Improving College and Career Readiness for Students with Disabilities

This issue brief is intended to assist state policymakers in better understanding strategies to prepare students with disabilities and special needs for college and career. The brief provides context and background on the numbers of students with disabilities who are college and career ready; examines issues and strategies related to preparation and readiness for postsecondary education and careers; and includes examples of current programs and policies that help students with disabilities to successfully transition to college and career.

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Context and Background

To meet the demands of the 21st century global economy, Americans must have a broader range of knowledge, skills, and abilities than ever before. The United States will need a much higher percentage of its young people—including youth with disabilities—to earn postsecondary credentials and degrees in order to compete in a global marketplace and to be productive citizens. According to a report from the Georgetown University Center on Education and the Workforce, current trends indicate that by 2018, the United States will need 22 million new college degrees but will fall short of that number by at least three million postsecondary degrees (i.e., associate degree or higher). In addition, the United States will need at least 4.7 million new workers with postsecondary certificates[1] to meet labor-market demand (Carnevale, Smith, & Strohl, 2010).

As we work to increase the number of youth who are college and career ready, we must ensure that students with disabilities are not left behind. We can do this by equipping them with the knowledge and skills to fulfill their individual potential, compete with other workers, and lead full and independent lives. Despite advances in improving the college and career readiness of students with disabilities, there is still a great deal to be done to help more students

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[1]   Postsecondary certificates are awards that are often occupationally focused and include awards from business, vocational, trade, and technical schools, as well as technical and non-degree awards from two- and four-year colleges (Carnevale, 2012).

with disabilities complete high school, enter postsecondary education, earn a degree or certificate, and find employment that leads to independence, self-sufficiency, and civic engagement.

While considerable progress has been made during the last decade, students with disabilities graduate from high school at lower rates than the general population. From 1996–97 to 2008–09, the percentage of youth ages 14 to 21 years old who were served under the Individuals with Disabilities Education Act (IDEA)[2] and who completed high school with a regular diploma rose from 43 percent to 61 percent. While these data cannot be equated to the overall high school average freshman graduation rate due to differences in counting students, the average freshman graduation rate of 75.5 percent in 2008–09 does provide a point of comparison (National Center for Education Statistics, 2011c).

Table 1. National Longitudinal Transitions Studies I and II:
Postseconday Enrollment Within Four Years Of High School
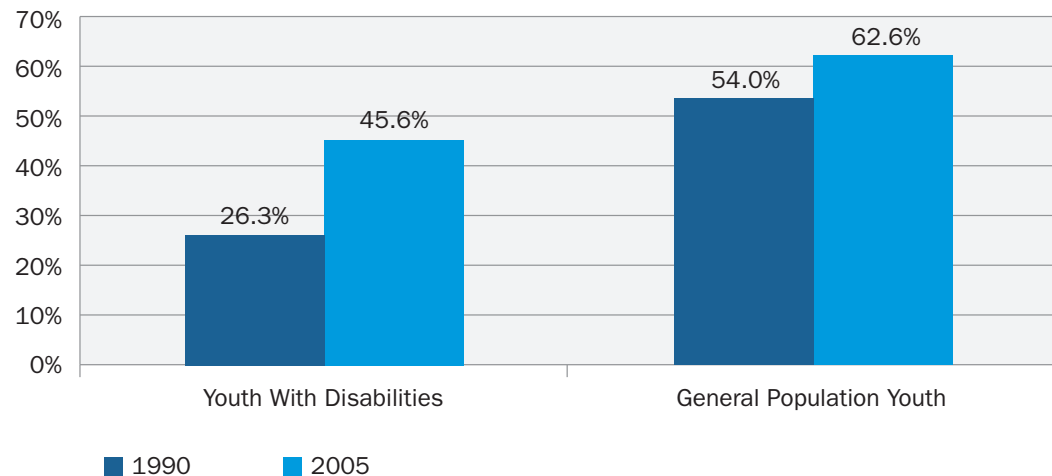
Source: Newman, L., Wagner, M., Cameto, R. & Knokey, A. M. (2010). *Comparisons across time of the outcomes of youth with disabilities up to 4 years after high school: A report of findings from the National Longitudinal Transition Study (NLTS) and the National Longitudinal Transition Study-2 (NLTS2)* (NCSER 2010–3008). Menlo Park, CA: SRI International. Retrieved from http://ies.ed.gov/ncser/pubs/20103008/pdf/20103008.pdf

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[2] The Individuals with Disabilities Education Act is a law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education, and related services to more than 6.5 million eligible infants, toddlers, children, and youth with disabilities.

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Students with disabilities also differ in type of postsecondary education enrollment. While students in the National Longitudinal Transition Study-2 (NLTS2)[3] attended two-year colleges at a rate similar to their general education peers, only 7.6 percent of students with disabilities attended four-year universities, compared with 29.2 percent of youth in the general population. The higher rate of attendance at two-year colleges is promising, but the gaps relative to other types of institutions of higher education are sizeable and need attention (Newman, Wagner, Cameto, & Knokey, 2009).

Among students with disabilities who graduate from high school and attend a postsecondary education program, completion rates are low. The majority of students with disabilities in NLTS2 failed to graduate or to receive a degree from their program up to eight years after high school. Among students in the 2005 cohort working toward any type of postsecondary credential, only 40.7 percent graduated or received a degree, versus 52.4 percent of the general population. Only 34.2 percent of students with disabilities working toward a four-year degree were able to graduate within eight years, compared to 51.2 percent of the general population (Newman et al., 2011).

Table 2. Completion of Postseconday Education by Degree Among Special Education Students Out of High School Up to Eight Years, 2009
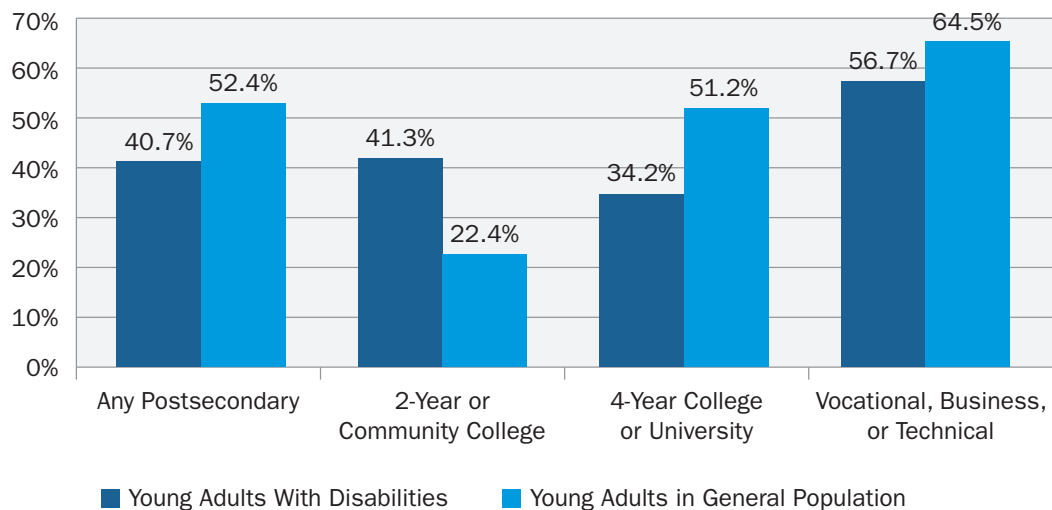
Source: Newman, L., Wagner, M., Knokey, A.-M., Marder, C., Nagle, K., Shaver, D., et al. (2011). *The post-high school outcomes of young adults with disabilities up to 8 years after high school. A report from the National Longitudinal Transition Study-2 (NLTS2)* (NCSER 2011-3005). Menlo Park, CA: SRI International. Retrieved from www.nlts2.org/reports/

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[3] The NLTS2 was a "10-year-long study of the characteristics, experiences, and outcomes of a nationally representative sample of youth with disabilities who were 13 to 16 years old and receiving special education services in grade 7 or above, under the Individuals with Disabilities Education Act (IDEA) in the 2000–01 school year." The study compared students with disabilities with those in the general population (Newman et al., 2009).

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A study looking at both the original National Longitudinal Transition Study (1990) and the NLTS2 (2005) found that students with disabilities were almost equally as likely to be employed as their general education peers up to four years after high school (Newman et al., 2010). However, long-term competitive employment prospects were less positive. Up to eight years out of high school, only 53.1 percent of special education students were competitively employed[4] (National Center for Education Statistics, 2011a). Additionally, the average hourly wage among students with disabilities up to eight years after high school was $10.40, a full dollar less than their general education peers (Newman et al., 2011). The unemployment rate for people with disabilities also illustrates their difficulty integrating into the labor market. The U.S. Department of Labor's Bureau of Labor Statistics average unemployment rate in 2011 for students with disabilities ages 16 to 65 was 16.2 percent, while the rate for those with no disability was 8.8 percent (U.S. Department of Labor, Bureau of Labor Statistics, 2012).

These data make it clear that ensuring that all students with disabilities are college and career ready is a significant undertaking. Students with disabilities lag behind the general population in high school graduation and postsecondary completion rates. Many students have found success in postsecondary programs, but completion rates vary significantly by type of program (Newman et al., 2011). Furthermore, a major challenge in analyzing and discussing these data on college and career readiness and success among students with disabilities is that the data frequently mask the tremendous heterogeneity among students with disabilities. This population includes students across a broad range of disabilities, including sensory (e.g., deafness or blindness); intellectual; orthopedic; learning; emotional; autism; and attention deficits.

