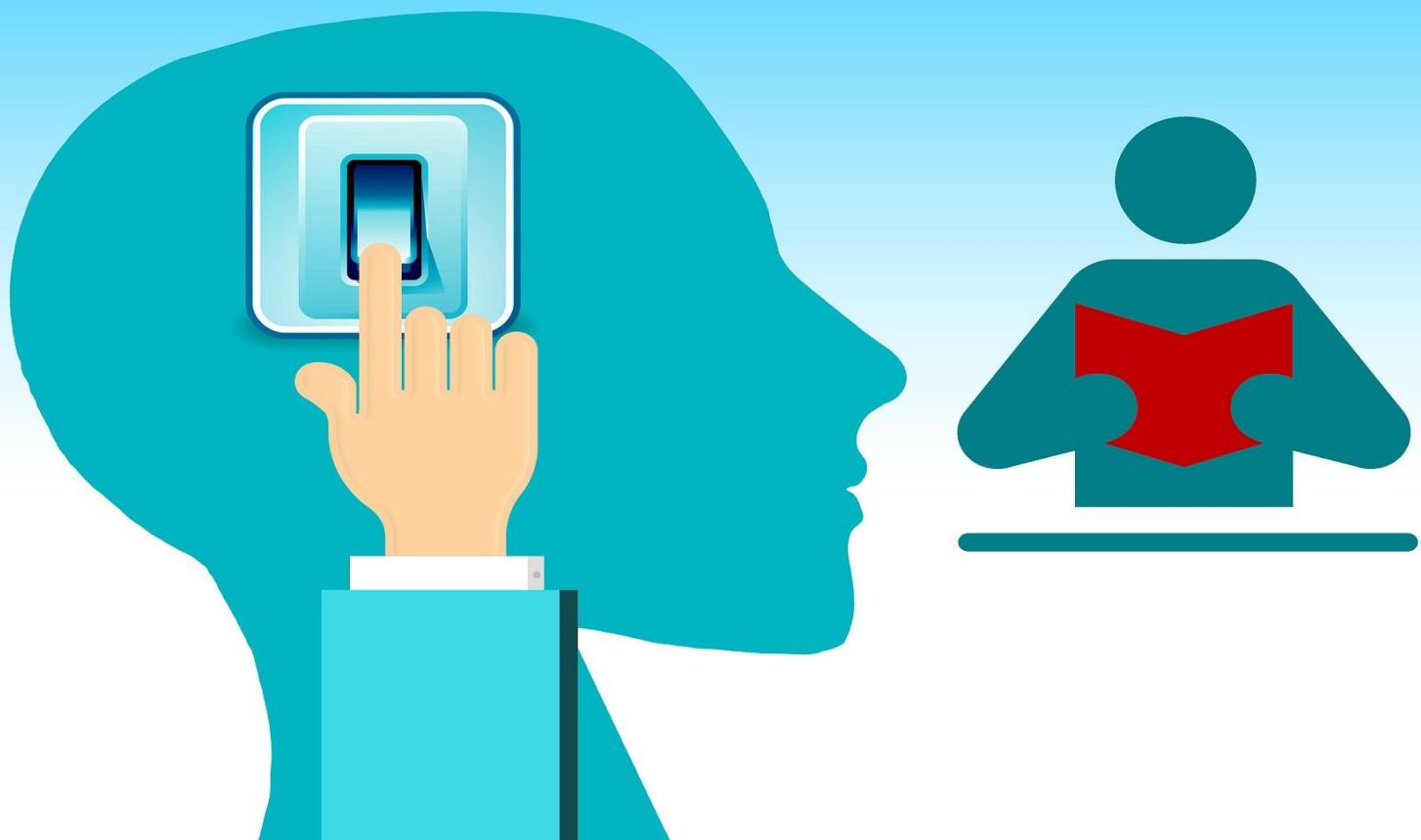




# Learning Disabilities Update



# Overview

It's necessary to define what a learning disability (LD) is in order to understand how Americans with learning disabilities are functioning today in schools, colleges and workplaces.

For the school-age population, the most commonly used definition is found in the federal special education law, the Individuals with Disabilities Education Act (IDEA). IDEA uses the term **“specific learning disability (SLD)”**.

According to IDEA, SLD is “a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Such term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Such term does not include a learning problem that is primarily the result of visual, hearing, or motor disabilities, of mental retardation\*, of emotional disturbance, or of environmental, cultural, or economic disadvantage.” (20 U.S.C. § 1401 (30)) \*Now known as intellectual disability.

Procedures for identifying a specific learning disability, for purposes of establishing the need for special education services, are spelled out in the IDEA federal regulations. (34 CFR §§ 300.307–300.311)

*For more information on the IDEA federal law and regulations, visit [idea.ed.gov](http://idea.ed.gov).*

Another definition of SLD appears in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) published by the American Psychiatric Association. The DSM contains

descriptions of symptoms and criteria for diagnosing a wide range of disorders. While it is primarily used by mental health practitioners as a guide to achieving accuracy and consistency in diagnosis, there is considerable overlap in its use among professionals in educational and therapeutic settings who provide evaluation and treatment services to individuals of all ages who have learning disabilities.

The DSM uses the term **“specific learning disorder.”** Revised in 2013, the current version, DSM-5, broadens the previous definition to reflect the latest scientific understanding of the condition.

The diagnosis requires persistent difficulties in reading, writing, arithmetic, or mathematical reasoning skills during formal years of schooling. Symptoms may include inaccurate or slow and effortful reading, poor written expression that lacks clarity, difficulties remembering number facts, or inaccurate mathematical reasoning.

Current academic skills must be well below the average range of scores in culturally and linguistically appropriate tests of reading, writing, or mathematics. The individual's difficulties must not be better explained by developmental, neurological, sensory (vision or hearing), or motor disorders and must significantly interfere with academic achievement, occupational performance, or activities of daily living.

Specific learning disorder is diagnosed through a clinical review of the individual's developmental, medical, educational, and family history, reports of test scores and teacher observations, and response to academic interventions.

## What We Know About LD

Learning disabilities arise from neurological differences in brain structure and function and affect a person's ability to receive, store, process, retrieve or communicate information. While the specific nature of these brain-based disorders is still not well understood, considerable progress has been made in mapping some of the characteristic difficulties of LD to specific brain regions and structures.

Progress has also been made in understanding the interface between genetics and LD, with documentation of LD, ADHD and related disorders occurring with considerable frequency within members of the same families (e.g., parents, siblings, aunts/uncles, cousins).

Learning disabilities may also be a consequence of insults to the developing brain before or during birth, involving such factors as significant maternal illness or injury, drug or alcohol use during pregnancy, maternal malnutrition, low birth weight, oxygen deprivation and premature or prolonged labor. Postnatal events resulting in LD might include traumatic injuries, severe nutritional deprivation or exposure to poisonous substances such as lead.

Learning disabilities are not caused by visual, hearing or motor disabilities, intellectual disabilities (formerly referred to as mental retardation), emotional disturbance, cultural factors, limited English proficiency, environmental or economic disadvantages, or inadequate instruction.

However, there is a higher reported incidence of learning disabilities among people living in poverty, perhaps due to increased risk of exposure to poor nutrition, ingested and environmental toxins (e.g., lead, tobacco and alcohol) and other risk factors during early and critical stages of development.

Learning disabilities are both real and permanent. Yet some people never discover that learning disabilities are responsible for their lifelong difficulties in such areas as reading, math, written expression and in comprehension. Others aren't identified as having LD until they are adults. Many individuals with LD suffer from low self-esteem, set low expectations for themselves, struggle with underachievement and underemployment, have few friends and, with greater frequency than their non-LD peers, appear to end up in trouble with the law.

Learning disabilities are perhaps best described as unexpected, significant difficulties in academic achievement and related areas of learning and behavior

in individuals who have not responded to high-quality instruction and for whom struggle cannot be attributed to medical, educational, environmental or psychiatric causes. Early recognition that children may be at risk for LD can prevent years of struggle and self-doubt. As they grow older, learning about the specific nature of their LD, accepting that LD is not who they are but what they have and orchestrating the types of services, accommodations and supports they need to be successful will help them overcome barriers to learning and become independent, self-confident and contributing members of society.

**"Learning disabilities are not a prescription for failure. With the right kinds of instruction, guidance and support, there are no limits to what individuals with LD can achieve."**

## Common Types of Learning Disabilities

The most common types of specific learning disabilities are those that impact the areas of reading, math and written expression. They may co-occur with other disorders of attention, language and behavior, but are distinct in how they impact learning.

**Dyslexia** is the term associated with specific learning disabilities in reading. Although features of LD in reading vary from person to person, common characteristics include:

- difficulty with phonemic awareness (the ability to notice, think about and work with individual sounds in words)
- phonological processing (detecting and discriminating differences in phonemes or speech sounds)
- difficulties with word decoding, fluency, rate of reading, rhyming, spelling, vocabulary, comprehension and written expression

Dyslexia is the most prevalent and well-recognized of the subtypes of specific learning disabilities.

**Dyscalculia** is the term associated with specific learning disabilities in math. Although features of LD in math vary from person to person, common characteristics include:

- difficulty with counting, learning number facts and doing math calculations
- difficulty with measurement, telling time, counting money and estimating number quantities
- trouble with mental math and problem-solving strategies

**Dysgraphia** is the term associated with specific learning disabilities in writing. It is used to capture both the physical act of writing and the quality of written expression.

Features of learning disabilities in writing are often seen in individuals who struggle with dyslexia and dyscalculia, and will vary from person to person and at different ages and stages of development. Common characteristics include:

- tight, awkward pencil grip and body position
- tiring quickly while writing, and avoiding writing or drawing tasks
- trouble forming letter shapes as well as inconsistent spacing between letters or words
- difficulty writing or drawing on a line or within margins
- trouble organizing thoughts on paper
- trouble keeping track of thoughts already written down
- difficulty with syntax structure and grammar
- large gap between written ideas and understanding demonstrated through speech

## Associated Deficits and Disorders

While not designated as specific subtypes of LD, there are a number of areas of information processing that are commonly associated with LD. Weaknesses in the ability to receive, process, associate, retrieve and express information can often help explain why a person has trouble with learning and performance. The inability to process information efficiently can lead to frustration, low self-esteem and social withdrawal, and understanding how these areas of weakness impact individuals with LD and ADHD can be beneficial in planning for effective instruction and support. Ongoing research is uncovering the specific nature and impact of these problems.

**Auditory Processing Deficit** (or Auditory Processing Disorder) is the term used to describe a weakness in the ability to understand and use auditory information. Individuals with these types of difficulties often have trouble with:

- auditory discrimination (the ability to notice, compare and distinguish the distinct and separate sounds in words—a skill that is vital for reading)
- auditory figure-ground discrimination (the ability to pick out important sounds from a noisy background)
- auditory memory (short-term and long-term abilities to recall information presented orally)
- auditory sequencing (the ability to understand and recall the order of sounds and words)
- spelling, reading and written expression

**Visual Processing Deficit** (or Visual Processing Disorder) is the term used to describe a weakness in the ability to understand and use visual information. Individuals with these types of difficulties often have trouble with:

- visual discrimination (the ability to notice and compare the features of different items and to distinguish one item from another)
- visual figure-ground discrimination (the ability to distinguish a shape or printed character from its background)
- visual sequencing (the ability to see and distinguish the order of symbols, words or images)
- visual motor processing (using visual feedback to coordinate body movement)
- visual memory (the ability to engage in short-term and long-term recall of visual information)
- visual closure (the ability to know what an object is when only parts of it are visible)
- spatial relationships (the ability to understand how objects are positioned in space)

**Non-Verbal Learning Disabilities** is the term used to describe the characteristics of individuals who have unique learning and behavioral profiles that may overlap with dyslexia, dyscalculia and dysgraphia but that differ in significant ways. Most notably, these individuals often have strengths in the areas of verbal expression, vocabulary,

reading, comprehension, auditory memory and attention to detail. They have trouble with:

- math computation and problem solving
- visual-spatial tasks and motor coordination
- reading body language and social cues; seeing the “big picture” in social and academic contexts

**Executive Functioning Deficits** is the term used to describe weaknesses in the ability to plan, organize, strategize, remember details and manage time and space efficiently. These are hallmark characteristics in individuals with attention deficit/hyperactivity disorder (ADHD) and are often seen in those with LD.

**Attention Deficit/Hyperactivity Disorder** (ADHD) is a brain-based disorder that results in significant inattention, hyperactivity, distractibility or a combination of these characteristics. It is estimated that as many as one-third of those with LD also have ADHD, and like learning disabilities, this disorder is linked both to heredity (genetics) as well as to brain structure and function. Unlike LD, features of this disorder can be attributed to neurochemical imbalances that can be effectively treated with a combination of behavioral and, as needed, pharmacological therapies.

### ADHD by the Numbers

According to recent data from the Centers for Disease Control and Prevention:

- About 6.4 million children have received an ADHD diagnosis at some point.
- ADHD diagnoses have increased 16 percent since 2007 and 53 percent in the past decade.
- Boys (13.2 percent) were more likely than girls (5.6 percent) to have ever been diagnosed with ADHD.
- Rates of ADHD diagnosis increased at a greater rate among older teens as compared to younger children.

## Legal Protections for People With LD

Three federal laws establish and undergird the rights of children and adults with LD. They ensure that all citizens receive needed and appropriate special education services, as well as fair treatment in public schools, postsecondary education settings and the workplace.

- The **Individuals with Disabilities Education Act (IDEA)** provides special education and related services to children and youth with disabilities who are 3–21 years old. Passed in 1975 as the Education for All Handicapped Children Act, this law guarantees each child a free appropriate public education tailored to his or her individual needs and delivered in the least restrictive environment appropriate to the individual’s needs. It also guarantees the right of children and their parents or guardians to timely evaluation, access to all meetings and paperwork and transition planning. IDEA specifies that children with any of 13 possible educationally handicapping conditions (including specific learning disabilities) are eligible for these services. IDEA also provides federal funds to states and local school districts to help support the additional costs of special education. The law provides several ways to address disputes between schools and parents, including mediation, due process hearings and written complaints to the state.

### ■ Section 504 of the Rehabilitation Act of 1973

**(Section 504)** prohibits discrimination against people with disabilities in federally funded programs and activities. While this civil rights law doesn’t fund programs, it does permit the withdrawal of funds from programs that fail to comply with the law. Persons with a physical or mental impairment that substantially restricts one or more major life activities are eligible for services under Section 504. Some schools use Section 504 to support students with LD needing only reasonable accommodations or modifications. Children and youth with ADHD who don’t need more comprehensive special education support also are frequently served under this law. Section 504 provides for both complaints to the Office for Civil Rights at the U.S. Department of Education and due process hearings. (An important note: All students eligible for special education services under IDEA are also eligible under Section 504, while the reverse is not true.)

**“Congress could change these laws at any time—for better or for worse—and we must be vigilant, working with lawmakers to both allow for advances in science and educational practice and to protect all individuals with LD.”**

- The **Americans with Disabilities Act (ADA)** is another civil rights law that protects people with disabilities from discrimination in schools, the workplace and other environments. The ADA protects people who have a physical or mental impairment that substantially restricts one or more major life activities. Since “learning” is considered such an activity under the ADA, students served under IDEA are also covered by this law.

In addition, people with disabilities are protected from discrimination in employment settings by the ADA. The law prohibits employers from using unnecessary qualification standards to weed out applicants with disabilities, while not requiring employers to hire unqualified applicants with disabilities. Employers are prohibited from making reference to inaccurate job descriptions to determine that an employee with a disability can no longer perform his or her job. Employers are also prohibited from failing to provide reasonable accommodations that do not cause undue hardship to them. Like Section 504, the ADA provides no federal funds. It was amended in 2008 in order to clarify how its definition of disability should be interpreted in light of several court decisions. As a result, more people (including those with learning disabilities) are now able to satisfy the definition of disability, to gain access to reasonable accommodations and to be protected from discrimination. Issues of noncompliance are handled through complaints to federal agencies and the courts.

In addition to these three federal laws focusing specifically on disability, there is an important federal education law—the **Elementary and Secondary Education Act (ESEA)**—that includes students with disabilities. First passed in 1965 as part of President Lyndon B. Johnson’s war on poverty, the current version of ESEA, enacted in 2001, is known as the No Child Left Behind Act, or NCLB.

