



 **2023**
AUDIOLOGY SURVEY

Survey Methodology, Respondent Demographics, and Glossary

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Executive Summary

In Fall 2023, the American Speech-Language-Hearing Association (ASHA) conducted a survey of audiologists. This survey was designed to provide information about salaries, working conditions, and service delivery as well as to update and expand information gathered during previous *Audiology Surveys*.

Highlights

- The response rate was 27%.
- 83% of the audiologists worked full time.
- 77% received an annual salary.
- 79% were clinical service providers.
- 74% held an AuD degree as their only doctorate.
- The mean number of years of experience was 21.
- 51% worked in a city/urban area.
- 34% worked in the South.

Survey Methodology

A stratified random sample of 5,000 ASHA-certified audiologists was selected for this survey from a population of 7,838 audiologists. They were stratified on the basis of type of facility and private practice.

Sample Design

The survey was mailed on September 7, 2023, to 5,000 ASHA-certified audiologists working in the United States, followed by an electronic reminder on September 12. Individuals who returned their surveys were removed from second (October 5) and third (November 2) mailings. Each mailing consisted of a personalized cover letter, a numbered survey, and a #10 postage-paid business return envelope inserted into a #11 window envelope with an ASHA return address and postage at the full, first-class rate.

Weighting

Because facilities with fewer audiologists (e.g., industry) were oversampled and those with many (e.g., hospitals) were undersampled, weighting was used when presenting data to restore all groups to their actual proportion in the population of ASHA audiologists.

Response Rate

Of the original 5,000 audiologists in the sample, 64 had undeliverable addresses, 7 had retired, and 49 were no longer employed in audiology, leaving 4,880 possible respondents. The actual number of respondents was 1,329, resulting in a 27.2% response rate (see Table 1).

Table 1: Calculation of Response Rate, Unweighted	
Disposition	Number
Original (gross) sample size	5,000
Undeliverable addresses	64
Retired	7
No longer employed in audiology	49
Net sample size	4,880
Number of respondents	1,329
$1,329 / 4,880 = 27.2\%$	

Experimental Design

All surveys were printed on 17 in. × 11 in. paper folded to 8.5 in. × 11 in. and printed with two columns per page. The font was Arial, 11 pt. The survey was designed in Teleform to be scannable.

We designed a methodological experiment into the survey to test whether the amount of color on the survey instrument would have an effect on response rates. Specifically, a randomly selected half of the sample was assigned to the control group and received a survey with minimal color, and the other half was assigned to the experimental group with more color.

Table 2: Response Rates, by Condition		
Disposition	Control (Less Color)	Experimental (More Color)
Original (gross) sample size	2,500	2,500
Net sample size	2,438	2,442
Responses	676	653
Response rate	27.7%	26.7%

Data Entry

To ensure the highest quality data reasonably possible, each of the 1,329 completed surveys was checked, and erroneous responses were corrected or deleted by the ASHA staff member with primary responsibility for the project. The forms were then scanned with Teleform, and any additional corrections were made.

Nonresponse

Not only is it typically the case that some individuals who receive a survey do not complete it (unit nonresponse), but it is likewise true that some who return their surveys do not answer every question (item nonresponse) and thus do not qualify for inclusion in portions of a report. They may be excluded from analyses because they did not answer a question at all or because their answer disqualified them (e.g., stating that they were employed part time when a particular analysis was limited to full-time employees). For example, among the 1,329 audiologists who responded, only 1,316 were included in the analysis of primary employment facility because they were the only respondents who indicated that they were employed either full time or part time and identified the type of facility where they were employed. Comparable restrictions apply to other analyses in the report.

Respondents Versus Population

As is our practice, we did not report data for cells with fewer than 25 respondents. This both protects respondent confidentiality and increases data stability. Note, too, that some percentages total 99% or 101% because of rounding.

As a rule of thumb, the closer a sample approximates the characteristics of the population from which it is drawn—and which it is designed to represent—the greater the external validity or ability to generalize to that population. The population for this survey consisted of ASHA-certified audiologists whose primary employment facility was a college/university, hospital, audiology franchise/retail chain, nonresidential health care facility, or industry. Note that educational audiologists were removed from the *Audiology Survey* in 2018 and included in the *Schools Survey* because the questions in the latter survey are more appropriate for the work that they do. Below are comparisons of respondent characteristics with the database population from which they came.