Students' disability or disabilities can vary greatly in both type and severity, which can markedly affect their educational needs and can also have great impact on their personal and career aspirations. Although students with disabilities are often discussed as a single subgroup, it is important to note that this heterogeneity may contribute to different, personally valued outcomes for individual students with varying disabilities, strengths, postsecondary goals, and career aspirations.

College and Career Readiness Issues and Strategies for Students with Disabilities

There are numerous issues to consider in designing a comprehensive college and career readiness system for all students, but particular attention must be paid to students with disabilities, who may face unique challenges. Many of the strategies mentioned below are

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[4] The term "competitively employed" refers to those receiving more than minimum wage and working in an environment in which the majority of workers are not disabled.

based on best practices and proven capacities that already exist in the special education system. These practices not only inform efforts to improve outcomes for students with disabilities but also benefit general education students and should be adapted and used by educators in general.

- Define College and Career Readiness for Students with Disabilities
- Set High Expectations, Aspirations, and Clear Goals for Students with Disabilities
- Improve Use of Diagnostic Assessments and Data to Inform Instruction
- Develop the Capacity of Educators to Use Rigorous Research-based Instructional Practices
- Develop and Assess Multiple Types of Knowledge, Skills, Attitudes, and Behaviors Important to Life Success
- Improve Access to Guidance, Counseling, and Transition Services
- Create Transparent High School Diploma Options
- Create Multiple Pathways to College and Careers
- Improve Alignment of K–12 and Postsecondary Education
- Deepen Connections Among K–12 and Other Systems that Provide Supports to Students with Disabilities

DEFINE COLLEGE AND CAREER READINESS FOR STUDENTS WITH DISABILITIES

Critical Issue Discussion: College and career readiness is increasingly becoming the goal of education reform efforts. Yet the term "college and career ready" means different things to different people and can be defined both narrowly and broadly. This can become a significant problem for students with disabilities, as general education, special education, and transitions stakeholders have traditionally held differing views on essential competencies and outcomes for postsecondary pathways. Too often, those views have not included college-going options for students with disabilities. Where feasible, it is important for all stakeholders to discuss and agree upon a clear, common definition of college and career readiness that applies to all students, including students with disabilities, so they can work toward the same goal.

One common definition of college and career readiness is "being prepared for postsecondary education without the need for remediation," which generally means that students have the academic background to do college-level work. While this is, indeed, a key part of being college and career ready, it is only part of what is needed to be successful in postsecondary education and career roles. Particularly for students with disabilities, it is important to focus on other critical skills, such as independence, self-determination, social and emotional skills and attitudes (e.g. maturity, resiliency, self-management, self-advocacy,

and interpersonal relations), college knowledge (e.g., finding the right postsecondary education match, understanding the college application process, and applying for financial aid), critical thinking, lifelong learning, and employment skills.

These skills for college and career readiness can be developed in multiple environments, with the support of many different adults, and at all hours and places. Many skills may best be learned in non-classroom, experiential learning settings, such as community service projects, extracurricular activities, internships, work, and afterschool programs (Bowles & Brand, 2009). But in recent years, as schools have increased their focus on developing academic mastery, given the pressure of federal and state accountability requirements, they have limited time to address some of these other skills. Given the complex process of helping youth—especially youth with disabilities—to prepare for college and careers, it is unrealistic to expect schools to do this work in isolation; therefore, schools and other providers need to work in a coordinated manner.

Actions: Each school and community will need to develop or identify contextually sensitive definitions of college and career readiness and individualized goals for students as well as the right mix of providers and services to help students become college and career ready, depending on the needs of the students and the resources of the community. To ensure that definitions are inclusive of a wide range of perspectives on what students should be able to do after high school graduation, communities should solicit insight from a diverse group of stakeholders, including K–12 and postsecondary education institutions, parents, students, employers, workforce development, community- and faith-based organizations, and other public providers that serve youth (e.g. health, mental health, and social services). It is particularly important to include stakeholders who serve students with certain challenges, such as students with disabilities, English language learners, low-performing students, and first-generation college-goers, to add their expertise to the process.

The National High School Center created the *College and Career Development* (CCD) *Organizer* to provide a taxonomy for organizing the wide range and multiple levels of college and career readiness efforts. The *CCD Organizer* describes three strands of college and career readiness initiatives, including: (1) Goals and Expectations, (2) Pathways and Supports, and (3) Outcomes and Measures. The Goals and Expectations for College and Career Readiness in Strand One illustrate the wide range of skill components needed to be college and career ready, such as core academic content knowledge, college and career knowledge and access, social and emotional and higher order thinking skills, employability skills, and lifelong learning skills. Strand Two, Pathways and Supports for College and Career Preparation, addresses personalized learning supports, rigorous programs of study, and aligned resources, structures, and supports as key elements of a college and career readiness system. Strand Three addresses Outcomes and Measures, such as on-track indicators, attainment and authentication, and accountability and improvement feedback. A copy of the organizer can be found at: http://www.betterhighschools. org/CCR/documents/NHSC_CCROrganizer_2012.pdf

Critical Issue Discussion: Many students with disabilities and with Individualized Education Programs (IEPs) are perceived as unable to complete rigorous high school work, earn a high school diploma, or attend postsecondary education. As a result, they are often placed in low-level classes or are not expected to go on to further education. Because of the heterogeneity of the students with disabilities population, however, many students do aspire and are able to participate in traditional two- and four-year postsecondary education programs, although not all students with disabilities will want to do so. In some cases, this is due to limitations imposed by students' disabilities; but too often, low aspirations stem from the low expectations that professionals and even parents have for them. Administrators, teachers, counselors, and families often have these perceptions due to a lack of knowledge and understanding of the capacities of students with disabilities or the effective instructional interventions and student supports that promote their learning and growth.

Research and practice have shown that students with disabilities can achieve positive post-school outcomes if they are provided access and supports to master a rigorous general curriculum (Baer et al., 2003). Research has also shown that students with disabilities benefit from inclusion practices that allow them to interact with their non-disabled peers and to participate in general education classes in which they are held to expectations that are similar to those of non-disabled students (Leonard, D'Allura, & Horowitz, 1999; White & Weiner, 2004). However, expectations remain low for many students with disabilities. As the Common Core State Standards (CCSS) are implemented, and as expectations are raised, it will be increasingly important to ensure that educators actively embrace the goal of helping students with disabilities meet the more rigorous curricula and assessments.

Actions: Students with disabilities should be held to high expectations while acknowledging the aspirations, interests, talents, and desires of each student as well as the necessary learning supports needed for each student to succeed. All adults in the school—principals, teachers, counselors, and aides—need to embrace a culture and belief system that students with disabilities are capable of high-level work and can complete a high school diploma, succeed in postsecondary education, and establish meaningful careers and independent lives. Furthermore, school staff and families must work to help students set goals based on their "personal bests," goals that reflect the realities of students' disabilities without constraining them through the limitations of lowered expectations. Goals should be personalized to include student strengths, abilities, and aspirations while pushing them to maximize achievement based on these abilities.

State policymakers and education leaders can play an important role in reducing limitations by highlighting the issue of lowered expectations, confronting stereotypes and old beliefs, and setting a high bar for students with disabilities through legislation, regulation, training, technical assistance, and supports. In addition, preservice and professional development programs for educators should have a strong focus on students with disabilities so that educators gain the skills needed to work with students with disabilities and their families in determining their future and goals.

IMPROVE THE USE OF DIAGNOSTIC ASSESSMENTS AND DATA TO INFORM INSTRUCTION

Critical Issue Discussion: The consistent push for data-driven instruction and the collection of large quantities of data by schools, districts, and states do not ensure that teachers, school leaders, and district support personnel always use that data effectively to inform instruction. Nor do they ensure that these data-driven efforts are well targeted to individual student levels, needs, or learning styles (Ikemoto & Marsh, 2007; U.S. Department of Education, 2009). Most teachers do not learn data collection or analysis skills in their teacher education classes, and many schools do not offer professional development in these skills (TERC & Linkit!, 2010). As a result, many students with disabilities are placed in classrooms in which the instruction is inappropriate for their learning levels and styles. Furthermore, the availability of more and more data about individual student performance is making it increasingly difficult for teachers to use the data effectively. Special educators generally have more experience with diagnosing the instructional needs of students and with using data to develop individualized education plans that incorporate differentiated instruction to meet individual needs. While they, too, can benefit from a better understanding of how to use diagnostic data to inform instruction, they can also assist their general education peers in using assessments and data more effectively in designing appropriate and differentiated instruction.

District- and state-level data can also be more effectively coordinated and analyzed to identify data trends that will inform policy and practice decisions. States and districts are already collecting a great deal of data as a result of the No Child Left Behind Act (NCLB) and IDEA, but much of this information is not effectively used by teachers to inform instruction. In part, this is because most of the federally required data collection is summative in nature (i.e., it takes the form of end-of-course exams), which does little to provide ongoing or timely feedback on students' abilities. Finally, even though many states and districts collect large amounts of data, they focus on using the data for compliance reports and do not necessarily package the data for use in continuous instructional improvement.

Actions: States should provide support for all teachers to learn how to use assessments and data to inform and adapt instruction to the individual needs of all students. States can support joint technical assistance, trainings, and workshops for general and special educators, and special educators can share their experiences of using frequent assessments and diagnostics to individualize instruction. States can also ensure that institutions of teacher education are preparing the future workforce to use diagnostic assessments and data to inform instruction and link teacher certification to these important skills.

