



# 2011

## **What Does ‘College and Career Ready’ mean for Students with Significant Cognitive Disabilities?**

Jacqui Kearns, Ed.D.

Harold Kleinert, Ed.D.

Beth Harrison, Ph.D.

Kathy Sheppard-Jones, Ph.D.

Meada Hall, Ed.D.

University of Kentucky

and

Melissa Jones, Ph.D.

Northern KY University

**Jacqui Kearns, Ed.D.**

**Harold Kleinert, Ed.D.**

**Beth Harrison, Ph.D.**

**Kathy Sheppard-Jones, Ph.D.**

**Meada Hall, Ed.D.**

**University of Kentucky**

**And**

**Melissa Jones, Ph.D.**

**Northern KY University**

**The authors of this document would like to thank Diane Browder, Shawnee Wakeman, and David Test at the University of North Carolina Charlotte for their helpful comments on earlier versions of this paper.**

All rights reserved. Any or all portions of this document may be reproduced and distributed without prior permission, provided the source is cited as:

Kearns, J., Kleinert, H., Harrison, B., Sheppard-Jones, K., Hall, M., Jones, M. (2010). *What does 'college and career ready' mean for students with significant cognitive disabilities?* Lexington: University of Kentucky.

The authors disclosed receipt of the following financial support for the research and/or authorship of this article: U.S. Department of Education Office of Special Education Programs Grant No. H3244040001. Opinions expressed in this document do not necessarily reflect those of these funders.

## **Abstract**

In this paper, we discuss the implications of “college and career” readiness for students with significant cognitive disabilities, i.e., those students who take their state’s respective alternate assessment on alternate achievement standards, who typically make up less than 1% of all students. We first briefly describe the population of students with significant cognitive disabilities. Secondly, we describe what is meant by “college and career ready” for all students, as well as the Common Core Standards that underlie the concept of “college and career ready”. Third, we consider the extent to which those standards are appropriate for students with significant cognitive disabilities (SCD) within the context of a) “college readiness” and b) “career readiness”. In the final section of this paper, we offer goals that states may wish to consider in planning outcomes for students with SCD to be college and career ready.

## **What Does ‘College and Career Ready’ mean for Students with Significant Cognitive Disabilities?**

### **Introduction**

The call for “college and career ready” standards on the national front bring to light intriguing questions when applied to students with significant cognitive disabilities, those students who are currently participating in alternate assessments on alternate achievement standards (AA-AAS). For example, what do the terms “college and career ready” mean for students with significant cognitive disabilities (SCD)? How important are academic educational experiences and life-long learning for this population? Is participation in college even a realistic and worthwhile possibility? How should we define “successful” life outcomes that are meaningful, valued, and sustainable for these students? To answer these questions, we first need to briefly define the population of students to whom we are referring with the term ‘significant cognitive disabilities’. Second, we need to describe what is meant by “college and career ready” for all students, as well as the Common Core Standards (CCSSO/NGA, 2010) that underlie the concept of “college and career ready”. Third, we need to consider the extent to which those standards are appropriate for students with SCD. In the final section of this paper, we offer goals that states may wish to consider in planning outcomes for students with SCD to be college and career ready.

### **Students with Significant Cognitive Disabilities (SCD)**

Students with SCD are those students for whom regular educational assessments, even with accommodations and modifications, are not appropriate for their full participation in measures of school accountability; students with SCD account for an estimated 1% or less of all students (Kearns, Towles-Reeves, Kleinert, Kleinert, & Thomas, in press; Kleinert, Quenemoen

& Thurow, 2010; U.S. Department of Education, 2005). As such, students with SCD require an alternate assessment based on achievement standards (AA-AAS). In states which are assessing slightly more than 1% of the total school population or less; students with significant cognitive disabilities *typically* included percentages of students in the categories of with moderate and severe intellectual disability (ID), as well as autism, multiple disabilities, and deaf-blindness but not all of any of these categories (Kearns & Towles-Reeves, 2007) . It is important to remember, however, that the term significant cognitive disabilities is *not* a category under IDEA (*Individuals with Disabilities Education Improvement Act of 2004*), nor is it *synonymous with the term Intellectual Disability (ID)*. While students with SCD represent students from *across* IDEA categories (including some students with intellectual disability, some students with autism, and some students with multiple disabilities), the category of ID simply represents the most frequent category from which students with significant cognitive disabilities are identified for participation in state AA-AAS (see Kearns et al. in press). In this paper, when we refer to students with significant cognitive disabilities, we are referring to students in their respective state AA-AAS. When we use the term intellectual disability, we are referring to the very specific IDEA category (formerly called “mental retardation”).

