Employment and Quality of Life
A job is an important part of life for most Americans. The ability to secure and maintain a paid job is central to American life, as it can have a significant impact on people’s overall quality of life, community participation, financial independence, and pathway to a long-lasting career (Choiseul-Praslin et al., 2022). The same is true for people with intellectual and development disabilities (IDD), as employment can also significantly impact their quality of life. Such impact has been well documented in areas such as financial stability, sense of purpose, improved mental health, skills development, increased social interaction, community living arrangements, self-perspectives and self-esteem, and productivity (Blick et al., 2016; Butterworth & Gilmore, 2000; Stephens et al., 2005). Cocks, Thoresen, and Lee (2015) conducted a longitudinal study to examine economic and social outcomes achieved by employees from different training pathways. They found that employment leads to social inclusion and quality of life because it provides financial benefits and a sense of purpose and belonging, as well as social status and recognition; unemployment is associated with poverty, stress, anxiety, and somatization.

Integrated and competitive employment, especially, has been regarded as essential for supporting people with IDD to live a self-determined and independent life and to be included in their community (Siperstein et al., 2014; Tucker et al., 2017). Research has found that people with IDD who were employed in supported employment and competitive employment settings reported higher job satisfaction, self-esteem, and less depression, as well as higher quality of life (Jahoda et al., 2008; Kober & Eggleton, 2005). Sinnott-Oswald, Gliner, and Spencer (1991) reported results from their survey study involving 10 people with disabilities in supported employment and 10 people with disabilities in sheltered workshops, which indicated positive relationships between quality-of-life outcomes and supported community employment. Similarly, Beyer, Brown, Akandi, and Rapley (2010) collected comprehensive quality of life and work environment data from 17 supported employees, 10 employment enterprise workers, 10 day-service attendees, and 17 nondisabled coworkers who supported employees with IDD. They found that supported employees reported higher objective quality of life than employment enterprise workers and day service attendees. Other longitudinal studies have found that engagement in the workforce is associated with better mental well-being, lower prevalence of depression, and lower incidence of suicide (Modini et al., 2016, p. 331). Clearly, integrated and competitive employment leads to better quality of life for people with IDD.

The Persistent and Emerging Challenges to Improving Employment Outcomes of People With IDD
However, despite decades of efforts to improve employment outcomes for people with IDD and other disabilities, they continue to face persistent challenges in finding and maintaining integrated and competitive employment. People with IDD are still less likely to be employed and more likely to earn a low wage compared to their peers without disabilities (Schutz & Carter, 2022). Follow-up studies of special education students in the 1980s shocked the country by revealing that important adult outcomes, like employment, independent living, and community integration, remained unattainable by many youths with disabilities (e.g., Edgar & Levine, 1987; Fafard & Haubrich, 1981; Hodel, 1985; Kranstover et al., 1989; Schalock et al., 1986). Many special education graduates could not plan their future; they remained unemployed or underemployed and experienced a quality of life remarkably different from their nondisabled peers (Hasazi et al., 1985; Mithaug et al., 1985; Neel et al., 1988).
Although employment outcomes for people with disabilities have improved, the problem is far from over, especially for those with IDD. According to Siperstein, Parker, and Drascher (2013), only 34% of people with IDD aged 21 to 64 were employed and only 18% were competitively employed. Hiersteiner, Bershadsky, Bonardi, and Butterworth (2016) reported that less than 10% of people with IDD engaged in integrated paid employment. Citing data from the 2017 American Community Survey, Schutz and Carter (2022) reported a 39.5% gap between the employment rates of individuals with disabilities (36.3%) and their peers without disabilities (74.8%). Bureau of Labor Statistics (2018) data showed that the unemployment rate for people with disabilities between the ages of 16 to 24 was more than twice the rate of those without disabilities. Wehman and colleagues (2018) assessed the progress toward competitive and integrated employment for people with IDD and found mixed outcomes, with the national rates of integrated employment remaining below a third of the working-age population. Citing data from the Department of Labor, Choiseul-Praslin and colleagues (2022) indicated that the rate of paid employment for people with disabilities remains markedly lower than those without disabilities.