Facility

- Small groups (e.g., colleges/universities) were oversampled to ensure sufficient respondents from that facility for reporting purposes. Likewise, large groups (e.g., hospitals) were undersampled. Therefore, unless otherwise noted, where totals are reported, either in text or tables, they have been weighted to reflect the distribution of ASHA-certified audiologists in each type of facility. The number of respondents (*n*) shown in figures and tables is the weighted number who responded to the question.
- Because of stratification, comparing the distribution of the sample's facility to that of the population's would not be worthwhile and was not performed.

Employment Status, Unweighted

- Respondents: 83% full time, 17% part time
- Population: 86% full time, 14% part time

Function, Unweighted

- Respondents: 73% clinical service provider; 12% faculty; 6% administrator; 5% sales, training; 2% researcher; 1% consultant; 1% other
- Population: 80% clinical service provider; 5% faculty; 7% administrator; 2% researcher; 1% consultant; 4% other

Highest Degree, Unweighted

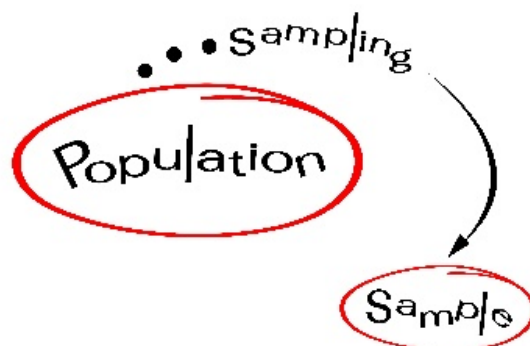
- Respondents: 16% master's, 80% doctorate
- Population: 34% master's, 66% doctorate

State, Unweighted

- Respondents: 21% Northeast, 28% Midwest, 35% South, 16% West
- Population: 21% Northeast, 26% Midwest, 36% South, 18% West

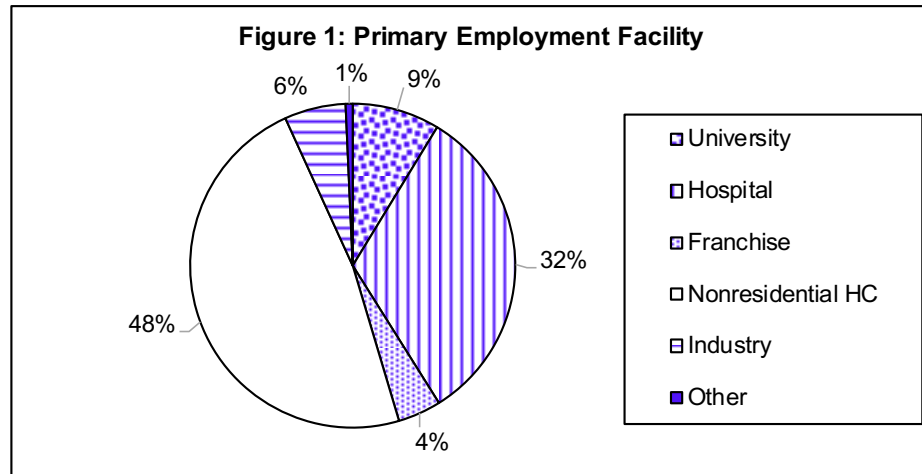
Years of experience, salary basis, and population setting are variables that are available only for the respondents to the survey, so those comparisons cannot be made. Additionally, *sales and training* as a function is only available as a response option on the survey, not in the membership database.

In conclusion, there was virtually no difference between the respondents and the population from which they came with regard to employment status and region of the country. However, there were fewer clinical service providers and more university faculty among the respondents than in the population from which they were drawn, and the respondents reported fewer master's and more doctoral degrees than did the population. The difference in highest degree may be because individuals who originally reported a master's degree have since earned a doctorate but have not updated their file in the membership database.



Demo- graphics

Nearly half of the respondents who were employed either full time or part time worked in nonresidential health care facilities, and one third worked in hospitals (see Figure 1).



Note. $n = 1,316$.