In fact, states vary considerably in the categorical percentages represented in the population of students within their respective AA-AAS. Nevertheless, Kearns et al. found, in a seven state study of students participating in the AA-AAS (N of over 12,600 students), that *learning* and *communicative* competence patterns for these students are very similar across states. According to these authors, students in state AA-AAS (students with SCD) are characterized as largely symbolic language learners (able to communicate verbally or through abstract symbol systems – 61% to 79% of the students across the 7 states), though a sizable

percentage of students in each state was characterized as emerging symbolic learners (e.g., beginning to use pictures and/or signs to communicate – 13% to 26% of the students across the 7 states) and a small, but significant percentage of learners in each state was described as pre-symbolic (i.e., having no formal communication system at all – 7% to 17% across the 7 states). In reading, the largest percentage of students with SCD across states (33% to 50%) was reported as reading sight words, simple sentences, directions or lists (with a much lower percentage of students being described as fluent readers). In fact, the overall percentage of students with SCD described as being able to “read fluently with critical understanding” by their teachers only increased marginally across the grade spans – from 2% of all students with SCD in the elementary grades, to 3% in the middle grades, and to 4% at the upper grades across the 6 states whose data could be disaggregated. In math across all grades, 32% to 57% of students of SCD were able to complete computational problems with or without a calculator, while a much smaller percentage (4% to 8%) was able to apply computational procedures to solve real-life problems. Again, there was only a small increase across the grade bands in the overall percentage of students with SCD who could apply computational procedures to solve real-life problems (4% of students at the elementary level, 4% at the middle school level, and 7% at the high school level across the 6 states whose data could be disaggregated).

### **College Readiness and Implications for Career Readiness for Student with SCD**

The above data on learning and communication competence for students with significant cognitive disabilities illustrates two points: 1) that there is considerable heterogeneity within the 1% or less of students who qualify as having SCD in their respective state AA-AAS; and 2) that students with SCD, when viewed in the context of grade level achievement, are markedly different in their current performance than their grade level peers, particularly for those students

who are identified by their teachers as beginning or emerging in their use of symbolic language. This brings us to the question as to what College and Career Readiness means for all of these students, and how we might conceive the relevance of the CCSSO/NGA Common Core Standards (2010) for students with SCD. We will first describe the relevance of the Common Core Standards.

***The Common Core Standards.*** The Council Chief State School Officers (CCSSO) and the National Governor's Association (NGA) recently developed a set of academic content standards in reading and mathematics referred to as the "Common Core Standards". The Common Core standards reflect an effort for states to have common standards in reading and mathematics K-12 developed by content experts, states education agencies, and government agencies, as well as school administrators, parents, and the community. These standards establish clear and consistent goals for learning that will prepare all America's children for success in college and work, positioning the United States for participation in a world economy (CCSSO, 2010). As states adopt this set of common standards, curriculum and assessments will be built upon this foundation of common standards. This ensures not only are expectations for learning and achievement high, but that these expectations are also predictable across states (for example, the curriculum for reading is similar for Kentucky and California). College and career readiness was considered from the outset in the development of the standards (CCSSO, 2010). Just as the developers of the Common Core standards considered the definition of College and Career Ready, so too should we consider what the literature says about College and Career Ready for all students and articulate that literature in light of the characteristics of students with significant cognitive disabilities.

***Elements of College Readiness.*** In his paper, "Redefining College Readiness", David Conley (2007) identified four major components for college readiness. These components

included 1) key cognitive strategies, 2) academic knowledge and skills, 3) academic behaviors, and 4) contextual skills and awareness. In a sense, these components are both the *result* of students achieving the academic competence, as well as the *means* by which they gain increasingly complex knowledge as they progress through these standards.

Key cognitive strategies refer to such things as intellectual curiosity for deeper understanding; engagement in active inquiry; ability to analyze data, material and sources for quality; construction of well reasoned arguments; interpretation of evidence; application of precision and accuracy of a task; and problem solving. Within the second component, academic knowledge and skills, Conley suggested writing and research are overarching themes for college success, with extensive knowledge in core academic areas of English, Math, Science, Social Studies, World Languages and the arts. The third component is academic behavior. Academic behavior refers to a form of self-monitoring where the student judges his/her level of mastery, possible areas of confusion, and the ability to reflect on what worked and what could be improved upon. In addition, academic behavior refers to the student's ability to work independently outside of class for success by going beyond textbooks and homework and encompassing a critical set of study and personal management skills (e.g., judging the time requirements for certain tasks, allocating sufficient time for tasks, etc.). The final component in Conley's model - contextual skills and awareness - refers to how a student manages and navigates within a "college" system, including admissions requirements, timelines, and processes.

More specifically, these four components encompass such things as well developed reading and writing skills; social and communication skills for working with others; and

recognizing the need for and seeking assistance when needed. These are the skills that all students need to be college and career ready.

Other researchers have discussed the importance of assisting students to college. Tierney, Bailey, Constantine, Finelstein, and Hurd (2009) identified similar recommendations in their “Institute of Educational Sciences Practice Guide :Helping Students Navigate the Path to College, What High Schools Can Do”. In this What Works Clearinghouse publication, the standard of evidence based practices resulted in similar recommendations to schools as they prepare their student populations for college. These authors advise schools to start college preparation early in the high school curriculum, promote a culture of evidence and support for students, build college-going networks and peer groups, and finally, provide assistance to complete tasks for college entry.

