Survey Summary Report: Numbers and Types of Responses, Educational Audiologists

Suggested Citation:
American Speech-Language-Hearing Association. (2024). *2024 Schools survey. Survey summary report: Numbers and types of responses, educational audiologists*. Available from www.asha.org.

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Sampling and Response Rates

The entire population of 809 ASHA-certified educational audiologists in ASHA's membership database who were identified as employed full time or part time in a school setting were selected for the *2024 Schools Survey*.

An additional 15,000 ASHA-certified speech-language pathologists (SLPs) with schools as their primary employment facility were also selected. Their results appear in a separate report. This report is limited to responses from individuals with a Certificate of Clinical Competence in Audiology (CCC-A) only.

Half of the audiologists were randomly assigned to receive a postal survey (*n* = 405) and half to receive an electronic survey (*n* = 404).

Table 1. Response Rate, by Experimental Design

Disposition	Total	Postal	Electronic
Original population size	809	405	404
Undeliverable postal address	1	1	-
Undeliverable email address	12	-	12
Opted out of Survey Monkey	12	-	12
Ineligible: Retired	4	3	1
Ineligible: Not working in the professions	7	7	0
Ineligible: Other reasons	3	3	0
Removed during data cleaning step for ineligible responses	3	3	0
Net sample size	767	388	379
Number of respondents	201	110	91
Response rate	**26.2%**	**28.4%**	**24.0%**

An overall response rate of 26.2% was obtained for audiologists. The response rate was 28.4% for audiologists who received a postal survey and 24.0% for those who received an electronic survey. These percentages are unweighted because the entire population of educational audiologists was included in the survey.

The *All Responses* column throughout this report reflects results for respondents from two facility types (elementary schools and combinations from the presented list) as well as from the 23 respondents who were employed in special day/residential schools, five in preschools, 10 in secondary schools, one in a student's home, 20 in administrative offices, one in an office for telepractice, two in an "other" type of facility, and three who did not answer the question about facility type. Therefore, the *All Responses* column may not be the sum of the *n*s in the other two columns.

Data are not presented for table cells with fewer than 25 respondents, and administrative offices were excluded for questions where responses were limited to clinical service providers.

Few questions in the survey resulted in statistically significant differences; that is, it was rare that the responses from audiologists in elementary schools differed from those in combined school settings. One reason for this may be that combined settings included employment in elementary schools as one of the employment facilities for an unknown number of respondents.

Tests of statistical significance are presented throughout the report as appropriate. Conclusions are not presented with each question in order to keep the data tables as uncluttered as possible. However, the following conclusions can be used, depending on the result of the significance testing (see Table 1 for examples). In the first row, where the probability is less than .05 and the *p* value is bolded, it is possible to discuss differences in responses by facility; in the second and third rows, that is not the case.

Table 1. Significance Tests and Conclusions

Sample Significance Test	**Sample Conclusion**
Statistical significance: $\chi^2(2) = 114.9$, ***p* = .000**	Conclusion: There is adequate evidence from the data to say that the responses vary by type of facility. The *p* value is less than .05.
Statistical significance: $\chi^2(2) = 2.3$, $p = .320$	Conclusion: There is not enough evidence from the data to say that the responses vary by type of facility. The *p* value is greater than .05.
Too many cells (25%) have an expected count of fewer than 5.	Conclusion: Too little data are available in some categories to test whether responses vary by type of facility.

A description of statistical terms used in the report can be found in Appendix B at the end of the report.

Employment and Earnings

1. Which ONE of the following categories best describes your employment status? (Percentages).

   Analyses limited to respondents who met the following criterion:

   - CCC-A

Status	Facility Type		
	All Responses (*n* = 201)	**Elementary (*n* = 43)**	**Combination (*n* = 93)**
Employed full time	82.6	69.8	84.9
Employed part time	17.4	30.2	15.1
Not currently employed (SKIP to Thank you at the end of the survey.)	Removed from analyses		
		Statistical significance: $\chi^2(1) = 4.3$, ***p* = .039**, phi = .177	

2. Which ONE of the following best describes your principal employment situation? (Percentages).

   Analyses limited to respondents who met the following criteria:

   - CCC-A
   - Employed full time or part time

Situation	Facility Type		
	All Responses (*n* = 198)	**Elementary (*n* = 43)**	**Combination (*n* = 91)**
Salaried employee	91.9	86.0	93.4
Contractor	6.1	9.3	5.5
Self employed	2.0	4.7	1.1
		Too many cells (50%) have an expected count of fewer than 5.	