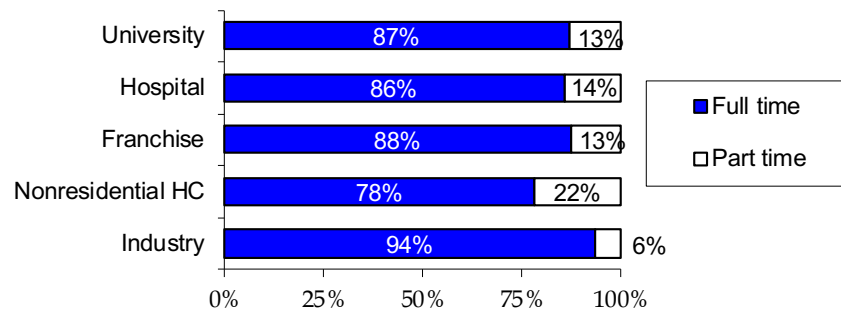
Excluding “Other”

The nine individuals who worked in an *other* type of facility, either full time or part time, have been included in the *ASHA 2023 Audiology Survey Reports* only where totals are reported—not as a separate category of facility—because of the ambiguous nature of this small group of individuals. Also included in the *total* is the group of six respondents who were employed full time or part time but who did not answer the question about the type of facility in which they were employed.

Employment Status

More than three-fourths (83%) of the respondents were employed full time, and 17% were employed part time. Audiologists who were not currently employed were removed from the group of survey respondents.

A closer look at the audiologists who were employed shows that full-time and part-time status varied significantly by the type of facility where they worked. Part-time audiologists were more likely to be found working in nonresidential health care facilities than in other types of facilities ($p = .000$; see Figure 2).

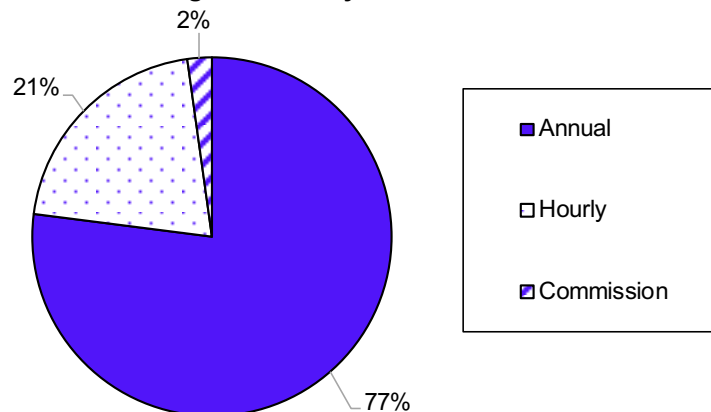
Figure 2: Employment Status

Note. $n = 1,306$.



Salary Basis

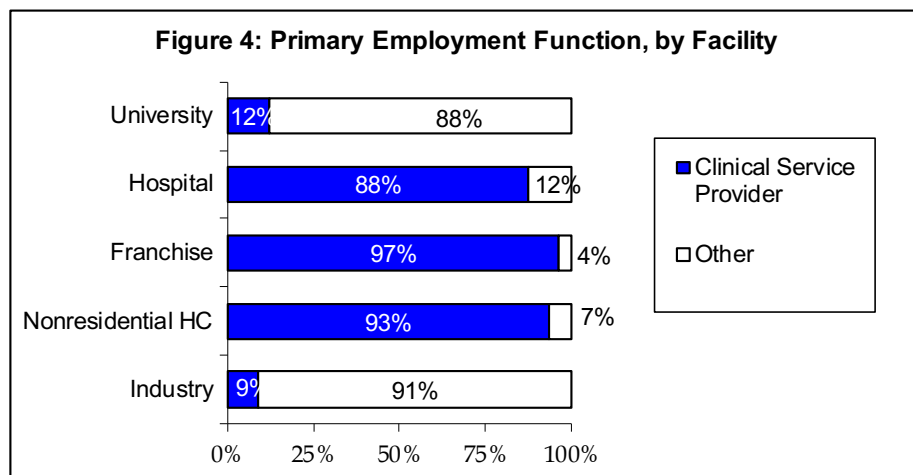
Three-fourths of the audiologists reported receiving primarily an annual salary (see Figure 3).

Figure 3: Salary Basis

Note. $n = 1,314$.

