

# PIPEline to Career Success for Students with Disabilities

## ROOT CAUSES & STRATEGIES



KEY ROOT CAUSES FOR SWD INCLUSION

ROOT CAUSE	THEORY	STRATEGIES
<p><b>Key Issue: IEP Process</b>  <i>The IEP is too often organized as a mechanism for documenting interventions instead of a tool for student-centered exploration of needs, strengths, and interests.</i></p> <p>The IEP serves as a touchpoint for parent–student engagement and school/ community team building to nurture high expectations and create specific accommodations to support student career goals and to document shared decisions. It is an important shift point for academic planning, TA and support, self-determination, goal-setting and achievement, and both informal and formal assessment of individual gifts and challenges.</p>		<ul style="list-style-type: none"> <li>Emphasize academic access to CTE/STEM programs and attention to postsecondary transition preparation in the IEP process.</li> <li>Create sustainable age-appropriate transition plans with PCP, which include parents and professionals to support the individual needs of the student.</li> <li>Keep strengths-based assessments at the heart of conversations about academic progress and student goals, even when addressing needs for accommodation. (Avoid making deficits central in discussions.)</li> <li>Promote self-determination assessment data for transition planning.</li> <li>Balance objective medical diagnoses that identify most needed accommodations with a whole-person approach that integrates accommodations, strengths, and personal goals for the learner’s plan.</li> </ul>
<p><b>Key Issue: Community-Based Support</b>  <i>Without community relationships and collaboration, SWD and their families feel hopeless and trapped in the isolation of a medicalized diagnosis.</i></p> <p>Community networks can maximize the strengths, support goals, and transition plans in all of the environments in which SWD interact with peers and adults. Collaboration and partnerships are critical to ensuring that SWD have the comprehensive and wraparound supports needed to make the transition to college, careers, and independent living.</p>		<ul style="list-style-type: none"> <li>Increase trust and involvement by addressing needs such as transportation and technology accommodations in school, home, work experience/training, and community events.</li> <li>Identify community partners to support families and SWD in working together to meet student goals.</li> </ul>
<p><b>Key Issue: Self-Determination</b>  <b>Self-Efficacy and Self-Advocacy</b>  <i>Like every student, and no matter how severe their disabilities, SWD can create goals and pursue their dreams.</i></p> <p>Promoting and enhancing the self-determination of SWD means putting their agency at the center of their experiences and decisions and helping them act in a purposeful and planful manner based on their own assessment of potential actions and results, with the support of their TA team. Self-determination, which includes both self-advocacy and self-efficacy, is a specific challenge for PWD because the systemic supports that respond to their diagnosis often impose low expectations and implicitly or explicitly teach them that they are impaired and therefore not capable of self-assessment, self-regulation, or independent ambitions.</p> <p><i>Self-advocacy is a skill, and can be taught.</i></p>		<ul style="list-style-type: none"> <li>See the student as an individual, rather than a disability or diagnosis. Understanding the challenges and accommodations required to build meaningful transitions to work and adulthood is a part of a larger relationship with the student, who should be an active part of the transition process.</li> <li>Balance peer interaction in small and large groups to build job and leadership skills and to increase SWD comfort with risk, self-expression, and community engagement. Challenges and supported stretching</li> <li>Integrate opportunities for choice, self-expression, and self-determination into IEP, classroom, extracurricular, and other transition-related experiences.</li> <li>Create opportunities for meaningful self-assessment experiences as well as to assess and affect programming and curriculum to prepare SWD for success in the workforce.</li> <li>Encourage SWD to accurately and honestly share their experiences without shame.</li> </ul>
<p><b>Key Issue: Early Intervention</b>  <i>If we wait too long to offer support, SWD will confirm low expectations and limit success.</i></p> <p>SWD benefit from information and training with skills-based assessments and interest in CTE/STEM from elementary school on, but it is particularly important to begin transition planning in middle school, even though it is mandated by IDEA (2004) to begin at age 16. Policy and program development that emphasizes prevention of negative learning and employment impacts increases the chance of positive life choices, and early intervention in transition is important for all at-risk youth, not just SWD.</p>		<ul style="list-style-type: none"> <li>Integrate assessment of math, problem-solving, and CTE-/STEM-associated skills into the IEP from middle school on. This strategy builds a foundation for success in secondary and postsecondary CTE/STEM career development.</li> <li>Offer ongoing hands-on CTE/STEM learning opportunities outside of the classroom to build interest in science and technology starting in elementary school and increasing through middle school.</li> <li>Integrate adaptive coping and emotional regulation patterns in classes during elementary school and throughout adolescent development to build positive emotional associations with learning and school.</li> <li>Build regular and meaningful assessments into the transition process, using elementary school supports and assessments and focusing on accurate integration of student needs with school and inter-agency programs.</li> <li>Provide numerous opportunities, beginning in the earliest school years, to expose SWD to the wide range of career possibilities.</li> </ul>