ESEA requires schools to meet rigorous standards for educational content and student achievement (i.e., *what* and *how well* students should be learning). It also requires schools to measure student achievement and progress annually in reading and math. Under ESEA, schools must provide data on overall student performance as well as on progress made by discrete student groups, including students with disabilities. ESEA is currently due (in fact, overdue) for reauthorization by Congress, and in the interim, the U.S. Department of Education has allowed states to have flexibility in meeting core accountability requirements.

# Public Perceptions of LD

Despite the reality that many millions of individuals face the challenges of learning disabilities every day, there remains widespread confusion and misinformation about the nature and impact of LD. Lack of accurate information about LD increases the risk of stigmatization as well as the possibility of lowered expectations and missed opportunities in school, the workplace and the community.

## NCLD 2012 Survey of Public Perceptions of LD

In August 2012 NCLD collected data from a random sampling of 1,980 adults in the United States, evenly distributed across males and females, via an online survey. The sampling was representative of the U.S. population and had a margin of error of 4.4 percent.

Twelve percent of the respondents cited having a learning disability and 8 percent of the parents surveyed had a child with a learning disability.

### General Knowledge About Learning Disabilities

- Most people (84 percent) see learning disabilities as a growing issue in the U.S.
- Almost two-thirds of people (63 percent) know someone who has a learning disability.

When asked about different types of learning disabilities:

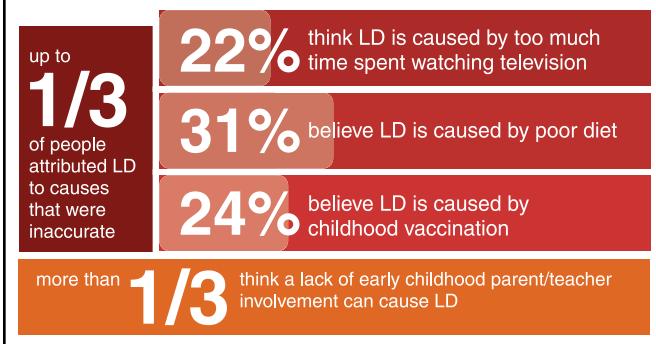
- Most people (91 percent) are familiar with dyslexia.
- Two-thirds of people do not know what dysgraphia, dyscalculia and dyspraxia are.

### Learning Disability Diagnosis, Causes and Treatment

- A majority of people (62 percent) say diagnosing a learning disability is a joint effort between the child's pediatrician, parent/caregiver, teacher and school administrator.
- Learning disabilities are thought to be diagnosed in early schooling.
  - Over half (53 percent) believe that learning disabilities are diagnosed during grades 1–4.
  - Nearly a quarter (23 percent) think that they're diagnosed in kindergarten.
- Nearly eight in ten people (76 percent) correctly say that genetics can be a cause of learning disabilities.
- Many respondents (43 percent) wrongly think that learning disabilities are correlated with IQ.

**“These surveys clearly demonstrate the need for greater understanding of LD throughout society.”**

## Percentage of People Who Attributed LD to Inaccurate Causes



- Up to one-third of people attribute LD to causes that were inaccurate:
  - Nearly one-quarter of respondents (22 percent) think learning disabilities can be caused by too much time spent watching television.
  - Thirty-one percent believe a cause is poor diet.
  - Twenty-four percent believe a cause is childhood vaccinations.
- More than one-third of respondents think that a lack of early childhood parent/teacher involvement can cause a learning disability.
- Most (83 percent) say that early intervention can help, but over half incorrectly cite medication and mental health counseling as treatments.
- Over half of the respondents (55 percent) wrongly believe that corrective eyewear can treat certain learning disabilities.

## Life With a Learning Disability

- Most respondents (84 percent) feel that students with learning disabilities deserve individual classroom attention and extra time on tests.
- Nearly half of the parents of children with learning disabilities (45 percent) say that their child has been bullied in the past year.
- Two-thirds of respondents (66 percent) feel that children with learning disabilities are bullied more than other children.
- Over one-third of parents (37 percent) say that their child's school inadequately tests for learning disabilities.
- Almost two-thirds of parents (64 percent) say that their child's school doesn't provide information on learning disabilities.
- Some parents of children with learning disabilities (20 percent) say they're most comfortable consulting the internet for information regarding their child's learning disability.
- Over two-thirds of parents with children who have learning disabilities prefer talking to a teacher (67 percent) or pediatrician (62 percent) about their concerns.
- Most parents of children with learning disabilities (75 percent) believe they could do more to help their child.
- Nearly one-third of people incorrectly think that it is lawful for an employer to ask an interviewee if they have a learning disability.
- Almost all respondents (90 percent) know that it is unlawful for an employer to terminate an employee because of a learning disability.

## 2013 Research on Parents of Children With Learning and Attention Issues

Independent research conducted in 2013 with the support and involvement of NCLD and others in the LD field identified a broad spectrum of attitudes, beliefs, values and challenges among parents of children with learning and attention issues. The survey drew on information provided by 2,241 parents of children ages 3–18. Sixty-eight percent of these parents reported to have children with formally identified learning or attention issues and 32 percent of them suspected their child had learning or attention issues that were not formally recognized. The sample was representative of the U.S. census. Survey data yielded information about parents who fell into three categories:

- those who were struggling with the challenges that come with having a child with learning and attention issues and who report to be in most need of help;
- those who were conflicted about their ability to manage the needs of their child with these issues;
- those who were optimistic about their family's journey with learning and attention issues but continue to need information and guidance.

### Strugglers

One in three parents (35 percent) are **deeply struggling** with their attitude toward and ability to cope with their child's learning and attention issues, including:

- seeing parenting as difficult and the challenges as daunting
- experiencing financial pressure because of learning and attention issues
- feeling isolated and reporting anxiety generated by multiple sources: the school system, the child, family members
- experiencing difficulty maintaining a positive relationship with spouse/partner, child, relatives or school system personnel
- being unable to manage their own stress and feelings of guilt
- feeling worried and pessimistic about their child's future

### Conflicted

Another one-third of parents (31 percent) admit to having **conflicting feelings** about their child's learning and attention issues and their ability as a parent to help. These parents:

- feel ambivalence, meaning they accept their child's learning and attention issues but also express some denial-like doubts about them
- have trouble managing their own stress and being patient with their child
- are uncertain about teaching their child how to resolve issues, when to ask for help and when to resolve issues themselves
- are unsure about advocating for their child and seeking the help of experts
- are frustrated with school system, child and family pressures
- worry about their child's social and academic future, and occasionally do their child's homework for them

### Optimistic

Finally, one-third (34 percent) of parents have **positive feelings** about their child's learning and attention issues and their own ability to cope. This group is characterized by parents who:

- see themselves as successful, able to deal with virtually any challenge
- effectively advocate/interact with teachers and are able to navigate the school system
- are able to find experts when needed
- teach their child to understand their difficulties and how best to cope
- are able to manage stress
- have a strong support system: partner/spouse, relatives, friends, doctors
- had no evidence of guilty feelings; are not stressed or frustrated
- express confident attitudes
- have developed ways to deal with their child's learning and attention issues

## GfK Roper 2010 Study on Public Attitudes About Children With Learning Disabilities

The Emily Hall Tremaine Foundation commissioned the fourth in a series of GfK Roper studies to examine the public's attitudes about LD. The 2010 report captured the understanding and attitudes of the public and of educators, and offered data to assess progress—or lack of progress—in how both parents and the United States educational system are addressing the needs of children who learn differently.

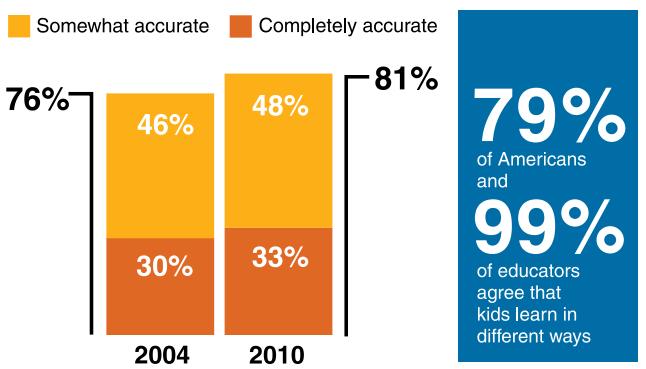
The study was conducted by telephone interviews and involved a nationally representative sample of one thousand American adults ages 18 and older and subsamples of seven hundred parents of children under 18 as well as seven hundred teachers and school administrators. It identified some advances in the public's understanding of learning disabilities and support for tailoring the educational process to match children's differing learning styles. Yet the poll also highlighted persistent misperceptions that present barriers for anyone interested in ensuring that children with learning differences are helped to achieve their full potential.

### Gratifying Trends

Since 1995, when the survey initiative began, the issue of learning disabilities has gained some traction. Both the general public and parents, as well as educators, increasingly embrace the foundational notion that individuals with LD have unique learning needs and challenges and that their ability to achieve is not due to factors such as below-average intelligence. The 2010 study found that:

- A majority of the general public and educators in the U.S. agree that children learn in different ways. Eight in 10 Americans (79 percent, a value that is up nine points from 2004) agree (strongly/somewhat) that children learn in different ways. Virtually all educators (99 percent) say the same.
- The number of Americans who say they are familiar with learning disabilities is on the rise. In 2010, members of the general public were much more likely to say that they have heard or read "a lot" about learning disabilities than in both 2004 and 1999.
- The majority of the general public recognizes the fact that children with learning disabilities are of average or above-average intelligence. Eight in 10 Americans (80 percent) consider the statement "children with learning disabilities are just as smart as you and me" to be accurate.
- Almost all parents (96 percent) today agree that children can learn to compensate for a learning disability with proper instruction.

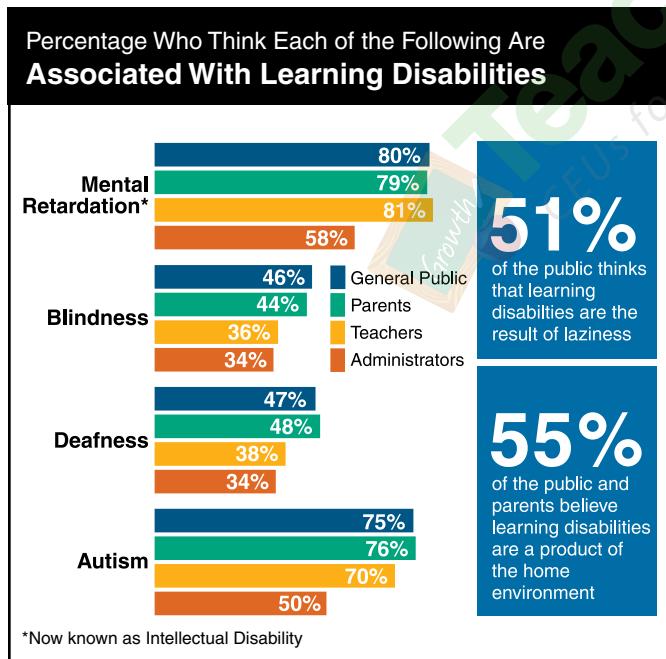
Percentage of Americans Who Say It's Accurate That  
**"Children With Learning Disabilities Are Just as Smart as You and Me."**



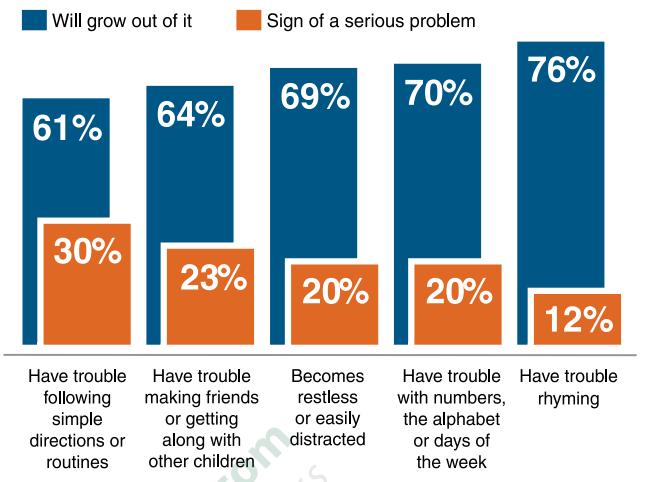
## Troubling Trends

While the public's perception of learning disabilities has improved, parents and educators still have an alarming lack of knowledge about learning disabilities.

- Seven out of 10 parents, educators and members of the general public incorrectly link learning disabilities with intellectual disability ("mental retardation") and autism. Half or more of school administrators do so as well.
- Almost four in 10 mistakenly associate learning disabilities with sensory impairments like blindness and deafness.
- A majority of the public (55 percent) and parents (55 percent) mistakenly believe learning disabilities are often a product of the home environment in which children are raised. Four in 10 teachers and three in 10 administrators have the same belief.
- Approximately half (51 percent) think that what people call "learning disabilities" are the result of laziness.



## How Parents View Behaviors of 3- to 4-Year-Olds



- Many parents continue to ignore potential signs of trouble—instead choosing to wait and see if their child will grow out of it.
- A sizable number of parents believe a 5- to 8-year-old child will grow out of such behaviors as trouble using a pen or pencil, matching letters with their sounds and making friends—typical warning signs of LD.
- Parents are even more forgiving of these traits in 3- to 4-year-old children, with two in three expressing reluctance to inquire about early identification and intervention.
- The majority of educators (66 percent) consider that a lack of support from parents in helping their children learn is a major challenge confronting schools working with children with LD.
- Despite confusion among educators about learning disabilities, eight in 10 say they feel confident teaching children with LD.

The 2010 study is available from the Emily Hall Tremaine Foundation at [TremaineFoundation.org](http://TremaineFoundation.org).

# LDs in Schools

## Prevalence and Characteristics of Students With LD

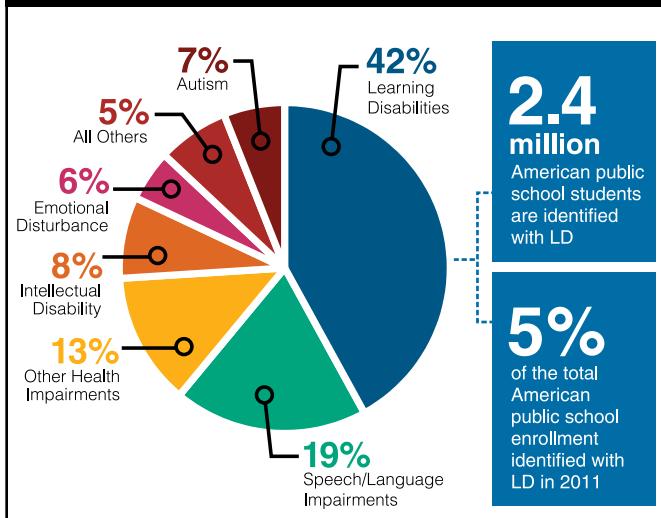
- LD is the **largest** category of students receiving special education services.
  - There are **2.4 million** American public school students (approximately 5 percent of the total public school enrollment) identified with learning disabilities under the Individuals with Disabilities Education Act (IDEA).
  - **Forty-two percent** of the **5.7 million** school-age children with all kinds of disabilities who receive special education services are served in this category.
- The number of students identified with LD has **declined by 18 percent between 2002 and 2011**, while total special education has declined by just 3 percent.
- **Two-thirds** of students identified with LD are male.
- **Black** and **Hispanic** students are overrepresented in many states while white and Asian students are underrepresented in the LD category.

A great deal is known about the 5% of our nation's school-age population whose learning disabilities (LD) have been formally identified. Data suggest that an additional 15% or more of students struggle due to unidentified and unaddressed learning and attention issues.

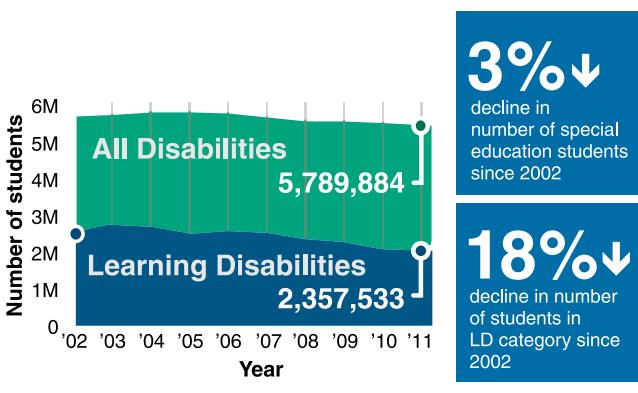
## Prevalence

Once the fastest growing category of special education—increasing more than 300 percent between 1976 and 2000—the LD category has now declined by almost 2 percent annually since 2002.