Primary Employment Function

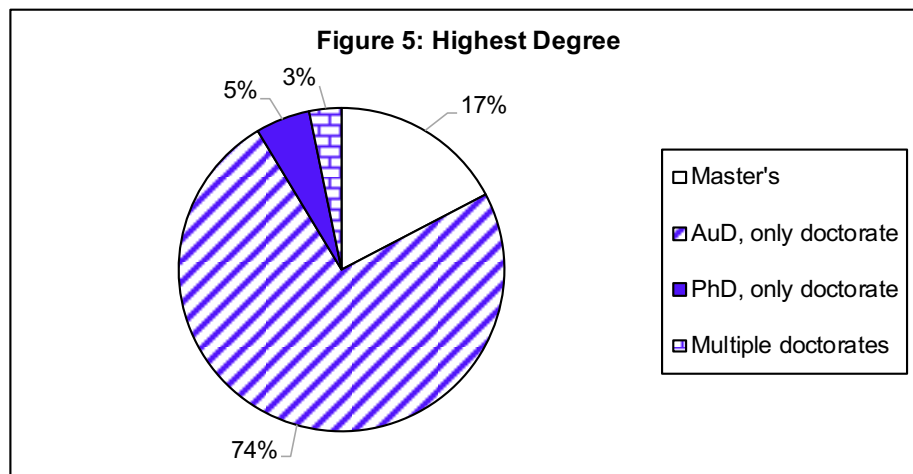
The vast majority of respondents who were employed full time or part time were clinical service providers (79%). Clinicians were more likely to be employed in hospitals, franchises and retail chains, and nonresidential health care facilities than in colleges and universities or industry ($p = .000$; see Figure 4).



Note. $n = 1,301$.

Highest Degree

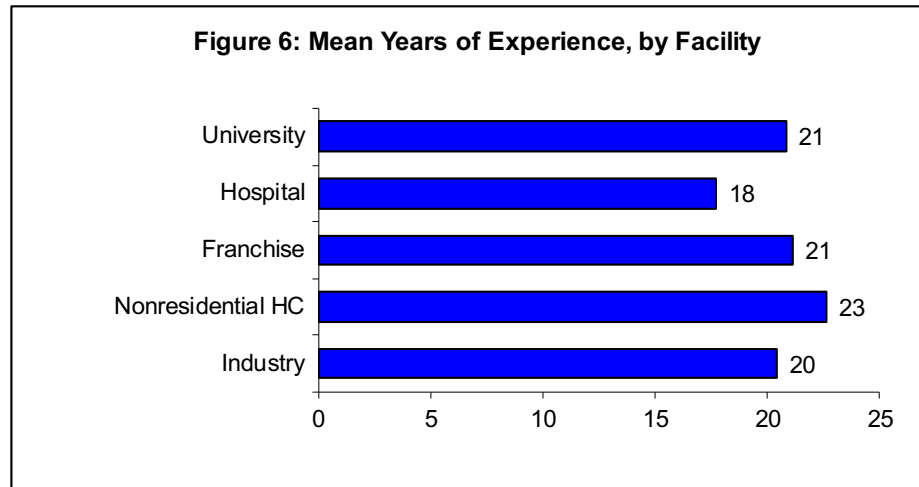
Recipients of doctoral degrees included 74% of the respondents who held only an AuD degree and 5% who held only a PhD (see Figure 5).



Note. $n = 1,318$.

Years of Experience

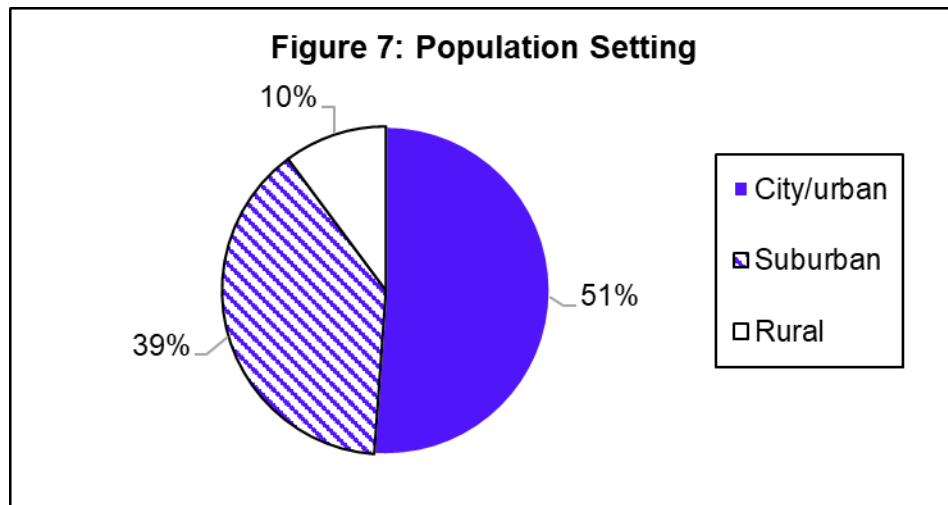
The median number of years of experience was 20. It was lowest in hospitals (14 years) and highest in nonresidential health care facilities (23 years; median numbers are not shown in any figure). The mean number of years of experience was 21 and varied by type of facility ($p = .000$; see Figure 6).



