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

Contents

Sampling and Response Rates

Probability (nonreplacement) sampling using a stratified systematic technique was used to select a sample of 500 ASHA-certified educational audiologists for the *2020 Schools Survey*. The sample was stratified by state, and data have been weighted to reflect their proportion by state within the Association. Small groups, such as audiologists who work in Wyoming and Montana, were oversampled so that sufficient numbers from these groups could be included in the sample.

An additional 4,500 ASHA-certified speech-language pathologists (SLPs) with schools as their primary employment facility were also selected. Their results are in a separate report. This report is limited to responses from individuals with a Certificate of Clinical Competence in Audiology (CCC-A) only.

An overall response rate of 40.3% was obtained for audiologists and SLPs combined (1,987 completed surveys from a net sample of 4,930 eligibles). The response rate for audiologists was **42.2%** (208 completed surveys from a net sample of 493 eligibles). These percentages are unweighted.

Data were weighted for all tables in the report. The *All Responses* column throughout the report reflects results for respondents from the three facility types as well as from the six respondents who were employed in preschools, seven in secondary schools, 16 in administrative offices, five in *other* types of facilities, and respondents 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 three 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 special day/residential schools differed from those in elementary schools or combined school settings. One reason for this may be that combined settings included employment in special day/residential or 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 the Appendix at the end of the report.

ASHA Services and Programs

1. In your opinion, what kind of job is the Association doing in serving its school-based members? (Percentages)
   Analyses limited to respondents who met the following criterion:
   - ❖ CCC-A

Response	Facility Type			
	All Responses (*n* ≥ 200)	**Special Day/ Residential** (*n* ≥ 25)	**Elementary** (*n* ≥ 41)	**Combination** (*n* ≥ 92)
With Overall Needs				
Poor	3.8	4.0	7.3	2.2
Fair	32.7	32.0	41.5	32.3
Good	36.5	16.0	26.8	40.9
Excellent	7.4	16.0	9.8	5.4
Don't know, NA	19.7	32.0	14.6	19.4
		Too many cells (33%) have an expected count of less than 5.		
With Advocacy				
Poor	10.3	8.0	7.3	14.1
Fair	26.2	20.0	34.1	20.7
Good	28.6	16.0	19.5	34.8
Excellent	8.0	16.0	9.8	7.6
Don't know, NA	27.0	40.0	29.3	22.8
		Too many cells (27%) have an expected count of less than 5.		
With Answering School-Based Practice Questions				
Poor	6.0		4.8	8.7
Fair	26.0		31.0	21.7
Good	33.5	(*n* < 25)	28.6	40.2
Excellent	8.0		9.5	6.5
Don't know, NA	26.5		26.2	22.8
		Too many cells (27%) have an expected count of less than 5.		
With Continuing Education				
Poor	4.3		4.7	5.3
Fair	29.7		44.2	21.1
Good	36.9	(*n* < 25)	20.9	49.5
Excellent	13.8		16.3	9.5
Don't know, NA	15.3		14.0	14.7
		Too many cells (33%) have an expected count of less than 5.		
				(Question 1 continues on next page.)

1. (cont'd) In your opinion, what kind of job is the Association doing in serving its school-based members? (Percentages)

Analyses limited to respondents who met the following criterion:

❖ CCC-A

Response	Facility Type			
	All Responses (*n* ≥ 200)	Special Day/ Residential (*n* ≥ 25)	Elementary (*n* ≥ 41)	Combination (*n* ≥ 92)
With Resources				
Poor	5.5	4.0	7.3	6.4
Fair	24.9	24.0	29.3	22.3
Good	39.8	28.0	36.6	42.6
Excellent	11.4	16.0	9.8	11.7
Don't know, NA	18.4	28.0	17.1	17.0
		Too many cells (33%) have an expected count of less than 5.		

