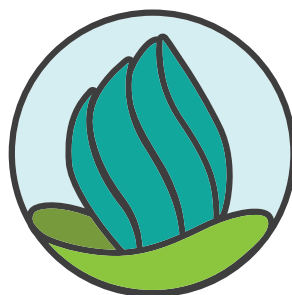


National Deaf Center on Postsecondary Outcomes

Undergraduate Enrollment of Deaf Students in the United States (2019–2020)

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National Deaf Center
on Postsecondary Outcomes



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Office of Special Education Programs
U.S. Department of Education



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Introduction

After people leave high school, college experiences can be an opportunity for continued growth and learning and becoming more competitive in the workplace. Postsecondary enrollment rates for deaf people have increased since the 1980s, in large part due to legislative action and increased accessibility of educational environments (Newman et al., 2011). Despite increased access to postsecondary education, fewer deaf people complete college degrees than their hearing peers (Bloom, Palmer, & Winninghoff, 2023). National data show that only 4.9% of deaf adults are currently enrolled in postsecondary institutions of any type, compared to 10.0% of hearing people (Bloom et al., 2023).

This report provides a comprehensive overview of undergraduate enrollment of deaf college students in the United States, serving as a resource for community members, advocates, educators, researchers, and policymakers. To develop programs and strengthen services for deaf college students, it is necessary to understand their characteristics and experiences. This report uses the most recent available data from the National Postsecondary Student Aid Study (NPSAS:20), a comprehensive national study of the characteristics of students in postsecondary education. Undergraduate students who are enrolled in any type of postsecondary institution and identify as deaf or have serious difficulty hearing are included in these analyses. Further information about this dataset and the methodology are shared in the Methods section of this report.

Key Findings

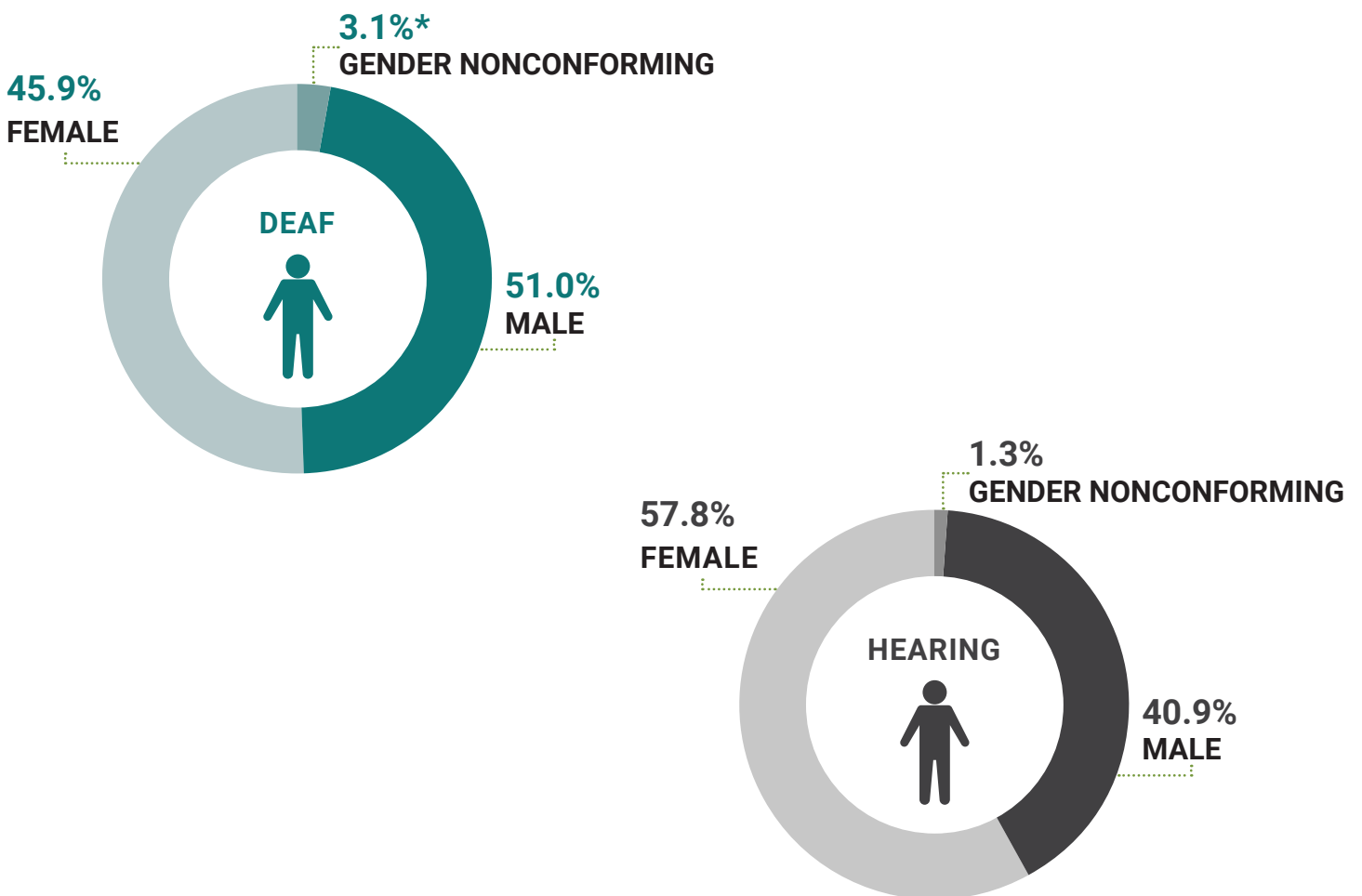
- An estimated 237,000-plus deaf students are enrolled in college.
- A higher percentage of deaf students identify as gender nonconforming than hearing students.
- A lower percentage of deaf students are Black than hearing students.
- Almost half of deaf college students have an additional disability.
- Deaf students are older and take longer to enroll in college after high school than hearing students.
- A higher percentage of deaf students are married or have dependent children.
- A higher percentage of deaf students are first-generation students.
- A higher percentage of deaf students take classes online.
- Most deaf students pursue associate's and bachelor's degrees.
- Deaf students receive less financial aid than their hearing counterparts.
- A higher percentage of deaf students take developmental coursework than hearing students.
- The most popular fields of study for deaf students are healthcare, business, and the humanities.