There are several reasons why people with IDD may have poor employment outcomes. Some traditional and persistent challenges may include: (a) people with IDD may still face discrimination in the hiring process due to negative stereotypes and biases held by employers and the general public; (b) lack of access to education and training; (c) some people with IDD struggle with communication, which can make it difficult for them to communicate their skills and qualifications to potential employers; (d) some people with IDD may have physical limitations that prevent them from performing certain jobs; (e) lack of additional support in order to be successful in the workplace, such as job coaching, accommodations, or assistive technology; and (f) people with IDD may face stigma and negative attitudes from employers, coworkers, and customers, which can make it difficult for them to succeed in the workplace (e.g., Alfozan & AlKahtani, 2021; Wehmeyer, 1997).

More recently, the COVID-19 pandemic has had a significant impact on the employment of people with disabilities. One of the impacts is job losses. According to the International Labor Organization (ILO; 2020), people with disabilities are more likely to be employed in sectors that have been hit hard by the pandemic, such as tourism, hospitality, and retail. As a result, they have been disproportionately affected by job losses. The second impact of COVID-19 is related to remote work. Although remote work has become more common during the pandemic, it may not be a viable option for people with IDD who require special accommodations in the workplace. Additionally, some individuals may not have access to the necessary technology or internet connection to work from home. Another impact of COVID-19 is on health risks. People with IDD may be more vulnerable to COVID-19 due to underlying health conditions (National Governors Association, 2021). As a result, they may be more hesitant to return to work or may require additional accommodations to ensure their safety. Additional impact of COVID-19 on the employment of people with IDD is reduced support services. People with IDD often rely on support services, such as personal care attendants, to maintain employment. However, the pandemic has disrupted these services, making it more difficult for individuals to work. Employment-related discrimination has become more problematic during the COVID-19 pandemic. People with IDD already face discrimination in the workplace, and the pandemic has exacerbated this issue. Employers may be more likely to discriminate against people with IDD when making hiring or promotion decisions due to concerns about their ability to work during the pandemic.

Currently, with the advancement of artificial intelligence (AI) and related technological development, in particular the release of ChatGPT, the impact on job loss is a topic of much debate and discussion. Although AI has the potential to revolutionize industries and improve efficiency, it also has the potential to displace workers and lead to job loss. AI can automate many tasks that were previously performed by humans, such as data entry, customer service, and manufacturing. This can lead to significant cost savings for companies and increased productivity. However, it can also lead to job loss, as workers in these industries may no longer be needed (The Impact of Artificial Intelligence on the Future of Workforces in the European Union and the United States of America, n.d.). Although the specific impact of AI on the employment of people with IDD is not known, it seems that there will be opportunities mixed with additional challenges (International Labour Organization, 2021). The jobs that will be automated are often entry-level jobs, which are commonly held by people with IDD; hence, job losses associated with AI could disproportionately
impact them. On the other hand, digital tools and AI technologies offer unprecedented means that enable people with IDD to gain direct access to employment options that were not available to them before. Therefore, it is essential to find new ways to include people with IDD in the changing world of work (International Labour Organization).

Strategies for Improving Employment Outcomes for People With IDD

Efforts to improve transition outcomes for people with IDD have focused on providing better transition services to youth while they are still in secondary schools. Among these efforts are research studies that attempted to identify best practices or evidence-based strategies. Best practice refers to some specific recommendations for facilitating successful movement from school to adult life for youth with disabilities. These recommendations have been derived from both empirical and nonempirical sources. Kohler (1993) pioneered this line of work by conducting a review and synthesis of the literature pertaining to best practices in transition, spanning the years from 1985 to 1991. She obtained 49 documents, including follow-up studies, pseudo- and quasi-experimental studies, and theory-based or opinion articles that purported best practices in transition, and evaluated the practices based on whether they were empirically substantiated or implied by the authors. Based on the reviews and evaluation, Kohler (1996) proposed the Taxonomy for Transition Programming, which was updated in 2016 (Kohler et al., 2016). The taxonomy identifies five areas for creating more effective transition plans: (1) program structure, (2) student-focused planning, (3) student development, (4) family engagement, and (5) interagency collaboration. Based on Kohler’s (1996) review, Landmark, Ju, and Zhang (2010) conducted an updated review of transition practices. They identified eight practices as substantiated practices, including (listed most to least substantiated): paid or unpaid work experience, employment preparation, family involvement, general education inclusion, social skills training, daily living skills training, self-determination skills training, and community or agency collaboration. Having two or more paid work experiences during high school was related to graduation with a standard diploma, engagement in competitive postschool employment, and enrollment in postschool education. The next most substantiated transition planning practice was participation in an employment preparation program. Interagency collaboration was also identified as one of the best ways to ensure quality services being planned and provided to each individual student.