3. In your primary job, are you paid on an annual basis or an hourly basis? *Select one response only.* (Percentages).

   Analyses limited to respondents who met the following criteria:

   - CCC-A
   - Employed full time or part time

Basis	Facility Type		
	All Responses (*n* = 201)	**Elementary (*n* = 43)**	**Combination (*n* = 93)**
Annual salary	89.1	79.1	92.5
Hourly rate (SKIP to Q. 7.)	10.9	20.9	7.5
		Statistical significance: $\chi^2(1) = 5.1$, ***p* = .024**, phi = .193	

4. What is your gross annual salary for your primary job, before all deductions?
Analyses limited to respondents who met the following criteria:
   - ❖ CCC-A
   - ❖ Employed full time
   - ❖ Receives an annual salary
   - ❖ Annual salary of at least $1

Annual Salary	Facility Type		
	All Responses	**Elementary**	**Combination**
Worked 9–10 months (academic year)			
	n = 97	*n* = 22	*n* = 47
25th percentile	$72,000	(*n* < 25)	$68.500
50th percentile (**Median**)	$82,000		$80,000
75th percentile	$94,210		$90.000
Mean	$85,584		$86.402
Standard deviation	$21,920		$26.507
Mode	$90,000		$80,000
		Statistical significance: $F(1, 67) = 0.3$, $p = .599$	
Worked 11–12 months (calendar year)			
	n = 25	*n* = 3	*n* = 8
25th percentile	$79,583	(*n* < 25)	(*n* < 25)
50th percentile (**Median**)	$90,000		
75th percentile	$101,000		
Mean	$91,951		
Standard deviation	$17,120		
Mode	$80,000		

5. For what period of work is this? *If you work for 9–10 months but are paid over a 12-month period, select the first response. Select one response only; then SKIP to Q. 8.* (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Receives an annual salary
- Employed full time or part time

Response	Facility Type		
	All Responses (*n* = 176)	**Elementary (*n* = 34)**	**Combination (*n* = 86)**
Work 9 or 10 months per year	79.5	91.2	82.6
Work 11 or 12 months per year	20.5	8.8	17.4
Work other period	Removed from analyses		
		Statistical significance: $\chi^2(1) = 1.4$, $p = .233$	

6. If you are paid on an hourly basis, what is the hourly rate you receive at your primary job? *Include your hourly rate before all deductions.*

Analyses limited to respondents who met the following criteria:

- CCC-A
- Receives an hourly wage
- Hourly salary of at least $1
- Worked at least 1 hour per week

Hourly Rate	Facility Type		
	All Responses (*n* = 12)	**Elementary (*n* = 5)**	**Combination (*n* = 5)**
25th percentile	($n < 25$)	($n < 25$)	($n < 25$)
50th percentile (**Median**)			
75th percentile			
Mean			
Standard deviation			
Mode			

7. How many hours do you work per week for the hourly rate you entered in Q. 6?

Analyses limited to respondents who met the following criteria:

- CCC-A
- Hourly salary of at least $1

Hours	Facility Type		
	All Responses (*n* = 13)	**Elementary (*n* = 5)**	**Combination (*n* = 5)**
25th percentile	(*n* < 25)	(*n* < 25)	(*n* < 25)
50th percentile (**Median**)			
75th percentile			
Mean			
Standard deviation			
Mode			

8. Indicate whether the following expenses are paid by you (S), are paid by your employer (E), are paid by a combination (C), or are not applicable (NA). Select one response for each row. (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Employed full time or part time

Expense	Facility Type		
	All Responses (*n* ≥ 193)	**Elementary (*n* ≥ 42)**	**Combination (*n* ≥ 90)**
ASHA dues			
Self	73.4	69.8	76.3
Employer	21.6	27.9	16.1
Combination	4.0	2.3	6.5
Not applicable	1.0	0.0	1.1
		Too many cells (50%) have an expected count of fewer than 5.	
ASHA Convention			
Self	61.1	67.4	67.4
Employer	7.1	4.7	6.5
Combination	9.6	7.0	7.6
Not applicable	22.2	20.9	18.5
		Too many cells (25%) have an expected count of fewer than 5.	

(Question 8 continues on next page.)

8. (cont'd) Indicate whether the following expenses are paid by you (S), are paid by your employer (E), are paid by a combination (C), or are not applicable (NA). Select one response for each row. (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Employed full time or part time

Expense	Facility Type		
	All Responses (*n* ≥ 193)	**Elementary (*n* ≥ 42)**	**Combination (*n* ≥ 90)**
Professional development			
Self	53.3	66.7	53.3
Employer	19.8	14.3	17.4
Combination	25.4	19.0	26.1
Not applicable	1.5	0.0	3.3
		Too many cells (25%) have an expected count of fewer than 5.	
Special Interest Groups (SIGs)			
Self	61.1	65.1	58.7
Employer	1.0	2.3	0.0
Combination	0.0	0.0	0.0
Not applicable	37.9	32.6	41.3
		Too many cells (33%) have an expected count of fewer than 5.	
State licensing fees			
Self	81.4	83.7	78.5
Employer	16.1	14.0	18.3
Combination	1.0	2.3	1.1
Not applicable	1.5	0.0	2.2
		Too many cells (50%) have an expected count of fewer than 5.	

(Question 8 continues on next page.)