Characteristics of Deaf Students

Among all college students enrolled in the 2019–2020 academic year, 19.5% report having a disability. The most-prevalent disabilities reported are depression; mental, emotional, or psychiatric conditions; and attention-deficit disorder. Altogether, 1.4% of all college students are deaf. This means that an estimated 237,000 deaf students are enrolled in college.

More deaf men (51.0%) than deaf women (45.9%) are enrolled in college. For hearing people, the opposite is true—more women than men are enrolled in college. However, we know that more deaf women complete college degrees than deaf men (Bloom et al., 2023). This was the first year this dataset included “genderqueer, gender nonconforming, or a different identity” as a gender option. There is a significantly higher percentage of gender-nonconforming deaf students (3.1%) than hearing students (1.3%). The percentage of enrolled deaf and hearing students by gender can be found in Figure 1.

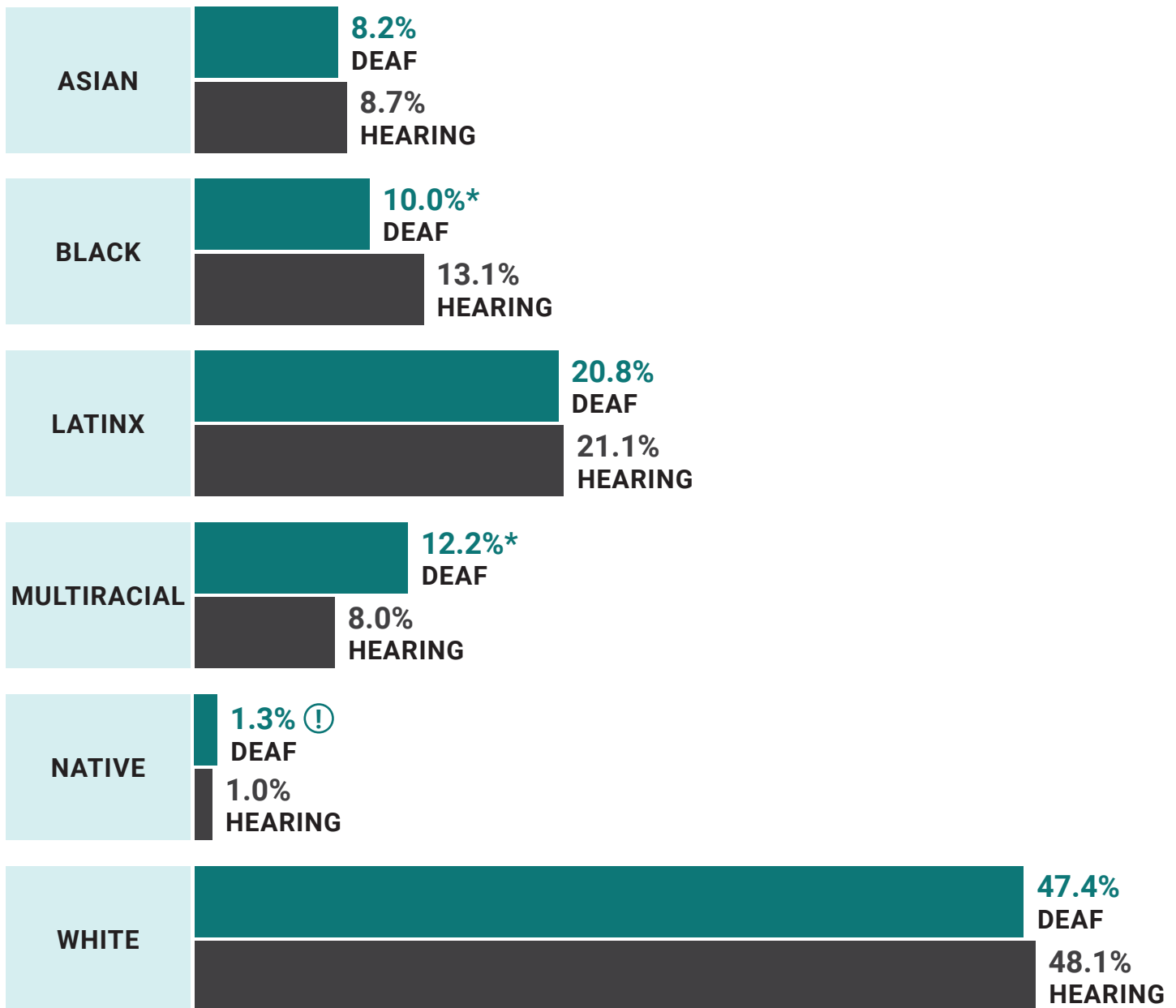
Figure 1
ENROLLED STUDENTS BY GENDER



* Indicates that the difference between hearing and deaf students is statistically significant.

The overall percentages of hearing and deaf students by race and ethnicity are very similar (Figure 2). For example, among deaf people enrolled in college, 47.4% are white, compared to 48.1% of their hearing peers. However, Black deaf students are significantly underrepresented; only 10.0% of deaf students are Black versus 13.1% of hearing students. A significantly higher percentage of deaf students (12.2%) identify with more than one race (multiracial) than hearing students (8.0%). This finding suggests that greater recruitment and retention efforts are needed to increase the number of Black deaf students attending postsecondary institutions.

Figure 2
ENROLLED STUDENTS BY RACE AND ETHNICITY



* Indicates that the difference between hearing and deaf students is statistically significant.

ⓘ Interpret data with caution. Estimate is unstable because the standard error represents more than 30%.

Nearly half of all deaf college students (45.8%) are deafdisabled, 3.3% are deafblind, and 50.9% are deaf with no additional disabilities (Figure 3). As shown in Table 1, the most common other disabilities among deaf students are depression (9.8%), other (8.6%), mental health (7.6%), and attention-deficit disorder (5.2%). The incidence of learning and mental health disabilities is significantly lower among deaf students than among hearing students. Colleges need to be aware that deaf students may be largely underdiagnosed due to inaccessible mental health evaluation and support services (Gallagher, 2022). Brain injuries affect a significantly higher percentage of deaf students (3.7%) than hearing students (1.5%); this finding may be due in part to the significantly higher percentage of deaf students who are veterans (see Figure 4).