Opportunities

2. <u>CCC-A ONLY</u>. What are your greatest opportunities 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

Opportunity	Facility Type			
	All Responses (*n* = 150)	**Special Day/ Residential** (*n* ≥ 25)	**Elementary** (*n* ≥ 33)	**Combination** (*n* ≥ 75)
Impact student success in the classroom	84.4	(*n* < 25)	78.8	93.3
		Too many cells (33%) have an expected count of less than 5.		
Impact students who are deaf and hard of hearing	84.3	(*n* < 25)	78.8	86.7
		Statistical significance: $\chi^2(2) = 1.1$, $p = .585$		
Work with children and families	80.4	(*n* < 25)	67.6	82.9
		Statistical significance: $\chi^2(2) = 6.1$, **$p = .048$**, Cramer's *V* = .218		
Educate school professionals about the importance of audiology services	76.6	(*n* < 25)	66.7	81.6
		Statistical significance: $\chi^2(2) = 6.0$, $p = .050$		
Collaborate with teachers and specialized instructional support personnel (SISP)	75.9	(*n* < 25)	66.7	82.7
		Statistical significance: $\chi^2(2) = 3.9$, $p = .142$		
Follow a school schedule	55.0	(*n* < 25)	50.0	64.0
		Statistical significance: $\chi^2(2) = 4.6$, $p = .102$		
Receive adequate salary and benefits	29.3	(*n* < 25)	18.2	38.7
		Statistical significance: $\chi^2(2) = 4.6$, $p = .101$		
Supervise audiology graduate students	16.0	(*n* < 25)	12.1	16.0
		Statistical significance: $\chi^2(2) = 3.9$, $p = .142$		

Response	Facility Type
3. <u>CCC-SLP ONLY</u>. What are your greatest opportunities as a school-based SLP? *Select all that apply*. (Percentages)	
	See *Survey Summary Report: Numbers and Types of Responses, SLPs*

Supervision

4. Within your professional area (i.e., audiology or speech-language pathology), how comfortable do you feel to supervise audiology or speech-language pathology assistants? (Percentages)
   Analyses limited to respondents who met the following criterion:
   ❖ CCC-A

Opportunity	Facility Type			
	All Responses (*n* = 206)	Special Day/ Residential (*n* = 25)	Elementary (*n* = 44)	Combination (*n* = 95)
1 – *Not at all comfortable*	7.2	8.0	6.8	9.5
2 – *Slightly comfortable*	8.4	16.0	9.1	5.3
3 – *Somewhat comfortable*	22.0	8.0	15.9	24.2
4 – *Very comfortable*	42.7	40.0	54.5	42.1
5 – *Extremely comfortable*	19.6	28.0	13.6	18.9
		Too many cells (40%) have an expected count of less than 5.		

Employment and Earnings

5. 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* = 200)	Special Day/ Residential (*n* = 25)	Elementary (*n* = 45)	Combination (*n* = 95)
Employed full time	81.1	72.0	73.3	83.2
Employed part time	18.9	28.0	26.7	16.8
Not currently employed (SKIP to Q 24.)	Removed from analyses			
	Statistical significance: $\chi^2(2)$ = 2.6, p = .276			

6. 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* = 197)	Special Day/ Residential (*n* = 25)	Elementary (*n* = 45)	Combination (*n* = 93)
Salaried employee	90.3	96.0	77.8	92.5
Contractor	8.4	4.0	22.2	5.4
Self employed	1.3	0.0	0.0	2.2
	Too many cells (56%) have an expected count of less than 5.			

7. Although you may work in several types of facilities, select the <u>ONE</u> type of building that best describes where you work all or <u>most</u> 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. Only ONE response can be accepted.* (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	25	12.5
Pre-elementary (preschool)	6	3.2
Elementary school	45	22.5
Secondary school (middle school, junior high, senior high)	7	3.5
Student's home	0	0.0
Administrative office	16	7.9
Combination from the above list	96	47.9
Other; specify:	5	2.5
Total	200	100.0

8. Although you may perform more than one job function, select the <u>ONE</u> position that best describes how you spent <u>most</u> of your time. *Only one response can be accepted.* (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)	**Special Day/ Residential** (*n* = 23)	**Elementary** (*n* = 45)	**Combination** (*n* = 95)
Clinical service provider (includes all individuals providing any direct service)	76.3		73.3	78.9
Diagnostician	9.0		8.9	8.4
Special education teacher	0.5	(*n* < 25)	0.0	1.1
Consultant	9.2		13.3	9.5
Administrator/ supervisor/director	3.0		0.0	1.1
Other; specify:	1.9		4.4	1.1
		Too many cells (72%) have an expected count of less than 5.		