All these research studies on transition practices have identified interagency collaboration as essential for ensuring people with disabilities receive effective service and support for transitioning to integrated and competitive employment. Interagency collaboration is "a broad concept that encompasses formal and informal relationships between schools and adult agencies in which resources are shared to achieve common transition goals" (Noonan et al., 2008). Noonan (2013) recommended 26 strategies for establishing and running transition teams to facilitate interagency collaborations.

The National Technical Assistance Center on Transition (2019) classifies transition practices into four categories: (a) evidence-based practices—strong record of success, rigorous research design, adhere to quality indicators; (b) research-based practices—sufficient record of success, rigorous research design, may adhere to quality indicators; (c) promising practices—some success, may use rigorous research design, may adhere to quality indicators; and (d) unestablished practices—limited success, based on unpublished research, anecdotal evidence, professional judgement. The collaboration between education and vocational rehabilitation agencies has been identified as important because several research-based and promising practices fall under this collaboration. Collaboration with vocational rehabilitation (VR) services has been emphasized in the literature and under the Workforce Innovation and Opportunity Act (WIOA; Lee, Schochet, & Berk, 2018). Collaboration among agencies, especially between VR and educators, is essential for the delivery of effective services (Oertle & O’Leary, 2017).

A Multi-Tier and Multi-Partner Collaboration Model for Improving Employment Outcomes

I propose a Multi-Tier and Multi-Partner Collaboration Model for Improving Employment Outcomes (see Figure 1). In this model, multiple partners, including school, family and friends, faith community, vocational rehabilitation services, centers for independent living, employers, local community, agencies, and others work together to support students, schools, and the system in preparing students.
with IDD to achieve competitive and integrated employment outcomes.

**Student Level**
At the student level, they need access to self-determination instructions with a focus on setting competitive and integrated employment goals and avoiding going into work that pays subminimum wages. There are many existing self-determination curricula and instructional models that schools can adapt to provide this instruction. Person-centered employment training (PCEP) should also be available to students with IDD. With PCEP, youth with IDD and their families collaborate with their circle of friends and support staff to identify what is important for them and what is important to them. Based on this information, specific and individualized plans of action are developed and translated into the student’s transition plan in the individualized education program for implementation. Students need to have access to work-based learning opportunities such as school-based enterprises, service learning, and other work-based learning models. Participating in summer earn and learn programs is another great way to prepare students with IDD for competitive and integrated employment because they gain valuable firsthand experiences while earning incomes, which allows them to see the real-life benefits of working and motivates them to set appropriate employment goals.

**Employability Skills Development**
Common behaviors that result in job loss include poor attendance, abusive behaviors, refusal to accept instructions, and lack of social and vocational skills (Chadsey & Beyer, 2001). Research shows that employers like to hire individuals who have adequate employability skills. Those employers who self-reported as not actively recruiting employees with disabilities cited a lack of employability skills and experiences as the major reason for not hiring them (Domzal et al., 2008). Employability skills are general and nontechnical competencies required for performing all jobs, regardless of types or levels of jobs. These are not job-specific skills, but “are skills which cut horizontally across all industries and vertically across all jobs from entry level to chief executive officer” (Sherer & Eadie, 1987, p. 16). Ju, Facha, Moore, and Zhang (2014) surveyed 168 employers recruited from a small-size metropolitan area (with a population of approximately 150,000) and its surrounding seven counties. They found four skills that were viewed as the most important for both individuals with and without disabilities. These include basic skills, higher-order thinking skills, basic work skills, and social skills. Although students without disabilities may naturally develop these skills, people with IDD, however, need to receive formal instructions on employability skills before they leave high school.
School Level
It is important for schools to offer employability skills training by adopting an employability skills training curriculum. With grant support, the Center on Disability and Development at Texas A&M University has gone through a process of research, development, and field-test of an employability skills curriculum titled Basic Employability Skills Training (BEST) that addressed essential skills valued by employers and validated by research. This curriculum is in a textbook format that can be used for a high school elective course.