Figure 3
DEAF-RELATED DISABILITIES OF ENROLLED DEAF STUDENTS

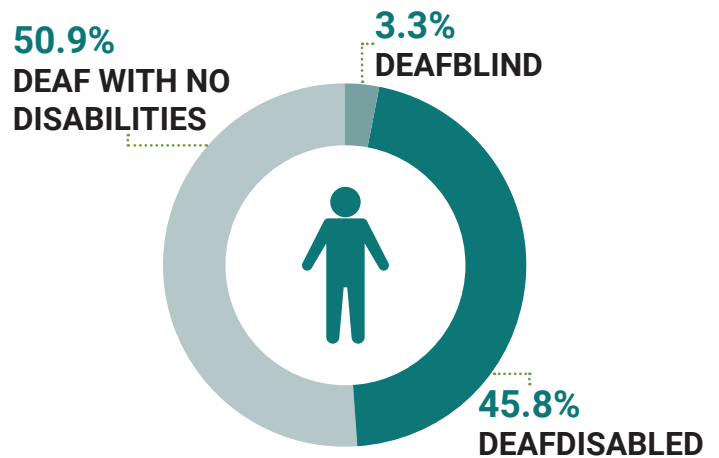


Table 1
TYPES OF DISABILITY AMONG ENROLLED STUDENTS

	DEAF	HEARING
ATTENTION-DEFICIT DISORDER	5.2%*	21.7%
BRAIN INJURY	3.7%*	1.5%
DEPRESSION	9.8%*	28.5%
MENTAL, EMOTIONAL, OR PSYCHIATRIC CONDITION	7.6%*	21.6%
ORTHOPEDIC OR MOBILITY IMPAIRMENT	3.6%	3.2%
OTHER	8.6%*	11.9%

* Indicates that the difference between hearing and deaf students is statistically significant..

A significant percentage of deaf students have prior military experience and are considered veterans. These veterans often experience hearing loss due to injury (National Deaf Center on Postsecondary Outcomes, 2019). The percentage of deaf students (15.7%) who identify as veterans is significantly higher than their hearing counterparts (3.5%; Figure 4).

The majority of deaf college students are U.S. citizens or permanent residents. Among deaf students, 22.8% are U.S.-born citizens with foreign-born parents, 2.4% are permanent residents, and 8.8% are foreign-born citizens (Table 2). These students, who may use languages other than English and American Sign Language (ASL), may need extra time for learning the languages of instruction, whether that is English, ASL, or both. A significantly smaller percentage of deaf foreign students with visas (0.5%!) attend U.S. schools than hearing students (2.6%), and a significantly smaller percentage of deaf students are permanent residents (2.4%) than hearing students (4.4%).

Figure 4
VETERAN STATUS



* Indicates that the difference between hearing and deaf students is statistically significant.

Table 2
ENROLLED STUDENTS BY CITIZENSHIP

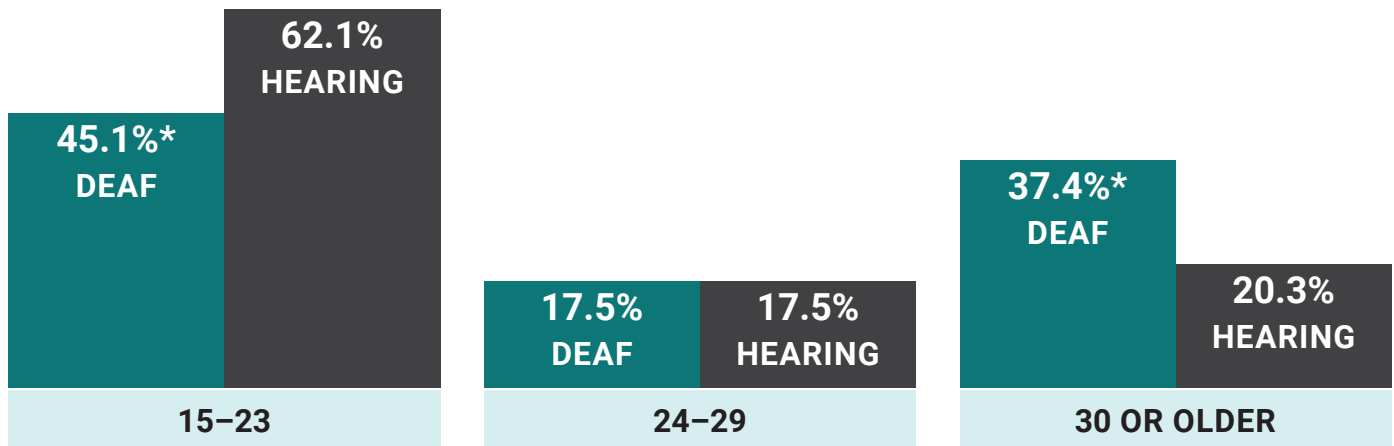
	DEAF	HEARING
FOREIGN-BORN CITIZEN	8.8%	7.8%
FOREIGN STUDENT WITH VISA	0.5%* ⚠	2.6%
PERMANENT RESIDENT	2.4%*	4.4%
U.S.-BORN CITIZEN WITH FOREIGN-BORN PARENT(S)	22.8%	22.1%
ALL OTHER CITIZENS	65.5%	63.2%

* Indicates that the difference between hearing and deaf students is statistically significant.

⚠ Interpret data with caution. Estimate is unstable because the standard error represents more than 30%.

Deaf students are largely older than hearing students. The average age of deaf students is 29.5, compared to 25.1 for hearing students. A significantly higher percentage of deaf college students are older than 30 (37.4%) than hearing students (20.3%; Figure 5). Deaf students may take longer to complete postsecondary education (Newman et al., 2011) or wait longer after high school before enrolling in postsecondary education than their hearing peers (see the College Trajectory of Deaf Students section of this report).

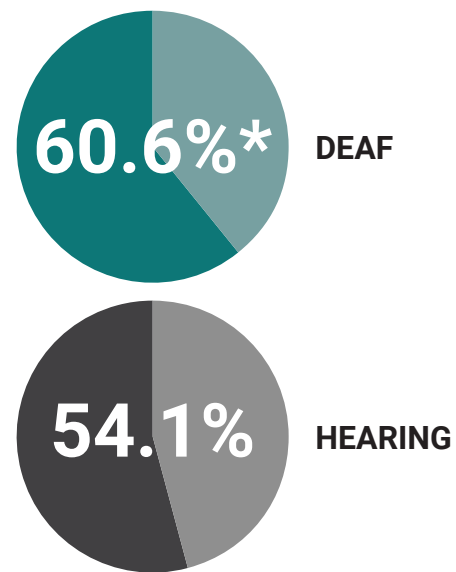
Figure 5
ENROLLED STUDENTS BY AGE



* Indicates that the difference between hearing and deaf students is statistically significant..