9. 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* = 200)	**Special Day/ Residential (*n* = 25)**	**Elementary (*n* = 45)**	**Combination (*n* = 95)**
Annual salary	87.7	80.0	80.0	90.5
Hourly rate (SKIP to Q. 12.)	12.3	20.0	20.0	9.5
		Statistical significance: $\chi^2(2) = 3.7$, $p = .155$		

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

Response	Facility Type			
	All Responses	**Special Day/ Residential**	**Elementary**	**Combination**
Worked 9–10 months (academic year)				
	n = 107	*n* = 7	*n* = 26	*n* = 55
25th percentile	$62,722		$63,000	$65,000
50th percentile (**Median**)	$72,000		$70,000	$73,799
75th percentile	$88,038	(*n* < 25)	$88,000	$90,000
Mean	$75,378		$73,873	$77,375
Standard deviation	$17,594		$16,694	$18,949
Mode	$80,000		$88,000	$70,000
		Statistical significance: $F(2, 84) = 0.5$, $p = .631$		
Worked 11–12 months (calendar year)				
	n = 37	*n* = 8	*n* = 3	*n* = 14
25th percentile	$71,688			
50th percentile (**Median**)	$81,213			
75th percentile	$92,410	(*n* < 25)	(*n* < 25)	(*n* < 25)
Mean	$83,615			
Standard deviation	$16,582			
Mode	$89,000			

11. For what period of <u>work</u> 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. 14.* (Percentages)
> Analyses limited to respondents who met the following criteria:
> ❖ CCC-A
> ❖ Employed full time or part time

Response	Facility Type			
	All Responses (*n* = 174)	Special Day/ Residential (*n* = 20)	Elementary (*n* = 36)	Combination (*n* = 86)
Work 9 or 10 months per year	76.2	(*n* < 25)	88.9	79.1
Work 11 or 12 months per year	23.8		11.1	20.9
Work other period	Removed from analyses			
		Statistical significance: $\chi^2(2) = 6.4$, ***p* = .040**, Cramer's V = .213		

12. 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
> ❖ Hourly salary of at least $1
> ❖ Worked at least 1 hour per week

Response	Facility Type			
	All Responses (*n* = 24)	Special Day/ Residential (*n* = 4)	Elementary (*n* = 9)	Combination (*n* = 9)
25th percentile	(*n* < 25)	(*n* < 25)	(*n* < 25)	(*n* < 25)
50th percentile (**Median**)				
75th percentile				
Mean				
Standard deviation				
Mode				

13. How many hours do you work per week for the hourly rate you entered in Q. 12?
    Analyses limited to respondents who met the following criteria:
    - ❖ CCC-A
    - ❖ Hourly salary of at least $1

Response	Facility Type			
	All Responses (*n* = 24)	Special Day/ Residential (*n* = 4)	Elementary (*n* = 9)	Combination (*n* = 9)
25th percentile				
50th percentile (**Median**)				
75th percentile	(*n* < 25)	(*n* < 25)	(*n* < 25)	(*n* < 25)
Mean				
Standard deviation				
Mode				

14. Do you receive a salary supplement, stipend, bonus, or other type of "salary upgrade" for any of the following reasons? *Select one response for each row.* (Survey instrument responses were *Yes* and *No*; report presents percentage of those who selected *Yes.*)
    Analyses limited to respondents who met the following criteria:
    - ❖ CCC-A
    - ❖ Employed full time or part time