While students with significant cognitive disabilities are admittedly very far away from achieving the above competencies (as are often typically developing youth), Conley’s (2007) components *do* represent critical knowledge and skills in many ways for students with significant cognitive disabilities. Moreover, while successful transition for students with significant disabilities has focused more on employment (NTLS- 2, 2006), college and postsecondary education opportunities for students with intellectual disability, including significant disabilities, are ever increasing (Bowman & Weisenkauf, 1998; Hart & Grigal, 2010; Pampay & Bambara, 2011).

**New post-secondary opportunities for students with SCD.** Recent changes in federal legislation will have direct implications for students to be college ready. The reauthorization of the *Higher Education Opportunities Act (P.L. 110-315)* in 2008 opened the door to postsecondary education for students with intellectual disability, *including* those with significant

cognitive disabilities participating in state alternate assessments. For the purposes of the *Higher Education Opportunities Act*, an intellectual disability is defined as a student “(1) with mental retardation or a cognitive impairment, characterized by significant limitations in intellectual and cognitive functioning, and adaptive behavior as expressed in conceptual, social and practical adaptive skills; and (2) who is currently, or was formerly, eligible for a free appropriate public education under the *Individuals with Disabilities Education Act*.” For the first time, students with intellectual disability are eligible to qualify for the Federal Work Study Program, Pell Grants, and other Supplemental Educational Opportunity grants. To qualify, students must be enrolled in a Comprehensive and Postsecondary Program for students with an intellectual disability at an institution of higher education (e.g., two or four year colleges/universities or technical schools) and must be making satisfactory progress. Clearly, students with intellectual disabilities who were *also* alternate assessment participants (i.e., students with significant cognitive disabilities) meet the current definition for eligibility under the *Higher Education Opportunities Act*.

In response to the increased interest in the area of higher education for students with ID, a variety of postsecondary programs have emerged. One national database lists 139 postsecondary education initiatives for students with ID (thinkcollege.net, 2010), though this may be a conservative count. It is posited that there may be as many as 450 programs of varying degree nationally (Hart & Grigal, 2010). In general, these initiatives have followed one of three models, being either substantially separate, inclusive and individually supported, or a blending of the two (Hart, Zimbrich, & Parker, 2005). What is unknown from this data base is how many of these programs currently serve students with moderate and severe ID, and to what extent these programs are focusing on students who have participated in their respective state AA-AAS (i.e., those students identified as having significant cognitive disabilities). Papay and Bambara

(2011), in their web-based survey of 52 post-secondary programs serving students with intellectual disability, found that the largest number of students who were taking classes for credit were actually classified as having learning disabilities (N = 39 across all programs), and only 7 students with moderate intellectual disability in this survey were taking college classes for credit. A total of 4 students with moderate intellectual disability were reported by these schools as participating through a course audit option. Students with moderate intellectual disability were more likely to be reported as participating “informally” in classes (N = 31) (that is, neither officially enrolled for credit or audit status), and only 2 students with severe intellectual disability across these 52 programs were participating in college courses at any level, including continuing education or adult education classes.

With increased focus on college opportunities for students with intellectual disability, and hopefully increased opportunities specifically for students with SCD, has also come a new program of federal awards for postsecondary institutions to encourage the development of model demonstration projects around the country - the Transition and Postsecondary Programs for Students with Intellectual Disabilities (TPSID) funded through the Office of Postsecondary Education (OPE). Key to these model programs are individualized supports that promote participation within existing academic coursework and inclusion in campus life. These programs also focus on integrated work experiences, independent living skills, and the acquisition of a meaningful credential for students on program completion for students with intellectual disability. Again, the challenge for these programs will be to ensure that students with significant cognitive disabilities (those students in the AA-AAS) also have access to these programs.

One such program, the Supported Higher Education Project at the University of Kentucky and Northern Kentucky University, is based on research confirming that all people benefit from inclusion with peers and in roles that are valued by their communities (Wolfensberger, 1988). Here is one student's example; "Matt" was a student in his state's alternate assessment prior to attending college:

Matt is a fourth year college student pursuing studies related to theatre and acting with the ambition of being famous one day! He has already had multiple university experiences that are preparing him for his future in this field. These include building stage sets for college performances, participating in a dance troupe that travels throughout the region performing at area P-12 schools, and co-presenting at various conferences about his experiences. What makes Matt unique is that he has Down syndrome. Although his parents supported his inclusion in general education classes throughout his entire life, Matt has done so with significant accommodations tailored to his unique strengths and needs. He does not possess the knowledge, skills, and test taking abilities of his college peers so he did not take any entrance examinations. Instead, Matt has enrolled at a public university as a non-degree seeking student, auditing many of his classes.

As a true member of the university community, Matt has volunteered his time working at the campus student recreation center, completing such tasks as swiping student I.D. cards, wiping off equipment, and distributing towels. He has participated in the student employee holiday parties and often attends campus recreation events with his peers. Matt makes friends everywhere he goes and often finds natural supports in his classes by asking peers to tutor or mentor him. When needed, Matt is provided a formal

mentor to help him organize his time and complete his schoolwork. He has audited academic courses such as Photography, Nutrition, Appreciation of Rock n' Roll, and Public Speaking, but prefers activity courses such as Stagecraft, Modern Dance, Yoga, Concepts of Lifetime Fitness, or Acting I and II.