**Special Education Students: 2011**  
By Disability Category



## Number of Students (Ages 6–21) Served in Special Education: 2002–2011



## Why Are Fewer Students Being Classified as Having LD in Most States?

There are several possible reasons for the decline, among them:

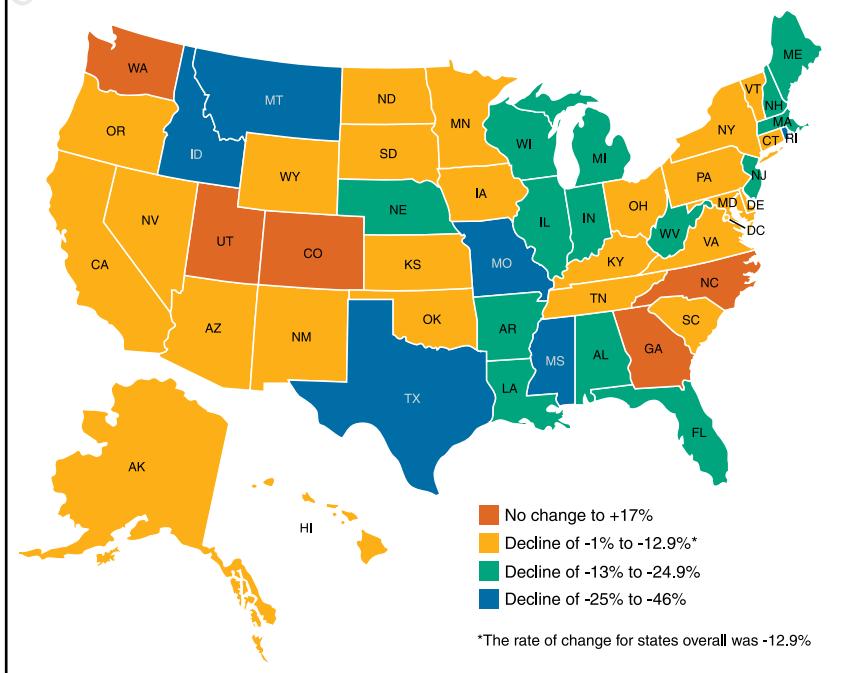
- Expansion of and attention to early childhood education, including universal preschool and the use of early screenings and diagnostic evaluations to support school readiness, is increasingly common.
- Improvements have been made in reading instruction provided in general education, making reading difficulties—a characteristic of most students classified as having LD—less prevalent in our nation's elementary schools.
- A dramatic shift in the way LD is identified. Changes made to the 2004 version of IDEA and its 2006 regulations required all states to develop new criteria for LD identification and eliminate the requirement for an “ability versus achievement” discrepancy. As a result, states have developed a variety of ways to identify LD. Many include the use of Response to Intervention (RTI) (see box, page 14), which might result in greater numbers of struggling students receiving early assistance in general education and ultimately reducing the need for special education classification.

## Students With Multiple Disabilities

School-age students eligible for special education services are reported only by their primary disability. However, many students have multiple disabling conditions and may receive a variety of services to address conditions that interfere with their educational progress.

A 2001 study found that schools reported 30 percent of students with a primary disability of LD also had a secondary disability, while 7 percent had two or three additional disabilities, such as speech/language impairments or emotional disturbance.

## Percent Change In LD Identification: 2006–2011



Since 2006 the number of students identified as having LD has declined in almost every state, with decreases as high as 45 percent. Only five states have seen either no change or slight increases in the number of students with LD. See Appendices for additional state-by-state information.

Not all students with LD receive special education. The numbers discussed here reflect only those students who are formally identified as having a learning disability and, because of that disability, are in need of special education as specified under IDEA.

Students may also receive accommodations for LD under Section 504 of the Rehabilitation Act of 1973 (discussed on page 5). Little is known about the numbers or characteristics of students with LD or other disabilities covered under Section 504. However, more is being learned thanks to expanded information being collected by the Office for Civil Rights at the U.S. Department of Education through the Civil Rights Data Collection (CRDC). The CRDC provides information for a large sample of the nation's public schools and school districts about enrollment demographics, advanced courses, SAT and ACT completion and much more (see [ocrdata.ed.gov](http://ocrdata.ed.gov)).

## What Is Response to Intervention (RTI) and Multi-Tier System of Supports (MTSS)?

Response to Intervention (RTI) is a data-based process of decision making conducted in a Multi-Tier System of Supports (MTSS) that ensures early identification and support for students with learning and behavioral difficulties and disabilities. The RTI process begins with high-quality instruction and universal screening of all children in the general education classroom and provides struggling learners with interventions at increasing levels of intensity to accelerate their rate of learning. Components of RTI/MTSS include:

- data-driven decision making
- curriculum
- instruction
- assessments
- leadership
- an empowering culture
- professional learning

These services may be provided by a variety of personnel, including general education teachers, special educators and specialists. Student progress is closely monitored to assess both the learning rate and the level of performance of individual students. Educational decisions about the intensity and duration of interventions are based on an individual student's response to instruction. RTI is intended for

use at all grade levels, from pre-K through high school, and when implemented with fidelity, will result in a well-integrated Multi-Tier System of Supports driven by child outcome data.

For more information on RTI and MTSS, visit the RTI Action Network at [RTInetwork.org](http://RTInetwork.org).



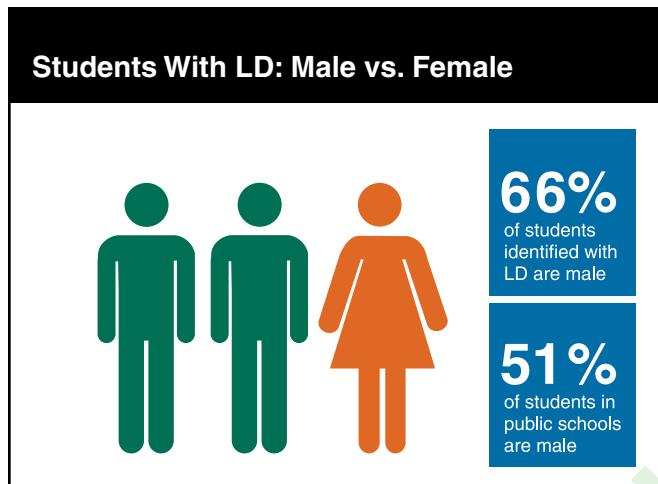
**"The key to solving the student achievement gap is implementing evidence-based practice with fidelity."**

**Stevan J. Kukic, Ph.D., Director, School Transformation  
National Center for Learning Disabilities**

# Characteristics

## General

Two-thirds of students identified with LD are male (66 percent) while overall public school enrollment is almost evenly split between males (51 percent) and females (49 percent). This overrepresentation of boys occurs across different racial and ethnic groups.



- The specific reasons for this gender imbalance are unclear, but because the population of students with LD is heavily male, it is important to keep in mind that the experiences of these students as a group disproportionately reflect the experiences of boys.
  - Research studies show that equal numbers of boys and girls share the most common characteristic of LD—difficulty with reading. Consequently, many girls with learning difficulties may go unidentified and unserved by special education.
- !** Further investigation into this gender disparity is warranted. In what ways and to what extent changes to LD identification criteria impact gender distribution are questions that deserve close attention and study.

## Children at Risk

More students with LD are found in households living in poverty than in children from the general population. Living in a low income household creates a greater likelihood of poor health, poor performance in school and a variety of poor outcomes in adolescence.

Students with LD are also more often in foster care or are homeless.

- Children with disabilities live in foster care at twice the rate of children in the general population, according to studies conducted by the National Council on Disability and other organizations. The educational needs of these children are often unknown or overlooked.
- Children who are homeless are twice as likely to have learning disabilities, according to the National Center on Family Homelessness. Children who are homeless and have disabilities may not receive the special education services for which they are eligible.

## Minority Children

The rate of identification of minority students in need of special education varies across states.

When the percent of students from a particular minority or ethnic group identified for special education in a state exceeds that group's percentage of the state's total school enrollment, some argue the group is overrepresented in special education, also known as "disproportionality."

However, since the connection between socioeconomic status—particularly income—and disability is well established, minority groups that experience significantly higher rates of poverty could have a higher rate of need for special education.

- Black and Hispanic students are overrepresented in many states, while white and Asian students are underrepresented. For example:
  - In Nevada 16 percent of students with LD are black, but black students make up just 9.9 percent of the state's total school enrollment.
  - In California just 3 percent of students with LD are Asian, while 11.2 percent of the total school enrollment is Asian.

The rate of identification of minorities and ethnic groups in the category of LD compared to the total school enrollment for each state appears in the Appendices. Rates of identification for all disability categories can be found at LD.org/IDEAstate data.

## Academic Performance and School Outcomes

- Between **12 percent to 26 percent** of secondary students with LD received average or above-average scores on math and reading assessments, compared with 50 percent of students in the general population.
- Between **7 percent to 23 percent** of secondary students with LD received very below-average scores on academic performance, compared with only 2 percent of students in the general population.
- Students with LD **earn lower grades** and **experience higher rates of course failure** in high school than students without LD.
- **One-third** of students with LD have been held back (retained) in a grade at least once.
- **One in every two students** with LD faced a school disciplinary action such as suspension or expulsion in 2011. (Only students served in the category of emotional disturbance received more disciplinary actions.)
- Students with LD have **post-high school goals similar to students without LD**. However, too few take an active or leadership role in planning for their transition from school.
- **Sixty-eight percent** of students with LD leave high school with a regular diploma while **19 percent drop out** and **12 percent receive a certificate of completion**.
- **Black and Hispanic students with disabilities** experience much **higher rates of school disciplinary actions, higher rates of drop out and lower rates of graduation**.

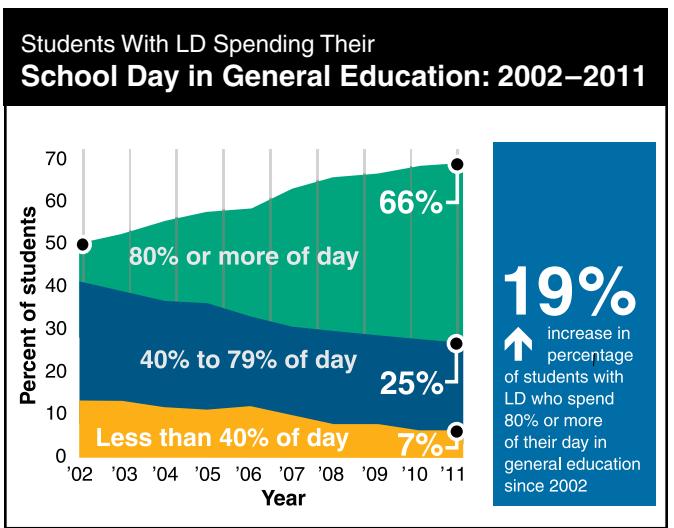
### IDEA State Data Displays

The U.S. Department of Education recently introduced new profiles of students with disabilities in each state. Called “Data Displays,” these handy profiles provide a snapshot of student demographics, assessment performance, educational environments, graduation rates and post-school outcomes.

### Instructional Environments

Students with LD are spending more and more of their school day in general education classrooms.

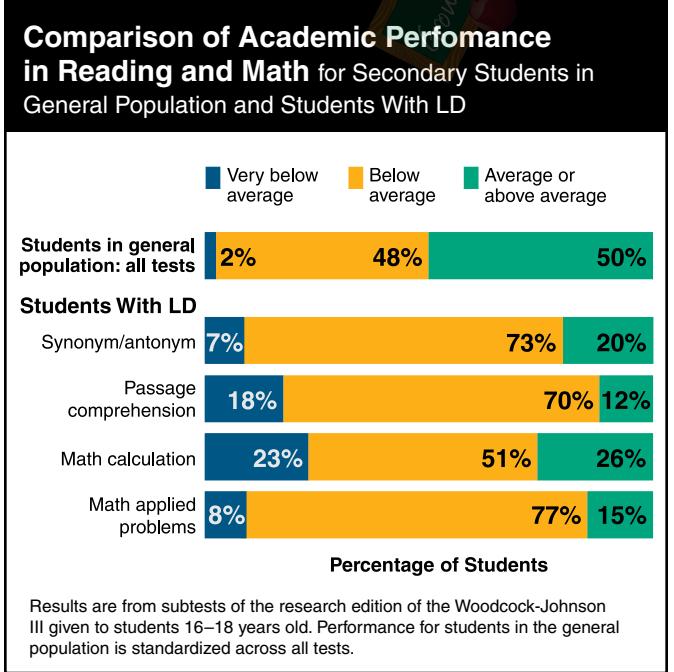
- Sixty-six percent of students with LD spend 80 percent or more of their school day in general education classrooms, up from 47 percent a decade ago.
- Experiencing most academic instruction within general education is typically associated with better outcomes for students with disabilities. It also reflects a core requirement of IDEA, known as “least restrictive environment,” specifying that students with disabilities—to the maximum extent possible—must be educated with their peers who do not have disabilities.



The setting in which students with LD spend their school day does, however, vary significantly across states. See LD.org/IDEAstate data for additional information.

## Academic Performance

While the amount of time students with LD spend in general education classrooms has steadily increased, the academic achievement of these students continues to lag far behind the general student population.



## Grade Retention

Students with disabilities—including those with LD—are much more likely to be retained in grades than their peers who don't have disabilities. According to a parental survey, almost one-third of students with disabilities have been held back in a grade at least once.

- School-age children with disabilities who are retained in grade are disproportionately black and from lower-income households.
  - Retention is linked to increased behavior problems that become more pronounced as children reach adolescence and is also known to highly correlate with dropping out of school.
  - Dropouts are five times more likely to have repeated a grade than are high school graduates.
  - Students who repeat two grades have an almost 100 percent chance of dropping out of school.
- ! The high rate of grade retention among students with disabilities may be directly related to the unacceptably high drop-out rate of this group.

## Course Failure and Grade Point Average (GPA)

Students with LD experience course failure at a much higher rate than their non-disabled peers.

- Sixty-nine percent of students with LD have failed one or more graded courses in secondary school, compared to 47 percent of students in the general population. Only students in one other disability category—emotional disturbance—have higher rates of course failure.
  - The mean grade point average (GPA) in graded courses for students with LD was 2.2, compared to 2.7 for students in the general population.
- ! As evidenced with retention, course failure and low GPA, particularly in the freshman year of high school, are strong indicators of a high risk for dropping out of school.

## National Assessment of Educational Progress (NAEP)

The National Assessment of Educational Progress, or NAEP, is the only nationally administered measure of student academic achievement in reading and math.

Given periodically to a nationally representative sample of students in fourth and eighth grades, NAEP provides an important comparison across states and between student groups.

NAEP performance levels—Basic, Proficient and Advanced—measure what students should know and be able to do at each grade assessed.

- **Basic** represents partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade assessed.
- **Proficient** represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter.
- **Advanced** represents superior performance.

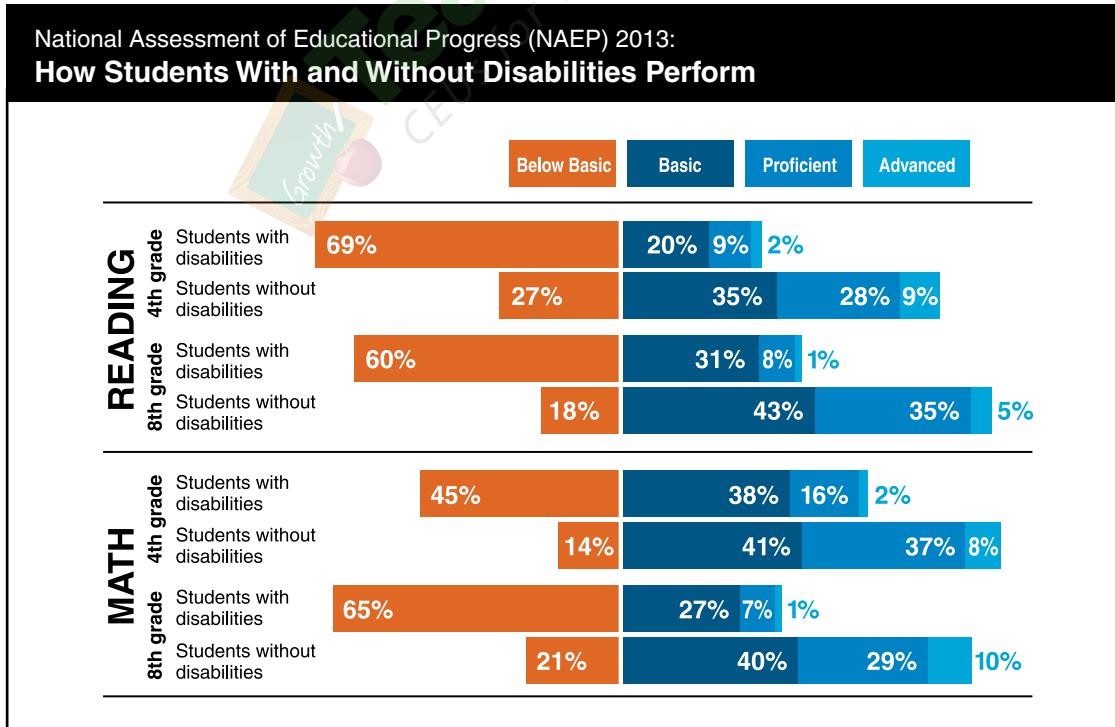
NAEP also reports the proportion of students whose scores place them below the Basic achievement level.

