

Do you know?

There are an estimated 4 million deaf and hard-of-hearing people of working age in the US¹:

- 15% are employed in STEM (science, technology, engineering, and mathematics) occupations compared to 18% of hearing people.
- They tend to work in lower-skilled occupations than their hearing counterparts.

There are an estimated 137,000 deaf and hard-of-hearing students enrolled in postsecondary institutions:

- 43% are enrolled in four-year institutions compared to 52% of hearing students. Of those deaf and hard-of-hearing students, 17% are in STEM majors compared to 18% of hearing students.
- 55% are enrolled in two-year institutions compared to 46% of hearing students. Significantly more deaf and hard-of-hearing students, 13%, are majoring in STEM fields, compared to 10% of hearing students.
- After six year's persistence at college, only 12% of deaf and hard-of-hearing students earn a baccalaureate degree compared to 29% of hearing students, and 6% earn an associate degree compared to 10% of their hearing peers.

In terms of the overall population of deaf and hard-of-hearing individuals, only 5% earn any college degree at all compared to 28% of the general population.

Although underemployed and undereducated when compared to their hearing peers, with access to appropriate training and adequate resources, deaf and hard-of-hearing individuals represent a significant pool of potential employees in more highly skilled STEM fields.

¹ Walter, G. (2010) "Deaf and Hard-of-Hearing Students in Transition: Demographics with an Emphasis on STEM Education."

Help us plan this Center!

The National Technical Institute for the Deaf, a college of the Rochester Institute of Technology, was awarded a planning grant for developing a Center for Advancing Technological Education for the Deaf through the National Science Foundation's Advanced Technological Education program.

Help us develop a proposal for this National Center that will integrate more deaf and hard-of-hearing individuals into the workplace, particularly in highly skilled technician jobs.

We are looking for your feedback on how we can provide you with the resources to better serve deaf and hard-of-hearing students and employees throughout the US.

Please share your needs and ideas with us. Our vision for the Center is on the back.

Who are we?

The National Technical Institute for the Deaf (NTID) is a two-year technical college for deaf and hard-of-hearing students from across the country. NTID is one of the eight colleges of the Rochester Institute of Technology, a prominent four-year technical university in Rochester, NY. Deaf and hard-of-hearing students are enrolled in associate degree programs within the college of NTID and are taught using direct instruction by faculty skilled in sign language.

NTID programs articulate with baccalaureate degree programs in the other seven colleges of RIT, and NTID students who enter those advanced programs receive access services (interpreting, notetaking, and voice-to-text) and educational support services from NTID faculty and staff.

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Our Vision

What we want to do!

We are developing a proposal for an NSF Advanced Technological Education (ATE) National Center that will integrate more deaf and hard-of-hearing individuals into the workplace, particularly in highly skilled technician jobs. Through this Center we want to:

- Improve the career self-efficacy and career awareness of deaf and hard-of-hearing high school and college students related to STEM technician careers.
- Improve high school and community college teachers' and counselors' understanding of select STEM careers and opportunities for deaf and hard-of-hearing individuals in those careers.
- Improve the technical skills of high school teachers to prepare them to teach college-level courses in several STEM areas at their high schools.
- Establish, expand, or improve pathways for deaf and hard-of-hearing students to transition from high school to associate degrees, to baccalaureate degrees, and beyond in the selected STEM areas.
- Improve the access to learning for deaf and hard-of-hearing students in mainstreamed high school and college STEM-related courses.
- Develop employers' awareness of deaf and hard-of-hearing individuals as potential employees and how they can be hired and successfully integrated into the STEM technician workforce.

How we will do it!

Clearinghouse of Information. Establish a nationally focused, comprehensive website that will serve as a clearinghouse for information related to technological education and technician careers for deaf and hard-of-hearing students. This website will provide:

- Extensive materials on career awareness and career opportunities related to STEM technician fields developed specifically for deaf and hard-of-hearing high school and community college students and the teachers and counselors who serve them.
- A collection of universal design strategies and best practices for instruction for teachers who have mainstreamed deaf and hard-of-hearing students in their classrooms, as well as other students with learning and/or language deficits.
- Curriculum and pedagogy for developing the English skills of deaf and hard-of-hearing students as well as other students with language and/or learning deficits.
- Strategies for employers to develop the sensitivity and skills necessary for hearing and deaf colleagues to successfully work together.

Regional Partnerships. Establish a model for regional partnerships among high schools, community colleges, and industry in selected geographical areas to improve the access to technological education and technician employment for deaf and hard-of-hearing students in several STEM disciplines. This model will involve:

- Expanding the current NSF-funded *Project Fast Forward* (DUE #0602761) to offer dual credit courses in more STEM subjects to more high schools. Over 250 deaf and hard-of-hearing students in 15 high schools have been involved in *Project Fast Forward*.
- Establishing articulation agreements to help transition deaf and hard-of-hearing students from high school to college.
- Providing *train-the-trainer* professional development at NTID for regional partners that will allow them to disseminate that training to other schools and industries within their regions.

ATE Resources. Work with ATE projects and centers to develop regional partnerships and to assist in the development and dissemination of Website resources.