Matt is the youngest of three siblings, all of whom attended college. During his senior year of high school, he announced he was planning to go to college and never looked back. His purpose for going to college was "to learn" and "make new friends."

When asked what he likes about college, Matt said, "I love it here. This is my home."

Below is a second student example, again of a student who had participated in her state AA-AAS and is now attending college:

Janie is in her second year attending college at a four-year university. She has a passion for teaching young children and is planning to work in an early childhood facility some day. She has already begun developing the skills needed to engage in this profession by volunteering at the university early childhood center, auditing a course in the early childhood program, and holding a paid position at a local early childhood center over the summer.

Janie attends college as a non-degree seeking student, auditing most of her classes due to the high level of accommodation and modification needs she has related to her intellectual disability. Each semester she requests to have a peer mentor help her study for tests and complete assignments, working diligently to keep up with the work assigned in each course. Janie is a dedicated student who attends well in class, but requests assistance to key in on important concepts when note-taking and studying. She was meaningfully included in her P-12 schooling, but participated in alternate assessments

throughout high school, again due to the high level of support she needed to benefit from the general education curriculum.

While in college, Janie has taken two History courses, Acting, Music Appreciation, a developmental course called Reading Workshop to improve her reading comprehension skills, and an introduction to college life course – University 101. When asked, Janie will eagerly tell you how much she has enjoyed her courses and is very grateful for the support and friendship she receives from her peer mentors.

Although Janie is focused on her academics, she has also become an integral part of the university culture, landing a job as one of the Student Assistant Managers for the university Men’s Basketball Team. This job requires Janie to be at every basketball practice, helping the coach to manage the equipment for practice drills and keeping everything running smoothly. Janie has a habit of breaking out in a cheer every now and then, and has been known to cheer alongside the university drill team as well. Her enthusiasm for college sports is contagious!

Brad is a third student with a significant cognitive disability. His brief example below represents a “dual enrollment” program, in which students, as part of their Individualized Education Programs within their final years of public schooling under IDEA (typically ages 18 to 21), attend a post-secondary education program, with supports provided by the school system.

Brad, a young man with Down syndrome, attends a public school system that operates a dual enrollment program: College Connections. The College Connections program allows students with moderate and severe intellectual disability to attend college in their final years of public school, while also focusing on community-based job preparation in a chosen job area. Brad chose to take the class Radio Production at the

local college because he loves everything about music and recording. In addition to a significant cognitive disability, Brad also has communication difficulties and it was difficult to understand his speech at times. His teachers and speech/language therapist thought a radio production class was an excellent choice, because Brad could work on his speech as well as learn about radio productions. When Brad's local district teacher got the syllabus from the professor, the professor stated that he would work with Brad's teacher to adapt any assignments. Because the assignments were hands-on activities, the only adaptation was the length of the writing piece for each assignment. So Brad was grouped with other classmates and together they were responsible for the majority of the written products for the class. Brad helped with the information that was needed to complete the assignments.

There were about 12 students in the class and one of their projects was to develop interview questions and then to use the recording equipment to interview two people. Brad was in a group of three college men. They talked about their interests and found out that they had a lot in common; they all loved music, video games, and hanging out with their friends.

For the interview assignment, Brad helped with developing the questions to ask, learned how to use the interview equipment, and conducted the interview with one other student. He also chose some of the background music for the interviews. Brad's speech therapist commented on his improved communication competence, as well as his more positive attitude towards speaking!

In planning for the future, it is important to consider that new models for postsecondary education are emerging and will continue to emerge. While significant challenges remain in

opening these doors for students with SCD, it is feasible that all students will be able pursue an opportunity in higher education in the years to come, tailored to their individual talents, needs and person-centered planning goals.

### **Career Readiness for Students with Significant Cognitive Disabilities**

Yet college in itself is not the “end-goal”, but is merely a stepping stone to one’s career and adult life. Although more students with significant cognitive disabilities may have the opportunity to benefit from postsecondary programs, the ultimate goal will still be career readiness. Other students with significant cognitive disabilities will continue to transition directly from high school to work. The Common Core Standards promote career readiness generally, but should be considered along with standards specifically targeted to career readiness (States Career Cluster Initiative, 2008). This is true for all students, including students with SCD, and means that “career readiness” imposes additional considerations in planning for the future. In the following section, we consider both the academic and life/employability skills foundations to career readiness.

**Academic foundations.** Working in the 21<sup>st</sup> century requires a higher level of academic competence than needed by previous generations of students. For all students, academic content such as writing, research, and math represent essential knowledge and skills that, in turn, lead to successful transition to adult life. Not surprisingly, factors contributing to a successful transition for students with disabilities include 1) receipt of a high school diploma, and 2) reading skills, as well as general academic competence (Halpern, Yovanoff, Doren, & Benz, 1995; Heal & Rusch, 1994). Unfortunately, students with the most significant cognitive disabilities may be the least likely to graduate with a high school diploma (Wagner, Newman, Cameto, Levine, & Garza, 2006). Academically, data from at least 6 states indicate that, for the

most part, these students are leaving high school unable to read beyond sight words or do math beyond using a calculator (Kearns, Towles-Reeves, Kleinert, Kleinert, & Thomas, in press). Even more troubling, a small percentage of students are leaving school without even the means to communicate essential intents, that is, without a formal communication system (Kearns et al.).

