and the variety of ways and settings in which young children receive early intervention services.²⁷ Similar challenges occur when children with disabilities transition from the preschool setting into the school system or move from one state or school district into another.

Funding

Special education programs are funded by a combination of federal, state, and local government programs. The most recent comprehensive estimates of total public expenditures on special education come from a special study for the 1999–2000 school year.²⁸ Special study is required to gather this information because states are not obligated to give detailed state and local breakdowns of special education spending to the federal government. In the 1999–2000 school year, the United States spent an estimated \$50 billion on special education services and an

additional \$27.3 billion in general education funds for those special education students who spent part of their time in general education classroom settings, for a total \$77.3 billion.

This total represents about 21 percent of total U.S. spending on elementary and secondary education that year—a substantial increase from 1977–78, when total spending on students with disabilities was about 17 percent of total education spending. Most of this increase is attributable to an increase in the number of children in special education rather than to an increase in per-pupil costs.

Federal funding has always been a relatively small share of total expenditures on special education. In 2010 federal funding on special education through IDEA was \$12.5 billion, most of it in the form of grants to help states pay the additional costs of providing early intervention, special education, and related services to children from birth through age twenty-one. The federal government also makes discretionary grants to states for personnel development and training, technology and technical assistance, and parent information centers.²⁹ Federal funding levels for special education have been relatively flat since 2004, with the exception of a significant infusion of special funds under the American Recovery and Reinvestment Act of 2009.³⁰

When IDEA was enacted, its intention was to help states provide special education by funding a portion of the additional, or “excess,” cost of special education over general education. The original legislation set the maximum federal contribution at 40 percent of the estimated excess cost of educating children with disabilities, but federal funding has never come close to this “full funding” cap. In 2010, federal grants to the states under

IDEA, Part B, covered about 17 percent of the excess cost for special education students. In the 1999–2000 school year, schools spent 90 percent more on the average school-age special education student (including general and special education funding) than on the average general education student.³¹

As total special education spending has increased and federal spending has remained flat, state funding for special education has declined, leaving local school districts to cover the difference. In the 1987–88 school year, states funded 56 percent of special education expenditures, local school districts 36 percent, and the federal government 8 percent. In 1999–2000, the distribution was 45 percent from states, 46 percent from local school districts, and 9 percent from the federal government.³²

Financing structures can provide incentives that influence the way children are identified for special education services, the services they receive, and the settings in which they receive them. For example, financing structures that provide additional state funding per special education student can encourage identification at the local level on the margin. Studies show that in states that switched from distributing their special education funding based on the number of children enrolled in special education, resources used, or past actual spending to a distribution based largely on the total number of children in the school, the number of students identified as having a disability and being eligible for special education fell.³³ On the federal level as well, the formula for distributing state grant funds has been tweaked in an effort to limit overidentification of special needs children; a portion of the grant funds is now based on each state's share of school-age children and children in poverty.

At the same time, financing incentives also exist to underidentify students eligible for special education. The “excess” cost of education for a child in special education coupled with legal protections that mandate services (that might be provided for the rest of a student's education) and an increasing share of funding coming from local school districts provides incentives for school districts to limit identification of children for special education services. Which incentive effect predominates is unclear and likely differs by school district or state given different sets of incentives.

Variation in Spending across Disability Type

The range of educational needs among students served by the special education program leads to significant differences in expenditures. Children with specific learning disabilities and speech or language impairment made up the majority of children in special education and had the lowest per-pupil expenditures, \$10,558 and \$10,958, respectively, in 1999–2000.³⁴ The highest expenditures were on children with multiple disabilities (\$20,095) and on those who were placed in private settings after the public school has been found unable to provide an appropriate education (\$25,580). These “high-cost” children are the focus of some efforts to reduce special education spending. The 2004 reauthorization of IDEA allowed states to put up to 10 percent of their federal grants into state risk pools to aid local districts with high-need, high-cost students. The growth in total special education expenditures is not caused by growth in the number of high-cost children, however, but primarily by the increase in numbers of children across all categories of disability.

