

National Deaf Center on Postsecondary Outcomes

Research Summarized!

Key Impact Areas



NDC
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on Postsecondary Outcomes

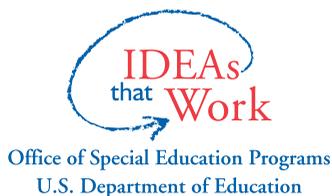


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Research Summarized!

Key Impact Areas

Deaf college graduates have higher levels of career mobility, enhanced earnings, and increased likelihood of stable employment than deaf individuals without a college degree.^{1,2,3} Deaf individuals who do not have postsecondary education are at risk for underemployment and unemployment and are more likely to have shorter job tenure.⁴

The National Deaf Center on Postsecondary Outcomes conducted a review of the literature on practices that address root causes of challenges to deaf individuals' postsecondary attainment and identified the following five key impact areas:

- Designing accessible environments
- Promoting high expectations for success
- Collecting and using data for decision-making
- Leveraging community resources
- Developing collaborative and integrated systems

These research briefs are not prescriptive in nature; they are intended to provide background information and evidence from the literature and to be used as a tool for identifying common ground between local, state, and federal efforts to develop action plans to improve postsecondary attainment for deaf individuals.

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Research Summarized! Designing Accessible Environments

Postsecondary training and education programs are gateways to employment and maximizing one's potential. There is no permanent or prescriptive "one-size-fits-all" solution to making educational programs and services accessible for deaf* learners, especially for a population with a high incidence of co-occurring disabilities.

What can be learned from the existing literature on designing environments that provide access to these critical learning opportunities for deaf individuals?

INSTRUCTIONAL DESIGN AND ACCESSIBILITY

The transition from secondary to postsecondary learning environments marks two important changes in accessibility for students with disabilities.

- First, the responsibility for initiating the use of accommodations shifts from the school district in secondary education to the student in postsecondary education.⁷
- Second, at the secondary level, school districts are responsible for designing special instruction to meet the needs of students with disabilities and for providing accommodations. At the postsecondary level, education programs are not required to design special instruction; instead, accommodations are provided so that students with disabilities can access the same course program and content as other students.²⁰

Institutions and instructors are responsible for designing learning to meet the needs of as wide a range of students as possible. Best practices in accessible instructional design call for multiple representations of content and multiple means of expression and engagement.²¹

Providing information and formal training on accessible design for instructors may result in more inclusive learning environments.¹⁰

*In this report, we use the term *deaf* in an all-encompassing manner to include individuals who identify as Deaf, hard of hearing, hearing impaired, late deafened, and deafdisabled.

Students can be more successful when flexible options are available to all.⁸

Deaf individuals who use sign language interact more when direct access to sign language is provided.²² Deaf students' greater active involvement in learning environments is related to higher learning outcomes.¹⁵

Accessible vocational training and on-the-job training lead to higher employment success for deaf vocational rehabilitation clients.¹⁹

Internship and practicum experiences are often challenging for deaf individuals to obtain due to supervisors' concerns about cost and competence. Educating internship programs about how to hire qualified interpreters, how to use accommodations, the benefits of cultural diversity, and the unique communication skills of deaf applicants can help change the attitude toward deaf applicants.¹²

USE OF ACCOMMODATIONS TO IMPROVE ACCESSIBILITY OF LEARNING AND ASSESSMENT

When providing accommodations to deaf individuals, it is important to consider personal needs and preferences. Students' needs can change over time and often differ based on instructional content and format. Classroom-access accommodations for deaf students include a range of options, such as sign language interpreters, note-takers, captioned media, speech-to-text providers, or a combination thereof.^{5,24}

- Deaf students who sign often report the presence of quality interpreters as a main factor in effective classroom communication.¹⁰
- There is evidence that real-time speech-to-text transcription is effective for some students in college-level classes.¹⁷
- Contemporary learning environments often include a high degree of interaction between students. Furthermore, postsecondary content often contains a high degree of technical terminology. The format and content of curricula, as well as the preferences of deaf individuals, may dictate the need for dual accommodations (e.g., interpreting and speech-to-text) to facilitate both interaction and access to course content.⁴
- A common misconception is that deaf students who have an interpreter have the same access to classroom instruction as hearing students. Interpreters typically cover direct instruction by faculty members but rarely can capture all the dialogue that occurs in a postsecondary classroom setting.^{1,18}
- Access providers who work in postsecondary settings need to have sufficient content language proficiency, education, and skill to work in a higher education environment.^{9,25}

When administered appropriately, testing accommodations can facilitate access to critical content and allow for more valid measurement by providing deaf individuals an opportunity to demonstrate their true abilities in a domain.