In addition to academic content, the broader academic behaviors referenced by Conley (2007) are also important for students with SCD to achieve career readiness. Working independently for extended periods, recognizing the need for and seeking assistance when needed, demonstrating appropriate social skills, and working effectively in small groups are essential behaviors for any work or future environment. As described by Conley, the key cognitive strategies identified for typical students have direct applicability to students with SCD, in that these strategies go beyond simple recall and make learning meaningful and immediately useful. These characteristics ensure that students will not only demonstrate skill acquisition, but are more likely to apply and retain knowledge and skills. Generalization of information, or the extent to which students with SCD can use new learning, represents an essential element of learning for this population of students (Kleinert, Browder, & Towles-Reeves, 2009). For example, it will be important for students with SCD to be able apply mathematical skills to a job, or to apply literacy skills to office filing or computer-entry tasks. The skills identified by Conley are also consistent with the cognitive processes required for self-determination (Kleinert, Collins, Wickham, Hager, & Riggs, 2010; Wehmeyer & Palmer, 2003). Self determination involves skills like self-advocacy, problem solving, goal setting, and decision making, and will be discussed further below.

Finally, these foundational academic skills are also reflected in the States' Career Skill Cluster Initiative (2008) *Essential Knowledge and Skill Statements*. Included in these standards

are such academic competencies as the application of language arts and literacy skills across a broad array of contexts; mathematical skills that include analysis, graphing, and problem-solving skills; and communication competencies that include effective oral or expressive symbolic skills, using communication in the workplace, and the ability to write effectively.

**Career Readiness Standards.** The States' Career Skill Cluster Initiative (2008)

*Essential Knowledge and Skill Statements* identify those standards most specific to career and job readiness. The Career Skills Clusters competencies identify such critical areas as problem-solving (e.g., resolving conflicts with staff and/or customers, monitoring work performance goals), effective use of technology (e.g., using email, managing data-bases); safety and health/environmental (e.g., workplace safety, knowledge of emergency procedures); leadership and teamwork (e.g., decision-making, participating in civic and community activities, assisting others in their work); ethics and legal responsibilities (e.g., understanding employer policies, ethical behavior on the job); employability and career development (e.g., developing career goals, interviewing effectively, developing resume or portfolio of experiences, continued professional development); and technical skills (accessing information quickly, using effective time management).

For students with SCD, these are not competencies that can be learned “in the abstract”. While career exploration, mentoring, and job shadowing experiences are important for all students, these are especially critical for students who need explicit instruction in the “next environment”, as a critical part of preparation for that future environment. For example, for a student with SCD who uses an augmentative and alternative communication device, that student needs explicit instruction in how to use that device to effectively communicate in the workplace,

and essential work and social interaction vocabulary/symbols need to be carefully programmed into the student's communication system as a part of that career training.

Indeed, the importance of community-based vocational evaluation and job training, actual paid employment opportunities while still in high school, and interagency coordination, including the active participation of State Vocational Rehabilitation and adult service agencies, have been well documented in achieving positive post-school outcomes for youth with disabilities in general (Flexer, Simmons, Luft, & Baer, 2008; Sitlington & Clark, 2006). While Baer, McMahan, & Flexer (2004) noted that there is not a substantial research base on evidenced-based transition practices for students with the most significant disabilities, Inge & Moon (2006) noted a number of promising practices including: student-centered planning, interagency collaboration, high school curricula that include access to *both* life skill instruction and the general curriculum, access to paid employment while in high school, and family involvement.

Moreover, contextual skills are also important to ensure post-school success for SCD. Students with significant disabilities need assistance accessing a variety of supports and services. Indeed, these students may be the least likely to develop the skills they need to access essential supports for achieving their goals, whether those goals mean accessing college systems, social services systems, health systems or employment systems in order to obtain a preferred job. Transition planning should focus to some degree on the supports and contextual skills that a student may need to be successful (Wehman, 2001; West, Corbey, Boyer-Stephens, Jones, Miller & Sarkees-Wircenski, 1999). Indeed, Transition services are addressed in IDEA (PL 101-476, 20 U.S.C. 1401 [a][91]:

Transition services means a coordinated set of activities for a student, designed within an outcome-oriented process which promotes movement from school to post school activities including post-secondary education, vocational training, integrated employment (including supported employment), as well as continuing and adult education.

Finally, both college and career readiness for students with SCD also means focusing on the essential element of *self-determination*. In American society, high school students can decide for themselves and with their families whether to pursue higher education before or to seek a job after high school graduation. While all students need to meet a common core of academic expectations, there also is the need for flexibility in planning high school programs to allow some students to pursue more advanced academic options and others to invest high school time in career training. Students should have the right to decide *their* future direction. This is true for all students, including those with SCD specifically, as they learn the self-determination components of goal setting, developing action plans to achieve their goals, and evaluating the extent to which they have achieved those goals (Kleinert, Harrison, Fischer, & Kleinert, 2010; Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000). Unfortunately, educators are not necessarily taking advantage of opportunities to teach the key elements of self-determination. As Carter, Owens, Trainor, Sun, and Swedeen (2009) found, high school students in one state's alternate assessment did *not* evidence more complex elements of self-determination in the context of their school and everyday routines, and that opportunities to learn self-determination skills were frequently not utilized by these students.