Variation in Spending across States

Studies of special education spending across several states have uncovered dramatic

differences in spending. Nationally, as noted, average spending on special education students is 90 percent higher than spending on general education students. But it is 57 percent higher in Alabama, for example, and 155 percent higher in Maryland.³⁵ These ratios also reflect differences in general education spending: states that spend more on general education also tend to spend more on special education.

Special Education and Outcomes

IDEA and Section 504 are widely credited with improving access to education for young people with disabilities and establishing an infrastructure for educating them, as shown in figure 1. The next important question is the extent to which special education has been successful in meeting the educational needs of students with disabilities and improving their educational achievement.

To answer this question, one must first ask whether special education programs are serving the right students, and whether these students are being identified in a timely manner and given the most appropriate and effective services. As suggested by the overrepresentation of African Americans, some children may be inappropriately placed in special education, while others may go unidentified or not receive the services they require. Clearly, many needy students who eventually receive special education did not receive the early intervention services to which they were entitled.

Accurate measures of outcomes for special education students are also needed, including appropriate measures of academic achievement, attendance, grade promotion, and engagement in school activities. Assessing these outcomes is challenging because of the heterogeneity of the students' capacities and

school experiences and a paucity of data on in-school outcomes for these students. The lack of good data even on the interventions and inputs—the types and amounts of services special education children receive—further compromises the ability to measure the effectiveness of interventions. In addition, there is no agreement on whether the right measure of academic achievement should be appropriate standardized testing or some alternative assessment. Even the benchmarks for outcomes are not clearly agreed upon and may vary across students with disabilities. IDEA's requirement that each student have an individualized education program and goals reflects this difficulty in measuring progress.

Perhaps an even greater challenge to assessing student outcomes lies in separating the effects attributable to specific educational practices from other intervening and coexisting factors such as socioeconomic circumstances and need for supportive services. For this and other reasons, relatively little research has been conducted on the effectiveness of specific special education practices or programs. Of course, these difficulties mirror similar problems in measuring and improving outcomes for general education. In addition, the impact of special education for most students with disabilities is intertwined with their general education experiences and opportunities, including whether they have access to the full range of general education options. Finally, studies have found that the limited expectations of teachers and parents for many students with disabilities can lessen the effectiveness of an educational program.³⁶

That said, we report on a set of measures that are available on educational and postsecondary outcomes for students in special education. These measures clearly suggest that

there is room for improvement. We look specifically at assessments of educational progress, school completion rates, postsecondary outcomes, and the transition to adulthood.

Educational Assessments

One measure of the academic progress of students in special education is performance on standardized achievement tests. Since passage of No Child Left Behind, students with disabilities must be included in state testing and assessed against the same standard of proficiency as other students to determine whether schools are making the required “adequate yearly progress” toward goals for academic proficiency.³⁷ The intention is to hold schools accountable for the performance and progress of all students, including those with disabilities. Results indicate continuing problems. For example, in 2003–04, among schools nationwide with subgroups of students with disabilities large enough to be counted separately, students in 36 percent of them did not make the required progress.³⁸

Debate continues on the appropriateness of using the same tests and standards for assessing students with and without disabilities and on the use of accommodations in test taking. Some argue that many students with disabilities have inherent learning difficulties and start with lower test scores and so should be held to different standards while still maintaining progress toward goals.³⁹ In the late 1990s, the U.S. Department of Education began to allow states to make testing accommodations for students with disabilities who need them, and in the early 2000s states were allowed to use alternative assessments and modified standards for a small percentage of students with disabilities, particularly those with cognitive disabilities.⁴⁰ However, states report continuing challenges in developing and validating alternate

assessments (such as portfolios of work), including costs related to development. This area would be a useful place for federal assistance and coordination.