NAEP results show wide and persistent achievement gaps between students with and without disabilities in both reading and math. There has been no significant improvement seen in the NAEP performance for students with disabilities in the last three administrations (2009, 2011, 2013).

Of ongoing concern is the high rate of exclusion of students with disabilities (students selected for testing but who were not tested). However, the rate of exclusion has been reduced substantially in the most recent NAEP administrations.

Note: Information on state NAEP performance for students with and without disabilities as well as the rate of exclusion of students with disabilities is available at [LD.org/IDEAstate](http://LD.org/IDEAstate).

National Assessment of Educational Progress (NAEP) 2013:  
**How Students With and Without Disabilities Perform**



## Disciplinary Removals

The academic performance of students with LD is further compromised by their high rate of disciplinary removals.

- One in two students with LD experiences a suspension (in or out of school) or expulsion.
- Only students with emotional disturbance receive more disciplinary removals.
- Programs such as Positive Behavioral Interventions and Supports (PBIS), implemented on a school-wide basis, have a proven, positive impact on all students.

- Planning and implementing behavior intervention plans for those students with LD who have challenging behaviors is critical to their success.

All of these academic characteristics and experiences paint a very clear picture of students who do not have the basic reading, math and social skills to master academic subjects and to earn a regular high school diploma. As states implement more robust standards in reading and math, these students are at even higher risk of school failure.

- ! The disproportionate use of disciplinary removals for students with LD will continue to be problematic until schools implement evidence-based practices proven to reduce problem behavior.

## Freshman Year Holds Critical Performance Indicators

A 2009 study conducted by the National High School Center and the Consortium on Chicago School Research at the University of Chicago Urban Education Institute (CCSR) identified four freshman year performance indicators useful for identifying students who are at risk of dropping out: grades, course failures, absences and on-track status. Each of these indicators was found to have a strong connection with graduation rates. As the researchers noted, "Helping these students pass more courses and get higher grades during their first year in high school may be an essential step in reducing the likelihood of dropping out."

### Freshman grades (GPA):

- In the group studied, students with LD had an average GPA of 1.6 (D+) compared to 2.1 for students with no identified disability.
- Students with a 2.5 (C+) average or higher were very likely to graduate from high school within five years.
- Only one-quarter to one-third of students with a 1.0 (D) average graduated in five years.

### Freshman absences:

- Students with LD were absent an average of 12 days per semester compared to eight days for students with no identified disability.
- Students with LD who had zero to four absences per semester have graduation rates of 90 percent or greater.

### Freshman course failures:

- Students with LD failed approximately three semester courses during their freshman year compared to 2.1 courses for students with no identified disability.
- Fewer course failures corresponded to higher graduation rates, and large reductions in graduation rates occurred for each additional course failure.
- Eighty-six percent of students with LD graduate in five years if they have no course failures.
- With only one to two Fs, graduation rates were reduced by 20 percentage points.

### Freshman on-track status:

*"A student is on-track if he or she has accumulated five full-year credits (10 semester credits) and has no more than one semester F in a core subject (English, math, science or social science) by the end of the first year of high school."*

- Students on track at the end of their freshman year were four times more likely to graduate than off-track students.
- Just over half—52 percent—of students with LD were on track at the end of their freshman year compared to 65 percent for students with no identified disability.

## Exiting School: Diplomas, Certificates and Dropping Out

The rate at which students with LD leave high school with a regular high school diploma has been gradually rising for a decade, yet still remains well below the graduation rate for students without special education status.

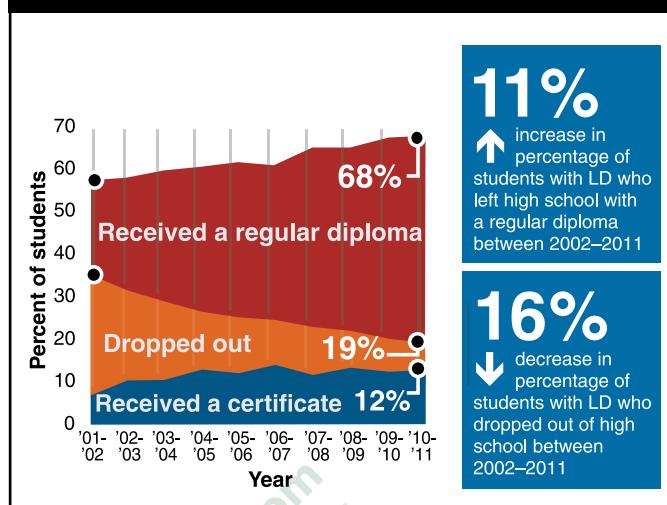
- Sixty-eight percent received a regular high school diploma in 2011 versus 57 percent a decade ago.
- The number of students with LD receiving a certificate has increased. Twelve percent received a certificate of completion (something other than a regular high school diploma) in 2011 versus 7 percent in 2002.
- Certificates recognize school completion but provide no avenue to higher education or military service.

The drop-out rate for students with LD has fallen steadily over the past decade.

- Nineteen percent of students with LD dropped out of school in 2011 versus 35 percent in 2002.
- Students with LD continue to experience one of the highest drop-out rates among all students with disabilities; only one other category of students—those with emotional disturbance—experience a higher drop-out rate.
- For students with LD, drop-out rates vary widely across states, ranging from a high of 48 percent in South Carolina to a low of 7 percent in Hawaii.
- Three states—Louisiana, Nevada and South Carolina—have higher drop-out rates than graduation rates for students with LD.

For state-level graduation and dropout rates see *Diplomas at Risk: A Critical Look at the Graduation Rate of Students With Learning Disabilities*, available at LD.org/diplomas.

### How Students With LD Exited High School: 2002–2011



Increasing the graduation rate and reducing the drop-out rate for students with LD continues to be a high priority for parents and educators. Given all that is known about the importance of a regular high school diploma and the detrimental and lifelong effects of dropping out of school, efforts to implement effective drop-out prevention programs should be a top priority. Drop-out prevention programs need to be adopted with fidelity on a large scale in order to reduce this silent epidemic that threatens to undermine the success of so many youth with LD.

## Transition Planning

According to IDEA, planning for transition to post-school life is a required part of every student's Individualized Education Program (IEP), and participation in the development of a transition plan is critical to post-school success.

## Exit Exams

In many states the graduation requirements for students with LD include passing a high school exit exam. A 2012 study by the Center on Education Policy found that 26 states required high school exit exams in the 2011–2012 school year.

- A majority of students with LD—55 percent—are educated in states with exit exam requirements.
- Policies regarding high school exit exams for students with disabilities vary dramatically across states. In some cases, states have unfortunately agreed to exempt students with disabilities from exit exams—allowing them to be awarded a diploma without meeting the requirements.

### High School Exit Exam Policies: School Year 2011–2012 By SLD Population

**55%**

Percentage of students with LD in the 26 states that have or will implement an exit exam that students must pass to graduate: AL, AK, AR, AZ, CA, FL, GA, ID, IN, LA, MA, MD, MN, MS, NJ, NV, NM, NY, OH, OK, OR, RI [2014], SC, TX, VA, WA

**39%**

Percentage of students with LD in the 21 states with no mandatory exit exam: CO, DC, DE, HI, IL, IA, KS, ME, MI, MO, MT, NE, NH, ND, PA, SD, UT, VT, WV, WI, WY

**5%**

Percentage of students with LD in the three states with end-of-course tests that students must take but not necessarily pass to graduate: KY, NC, TN

**1%**

Percentage of students with LD in the one state that plans to require students to take exam but has not yet determined whether students must pass to graduate: CT

## Access to Accelerated Programs

Students with disabilities are entitled to equal access to accelerated programs such as Advanced Placement and International Baccalaureate classes. In late 2007 the U.S. Department of Education acted upon reports of school policies that restricted access for students with disabilities. For example, qualified students with disabilities could not be required to give up any specialized services that had been designed to meet their individual needs as a condition of their participation. In a 2007 “Dear Colleague” letter, the Office for Civil Rights at the U.S. Department of Education clarified that limiting access by students with disabilities to challenging

academic programs on the basis of their disability violates both Section 504 and the ADA. Additionally, it was made clear that the imposition of conditions on participation in accelerated classes or programs by qualified students with disabilities (e.g., the forfeiture of necessary special education or related aids and services) amounts to a denial of a free appropriate public education under both IDEA and Section 504. (USED OCR, December 26, 2007)

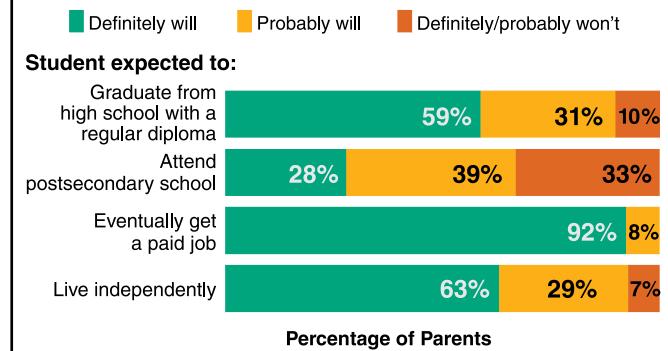
The rate at which students with disabilities, including those with LD, take and pass Advanced Placement courses is available from the Civil Rights Data Collection available at [ocrdata.ed.gov](http://ocrdata.ed.gov).

## Student and Parent Goals After High School

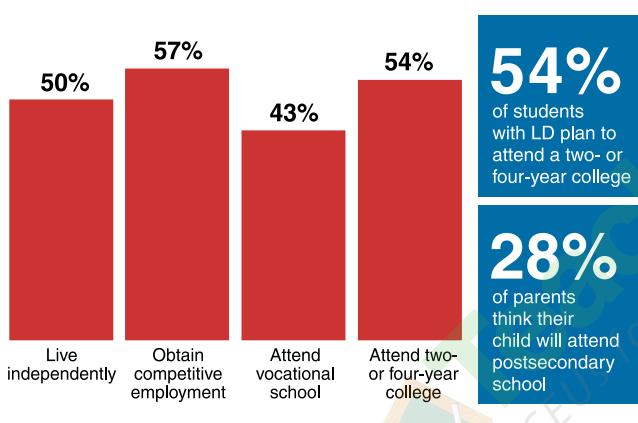
Students with LD express goals for post-high school life that are very similar to students without LD.

- A majority (54 percent) have the goal to attend a two- or four-year college.
- Forty-three percent would like to attend a vocational training program.
- More than half (57 percent) want to obtain competitive employment.
- Half (50 percent) want to live independently.

## Parents' Expectations of Students After Graduation: Students With LD



## Secondary Students With LD: Goals After High School



Parents of students with LD express expectations different from those self-reported by students.

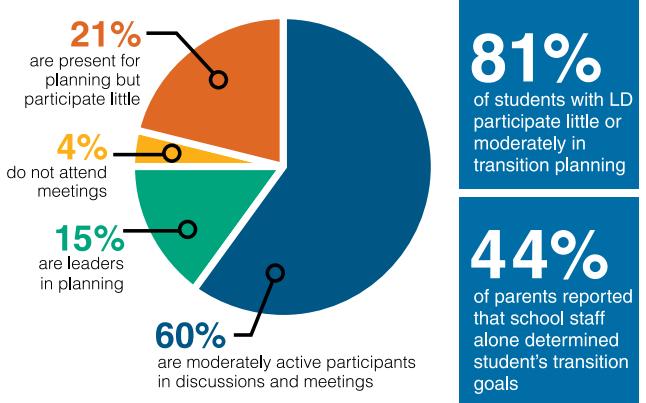
- Few parents (28 percent) expressed strong confidence that their child would attend postsecondary school.
- This is in sharp contrast to the 54 percent of students with LD who had a stated goal of attending either a two- or four-year college.

**!** Parental expectations are important because research has found them to be associated with both levels of student achievement and general post-high school outcomes. Unfortunately, low parental expectations align more with current levels of postsecondary success than do the expectations that students with LD have for themselves.

## Student, Parent and Outside Agency Participation in Transition Planning

- Most students (96 percent) attend IEP meetings involving transition planning.
- A majority of students (60 percent) are moderately involved in the transition planning process.
- Only a small number of students (15 percent) take an active leadership role in transition planning.

## How Students With LD Participate in Transition Planning



Parents play a less than optimal role in transition planning.

- While 83 percent of parents surveyed attended their most recent IEP/transition planning meeting, 44 percent reported that school staff alone most often determined the student's transition goals.
- A team process—one that included parents and students—determined the transition goals only about one-third of the time.
- A majority of parents (82 percent) reported that the transition planning for their child was very useful (35 percent) or somewhat useful (47 percent).
- Only 18 percent found their child's transition planning to be not very or not at all useful.

The involvement of representatives of other agencies and service providers is a critical component of the transition planning process. However, a relatively low level of involvement of agencies and organizations is reported.

### Contacts Made by Schools

on Behalf of Students With LD for Transition Planning

Two- or four-year colleges	26%
Vocational schools	26%
Potential employers	17%
Military	18%
Job placement agencies	21%
Other vocational training programs	27%
Vocational Rehab agency	34%
Other social services agencies	12%

Despite limited involvement of outside agencies, the majority of students with LD—75 percent—had transition plans that identified the need for some type of services after high school, such as:

- postsecondary education accommodations (55 percent)
- vocational training, placement or support (32 percent)
- behavioral intervention (4 percent)
- social work services (3 percent)
- mental health services (2 percent)

 These data confirm the need for greater involvement by students, parents and outside agencies in the transition planning process. To ensure that students with LD have the best chances of success after leaving high school, transition planning activities must be more heavily influenced by the students themselves and be better connected to the skills they need to realize post-school goals. Professionals from other agencies must be more frequently involved in transition planning for students with LD, particularly disability support services personnel in colleges and universities. Data show that while 55 percent of students with LD had transition plans outlining the need for accommodations in postsecondary education, representatives of two- or four-year colleges were contacted only 26 percent of the time.

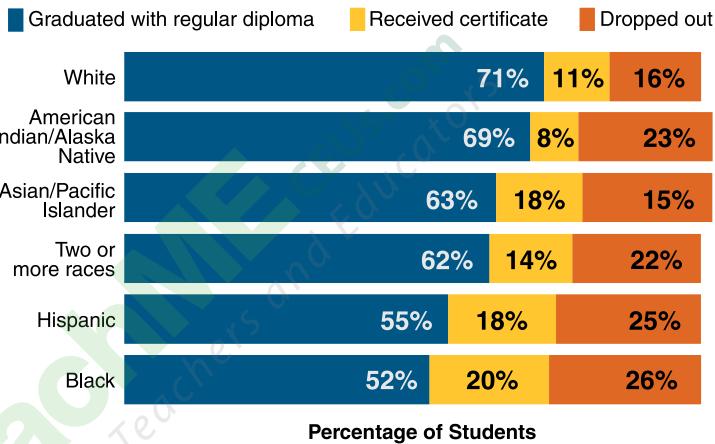
## Racial and Ethnic Disparities

School outcomes for students with disabilities vary significantly across racial and ethnic demographics. While there are no LD-specific data about these students, overall data about this population indicate that:

- Black students with disabilities are almost three times more likely to experience out-of-school suspension or expulsion than white students with disabilities and twice as likely to experience in-school suspension or expulsion.
- Black and Hispanic students with disabilities leave high school with a regular diploma at a much lower rate than their white counterparts and drop out at significantly higher rates.