The importance of these foundational competencies, as well as our failure to systematically teach these competencies, is illustrated in the *present* status of post-school

outcomes for students with intellectual disability (ID). Post-school outcome data for students with ID suggest that these students are least likely to have regular peer interactions, independent peer interactions and the development of peer support networks (Wagner, Newman, Cameto, Levine, & Garza, 2006). Additionally, Newman, Wagner, Cameto, and Knokey (2009) found that of all IDEA disability categories, former students with ID were least likely to have participated in a community group (hobby or sports club, religious or church group) within the past year. Social isolation is unfortunately a way of life for many adults with ID. Finally, Wagner, Newman, Cameto, Levine, and Garza (2006) reported that youth with more significant disabilities (including students with the IDEA labels of intellectual disability and multiple disabilities) are “among the least likely” to have received a regular diploma and “their rates of engagement in school, work, or preparation for work shortly after high school (52 percent and 54 percent) are at the low end of the disability category distribution” (p. 19).

While we do not have precise post-school outcome data for students with significant cognitive disabilities (given that states do not track outcomes of former students by participation in the alternate assessment on alternate achievement standards), we can certainly infer from these data that students with SCD, as a group, have at best very limited post-school outcomes. Indeed, in the one study published thus far on post-school outcomes for students in one state’s AA-AAS (Kleinert et al., 2002), the authors found uniformly poor outcomes for the former students one year after graduation in measures of employment, community participation, social relationships, and choice and decision-making.

### **State Approaches to College and Career Ready**

States are developing their own approaches to the national call for “College and Career Readiness”. For example, one Midwestern state has, as part of its “Unified Strategy for College and Career Readiness,” identified four key focus areas to achieve this mandate for all students:

1. Accelerated Learning Opportunities [focusing on the expansion of Advanced Placement (AP)/International Baccalaureate (IB) access and dual credit opportunities]
2. Secondary Intervention Programs (focusing on the development of transitional coursework)
3. College and Career Readiness Advising (focusing on the full implementation of the Individual Learning Plan and comprehensive advising programs)
4. Postsecondary College Persistence and Degree Completion (focusing on bridge programming, accelerated learning opportunities, and student support and intervention systems) (KDE, CPE, 2010).

Within each of these focus areas lie strategies that would benefit students with significant cognitive disabilities. For example, under the first area above, public schools are not only considering high school/college “dual enrollment” for academic “honors” students, but using this mechanism to support students with SCD to attend college classes with their same age peers as part of their free, appropriate education under IDEA. As we noted above, dual enrollment programs are especially appropriate for students who are 18-21 years old. Similarly, the opportunities for paid work experiences, as part of high school internships, can have a direct bearing on future employability for student with significant disabilities.

However, the way in which states define college and career readiness may also prove a barrier for students with SCD, regardless of the readiness skills they possess. For example, some states define college readiness as “a level of preparation a first-time student needs in order to

succeed in a *credit-bearing course at a postsecondary institution.*” (KDE, CPE p. 7, 2010, italics not in the original) This could prove problematic as the *Higher Education Opportunities Act (2008)* notes that success may be defined differently for students with intellectual disability, and can include course audit options, as long as there is a satisfactory means for measuring academic progress towards a recognized goal or individualized certificate or credential.

The point is that states, in developing their specific responses to “college and career readiness” initiatives, need to consider how each of the broad strategies that they define relate to all students. While these initiatives do present new opportunities for students with SCD, if specific criteria for determining success are too narrowly focused, they may also present real barriers to students with significant disabilities in realizing their goals, or cause them to be left out of the conversation about what schools should be about.

### **Summary**

While the terminology associated with “college and career ready,” as it has been defined by educational experts and policy makers, may seem way out of reach for most students with significant cognitive disabilities, the skill sets associated with these standards *do* represent important learning for these students. Students with SCD are leaving school without the skills they need; however, it is important not to reduce the standard of achievement simply because of that failure. By lowering the “standard”, the risk increases that students will lose access to important knowledge and skills. Setting a “commensurately high” standard for achievement will be fair only after schools have provided students with SCD with the necessary high quality educational opportunities to learn prioritized academic content using appropriate supports and services. Although the exact outcomes students with SCD should achieve upon high school graduation to be college and career ready are difficult to pinpoint at this time, given the unknown

impact of current educational reform, several specific goals can be targeted. The following goals would move this population much closer to achieving those skills necessary to become “career and college ready”.