Since passage of No Child Left Behind, students with disabilities must be included in state testing and assessed against the same standard of proficiency as other students to determine whether schools are making the required “adequate yearly progress” toward goals for academic proficiency.

Because of differences in the way states identify the students who take assessment tests, the tests and standards that are used, and the testing accommodations they may provide, clear comparisons and interpretations of the results of state assessments are difficult to make. Comparing results over time, even for the same state, is complicated by changes in the composition of special education students and in policies, such as test accommodations, that can directly influence who participates in standard assessments as well as the results.

Given these caveats, results from the National Assessment of Educational Progress (NAEP) standardized test, which is conducted in the same way in all states and which changes only slowly over time, provide useful information on the achievement and progress of students with disabilities.

These results suggest some progress but also point to substantial gaps between students with disabilities and their nondisabled peers. Academic achievement trends from 2003 through 2007 measured by the NAEP showed significant increases in average reading and math scores for children in fourth grade who received IDEA services. But in each of these years, students in special education had significantly lower scores than other students.⁴¹ In the 2009 reading assessment for twelfth graders, 64 percent of students with disabilities but 24 percent of other students tested below basic proficiency; in math 76 percent of students with disabilities and 34 percent of other students fell below basic proficiency.⁴² Other grade-level assessments show similar gaps. Several reasons account for the lower scores among students with disabilities. The factors cited by one study were type of disability, cognitive ability, race, income, parental expectations, school absenteeism, and disciplinary problems. Grades, school mobility, and repeating a grade level were not significantly related to test scores.⁴³

Graduation Rates

Another important educational outcome is the rate at which students with disabilities either graduate from or drop out of high school. Measurement of graduation rates can be complicated. Results from national studies that track secondary school students with disabilities found that 70 percent of the teenagers with disabilities who were out of school in 2003 had received a regular graduation diploma or certificate of completion, up from 54 percent in 1987⁴⁴ and not far below the 74 percent graduation rate for all public school students in 2002–03.⁴⁵ However, far fewer special education students receive regular diplomas than do those in general education. In 2005, 46 percent of youth receiving IDEA services graduated with a regular diploma,

compared with 75 percent for all students.⁴⁶ High school completion rates also differ substantially across disability type. For example, students with sensory disabilities have much higher graduation rates than students with emotional disturbance.

Evidence is limited on how best to improve graduation rates for students with disabilities. One recent study in Chicago found that ninth grade course performance is a strong predictor of graduation rates for these students. This study also found that high absence rates are an important factor explaining why students with disabilities have poorer course performance than students without identified disabilities.⁴⁷

Postsecondary Outcomes and the Transition to Adulthood

Many studies have found that students with disabilities have poorer outcomes in the years after high school than their peers without disabilities, including lower rates of postsecondary schooling and employment, greater involvement with the criminal justice system, and lower likelihood of living independently.⁴⁸ Other dimensions to consider for these students (but less often measured) are quality of life, satisfaction, and social and civic engagement. Relatively little is known about the relationship of the school program to these life outcomes for those with disabilities.

Recognizing the difficulties some youth face as they transition to adulthood from schooling, IDEA requires that transition planning be provided to all special education students starting no later than age sixteen. One obvious problem is that students who drop out of school at age sixteen may never receive these services. Transition services may include coordination of services (such as vocational

training, case management, and benefit counseling) in and outside of schools, assessments of students' interests and aptitudes, help with gathering information on and choosing among relevant opportunities, and planning for necessary supports including assistive technology. The 2004 amendments to IDEA require that transition planning be based on students' "strengths," not just their preferences and interests, and that the process be "results-oriented." In 2001 almost 90 percent of special education high school students were receiving transition planning, with two-thirds of parents satisfied with these services.⁴⁹ Nonetheless, the extent to which current planning services are improving outcomes for students with disabilities has not been clearly demonstrated, although research has shown the potential for positive impact.⁵⁰