- Examples of assessment accommodations for deaf individuals include an interpreter or scribe during a test, extra time for standardized tests, or translation of test items into sign language.⁵
- There is no one set of ideal testing accommodations for deaf individuals. Accommodation decisions should be made by examining the faculty member's intent for the test and matching student needs and preferences with accommodations that provide the greatest access to the content.³
- Translating test items from English to American Sign Language requires thoughtful consideration of balancing American Sign Language linguistics and conventions while maintaining the original meaning of the items in English.¹³

ACCESSIBILITY IN INFORMAL LEARNING ENVIRONMENTS

Informal learning experiences, or incidental learning, include gaining knowledge from the broader educational environment, overhearing conversations, and learning from others during social interactions.¹⁴

- Language, cognitive, academic, and social delays in young adults are often explained, in part, by the lack of access to incidental learning.^{2,16}
- Most deaf postsecondary students are in a predominantly spoken-language environment; therefore, they often experience reduced opportunities for social networking and expanding their language competency, vocabulary, and knowledge of world events.
- Postsecondary institutions can increase access to informal learning opportunities by embedding language-accessibility options into formal social events, such as departmental presentations, mixers, and club meetings.

INFLUENCE OF INSTITUTIONAL CAPACITY ON ACCESSIBILITY

An institution's capacity to effectively serve deaf individuals relies on a variety of factors, including the following:

- Availability of enough qualified service providers, including interpreters and captionists
- Proximity of available resources (i.e., accessibility differs across rural and urban settings)
- Request systems that are flexible enough to allow for complex accommodation needs⁷
- Institutional readiness and proficiency in the use of technology

Ease of access to accommodations is an important factor for institutional capacity to serve deaf individuals. For example, the structure or process for requesting accommodations can become a barrier to access for many students, especially if the process for requesting accommodations is unclear or unduly complicated.⁵

TAKE-AWAYS

Accessible postsecondary environments are critical for deaf students' learning and growth but are often challenging to design and implement. The changes in accessibility requirements between secondary and postsecondary environments are significant and call for a focus on meeting the access needs of individual students in a variety of learning environments, including professional environments.

The evidence-based strategies presented in this brief show that there is a range of accessibility strategies, including direct instruction via sign language, use of interpreters, and use of speech-to-text services. Deaf individuals' needs and preferences for specific accessibility strategies or combinations of strategies need to be thoughtfully considered when designing high-quality accessible environments.

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Research Summarized!

Promoting High Expectations for Success

High expectations for postsecondary success includes believing in deaf individuals' capability to succeed and not viewing their opportunities as limited because they are deaf. These expectations are a necessary component of deaf youths' environment to successfully navigate the transition from high school to postsecondary education or training. Many people hold low expectations for the abilities of deaf people.^{10,30} Deaf individuals' expectations about their abilities and future attainment do not develop in a vacuum; teachers, parents, and other professionals make a significant contribution to how those expectations and beliefs are formed.^{3,7,25}

What can be learned from the existing literature on promoting high expectations for success of deaf individuals?

STRENGTHS-BASED APPROACHES TO PROMOTE HIGH EXPECTATIONS

Using strengths-based approaches, as opposed to focusing on deficits, provides opportunities for deaf individuals to develop autonomy, self-determination skills, and self-advocacy.

Strengths-based interventions that promote self-determination include training in activities like goal setting, problem solving, and knowledge of self and the "soft" skills needed to navigate social interactions.^{24,29}

- Establishing "learning partnerships" with other deaf individuals in the classroom setting may be beneficial to bolstering social and academic skills needed to thrive in postsecondary settings.^{20,14}
- Strong social skills in deaf high school students have been linked to higher rates of postsecondary attendance and graduation. Therefore, activities that promote social skill development in secondary school may have benefits that extend beyond high school graduation.³
- Parents' expectations have been found to contribute to a stronger sense of autonomy in deaf adolescents and the likelihood of deaf individuals graduating from college and obtaining employment in the future.^{4,8}

- Many supervisors at internship and practicum sites have doubts about deaf applicants' abilities to perform well. Educating supervisors about the benefits of cultural diversity and the unique communication skills of deaf applicants can help change attitudes toward deaf applicants.⁹

POSTSECONDARY PLANNING PROCESSES TO PROMOTE HIGH EXPECTATIONS

Postsecondary planning includes holding annual individualized education program (IEP) or admission, review, dismissal (ARD) meetings; identifying postsecondary goals; organizing a plan for the identified goals (including alternative strategies); and providing support and resources to achieve such goals. Postsecondary planning is highly individualized, so other planning activities may be warranted.