Response	Facility Type			
	All Responses	Special Day/ Residential	Elementary	Combination
	n = 195	*n* = 25	*n* = 45	*n* = 94
ASHA CCCs	19.8	20 0	15 6	21.3
		Statistical significance: $\chi^2(2) = 0.6$, $p = .727$		
	n = 182	*n* = 25	*n* = 43	*n* = 86
Medicaid billing	2.7	0.0	0.0	4.7
		Too many cells (50%) have an expected count of less than 5.		
	n = 188	*n* = 25	*n* = 44	*n* = 90
Supervision of assistants or aides	2.5	0.0	2.3	4.4
		Too many cells (50%) have an expected count of less than 5.		
	n = 186	*n* = 24	*n* = 44	*n* = 89
Supervision of graduate students	3.5	(*n* < 25)	2.3	3.4
		Too many cells (50%) have an expected count of less than 5.		

Caseload/Workload

"Caseload" is based only on the number of students served, whereas "workload" is based on **ALL** required and performed activities.

15.	Using the description above, which approach is used to determine the number of students you serve? *Select all that apply.* (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	Special Day/ Residential	Elementary	Combination
	n = 141	*n* = 16	*n* = 29	*n* = 72
Caseload approach	35.3		48.3	29.2
Workload approach	54.7		44.8	59.7
Caseload approach and workload approach	6.9	(*n* < 25)	3.4	8.3
I do not provide clinical services to students. (SKIP to Q. 20.)	3.0		3.4	2.8
		Too many cells (42%) have an expected count of less than 5.		
Caseload and/or Workload Approach				
	n = 137	*n* = 16	*n* = 28	*n* = 70
Caseload approach	36.4		50.0	30.0
Workload approach	56.4	(*n* < 25)	46.4	61.4
Caseload approach and Workload approach	7.2		3.6	8.6
		Too many cells (22%) have an expected count of less than 5.		

16. What is your average <u>monthly</u> 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

Response	Facility Type			
	All Responses (*n* = 96)	Special Day/ Residential (*n* = 12)	Elementary (*n* = 19)	Combination (*n* = 45)
25th percentile	42.0			50.0
50th percentile (**Median**)	60.0			60.0
75th percentile	91.5	(*n* < 25)	(*n* < 25)	100.0
Mean	70.2			72.4
Standard deviation	36.9			34.3
Mode	100.0			60.0
		Statistical significance: $F(2, 72) = 2.0$, $p = .145$		

17. How many students do you serve <u>monthly</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 Q. 16 (caseload size) is at least 1

Response	Facility Type			
	All Responses		Special Day/Residential	
	Percentage who regularly serve clients with this disorder	Number served (mean)*	Percentage who regularly serve clients with this disorder	Number served (mean)*
	n = 96	*n* varies	*n* = 12	*n* varies
Acquired brain injury (ABI)	11.4	(*n* < 25)	(*n* < 25)	(*n* < 25)
Auditory processing disorder (APD)	54.2	6.9		
Autism spectrum disorder (ASD)	58.1	10.7		
Childhood apraxia of speech (CAS)	13.4	(*n* < 25)		
Cognitive communication disorders	30.2	8.9		
Dysphagia (swallowing/feeding)	4.6	(*n* < 25)		
Fluency disorders	8.1			
Hearing loss	94.7	60.8		
Language disorders: pragmatics/social communication	27.0	18.5		
Language disorders: semantics, morphology, syntax	21.5	(*n* < 25)		
Nonverbal, augmentative and alternative communication (AAC)	28.2	6.5		
Reading and writing (literacy)	14.4	(*n* < 25)		
Selective mutism	7.3			
Speech sound disorders	19.0			
Voice or resonance disorders	6.2			

.   *Includes only audiologists who do serve these students.