 Improving the school performance of the nation's minorities—particularly black and Hispanic students—will require an increased focus on and sensitivity to the experiences and outcomes of these students who are served under IDEA.

How Students With Disabilities **Exited High School by Race/Ethnic Group: School Year 2010–2011**



# LDs Beyond School

## Prevalence and Characteristics of Individuals With LD

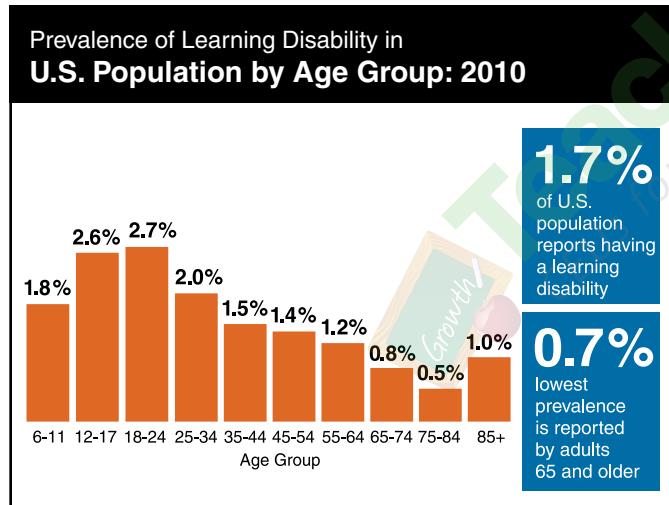
- In the U.S., **1.7 percent** of the population reports having a learning disability, totaling 4.6 million Americans.
- **Males report higher incidence of LD** than females (2 percent of males versus 1.3 percent of females).
- Prevalence of reported LD is much **higher among those living in poverty** (2.6 percent) versus those living above poverty (1.5 percent).
- Prevalence among whites, blacks, and Hispanics is **about equal**. Rates are **highest among the other/multi-race population** and **lowest among Asians**.
- **More than half of people with LD (55 percent) had some type of involvement with the criminal justice system** within eight years of leaving high school.

Overall, reliable information on the numbers of Americans who have learning disabilities is scarce. States are required to report on the number of public school students receiving special education services due to LD, but there is no such reporting requirement for individuals once they have exited school. The prevalence of LD in older teens and in adults is estimated through surveys based on parent interviews or self-reports; as a result, the data about LD prevalence is difficult to obtain and is subject to considerable variability. The few data collection agencies and survey activities that we have rely upon different criteria for whether an individual is counted as having LD. That said, the data are compelling and reinforce the reality of LD across the lifespan.

## Prevalence

The most current data, based on surveys conducted by the U.S. Census Bureau, report the prevalence of LD by age group:

- Among school-age children, parents report an incidence of 2.2 percent (1.8 percent ages 6–11 and 2.6 percent ages 12–17). This differs significantly from the number and percentage of students being provided special education due to LD (2.4 million, 5 percent of school enrollment) in the nation's schools. This could be a result of many parents who respond to surveys not acknowledging that their child has LD.
- Highest prevalence is reported by adults age 18–24 (2.7 percent). Lowest prevalence is reported by adults 65 and older (0.7 percent). This age group would have attended school prior to the passage of federal special education laws, reducing the likelihood of being identified as having LD during school years.

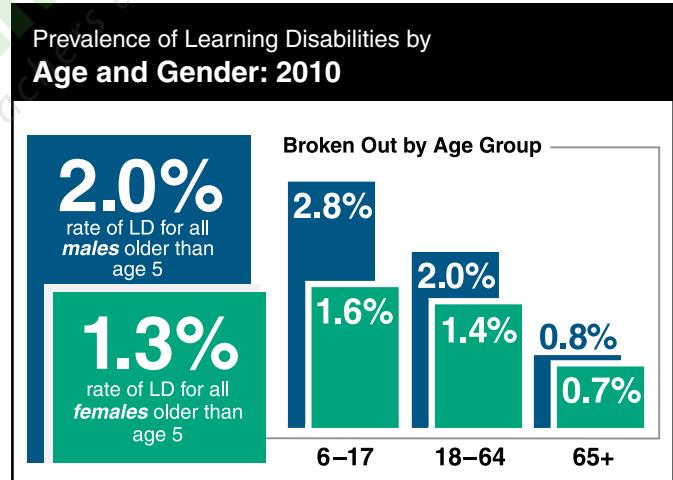


## Characteristics

As with school-reported data, U.S. Census Bureau surveys indicate higher rates of males reporting to have LD:

- The highest rate is among the school-age population (ages 6–17):
  - 2.8 percent of males
  - 1.6 percent of females
- The proportion of males versus females is closer in adults ages 18–65:
  - 2 percent of males
  - 1.4 percent of females
- The rate reported by those 65 and older is virtually the same for males (0.8 percent) and females (0.7 percent).

! Reports of LD across the life span provide irrefutable evidence that the condition is lifelong and does not disappear upon leaving school.

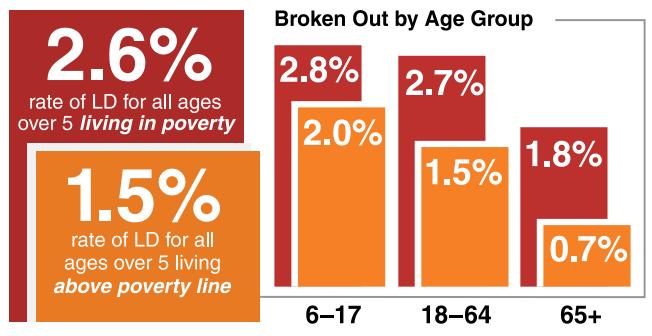


## Poverty

The prevalence of reported LD is much higher among those living in poverty.

- For this group, among all ages over 5, the rate is 2.6 percent versus 1.5 percent for those living above poverty.
  - Among those 18–64 years of age, the percentage in poverty is almost twice as high as those above poverty.
- ! These data confirm that risks posed by living in poverty likely lend themselves to the occurrence of LD.

### Prevalence of Learning Disabilities by Age and Household Poverty Status: 2010

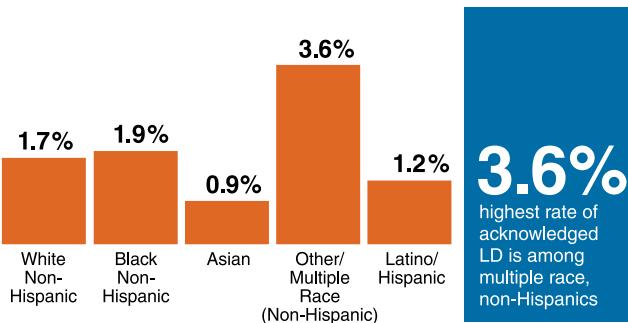


## Minority

Unlike school-reported data showing higher rates of LD among blacks and Hispanics, U.S. Census survey-based data reveal little differences between whites, blacks and Hispanics.

- The highest rate of LD is reported among the multi-race (non-Hispanic) population.
  - The lowest rate of LD is reported among Asians.
- ! The relatively comparable rate of reported LD among whites, blacks and Hispanics suggests the possibility of inappropriate rates of identification among school-age children.

### Prevalence of Learning Disabilities by Race/Ethnicity



## Criminal Justice System Involvement

One in two young adults with LD reported having some type of involvement with the criminal justice system within eight years of leaving high school. One in three have been arrested.

! The available information on the prevalence of LD in the U.S. population provides evidence that LD affects individuals across the lifespan, with particularly high occurrence among those living in poverty. These struggles associated with poverty are likely factors in the high rate of involvement with the criminal justice system.

### Young Adults With LD: Involvement in Criminal Justice System



## Postsecondary Education

- **Sixty-seven percent of young adults** with LD report enrollment in some type of postsecondary education within eight years of leaving high school, the same as the general population.
- **Young adults with LD attend two-year or community college at more than double** the rate of the general population.
- **Young adults with LD attend four-year colleges at half the rate** of the general population.
- Only **one in four (24 percent)** of young adults who received special education services in high school **considered themselves to have a disability** and inform the school of their need for services in postsecondary education settings.
- Young adults who received special education services in high school **may have difficulty satisfying the documentation requirements** for supports and services in postsecondary education.
- Only **17 percent of young adults with LD received accommodations and supports** in postsecondary education because of their disability, compared to 94 percent in high school.
- The **college completion rate for young adults with LD is 41 percent**, compared to 52 percent in the general population.
- **Cost is the most frequent reason why young adults with LD leave postsecondary education.** Few leave because they didn't receive needed services.

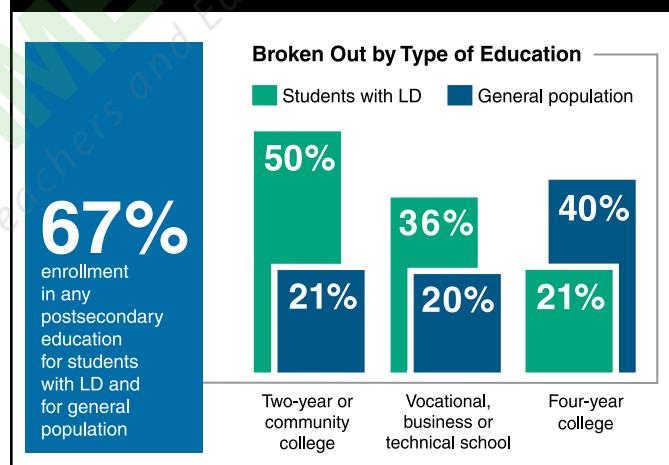
## Enrollment in Postsecondary Education

The rate of enrollment in postsecondary education within eight years of leaving high school shows that students with LD are:

- attending postsecondary education at the same rate as the general population
- attending a two-year or community college at a rate more than double the general population
- attending vocational, business or technical school at a higher rate (36 percent) than the general population (20 percent)
- attending a four-year college at a rate almost half (21 percent) that of the general population (40 percent)

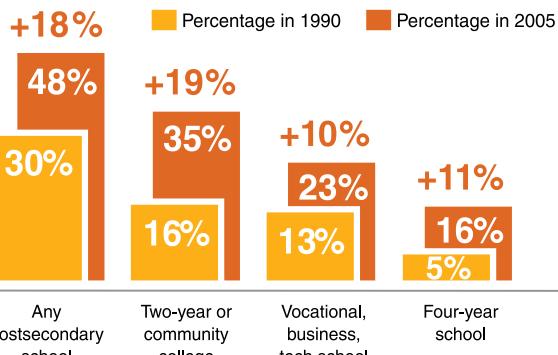
### Enrollment in Postsecondary Education

(Up to Eight Years After High School)



## Change in Postsecondary Enrollment Between 1990 and 2005 of Young Adults With LD

### Broken Out by Year



## Change Over Time

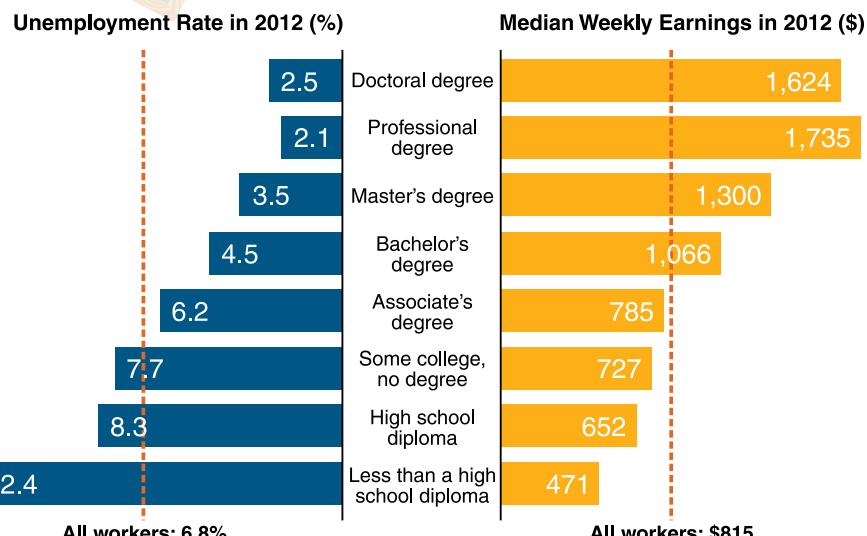
The National Longitudinal Transition Studies provide information on the change in outcomes of young adults with LD between 1990 and 2005.

The rate of postsecondary education enrollment increased significantly over those 15 years. During the same period, the percentage of adults in the general population who had enrolled in any postsecondary education went from 54 percent to 63 percent, an increase of 9 percent, or half the increase for students with LD.

The benefit of education is abundantly clear from this information provided by the Bureau of Labor Statistics. The unemployment rate of those with less than a high school diploma is over 12 percent—almost double that of all workers. The median weekly earnings of \$471 is slightly more than half that earned by all workers as a group.

Given their lower rates of high school graduation and college completion, those with LD will be disproportionately affected by the impact of education on unemployment and earning.

## Education Pays: Comparing Education, Employment and Income



## Disclosing Disability and Receiving Assistance in Postsecondary School

The vast majority of young adults who received special education services for LD in high school did not consider themselves to have a disability within eight years of leaving high school.

The percentage of young adults who did not consider themselves to have a disability increased with time.

- Within two years of leaving high school, half (52 percent) did not consider themselves to have a disability.
- That number increased to 69 percent after eight years, suggesting that the longer a young adult is out of high school, the less likely they are to consider themselves to have a disability, to disclose the disability and to request assistance and accommodations from their postsecondary school.

! A small percentage of young adults with LD who considered themselves to have a disability, disclosed their disability to the school and received accommodations and supports. The lack of disclosure by a majority of students likely has a negative impact on college completion. In sharp contrast, 94 percent of students with LD received some type of accommodation or support during high school. Among those who never received any help with schoolwork, 44 percent thought that some assistance would have been helpful. Youth with LD, their parents and teachers need to understand the implications of not disclosing their disability at the postsecondary level.

### Young Adults With LD in Postsecondary School: Disability Disclosure and Receipt of Accommodations

Within eight years of leaving high school

**69%** Did not consider themselves to have a disability

**24%** Considered themselves to have a disability and informed school

**7%** Considered themselves to have a disability but did not inform school

**17%** Received accommodations and supports because of a disability

**43%** Received help with schoolwork from school

**33%** Got help on their own

**52%**

of young adults with LD did not consider themselves to have a disability within two years of leaving high school. This percentage increased over time.

**44%**

of students with LD who never received help with schoolwork thought that some assistance would have been helpful

## 2011 MetLife Survey of the American Teacher

This survey looked at differences in student needs, how teachers address them and how well students feel their needs are being met.

The survey found that learning-challenged students (students who had been told they had learning problems, a learning disability or ADHD):

- place the same importance on a college education as other students
- have lower aspirations regarding their own postsecondary education
- have less confidence that they will achieve their goals for the future
- were less likely to have received support or guidance from teachers and school counselors about how to prepare for college

## Documentation Requirements

Young adults with LD often find themselves unable to access a postsecondary institution's disability support services with assessment information used to determine eligibility for services in high school. Difficulties include:

- There is no requirement for high schools to conduct or update evaluations in order to generate appropriate documentation needed (e.g., tests that are standardized for use with adult populations) by postsecondary institutions or employment settings.
- There is a lack of uniformity across colleges and universities in determining whether an individual qualifies as a person with a disability under Section 504 or Title II of the ADA and is therefore eligible to receive services and accommodations.
- There is a lack of consistency across postsecondary education settings regarding the supports and services available to students with documented LD, making it challenging for students to identify institutions that will provide appropriate services.

Recently updated regulations to the Americans with Disabilities Act (effective March 15, 2011) sought to address these issues. These regulations require that:

- Any request for documentation of a disability, if such documentation is required, is reasonable and specific to the need for the modification, accommodation or auxiliary aid or service requested.
- Considerable weight is given to documentation of past modifications, accommodations, or auxiliary aids or services such as a student's Individualized Education Program (IEP) or a 504 plan.