Comprehensive planning activities (e.g., focus on short- and long-term goal-setting, identification of strengths and areas of growth, exploration of career interests) during secondary grades lays the foundation for student success in postsecondary settings.

- Current research demonstrates a lack of adequate transition preparation and instruction for deaf individuals after high school.^{15, 16}
- An estimated 60% of deaf students who enroll in postsecondary settings do not graduate, as deaf students are often underprepared to navigate the postsecondary environment, especially in terms of their academic and self-advocacy skills.^{12, 17, 19}
- Educational and transition instruction needs to include tailored strategies and support for deaf students.²⁶
- It is critical to integrate self-advocacy training into transition planning for deaf individuals so they are prepared to be assertive when requesting necessary accommodations or clarifying misconceptions about deaf people.²²

ROLE MODELS TO PROMOTE HIGH EXPECTATIONS

Role models serve as examples of the attitudes, values, and behavior associated with diverse types of roles in a community. Role models can provide comfort, support, guidance, and motivation, especially in cultural minority populations. Deaf teachers, coaches, community members, and professionals are all examples of possible role models.⁵

Role models and mentors address a critical need for deaf individuals and serve an important function in developing social capital. Deaf role models can also positively influence cultural attitudes and expectations held by hearing individuals toward people who are deaf.

- Deaf role models have been found to benefit families, improve parent expectations and attitudes toward deafness, and increase young deaf individuals' self-identity and belief in their capabilities.^{5, 20}

- Deaf residential schools provide the opportunity for deaf students to access strong role modeling through deaf faculty and staff members.¹⁸
- Recruiting older deaf students or members of local organizations to serve as role models or mentors can help students adjust to life in postsecondary settings.¹

PARENTS AND TEACHERS' ROLE IN PROMOTING HIGH EXPECTATIONS

There is a significant need to educate parents and professionals about deaf individuals' true potential for success.

- Teachers of deaf students can provide support and guidance through sharing high expectations for their students' achievement, teaching them to be self-advocates, and supporting their healthy self-concept and socioemotional development.²⁵
- Professionals who were previously trained in deafness or deaf issues reported more positive attitudes toward deafness.⁶
- Administrators can support the development of high teacher expectations for deaf students by introducing cultural perspectives from deaf experiences into special education teacher training and preparation programs.¹¹
- Parental expectations are an important contributor to long-term outcomes (living independently, enrolling in college, completing college) of deaf individuals.⁴
- Deaf adolescents whose parents have higher expectations about their future potential have a stronger sense of autonomy, are more likely to find their jobs independently, and have more job experience.⁸
- Among deaf students with high expectations for themselves (e.g., the expectation that they will attend college), research provides evidence that their parents tend to have similarly high expectations. Additionally, family support has been found to bolster deaf students' expectations for their own success.²³

TAKE-AWAYS

Promoting strengths-based approaches works toward shifting the culture to recognizing the strengths of deaf individuals working toward attaining their postsecondary goals. Early relationships, such as those formed with parents, caretakers, and teachers, influence the formation of deaf individuals' self-beliefs and self-concept. Optimistic expectations for the success of deaf individuals can have a big impact on student development, including their motivation to pursue and persist in postsecondary education. The information presented in this brief shows that evidence-based strategies such as comprehensive career and college planning, mentor programs, and parent and professional education have the potential to raise expectations of deaf individuals.

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Research Summarized!

Collecting and Using Data for Decision-Making

One of the longstanding issues in supporting postsecondary enrollment, persistence, and completion for deaf individuals is the lack of comprehensive data to identify individual and systemic factors that affect these outcomes. Although there have been several efforts to collect data about the transition from high school to postsecondary settings, including careers, the field often does not have the rigor or depth of information to make truly data-based decisions about policies, programming, or service provision for deaf individuals.

What can be learned from the existing literature on collecting and using data for decision-making related to postsecondary outcomes of deaf individuals?