Note. $n = 1,301$.

Population Setting

Half of the audiologists who were employed either full time or part time worked in a city/urban area (see Figure 7).

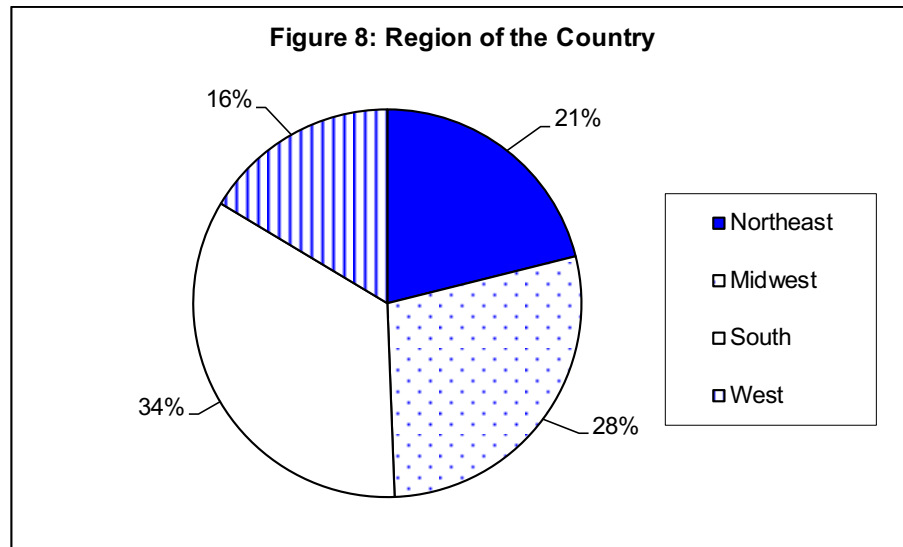


Note. $n = 1,314$.

Audiologists employed in hospitals were more likely than those employed in other types of facilities to work in a city/urban area (67%). Audiologists employed in nonresidential health care facilities (47%), in audiology franchises and retail chains (44%), or in industry (42) were more likely than those in other types of facilities to work in a suburban area. Finally, the group more likely than other groups to work in a rural area were those employed in audiology franchises and retail chains (18%; $p = .000$; not shown in any figure).

Region of the Country

Overall, more of the audiologists who were employed part- or full time worked in the South and Midwest than in other regions of the country (see Figure 8).



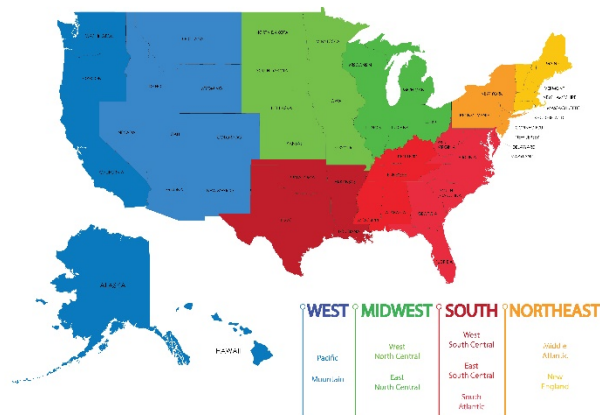
Note. $n = 1,322$.

Northeast: CT, MA, ME, NH, NJ, NY, PA, RI, VT

Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI

South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV

West: AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY



The type of facility in which they worked was not related to the region of the country where audiologists were employed ($p = .272$).