## Completion

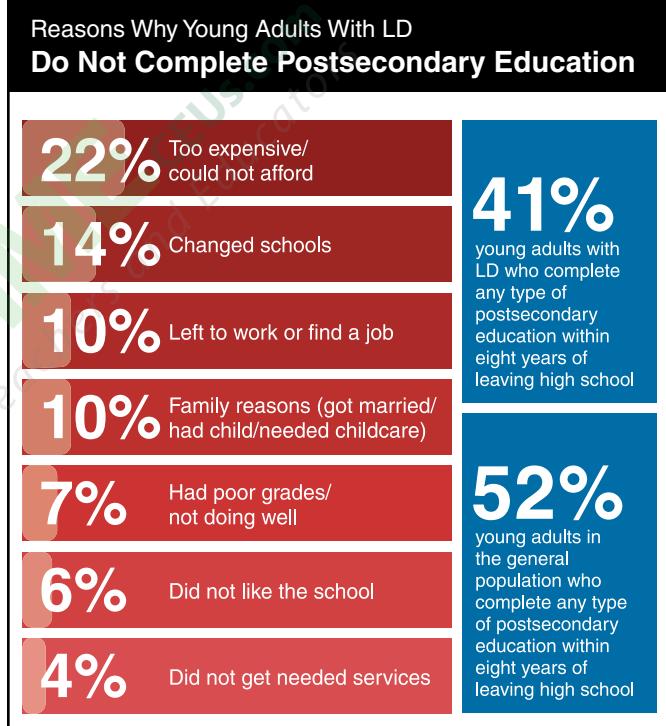
Forty-one percent of young adults with LD (within eight years of leaving high school) complete any type of postsecondary education compared to a completion rate of 52 percent for the general population.

- Completion rates are highest for:
  - two-year or community college (41 percent versus 22 percent)
  - vocational/technical schools (57 percent versus 64 percent)
- Completion rates are lowest for:
  - four-year college (34 percent versus 51 percent)

## Reasons for Not Completing

Cost was the most frequent reason young adults with LD cited for not completing postsecondary school.

! The number one reason young adults with LD do not complete postsecondary education—affordability—doesn't differ from the general population. Interestingly, not getting needed services was a relatively insignificant factor in non-completion. In contrast, almost half (44 percent) of students who didn't receive extra help with schoolwork reported that such help would have been beneficial.



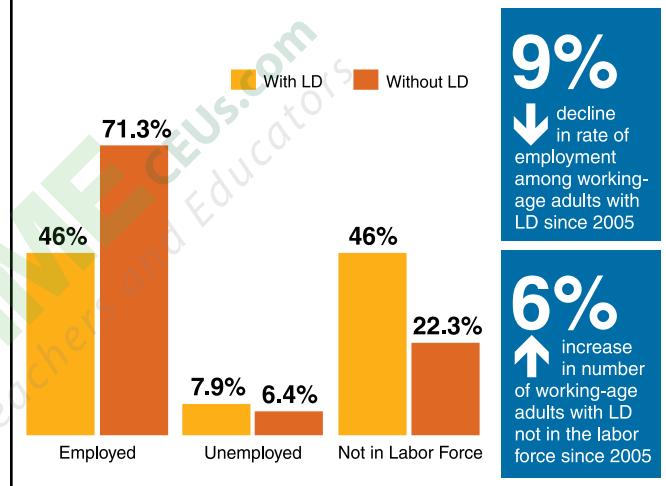
## Employment

- **46 percent of working-age adults with LD report being employed** while **8 percent report being unemployed.**
- **Nearly half—46 percent—report not being in the labor force,** the same percentage as those employed.
- **The vast majority—92 percent—had annual incomes of less than \$50,000 within eight years of leaving high school.** Sixty-seven percent earned \$25,000 or less.
- **Only 19 percent of young adults with LD** reported that their employers were aware of their disability.
- **Only 5 percent of young adults with LD** reported that they were receiving accommodations in the workplace.
- **Individuals with LD seek assistance from Vocational Rehabilitation agencies,** comprising the largest number of consumers.

## Labor Force Status

- The rate of employment among working-age adults with LD declined from 55 percent in 2005 to 46 percent in 2010.
- Unemployment among working-age adults with LD rose from just under 6 percent to 8 percent.
- Working-age adults with LD not in the labor force rose significantly from 40 percent to 46 percent.

**Employment Status of Working Age Adults: 2010** With and Without LD (Ages 18–64)



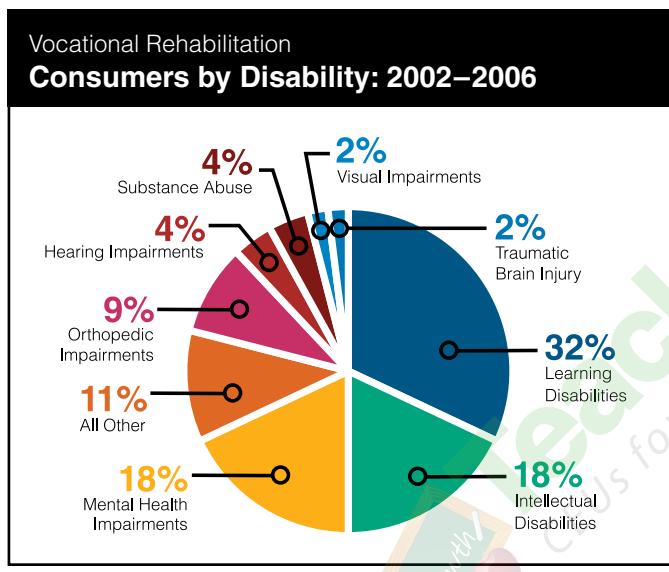
## Disclosure and Job Accommodations

Few young adults with LD (19 percent) reported that they have employers who are aware of their disability—the lowest rate of all disability categories. Fewer than one in 20 reported receiving accommodations in the workplace.

**!** This low rate of disclosure in the workplace suggests that too few adults with LD take advantage of the rights afforded to them under the Americans with Disabilities Act (ADA). This was confirmed by a 2003 study that found that over two-thirds of adults with LD had never heard of the ADA or were not confident enough to use it to secure needed accommodations that they were entitled to and that they knew could help them perform tasks required of them on the job.

## Vocational Services

- Some adults with LD turn to Vocational Rehabilitation (VR) agencies for assistance—one of the publicly funded agencies required to serve people with disabilities. The VR agencies provide a wide range of services designed to help individuals with disabilities prepare for and engage in gainful employment.
- From 2002–2006 individuals with LD comprised the largest group of VR consumers.
- Thirty-two percent of transition-age youth ages 16–25 served by VR had LD.



## Increasing Employment of People With Disabilities

Significant efforts are underway to improve employment of adults with disabilities in the U.S. Among these are:

- New federal regulations announced by the U.S. Department of Labor establishes a nationwide goal for federal contractors and subcontractors that 7 percent of each job group in their workforce be qualified individuals with disabilities. The regulation also details specific actions contractors must take in the areas of recruitment, training, record keeping and policy dissemination—similar to those that have long been required to promote workplace equality for women and minorities. More information is available at [dol.gov/ofccp/regs/compliance/section503.htm](http://dol.gov/ofccp/regs/compliance/section503.htm).
- The National Governors Association (NGA), led by a yearlong project of 2012–2013 NGA Chair, Governor Jack Markell, recently released a blueprint of findings and recommendations to increase hiring of people with disabilities. The document provides a roadmap for states, businesses and the disabilities community to work together on ways to address a persistent challenge and take advantage of the valuable skills possessed by this population. The blueprint is available at [governor.delaware.gov/docs/NGA\\_2013\\_Better\\_Bottom\\_Line.pdf](http://governor.delaware.gov/docs/NGA_2013_Better_Bottom_Line.pdf).

# Emerging Issues

There are many issues that affect the well-being of individuals with LD for which there are insufficient information and data. In some instances the information that does exist is based on studies done too long ago to be meaningful today. In other cases, different types of data were collected, making it impossible to compare information sets in meaningful ways. Some of the available data are based on research done with populations that are sufficiently different as to prevent researchers from drawing meaningful conclusions. And in still other cases, the issues being investigated are sufficiently new (e.g., online and blended learning) that work is just beginning on determining what is most meaningful to measure and how the data can best inform policy and practice.

This section addresses several important issues for which more reliable data are urgently needed, since each issue poses opportunities and challenges for students with LD.

## Response to Intervention

The emergence and rapid expansion of Response to Intervention (RTI) raises several questions for students, parents, educators and policymakers. Data from the 2011 Response to Intervention Adoption Survey indicate that some level of RTI is now being used in the majority of schools, districts and states as a way to identify and address learning, attentional and behavioral issues. Several important issues need to be addressed, including the use of RTI as part of an LD identification process.

### Adoption of Response to Intervention

Data from the Response to Intervention Adoption Survey (Spectrum K12/CASE, 2011) indicate that 94 percent of schools reported implementing some level of RTI in 2011 (up from 72 percent in 2009), 24 percent reported “full implementation” (up from 12 percent in 2009) and 44 percent reported that they were in the process of district-wide implementation (up from 28 percent in 2009). Sixty-six percent of schools reported using RTI as part of the process for determining eligibility for special education (up from 41 percent in 2010).

**Opportunities.** A significant revision made to IDEA federal regulations in 2006 regarding procedures for LD identification allows states to make dramatic changes to the manner in which, for decades, LD had been identified, bringing about needed innovation to a “discrepancy-based” process that has been widely discredited. Requiring that states allow for the use of RTI as part of LD identification has spurred positive movement in the field of education. The impact could result in more timely identification of students who struggle and fewer minority students being inappropriately referred for evaluation and considered for special education eligibility.

**Challenges.** IDEA federal regulations governing LD identification procedures lack clarity and specificity regarding the use of RTI. According to one recent study of state-level guidance, this has resulted in a “fluid and complicated landscape of policy and recommended practices in regard to LD,” with “no national consensus on how to use RTI data as part of LD identification.” Clear missteps in the adoption of RTI and its use in the LD identification process in some states and local districts have already drawn action from the U.S. Department of Education’s Office of Special Education Programs (OSEP), which, in January 2011, issued a Memorandum to states telling them that schools cannot use the RTI process to delay or deny an evaluation.

### **More information needed on this issue includes:**

- implementation guidelines to inform and standardize RTI as part of the LD identification process
- ongoing research to validate precise and effective methods of identifying LD within RTI environments
- systematic state and federal data collection procedures that accurately reflect the numbers of students being found eligible for services under IDEA in RTI settings
- how and to what extent students who are both gifted and who have LD are being identified and served through RTI
- specific data about the characteristics of students determined to have LD under improved procedures, including RTI, and their trajectory through school and during periods of transition between grades and into postsecondary environments

### **Learn more about this issue:**

The RTI Action Network provides information on LD identification at [rtinetwork.org/learn/ld](http://rtinetwork.org/learn/ld).

*The Nexus of Response to Intervention (RTI) and the Identification of Specific Learning Disabilities (SLD): Guidelines for District-Level Implementation, Urban Special Education Leadership Collaborative (2013)*, available at [urbancollaborative.org/publications/research-brief-response-intervention-rti-and-identification-specific-learning-disabilit](http://urbancollaborative.org/publications/research-brief-response-intervention-rti-and-identification-specific-learning-disabilit).

*Memorandum to State Directors of Special Education Regarding Use of Response to Intervention Process*, U.S. Department of Education, Office of Special Education Programs, available at [rti4success.org/resource/memo-response-intervention-rti-process-cannot-be-used-delay-deny-evaluation-eligibility](http://rti4success.org/resource/memo-response-intervention-rti-process-cannot-be-used-delay-deny-evaluation-eligibility).

## **Common Core State Standards and Assessments**

Common Core State Standards (CCSS) have been developed by the National Governors Association Center for Best Practices and the Council of Chief State School Officers. Currently the CCSS have been formally adopted by 45 states and the District of Columbia with the remaining states adopting standards more rigorous than their existing state standards.

The CCSS are designed to be robust and relevant to the real world, providing a consistent, clear understanding of what students across the country are expected to learn. The standards promote equity, applying to all students regardless of their location, race, ethnicity, disability status or English language proficiency.

For many states and districts, implementing the CCSS in lieu of their existing academic standards will require a significant boost in rigor. And this clearly has enormous implications for students with LD and related learning difficulties and disorders.

Assessments aligned with the CCSS are being developed by two federally funded consortia of states, the Partnership for Assessment of Readiness for College and Careers

(PARCC) and the Smarter Balanced Assessment Consortium (Smarter Balanced). The assessments have begun field testing during the 2013–2014 school year and will be fully implemented in the 2014–2015 school year. The consortia are also required to develop accommodation policies for students with disabilities, and it will be important to monitor how these accommodations are being granted and whether they are indeed providing the right kinds of supports for students with LD.

**Opportunities.** For students with LD who receive special education services and supports, the widespread adoption of the CCSS should accelerate a practice that links the development of a student's Individualized Education Program (IEP) directly to grade-level standards—a process known as "standards-based IEPs."

Aligning IEP goals with the skills needed to be proficient on the CCSS for a student's enrolled grade level is critical to bolstering the intensity of instruction that will be necessary for students with LD to be successful in these new, more rigorous standards.

The CCSS-aligned assessments will encompass significant advances in assessment, incorporating universal design principles and embedded supports and enhancements, thereby eliminating the need for many of the different types of traditional accommodations that are currently used on pencil-and-paper tests. These advances will certainly provide improved access (opportunities to demonstrate knowledge without the constraint of a disability) for all students, including those with disabilities.

**Challenges.** Ensuring that students with LD have access to the general education curriculum aligned to the CCSS will require significant retooling of practices within general and special education. Heightening expectations, sharing ownership, improving collaboration and providing professional development for teachers are among the essential elements needing attention.

## More information needed on this issue includes:

- data that capture how students with LD perform on CCSS assessments and ways to compare student outcomes in states using new assessment systems
- data to reflect whether students who are entitled to accommodations receive them for all or part of their test administration
- data on students' preferences for embedded supports
- data on student access and opportunity to become familiar with testing platforms and technology
- data on the adoption and implementation of standards-based IEPs

## Learn more about this issue:

Information about the Common Core State Standards, including the application of the CCSS to students with disabilities, is available at [corestandards.org](http://corestandards.org).

Information on the state assessment consortia developing assessments aligned to the CCSS is available at [k12center.org/publications/assessment\\_consoritia.html](http://k12center.org/publications/assessment_consoritia.html).

The International Center for Leadership in Education paper *Fewer, Clearer, Higher Common Core State Standards: Implications for Students Receiving Special Education Services* (2011) provides helpful information on CCSS and students with disabilities and is available at [leadered.com/pdf/Special%20Ed%20&%20CCSS%20white%20paper.pdf](http://leadered.com/pdf/Special%20Ed%20&%20CCSS%20white%20paper.pdf).

*Parent Advocacy Brief: Understanding the Standards-based IEP* by the National Center for Learning Disabilities, provides an overview of this important approach to aligning IEP goals to academic standards and is available at [LD.org/UnderstandingStandardsIEP](http://LD.org/UnderstandingStandardsIEP).

## Online Learning

Online learning—education in which instruction, content, knowledge and skill acquisition are mediated primarily by network technologies such as the internet—is now a common mode of instruction in nearly all of the nation’s schools. In fact, some states have mandated that students complete at least one online course as a requirement for high school graduation.

**Opportunities.** The versatility and flexibility of online learning provides opportunities for students with LD not available in traditional school settings. For example, the pace and presentation of instruction can be customized on a student-by-student basis, providing truly personalized and individualized instruction for students with LD. It can also provide a platform for continued services during out-of-school time that arises because of disciplinary removals.

**Challenges.** The Center on Online Learning and Students With Disabilities has raised a list of early concerns regarding the participation of students with disabilities in new online learning environments. Given the rapid expansion of online learning offerings and requirements, it is critical to quickly and adequately address the issues that might impose limitations for students with disabilities.

### More information needed on this issue includes:

- data to reflect how many students with LD are enrolled in online and blended learning courses, whether these types of learning opportunities result in improved mastery of skills and course content, and whether knowledge and skills generalize to real-life situations
- data to inform ways that ensure students with LD can participate fully in the social and behavioral demands of online learning
- data to inform the creation of procedures and systems to ensure that online learning activities for students with LD are structured in ways that can be managed and supported by educators (or parents) without compromise to students’ rights under federal law
- data to ensure that students with LD, and with other disabilities, are not inappropriately assigned to online learning in lieu of traditional classroom settings

### Learn more about this issue:

Center on Online Learning and Students With Disabilities’ *Open Letter Concerning Participation in Online Learning* (2012), which outlines many concerns, is available at [centerononlinelearning.org/an-open-letter-from-don-deshler-bill-east-and-david-rose-principal-investigators-diana-greer-project-director](http://centerononlinelearning.org/an-open-letter-from-don-deshler-bill-east-and-david-rose-principal-investigators-diana-greer-project-director).