Given the importance of higher education for future economic well-being, one area of concern for students with disabilities is their relatively low participation in postsecondary schooling. One study found that in 2005, 46 percent of students with disabilities were enrolled in postsecondary education within four years of leaving high school, mostly in community colleges or vocational, technical, or business schools.⁵¹ This rate represents a good deal of progress since 1990 when only 27 percent of these youth were enrolled in postsecondary education. But it is still substantially below the enrollment rate of 63 percent in the general population. Other studies find that adults with disabilities have significantly lower levels of postsecondary school completion than those without disabilities, even among the subgroup who had a disability during their school years.⁵²

Another concern is whether youth are being appropriately prepared for employment, given the low rate of employment among

adults with disabilities. Employment rates among youth with disabilities just out of high school were similar to those of other youth without disabilities in 2005—roughly 60 percent. However, employment rates at this age reflect schooling choices as well as employment choices—unemployed youth attending school are of less concern than those who are neither working nor in school. In 2003, 30 percent of students with disabilities were not participating in schooling, employment, or job training in the years immediately after high school. This lack of engagement varied considerably by disability status. For example, more than half of students with mental retardation had not engaged in any of these activities compared with 17 percent of students with learning disabilities.⁵³

Opportunities for vocational or career training opportunities and vocational assessments of interest and aptitude are part of students' transition planning that can improve employment outcomes. Coordinating job training, both while students are still in school and after they leave, with available workforce options from other public programs such as those funded through the Workforce Investment Act and Vocational Rehabilitation is also important. Even as the focus on transition planning in IDEA has been strengthened, many challenges remain in preparing and supporting special education students for the transition to adulthood. Enhancing the ability of secondary school students to advocate for their needs in various settings, improving access to supports and services after high school, and coordinating services across postsecondary education, health, mental health, and human services are all areas of intervention that need to be improved.⁵⁴

Additional transition issues concern children with disabilities in the juvenile justice system,

alternative education systems, and the foster care system. Special education children are disproportionately represented in all three systems, and their transition to adulthood is particularly complicated and difficult.⁵⁵ Challenges to receiving appropriate educational services in these settings are compounded by the particular difficulties that lead children to be in these systems and the specific challenges these systems face. The need for coordination between the public education system and these other systems goes well beyond transition planning to extend throughout the educational experience.

Implications for Practice and Policy

The nation's special education system, like the legal and regulatory framework that underpins it, has evolved considerably since IDEA was first passed in 1975. Along with the efforts of parents and educators and greater societal awareness about disability issues, IDEA has clearly led to better access to public education for students with disabilities, an established infrastructure for educating children with disabilities, earlier identification of disabilities in children, and greater inclusion of these children in classrooms with their nondisabled peers. Despite these advances, special education students still lag behind their nondisabled peers in educational achievements, are often held to lower expectations, are less likely to take the full academic curriculum in high school, and are more likely to drop out of school. Nor is there much evidence regarding the basic effectiveness of many services that special education students receive (at considerable expense and bureaucratic complexity) or whether these services improve student achievement.

Over the years many studies have documented fundamental problems with IDEA. In 2002 a President's Commission on Excellence in Special Education determined the system to be "in need of fundamental re-thinking, a shift in priorities, and a new commitment to individual needs."⁵⁶ Among the problems they identified were financial incentives to define an increasing share of school-age children as having a disability, adversarial procedures between parents and schools that contributed to unnecessary litigation, and a major redirection of financial resources from regular education to special education. Other studies have demonstrated states' noncompliance with the many administrative and procedural requirements of the program, as well as the federal government's lack of funding and ineffectiveness in enforcing the law.⁵⁷

Despite widespread agreement that the special education system is not working as it should or could, opinions differ over how it should be fixed. Policy makers, advocates for children with disabilities, and researchers increasingly have called for financing reforms and for more accountability measures similar to those introduced in the No Child Left Behind Act.⁵⁸ Many of the 1997 and 2004 amendments to the law were designed to increase accountability and flexibility regarding financing; these amendments addressed but did not fully resolve perverse state incentives to increase identification of special education students. Families of children with disabilities, disability rights groups, and other advocates and supporters of IDEA have sharply opposed calls for fundamental changes to the special education system.⁵⁹ They believe the program is well conceived and properly structured but has been poorly funded, implemented, and enforced.