8. (cont'd) Indicate whether the following expenses are paid by you (S), are paid by your employer (E), are paid by a combination (C), or are not applicable (NA). Select one response for each row. (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Employed full time or part time

Expense	Facility Type		
	All Responses (*n* ≥ 193)	**Elementary (*n* ≥ 42)**	**Combination (*n* ≥ 90)**
Leave time to volunteer			
Self	49.2	65.9	47.8
Employer	4.1	2.4	1.1
Combination	3.6	0.0	4.4
Not applicable	43.0	31.7	46.7
		Too many cells (50%) have an expected count of fewer than 5.	
Other, specified[1]			
Self	25.5	(*n* < 25)	17.9
Employer	5.5		3.6
Combination	1.8		3.6
Not applicable	67.3		75.0
		Too many cells (63%) have an expected count of fewer than 5.	

[1]This includes open-ended responses from survey participants. See Appendix C for the content of these open-ended responses.

9. What salary incentive, stipend, or other type of "salary upgrade" did you receive for either of the following reasons during the past 12 months?

Analyses limited to respondents who met the following criteria:

- CCC-A
- Employed full time or part time
- Response greater than $0

Response	Facility Type		
	All Responses	**Elementary**	**Combination**
ASHA CCCs			
	n = 43	*n* = 9	*n* = 19
25th percentile	$1,150	(*n* < 25)	(*n* < 25)
50th percentile (**Median**)	$2,000		
75th percentile	$4,580		
Mean	$2,909		
Standard deviation	$2,394		
Mode	$1,500		
Supervision			
	n = 7	*n* = 1	*n* = 3
25th percentile	(*n* < 25)	(*n* < 25)	(*n* < 25)
50th percentile (**Median**)			
75th percentile			
Mean			
Standard deviation			
Mode			

10. Although you may work in several types of facilities, select the ONE type of building that best describes where you work all or most of the time. *For individuals who work in private practice or early intervention, select the type of building in which you deliver most of your services. Multiple responses will be excluded.* (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Employed full time or part time

Facility	*n*	Percentages
Special day/residential school	23	11.6
Pre-elementary (preschool)	5	2.5
Elementary school	43	21.7
Secondary school (middle school, junior high, senior high)	10	5.1
Student's home	1	0.5
Administrative office	20	10.1
Office for telepractice	1	0.5
Combination from the above list	93	47.0
Other; specify:[2]	2	1.0
Total	198	100.0

[2]Specified "other" open-ended response can be found in Appendix C.

11. Although you may perform more than one job function, select the ONE position that best describes how you spend most of your time. *Multiple responses will be excluded.* (Percentages).

    Analyses limited to respondents who met the following criteria:

    - CCC-A
    - Employed full time or part time

Function	Facility Type		
	All Responses (*n* = 197)	**Elementary (*n* = 43)**	**Combination (*n* = 93)**
Clinical service provider (includes all audiologists who provide any direct service)	70.1	67.4	73.1
Diagnostician	9.1	4.7	6.5
Consultant	16.2	25.6	16.1
Administrator/supervisor/director	1.5	0.0	1.1
Other; specify:[3]	3.0	2.3	3.2
		Too many cells (50%) have an expected count of fewer than 5.	
Recoded to *Clinical Service Provider* and *Other*			
Clinical service provider	70.1	67.4	73.1
All other functions	29.9	32.6	26.9
		Statistical significance: $\chi^2(1) = 0.5$, $p = .496$	

[3]Specified "other" open-ended responses can be found in Appendix C.

If you provide NO direct services to students, SKIP to Question 27.

Caseload

12. What is your average monthly caseload size? *Count each student only once.*

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider
- Employed full time
- Response greater than 0

Actual Caseload Size	Facility Type		
	All Responses (*n* = 102)	**Elementary (*n* = 20)**	**Combination (*n* = 49)**
25th percentile	38	(*n* < 25)	40
50th percentile (**Median**)	60		65
75th percentile	83		80
Mean	163		70
Standard deviation	984		40
Mode	50		80
		Statistical significance: $F(1, 67) = 2.5$, $p = .118$	

13. What do you consider to be a manageable monthly caseload size for YOUR caseload?

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider
- Employed full time
- Caseload (Question 12) greater than 0

Manageable Caseload Size	Facility Type		
	All Responses (*n* = 100)	**Elementary (*n* = 19)**	**Combination (*n* = 48)**
25th percentile	30	(*n* < 25)	35
50th percentile (**Median**)	50		50
75th percentile	75		73
Mean	126		59
Standard deviation	695		37
Mode	30		30
		Statistical significance: $F(1, 66) = 2.7$, $p = .105$	

14. What is the SINGLE greatest barrier to achieving a manageable caseload size? *Select one response.* (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider
- Employed full time or part time

Barrier	Facility Type		
	All Responses (*n* = 124)	**Elementary (*n* = 26)**	**Combination (*n* = 61)**
No barrier; my caseload is manageable.	43.5	46.2	45.9
Difficulty with dismissal of students from services	4.8	7.7	0.0
District or state policy	4.0	0.0	6.6
Lack of administration support	16.9	11.5	23.0
Resistance from parents.	3.2	0.0	1.6
Shortage of audiologists in my area	12.9	3.8	11.5
Shortage of assistants or aides in my area	2.4	11.5	0.0
Other; specify:[4]	12.1	19.2	11.5
		Too many cells (63%) have an expected count of fewer than 5.	