### Online Learning by the Numbers

According to the Keeping Pace With K-12 Online and Blended Learning website:

- State virtual schools exist in **27 states** as of fall 2012.
- State virtual schools had about **620,000 course enrollments** in 2011–12.
- **Thirty-one states** plus Washington, DC, have at least one full-time online school operating statewide.
- About **275,000 students** attend full-time online schools.

## Accessible Instructional Materials

Accessible Instructional Materials (AIM) are specialized formats of curricular content designed for use by print-disabled learners. They include formats such as braille, audio, large-print and electronic text. In 2004 important new provisions were added to IDEA to improve the production and delivery of AIM for blind students and other students with print disabilities, including those with LD.

**Opportunities.** The 2004 IDEA provisions established a requirement for all states to adopt the National Instructional Materials Accessibility Standard (NIMAS) and to facilitate delivery of materials through the National Instructional Materials Access Center (NIMAC) or another entity.

**Challenges.** The eligibility criteria for students with print disabilities to access AIM through the NIMAS/NIMAC process is outdated and overly restrictive. As a result, it is likely that many students with LD are not being provided AIM despite clear evidence that they would benefit educationally from such materials.

### More information needed on this issue includes:

- data to capture how many students with LD are currently accessing these types of materials (e.g., books on tape, texts in digital formats)
- data to capture how many students with LD, and with other disabilities, are being denied access to AIM due to current regulatory restrictions
- data on specific types of roadblocks being encountered, at different ages/grade levels, including policies and practices inhibiting access
- information on innovative ways that schools are providing access to AIM for all students in need

### Learn more about this issue:

An overview of issues concerning AIM and students with LD, *Accessible Instructional Materials: Ensuring Access for Students With Learning Disabilities* (2010), from the National Center for Learning Disabilities is available at [LD.org/AIMEEnsuringAccess](http://LD.org/AIMEEnsuringAccess).

Additional information about AIM, NIMAS and NIMAC is available from the National Center on Accessible Instructional Materials at [aim.cast.org](http://aim.cast.org).

## Charter Schools

Charter schools are designed to offer choice and opportunity for students within the public school system. According to the National Alliance for Public Charter Schools, there are more than 6,000 charter schools across 42 states and the District of Columbia educating more than two million children.

**Opportunities.** Many parents of students with LD find charter schools to be highly desirable because of their ability to pay close attention to curriculum, individualize instruction and provide an inclusive approach to teaching all students. Charters are required to follow all federal laws relating to students with disabilities, including that they ensure equal access and availability of special education and related services to students with identified needs.

**Challenges.** Several studies have identified an underrepresentation of students with disabilities among charter school enrollees, indicating a lack of equity for this group of students. Unanswered questions remain about recruitment and retention of students with disabilities, including those with LD, in charter school settings. Additionally, little is known about different charter school models and their success at addressing the learning and behavioral needs of students with LD. This issue has gained public scrutiny in recent years, indicating progress is being made in ensuring equal access and addressing the various problems associated with educating students with disabilities.

## More information needed on this issue includes:

- data on the number and percentage of students with LD attending charter schools
- data on performance outcomes of students with LD in charters compared to those in traditional public schools
- data on policies and procedures that might limit access to charters by students with LD, including guidelines for discipline and “counseling out” of charter settings

### Learn more about this issue:

The information brief *Charter Schools and Students With Learning Disabilities*, from the National Center for Learning Disabilities (2010), is available at [LD.org/CharterSchoolsLD](http://LD.org/CharterSchoolsLD).

A comprehensive report on charter schools and students with disabilities, *Improving Access and Creating Exceptional Opportunities for Students With Disabilities in Public Charter Schools*, is available from the National Center for Special Education in Charter Schools at [ncsecs.org/improving-access-and-creating-exceptional-opportunities](http://ncsecs.org/improving-access-and-creating-exceptional-opportunities).

Information on how charter schools can fulfill their obligations under IDEA, provided by the National Charter School Resource Center, is available at [charterschoolcenter.org/priority-area/special-education-0](http://charterschoolcenter.org/priority-area/special-education-0).

## School Vouchers

School voucher programs are designed to provide students with a fixed dollar amount per year to attend the school of their choice. Many states now offer school voucher programs specifically for students with disabilities.

**Opportunities.** School voucher programs are intended to expand choices for parents and students. In many cases, a voucher program can allow students with disabilities to access a private school designed specifically to serve this population.

**Challenges.** Families using school vouchers typically must relinquish all rights under IDEA, including entitlement to an Individualized Educational Program (IEP) and education in the Least Restrictive Environment (LRE). Additionally, students with disabilities attending private schools by means of a voucher are not included in state assessments, resulting in little or no information about their academic performance.

## More information needed on this issue includes:

- data on the number of students with LD accessing school vouchers to attend private schools
- data on the performance of students with LD attending private schools through voucher programs as compared to students with LD in public schools

### Learn more about this issue:

“Voucher Programs” issue brief, National Center for Learning Disabilities, provides an overview of several issues and is available at [LD.org/VoucherPrograms](http://LD.org/VoucherPrograms).

Information on all existing voucher programs, provided by the American Federation for Children, is available at [federationforchildren.org/existing-programs](http://federationforchildren.org/existing-programs).

## Juvenile Justice

Compared to the prevalence of LD in the general population, a disproportionately high rate of adjudicated and incarcerated juveniles are identified as having disabilities, including LD. One study found that at least 37 percent of incarcerated youth were eligible for services under IDEA.

While information about the types of disabilities most commonly found among youth in correctional facilities is limited, a 2002 study estimated that 10 percent had specific learning disabilities and as many as 50 percent had attention deficit/hyperactivity disorder (ADHD). Another significant percentage of those in the criminal justice system were described as “undereducated” and found to have had exceedingly low literacy skills. The overall youth recidivism rate within 12 months of release from a correctional facility was approximately 55 percent, and even worse for those with disabilities.

**Opportunities.** Recent years have seen increased attention to the negative impact of strict school discipline policies—such as the expulsion or suspension of students as an automatic consequence of serious acts of misconduct. These policies negatively impact minority students and students with disabilities to a greater degree than other students. Addressing serious behavior problems early and effectively is essential to keeping students with disabilities in school and on a path to completion, significantly reducing the risk of involvement with the juvenile justice system. The Office for Civil Rights at the U.S. Department of Education has begun collecting data on discipline of students with disabilities in order to identify schools and districts where disciplinary actions disproportionately impact these students.

To reduce recidivism rates, reentry programs to assist released offenders with successful transitions must be in place for all youth with disabilities. One study found that youth with disabilities who had jobs or attended school during the first six months following release were 3.2 times less likely to experience recidivism and 2.5 times more likely to remain employed and/or enrolled in school one year after exiting correctional facilities. Innovative and effective reentry programs need to be identified and replicated across states.

**Challenges.** The overrepresentation of youth with disabilities in correctional facilities is consistently associated with school failure, marginal literacy, poorly developed social skills and inadequate school and community supports.

Providing special education services to youth with disabilities in correctional facilities is difficult, often resulting in grossly inadequate services. States are only required to serve students who had special education eligibility at the time of incarceration. Additionally, under current IDEA “child find” requirements, states need not identify any new special education cases among persons (aged 19–21) who are incarcerated. This limitation, added to IDEA in 1997, significantly limits the rights of young adults with unidentified disabilities once they enter the criminal justice system.

There is an urgent need for new information on the prevalence of educational disabilities such as LD among young offenders.

### More information needed on this issue includes:

- procedures to capture data about the involvement of youth with disabilities in the juvenile justice system
- data on the provision of special education and related services to youth who enter the juvenile justice system with IDEA eligibility
- data to inform the types of training needed by school and law enforcement personnel
- data about successful models of intervention and support that decrease the incidence of recidivism and increase the likelihood of successful reentry into school and employment

### Learn more about this issue:

Information on the school-to-prison pipeline, provided by the American Civil Liberties Union, is available at [aclu.org/school-prison-pipeline](http://aclu.org/school-prison-pipeline).

# Conclusions

While learning disabilities affect millions of Americans across the age span, the number of identified individuals is most easily determined for school-age children and, to a lesser extent, college-age adults. Studies indicate that few adults identify themselves as having LD, making it difficult to ascertain just how such individuals are faring in key areas such as higher education, employment status and earnings.

The decline in the numbers of school-age children being identified with LD over the past decade appears to be the result of multiple factors, including a better understanding of reading acquisition and efforts to provide intervention activities before a special education eligibility determination is made. Also related to this decline may be changes in the LD identification process in special education law and regulations as well as in school-based practice. Change in the rate of LD identification during the past 10 years has varied across states, perhaps a reflection of the many different approaches being implemented. These trends must be carefully watched to help inform both practice and policy.

Despite a decline in the number of school-age children reported to have LD, it remains the largest category of students served by special education (42 percent). Those identified continue to be largely male (66 percent), disproportionately poor and, to some degree, from minority groups. Students with LD also continue to experience disciplinary actions at a much higher rate than those without LD and encounter difficulties in school and other settings as a result of inappropriate behavior and conduct.

While an increasing percentage of students with LD are receiving most of their instruction in general education classrooms, it is difficult to determine if this results in positive academic achievement. The performance of students with disabilities (including those with LD) on measures of reading and math continues to show little improvement.

Improving the graduation rate of students with LD and reducing the drop-out rate are among the many pressing issues for this group. Given all that is known about the detrimental and lifelong effects of dropping out, efforts to implement effective drop-out prevention programs and early warning systems that help schools identify and intervene with high-risk students should be a top priority in the nation's high schools.

To better facilitate moving successfully from school to college and careers, transition planning needs to be improved. A key provision of IDEA, transition planning activities must become a greater priority, with increased input from parents, and more direct involvement by students. Transition planning must reflect the post-high school goals of students in meaningful ways, and individuals from other agencies must be more frequently involved in transition planning for students with LD, particularly disability support services personnel in colleges and universities.

The current level at which young people with LD access and succeed in postsecondary education is unacceptably low. The unemployment rate of Americans with only a high school diploma is twice that of those with a bachelor's degree; their weekly earnings are almost half.

Adding to these pressing problems is the emergence of a host of new issues confronting those with LD, including significant changes in how LD is identified, increased rigor of academic standards in our nation's schools and a rapidly expanding variety of ways to access education. All of these issues will need attention to ensure equal opportunities for students with LD and to assure that the rights of those with LD are upheld.

Research efforts such as the National Longitudinal Transition Studies have provided a wealth of information that can be used to improve instruction, impact academic achievement and enhance post-school outcomes for students with LD. Surveys such as those conducted by NCLD, with the support of NCLD and others in the field and by the Tremaine Foundation continue to further our understanding of the public's perception of and attitudes toward LD. On the horizon is a new large-scale study, the National Longitudinal Transition Study 2012, which will provide up-to-date information on youth with LD. Examining all of these data will help map future needs and opportunities for providing necessary services and supports to individuals with LD, their families and their school-based and workplace communities.

Looking only at data about the incidence, prevalence and reported outcomes of individuals with LD, this report does not delve into the issue of neurodiversity as a lens through which to understand the LD experience. Neuroscientists and other clinical and educational professionals have recently begun discussing ways that having LD (e.g., dyslexia) might be advantageous for certain types of information processing, and highly successful individuals with LD and ADHD have publicly disclosed their struggles and successes, pointing to the importance of self-awareness, perseverance and self-advocacy for those in need of hope and encouragement. Examining the data as well as the values, strengths and talents of those with LD is critical to helping create opportunities for them to achieve success and satisfaction in school, at work, at home and in the community.

As the nature of LD continues to be better understood and the particular needs of those with these neurological differences are better defined, success in all aspects of life should become more achievable for a larger number of Americans with LD. It is important to consider the well-being of individuals with LD as society changes, school transformation efforts are implemented, instructional technologies are adopted and assistive technologies are introduced. Each of these will influence the reality of individuals with LD, and the implications for research, practice and public policy must be considered from the perspectives of those who live with LD in an increasingly complex world.

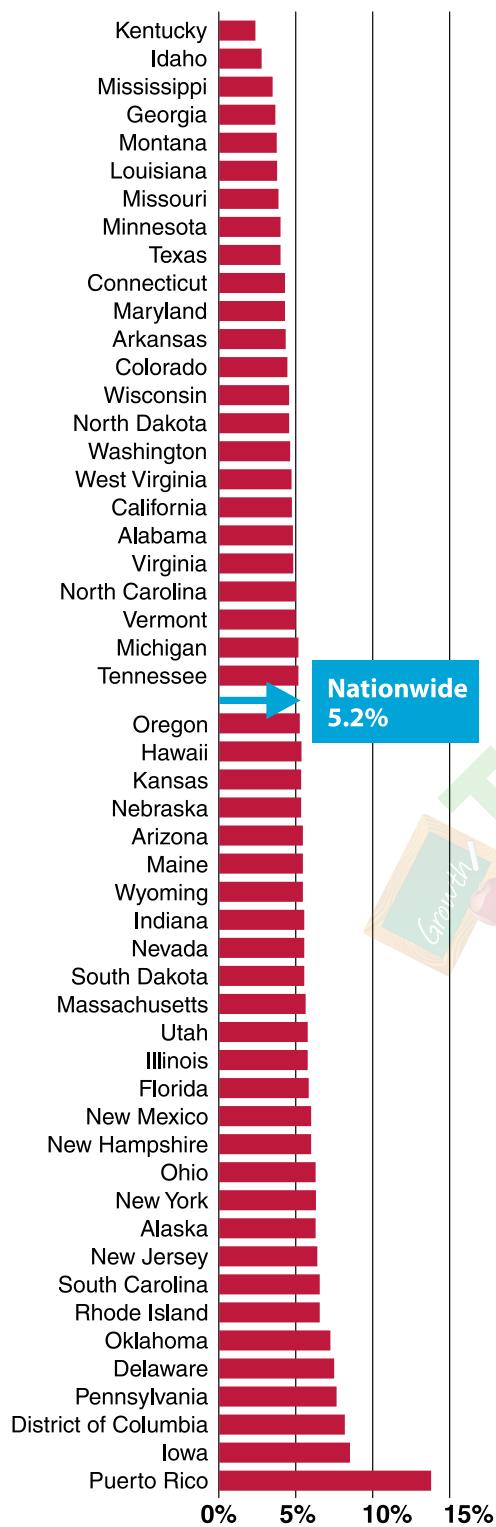
**Table 1: State-by-State Change in LD Identification Rates, 2006–2011**

- State had an increase in students with SLD between 2006 and 2011.
- State had larger decline in students with SLD between 2006 and 2011 than nationwide decline.
- State has higher SLD percentage of total student enrollment than nationwide percentage.
- State has higher SLD percentage of total special education than nationwide percentage.