State education agencies and districts can also use data collected under IDEA and NCLB to identify patterns that will inform resource allocation, technical assistance, and current instructional strategies to improve both short- and long-term outcomes for students with disabilities. In particular, states and districts should use data to better understand outcomes for students with disabilities who take alternate assessments.

Resource: The National Dropout Prevention Center for Students with Disabilities (NDPC-SD) and the National Post-School Outcomes Center have developed an online guide for states, districts, and schools on how to connect school and post-school outcomes. The guide is designed to help states, districts, and schools plan for data collection and analysis, make connections between indicators, and to provide examples of states that have pioneered this work. For more information see: http://www.ndpc-sd.org/knowledge/improve_postschool_outcomes/default.php

DEVELOP THE CAPACITY OF EDUCATORS TO USE RIGOROUS RESEARCH-BASED INSTRUCTIONAL PRACTICES

Critical Issue Discussion: In the 2011 National Assessment of Educational Progress (NAEP) writing test, only 5 percent of both eighth-grade and 12th-grade students with disabilities achieved proficiency or better (National Center for Education Statistics, 2011b). Ensuring that students with disabilities are college and career ready requires educators at all levels to envision and implement powerful learning experiences for all students. It necessitates that educators have an understanding of the unique needs of students with disabilities, their learning progressions, and the supports they need. Educators should receive training on current research-based practices that serve students with disabilities effectively. Evidence suggests that certain special education strategies, such as teaching the process of learning, are helpful in many different disciplines. For example, when teaching writing, explicit instruction in the steps for planning, revising, and editing text have proven to be effective for students with learning disabilities (Center on Instruction, 2008b). In teaching reading comprehension, teaching cognitive strategies for understanding expository texts has also been identified as a research-based practice (Center on Instruction, 2008a). Unfortunately, many of these approaches do not become state, district, or school practice despite rigorous research suggesting their merit.

Teachers must manage learning for heterogeneous classrooms, most of which include students with disabilities and a diverse range of learning styles and levels. Despite this reality, many educator preparation and professional development programs spend little time on instructional strategies for students with disabilities, and most teachers have little understanding of how best to work with students with disabilities when they get to the classroom, despite the increased trend toward greater inclusion. As the trend toward greater inclusion increases, and as more and more students with disabilities receive their education in general education classrooms, it becomes even more important for general education teachers to have the skills necessary to help all students access rigorous curriculum. Special education teachers are trained to provide individualized and differentiated instruction; but often, little is done to access this skill set to ensure these differentiated instructional strategies are shared with general education colleagues.

With the impending implementation of the CCSS—which are, in many cases, more rigorous than existing curriculum (Kober & Rentner, 2012)—teachers will have an even greater challenge of ensuring that students with disabilities have access to and can master the new curriculum and are prepared for the dramatically different new assessments.

Actions: States must establish effective teacher preparation and professional development systems to ensure that general education teachers, special educators, and transition specialists are prepared to work with students with disabilities. States should review their licensing or certification systems to ensure that teachers are trained to work with students with disabilities and that they know how to use research-based instructional strategies. General and special education teachers should have more joint training on effective instructional strategies for teaching students with disabilities and low-performing students, as many of the strategies for special education students are beneficial for all students. States must also begin planning for how they will help educators ensure that all students are able to master the CCSS, given their increased rigor. There may be lessons to be drawn from the special education field about helping students with disabilities

Resource: The Center on Instruction, a U.S. Department of Education-funded Content Center that operated from 2005 to 2012, provided current research, resources, and exemplars for a number of content areas, including special education. The Center created meta-analyses that synthesized and distilled rigorous research into an easy-to-use format. It also offered practice guides, professional development materials, and other tools for educators and policymakers. See more at http://www.centeroninstruction.org

Resource: The National Secondary Transition Technical Assistance Center offers several resources on evidence-based practices in secondary transitions for students with disabilities. One resource available on the website, the *What Works Transition Research Synthesis,* reviews and synthesizes 20 years of research into several easy-to-navigate documents. For more information on the *What Works Transition Research Synthesis,* see http://www.nsttac.org/content/what-works-transition-research-synthesis

access difficult and rigorous curriculum that could benefit all teachers, but additional research is needed to identify strategies and approaches that help more low-performing students access higher-level curricula.

DEVELOP AND ASSESS MULTIPLE TYPES OF KNOWLEDGE, SKILLS, ATTITUDES, AND BEHAVIORS IMPORTANT TO LIFE SUCCESS

Critical Issue Discussion: While special education has focused on developing a range of cognitive and meta-cognitive domains, the current climate of education accountability has been narrowly focused on measuring student academic performance through standardized tests, with little attention paid to assessing other interpersonal and intrapersonal skills. Social and emotional learning skills, such as self-determination, independence, and self-advocacy, as well as problem solving and employability skills, are critical to success in life and have all been linked to positive post-school outcomes (Alwell & Cobb, 2007a; Benz, Lindstrom, & Yovanoff, 2000; Benz, Yovanoff, & Doren, 1997; Cobb, Lehmann, Newman-Gonchar, & Alwell, 2008; Halpern, Yovanoff, Doren, & Benz, 1995; Wolgemuth, Cobb, & Dugan, 2006). Despite overwhelming evidence of their benefit, these skills are not always systematically incorporated into curriculum and instruction, assessment, or professional development. The narrow focus on academic skills and standardized tests has meant that many students with disabilities are measured against static assessments that may not recognize their strengths, knowledge, skills, and abilities in other meaningful areas. Using only narrow or standardized assessments can be particularly discouraging for students with disabilities who, despite accommodations, often do not perform well on standardized tests.

While there seems to be growing awareness of the need to help students with disabilities develop not only academic but meta-cognitive and life success skills, many teachers are unfamiliar with those skills and how to teach them, as that tends not to be part of their preservice or professional development.

Actions: States should ensure that their teacher preparation and professional development programs help teachers understand more about developing and assessing multiple types of knowledge and skills and help teachers incorporate these skills into their instruction for all students, including students with disabilities.

To reinforce the importance of teaching multiple types of knowledge and skills, states should design broader accountability systems that value and measure the acquisition of skills beyond academic skills. States should collaborate with a diverse set of stakeholders to design multiple forms of assessment to measure the full range of knowledge, skills, abilities, and behaviors that lead to success and should provide support for districts and schools to incorporate these assessments into their accountability systems. Students with disabilities should be assessed according to their IEPs to ensure that they are able to develop meta-cognitive and life skills in addition to academic skills.

IMPROVE ACCESS TO GUIDANCE, COUNSELING, AND TRANSITION SERVICES

Critical Issue Discussion: While many high school students have help from parents, family, and friends as they set their college and career goals, many other students are without such guidance and have little or no support in planning their future. The lack of guidance and counseling hampers college and career planning, and in some low-resourced schools where the student-to-counselor ratio can be as high as 500:1, it is nearly impossible for students to obtain the guidance they need. Low-income, first-generation, and low-performing students face particular barriers securing guidance, counseling, and transition advice, as do students with disabilities.

For students with disabilities, the transition from high school to college and work is a major step. To address this, IDEA requires that high school students with disabilities have transition plans developed in concert with their caregivers and school personnel. But many plans lack depth, breadth, and personalization; have low expectations for students with disabilities; do not include plans for postsecondary education; and do not map out how the K–12 education system should connect to other systems, such as postsecondary, vocational rehabilitation, workforce training, or independent services. As a result, many students with disabilities leave high school with amorphous and generic plans that fail to address their individual circumstances or interests. As noted, the lack of counselors in general—and of well-trained, experienced transition counselors in particular—contributes to this inadequate outcome.

Research has shown that students who set college-going goals early, who have greater exposure to college opportunities, and who are able to build college knowledge in the middle school and early high school years have a greater likelihood of attending postsecondary education (Cobb & Alwell, 2007b). The lack of trained and available counselors prevents many students from getting this information; and because there are often low expectations for students with disabilities, they are sometimes not viewed as college material.

It is also difficult both for students with disabilities and for counselors to learn about postsecondary education institutions that offer accommodations or supports for students with disabilities, as this information is generally not readily available to students or counselors. However, this type of information can make a substantial difference in finding the right college "match." Students with disabilities also need assistance to make the transition to postsecondary education, but as they age, there are often fewer supports available. Institutions of higher education are not required to develop IEPs for students with disabilities or to offer them supports, and many institutions assume that students with disabilities are independent and able to make decisions and seek out assistance on their own. This can result in students with disabilities having to manage the college transition process and identify and advocate for supports and accommodations on their own.

The transition to work or training can also be a challenge for students with disabilities. High school counselors often lack knowledge about today's workforce and emerging career fields and are often less well-informed about other postsecondary options besides traditional college pathways.

Actions: States should support programs that develop and increase the number of guidance counselors in general, with a particular focus on developing more highly trained transition counselors who are knowledgeable about comprehensive services for students with disabilities and how to connect to other community providers. States should help support districts and schools to ensure that the transition planning process begins early, in middle school or at the beginning of high school. States can also encourage postsecondary education institutions to provide information to high school counselors and students about various postsecondary options, accommodations, or special programs offered for students with disabilities so that students can make better-informed decisions as they select the right college.