[4] *Specified "other" open-ended responses can be found in Appendix C.*

15. Are you required to make up missed sessions? *Select one response.* (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider
- Employed full time or part time

Response	Facility Type		
	All Responses (*n* = 123)	**Elementary (*n* = 25)**	**Combination (*n* = 61)**
Yes – but only for a few circumstances	13.8	16.0	18.0
Yes – always or almost always	30.1	24.0	26.2
No – never or almost never	14.6	16.0	14.8
Not applicable	41.5	44.0	41.0
		Too many cells (25%) have an expected count of fewer than 5.	

16. How many students do you serve <u>in a typical month</u> in each of the following areas?
Students who have overlapping areas of intervention may be counted more than once.
Analyses limited to respondents who met the following criteria:
- ❖ CCC-A
- ❖ Clinical service provider
- ❖ Employed full time
- ❖ Response to Question 12 (caseload size) is at least 1

Area of Intervention	Facility Type: All Responses — Percentage who regularly serve clients with this disorder	All Responses — Number served (mean)[5]	Elementary — Percentage who regularly serve clients with this disorder	Elementary — Number served (mean)[5]
	n = 102	*n* varies	*n* = 20	*n* varies
Attention disorders	52.9	14.4	(*n* < 25)	(*n* < 25)
Atypical hearing or hearing loss	82.4	46.1		
Auditory neuropathy spectrum disorder (ANSD)	61.8	4.3		
Autism spectrum disorder (ASD)	74.5	11.6		
Central auditory processing disorder (CAPD)	58.8	5.5		
Classroom acoustics	45.1	20.0		
Hearing conservation	18.6	28.0[6]		
Hyperacusis or sound intolerance	19.6	2.1[6]		
Tinnitus	9.8	2.2[6]		
Vestibular disorders	7.8	5.6[6]		

(Question 16 continues on next page.)

[5]Includes only SLPs who do serve these students. [6]This data point came from a small sample (*n* < 25) and is less reliable.

16. (cont'd) How many students do you serve <u>in a typical month</u> in each of the following areas? *Students who have overlapping areas of intervention may be counted more than once.*

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider
- Employed full time
- Response to Question 12 (caseload size) is at least 1

Area of Intervention	Facility Type: Combination	
	Percentage who regularly serve clients with this disorder	Number served (mean)[5]
	n = 49	*n* varies
Attention disorders	55.1	12.7
Atypical hearing or hearing loss	81.6	53.9
Auditory neuropathy spectrum disorder (ANSD)	61.2	3.7
Autism spectrum disorder (ASD)	69.4	11.4
Central auditory processing disorder (CAPD)	63.3	5.2
Classroom acoustics	49.0	23.5[6]
Hearing conservation	22.4	44.2[6]
Hyperacusis or sound intolerance	22.4	2.1[6]
Tinnitus	14.3	2.4[6]
Vestibular disorders	8.2	7.8[6]

[5]Includes only audiologists who do serve these students. [6]This data point came from a small sample ($n < 25$) and is less reliable.

17. During the current school year, how much time do you spend on each of the following activities in a typical WEEK? Enter "0" if none. (Mean hours).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider
- Employed full time
- Response to Question 12 (caseload size) is at least 1
- Total number of hours for Question 17 was limited to a maximum of 60 hours, which captured 86% of respondents.

Activity	Facility Type		
	All Responses (*n* = 76)	**Elementary (*n* = 16)**	**Combination (*n* = 35)**
Collaborative consultation	5.9	(n < 25)	6.8
Diagnostic evaluations (e.g., observation, screening, scoring, analysis)	10.0		9.7
Direct intervention	5.0		5.5
Documentation	8.0		8.1
Supervision	1.6		1.3
Technology support (e.g., hearing aids/CIs, AAC)	7.6		8.2
Other duties as assigned	4.7		3.9
Total hours	42.8		43.4
		Tests of significance could not be run using the available software.	

Note. CI = cochlear implant. AAC = augmentative and alternative communication.

Workforce

18. Based on your own observations and experiences, rate the current job market for audiology clinical service providers in your type of employment facility and in your geographic area. (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider

Job Market	Facility Type		
	All Responses (*n* = 116)	**Elementary (*n* = 27)**	**Combination (*n* = 55)**
More job openings than job seekers	44.0	25.9	40.0
Job openings and job seekers in balance	22.4	37.0	21.8
Fewer job openings than job seekers	33.6	37.0	38.2
		Statistical significance: $\chi^2(2) = 2.6$, $p = .275$	

19. What are your greatest challenges as a school-based audiologist? *Select all that apply.* (Percentages). Responses were in alphabetical order on survey instrument.