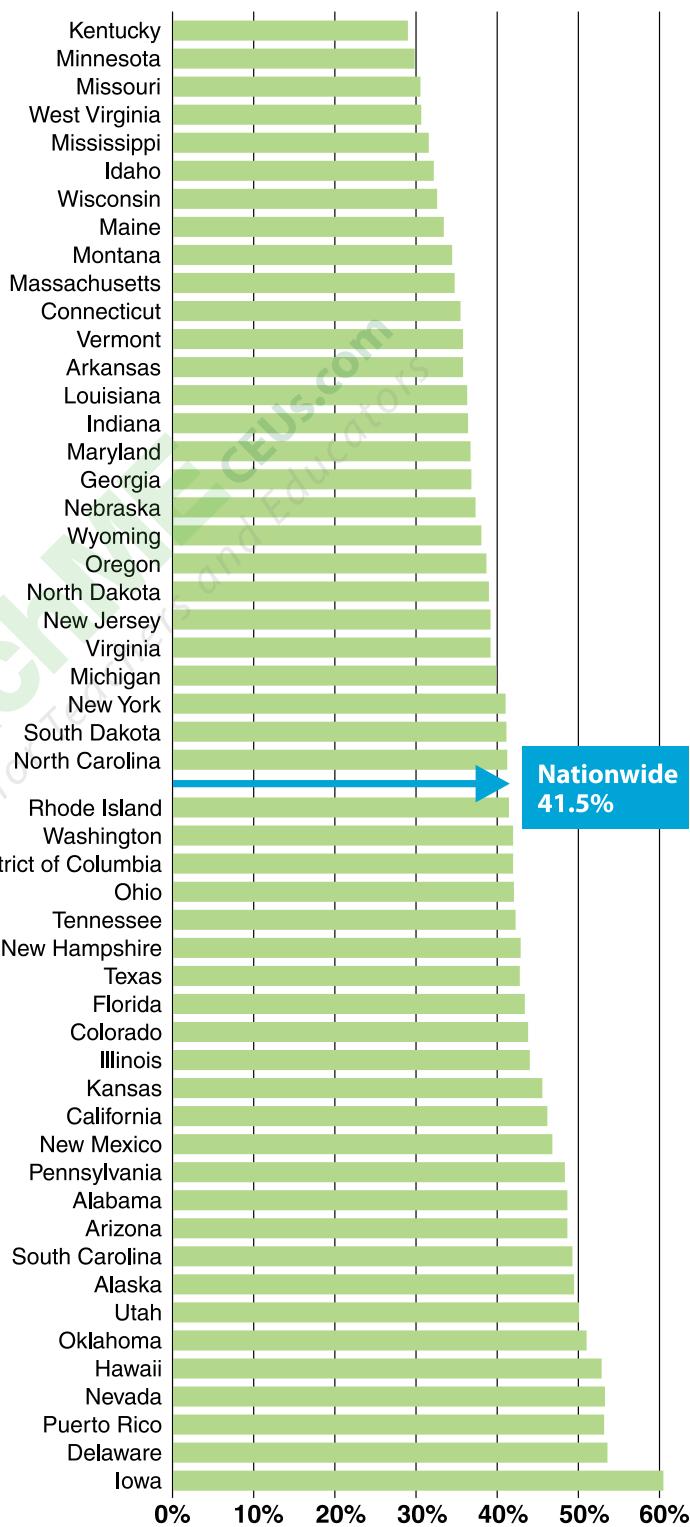
State	Number of SLD students		Percent of change in number identified as SLD 2006-2011	SLD percent of state's total student enrollment 2011	SLD percent of state's total special ed (ages 6-21) 2011	State's percent of all students with SLD 2011
	2006-2007	2011-2012				
Alabama	40,509	33,618	-17.0%	4.9%	48.1%	1.4%
Alaska	7,545	7,407	-1.8%	6.2%	49.7%	0.3%
Arizona	59,076	52,790	-7.9%	5.4%	48.2%	2.2%
Arkansas	22,568	18,377	-18.6%	4.3%	35.7%	0.8%
California	303,042	277,827	-8.3%	4.8%	45.9%	11.8%
Colorado	29,996	32,981	9.9%	4.4%	44.0%	1.4%
Connecticut	22,960	21,023	-8.4%	4.2%	34.9%	0.9%
Delaware	9,297	8,764	-5.7%	7.4%	53.6%	0.4%
District of Columbia	4,987	4,522	-9.3%	8.1%	42.0%	0.2%
Florida	176,939	140,880	-20.4%	5.9%	43.8%	6.0%
Georgia	54,387	55,481	2.0%	3.7%	36.5%	2.4%
Hawaii	9,061	8,509	-6.1%	5.3%	52.9%	0.4%
Idaho	10,447	6,960	-33.8%	2.8%	31.6%	0.3%
Illinois	140,798	108,297	-23.1%	5.8%	44.3%	4.6%
Indiana	62,187	52,681	-15.3%	5.5%	36.1%	2.2%
Iowa	36,972	36,546	-1.2%	8.5%	60.4%	1.6%
Kansas	23,785	22,922	-3.6%	5.3%	45.5%	1.0%
Kentucky	14,408	13,944	-3.2%	2.3%	18.6%	0.6%
Louisiana	27,919	23,386	-16.2%	3.8%	35.7%	1.0%
Maine	10,642	9,223	-13.3%	5.4%	32.7%	0.4%
Maryland	34,845	31,902	-8.5%	4.2%	36.2%	1.4%
Massachusetts	63,974	48,355	-24.4%	5.6%	34.8%	2.1%
Michigan	92,486	72,979	-21.1%	5.1%	39.0%	3.1%
Minnesota	32,385	30,220	-6.7%	4.0%	28.6%	1.3%
Mississippi	27,704	15,205	-45.1%	3.4%	30.4%	0.6%
Missouri	48,041	32,334	-32.7%	3.9%	29.8%	1.4%
Montana	8,368	4,845	-42.1%	3.8%	33.8%	0.2%
Nebraska	14,291	14,021	-19.0%	5.3%	36.6%	0.6%
Nevada	25,203	22,105	-12.3%	5.5%	53.2%	0.9%
New Hampshire	12,996	10,743	-17.3%	6.0%	43.2%	0.5%
New Jersey	100,022	79,454	-20.6%	6.3%	38.4%	3.4%
New Mexico	20,253	18,098	-10.7%	6.0%	46.6%	0.8%
New York	170,959	154,533	-9.6%	6.2%	39.8%	6.6%
North Carolina	63,006	67,177	6.6%	5.0%	41.2%	2.9%
North Dakota	4,377	4,019	-8.2%	4.6%	38.0%	0.2%
Ohio	102,837	98,904	-3.8%	6.2%	42.1%	4.2%
Oklahoma	45,371	40,526	-10.7%	7.2%	50.9%	1.7%
Oregon	28,992	27,087	-6.6%	5.2%	37.7%	0.9%
Pennsylvania	143,318	125,624	-12.4%	7.6%	47.9%	5.3%
Puerto Rico	52,295	60,929	16.5%	13.8%	53.2%	2.6%
Rhode Island	11,835	8,605	-27.3%	6.5%	41.7%	0.4%
South Carolina	46,872	41,981	-10.4%	6.5%	49.4%	1.8%
South Dakota	6,560	6,246	-4.8%	5.5%	40.9%	0.3%
Tennessee	45,866	44,914	-2.1%	5.1%	42.3%	1.9%
Texas	231,900	172,148	-25.8%	4.0%	43.2%	7.3%
Utah	27,601	30,407	10.2%	5.8%	50.1%	1.3%
Vermont	4,097	3,969	-3.1%	5.0%	35.4%	0.2%
Virginia	63,202	55,517	-12.2%	4.9%	38.9%	2.4%
Washington	44,852	44,949	0%	4.7%	41.9%	1.9%
West Virginia	14,936	11,753	-21.3%	4.8%	30.3%	0.5%
Wisconsin	42,850	34,721	-19.0%	4.6%	32.2%	1.5%
Wyoming	4,686	4,382	-6.5%	5.4%	37.3%	0.2%
<b>50 States, DC &amp; PR</b>	<b>2,704,505</b>	<b>2,354,790</b>	<b>-12.9%</b>	<b>5.2%</b>	<b>41.5%</b>	

**Table 2: State-by-State LD Percentage of Total Enrollment and Total Special Education, 2011**

**Percent of total student enrollment**



**Percent of total special education**



**Table 3: State-by-State Race/Ethnicity of Students With LD, 2011**

All Students and Students with Specific Learning Disabilities

State	Group	Hispanic/ Latino (%)	Black/ African American (%)	White (%)	Asian (%)	American Indian/ Alaska Native (%)	Native Hawaiian/ Pacific Islander (%)	Two or more races (%)
Alaska	All Students	5.9	3.7	52.6	6.1	22.6	2.1	7.1
	Students with SLD	7.2	5.0	41.8	3.1	32.3	x	8.1
Alabama	All Students	4.5	34.7	58.5	1.3	0.8	0.0	0.3
	Students with SLD	3.2	46.0	49.3	0.3	0.7	0.0	0.4
Arkansas	All Students	9.5	21.4	65.2	1.4	0.7	0.4	1.3
	Students with SLD	9.1	26.0	62.2	0.3	0.9	0.3	1.3
Arizona	All Students	42.0	5.6	43.0	2.8	5.2	0.2	1.2
	Students with SLD	47.8	6.7	35.1	0.8	8.3	0.1	1.1
California	All Students	51.1	6.8	26.8	11.2	0.7	0.6	2.8
	Students with SLD	59.8	11.3	22.2	3.0	0.9	0.4	2.4
Colorado	All Students	31.0	4.8	57.4	2.9	0.9	0.2	2.7
	Students with SLD	39.3	7.4	47.8	1.1	1.5	0.1	2.8
Connecticut	All Students	18.2	13.2	62.7	4.2	0.4	0.0	1.3
	Students with SLD	24.8	16.9	55.1	1.1	0.4	0.1	1.6
District of Columbia	All Students	12.1	79.2	6.3	1.4	0.1	0.1	0.9
	Students with SLD	10.5	85.9	2.7	0.4	x	x	0.3
Delaware	All Students	12.0	32.5	50.4	3.4	0.5	0.0	1.3
	Students with SLD	13.5	43.9	39.9	0.9	x	x	1.2
Florida	All Students	27.8	22.8	43.4	2.5	0.4	0.1	3.0
	Students with SLD	30.5	25.0	40.7	0.7	0.4	0.1	2.5
Georgia	All Students	11.6	37.3	44.5	3.3	0.2	0.1	2.9
	Students with SLD	14.2	39.9	41.9	1.1	0.3	0.1	2.5
Hawaii	All Students	4.4	2.5	14.2	35.8	0.6	34.1	8.4
	Students with SLD	6.6	3.0	11.2	21.5	x	50.3	6.5
Idaho	All Students	15.7	1.0	78.7	1.3	1.4	0.4	1.5
	Students with SLD	21.8	1.4	71.8	0.4	2.7	x	1.8
Illinois	All Students	22.5	18.5	51.7	4.1	0.3	0.1	2.8
	Students with SLD	25.0	24.5	46.5	1.1	0.5	0.1	2.4
Indiana	All Students	8.2	12.0	73.5	1.6	0.3	0.0	4.3
	Students with SLD	7.6	14.0	73.2	0.3	0.4	0.0	4.4
Iowa	All Students	8.3	5.1	81.8	2.0	0.5	0.1	2.1
	Students with SLD	9.5	8.8	77.0	0.9	0.7	0.1	2.9
Kansas	All Students	15.9	7.5	68.4	2.5	1.3	0.2	4.2
	Students with SLD	18.3	10.9	61.2	1.0	1.8	0.1	6.6
Kentucky	All Students	3.6	10.8	82.5	1.4	0.1	0.1	1.6
	Students with SLD	4.6	12.4	80.6	x	0.3	x	2
Louisiana	All Students	2.5	45.3	48.9	1.5	1.0	0.0	0.9
	Students with SLD	2.2	56.3	39.5	0.4	1.0	0.0	0.6
Maine	All Students	1.4	1.8	92.6	1.1	0.7	0.1	2.4
	Students with SLD	1.8	2.6	92.5	0.7	1.4	0.1	0.9
Maryland	All Students	11.0	35.7	43.6	5.8	0.3	0.1	3.4
	Students with SLD	14.2	45.7	35.6	1.5	0.3	0.1	2.7
Massachusetts	All Students	15.1	8.3	68.5	5.5	0.3	0.1	2.3
	Students with SLD	20.3	10.7	64.7	1.6	0.3	0.1	2.3
Michigan	All Students	5.7	19.1	69.9	2.6	0.8	0.1	1.8
	Students with SLD	7.1	24.5	64.5	0.6	1.2	0.1	2.1
Minnesota	All Students	7.0	9.2	74.2	6.0	1.9	0.1	1.6
	Students with SLD	13.1	14.8	61.6	5.0	3.3	0.1	2.2
Mississippi	All Students	2.4	49.9	46.1	0.9	0.2	0.0	0.4
	Students with SLD	1.9	54.4	42.8	0.2	0.3	0.0	0.3
Missouri	All Students	4.4	17.1	74.9	1.8	0.5	0.1	1.2
	Students with SLD	4.2	21.4	71.8	0.6	0.6	0.1	1.4

**Table 3: State-by-State Race/Ethnicity of Students With LD, 2011 (cont.)**

All Students and Students with Specific Learning Disabilities

State	Group	Hispanic/ Latino (%)	Black/ African American (%)	White (%)	Asian (%)	American Indian/ Alaska Native (%)	Native Hawaiian/ Pacific Islander (%)	Two or more races (%)
Montana	All Students	3.5	1.0	82.0	0.9	11.0	0.3	1.5
	Students with SLD	4.8	0.9	75.3	0.4	16.6	x	1.9
Nebraska	All Students	15.6	6.5	71.4	2.0	1.5	0.1	2.9
	Students with SLD	19.9	9.7	63.5	0.9	2.6	0.1	3.3
Nevada	All Students	38.4	9.9	38.9	6.2	1.3	1.0	4.2
	Students with SLD	41.9	16.0	33.6	1.6	2.3	0.8	3.7
New Hampshire	All Students	3.6	1.9	90.0	2.6	0.3	0.1	1.4
	Students with SLD	4.2	2.6	92.1	0.6	0.4	0.0	0.1
New Jersey	All Students	20.9	16.5	52.9	8.7	0.1	0.2	0.6
	Students with SLD	23.0	20.1	53.9	2.2	0.1	0.1	0.6
New Mexico	All Students	59.3	2.1	26.2	1.3	10.2	0.1	0.9
	Students with SLD	62.2	2.6	20.7	0.4	13.0	0.0	1.0
New York	All Students	22.1	19.1	49.5	8.3	0.5	0.0	0.5
	Students with SLD	28.0	24.2	43.7	2.9	0.7	0.1	0.6
North Carolina	All Students	12.1	26.6	53.5	2.5	1.5	0.1	3.7
	Students with SLD	14.6	32.8	46.7	0.8	1.7	0.1	3.3
North Dakota	All Students	0.1	2.4	84.0	1.1	9.0	0.2	3.1
	Students with SLD	3.8	2.7	81.4	0.3	10.9	x	0.8
Ohio	All Students	3.3	16.2	74.5	1.7	0.1	0.0	4.1
	Students with SLD	3.8	19.1	72.2	0.4	0.2	0.0	4.1
Oklahoma	All Students	11.9	10.3	54.8	1.9	17.8	0.3	3.0
	Students with SLD	12.1	13.7	52.6	0.5	18.4	0.1	2.5
Oregon	All Students	20.2	2.6	66.6	3.9	1.9	0.6	4.2
	Students with SLD	26.0	3.6	62.9	1.2	2.7	x	3.2
Pennsylvania	All Students	8.1	15.4	71.8	3.1	0.2	0.1	1.3
	Students with SLD	10.5	19.6	67.9	1.0	0.2	0.0	0.8
Puerto Rico	All Students	99.8	0.0	0.1	0.0	0.1	0.0	0.0
	Students with SLD	99.8	0.0	0.1	0.1	0.1	0.0	0.0
Rhode Island	All Students	20.6	8.0	65.4	2.9	0.7	0.2	2.3
	Students with SLD	27.6	10.9	56.5	1.3	1.1	0.1	2.5
South Carolina	All Students	5.9	36.1	54.1	1.3	0.3	0.1	2.2
	Students with SLD	5.4	45.1	46.6	0.3	0.4	0.0	2.1
South Dakota	All Students	3.3	2.5	80.3	1.4	11.4	0.1	1.0
	Students with SLD	4.5	2.5	69.7	x	21.2	x	1.3
Tennessee	All Students	5.8	23.9	67.7	1.6	0.2	0.1	0.6
	Students with SLD	5.2	29.9	63.7	0.4	0.2	x	0.5
Texas	All Students	49.3	12.9	32.1	3.5	0.5	0.1	1.6
	Students with SLD	54.1	19.1	24.3	0.7	0.5	0.1	1.3
Utah	All Students	14.9	1.5	78.1	1.9	1.4	1.6	0.7
	Students with SLD	22.1	1.9	70.5	0.7	2.4	1.1	1.2
Vermont	All Students	1.3	1.9	92.7	1.6	0.3	0.1	2.1
	Students with SLD	0.8	1.6	97.1	0.3	x	x	0.1
Virginia	All Students	11.1	23.8	54.7	5.9	0.3	0.1	4.0
	Students with SLD	15.4	31.6	46.6	2.5	0.4	0.1	3.4
Washington	All Students	17.6	4.8	63.2	7.3	1.7	0.9	4.5
	Students with SLD	27.1	7.3	53.1	3.1	3.0	x	5.6
West Virginia	All Students	1.1	5.3	92.1	0.7	0.1	0.0	0.6
	Students with SLD	1.1	5.4	92.1	0.2	0.2	x	0.9
Wisconsin	All Students	8.9	9.8	75.0	3.5	1.3	0.1	1.4
	Students with SLD	11.3	13.9	68.5	2.4	2.2	x	1.6
Wyoming	All Students	12.1	1.2	81.2	0.8	3.2	0.1	1.3
	Students with SLD	14.9	1.5	77.7	0.3	4.2	x	1.3



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