Families can be an important influence and source of support for college students. The demographics of college students have changed over time, as college enrollment has steadily increased in quantity and diversity. This means that many college students are first-generation students from families whose parents had not graduated from college. A significantly higher percentage of deaf college students (60.6%) than hearing students (54.1%) are first-generation students whose parents have not completed a bachelor's degree or above (Figure 6). These deaf students may need additional support as they learn to navigate college (Palmer et al., 2020). A higher percentage of deaf students have faced unique challenges, such as being orphans, wards of the court, emancipated minors, or under legal guardianship (5.8%), compared to their hearing counterparts (3.8%), emphasizing the need for colleges to carefully consider support services for deaf students who may be less able to rely on their family members (Figure 7).

Figure 6
FIRST-GENERATION STUDENTS



Note. Defined as parents not earning a bachelor's degree or higher.

* Indicates that the difference between hearing and deaf students is statistically significant..

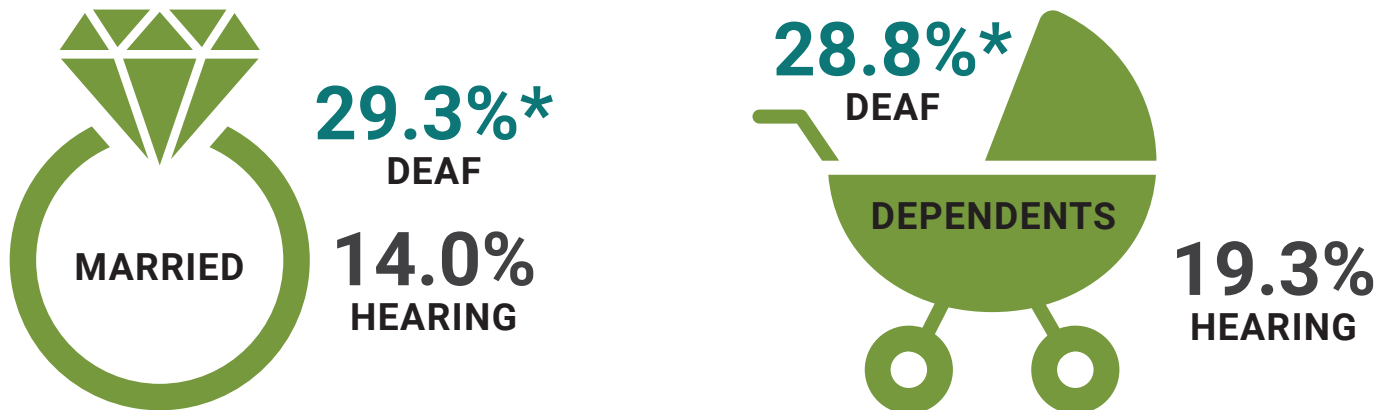
Figure 7
EXPERIENCE WITH FOSTER CARE



Note. Defined as being an orphan, ward of court, emancipated minor, or in legal guardianship.

Significantly higher percentages of deaf college students are married (23.9% vs. 14.0%) and have dependent children (28.8% vs. 19.3%) than their hearing counterparts (Figure 8), which may be partly explained because deaf students are older, on average. A significantly higher percentage of deaf students are single parents (12.5%) than hearing students (10.4%). However, a significantly lower percentage of deaf students (39.4%) than hearing students (48.3%) attend institutions that offer onsite childcare. Only 48.2% of colleges and postsecondary training programs across the nation offer onsite childcare. Institutions should consider enhancing childcare services and tailored assistance for deaf students with childcare responsibilities, particularly those who are single parents.

Figure 8
ENROLLED STUDENTS BY MARITAL STATUS AND DEPENDENTS



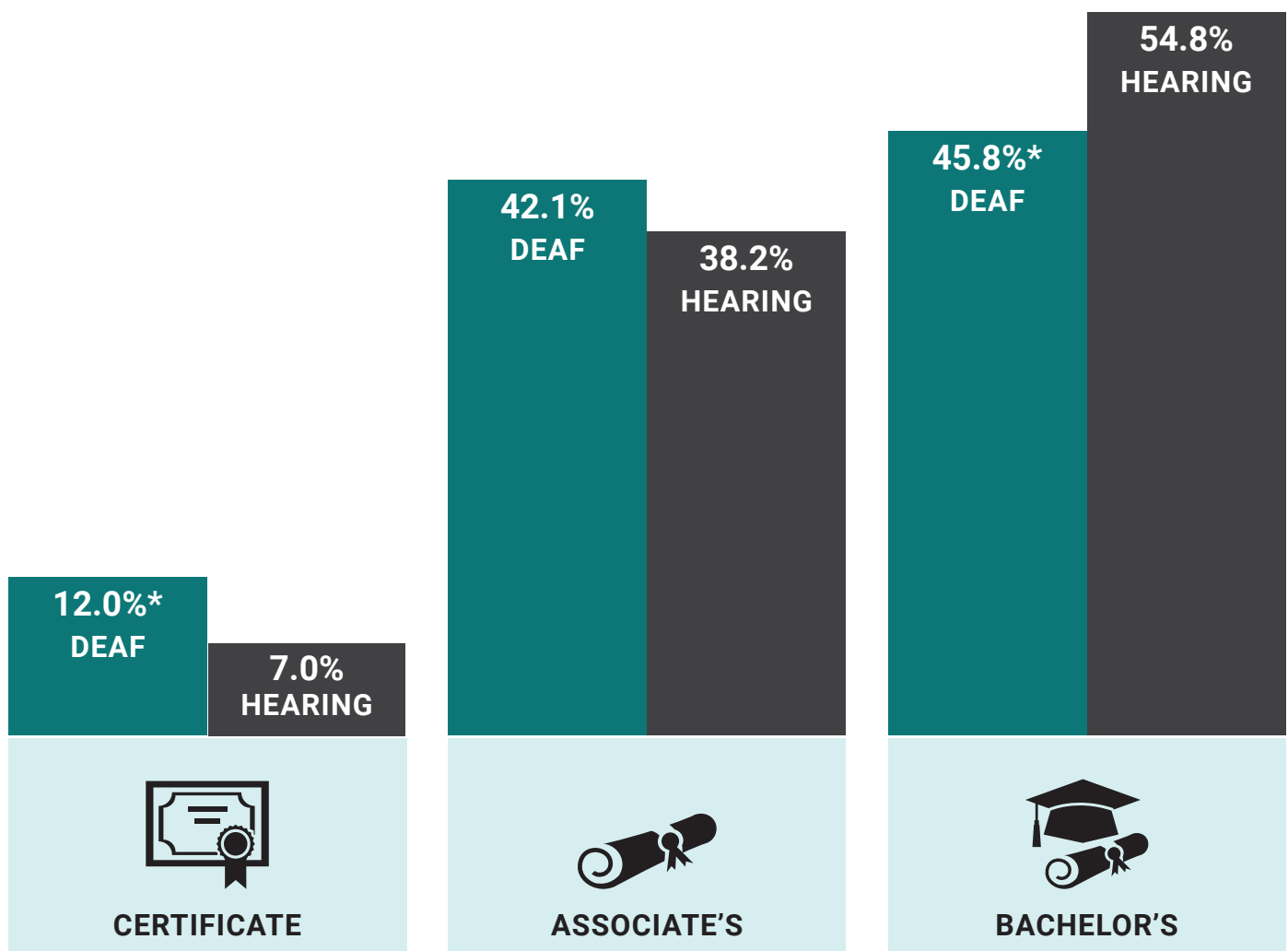
* Indicates that the difference between hearing and deaf students is statistically significant.