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider

Challenge	Facility Type		
	All Responses (*n* = 138)	**Elementary (*n* = 29)**	**Combination (*n* = 68)**
Limited understanding of my role by others	58.7	65.5	61.8
		Statistical significance: $\chi^2(1) = 0.1$, $p = .726$	
Limited family/caregiver involvement and support	52.2	48.3	50.0
		Statistical significance: $\chi^2(1) = 0.0$, $p = .876$	
Budget constraints	42.0	41.4	44.1
		Statistical significance: $\chi^2(1) = 0.1$, $p = .803$	
Volume of meetings	40.6	24.1	41.2
		Statistical significance: $\chi^2(1) = 2.6$, $p = .110$	

(Question 19 continues on next page.)

19. (cont'd) What are your greatest challenges as a school-based audiologist? *Select <u>all</u> that apply.* (Percentages). Responses were in alphabetical order on survey instrument.
Analyses limited to respondents who met the following criteria:
- ❖ CCC-A
- ❖ Clinical service provider

Challenge	Facility Type		
	All Responses (*n* = 138)	**Elementary (*n* = 29)**	**Combination (*n* = 68)**
Large amount of paperwork	38.4	37.9	38.2
		Statistical significance: $\chi^2(1) = 0.0$, $p = .977$	
High workload/caseload size	34.1	37.9	39.7
		Statistical significance: $\chi^2(1) = 0.0$, $p = .870$	
Travel/distance between schools	34.1	31.0	38.2
		Statistical significance: $\chi^2(1) = 0.5$, $p = .499$	
Out-of-pocket professional expenses	31.9	31.0	30.9
		Statistical significance: $\chi^2(1) = 0.0$, $p = .988$	
Providing clinical services for multilingual students and families	28.3	13.8	32.4
		Statistical significance: $\chi^2(1) = 3.6$, $p = .059$	
Low salary	28.3	31.0	29.4
		Statistical significance: $\chi^2(1) = 0.0$, $p = .873$	
Personnel shortage	27.5	34.5	20.6
		Statistical significance: $\chi^2(1) = 2.1$, $p = .147$	
Inadequate work space and facilities	22.5	20.7	26.5
		Statistical significance: $\chi^2(1) = 0.4$, $p = .546$	
Limited time for collaboration	13.8	20.7	13.2
		Too many cells (25%) have an expected count of fewer than 5.	

20. What are the TOP TWO initiatives that your employer could offer to help retain audiologists? (Percentages). Responses were in alphabetical order on survey instrument.

    Analyses limited to respondents who met the following criteria:

    - ❖ CCC-A
    - ❖ Clinical service provider

Initiative	Facility Type		
	All Responses (*n* = 138)	**Elementary (*n* = 29)**	**Combination (*n* = 68)**
Place audiologists on a separate salary schedule from teachers	37.0	34.5	33.8
		Statistical significance: $\chi^2(1) = 0.0$, $p = .950$	
Provide professional development funding	34.8	34.5	36.8
		Statistical significance: $\chi^2(1) = 0.0$, $p = .830$	
Reimburse ASHA dues	28.3	31.0	27.9
		Statistical significance: $\chi^2(1) = 0.1$, $p = .758$	
Reimburse state licensure fees	20.3	24.1	20.6
		Statistical significance: $\chi^2(1) = 0.2$, $p = .698$	
Provide step increases	19.6	17.2	20.6
		Statistical significance: $\chi^2(1) = 0.1$, $p = .704$	
Supplement salaries for Medicaid billing	8.7	10.3	7.4
		Too many cells (25%) have an expected count of fewer than 5.	
Provide money for materials	6.5	6.9	5.9
		Too many cells (50%) have an expected count of fewer than 5.	

21. Is professional burnout prompting you to consider changing careers or retiring? *Select <u>all</u> that apply.* (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider

Change	Facility Type		
	All Responses (*n* = 138)	**Elementary (*n* = 29)**	**Combination (*n* = 68)**
No burnout	42.0	51.7	35.3
		Statistical significance: $\chi^2(1) = 2.3$, $p = .131$	
Considering changing to a different work setting because of burnout	15.9	17.2	17.6
		Statistical significance: $\chi^2(1) = 0.0$, $p = .962$	
Considering leaving the profession because of burnout	9.4	13.8	8.8
		Too many cells (25%) have an expected count of fewer than 5.	
Considering retiring because of burnout	14.5	13.8	16.2
		Too many cells (25%) have an expected count of fewer than 5.	
Considering making a change, but not because of burnout	7.2	3.4	7.4
		Too many cells (50%) have an expected count of fewer than 5.	

22. Do you currently supervise an audiology <u>assistant or aide</u>? (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider

Supervision	Facility Type		
	All Responses (*n* = 117)	**Elementary (*n* = 27)**	**Combination (*n* = 56)**
Yes, I do.	15.4	18.5	16.1
No. My district employes them, but I do not supervise any.	8.5	11.1	10.7
No. My district does not employ them.	76.1	70.4	73.2
		Too many cells (33%) have an expected count of fewer than 5.	

23. What would encourage you to supervise a final year externship student in the future? *Select all that apply.* (Percentages). The list of incentives was in alphabetical order on survey instrument.