States can ensure that every student with a disability has an IEP and a detailed and personalized individualized transition plan that is developed in middle school and reviewed several times each year, with increasing attention in the upper high school grades. Transition plans should address the goals, interests, and desires of the student and his or her family and should set the highest goals possible, which for many students with disabilities will include postsecondary education. Transition plans should clearly delineate how high school supports will be continued through the transition process and should lay out strategies to help students with disabilities access ongoing supports and services (e.g., through the Vocational Rehabilitation system[5] or through postsecondary education or workforce training programs). Transition plans should also address issues regarding independent living, community supports, and physical and mental health as appropriate. Finally, youth with disabilities must be deeply engaged in the development of their transition plans and given opportunities to develop self-determination skills so that they can clearly state their hopes, plans, and desires for the future as part of the transition planning process and can become stronger advocates for themselves throughout their high school years and beyond.

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[5] This program, administered by the Rehabilitation Services Administration, U.S. Department of Education, provides grants to states to support a wide range of services designed to help individuals with disabilities prepare for and engage in gainful employment consistent with their strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choices. Eligible individuals are those who have a physical or mental impairment that results in a substantial impediment to employment, who can benefit from vocational rehabilitation (VR) services for employment, and who require VR services.

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Resource: The DO-IT Scholars program is funded by the National Science Foundation and the University of Washington. The program offers support for students with disabilities, starting in the sophomore year of high school. Supports include mentoring and peer advising through online communications and personal meetings. Mentors, many of whom have disabilities themselves, offer advice on college and careers, independent living, and self-determination and self-advocacy skills. Students also participate in online group discussions and social networks, develop technology skills, participate in work-based learning opportunities, and attend two consecutive summer sessions on the University of Washington campus, where they learn how to navigate college life, access disability-related services, and explore career options. The University of Washington has conducted longitudinal research that finds positive trends in college enrollment, participation in science, technology, engineering, and math (STEM) fields, college graduation, and employment linked to student enrollment in this program (Burgstahler, Moore, & Crawford, 2011). See more at http://www.washington.edu/doit/

CREATE TRANSPARENT HIGH SCHOOL DIPLOMA OPTIONS

Critical Issue Discussion: Most states recognize the different learning needs of students and award more than one type of high school diploma (Johnson, Thurlow, & Schuelka, 2012). The most commonly offered are standard high school diplomas that require a minimum number of credits; advanced diplomas for students who accumulate more than the minimum number of credits; career or technical diplomas or endorsements that are added to standard or advanced diplomas; and alternative diplomas or certificates of attendance for students who attended school and participated in the coursework but were unable to pass required exit tests. Despite the presence of these options, in today's economy, students without at least a standard high school diploma can be placed at a disadvantage in terms of accessing postsecondary education and many careers. Because many students with disabilities receive alternative diplomas or certificates of attendance, they, in particular, may have limited future options. Students and their families may not be provided with clear, transparent information about the various high school diplomas and the postsecondary options to which they lead, preventing students and families from making informed and timely decisions in their secondary education pathways planning. Federal law requires that parents be informed of the implications of various high school diploma options by the IEP team and school staff, but many are still unaware (Advocacy Institute, n.d.).

In some states, if a student with a disability takes an alternate assessment, he or she can be derailed from a diploma track and may even become ineligible to receive a standard high school diploma (National Center on Education Outcomes, 2007). National data are not available on how many students with disabilities who are in the "1 percent and 2

percent rule" categories under NCLB[6] and who take alternate assessments based on alternate or modified achievement standards receive alternative diplomas. However, data from the National Center for Education Statistics (NCES) show that in some states, over 40 percent of those students received alternative diplomas (National Center for Education Statistics, 2008). Therefore, it is important to understand the implications of using alternate assessments and of any impacts these assessments may have on the type of diploma received.

Students with disabilities are eligible by law to pursue a high school diploma and receive IEP services through age 21. In many cases, however, students with disabilities leave high school at age 18 without a standard diploma, even when they could benefit from staying in school longer to earn such a diploma. This may be a result of school personnel who do not know how to effectively educate and serve older students with disabilities or of lack of knowledge on the part of parents, students, counselors, and transition planners about the various options.

States have made a number of accommodations for students with disabilities available in order to receive a standard diploma, including extended graduation options, alternative courses, lower performance criteria, and alternative diplomas. Unfortunately, these accommodations are underutilized, and their use has been decreasing over the last few years. In 2007, 22 states offered extended graduation opportunities for students with disabilities, compared to only 15 states using the option in 2011. A major challenge that may lead states to discourage students with disabilities from earning a standard diploma through an extended time option comes from accountability systems that only measure and count four-year high school graduation rates. In these cases, students who take more than four years to complete a diploma can negatively impact their schools' performance and accountability rankings, and these students are sometimes pushed out to avoid adding to the number of students who did not achieve a diploma in four years.

Actions: States should continue to make available a range of diploma options for students with disabilities, but they should clarify and publicize the implications of each type of diploma option for students with disabilities. This information should be transparent and widely available to students and their families, as well as to counselors, to ensure that parents, teachers, and others involved in the IEP process fully understand alternate assessments and their impact on available diploma options.

States should provide training and technical assistance to educators so that they have more tools, strategies, and options to serve older students with disabilities as a way to encourage them to stay in school longer when it is the appropriate strategy. States should

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[6] The Elementary and Secondary Education Act (No Child Left Behind) of 2001 requires that all students be assessed academically in mathematics and reading and also requires states to provide alternate assessments. These alternate assessments are used to evaluate the performance of students with disabilities who are unable to participate in the general assessments even with accommodations. The U.S. Department of Education has provided flexibility that specifically addresses alternate assessments under a "1 percent rule" (students with the most significant cognitive disabilities) and a "2 percent rule" (students not likely to achieve grade-level proficiency during the school year covered by their IEP). For more information, see http://www2.ed.gov/rschstat/eval/disadv/nclb-disab/nclb-disab.pdf

also ensure that high school graduation decisions are based on multiple indicators of students' knowledge, skills, and abilities, and not just on a single high-stakes exit examination. In 36 states, IEP teams can set graduation requirements in a student's IEP, meaning that those involved in the IEP process have the opportunity reinforce the importance of multiple indicators (Johnson et al., 2012).

States should measure their five- and six-year extended graduation rates as a way to encourage students to stay in school longer to complete their studies and should avoid penalizing schools that work with hard-to-educate populations. State policy leaders should also encourage competency-based learning[7] so that students who might need additional time to complete required high school courses are not limited by a time-bound system.

Finally, states should collect information to determine what types of high school diplomas students with disabilities receive (disaggregated by the "1 percent and 2 percent rule" categories or other state definitions) and should make that data widely available to the public.

> Resource: The National Center on Education Outcomes (NCEO) recently surveyed and compiled state policies regarding diploma options, exit exam requirements, and graduation requirements for students with disabilities. For more information on state and national trends, see http://www.cehd.umn.edu/nceo/OnlinePubs/Tech62/TechnicalReport62.pdf

CREATE MULTIPLE PATHWAYS TO COLLEGE AND CAREER

Critical Issue Discussion: Preparing all students for college and careers is challenging not just because of the increased rigor that this requires, but also because of the diverse pathways necessary to support students on the road to postsecondary success. Schools are increasingly taxed with making multiple pathways available so that they can help all students meet the expectations of college and career readiness while allowing them to pursue their individualized interests and goals. This is a particular challenge for students with disabilities, whose extreme heterogeneity in skills increases the complexity of providing a diverse and all-inclusive set of pathways.

In some ways, the structure of high school has changed little over the past century. Many students attend schools that are bound by place and time, despite major advancements in technology, telecommunications, and our knowledge of how, when, and where learning occurs. For the most part, American high schools continue to rely on using seat-time to measure the progress of students, as opposed to measuring their actual knowledge and competencies. For students who need extra time or are behind in credits, the expectation that they complete a high school degree in four years can be a serious barrier to learning

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[7]   Competency-based learning enables students to advance based on mastery of the content, rather than requiring students to fulfill seat-time requirements before they can proceed to more rigorous coursework.

and can have a negative impact on motivation. Given that students with IEPs are able to receive public education until they are 22, the pressure to graduate within four years can have a disproportionately negative impact on students with disabilities. Creating pathways that use time differently and that allow students to advance based upon mastery might help more students with disabilities be college and career ready.

In other ways, however, the goal of college and career readiness for all students has shifted the focus of most high schools. This emphasis on postsecondary success and the associated rigor has led to a transition away from traditional vocational education programs that prepared students to enter the workforce immediately after college with no additional education or training. Though this change promotes holding *all* students to rigorous academic standards, career readiness is still an important piece of the postsecondary readiness puzzle. Discussions about college and career initiatives very often ignore the likelihood that some students with disabilities set goals to enter the workforce immediately following high school. For these students, high school course taking and instructional needs may be quite different than for students who are planning to attend college. One of the potential unintended consequences of recent college and career readiness initiatives is that high school career and technical training programs and pathways that best serve students who plan to work after high school may disappear or be cut back dramatically. Every student, including those with disabilities, should have the option to make informed choices about the routes that they take in life and have high quality pathways available to better prepare them for success on those routes.

Actions: Designing multiple pathways is increasingly proving to be an effective strategy in providing all students with alternative methods of instruction and support across a wide range of college and career preparatory content areas. Providing multiple pathways that link academics and career preparation more tightly through flexible learning opportunities in the classroom and beyond is becoming a popular strategy for reforming secondary education and creating stronger links to postsecondary education and careers.