Undergraduate Degree Enrollment of Deaf College Students

Since 2011, the total number of enrolled postsecondary students has remained relatively unchanged (Bloom et al., 2023). Employment rates are much higher for deaf people with any type of degree (Bloom et al., 2023), suggesting that postsecondary education and training remains an important avenue to improve outcomes for deaf people.

Compared to hearing students, a significantly higher percentage of deaf students are enrolled in certificate programs (12.0% vs. 7.0%) and a significantly lower percentage are enrolled in bachelor's degree programs (45.8% vs. 54.8%; Figure 9). Deaf and hearing students are enrolled in associate's programs at similar rates




Figure 9
DEGREE ENROLLMENT



* Indicates that the difference between hearing and deaf students is statistically significant.

Across gender, we see slight differences in degree goals. More deaf men (50.3%) and deaf gender-nonconforming students (48.7%) are studying for their bachelor's degrees than deaf women (40.8%). More deaf women (48.6%) and deaf gender-nonconforming students (44.2%) are studying for their associate's degrees than deaf men (36.5%). A smaller percentage of deaf women (10.9%) and deaf gender-nonconforming students (7.1%!!) are seeking certificates than deaf men (13.3%; Table 3).

Table 3
DEGREE ENROLLMENT BY GENDER

	DEAF			HEARING		
	GNC	MEN	WOMEN	GNC	MEN	WOMEN
 CERTIFICATE	7.1% !!	13.3%*	10.9%	5.6%	6.3%	7.6%
 ASSOCIATE'S	44.2%	36.5%	48.6%	36.2%	36.8%	39.2%*
 BACHELOR'S	48.7%	50.3%*	40.8%	58.2%	56.9%	53.2%*




Note. GNC = gender nonconforming.

* Indicates that the difference between hearing and deaf students is statistically significant.

!! Interpret data with caution. Estimate is unstable because the standard error represents more than 50%.

Deaf people enrolling in bachelor's programs to a greater extent than other programs is mostly consistent across race and ethnicity (Table 4). This enrollment trend parallels the data for white hearing (59.3% vs. 34.2%) and Asian hearing people (67.6% vs. 27.9%), whose enrollment was significantly stronger in bachelor's degree programs than in associate's degree programs. However, Latinx deaf (46.3% vs. 38.6%) and hearing (48.3% vs. 44.1%) people are enrolled in associate's programs at higher rates than in bachelor's degree programs.

Table 4
DEGREE ENROLLMENT BY RACE





	 CERTIFICATE	 ASSOCIATE'S	 BACHELOR'S
ASIAN DEAF	8.9% !!	42.7%	48.3%
ASIAN HEARING	4.5%	27.9%	67.6%
BLACK DEAF	12.0% !!	40.8%	47.2%
BLACK HEARING	9.3%	42.1%	48.6%
LATINX DEAF	15.1%	46.3%	38.6%
LATINX HEARING	7.7%	48.3%	44.1%
MULTIRACIAL DEAF	6.2% !!	40.9%	52.9%
MULTIRACIAL HEARING	6.6%	37.0%	56.4%
WHITE DEAF	12.0%	42.2%	45.7%
WHITE HEARING	6.5%*	34.2%*	59.3%*

* Indicates that the difference between hearing and deaf students is statistically significant.


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When looking at degree enrollment by age (Table 5), we see that younger deaf students are enrolled in bachelor's degree programs at a higher rate than in associate's degree programs (52.2% vs. 37.8%). This trend is similar for hearing students. The average age of deaf and hearing students differs slightly, with deaf students skewing older. The average age of deaf students who are studying for their bachelor's degrees is 28.3 years old, compared to 23.7 years old for hearing students.

Table 5
DEGREE ENROLLMENT BY AGE

	 CERTIFICATE	 ASSOCIATE'S	 BACHELOR'S
DEAF AGES 15–23	10%	37.8%	52.2%
HEARING AGES 15–23	4.1%*	33.1%	62.8%*
DEAF AGES 24–29	8.9% 	50.0%	41.1%
HEARING AGES 24–29	10.1%	46.5%	43.4%
DEAF 30 OR OLDER	16.0%	43.7%	40.3%
HEARING 30 OR OLDER	13.5%	46.8%	39.7%

* Indicates that the difference between hearing and deaf students is statistically significant.

 Interpret data with caution. Estimate is unstable because the standard error represents more than 30%.

Financial Support for Deaf Students

For many college students, financial aid is an important factor that contributes to the likelihood of attending college and continuing coursework to complete their programs. Financial aid can come from multiple sources: loans, grants, vocational rehabilitation, work study programs, and more. The average financial aid received in the 2019–2020 academic year is \$1,466 lower for deaf students than hearing students (\$8,608 vs. \$10,074; Figure 10).

When examining the financial aid gaps between deaf and hearing students, it is necessary to ask whether deaf students are equally informed about available financial aid options and the application process for federal financial aid. In the United States, 30.3% of deaf students have never applied for any form of federal aid, in contrast to 28.4% of hearing students. Among students who have not applied for financial aid, 32.2% of deaf students state that they do not need it, compared to 42.0% of hearing students. Other common reasons for not applying for aid are not wanting to take on debt (29.4%), forms being too much work (13.9%), and not having information about how to apply (9.0%!!).