High schools can implement a work-based learning program to offer students with IDD opportunities to learn and practice employment and related skills while still in school. Work-based learning during secondary school leads to higher rates of adult employment success for all categories of disabilities (Luecking & Fabian, 2000). It can help a student make career decisions, network with potential employers, select courses of study, and develop job skills relevant to future employment. Through the interaction of work and study experiences, students can enhance their academic knowledge, personal development, and professional preparation. Studies show that students who participated in work-based learning experienced an increase in the completion of related coursework, improved attendance, and higher graduation rates (Colley & Jamison, 1998).

The types of work-based learning experiences include career exploration, job shadowing, job sampling/work sampling, service learning, internships, apprenticeships, paid employment, and mentoring. The most popular models of work-based learning include school-based enterprises and service learning. School-based enterprises are activities through which students produce goods or services for sale to or use by people other than themselves. Students work in a group to learn employability skills through real practice in entrepreneurship, accounting, budgeting, cash-flow management, marketing, inventory control, and business/industry/technical skills. Some benefits of school-based enterprises include: provides an opportunity for students to develop self-confidence and leadership skills; increases student awareness and connections between work and community well-being; promotes student pride in their work through relevant work-related experiences; and gives students experience in problem solving, communication, interpersonal relations, and learning within the context of work. Service-learning is a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities.

An example of a work-based learning project is the Texas A&M University (TAMU) Work-Based Learning Project, which receives funding from Texas Workforce Commission's Vocational Rehabilitation Service and provide up to $10,000 to each selected school, through an application process, to develop a new or expand an existing work-based learning model. The project offers (a) ongoing support to adjust budget and work-based learning model, (b) monthly support check-ins, (c) structured goal-setting sessions, (d) assistance to reach goals, and (e) biyearly program walkthroughs. Students who participate in these programs have not only learned employment-related skills, but also improved behaviors.

System Level
System-level collaborations include local, regional, and state levels. These are interagency collaborations that promote seamless support to people with disabilities in their preparation for gaining integrated and competitive employment. Interagency collaboration is a clear, purposeful, and carefully designed process that promotes cross-agency, cross-program, and cross-disciplinary collaborative efforts leading to tangible transition outcomes for youth. It is a process in which two or more agencies integrate their resources to provide services to meet the needs of students and adults with disabilities. It involves problem solving, problem identification, and plan development and implementation. These may include systematic changes, information sharing, procedural enhancement, eligibility reviews, and sharing of resources. Interagency collaborations are important because there are many people and agencies involved in the transition from school to employment process. Hence, there is a need to hold joint planning, to reduce service duplication, and to overcome gaps in services. When agencies work together, each agency is not working alone; rather, we can develop and implement robust transition plans for each of the individuals we work with. The Essential Tools: Interagency Transition Team Development and Facilitation published by the University of Minnesota (Stodden et al., 2005) provides tools and examples for building interagency teams.

The capacity building projects at Texas A&M University offer real-life examples of system-level
Setting New Norms for Employment


Effective strategies used by high performing local districts and communities. *Career Development for Exceptional Individuals*, 31, 132-143.


study prepared in response to the US-EU Trade and Technology Council inaugural joint statement.


Authors:
Dalun Zhang, Texas A&M University.

Correspondence concerning this article should be addressed to Dalun Zhang, 4225 Texas A&M University, College Station, TX 77843 (email: dalun@tamu.edu).