State policymakers should encourage districts and high schools to continue increasing implementation of these flexible and varied pathways to graduation by drawing upon community partners, like employers and community colleges, to help make school more relevant and engaging. Internships, work experiences, cooperative education, and service learning are all strategies that engage youth and help them make connections between their studies and future goals. Exposing students to these new experiences and opportunities to learn by doing can result in greater engagement, and students can acquire skills they may not learn otherwise in traditional classroom settings. States could provide seed funding for demonstration projects or technical assistance to help districts implement work-based and internship programs that partner with a wide range of community providers. They could also highlight the need for such programs with key employer groups and help build school-employer partnerships.

States should also examine seat time requirements and encourage districts to provide flexibility to ensure that high school graduation is based on mastery of standards rather than time in the classroom. Increasingly, states, districts, and schools are evaluating students on their performance and competencies in foreign language, art, sports, and in some cases, academic skills, learned outside the classroom. Students demonstrate their knowledge and skills in real-world settings linked to their personal college and career interests, which can boost self-esteem, confidence, motivation, and engagement (Haynes, 2013).

States should ensure that districts and schools focus on expanded learning opportunities, not only in college preparatory classes, but also in those which prepare students for careers. High quality career and technical education (CTE) pathways with sequenced and integrated programs of study are essential in providing rigorous options to students with disabilities who are motivated by their future careers. CTE blends theory and practice, supports and enhances academic learning, gives students an opportunity to apply their knowledge, connects academic work to real-world challenges, and allows students a chance to learn and explore about various careers. Some CTE programs provide a two-, three-, or four-year sequenced pathway to postsecondary education and a career, sometimes in an academy or small school setting that creates a greater sense of belonging. Many programs involve employers as mentors or counselors and provide work-based learning settings. Research has shown that students that participate in CTE courses have lower dropout rates and are more successful in school (National Association of State Directors of Career and Technical Education Consortium, n.d.).

States should encourage districts and schools to invest in CTE programs that provide supervised work opportunities for students with more severe disabilities that can lead to postsecondary employment opportunities that might otherwise be unavailable. Previous studies have demonstrated that students with disabilities who have work experiences while in high school are more likely to be employed after high school (National Collaborative on Workforce and Disability for Youth, 2011). Often the work experience in which they were enrolled led directly to a postsecondary job for a student. For these students, it is important to have occupationally specific CTE programs, with appropriate instructional and adaptive support services and accommodations, available in high school. Unfortunately, there is evidence that these types of vocational education and work experiences are declining in high schools around the country (Wagner, Newman, Cameto, Levine, & Marder, 2003). In the end, it is essential that we ensure that students with disabilities have access to multiple educational pathways that enable them to achieve success to the best of their abilities, while pursuing their individual interests and goals.

IMPROVE ALIGNMENT OF K–12 AND POSTSECONDARY EDUCATION

Critical Issue Discussion: National data show that students with disabilities do not attend or complete postsecondary education at the same rates as students without disabilities (Newman et al., 2011). One reason for this is the lack of alignment between K–12 and postsecondary education, which prevents the two systems from working more closely together to help students with disabilities prepare for and make the transition to a variety of postsecondary educational settings. Specifically, there are several reasons why students with disabilities fail to enter and thrive in postsecondary institutions: the lack of transition planning; planning that starts too late or that provides too little information about postsecondary options; lack of knowledge about the accommodations or services that they provide to students with disabilities; lack of access to rigorous curricula aligned to postsecondary entrance requirements to prepare students; and lack of knowledge about the postsecondary environment.

Connecting high school coursework to postsecondary coursework through programs such as dual enrollment or Early College High Schools has proven to be an effective strategy to prepare students academically and socially for college. In addition, when K–12 and higher education vertically align their course content, and when high schools teach to college entrance requirements, students are more successful in college. Research and evidence have shown that students who have opportunities to do college-level work (such as AP or IB) or to participate in dual-enrollment classes are better prepared for postsecondary education (Karp, Colcagno, Hughes, Jeon, & Bailey, 2007; Speroni, 2011). Similarly, when high school students—especially those who do not consider themselves college material—spend time on college campuses or get to know more about postsecondary education, they often have higher expectations and a smoother transition to college. However, programs that allow high school students to spend time on college campuses to feel more comfortable and to begin to see themselves as college students are usually limited in number, and few students have access to them.

Dual enrollment is a strategy that may have unique benefits for students with disabilities. In addition to helping students earn college credits, gain knowledge about college, and feel more prepared for postsecondary education, dual enrollment may be an effective instructional strategy for older students with disabilities who remain in high school past the age of 18. These students may benefit by taking classes on a college campus where they can interact with their peers and experience more independence and self-sufficiency than they could at a high school. In addition, promoting dual enrollment could be an option for older students with disabilities. A dual enrollment option might encourage more students to stay in high school until age 21 so that they can continue working toward the completion of a standard high school diploma while simultaneously earning college credit and receiving IEP services.

Actions: States must promote greater alignment between the K–12 and higher education systems so that course expectations are clear, high school curricula are tied to those expectations, and students, families, teachers, and counselors understand the expectations of college. States must also help establish better exchanges of information between K–12 and higher education regarding other supports and services that are available for students with disabilities so they can begin early planning.

States should encourage partnerships between K–12 and higher education that facilitate more dual enrollment programs specifically designed to serve students with disabilities. Because information about college and dual enrollment is also a barrier, states should establish information systems to ensure that counselors and transition planners, teachers, students, and families have easy access to data on which colleges offer supports for students with disabilities and where dual enrollment programs with similar supports exist. States can also encourage K–12 to keep students with disabilities in high school longer by promoting dual enrollment for them and providing technical assistance on implementing such programs.

Resource: Thinkcollege.net offers a number of resources on dual enrollment for students with intellectual disabilities. It offers technical assistance to states, serves as the National Coordinating Center for 27 federally funded Transition Postsecondary Education Programs, conducts research, and disseminates resources on postsecondary education for students with intellectual disabilities. It also includes a database of 200 postsecondary programs across the country, many of which offer dual enrollment programs for students with disabilities who are still in high school. For more information, see: www.thinkcollege.net.

DEEPEN CONNECTIONS AMONG K–12 AND OTHER SYSTEMS THAT PROVIDE SUPPORTS TO STUDENTS WITH DISABILITIES

Critical Issue Discussion: Many students with disabilities need a range of interventions and supports, such as physical accommodations, physical and mental health services, child welfare services, and independent living supports to be college and career ready. Many of these interventions and supports are provided by programs or systems that are not school based, suggesting that coordination among schools and other youth-serving systems is needed. Research has shown that instruction and supports provided outside the classroom and in the community have an impact on post-school outcomes (White & Weiner, 2004). Fostering interagency collaboration has also been linked with positive post-school outcomes in education, independent living, and employment (Bullis, Davis, Bull, & Johnson, 1995; Repetto, Webb, Garvan, & Washington, 2002). Coordinating the design and delivery of services across schools and other providers can be a challenge (U.S. Government Accountability Office, 2012) for numerous reasons, including that the K–12 and other systems generally have limited understanding of one another and of how each operates, the terms and definitions each uses, eligibility requirements, and funding availability. Also, different systems have different priorities, and they sometimes operate at cross-purposes with one another. Coordinating these services is also an important part of developing a transition plan, yet many times the school counselor is not familiar with other providers or with how to make connections to other systems.

Actions: Collaboration and partnerships are critical to ensuring that students with disabilities have the comprehensive and wraparound supports needed to make the transition to college, careers, and independent living. State policymakers can do much to encourage collaboration by:

- Creating a vision for collective impact
- Supporting collaboration through state bodies, such as P–16 or children's councils
- Allowing increased flexibility in funding
- Promoting cross-training and information sharing among agencies and programs
- Supporting innovative efforts to coordinate various programs
- Removing barriers to program eligibility
- Using common definitions and accountability measures

K–12 and postsecondary sectors must develop stronger partnerships to create pathways and to facilitate student success in college. Policymakers can also support joint training and technical assistance to multiple providers so they can learn about other systems and strategies for partnering in support of students with disabilities.

Examples of Statewide Policies and Programs to Support Students with Disabilities

This section provides examples of how issues identified in the previous section are addressed by innovative programs around the country. These programs represent a small slice of the excellent work being done in the area of college and career readiness, and there are many more state and local efforts that can help shed light on best practices to improve the college and career readiness of students with disabilities. The programs described here are: GraduateFIRST (Georgia); High School/High Tech (Florida); Inclusive Concurrent Enrollment (Massachusetts); and Youth Transition Program (Oregon).

GraduateFIRST is a Georgia statewide initiative that uses a data-driven intervention framework developed by NDPC-SD to address issues that have negatively influenced school completion rates. GraduateFIRST has a two-fold mission aimed at (1) increasing the number of students with disabilities earning a general education diploma, and (2) decreasing the dropout rate for students with disabilities. While dropout prevention is not synonymous with college and career readiness, graduation from high school is a key step in preparing for life in college and beyond. GraduateFIRST addresses issues of using data and diagnostic assessments and providing guidance, counseling, and transition services. Currently, approximately 145 Georgia schools participate in the program, which serves over 4,000 students.