DATA-DRIVEN DECISION-MAKING

Educational leaders see collecting and analyzing data to make decisions about educational programs, systems, and processes as a critical component to improving student outcomes.^{8, 16}

Data-driven decision-making is a key component of the U.S. Department of Education's Results-Driven Accountability framework that the Office of Special Education Programs and states use to measure the outcomes of students with disabilities.²⁶

Data-driven decision-making requires available and accurate data and training on analysis to make valid inferences and lead to positive change in educational processes and programs.^{13, 16}

Challenges to finding accurate and accessible data to improve education for deaf individuals include the following:

- Establishing data-sharing agreements between secondary education, vocational rehabilitation, and other agencies is difficult.
- With a greater number of deaf students attending mainstream schools, attendance and outcome data are more dispersed.
- Variables that are important predictors of academic success for deaf individuals, such as social skills⁴ and parental expectations,⁶ are not often captured in research.

- Inaccessible assessments may lead to invalid achievement data.^{1,3}

Most interventions for deaf individuals are not based on significant levels of empirical evidence. The low-incidence categorization of deaf students and the relatively small number of experienced researchers in the field of deaf education are likely factors in weaknesses in data-driven decisions about best fit of interventions to individual student needs.⁵

EDUCATION AND EMPLOYMENT DATA ABOUT DEAF INDIVIDUALS

When making data-driven decisions about deaf individuals, it is important to be aware of the author's background, affiliation with deaf individuals, and perspective toward deafness. The following are two common models:

- The "medical" perspective views deafness as a deficit condition and frames research with an intent to "cure" or "fix" deafness.¹⁷
- The "cultural" perspective views deafness as something to be preserved and embraced. Deaf culture represents shared beliefs of a diverse group of individuals and includes common appreciation for the linguistic richness of sign language.¹²

It is considered "best practice" to use data that are collected and interpreted in collaboration with deaf people when making decisions about programs and practices for deaf individuals.¹²

The range of learning environments, communication modalities, and diverse experiences of deaf students should be considered when using data to make decisions about policies and programs related to deaf education, training, and employment.

- Deaf students attend school in a variety of settings, ranging from those where they may be the only deaf student enrolled to those that enroll only deaf students.
- Deaf students receive instruction in a variety of communication modalities. In some education settings, English is the only language used for instruction, whereas American Sign Language or some other visual communication mode is the primary language used with deaf students in other settings.^{14,18}
- In addition to diversity in linguistics and communication, deaf students have a wide range of cognitive and sociocultural needs.²²
- Approximately 35% of deaf students come from homes where a language other than American Sign Language or English is used regularly.¹⁰
- Not all data include information about the diverse experiences of deaf individuals. Care should be taken when making decisions based on analyses of limited data sources.
- Variability in the deaf population extends well beyond communication and learning environments and is important to consider. Data such as disability, gender, socioeconomic status, race, and ethnicity should be included when analyzing data and making decisions about deaf programs and practices.

AVAILABLE EDUCATION AND EMPLOYMENT DATA

The Council of Chief State School Officers⁷ recently outlined the following four areas of students' college and career readiness that were developed by collaboration between state departments of education and industry partners:

- Progress toward post-high school credentials
- Co-curricular learning and leadership experiences
- Assessment of knowledge and skills
- Transitions beyond high school

States face obstacles in collecting and analyzing data that represent these measures in a valid way.

Despite the challenges identified in this brief, useful data about deaf individuals do exist. The second National Longitudinal Transition Survey dataset is one example and includes many variables related to transition to postsecondary environments for students with disabilities.²¹

Employment is a critical outcome in measuring postsecondary success. Multiple sources of national and state employment data are available for analysis, including the following:

- The American Community Survey is a national survey that collects data about jobs, occupations, educational attainment, and other information that aids public officials in planning.²⁵
- American Community Survey data allow analysis of deaf individuals' employment and education attainment.¹¹
- Data sources such as the American Community Survey, population surveys, and state vocational rehabilitation administrative records are available, but more consistency is needed across state vocational rehabilitation agencies in terms of data use to examine employment outcomes.⁹
- Analysis of state vocational rehabilitation data can be used to identify obstacles to employment for youths with disabilities and highlight paths to improved employment outcomes.²⁴

Many colleges and universities use survey instruments to measure factors related to student learning, retention, and graduation with the goal of institutional improvement.²⁰ There is a lack of institutional-level measurement of factors specifically related to deaf students' learning, retention, and graduation at the postsecondary level.

MOVING TOWARD DATA-DRIVEN DECISION-MAKING FOR DEAF INDIVIDUALS

Existing data are available to make informed decisions about programs and services for deaf individuals.