When we examine the amount of aid received by deaf bachelor’s degree graduates (Figure 11), we see that a significantly lower percentage of deaf students received \$10,000 or more (28.1%) than hearing students (45.0%). Deaf students may need more access to information about the range of financial aid options to ensure that they receive sufficient financial support to pursue their educational goals while supporting themselves and their families.

Figure 10
AVERAGE FINANCIAL AID RECEIVED IN 2019–2020 ACADEMIC YEAR



* Indicates that the difference between hearing and deaf students is statistically significant.

Figure 11
TOTAL AID RECEIVED FOR GRADUATES WITH A BACHELOR’S DEGREE



* Indicates that the difference between hearing and deaf students is statistically significant.

College Experiences of Deaf Students

Most students work while attending college—70.7% of deaf students work, compared to 73.0% of hearing students. Among deaf students with a job, 37.4% have jobs related to their college major or field of study, compared to 32.8% of hearing students. These jobs are primarily regular jobs, not work-study jobs; only 2.7% of deaf students have a work-study job, compared to 5.0% of hearing students.

A higher percentage of deaf students (61.2%) live off campus than hearing students (51.2%), which may make it more difficult for deaf students to connect with peers on campus and seek help when needed. Deaf students are just as likely as hearing students to study abroad at any time during their undergraduate education (6.2% vs. 5.9%). Deaf students have an average GPA of 3.02, and hearing students have an average GPA of 3.15.

Many deaf students have experience with online instruction, with 69.1% having taken at least one online course and 29.7% doing their entire program online (Figure 12). A significantly higher percentage of deaf students are enrolled in programs that are entirely online (29.7%) than hearing students (23.8%). Deaf students may seek online instruction as an alternative approach to learning that offers more flexibility related to accommodations.

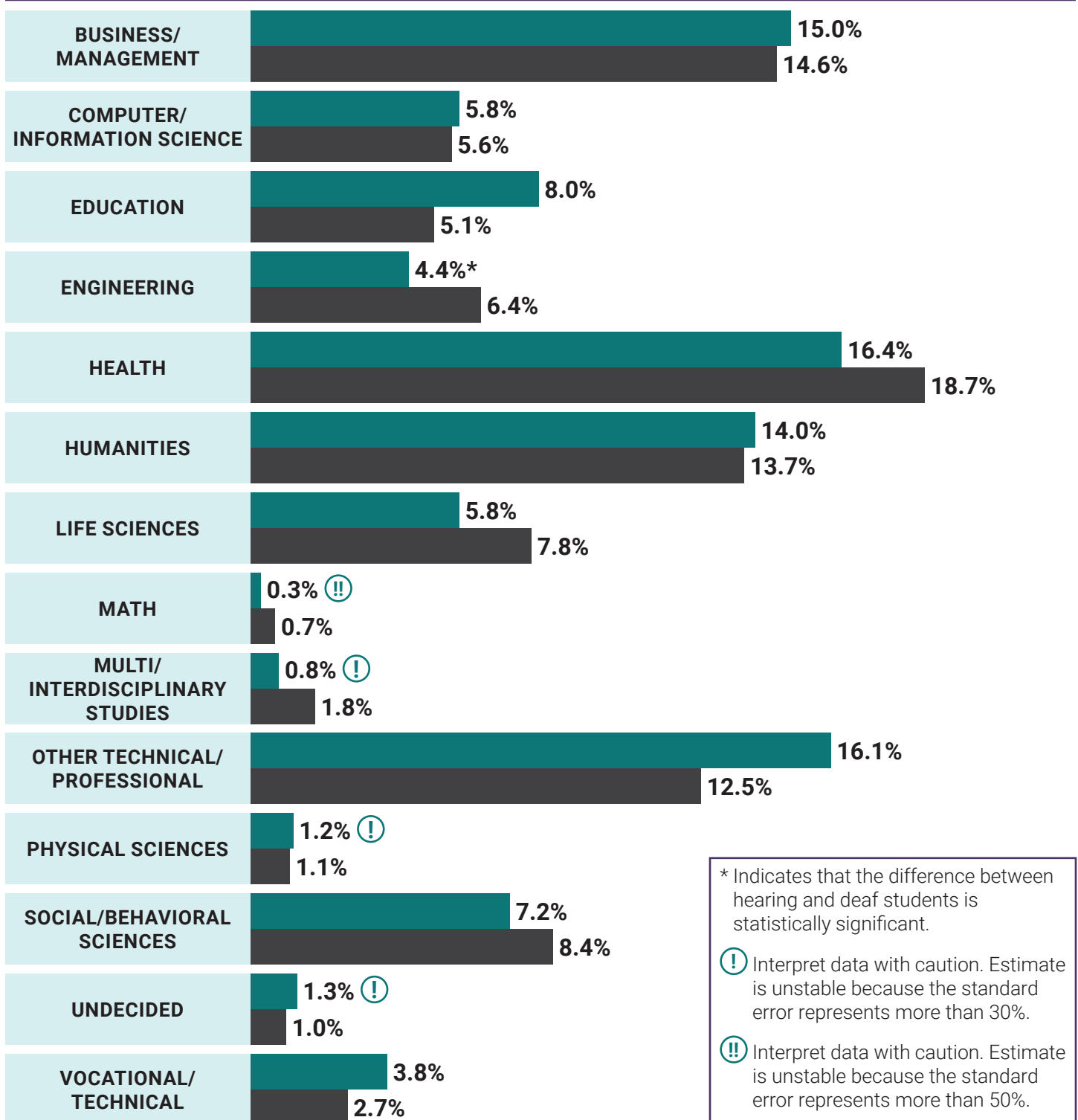
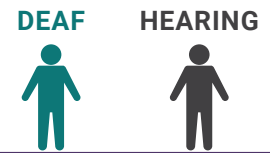
Figure 12
ONLINE INSTRUCTION



* Indicates that the difference between hearing and deaf students is statistically significant.

College students study across a wide range of fields (Figure 13). For deaf students, the most popular fields of study (aside from the “Other” category) were health, business, and the humanities. A significantly lower percentage of deaf students (4.4%) major in engineering than hearing students (6.4%).