- 1) **Recognizing and developing communicative competence should be addressed for students with significant cognitive disabilities by Kindergarten.** Communicative competence forms the foundation of academic learning in reading, mathematics, as well as the pursuit of knowledge. Indeed, access to the general curriculum cannot be fully achieved for students who are perceived to lack symbolic language. Although it is important to note here, that all students communicate, it is the regularized convention of language that is important here. Moreover, in a follow-up of former students in one state’s alternate assessment, Kleinert et al. (2002) found that students' lack of verbal communication skills was invariably indicative of poor post school outcomes in general (employment, community participation, social relationships, choice and control). This finding is especially critical in light of Kearns et al. (in press) finding that for high school students participating in their state’s respective AA-AAS across 7 states, 13.2% of these high school students had limited symbolic communicative competence and nearly 10% had *no* form of symbolic communication. Finally, students who leave high school without a means to communicate are at tremendous risk for abuse and neglect (Cox-Lindenbaum & Watson, 2002), as well as substantially diminished life outcomes.
- 2) **Fluency in reading, writing, and math are necessary for the pursuit of information whether used for lifelong learning, leisure, or vocational purposes.** Yet, among high school students with significant cognitive disabilities in one 7 state study (Kearns et al.), only a very small percentage of these students were able to read with fluency or to solve

math problems in everyday life. Historically, academic content has been underemphasized or omitted for this population of student; therefore, it is simply unknown how many students may achieve this competence in the future with sustained instruction.

- 3) **Age appropriate social skills and the ability to work effectively in small groups are essential for future educational as well as vocational pursuits.** Again, present post-school data would suggest that students with intellectual disability are perhaps the least engaged in their community and in peer social networks than any set of former students with disabilities (as identified by IDEA disability classifications). While students with significant cognitive disabilities do not “equate” to students with ID (but are rather overlapping groups), what little information we do have on post-school outcomes for students with SCD suggests equally poor, if not even poorer, levels of community engagement (Kleinert et al., 2002).
- 4) **Independent work behaviors, as well as assistance seeking behaviors, are critical for lifelong learning pursuits including vocational success.** These are skills that must also be taught in the context of ‘real-life’ settings. The importance of community-based vocational evaluation and job training and actual paid employment opportunities while still in high school have been well documented in achieving positive post-school outcomes (Flexer, Simmons, Luft, & Baer, 2008).
- 5) **Skills in accessing support systems are essential for long-term success.** Students with significant disabilities in particular will likely need external supports in the form of peer networks, study groups, co-worker supports, and other forms of educational and community supports to realize lives of contribution and fulfillment.

Finally, these recommendations require a careful sense of balance both in the curricular focus for this population of students as a whole, and within the personalized learning priorities identified for each student. There is a need to consider *both* individualized curricular priorities, and effective and efficient practices to attain those priorities. Students with SCD will often need more time and more intensive supports to master the content standards. Students with SCD who are pursuing high school diplomas sometimes have to retake courses, thus sacrificing time that would otherwise be devoted to preparing for specific careers. There is the potential risk that all career preparation could be sacrificed to meet increasing academic expectations. To maintain opportunities and balance, educational programs need to set priorities for what content is most critical for each student, and use effective and efficient teaching procedures throughout the student's school career to attain those goals.

**References:**

- Baer, R., McMahan, R., & Flexer, R. (2004). Transition models and promising practices. In R. Flexer, T. Simmons, T., P. Luft. & R. Baer. *Transition planning for secondary students with disabilities (2<sup>nd</sup> ed.)* (pp.53-82). Upper Saddle River, NJ: Merrill/Prentice Hall.
- Bowman & Weinkauff, (1998). Implementing SRV: Post-secondary Education as a Pathway to Socially Valued Roles. Retrieved from the <http://www.socialrolevalorization.com/resource/resource.html> (June, 2010).
- Carter, E., Owens, L., Trainor, A., Sun, Y., & Sweeden, B. (2009). Self-determination skills and opportunities of adolescents with severe intellectual and developmental disabilities. *American Journal of Intellectual and Developmental Disabilities, 114*, 179-192.

- Conley, D. (2007). *Redefining college readiness*. Eugene, OR: Educational Policy Improvement Center.
- Cox-Lindenbaum, D., & Watson, S.L. (2002). Sexual assault against individuals who have a developmental disability. In D.M. Griffiths, D. Richards, P. Fedoroff, & S.L. Watson, (Eds.), *Ethical dilemmas: Sexuality and developmental disability* (pp. 293-329). Kingston, NY: NADD Press.
- Flexer, R., Simmons, T., Luft, P., & Baer, R. (2008). *Transition planning for secondary students with disabilities (3<sup>rd</sup> ed.)*. Upper Saddle River, NJ: Merrill/Prentice Hall.
- 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.
- Hart, D., & Grigal, M. (2010). The spectrum of options—Current practices. In M. Grigal & D. Hart (Eds.), *Think College: Postsecondary education options for students with intellectual disabilities* (pp. 49-86). Baltimore, MA: Paul H. Brookes.
- Hart, D., Zimbrich, K., & Parker, D. (2005). Dual enrollment as a postsecondary education option for students with intellectual disabilities. In E. Getzel & P. Wehman (Eds.), *Going to college: Expanding opportunities for people with disabilities*. Baltimore, MD: Paul Brookes.
- Heal, L.W., & Rusch, F.R. (1994). Prediction of residential independence of special education high school students. *Research in Developmental Disabilities*, 15, 223-43.
- Higher Education Opportunities Act of 2008, PL110–315, 20 U.S.C. §§ 1001 *et. seq.*

Inge, K., & Moon, M. (2006). Vocational preparation and transition. In M. Snell & F. Brown (Eds.), *Instruction of students with severe disabilities (6<sup>th</sup> ed.)* (pp. 569-609). Upper Saddle River, NJ: Merrill/Prentice Hall.