- Depending on the area of focus for analysis, census data, vocational rehabilitation data, and secondary school data (e.g., attendance, achievement, graduation) are available.

- Include deaf educators, administrators, and counselors when analyzing and making inferences from data.
- Use caution when making decisions from sources that lack the demographic data needed to fully represent the diversity of deaf individuals.

Districts and schools can collect and use data to tailor instruction and services.¹⁵

- A variety of survey, assessment, and observation instruments can be used to collect data to improve instruction and programs at a local level.
- Off-the-shelf instruments with English presentation will not necessarily yield valid data for deaf individuals who are American Sign Language speakers. When using English-based assessments, educators need to understand the English language proficiency of the student and English language demand of the assessment before administering.²³
- Professionals administering assessments to deaf students need training to ensure high-quality data collection that will enable good decision-making.²³

TAKE-AWAYS

Using data to drive practices and policies is a key tenet in today's public education system. Data collection and analysis of deaf individuals' education and employment outcomes are challenging due to the diversity and high degree of variability in the deaf population. The data are complex and require analysis by researchers that are knowledgeable of contextual issues. Filling gaps in knowledge about postsecondary outcomes and models to promote success for deaf individuals is critical.

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Research Summarized! Leveraging Community Resources

Strengthening community networks and connections increases social capital, the advantage gained through relationships and social networks. Social capital can help individuals navigate complex school and workplace situations. Some deaf individuals have limited access to social capital due to information deprivation and reduced access to full language environments. Without access to the full mix of informal and formal communication opportunities necessary to build social capital, it can be challenging for deaf individuals to gain entry into higher levels of responsibility and advancement.

What can be learned from the existing literature on leveraging community resources to improve postsecondary outcomes for deaf individuals?

BUILDING SOCIAL CAPITAL THROUGH COMMUNITY ACTIVITIES

Community members can include both deaf and hearing people who reside in a region (either locally or nationally) and/or share similar cultural values (e.g., effective communication for all, accessibility, increasing opportunities for education and employment, social justice) and identification. Each of these intersecting communities brings different values and perspectives to community activities. Members may include but are not limited to parents, students, educators, employment service providers, representatives of disability organizations, and local legislators.

Both rural and urban communities emphasize using strategies such as connecting stakeholders, strengthening existing collaborations, and educating new employers on the importance of increasing employment opportunities for people with disabilities to build social capital.³

Community members and stakeholders can effectively work together to identify what actions need to be taken at the local community and state levels to improve employment opportunities for individuals with disabilities.¹⁰

Community members can build social capital by sharing experiences and advice on how to navigate inaccessible settings and cope with frustrating obstacles in a hearing-dominated society.⁷

OUTCOMES ASSOCIATED WITH BUILDING SOCIAL CAPITAL

Identifying as part of the deaf community can be beneficial for self-esteem, which is highly related to achievement.^{4,13} Further, community membership can help cushion discrimination, rejection, and failure.⁸

Deaf community members are an invaluable resource in providing guidance to hearing parents with a deaf child.²⁶

Deaf role models help build social capital by providing support with language development, communication skills, social skills, and guidance within academic and work settings.⁵

Increased access and opportunities for engaging with deaf role models and peers bolsters the number of protective factors in a youth's life.²⁰

Mentors of the same cultural or ethnic background have special insight into the challenges of navigating academia as a minority. Such mentors are better positioned to provide effective psychosocial and career development support.^{11,15,18}

People who attend community discussion events report being more aware of what they can do to increase employment opportunities for young people with disabilities.²⁴

TYPES OF COMMUNITY ACTIVITIES THAT BUILD SOCIAL CAPITAL

Key components of community-based approaches to building social capital include the following:

- Identifying common issues that require attention
- Identifying possible evidence-based solutions to common issues
- Devising specific strategies for collaborating with essential stakeholders and developing a plan for implementation¹⁹

One strategy for building social capital that allows community members to discuss important issues and strategies to address these issues is termed “community conversations.”³ The following are core assumptions of community conversations:

- All communities possess unique social and cultural resources.
- Community members are experts on the most important challenges that face the community and the most viable solutions for addressing challenges.
- Communities that come together identify new resources and ideas through connections with people with different perspectives and life experiences.
- Real and lasting change comes with strategies and approaches that originate in the community.