**Key Issue: Legal Mandates for Inclusion and Accommodation**

*IDEA mandates not only support SWD and their parents but also are intended to be used to support educator training, assessment tools, and best practices in schools.*

The evolving landscape of IDEA and IDEIA is complex. The range of mandated interventions, accommodations, and programming depends not only on the disabilities of participating students, but also on the procedures, staffing, and opportunities in local schools and districts. Developing theories in the field about the needs and rights of SWD have impact on interpretation, policy developments, legal developments, and school implementations around these mandates. On the ground, this means that administrators and teachers on an IEP team must be both responsive and thorough, often stretching resources and connecting with additional collaborations to support self-efficacy, transition, and inclusion in specific ways for each SWD.

- Identify clear and effective information resources to maximize knowledge and update information as legislation and trends shift.
- Support SWD with complete and frequent assessment.
- Establish and document behavior and discipline practices in order to support students and protect teams from legal intervention.
- Address deficiencies in available services and document and evaluate the relief accommodations.
- For an IEP to be fully legally adequate, address abilities and strengths as well as weaknesses to integrate the idea mandates in individualized programs.
- Follow idea’s original and evolving mandate for mainstream inclusion with multiple supports.
- Build student leadership in IEP and transition meetings.
- Implement best practices for teacher and IEP team training in effective assessment and programming.

**Academic Proficiency**

*Underachievement is only inevitable if teachers don’t have the tools to support SWD.*

SWD often underachieve academically because of their assumed weaknesses and unmet needs for accommodation. SWD have a variety of skills and gifts, some of which are obscured by their disability, and some of which are part of their particular style of intellectual and social processing (related to, but not easily categorized as, a disability). Building the academic proficiency to succeed in CTE/STEM fields requires effective assessment and accommodation.

- Teach students that abilities can be expanded.
- Intervene to revise underestimation.
- Assess strengths as well as needs for accommodation or training.
- Build proficiency and interest in CTE/STEM to motivate participation and persistence.

**Access to and Participation in CTE/STEM**

*Gaps in knowledge quickly become sinkholes that deepen exponentially over time for students with disabilities.*

The path to CTE/STEM inclusion moves first through math proficiency and continues with inclusion in science and STEM-interdisciplinary coursework and activities. Whether SWD are enrolled in college-prep, occupational certification programs, or CTE, appropriately high academic standards in math and reading, with consistent and equitable CCRS, lay the foundation for future success.

- Utilize real-world teaching strategies within authentic settings, building math and problem-solving skills in work-related contexts, including WBL.
- Make math and science a requirement (explicitly ensure prerequisites and fundamental knowledge for SWD) and raise expectations within those requirements.
- Strongly advocate for access to advanced and AP courses, and create incentives while building and ensuring effective and appropriate accommodations, modifications, and support.
- Ensure that SWD have access to science fairs and other school CTE-/STEM-related special events.
- Address math/science deficits and potential in the IEP from elementary school through high school.
- Increase meaningful training opportunities for teachers of CTE/STEM and Special Education to support effective interventions and inclusion as well as building foundational math/science skills.
- Intervene with and include SWD early in STEM curriculum to lay the groundwork for coping and learning skills needed for academic success and career readiness.

**Curriculum/Instruction**

*Curriculum supports for students with disabilities create better learning opportunities for every student in the classroom.*

Inclusive curriculum and differentiated, strengths-based instructional strategies support student interest and career readiness. It is important for schools looking to innovate with inclusion of SWD in CTE/STEM to rethink tiered systems of interventions to accommodate implementation of the Common Core and to provide appropriate professional development to teachers to implement tiered systems with fidelity and responsiveness to the real learning characteristics of the individual students in those systems.

- Use multiple creative technologies of teaching and learning to engage and accommodate SWD.
- Integrate SEL strategies and PBS into all curricular strategies and each classroom expectation.
- Incorporate interdisciplinary collaboration with hybrid visual/verbal and hands-on assignments (including STEAM).
- Embed interventions within general education instruction and activities.
- Implement UDL practices.
- Identify and correct bias in curricular and instructional materials.
- Stress models of team teaching in curriculum that include SWD support personnel (para-professionals, teacher aides, and special education co-teachers) and content teachers.
- Build in instructional apps and technology with effective teaching strategies (scaffolding, performance feedback, repetition, reinforcement, attention to individual learning rates).
- Integrate self-determination development within academic content strategies (self-instruction, self-monitoring, and self-evaluation) to support student engagement while building academic success and self-concept.