Figure 13
FIELDS OF STUDY



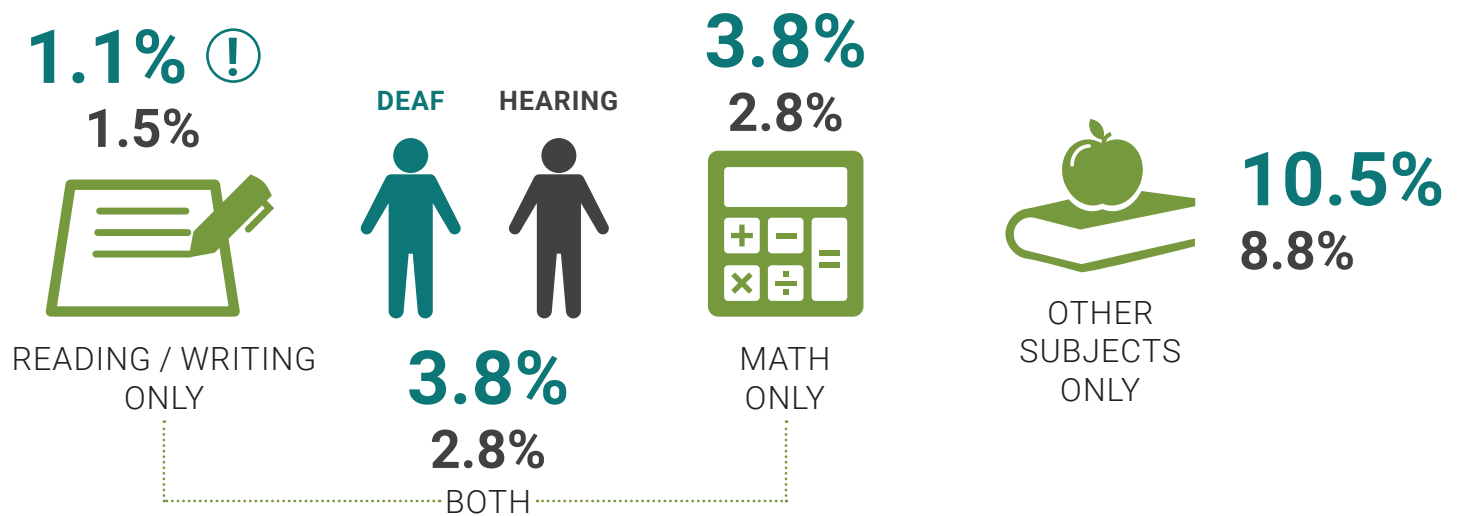
College Trajectory of Deaf Students

Deaf students may be less prepared for college for many reasons, including a lack of academic support during high school and an extended period of time between high school completion and college enrollment. On average, deaf students enroll in college 3.7 years after completing high school, compared to 1.5 years for hearing students.

Many students need developmental coursework upon arriving at college. A significantly higher percentage of deaf students take developmental coursework at some point while enrolled in college than hearing students (37.1% vs. 28.0%). However, in 2019–2020, deaf college students took developmental courses at roughly similar rates as hearing students (Figures 14 and 15).

Figure 14

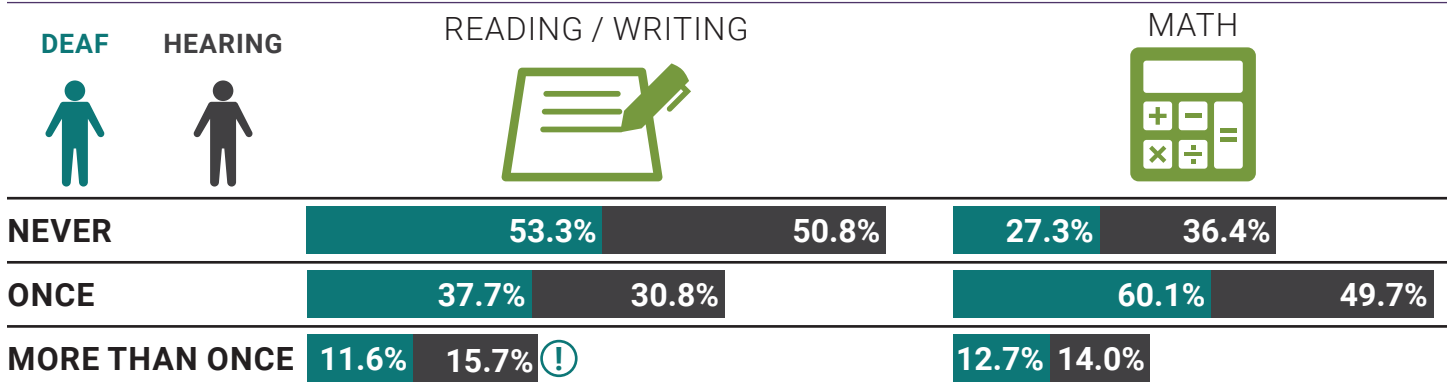
DEVELOPMENTAL COURSEWORK IN 2019–2020 SCHOOL YEAR



⚠ Interpret data with caution. Estimate is unstable because the standard error represents more than 30%.

Figure 15

FREQUENCY OF DEVELOPMENTAL COURSEWORK IN 2019–2020 SCHOOL YEAR



⚠ Interpret data with caution. Estimate is unstable because the standard error represents more than 30%.

In the 2019–2020 academic year, 19.9% of deaf students completed their certificate or degree program, compared to 20.6% of hearing students. The data shared here are not traditional completion rates. Completion rates usually track a cohort of students for a specific number of years. With this dataset, we report the percentage of students who completed their academic program within the current year.

We also can compare deaf students’ program completion rates within gender, race, and ethnicity with their hearing counterparts. Deaf students of all genders completed their program at rates close to their hearing peers (Figure 16). Within race and ethnicity, Asian deaf students and multiracial deaf students completed their program at rates higher than their hearing counterparts and higher than deaf people of other races and ethnicities (Table 6). Black students, both deaf and hearing, completed programs at much lower rates than other students. The sample sizes for these groups are small, so these data should be interpreted with caution.

Figure 16
CURRENT YEAR COMPLETION BY GENDER



!! Interpret data with caution. Estimate is unstable because the standard error represents more than 50%.






Table 6
CURRENT YEAR COMPLETION BY RACE AND ETHNICITY

	DEAF	HEARING
ASIAN	23.2% !	23.0%
BLACK	11.9% !	16.4%
LATINX	21.3%	20.1%
MULTIRACIAL	25.9%	20.3%
WHITE	21.7%	18.6%

! Interpret data with caution. Estimate is unstable because the standard error represents more than 30%.