Individuals with Disabilities Education Act Amendments (IDEA) of 1997, PL 105-17, 20 U.S.C. §§ 1400 *et seq.*

Individuals with Disabilities Education Improvement Act (IDEA) of 2004, PL 108-446, 20 U.S.C. §§ 1400 *et seq.*

Kearns, J., Towles-Reeves, E., Kleinert, H., Kleinert, J., & Thomas, M. (in press). Characteristics of and implications for students participating in alternate assessments based on alternate academic achievement standards. *Journal of Special Education*.

Kentucky Department of Education (KDE) & Kentucky Council on Postsecondary Education (CPE) (2010). Unified strategy for college and career readiness - Senate Bill 1. Kentucky Department of Education: Frankfort, KY.

Kleinert, H., Browder, D., & Towles-Reeves, E. (2009). Models of cognition for students with significant cognitive disabilities: Implications for assessment. *Review of Educational Research, 79* (1), 301-326.

Kleinert, H., Collins, B., Wickham, D., Hager, K., & Riggs, L. Kleinert, J., Kearns, J., & Kleinert, H. (2010). Embedding life skills, self-determination, social relationships, and other evidenced-based practices. In H. Kleinert and J. Kearns (Eds.), *Alternate assessment for students with significant cognitive disabilities: An Educator's Guide* (pp. 267-289). Baltimore: Paul Brookes.

Kleinert, H., Garrett, B., Towles, E., Garrett, M., Nowak-Drabik, K., Waddell, C., & Kearns, J. (2002). Alternate assessment scores and life outcomes for students with significant disabilities: Are they related? *Assessment for Effective Intervention, 28*(1), 19-30.

- Kleinert, J., Harrison, B., Fisher, T., & Kleinert, H. (2010). "I can and I did" - Self-advocacy for young students with developmental disabilities. *Teaching Exceptional Children*, 43 (2), 16-26.
- 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 of findings from the National Longitudinal Transition Study-2 (NLTS2) (NCSEER 2009-3017)*. Menlo Park, CA: SRI International. Retrieved July 10, 2010, from [www.nlts2.org/reports/2009\\_04/nlts2\\_report\\_2009\\_04\\_complete.pdf](http://www.nlts2.org/reports/2009_04/nlts2_report_2009_04_complete.pdf) .
- Papay, C., & Bambara, L. (2011). Postsecondary education for transition-age students with intellectual and other developmental disabilities: A national survey. *Education and Training in Autism and Developmental Disabilities*, 46 (1), 78-93.
- Sitlington, P. & Clark, G. (2006). *Comprehensive transition education and services for students with disabilities (3<sup>rd</sup> ed.)*. Needham Heights, MA: Allyn & Bacon.
- State Careers Cluster Initiative (2008). *States' career cluster initiative: Essential knowledge and skill statements*. Retrieved from the World Wide Web: [http://www.careerclusters.org/resources/pos\\_ks/Essential%20Statements%20-%20100608.pdf](http://www.careerclusters.org/resources/pos_ks/Essential%20Statements%20-%20100608.pdf)
- Tierney, W. G., Bailey, T., Constantine, J., Finkelstein, N., & Hurd, N. (2009). *Helping students navigate the path to college: What high schools can do: a practice guide* (NCEE #2009-4066). Washington, DC: National Center for Education Evaluation and Regional Assistance. Retrieved from <http://ies.ed.gov/ncee/wwc/publications/practiceguides/>
- Wagner, M., Newman, L., Cameto, R., Levine, P., & Garza, N. (2006). *An overview of findings from Wave 2 of the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA:

SRI International. Available at

[www.nlts2.org/reports/2006\\_08/nlts2\\_report\\_2006\\_08\\_complete.pdf](http://www.nlts2.org/reports/2006_08/nlts2_report_2006_08_complete.pdf).

Wehmeyer, M., & Palmer, S. (2003). Adult outcomes for students with cognitive disabilities three-years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities, 38* (2), 131-144.

Wehmeyer, M., Palmer, S., Agran, M., Mithaug, E., & Martin, J. (2000). Promoting causal agency: The self-determined learning model of instruction. *Exceptional Children, 66*, 439-453.

Wehman, P. (2001). *Life beyond the classroom (3<sup>rd</sup> Ed.)*. Baltimore: Paul Brookes.

West, L. Corbey, S., Boyer-Stephens, A., Jones, B., Miller, R.J., & Sarkees-Wircenski, M. (1999). *Integrating transition planning into the IEP process (2<sup>nd</sup> Ed.)*. Reston, VA: Division of Career Development and Transition, Council for Exceptional Children.

Wolfensberger, W. (1998). *A brief introduction to social role valorization: A high-order concept for addressing the plight of societally devalued people, and for structuring human services. (3<sup>rd</sup> ed.)*. Syracuse, NY: Training Institute for Human Service Planning, Leadership and Change Agency (Syracuse University).