17. (cont'd) How many students do you serve <u>monthly</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
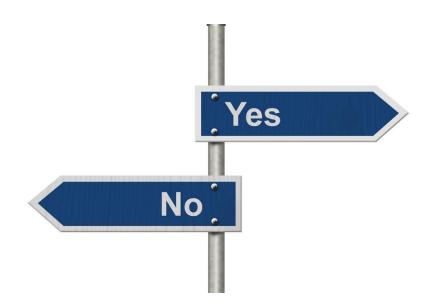- ❖ Employed full time
- ❖ Response to Q. 16 (caseload size) is at least 1

Response	Facility Type			
	Elementary		**Combination**	
	Percentage who regularly serve clients with this disorder	Number served (mean)*	Percentage who regularly serve clients with this disorder	Number served (mean)*
	n = 19	*n* varies	*n* = 45	*n* varies
Acquired brain injury (ABI)			8.2	(*n* < 25)
Auditory processing disorder (APD)			65.4	8.2
Autism spectrum disorder (ASD)			65.2	10.6
Childhood apraxia of speech (CAS)			9.5	(*n* < 25)
Cognitive communication disorders			32.8	
Dysphagia (swallowing/feeding)			5.9	
Fluency disorders	(*n* < 25)	(*n* < 25)	3.0	
Hearing loss			100.0	66.8
Language disorders: pragmatics/social communication			29.7	(*n* < 25)
Language disorders: semantics, morphology, syntax			24.5	
Nonverbal, augmentative and alternative communication (AAC)			33.4	
Reading and writing (literacy)			19.9	
Selective mutism			8.9	
Speech sound disorders			25.6	
Voice or resonance disorders			10.4	

*Includes only audiologists who do serve these students.

18. Have you used the ASHA Workload Calculator that is on ASHA's website? Percentages)

Analyses limited to respondents who met the following criteria:
- ❖ CCC-A
- ❖ Clinical service provider

Response	Facility Type			
	All Responses (*n* = 144)	Special Day/ Residential (*n* = 18)	Elementary (*n* = 32)	Combination (*n* = 72)
Yes	0.7		0.0	1.4
No, but I know what it is.	23.4	(*n* < 25)	25.0	22.2
Don't know what it is.	75.9		75.0	76.4
		Too many cells (44%) have an expected count of less than 5.		

19. How many hours do you spend on each of the following activities in a typical <u>WEEK</u>? *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 Q. 16 (caseload size) is at least 1
  - ❖ Total number of hours for Q. 19 was limited to a maximum of 55 which captured 90% of respondents.

Activity	Facility Type			
	All Responses (*n* = 74)	Special Day/ Residential (*n* = 9)	Elementary (*n* = 12)	Combination (*n* = 36)
MTSS/RTI activities	0.5			0.8
Diagnostic evaluations (e.g., observation, screening, scoring, analysis)	13.7			11.3
Direct intervention: classroom based/ integrated services	2.9			3.6
Direct intervention: pullout	2.4			3.2
Collaborative consultation	3.0	(*n* < 25)	(*n* < 25)	3.2
Services to section 504 students	1.8			2.6
Telepractice	0.2			0.3
Technological support (e.g., hearing aids/ CIs, AAC)	9.5			10.0
Supervision	1.2			1.5
Other duties as assigned	4.7			3.9
Total hours	39.9			40.4
		Tests of significance could not be run using the available software.		

Note. MTSS = multi-tiered system of support; RTI = response to intervention; CI = cochlear implant; AAC = augmentative and alternative communication.

20. What are your greatest challenges as a school-based professional? *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