Deaf students generally have high expectations about pursuing their education, at rates similar to their hearing peers. When students were asked about the highest level of education they expected to complete, deaf students responded optimistically, with 45.2% expecting to complete a bachelor’s degree and 10.7% expecting to complete a doctoral degree (Table 7). However, a smaller percentage of deaf students complete their program of study than hearing students, which suggests that factors outside of deaf students’ control may serve as obstacles to their educational goals. Postsecondary institutions need to ensure that they are ready to meet the needs of deaf students (Cawthon, Schoffstall, & Garberoglio, 2014).

Table 7
EXPECTED HIGHEST LEVEL OF EDUCATION

	 CERTIFICATE	 ASSOCIATE'S DEGREE	 BACHELOR'S DEGREE	 MASTER'S DEGREE	 PH.D., J.D., M.D.
DEAF	4.2%	16.5%	45.2%	23.4%	10.7%
HEARING	2.7%	10.8%	42.9%	29.6%	14.0%

Institutional Characteristics

Deaf students enroll in many different types of institutions, including private, public, in-state, out-of-state, 4-year, 2-year, nonprofit, and for-profit institutions. A significantly higher percentage of deaf students enroll in private, for-profit institutions than hearing students (13.6% vs. 7.8%). A higher percentage of deaf students (21.3%) attend an out-of-state college than hearing students (18.0%). Deaf students may seek colleges with better services and accommodations or more deaf students. Community colleges are an important part of the postsecondary experience, providing additional support and opportunities to earn certificates and associate's degrees. The majority (70.8%) of deaf students had attended a community college, which is a significantly higher rate than their hearing counterparts (61.7%). Deaf students are just as likely to enroll in Historically Black Colleges and Universities as hearing students (1.3% vs. 1.4%).

Change Over Time

The number of deaf students in college has steadily declined over time (Table 8). However, compared to nearly a decade ago, significantly more deaf students are now enrolled in bachelor’s degree programs, have attended a 4-year institution at some point, and are participating in entire programs online. The deaf student population has also changed over time—more deaf BIPOC and deafdisabled students are now attending college (Table 9).

Table 8
CHANGES IN DEAF STUDENT POSTSECONDARY ENROLLMENT

	2011–2012	2015–2016	2019–2020
ESTIMATED TOTAL NUMBER	270,184	233,738	231,726
PERCENTAGE OF ALL STUDENTS WHO ARE DEAF	1.2%	1.3%	1.4%
ENROLLED IN CERTIFICATE PROGRAM	16.4%	11.0%	12.0%
ENROLLED IN ASSOCIATE’S PROGRAM	49%	51.8%	42.1%
ENROLLED IN BACHELOR’S PROGRAM	34.6%	37.2%	45.8%
ENTIRE PROGRAM ONLINE	N/A	17.1%	29.7%
EVER ATTENDED 4-YEAR INSTITUTION	53.1%	60.4%	72.4%
EVER TAKEN DEVELOPMENTAL COURSE	35.4%	41.7%	37.1%

Table 9
CHANGES IN DEAF STUDENT CHARACTERISTICS

	2011–2012	2015–2016	2019–2020
BIPOC	40.2%	44.2%	52.6%
DEAFDISABLED	40.9%	43.7%	45.8%
FIRST-GENERATION STUDENTS	63.3%	60.1%	54.1%
GENDER NONCONFORMING	NOT AVAILABLE	NOT AVAILABLE	3.1%
VETERANS	14.1%	17.1%	15.7%
WOMEN	46.9%	46.5%	45.9%

Methods

Where Are These Data From?

The data in this report are from the 2019–2020 National Postsecondary Student Aid Study (NPSAS:20). The NPSAS:20 includes cross-sectional data of undergraduates enrolled in postsecondary education in the United States. This comprehensive dataset is nationally representative and combines data from institutions and the Department of Education.

The NPSAS:20 used a two-stage sampling strategy. The first stage targeted institutions by type (e.g., 2-year, 4-year, private, public, profit, nonprofit) to ensure a nationally representative distribution of institutional characteristics. The second stage targeted students at each institution by student characteristics and degree type enrollment. Because of the rigorous sampling approach, deaf students in this sample were evenly distributed across institutions. Thus, this report shares generalizable data about deaf students distributed across a range of U.S. institutions and may not reflect characteristics of students enrolled at institutions that serve a large number of deaf students (e.g., Gallaudet University; National Technical Institute for the Deaf; California State University, Northridge; Southwest College for the Deaf). More information can be found on the National Center for Education Statistics website (nces.ed.gov/surveys/npsas/about.asp).

How Many Deaf College Students Were in This Dataset?

The NPSAS:20 sample size is 80,800, with 1.4% of students being deaf, indicating a sample size of more than 850 deaf postsecondary students.

How Did We Define “Deaf”?

Deaf students were identified based on their affirmative response to interview questions asking whether they were deaf or had serious difficulty hearing. We considered anyone who answered “yes” to this question as deaf.

How Did We Define “Enrollment”?

Enrollment was defined as being enrolled in an academic degree program, with at least one course credit that could be applied toward fulfilling the requirements for an academic degree or an occupational or vocational program that required at least 3 months or 300 hours of instruction to receive a degree, certificate, or other formal award.

Are the Noted Differences Significant?

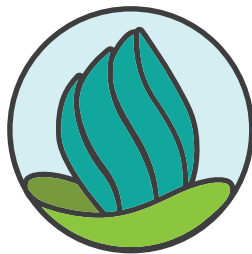
PowerStats, a web-based software application that enables users to generate tables for NPSAS:20 and other federal datasets, was used to generate these data and run significance tests. In this report, t-tests were used, using sampling errors calculated in PowerStats that accounted for the complex sampling techniques used in NPSAS:20. We indicate significant differences between groups by using the word “significant” in the text—for example, “There is a significantly higher percentage of gender-nonconforming deaf students (3.1%) than hearing students (1.3%).” Additionally, an asterisk (*) is used in the tables to indicate significant differences between hearing and deaf students. **The data presented in this report are solely descriptive, and causal inferences cannot be made.**

Why Do Some Data Have Exclamation Points?

The data with exclamation points should be interpreted with caution. A single exclamation point (!) indicates that the standard error represented more than 30%, and two exclamation points (!!) indicate that the standard error represented more than 50%.

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