These tensions around reform reflect the law itself. IDEA constitutes a blend of civil rights law and state grant programs. The dual nature and purpose of the law has contributed to the creation of different stakeholders, with different goals, at the grassroots level. The major stakeholders in civil rights laws tend to be the individuals who are protected by the law—in this case, children and youth with disabilities and their families and supporters. The major stakeholders in grant programs are the recipients of the grants, in this case state and local educational agencies, school boards, their staffs, and other professionals who are supported financially by the grants. In addition, the natural course of reform for government programs with limited resources is to debate priorities and make trade-offs among them. But the civil rights requirements of IDEA limit the ability to make trade-offs because states are required to provide all services necessary for a “free and appropriate education.” Part of the ongoing challenge for program financing is how to divide these costs across the three levels of government, given the already increasing share borne by local districts and tight budgets at all levels.

Another challenge for the special education system is the adversarial nature of the program. The many legal conflicts that arise between parents and schools can be counterproductive for children and their educational success and costly for school systems. To some extent, these conflicts arise because parents play an integral role—one that is required by law—in the team that develops their child’s individualized service plan. The incentives for parents to obtain the most help for their child may differ from those for school systems that are trying to balance educational needs and budgets. In some cases, parents feel that school systems are

trying to avoid mandated responsibilities and need to be held accountable legally. In any case, the role of parents in education generally as well as in special education is essential. Children without parents who can advocate for them are often the least well served, in general and special education, and these are often children from families who are already socially and economically disadvantaged. Forming a less adversarial system that can serve the broader community of children needing special services is an important challenge.

Reforming special education cannot be done in isolation; it requires integration with reforms being made in general education. The large amount of time that many special education students spend in general education settings is one argument for this integration. Another is the absence of a bright line between many of the needs of special education students and those of other students. Efforts such as response to intervention and positive behavioral interventions and supports demonstrate this fact by creating school environments that are more conducive to positive behaviors and to learning for everyone. These efforts, when implemented as designed, break down a legal and programmatic firewall that has existed between the general and special education systems. They may serve as models for other aspects of the special education system and point the way for better serving not only children with disabilities but all students.

Despite calls for increased funding and the need for reform, little evidence exists to suggest that additional federal funding or better enforcement will improve student outcomes or solve many of the problems experienced by schools and families alike. More evidence on the impacts of special education services

on achievement and student outcomes is necessary to gauge the efficacy of the money being spent. Pinpointing the causes of the gap between special education and other students' outcomes and determining how to reduce this gap effectively requires ongoing research. That in turn requires better data on outcomes as well as services provided across special education students of all ages. In addition, greater efforts are needed to develop and standardize appropriate assessments of academic achievement for students with disabilities. Finally, given the vast differences in service needs and outcomes across students of different disability types, attention needs to focus on understanding how all these issues affect different subgroups of special education students.

The direction special education might take in the next few decades is uncertain. Clearly, providing children with disabilities equal access to public education and protecting this important civil right should not be undone. But aspects of the current program appear to be both unsustainable and unwise—unsustainable because of the cost and unwise given evidence of the continuing gap between outcomes for students in special education and their nondisabled peers. Together those responsible for the general and special education systems must craft solutions that make education special for all students while not leaving children with disabilities behind.