Topic	Facility Type			
	All Responses (n = 150)	Special Day/ Residential ($n \geq$ 18)	Elementary (n = 33)	Combination ($n \geq$ 75)
Limited family/caregiver involvement and support	53.1	(n < 25)	54.5	54.7
		Statistical significance: $\chi^2(2)$ = 0.1, p = .936		
Large amount of paperwork	53.0	(n < 25)	33.3	62.7
		Statistical significance: $\chi^2(2)$ = 9.3, **p = .010**, Cramer's V = .271		
Limited understanding of my role by others	52.8	(n < 25)	63.6	56.0
		Statistical significance: $\chi^2(2)$ = 4.4, p = .109		
Budget constraints	47.2	(n < 25)	48.5	50.7
		Statistical significance: $\chi^2(2)$ = 1.8, p = .414		
High workload/caseload size	41.7	(n < 25)	36.4	48.7
		Statistical significance: $\chi^2(2)$ = 2.3, p = .321		
Inadequate work space and facilities	37.9	(n < 25)	42.4	44.0
		Statistical significance: $\chi^2(2)$ = 6.8, **p = .033**, Cramer's V = .233		
Lack of funding to attend professional development programs	37.3	(n < 25)	36.4	34.7
		Statistical significance: $\chi^2(2)$ = 0.1, p = .974		
Volume of meetings	32.9	(n < 25)	27.3	38.2
		Statistical significance: $\chi^2(2)$ = 1.2, p = .543		
Travel/distance between schools	32.6	(n < 25)	27.3	41.3
		Statistical significance: $\chi^2(2)$ = 9.0, **p = .011**, Cramer's V = .268		
Low salary	26.3	(n < 25)	18.2	22.4
		Statistical significance: $\chi^2(2)$ = 2.9, p = .231		
		(Question 20 continues on next page.)		

20. (cont'd) What are your greatest challenges as a school-based professional? *Select all that apply.* (Percentages) Responses were in alphabetical order on survey instrument. Analyses limited to respondents who met the following criterion:
   ❖ CCC-A

Topic	Facility Type			
	All Responses (*n* = 150)	Special Day/ Residential (*n* ≥ 18)	Elementary (*n* = 33)	Combination (*n* ≥ 75)
Incorporating optimal service delivery models	25.7	(*n* < 25)	21.2	31.6
		Statistical significance: $\chi^2(2) = 1.5$, *p* = .464		
Limited support from the administration	24.9	(*n* < 25)	30.3	18.4
		Statistical significance: $\chi^2(2) = 2.9$, *p* = .235		
Out-of-pocket professional expenses	21.1	(*n* < 25)	24.2	20.0
		Statistical significance: $\chi^2(2) = 2.7$, *p* = .253		
Personnel shortage	18.9	(*n* < 25)	12.1	24.0
		Statistical significance: $\chi^2(2) = 2.2$, *p* = .339		
Limited time for collaboration	17.0	(*n* < 25)	18.2	20.0
		Statistical significance: $\chi^2(2) = 0.1$, *p* = .939		
Medicaid billing	13.4	(*n* < 25)	9.1	17.3
		Too many cells (33%) have an expected count of less than 5.		
Lack of training to work with specific disorders or special populations	11.9	(*n* < 25)	21.2	13.3
		Too many cells (33%) have an expected count of less than 5.		
Ethical challenges	11.2	(*n* < 25)	3.0	14.7
		Too many cells (33%) have an expected count of less than 5.		
Legal challenges (e.g., due process)	10.0	(*n* < 25)	15.2	9.3
		Too many cells (33%) have an expected count of less than 5.		

21. Under what circumstances are you required to make up missed sessions? *Select all that apply.* (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* = 150)	Special Day/ Residential (*n* = 18)	Elementary (*n* ≥ 33)	Combination (*n* ≥ 75)
I am not required to make up missed sessions.	48.2	(*n* < 25)	47.1	44.7
	Statistical significance: $\chi^2(2) = 0.1$, $p = .972$			
When the student misses a session due to assembly or classroom activity.	4.8	(*n* < 25)	8.8	4.0
	Too many cells (50%) have an expected count of less than 5.			
Any time a student misses a session for any reason.	14.7	(*n* < 25)	12.1	20.0
	Statistical significance: $\chi^2(2) = 1.5$, $p = .475$			
Any time I miss a session for any reason.	34.5	(*n* < 25)	39.4	42.7
	Statistical significance: $\chi^2(2) = 4.2$, $p = .123$			

Ethics

22. Which of the following ethical issues have you faced during the last <u>3 YEARS</u>? *Select all that apply.* (Percentages) Responses were in alphabetical order on survey instrument.