Glossary

Types of Facilities

Terms used in the *ASHA 2023 Audiology Survey Reports*:

College/university:

College/university
Medical school

Hospital:

General medical hospital
Psychiatric hospital
Rehabilitation hospital
Pediatric hospital
VA hospital/medical center
University hospital
Military hospital
All other hospitals

Nonresidential health care facility:

Home health agency/client's home
Health Maintenance Organization (HMO)
Private physician's office
SLP's or audiologist's office
Speech and hearing center
Outpatient rehabilitation center
Ambulatory care center
Eye/ear institute
Audiology/hearing clinic
Speech/language clinic
All other nonresidential facilities

Audiology franchise or retail chain

Industry:

Industry
Manufacturer–audiology related

Stratified Random Sample

A stratified random sample was used to select 5,000 ASHA-certified audiologists for this survey from a population of 7,838 audiologists. They were stratified on the basis of type of facility and private practice. A *random sample* is a probabilistic sample in which each person has an equal chance of being selected. This is a requirement for generalizing responses from a sample to the broader population from which the members were selected.

Response Rate	The response rate was calculated using the following equation:
	$RR = \frac{(C + P)}{S - (Ret + I)}$
where	RR = Response rate C = Number of completed surveys P = Number of partial surveys S = Sample size Ret = Ineligible because of retirement I = Ineligible for other reasons (e.g., does not work in audiology, no longer in the field)
	$RR = \frac{(1,329)}{5,000 - (7 + 113)} = 27.2\%$
	n The number of items in a set
Measures of Central Tendency	Mean: Add the total of all values and divide by n .
	Median: Arrange the values in order, from lowest to highest. Select the value in the middle position.
	Mode: The value that occurs more often than any other.
	Example: Sample data set
	$1, 1, 7, 34, 88$ $\text{Mean: } (1 + 1 + 7 + 34 + 88) / 5 = 26.2$ $\text{Median: } 7$ $\text{Mode: } 1$
	Because medians are more stable and less sensitive to extreme values than are means, we use medians as the most commonly presented statistic in the <i>ASHA 2023 Audiology Survey Reports</i> .

Survey Notes and Methodology

The *ASHA Audiology Survey* has been fielded in even-numbered years between 2004 and 2018 to gather information of interest to the profession. The 2020 version was postponed by 1 year because of the COVID-19 pandemic, and the survey has been fielded in odd-numbered years since 2021. Members, volunteer leaders, and staff rely on data from the survey to better understand the priorities and needs of audiologists.

The survey was fielded via postal mail in September, October, and November 2023 to a random sample of 5,000 ASHA-certified audiologists who were employed in the United States.

The sample was a random sample, stratified by both type of facility and private practice. Small groups, such as industry, were oversampled. Weighting was used when presenting data to reflect the actual distribution of audiologists in each type of facility.

Response Rate

Of the original 5,000 audiologists in the sample, 7 were retired, 49 were not currently employed in the profession, and 64 had undeliverable mail addresses. The actual number of respondents was 1,329, resulting in a 27.2% response rate. The results presented in this report are based on responses from those 1,329 individuals.

Survey Reports

Results from the *ASHA 2023 Audiology Survey* are presented in a series of reports:

- Survey Summary
- Annual Salaries
- Hourly Wages
- Clinical Focus Patterns
- Private Practice
- Survey Methodology, Respondent Demographics, and Glossary

Suggested Citation

American Speech-Language-Hearing Association. (2024) *ASHA 2023 Audiology Survey: Annual Salaries*. www.asha.org

Resources

Agresti, A., & Finlay, B. (2008). *Statistical methods for the social sciences* (4th ed.). Pearson.

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, mail, and mixed-mode surveys: The tailored design method* (3rd ed.). Wiley.

Consultation

For a free consultation with an ASHA staff audiologist, please contact audiology@asha.org.

Additional Information

For additional information regarding the *2023 Audiology Survey*, please contact ASHA's audiology practices unit at audiology@asha.org. To learn more about how the Association is working on behalf of ASHA-certified audiologists, visit ASHA's website at www.asha.org/aud/.

Thank You!

ASHA would like to thank the audiologists who completed the *ASHA 2023 Audiology Survey*. Reports like this one are possible only because people like *you* participate.



Is this information valuable to you? If so, please accept invitations to participate in other ASHA-sponsored surveys and focus groups. You are the experts, and we rely on you to provide data to share with your fellow members. ASHA surveys benefit *you*.