Endnotes

1. For a review of the impact of childhood disabilities on families, see Susan L. Neely-Barnes and David A. Dia, "Families of Children with Disabilities: A Review of Literature and Recommendations for Interventions," *Journal of Early and Intensive Behavioral Intervention* 5, no. 3 (2008): 93–107.
2. D. Wayne Osgood, E. Michael Foster, and Mark E. Courtney, "Vulnerable Populations and the Transition to Adulthood," *Future of Children* 10, no. 1 (2010): 209–29.
3. For more about the history of disability rights, see Paul K. Longmore and Lauri Umansky, eds., *The New Disability History: American Perspectives* (New York University Press, 2001).
4. The Section 504 regulations issued in 1977 mandating specific antidiscrimination protections such as removing architectural and communications barriers and providing accommodations formed the basis of the Americans with Disabilities Act (ADA), which was enacted thirteen years later in July 1990. The ADA guarantees equal opportunity for individuals with disabilities similar to those provided on the basis of race, color, sex, national origin, age, and religion. Title II of the ADA extends these guarantees to all activities of state and local governments, including public education, regardless of the size of the government entity or whether it receives federal funding (Section 504 is limited to recipients of federal funding).
5. Its original name was the Education for All Handicapped Children Act of 1975 (PL 94-142). The law was amended significantly in 1997 and 2004.
6. For a thoughtful review and history of standards-based reforms, see Laura S. Hamilton, Brian M. Stecher, and Kun Yuan, "Standards-Based Reform in the United States: History, Research, and Future Directions" (Washington: Center on Education Policy, 2009). See also National Council on Disability, "The No Child Left Behind Act and the Individuals with Disabilities Education Act: A Progress Report" (Washington: 2008); and Laudan Y. Aron, "An Overview of Alternative Education," Report to the U.S. Department of Labor, Employment and Training Administration (Washington: Urban Institute, 2006).
7. Jose Blackorby and others, "Patterns in the Identification of and Outcomes for Children and Youth with Disabilities," NCEE 2010-4006 (National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education, 2010).
8. Neal Halfon and others, "The Changing Landscape of Disability in Childhood," *Future of Children* 22, no. 1 (2012).
9. IDEA regulations define other health impairment as "having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that (a) is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome, and (b) adversely affects a child's educational performance," cited from Janie Scull and Amber Winkler, "Shifting Trends in Special Education" (Washington: Thomas B. Fordham Institute, 2011), appendix B.
10. Jose Blackorby and others, "Patterns in the Identification of and Outcomes for Children and Youth with Disabilities" (see note 7).
11. Wade Horn and Douglas Tynan, "Time to Make Special Education 'Special' Again," in *Rethinking Special Education for a New Century*, edited by Chester E. Finn and others (Washington: Thomas B. Fordham Institute and Progressive Policy Institute, 2001), p. 23.