To achieve its mission and to create alignment between state and local efforts, GraduateFIRST hires adults as "Collaboration Coaches," who work with school-based team leaders to help students with disabilities and their families navigate the various resources available. These Collaboration Coaches ensure that students and families have access to resources and support available at the school and in the community. Using a framework provided by NDPC-SD, GraduateFIRST follows a four-step process to address issues that negatively affect the school completion rates of students with disabilities. First, program staff

gathers data and asks probing questions to better understand trends among students. Second, staff identifies and targets specific students with disabilities and determines the appropriate levels of support needed. Third, the GraduateFIRST team develops and refines an individual service plan for each student. And fourth, the team gathers and reviews the final outcome data, analyzes it, and shares the results. Throughout the process, the Collaboration Coaches provide encouragement and guidance to the school-based team.

GraduateFIRST has contributed to improved outcomes among students with disabilities. Georgia has made steady progress in its high school graduation rates, with 43.3 percent of Georgia students with disabilities graduating in 2011, compared to 37.7 percent in 2008. The graduation rate of one participating high school's students with disabilities subgroup rose from 43.8 percent in 2009 to 85.6 percent in 2011 after the implementation of GraduateFIRST (GraduateFIRST, 2012).

Florida High School/High Tech (HS/HT) is a career preparation program that promotes careers in STEM for students with disabilities in more than half of Florida's counties. HS/HT allows youth to explore career options and postsecondary pathways in an effort to accomplish three central program goals: improve the high school graduation rate of youth with disabilities; increase enrollment in postsecondary education; and improve participation in educational, vocational, and employment-based activities in STEM-related fields.

Programs vary across the state, occurring during and after school and on weekends. The program activities vary as well, and students take advantage of corporate site visits, job shadowing experiences, and summer internships that last between two weeks and the full summer. Students can also engage in service learning, during which community service experiences are combined with instruction and reflection to enhance student learning. Career-focused mentoring allows students to gain and practice skills through academic and career guidance. Community leaders and employers also serve as guest speakers and mock interviewers, while students participate in leadership activities, career fairs, and college campus tours that expose them to postsecondary options.

HS/HT has seen positive results. On average, each year 86 percent of the program's graduating seniors continue their education or enter the workforce. In 2012, 18 percent enrolled in community colleges, 18 percent entered employment (full or part time), 14 percent attended four-year universities, 12 percent attended technical schools, 3 percent entered the military, 15 percent entered continuing education programs, 8 percent went on to a fifth year in high school, and 12 percent reported "Other" or "Undecided" post-school outcomes. The HS/HT model has been recognized as an exemplar for work-based learning for students with disabilities and due to its early success, has expanded quickly. The program has also been used in a number of technical assistance efforts to offer guidance on youth transitions and employment initiatives (National Collaborative on Workforce and Disability for Youth, 2012).

The Inclusive Concurrent Enrollment (ICE) program develops new partnerships between high schools and public institutions of higher education in Massachusetts. The program offers support for students with severe disabilities between the ages of 18 and 22 who have not passed the Massachusetts Comprehensive Assessment System (MCAS), the state's accountability assessment. ICE provides these students the opportunity to participate in inclusive college courses (credit or noncredit) with necessary services and supports, as determined through the school district's special education process. The ICE program addresses issues related to developing and assessing multiple types of skills, providing dual enrollment pathways, and connecting K–12 to other providers and, in particular, to higher education.

All too frequently, public school options for older students with severe disabilities are limited to segregated special education programs that are isolated from the community and from students' peers. With this program, students are able to continue to participate with age-appropriate peers in college settings, rather than face increasing isolation. Through the ICE program, students with severe disabilities have the opportunity to participate in:

- Decision-making on academic and social activities
- Student support services
- Inclusive college credit and non-credit courses with their peers
- Social and academic activities on the college campus with their peers
- Integrated employment opportunities

All of the ICE programs use the standard academic and social student support services already found on the college campus; but they also provide individualized and intensive services for students with severe disabilities so they can participate fully in courses, the life of the college, and employment opportunities.

Currently, the program operates in six community colleges and 23 school districts and serves approximately 200 students with severe disabilities. Internal data indicate that students benefit by gaining computer, life, and self-advocacy skills; developing work skills through internships and paid employment; building greater self-esteem; and leveraging opportunities to learn, to travel independently, and to envision themselves as college students.

The Youth Transition Program (YTP) is a comprehensive transition program for youth with disabilities operated collaboratively by the Oregon Office of Vocational Rehabilitation Services, the Oregon Department of Education, the University of Oregon, and local school districts across the state. YTP serves youth with disabilities who need additional support beyond the services typically offered through the state's general or special education programs in order to achieve their secondary and postsecondary employment and

continuing education goals. YTP addresses issues related to developing and assessing multiple skills, providing comprehensive guidance and transition services, and connecting K–12 to community providers.

Youth needing YTP services experience barriers to success, such as poor academic skills, limited social and independent living skills, negative job experiences, and low levels of family involvement or support. The program provides services to youth during their last two years of high school and continuing into the early transition years after leaving high school. All students in the program receive a comprehensive menu of services designed to address a broad array of transition needs, including:

- Individualized planning focused on post-school goals and self-determination, and help with coordinating school plans with relevant community agencies

- Instruction in academic, vocational, independent living, and personal social skills, and help with staying in and completing high school

- Career development services, including goal setting, career exploration, job search skills, and self-advocacy

- Opportunities for paid employment with local employers, development of school-based businesses, and on-the-job assessment and training

- Support services such as individualized mentoring and support, as well as referrals for additional specific interventions

- Follow-up support for one year after leaving the program to assist in maintaining positive outcomes in employment or postsecondary settings

YTP currently serves 1,382 youths in 105 high schools across Oregon; since 1990, the program has served over 20,000 youths with disabilities. During the last decade, YTP has engaged in several impact assessments and has found that 91 percent of program participants complete high school, a success rate that is far higher than the NLTS2 national rate of 72 percent. One year after completing the program, participants receive employment incomes averaging $9.64 per hour, which is $1.24 per hour higher than Oregon's minimum wage. Over the last 20 years, between 75 percent and 85 percent of youth in the program have been engaged in competitive employment or postsecondary education within one year of exiting the program (University of Oregon, 2010). The Youth Transition Project has also documented evidence of increased collaboration and referrals to vocational rehabilitation, as well as the development of individualized employment plans.

Conclusion

While students with disabilities collectively have made progress in completing high school and entering and completing postsecondary education, they still face challenges to achieving these outcomes. As our economy demands higher- and better-skilled workers and citizens, there is much more we can do to ensure that students with disabilities graduate ready for postsecondary success. In working with this population, it is important to acknowledge the heterogeneity of students' disabilities—in terms of both type and severity—and the impact these disabilities can have on students' educational needs and aspirations. However, it is equally important for school staff and families to hold all students to high expectations and to help students set goals that maximize their achievement based on their abilities.

Fortunately, there are many promising strategies to help students with disabilities become college and career ready. These approaches can inform not only the special education field but also the general education field, as educators seek to improve instruction and supports for all students. States can promote the implementation of these strategies by:

- Encouraging schools to raise expectations for students with disabilities, while respecting individual career and life goals, interests, and desires
- Increasing the amount of available information regarding postsecondary and career options early in the high school years
- Increasing the availability of knowledgeable counselors who can provide guidance and transition planning support
- Ensuring all students are served by well-trained teachers prepared to support their individual needs
- Helping district and school staff to better use data to inform instruction
- Providing multiple pathways to post-high school success

Given the research base and the knowledge and expertise of the special education field, we are well positioned to make significant improvements in positive college and career outcomes for students with disabilities.

Helpful Resources

- Center for Positive Behavioral Intervention and Supports—The Center gives schools capacity-building information and technical assistance to identify, adapt, and sustain effective school-wide disciplinary practices. It provides technical assistance to encourage large-scale implementation of positive behavioral intervention and supports (PBIS); supplies organizational models, demonstrations, dissemination, and evaluation tools needed to implement PBIS with greater depth and fidelity across an extended array of contexts; and extends the lessons learned from PBIS

implementation to the broader agenda of educational reform.

- **Consortium for Appropriate Dispute Resolution in Special Education (CADRE)**—CADRE works to increase the nation's capacity to effectively resolve special education disputes, reducing the use of expensive adversarial processes. CADRE works with state and local education and early intervention systems, parent centers, families, and educators to improve programs and results for children with disabilities.

- **Data Accountability Center (DAC)**—DAC provides information and technical assistance to improve the quality of all state-reported data required by the IDEA. DAC's mission is to support the submission and analysis of high-quality IDEA data by reviewing data collection and analysis and providing technical assistance to improve state capacity to meet data requirements.

- **Family Center on Technology and Disability (FCTD)**—FCTD is designed to support organizations and programs that work with families of children and youth with disabilities. It provides a wide range of resources on assistive technology, from introductory fact sheets and training materials to in-depth discussion of best practices and emerging research.

- **IDEA Partnership**—IDEA Partnership is a collaboration of more than 50 national organizations, technical assistance providers, and organizations and agencies at state and local levels. IDEA Partnership offers several resources related to IDEA and promotes the work of numerous organizations working with students with disabilities.

- **Institute on Community Inclusion (ICI)**—ICI promotes the inclusion of people with disabilities in several areas through training, clinical, and employment services, conducts research, and provides assistance to organizations in school, work, and community activities. ICI has been a leader in the advancement of dual enrollment and postsecondary access for students with disabilities and plays a leadership role in many other program and policy initiatives.

- **National Association of State Directors of Special Education (NASDSE)**—NASDSE is a national organization supporting state directors of special education across the country. It provides effective leadership in the development of national policy and offers strategies and tools through communities of practice, training, technical assistance, policy analysis, research, national initiatives, and partnerships.