        Analyses limited to respondents who met the following criterion:
        ❖ CCC-A

Challenge	Facility Type			
	All Responses (*n* = 208)	**Special Day/ Residential** (*n* = 25)	**Elementary** (*n* = 45)	**Combination** (*n* ≥ 95)
Lack of time to ensure the delivery of quality services to my students	40.5	28.0	37.8	43.8
	Statistical significance: $\chi^2(2) = 2.2$, *p* = .340			
Complying with administrative and regulatory mandates	19.6	28.0	17.8	17.7
	Statistical significance: $\chi^2(2) = 1.4$, *p* = .487			
Dealing with impaired practitioners in our profession	13.5	4.0	20.0	14.7
	Statistical significance: $\chi^2(2) = 3.3$, *p* = .190			
Lack of confidentiality and privacy of student files and records	7.6	8.0	6.7	5.2
	Too many cells (33%) have an expected count of less than 5.			
Employer pressure to alter documentation for billing and/or reimbursement	1.9	4.0	0.0	1.0
	Too many cells (50%) have an expected count of less than 5.			

23. In the past 12 MONTHS, how many times have you referred to, or relied on, the ASHA Code of Ethics? *Enter "0" if none.*

Analyses limited to respondents who met the following criterion:
  ❖ CCC-A

Response	Facility Type			
	All Responses	Special Day/ Residential	Elementary	Combination
Includes "0"				
	n = 190	*n* = 25	*n* = 45	*n* = 96
25th percentile	0.0	0.0	0.0	0.0
50th percentile (**Median**)	0.0	0.0	0.0	0.0
75th percentile	1.0	0.0	2.0	0.0
Mean	0.7	0.5	1.0	0.6
Standard deviation	1.5	1.4	1.6	1.5
Mode	0.0	0.0	0.0	0.0
		Statistical significance: $F(2, 153) = 0.8$, $p = .446$		
Excludes "0"				
	n = 53	*n* = 5	*n* = 14	*n* = 23
25th percentile	1.0			
50th percentile (**Median**)	2.0			
75th percentile	4.0	(*n* < 25)	(*n* < 25)	(*n* < 25)
Mean	2.6			
Standard deviation	1.8			
Mode	1.0			

Student Loans

Debt	All Responses (n = 31)	Special Day/ Residential (n = 0)	Elementary (n = 8)	Combination (n = 16)
24. How much unpaid student debt do you have for your education? *Enter "0" if none.* Analyses limited to respondents who met the following criteria: ❖ CCC-A ❖ Student loan debt of at least $1				
		Facility Type		
25th percentile	$10,052	(n < 25)	(n < 25)	(n < 25)
50th percentile (**Median**)	$50,379			
75th percentile	$120,000			
Mean	$67,377			
Standard deviation	$67,742			
Mode	$5,000			

Response	All Responses (n = 208)	Special Day/ Residential (n = 25)	Elementary (n = 45)	Combination (n = 96)
25. Did you apply to any federal grant or loan forgiveness programs for educators? *Select all that apply.* (Percentages) Responses were in alphabetical order on survey instrument. Analyses limited to respondents who met the following criterion: ❖ CCC-A				
		Facility Type		
Public Service Loan Forgiveness Program	8.5	4.0	8.9	8.3
		Too many cells (33%) have an expected count of less than 5.		
Perkins Loan Teacher Cancellation	5.1	4.0	8.9	3.1
		Too many cells (50%) have an expected count of less than 5.		
Teacher Loan Forgiveness Program	4.7	0.0	2.2	6.3
		Too many cells (50%) have an expected count of less than 5.		
None of the above (SKIP to Q. 27.)	72.8	88.0	73.3	70.8
		Statistical significance: $\chi^2(2)$ = 3.1, p = .216		

Debt	Facility Type			
	All Responses (*n* = 10)	**Special Day/ Residential** (*n* = 1)	**Elementary** (*n* = 3)	**Combination** (*n* = 3)
25th percentile				
50th percentile (**Median**)				
75th percentile	(*n* < 25)	(*n* < 25)	(*n* < 25)	(*n* < 25)
Mean				
Standard deviation				
Mode				