**Classroom Climate**

*A healthy classroom nurtures diversity in learning and respect for risk.*

Healthy classroom ecology supports community involvement, engaged learning, and a diverse curriculum to develop a healthy academic self-concept for achievement through and beyond school years.

- Pay attention to equity in participation.
- Acknowledge educator as well as peers as role models, regardless of ability.
- Build self-advocacy and self-efficacy in learning experiences by acknowledging and honoring difference.
- Provide opportunities for collaboration to create respectful relationships.
- Set a tone that honors every student's need for some level of individualized support and technical help. Reduce stigma of accommodations.
- Configure the room physically to support access to teaching and learning activities for all students, considering the particular social, behavioral, and accessibility needs for full participation by SWD.
- Keep expectations both high and realistic for all students, including SWD.

**Inclusive Classrooms**

*Teachers in inclusive classrooms thrive with support and teamwork and feel as successful as their students*

Inclusive learning practices are important for all students, not just SWD. However, for SWD, inclusion is fundamental for achieving academic, career, and social goals, because there has been a history of exclusion based on stereotypes and separation. Students with categorical disabilities and LEP may need specialized programming, and their teachers should be prepared to help these students have an equal chance of succeeding in CTE/STEM education classrooms and future careers.

- Differentiate instruction to build self-efficacy and achievement.
- Provide training and pair teacher mentors with SWD experience with teachers new to inclusive classroom work.
- Create person-to-environment fit for activities for SWD (and all others) to model adaptive learning.
- Integrate CTE/STEM concept-oriented instruction to support and motivate SWD to build sustainable math/technology/science interest and career goals.
- Increase technology assists in the classroom for mastery of reading and writing, and in other areas that will improve comprehension, skills development, and goal-setting.
- Build MTSSs for all students to support self-regulated, goal-directed learning.
- Consider physical needs such as transportation and comfortable inclusion in the classroom environment as part of support for academic success.
- Address behavioral and academic needs.
- Frame needed support as goal-related through strengths-based classroom and IEP assessment.
- Integrate support team and accommodations without stigma to decrease isolation and bullying and to build self-mastery, community skills, and career opportunities.

**Activities/Networks**

*Inclusive learning should not be limited to classroom experiences.*

Without access to extracurricular activities, some SWD may give up on CTE/STEM careers. For SWD, learning social and academic skills should occur with specialized teachers and among peers with similar needs, in multiple contexts during and beyond school hours. In addition, recruitment to STEM extracurricular activities reduces barriers to career participation and planning.

- Create camp and science fair experiences to build confidence, community, and skills.
- Offer academic support opportunities that do not prevent SWD from participating in inclusive school activities.
- Provide opportunities for SWD to learn about leadership styles and strategies, identify their personal styles, and apply them within diverse activities and environments.

**Role Models/Mentoring**

*When SWD ask, "Who will I become?" they need to know success is possible.*

Role models and mentoring by successful PWD in career and classroom contexts support SWD in building self-esteem and high expectations. Include diverse role models (in curriculum and in support teams) for all marginalized learners.

- Integrate examples of notable PWD in CTE/STEM careers into the curriculum, and emphasize these success stories as "normal" rather than exceptional.
- Invite and include PWD as part of the team of diverse successful community of leaders in CTE/STEM fields who speak to your class or participate in after-school experiences/camps. Consider inviting alumni to speak as well.
- Provide opportunities in the classroom and other school activities for all students, including SWD, to be mentors and role models preparing them for leadership in their future careers, and building confidence and engagement in transition activities

**Career Preparation in School Teams**

*Without creative and sustained career support, SWD will be economically crippled by career hurdles.*

Because SWD have a variety of communication preferences and challenges in identifying, assessing, and achieving work goals, the SWD team (including the career counselors in the school) should be certain that career materials and transition-to-work practices emphasize multiple types of communication, assessments, and connection to employment and training opportunities, built on clear understandings of legal and practical strategies for career success for PWD.