Ideas produced through community conversation provide critical information for stakeholders on what services and systems change efforts are needed.¹⁶

Extracurricular activities outside of school such as athletics, religious activities, youth groups, or performing art groups increase links to community networks.^{17, 21, 25}

TAKE-AWAYS

The literature supports strengthening community networks and connections to increase social capital, which can help individuals navigate complex school and workplace situations. Within deaf communities, community-based advocacy and research increases participant buy-in, increases collaboration, and gains the trust of deaf people.¹ Strong community networks and relationships are important for the success of deaf youth.⁶ Strengthening community connections, particularly with the deaf community, contributes significantly to psychosocial well-being^{2, 13, 14} and persistence toward degree completion.^{9, 22}

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Research Summarized! Developing Collaborative and Integrated Systems

Many of the current structures of services for deaf individuals operate in silos and often lack coordination, which indicates an immediate need for systemic change. Disparate data systems and administrative structures make it difficult to coordinate a timely, effective transition support process. Through the development and implementation of the Results-Driven Accountability framework, the Office of Special Education Programs has positioned itself to support states in driving systems changes that lead to improved outcomes for students with disabilities.²

What can be learned from the existing literature on developing collaborative and integrated systems to improve postsecondary outcomes for deaf individuals?

INTEGRATED DATA SYSTEMS

Disparate education data systems make it challenging to conduct longitudinal analyses that could be used to identify areas of need in educational and employment programs and practices.⁴

Data systems are considered “connected” if the state either has a central data warehouse that contains data from multiple agencies or creates temporary links between data systems. Connections or links can be made through common variables such as a student identification number, which often stays consistent throughout a student’s years in the state education system.

Barriers to connecting early-learning, K–12, postsecondary, and workforce data systems include data privacy concerns and political and financial hurdles.

Thirty-seven states and Washington, D.C., currently connect data between at least two of the four core systems (i.e., early learning, K–12, postsecondary, workforce).⁶

States with connected data systems can use data to inform legislation and drive decision-making on education policies and practices.⁷

CHALLENGES TO TRACKING DATA OF DEAF INDIVIDUALS

The deaf population is considered low incidence, and the methods used to collect a complete count of deaf students have been criticized as being biased or inadequate, resulting in inaccurate results.⁵

At the secondary level, students are eligible for services through the Individuals with Disabilities Education Act (IDEA) only if their disability negatively affects educational performance. Because deafness does not negatively affect performance for all deaf students, IDEA data alone do not accurately capture education data for this population.

Educational data systems vary in how they house deaf students' data. When a student's home district makes a referral to a school for the deaf, the student's data sometimes are sent back to the home district and other times remain at the school for the deaf. This variation in data management presents a challenge in understanding how educational settings and practices affect achievement.

At the postsecondary level, the Americans With Disabilities Act of 1990 requires students to notify their institution's disability office of their disability to request accommodations.³ Many deaf students choose not to disclose their disability,¹ leading to an inability to accurately track postsecondary education data of deaf individuals.

Vocational rehabilitation data do not represent a complete picture of employment data for deaf individuals because only individuals whose disability presents "a substantial barrier to employment" are eligible for vocational rehabilitation services.

COLLABORATIVE ADMINISTRATIVE STRUCTURES

Collaborative structures will be needed to fulfill the new transition services requirements under the Workforce Innovation and Opportunity Act.

Collaboration between agencies is a predictor of positive postsecondary outcomes for students with disabilities.⁹

Special education and vocational rehabilitation collaboration is limited possibly due to a lack of understanding of each other's practices and systems, differences in philosophy, professional biases, and limited collaboration skills in educators and counselors.⁸

Transition teachers and vocational rehabilitation counselors identify joint training as a practice that can improve collaboration.⁸

Models for cross-state collaboration include professional learning communities that allow states to identify issues and opportunities and work together toward common goals while providing feedback and support.¹⁰

Even though deaf individuals are a low-incidence population, they are not evenly distributed throughout geographic areas. Historical factors including current or previous locations of schools for the deaf, a strong network of services, and accessible work environments lead to clusters of high-density populations of deaf individuals and a need for administrative structures that allow for dissemination of information and practices from the clusters to more remote areas.

TAKE-AWAYS

The systems that support deaf individuals currently reside within K–12 education, postsecondary education, and rehabilitative services. Some state agencies have knowledge and awareness of effective programs and policies to improve education and employment outcomes for deaf individuals, but others may not. Improved collaboration and positive working relationships between systems—within institutions, communities, and states—are critical for deaf individuals' postsecondary attainment.

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