12. U.S. Department of Education, *29th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act* (2010), table 1-11, p. 67.
13. Russell Skiba and others, "Achieving Equity in Special Education: History, Status, and Current Challenges," *Exceptional Children* 74, no. 3 (2008): 264–88.
14. Among the remaining 5 percent, 3 percent were enrolled in separate schools (public or private) for students with disabilities, 1 percent chose to attend regular private schools, and the others (less than 1 percent) were in a variety of settings such as a separate (public or private) residential facility, hospital, or correctional facility, or were homebound.
15. U.S. Department of Education, *29th Annual Report to Congress* (see note 12).
16. Amy-Jane Griffiths and others, *Response to Intervention: Research for Practice* (Alexandria, Va.: National Association of State Directors of Special Education, Inc., 2007).
17. Robert J. Wedl, *Response to Intervention: An Alternative to Traditional Eligibility Criteria for Students with Disabilities* (Saint Paul: Education Evolving, 2005).
18. Scull and Winkler, "Shifting Trends in Special Education" (see note 9).
19. Edward G. Carr and others, "Positive Behavior Support: Evolution of an Applied Science," *Journal of Positive Behavior Interventions* 4 (2002): 4–16.
20. George Sugai and others, "Applying Positive Behavior Support and Functional Behavioral Assessment in Schools," *Journal of Positive Behavior Interventions* 2 (2000): 131–43.
21. Anita Scarborough and others, "A National Look at Children and Families Entering Early Intervention," *Exceptional Children* 70, no. 4 (2004): 469–83.
22. Elizabeth Hoffman, "Head Start Participants, Programs, Families, and Staff in 2009" (Washington: Center for Law and Social Policy, 2010).
23. Martha Diefendorf and Susan Goode, "Minibibliography: The Long-Term Economic Benefits of High-Quality Early Childhood Intervention Programs" (Washington: NECTAC Clearinghouse on Early Intervention and Early Childhood Special Education, 2005).
24. Jo Shackelford, "State and Jurisdictional Eligibility Definitions for Infants and Toddlers with Disabilities under IDEA," *NECTAC Notes* 21 (Washington: National Early Childhood Technical Assistance Center, 2006).
25. U.S. Department of Health and Human Services, Office of Inspector General, "Most Medicaid Children in Nine States Are Not Receiving All Preventive Screening Services," OEI-05-08-00520 (2010).
26. Kathleen Hebbeler and others, "Early Intervention for Infants and Toddlers with Disabilities and Their Families: Participants, Services, and Outcomes: Final Report of the National Early Intervention Longitudinal Study" (Menlo Park, Calif.: SRI International, 2007).
27. Delia Malone and Peggy Gallagher, "Transition to Preschool Special Education: A Review of the Literature," *Early Education and Development* 20, no. 4 (2009): 584–602.
28. J. G. Chambers and others, "Special Education Spending Estimates from 1969–2000," *Journal of Special Education Leadership* 18, no. 1 (2005): 5–13.

29. U.S. Department of Education, “Fiscal Year 2011 Budget Summary” (2010) (www2.ed.gov/about/overview/budget/budget11/summary/index.html).
30. The American Recovery and Reinvestment Act provided an additional \$11.3 billion in grants to states under IDEA Part B in 2009.
31. Chambers and others, “Special Education Spending Estimates” (see note 28).
32. Mary T. Moore and others, “Patterns in Special Education Service Delivery and Cost” (Washington: Decision Resources Corporation, 1988).
33. K. Mahitivanichcha and Thomas Parrish, “The Implications of Fiscal Incentives on Identification Rates and Placement in Special Education: Formulas for Influencing Best Practices,” *Journal of Education Finance* 31 (2005): 1–22; Elizabeth Dhuey and Stephen Lipscomb, “Funding Special Education by Capitation: Evidence from State Finance Reforms,” *Education Finance and Policy* 6, no. 2 (2011): 168–201; Sally Kwak, “The Impact of Intergovernmental Incentives on Student Disability Rates,” *Public Finance Review* 30, no. 1 (2010): 41–73.
34. Chambers and others, “Special Education Spending Estimates” (see note 28).
35. Ibid.
36. For a review of the literature, see National Alliance for Secondary Education and Transition, “National Standards and Quality Improvements: Transition Toolkit for Systems Improvement” (Washington: 2005).
37. States are allowed to exclude some students with disabilities who cannot participate in testing.
38. Naomi Chudowsky and Victor Chudowsky, “Has Progress Been Made in Raising Achievement for Students with Disabilities?” (Washington: Center for Education Policy, 2009).
39. Suzanne Eckes and Julie Swando, “Special Education Subgroups under NCLB: Issues to Consider,” *Teachers College Record* 111, no. 11 (2009): 2479–504.
40. Chudowsky and Chudowsky, “Has Progress Been Made in Raising Achievement for Students with Disabilities?” (see note 38).
41. Blackorby and others, “Patterns in the Identification of and Outcomes for Children and Youth with Disabilities” (see note 7).
42. National Center for Education Statistics, “The Nation’s Report Card: Grade 12 Reading and Mathematics 2009 National and Pilot State Results” (U.S. Department of Education, 2010).
43. Mary Wagner and others, “The Academic Achievement and Functional Performance of Youth with Disabilities” (Menlo Park, Calif.: SRI International, 2006).
44. These data are from the National Longitudinal Study of Youth Transitions 2 for students in high school in the fall of the 2000–01 school year who had left school; see Mary Wagner and others, “Changes over Time in the Early Postschool Outcomes of Youth with Disabilities” (Menlo Park, Calif.: SRI International, 2005).
45. Methods and data for calculating graduation rates vary and are not strictly comparable to the rate reported for youth with disabilities. The rate used here is the averaged freshman graduation rate for school year