- Build career counseling partnerships into classes, camps, and after-school activities to support interest in CTE/STEM careers and programs.
- Educate school/career counselors about transition needs of SWD, and general successes and accommodations for PWD in the workforce, so that they can provide the resources and training in assessment tools appropriate for SWD.
- Bring community and business leaders from CTE/STEM fields into schools, and share internship and training opportunities with SWD.
- Educate school/career counselors and transition support professionals about the job-seeker's rights in general, and the rights of PWD in the workplace specifically, so that they can offer support for related issues in resume writing, negotiating, and employment accommodation and eligibility.
- Train all staff in the concepts of Customized Employment, as defined by the U.S. Department of Labor's Office of Disability Employment Policy, to demonstrate that students with the most significant disabilities can acquire modified skills sets that will match specific employer needs.
- Build self-determination assessment data into program evaluation and PCP.

**Employment Partnerships**

*Local supports are safety nets that ambitious students can turn into trampolines.*

SWD benefit from work/school partnerships with local businesses and advanced educational opportunities that are prepared to train and support SWD and are committed to accommodating and hiring PWD.

- Increase partnerships with community colleges and other local colleges/universities for inclusive certificate and training opportunities for SWD in secondary school to prepare for CTE/STEM and other opportunities.
- Collaborate with local employers in secondary school programs to create internship and other WBL opportunities.
- Connect with community mentors who are successful in several fields to advise as students' career goals are set and pursued.
- Identify national professional organizations as a resource for employer training.
- Enlist Department of Vocation Rehabilitation and community rehabilitation providers to partner with CTE/STEM educators.

**Work/Life Balance**

*Programs prepare SWD for work transition, but rarely for sustainable life balance.*

The families of SWD need support in developing quality work-life-family balance, partly because they must manage disability in addition to standard childrearing issues. This community-based support will help parents and their children have a healthier life, in the present and in the future. Improving family dynamics and creating opportunities for SWD to learn skills that will help them balance leisure and work will help them navigate the specific social/employment dynamic of building a healthy life at work and outside of work.

- Support employed parents of SWD, working with employers and school to manage work-life-family balance for greater family psychological and physical health.
- Increase SWD ability to build social networks and social capital to support them to achieve their future goals.
- Build awareness in SWD that work is only a part of a successful life, and reduce tension around shame and the need to pass as "normal" in community/social contexts as well as at work.

**CTE/STEM Awareness**

*Parental gaps in knowledge can contribute to lower expectations for SWD.*

Parental support is foundational for SWD to aspire to and achieve high expectations for career placement in their chosen careers. To that end, it is crucial that parents have as much access as possible to information about career development, resources, and success stories of professionals with disabilities.

- Design activities to promote family roles in strengths-based CTE/STEM development.
- Make CTE/STEM planning a part of the IEP process.
- Invite, involve, and educate parents.
- Reduce self-blame through parent education for both parents and SWD to improve parent-child relationships, reducing barriers to career success.
- Educate parents as equal to professionals on the team to support higher expectations of achievement and career success.
- Encourage high expectations from parents for CTE/STEM involvement, with attention to key challenges that their children face, coupled with awareness of programs that might address their needs.

**School Engagement**

*Parents and their children need to feel welcome in the school community.*

Healthy family CTE/STEM systems aligned with school programs support higher expectations, academic achievement, and student success.

- Provide opportunities beyond the IEP for families to challenge low expectations for SWD in CTE/STEM.
- Activate family resources and engagement to increase predictors of success in educational goals for SWD.
- Invite and educate families to support content and assignment standards for homework and other education goals.
- Identify intersecting issues affecting a student's success, including disability but not excluding family issues that might require additional support services.

**Stereotype and Stigma Threat**

*What we think we know about SWD can make or break them. (Remember, there is no such thing as normal...)*

Academic achievement and individual development in terms of social skills and self-determination are positively influenced by the reduction in stereotype threat and stigmatization. No matter what their learning challenges might be, SWD also experience social disability, often intensified by intersecting marginalized identities, including gender and race. SWD grapple with their identity group legacies, their own understanding of these identities, as well as how others interpret and express those identities. This complicated and necessary process is key to making sense of their life experiences, challenges, and successes.

- Train administrators/staff/teachers to be aware of assumptions of inadequacy projected onto SWD that limit assessment and programming.
- Educate teachers to resist the stigmatization of LD designations in math and other CTE-/STEM-related classes, emphasizing the fact that real causes of LDs might come from disparities in earlier placements, previous teachers' negative attributions and expectations, or lack of access.
- Assist teachers in understanding bullying and stigmatization issues, identify intervention strategies, and teach students to recognize and solve bullying situations.
- Teach critical thinking about the ways in which media portray or exclude PWD.
- Reframe disability as an identity within multiple identities (some marginalized, others privileged or "normal") as a way of learning about every student beyond the label of their diagnosis.