Analyses limited to respondents who met the following criteria:

- CCC-A
- Clinical service provider

Incentive	Facility Type		
	All Responses (*n* = 138)	**Elementary (*n* = 29)**	**Combination (*n* = 68)**
Financial compensation for my time.	46.4	41.4	54.4
		Statistical significance: $\chi^2(1) = 1.4$, $p = .240$	
Free ASHA continuing education courses.	29.0	27.6	30.9
		Statistical significance: $\chi^2(1) = 0.1$, $p = .745$	
Training in supervision.	25.4	24.1	27.9
		Statistical significance: $\chi^2(1) = 0.2$, $p = .699$	
Release time.	12.3	10.3	14.7
		Too many cells (25%) have an expected count of fewer than 5.	
Nothing is needed. I already do that.	12.3	13.8	11.8
		Too many cells (25%) have an expected count of fewer than 5.	
Insurance reimbursement for services.	2.9	3.4	4.4
		Too many cells (50%) have an expected count of fewer than 5.	
Other, specify:[7]	20.3	24.1	16.2
		Statistical significance: $\chi^2(1) = 0.9$, $p = .356$	

[7]Specified "other" open-ended responses can be found in Appendix C.

24. Is union representation available to you in your district? (Percentages).
    Analyses limited to respondents who met the following criterion:
    - CCC-A

Union	Facility Type		
	All Responses (*n* = 159)	**Elementary (*n* = 38)**	**Combination (*n* = 75)**
Yes	29.6	31.6	28.0
No	56.6	52.6	60.0
I don't know.	13.8	15.8	12.0
		Statistical significance: $\chi^2(2) = 0.6$, $p = .733$	

Demographics

25. Which ONE of the following best describes where most of the students you serve are located? (Percentages).
    Analyses limited to respondents who met the following criteria:
    - CCC-A
    - Clinical service provider
    - Employed full time or part time

Area	Facility Type		
	All Responses (*n* = 117)	**Elementary (*n* = 27)**	**Combination (*n* = 56)**
City/urban area	31.6	37.0	23.2
Suburban area	44.4	29.6	51.8
Rural area	23.9	33.3	25.0
		Statistical significance: $\chi^2(2) = 3.7$, $p = .156$	

26. In what state are most of the students you serve located? *Use standard post office two-letter code (e.g., NM for New Mexico).*

Analyses limited to respondents who met the following criteria:

- CCC-A
- Employed full time or part time

State	*n*	State	*n*	State	*n*
Alabama (AL)	1	Kentucky (KY)	1	North Dakota (ND)	0
Alaska (AK)	0	Louisiana (LA)	4	Ohio (OH)	8
Arizona (AZ)	7	Maine (ME)	0	Oklahoma (OK)	1
Arkansas (AR)	1	Maryland (MD)	8	Oregon (OR)	2
California (CA)	9	Massachusetts (MA)	8	Pennsylvania (PA)	5
Colorado (CO)	9	Michigan (MI)	4	Rhode Island (RI)	1
Connecticut (CT)	3	Minnesota (MN)	7	South Carolina (SC)	2
Delaware (DE)	2	Mississippi (MS)	1	South Dakota (SD)	1
District of Columbia (DC)	1	Missouri (MO)	4	Tennessee (TN)	2
Florida (FL)	9	Montana (MT)	1	Texas (TX)	12
Georgia (GA)	3	Nebraska (NE)	3	Utah (UT)	4
Hawaii (HI)	0	Nevada (NV)	1	Vermont (VT)	0
Idaho (ID)	3	New Hampshire (NH)	0	Virginia (VA)	9
Illinois (IL)	12	New Jersey (NJ)	1	Washington (WA)	13
Indiana (IN)	1	New Mexico (NM)	1	West Virginia (WV)	0
Iowa (IA)	4	New York (NY)	13	Wisconsin (WI)	11
Kansas (KS)	5	North Carolina (NC)	3	Wyoming (WY)	0
				Total	201

(Question 26 continues on next page.)

26. (cont'd) In what state are most of the students you serve located? *Use standard post office two-letter code (e.g., NM for New Mexico).*

Analyses limited to respondents who met the following criteria:

- CCC-A
- Employed full time or part time

Region/Division	Facility Type		
	All Responses (*n* = 201)	**Elementary (*n* = 43)**	**Combination (*n* = 93)**
Northeast	**15.4**	**20.9**	**12.9**
Middle Atlantic	9.5	11.6	8.6
New England	6.0	9.3	4.3
Midwest	**29.9**	**25.6**	**32.3**
East North Central	17.9	14.0	20.4
West North Central	11.9	11.6	11.8
South	**29.9**	**23.3**	**30.1**
East South Central	2.5	0.0	2.2
South Atlantic	18.4	18.6	20.4
West South Central	9.0	4.7	7.5
West	**24.9**	**30.2**	**24.7**
Mountain	12.9	14.0	14.0
Pacific	11.9	16.3	10.8
		Statistical significance: FOR 4 REGIONS: $\chi^2(3) = 2.5$, $p = .477$ FOR 9 DIVISIONS: Too many cells (28%) have an expected count of fewer than 5.	