- 2002–03, which reports the percentage of ninth graders that graduate four years later. See M. Seastrom and others, “The Averaged Freshman Graduation Rate for Public High Schools from the Common Core of Data: School Years 2002–03 and 2003–04” (Washington: National Center for Education Statistics, 2006).
46. Blackorby and others, “Patterns in the Identification of and Outcomes for Children and Youth with Disabilities” (see note 7).
 47. Julie Gwynne and others, “What Matters for Staying on Track and Graduating in Chicago Public Schools: A Focus on Students with Disabilities” (Consortium for Chicago School Research at the University of Chicago, 2009).
 48. For examples, see Thomas Wells, Gary Sandefur, and Dennis Hogan, “What Happens after the High School Years among Young Persons with Disabilities?” *Social Forces* 82, no. 2 (2003): 803–32; Pamela Loprest and David Wittenburg, “Post Transition Experiences of Former Child SSI Recipients,” *Social Service Review* 81, no. 4 (2007): 583–608; Phyllis Levine and Mary Wagner, “Transition for Young Adults Who Received Special Education Services as Adolescents: A Time of Challenge and Change,” in *On Your Own without a Net*, edited by D. Wayne Osgood and others (University of Chicago Press, 2005).
 49. Renee Cameto and others, “Transition Planning for Students with Disability: A Special Topic Report of Findings from the National Longitudinal Transition Study-2 (NLTS2)” (Menlo Park, Calif.: SRI International, 2004).
 50. Paul Wehman, “Life beyond the Classroom: Transition Strategies for Young People with Disabilities” (Baltimore: Brookes Publishing, 2006).
 51. Lynn Newman and others, “Comparisons across Time of the Outcomes of Youths with Disabilities up to Four Years after High School: A Report of Findings from the National Longitudinal Transition Study (NLTS) and National Longitudinal Transition Study-2 (NLTS2) (NCSE 2010-3008)” (Menlo Park, Calif.: SRI International, 2010).
 52. Pamela Loprest and Elaine Maag, “The Relationship between Early Disability Onset and Education and Employment” (Washington: Urban Institute, 2003).
 53. Wagner and others, “Changes over Time in the Early Postschool Outcomes of Youth with Disabilities” (see note 44).
 54. David Johnson and others, “Current Challenges Facing Secondary Education and Transition Services: What Research Tells Us,” *Exceptional Children* 68, no. 4 (2002): 519–31.
 55. Osgood, Foster, and Courtney, “Vulnerable Populations and the Transition to Adulthood” (see note 2).
 56. President’s Commission on Excellence in Special Education, “A New Era: Revitalizing Special Education for Children and Their Families” (Washington: 2002), p. 2.
 57. U.S. Department of Education, “Determination Letters on State Implementation of the IDEA” (www2.ed.gov/print/policy/speced/guid/idea/monitor/factsheet.html).
 58. Chester E. Finn and others, *Rethinking Special Education for a New Century* (Washington: Thomas B. Fordham Institute and Progressive Policy Institute, 2001); American Youth Policy Forum and Center for Education Policy, “Twenty-Five Years of Educating Children with Disabilities: The Good News and the

Work Ahead” (Washington: American Youth Policy Forum 2001); President’s Commission on Excellence in Special Education, “A New Era” (see note 56).

59. Consortium for Citizens with Disabilities, “CCD Statement on Release of Report from the President’s Commission on Excellence in Special Education” (Washington, July 9, 2002).