- **National Center on Accessible Instructional Materials (AIM Center)**—The AIM Center serves as a resource for stakeholders, including state- and district-level educators, parents, publishers, conversion houses, accessible media producers, and others interested in learning more about and implementing accessible instructional materials and National Instructional Materials Accessibility Standards.

- **National Center on Education Outcomes (NCEO)**—NCEO provides leadership in designing and building educational assessments and accountability systems that support all students, including students with disabilities and English language learners. NCEO develops needs assessments, disseminates research, provides

technical assistance, and collaborates with leaders in the field.

- National Center on Intensive Intervention (NCII)—NCII builds state and district capacity to support educators in using data-based individualization to effectively implement intensive interventions in reading, mathematics, and behavior in grades K–12.

- The National Center on Response to Intervention (NCRTI)—NCRTI's mission is to provide technical assistance to states and districts and to build the capacity of states to assist districts in implementing proven models for response to intervention (RTI). It works in knowledge production activities that include a rigorous technical review to determine which tools, practices, and implementation strategies are deemed scientifically valid and appropriate for technical assistance and dissemination; expert trainings and follow-up activities (both face-to-face and at a distance) to drive implementation supports for RTI on a broad scale; information dissemination activities that will involve forming partnerships and reaching out to target stakeholders via ongoing communication, including web-based telecommunication; and a rigorous Center evaluation, with formative assessments to help improve the delivery of our services in states and districts across the country.

- National Center on Secondary Education and Transition (NCSET)—NCSET coordinates national resources, offers technical assistance, and disseminates information related to secondary education and transition for youth with disabilities in order to create opportunities for youth to achieve successful futures.

- National Center to Improve the Recruitment and Retention of Qualified Personnel for Children with Disabilities (Personnel Improvement Center)—The Personnel Improvement Center identifies, disseminates, and assists states in implementing evidence-based practices to meet the need for highly or fully qualified special education, early intervention, and related services personnel, including paraprofessionals. It helps states develop and implement personnel data management plans; assists in the development and implementation of personnel preparation program partnership plans between high-need LEAs and institutes of higher education; and assists targeted high-need local districts and programs in attracting, developing, and supporting new and existing personnel.

- The National Center to Inform Policy and Practice in Special Education Professional Development (NCIPP)—NCIPP aims to improve teacher quality and increase commitment to teaching students with disabilities by informing special education policy and practice on induction and mentoring and identifying and recommending induction and mentoring implementation strategies.

- The HEATH Resource Center—The HEATH Resource Center operates as a national clearinghouse on postsecondary education for individuals with disabilities. It is a collaborative effort among a network of professionals in the areas of disability, counseling, transition and postsecondary education. It disseminates information in the form of resource papers, fact sheets, website directories, newsletters, and

resource materials.

- National Consortium on Deaf-Blindness (NCDB)—In partnership with state deaf-blind technical assistance projects throughout the United States, NCDB conducts initiatives and activities to increase the capacity of state and local early intervention and education agencies to improve policies and practices for children and youth who are deaf-blind. In addition, NCDB works to promote the use of evidence-based practices; to increase the capacity of families to develop relationships with fellow families, service providers, and others; and to build knowledge of deaf-blindness and enhance skills in self-advocacy and self-empowerment.

- National Dissemination Center for Children with Disabilities (NICHCY)—NICHCY is a national information center that provides information on disabilities and disability-related issues, focusing on children and youth from birth to age 22.

- National Dropout Prevention Center for Students with Disabilities (NDPC-SD)—NDPC-SD provides high quality, evidence-based technical assistance to help states build and implement sustainable programs and best practices in dropout prevention, reentry, and school completion for students with disabilities.

- National Longitudinal Transition Study-2 (NLTS2)—NLTS2 was funded by the U.S. Department of Education to document the experiences of a national sample of students who were 13 to 16 years of age in 2000 as they moved from secondary school into adult roles. The study focused on a wide range of important topics, such as high school coursework, extracurricular activities, academic performance, postsecondary education and training, employment, independent living, and community participation. Its findings have been used extensively to inform federal, state, and local policies and practices across the country.

- ALLIANCE National Parent Technical Assistance Center (the ALLIANCE National PTAC)—The ALLIANCE National PTAC provides Parent Centers, Parent Training and Information Centers (PTIs), and Community Parent Resource Centers (CPRCs) with innovative technical assistance, up-to-date information, and high quality resources and materials. A major goal of the ALLIANCE National PTAC is to build the capacity of Parent Centers in order to improve results for children with disabilities from birth to age 26 in rural, urban, and suburban areas and from underrepresented and underserved populations.

- National Post-School Outcomes Center (NPSO)—NPSO is a collaborative effort of technical assistance and consulting services, secondary special education and transitions providers, and the University of Oregon. It helps state education agencies establish practical and rigorous data collection systems that will measure and profile the post-school experiences of youth with disabilities.

- The National Professional Development Center on Autism Spectrum Disorders—This Center promotes the use of evidence-based practice for children and adolescents

with autism spectrum disorders. The Center works in coordination with each state's Department of Education, Part C agency, and University Center for Excellence in Developmental Disabilities to provide professional development to teachers and practitioners who serve individuals from birth through twenty-two years with autism spectrum disorders.

- National Secondary Transitions Technical Assistance Center (NSTTAC)—NSTTAC is a national technical assistance and dissemination center that provides support to prepare students with disabilities for college and careers through the dissemination of evidence-based practices.

- PEPNet 2 (pn2)—pn2's mission is to improve postsecondary outcomes for individuals who are deaf or hard of hearing, including those with co-occurring disabilities, through the provision of evidence-based resources and services.

- State Implementation and Scaling-Up of Evidence-based Practices (SISEP)—The purpose of SISEP is to help states establish adequate capacity to carry out effective implementation, organizational change, and systems transformation strategies to maximize the academic achievement and behavior outcomes of students statewide.

References

Advocacy Institute. (n.d.). *Limits on sunshine: What parents are told about alternate assessments under ESEA.* Washington, DC: Author. Retrieved from http://www.advocacyinstitute.org/IDEASURVEY/FactSheetESEA_IDEASurvey.pdf

Alwell, M. & Cobb, B. (2007a). *Teaching social/communicative interventions to youth with disabilities.* Charlotte, NC: National Secondary Transition Technical Assistance Center. Retrieved from http://www.nsttac.org/content/what-works-transition-research-synthesis

Alwell, M., & Cobb, B. (2007b). T*ransition planning/coordinating interventions for youth with disabilities: A systematic review.* Charlotte, NC: National Secondary Transition Technical Assistance Center. Retrieved from http://www.nsttac.org/sites/default/files/assets/pdf/pdf/what_works/2c_full_text.pdf

Alliance for Excellent Education. (2011). *Caught in the crisis: Students with disabilities in U.S. high schools.* Washington, DC: Author. Retrieved from http://www.all4ed.org/files/CaughtCrisisSWD.pdf

Baer, R. M., Flexer, R. W., Beck S., Amstutz, N., Hoffman, L., Brothers, J., et al. (2003). A collaborative followup study on transition service utilization and post-school outcomes. *Career Development for Exceptional Individuals, 26,* 7–25.

Benz, M. R., Lindstrom, L., & Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children, 66,* 509–541.

Benz, M. R., Yovanoff, P., & Doren, B. (1997). School-to-work components that predict postschool success for students with and without disabilities. *Exceptional Children, 63,* 151–165.

Bowles, A. & Brand, B. (2009). *Learning around the clock: Benefits of expanded learning opportunities for older youth.* Washington, DC: American Youth Policy Forum. Retrieved from http://www.aypf.org/wp-content/uploads/2012/03/publications/AYPF_ELOs_w-cvr.pdf

Bullis, M., Davis, C., Bull, B., & Johnson, B. (1995). Transition achievement among young adults with deafness: What variables relate to success? *Rehabilitation Counseling Bulletin, 39,* 103–150.

Burgstahler, S., Moore, E., & Crawford, L. (2011). *Report of the AccessSTEM/AccessComputing/DO-IT Longitudinal Tracking Study (ALTS).* Seattle, WA: DO-IT, University of Washington. Retrieved from https://www.washington.edu/doit/Stem/tracking4.html

Carnevale, A.P., Rose, S., & Hansen, A. (2012). *Certificates: Gateway to gainful employment and college degrees.* Washington, DC: Georgetown University, Center on Education and the Workforce. Retrieved from http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/Certificates.FullReport.061812.pdf

Carnevale, A. P., Smith, N., & Strohl, J. (2010). *Help wanted: Projections of jobs and education requirements through 2018.* Washington, DC: Georgetown University, Center on Education and the Workforce. Retrieved from http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/FullReport.pdf

Cashman, J., Lineham, P., & Rosser, M. (2007). *New eyes: Meeting challenges through communities of practice.* Alexandria, VA: IDEA Partnership. Retrieved from http://www.ideapartnership.org/documents/NewEyes-1-Strategies.pdf

Center on Instruction. (2008a). *A synopsis of Gajria, Jitendra, Sood, & Sacks' improving comprehension of expository text in students with LD: A research synthesis.* Portsmouth, NH: RMC Research.