27. (a) How many years have you been employed in the audiology profession, and (b) how many of those years were in schools? *Round to the nearest full year. Enter "0" if you have never been employed in the professions.*

Analyses limited to respondents who met the following criteria:

- CCC-A
- Response greater than 0

Years	Facility Type		
	All Responses (*n* = 182)	**Elementary (*n* = 40)**	**Combination (*n* = 85)**
(a) Total Years in the Professions			
25th percentile	11.0	10.0	10.0
50th percentile (**Median**)	22.0	20.0	23.0
75th percentile	31.0	28.0	30.0
Mean	21.6	20.0	21.0
Standard deviation	11.4	11.0	11.0
Mode	10.0	10.0	29.0
		Statistical significance: $F(1, 123) = 0.7$, $p = .418$	
(b) Total Years in the Schools			
25th percentile	6.0	6.0	5.0
50th percentile (**Median**)	13.5	10.0	15.0
75th percentile	24.3	19.0	25.0
Mean	15.4	14.0	15.0
Standard deviation	10.3	10.0	10.0
Mode	3.0	10.0	3.0
		Statistical significance: $F(1, 123) = 0.7$, $p = .399$	

28. Identify the degrees you have earned. *Count only actual degrees—not equivalencies or certificates—and do not include degrees expected but not yet conferred. Select <u>all</u> that apply.* (Percentages).

Analyses limited to respondents who met the following criterion:

- CCC-A

Degrees Earned	Facility Type		
	All Responses	**Elementary**	**Combination**
	n = 201	*n* = 43	*n* = 93
Master's	44.8	41.9	46.2
AuD	66.7	72.1	67.7
PhD	0.5	2.3	0.0
Other doctorate, specify:[8]	0.5	0.0	1.1
Highest Degree			
	n = 183	*n* = 41	*n* = 85
Master's	23.4	22.0	24.7
Doctorate	67.7	78.0	75.3
		Statistical significance: $\chi^2(1) = 0.1$, $p = .734$	

Note. AuD = doctor of audiology. PhD = doctor of philosophy. [8]Specified "other" open-ended response can be found in Appendix C.

29. On what type of device did you take this survey? (Percentages).

Analyses limited to respondents who met the following criteria:

- CCC-A
- Experimental group only (Survey Monkey/electronic survey)

Device	Facility Type		
	All Responses	**Elementary**	**Combination**
	n = 72	*n* = 11	*n* = 37
Desktop/laptop	63.9	($n < 25$)	59.5
Tablet	4.2		2.7
Mobile phone	31.9		37.8
		Too many cells (50%) have an expected count of less than 5.	

Appendix A

Regions of the Country

Regions of the Country

Northeast

- Middle Atlantic
  - New Jersey
  - New York
  - Pennsylvania
- New England
  - Connecticut
  - Maine
  - Massachusetts
  - New Hampshire
  - Rhode Island
  - Vermont

South

- East South Central
  - Alabama
  - Kentucky
  - Mississippi
  - Tennessee
- South Atlantic
  - Delaware
  - District of Columbia
  - Florida
  - Georgia
  - Maryland
  - North Carolina
  - South Carolina
  - Virginia
  - West Virginia
- West South Central
  - Arkansas
  - Louisiana
  - Oklahoma
  - Texas

Midwest

- East North Central
  - Illinois
  - Indiana
  - Michigan
  - Ohio
  - Wisconsin
- West North Central
  - Iowa
  - Kansas
  - Minnesota
  - Missouri
  - Nebraska
  - North Dakota
  - South Dakota

West

- Mountain
  - Arizona
  - Colorado
  - Idaho
  - Montana
  - Nevada
  - New Mexico
  - Utah
  - Wyoming
- Pacific
  - Alaska
  - California
  - Hawaii
  - Oregon
  - Washington

Appendix B

Statistics

Statistics used in this summary report include the following notations and descriptions:

Notation	**Description**
Response rate	The percentage of individuals who were included in the sample, minus any who were ineligible $RR = \frac{(C + P)}{S - (Ret + I)}$ 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 schools, no longer in the field, on leave of absence) $RR = \frac{201}{809 - (4 + 38)} = 26.2\%$
n	The number in the sample. In this report, the number of people who answered a particular question.
Mean	A measure of central tendency; an average. Add the total of all the values and divide by the number of items. Example: (1 + 1 + 7 + 34 + 88) / 5 = 26.2
Standard deviation	A statistic that shows the spread of scores in a distribution. Used with means. The larger the standard deviation, the more widely the scores are spread out around the mean.[1] About 68% of the measurement is between 1 standard deviation greater than and 1 standard deviation smaller than the mean; 95% are plus/minus 2 standard deviations. Example: (1 + 1 + 7 + 34 + 88) Standard deviation = 37.1 Therefore, 68% of the responses are between -10.9 and 63.3
Median	A measure of central tendency. Arrange the values in order, from lowest to highest. Select the value in the middle position. Example: 1, 1, 7, 34, 88 Median = 7

Appendix table continues on next page.

Notation (cont'd)	**Description**
Mode	A measure of central tendency; an average. The value that occurs more frequently than any other value. Example: 1, 1, 7, 34, 88 Mode = 1
Statistical significance	Describes whether a value is larger or smaller than would be expected by chance alone. Note that a large sample size can lead to results that are "statistically significant" even though the results themselves may not have substantive or practical significance. This is particularly true for chi-square (χ^2) tests.[1]
Chi-square (χ^2)	A test used to assess the statistical significance of a finding where the variables being assessed are nominal (e.g., annual salary and hourly salary) or ordinal (e.g., excellent, good, fair, and poor). It measures whether there are statistically significant differences between the observed frequencies and the expected frequencies of two variables. The larger the observed frequency is in comparison with the expected frequency, the larger the χ^2 statistic and the more likely the difference is statistically significant. When the sample size is large, large χ^2 values (that is, ones that that are statistically significant) can be obtained even for weak associations.[1]
Cramer's *V*	A measure of the strength of the association, used with χ^2 statistics to identify the meaningfulness of a relationship. The χ^2 value may be large with a small probability ($p < .05$) of having occurred by chance. That is, it is "statistically significant at the .05 level." Cramer's *V* is a measure of how strong (practically important) the relationship is between the variables. The larger the Cramer's *V*, the stronger the association.
ANOVA (*F*)	*F* is the statistic computed when conducting an analysis of variance (ANOVA). *Analysis of variance* measures the differences between means on two or more variables. It is used when independent variables are categorical and a dependent variable is continuous.[1]
p	Probability. Found in expressions such as $p = .003$ meaning "The probability that this result could have been produced by chance is 1 in 3/1000ths. The smaller the number, the less likely that the result was due to chance. The *p* value is the actual probability associated with an obtained statistical result, such as χ^2 or *F*.[1]
df	Degrees of freedom. The number of values that are free to vary when computing a statistic. Used in interpreting both a χ^2 and an *F* ratio. It is calculated in a cross-tabulation as (R – 1) (C – 1) or (the number of rows minus 1) times (the number of columns minus 1). In a 3 × 4 table, *df* would be 6.

[1] Vogt, W. P. (1993). *Dictionary of statistics and methodology.* Sage.

Appendix C

Open-Ended Responses

Question 8. Other Expenses and Who Pays For Them

Elementary school

- Self — Mileage between schools
- Combination — I pay for my office supplies, etc., as well
- Combination — Educational Audiology Association

Question 10. Other Facility

- *Note:* Two selected "other facility" but did not specify what they were.

Question 11. Other Function

Elementary school

- Education

Administrative office

- Hearing aid loan bank
- Case coordinator

Combination

- (re)habilitation specialist

Question 14. Other Barriers To Achieving a Manageable Caseload Size

Special day/residential school

- Too much paperwork

Elementary school

- Influx of new students, pile up of evals/IEPs
- Distance traveled
- Travel distance
- Distance/travel time
- Lack of audiology assistants
- Parent follow up

Secondary school

- Geographical area covered

Administrative office

- Rural location. No other Ed AuD services but yet lack of awareness of need for more involvement of Ed AuDs – it would be difficult to . . . .
- Lack of help with administration duties (scheduling, follow up, equipment, meetings)

Combination

- Constantly changing
- District resistance to expansion of services
- Employer takes on more districts which increases caseload. Ohio has a caseload of 100 students, and we are way over.
- Fluctuating services needed at any given time. Large caseload is due to equipment needs, but you never know what services will be needed.
- In need of another audiologist but company won't hire
- Lack of funding for an additional audiologist
- No contract language and district confused by 1:10,000 ratio—different from SLP/OT/PT/Psych contract language
- No funding to hire another audiologist to help alleviate the work
- Shortage of funding to hire enough audiologists
- Travel to students . . . large county to service

Question 23. Other Supervision Encouragements

Special day/residential school

- Employer to pay for a final year externship student
- Funding to pay the intern
- I do not have the time to train a final year externship student every year to be an educational audiologist. Yes, they know how to do audiology, but they don't understand the school system. I will no—also there is no way they would reach the hours needed to get their license or CCC.
- My employer determines if funding is available to pay extern.

Elementary school

- Caseload reduction
- District support
- Employer approval
- Hard b/c my schedule is so fluid; travel between districts
- Have done in past but now too close to retirement
- I don't, but would be happy to
- I don't have extra time so would need more hours of employment
- None

Secondary school

- Prep time

Administrative office

- District understanding of what supervision is and how to compensate 4th years
- District's willingness

Combination

- A more supportive district
- District doesn't allow
- District permission
- Ed aud is not a good placement for fourth year students, IMO
- Financial compensation for the student
- I am not interested in supervising an externship student at this time.
- My district does not pay for externships because I am part time.
- No one has inquired
- Not an interest of mine
- Not interested
- Not interested due to amount of time it takes
- Not interested—solo contractor
- Prep time

Question 28. Other Doctorate

Combination

- ScD