Center on Instruction. (2008b). *A synopsis of "Writing next: effective strategies to improve writing of adolescents in middle & high schools."* Portsmouth, NH: RMC Research. Retrieved from http://www.centeroninstruction.org/files/COI%20SPED%20Writing%20Next%20synopsis.pdf

Cobb, B., Lehmann, J., Newman-Gonchar, R., & Alwell, M. (2008). *Self-determination for students with disabilities: A narrative meta-synthesis.* Charlotte, NC: National Secondary Transition Technical Assistance Center. Retrieved from http://www.nsttac.org/content/what-works-transition-research-synthesis

GraduateFIRST. (2012). *GraduateFIRST: The dropout prevention destination webinar.* Retrieved from http://www.graduatefirst.org/news/2-23-2012-graduatefirst-dropout-prevention-destination-webinar

Halpern, A. S., Yovanoff, P., Doren, B., & Benz, M. R. (1995). Predicting participation in postsecondary education for school leavers with disabilities. *Exceptional Children, 62,* 151–164.

Haynes, M. (2013). *Strengthening high school teaching and learning in New Hampshire's competency-based system.* Washington, DC: Alliance for Excellent Education. Retrieved from http://www.all4ed.org/files/StrengtheningHSTeachingLearningNH.pdf

Ikemoto, G. S. & Marsh, J. A. (2007). Cutting through the "data-driven" mantra: Different conceptions of data-driven decision making. *Yearbook of the National Society for the Study of Education, 106:* 105–131.

Johnson, D., Thurlow, M., & Schuelka, M. (2012). *Diploma options, graduation requirements, and exit exams for youth with disabilities: 2011 national study.* Minneapolis, MN: National Center on Educational Outcomes, University of Minnesota. Retrieved from http://www.cehd.umn.edu/NCEO/OnlinePubs/Tech62/TechnicalReport62.pdf

Karp, M., Colcagno, J. C., Hughes, K., Jeon, D. W., & Bailey, T. (2007). *The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states.* St. Paul, MN: National Research Center for Career and Technical Education.

Kober, N. & Rentner, D. S. (2012). *Year two of implementing the Common Core State Standards: States' progress and challenges.* Washington, DC: Center on Education Policy. Retrieved from http://www.cep-dc.org/displayDocument.cfm?DocumentID=391

Leonard, R., D'Allura, T., & Horowitz, A. (1999). Factors associated with employment among persons who have a vision impairment: A follow-up of vocational placement referrals. *Journal of Vocational Rehabilitation, 12,* 33–43.

Malloy, J., Drake, J., Abate, K., & Cormier, G. (2010). The RENEW model of futures planning, resource development, and school-to-career experiences for youth with emotional or behavioral disorders. In D. Cheney (Ed.), *Transition of secondary students with emotional or behavioral disorders: Current approaches for positive outcomes* (pp. 267–304). Champaign, IL: Research Press.

Malloy, J., Tracey, M., & Harrington, M. (2012). Using positive behavioral interventions and supports for dropout prevention: Lessons from New Hampshire. *Association for Positive Behavior Support Newsletter.* Retrieved from http://www.iod.unh.edu/Projects/apex/research_published_materials.aspx

Improving College and Career Readiness for Students with Disabilities

National Association of State Directors of Career and Technical Education Consortium. (n.d.). *CTE enrollment.* Silver Spring, MD: Author. Retrieved from http://www.google.com/ url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CEAQFjAB&url=http%3A%2F%2Fwww. careertech.org%2Ffile_download%2Fe045cb7e-e460-45a5-80a6-29f62c79f729&ei=T79VUeOXG 5LY8gTb_oCgBQ&usg=AFQjCNHC97BrGjH_fF1jf4vOCnv-MEFlyQ&sig2=R3AezGQI5yvRNuNkGWyfU A&bvm=bv.44442042,d.eWU

National Center on Education Outcomes. (2007). *Alternate assessments based on modified academic achievement standards.* Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Retrieved from http://www.cehd.umn.edu/NCEO/onlinepubs/AAMASParentGuide.pdf

National Center for Education Statistics. (2008). *The condition of education 2008: Students with disabilities exiting school with a regular high school diploma.* Washington, DC: Institute of Education Sciences, U.S. Department of Education. Retrieved from http://nces.ed.gov/ programs/coe/pdf/coe_sdd.pdf

National Center for Education Statistics. (2010). *Status and trends in the education of racial and ethnic minorities.* Washington, DC: Institute of Education Sciences, U.S. Department of Education. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011015

National Center for Education Statistics. (2011a). *Digest of education statistics: 2010.* Washington, DC: Institute of Education Sciences, U.S. Department of Education. Retrieved from http://nces.ed.gov/programs/digest/d10/

National Center for Education Statistics. (2011b). *National assessment of educational progress at grades 8 and 12: Writing 2011.* Washington, DC: Institute of Education Sciences, U.S. Department of Education. Retrieved from http://nationsreportcard.gov/writing_2011/ writing_2011_report/

National Center for Education Statistics (2011c). *Trends in high school dropout and completion rates in the United States: 1972–2009.* (Report No. 2012-006). Washington, DC: Institute of Education Sciences, U.S. Department of Education. Retrieved from http://nces.ed.gov/ pubs2012/2012006.pdf

National Collaborative on Workforce and Disability for Youth. (2011). *Practice brief: Engaging youth in work experiences.* Washington, DC: Author. Retrieved from http://www.ncwd-youth.info/ innovative-strategies/practice-briefs/engaging-youth-in-work-experiences

National Collaborative on Workforce and Disability for Youth. (2012). *Able Trust: High school/high tech.* Washington, DC: Author. Retrieved from http://www.ncwd-youth.info/able-trust

Newman, L., Wagner, M., Cameto, R. & Knokey, A. M. (2009). *The post-high school outcomes of youth with disabilities up to 4 years after high school. A report from the National Longitudinal Transition Study-2 (NLTS2)* (NCSER 2009-3017). Menlo Park, CA: SRI International. Retrieved from www.nlts2.org/reports/2009_04/nlts2_report_2009_04_complete.pdf

Newman, L., Wagner, M., Cameto, R. & Knokey, A. M. (2010). *Comparisons across time of the outcomes of youth with disabilities up to 4 years after high school: A report of findings from the National Longitudinal Transition Study (NLTS) and the National Longitudinal Transition Study-2 (NLTS2)* (NCSER 2010-3008). Menlo Park, CA: SRI International. Retrieved from http://ies.ed.gov/ncser/pubs/20103008/pdf/20103008.pdf

Newman, L., Wagner, M., Knokey, A.-M., Marder, C., Nagle, K., Shaver, D., et al. (2011). *The post-high school outcomes of young adults with disabilities up to 8 years after high school: A report from the National Longitudinal Transition Study-2 (NLTS2)* (NCSER 2011-3005). Menlo Park, CA: SRI International. Retrieved from www.nlts2.org/reports/

Repetto, J. B., Webb, K. W., Garvan, C. W., & Washington, T. (2002). Connecting student outcomes with transition practices in Florida. *Career Development for Exceptional Individuals, 25,* 123–139.

Speroni, C. (2011). *Determinants of students' success: The role of advanced placement and dual enrollment programs.* New York: National Center for Postsecondary Research. Retrieved from http://www.postsecondaryresearch.org/i/a/document/19811_Speroni_AP_DE_ paper_110311_FINAL.pdf

TERC and Linkit! (2010). *Trends in professional development around the use of data.* Cambridge, MA: Authors. Retrieved from http://www.dataqualitycampaign.org/files/PD%20Data%20Survey.ppt

University of Oregon, College of Education. (2010). *Twenty years of the Youth Transition Program.* Eugene, OR: Author. Retrieved from http://www.ytporegon.org

U.S. Department of Education, Institute of Education Sciences. (2009). *Using student achievement data to support instructional decision making.* Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/pdf/practice_guides/dddm_pg_092909.pdf

U.S. Department of Education, Office of Special Education Research Sciences. (2011). *30th annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2008.* Washington, DC: Office of Special Education Projects, U.S. Department of Education. Retrieved from http://www2.ed.gov/about/reports/annual/osep/2008/parts-b-c/30th-idea-arc.pdf

U.S. Department of Labor. (2007). *Transition programs and services: High school/high tech and vocational rehabilitation.* Washington, DC: Author. Retrieved from http://www.dol.gov/odep/documents/transition_programs.htm

U.S. Department of Labor, Bureau of Labor Statistics. (2012). *Persons with a disability: Labor force characteristics–2011.* Washington, DC: Author. Retrieved from http://www.bls.gov/news.release/pdf/disabl.pdf

U.S. Government Accountability Office. (2012). *Students with disabilities: Better federal coordination could lessen challenges in the transition from high school* (GAO-12-594). Washington, DC: Author. Retrieved from http://www.gao.gov/assets/600/592329.pdf

Wagner, M., Newman, L., Cameto, R., Levine, P., & Marder, C. (2003). *Going to school: Instructional contexts, programs, and participation of secondary school students with disabilities. A report from the National Longitudinal Transition Study-2 (NLTS2).* Menlo Park, CA: SRI International. Retrieved from www.nlts2.org/reports/2003_12/nlts2_report_2003_12_complete.pdf

White, J., & Weiner, J. S. (2004). Influence of least restrictive environment and community based training on integrated employment outcomes for transitioning students with severe disabilities. *Journal of Vocational Rehabilitation, 21,* 149–156.

Wolgemuth, J., Cobb, B., & Dugan, J. (2006). *The effects of self-management interventions on academic outcomes for youth with disabilities.* Eugene, OR: University of Oregon, National Post-School Outcomes Center. Retrieved from http://www.psocenter.org/content_page_assets/content_page_35/SelfManagementReview

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