26. How much of your loan was forgiven?
       Analyses limited to respondents who met the following criteria:
           ❖   CCC-A
           ❖   Student loan debt forgiven of at least $1
           ❖   Selected one of three programs in Q. 25

Demographics

27. 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 all that apply.* (Percentages)
    Analyses limited to respondents who met the following criterion:
    ❖ CCC-A

Degree	Facility Type			
	All Responses	**Special Day/ Residential**	**Elementary**	**Combination**
	n = 208	*n* = 25	*n* = 45	*n* ≥ 95
Master's	71.5	76.0	73.3	72.6
AuD	58.9	52.0	62.2	58.3
SLPD or CScD	0.0	0.0	0.0	0.0
PhD	0.5	0.0	0.0	1.0
Other doctorate	0.0	0.0	0.0	0.0
Highest Degree				
	n = 208	*n* = 25	*n* = 45	*n* = 96
Master's	41.1	48.0	37.8	41.7
Doctorate	58.9	52.0	62.2	58.3
		Statistical significance: $\chi^2(2) = 0.7$, *p* = .707		

Note. AuD = doctor of audiology; SLPD = doctor of speech-language pathology; CScD = doctor of communication science; PhD = doctor of philosophy.

28. How many years (a) have you been employed in the audiology or speech-language pathology 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	Special Day/ Residential	Elementary	Combination
(a) Total Years in the Professions				
	n = 208	*n* = 25	*n* = 45	*n* = 96
25th percentile	17.0	11.0	15.0	19.0
50th percentile (**Median**)	26.0	28.0	23.0	26.0
75th percentile	34.0	33.0	33.0	32.0
Mean	24.8	23.5	23.1	25.5
Standard deviation	11.1	11.5	11.1	10.0
Mode	25.0	11.0	40.0	25.0
		Statistical significance: *F*(2, 162) = 0.9, *p* = .402		
(b) Total Years in the Schools				
	n = 207	*n* = 25	*n* = 43	*n* = 96
25th percentile	6.3	13.0	5.0	7.0
50th percentile (**Median**)	17.0	19.0	16.0	16.0
75th percentile	25.0	28.0	24.0	25.0
Mean	16.6	19.5	14.7	16.2
Standard deviation	10.6	10.1	9.8	10.3
Mode	2.0	19.0	24.0	8.0
		Statistical significance: *F*(2, 161) = 1.8, *p* = .170		

29. In what year were you born? (Note: Data were converted to age.)
    Analyses limited to respondents who met the following criterion:
    ❖ CCC-A

Age	Facility Type			
	All Responses (*n* = 205)	Special Day/ Residential (*n* = 25)	Elementary (*n* = 45)	Combination (*n* = 96)
25th percentile	44.0	49.0	40.0	46.0
50th percentile (**Median**)	53.0	54.0	53.0	51.0
75th percentile	60.0	57.0	59.0	59.0
Mean	51.4	51.2	50.6	51.5
Standard deviation	10.5	9.8	10.9	9.5
Mode	59.0	57.0	64.0.	59.0
		Statistical significance: $F(2, 159) = 0.1$, $p = .896$		

30. Are you….? (Percentages)
    Analyses limited to respondents who met the following criterion:
    ❖ CCC-A

Sex	Facility Type			
	All Responses (*n* = 204)	Special Day/ Residential (*n* = 24)	Elementary (*n* = 45)	Combination (*n* = 94)
Female	95.9	(*n* < 25)	93.3	95.7
Male	4.1		6.7	4.3
		Too many cells (50%) have an expected count of less than 5.		

31. Which <u>one</u> of the following best describes where you work? (Percentages)
    Analyses limited to respondents who met the following criteria:
    ❖ CCC-A
    ❖ Employed full time or part time

Area	Facility Type			
	All Responses (*n* = 192)	Special Day/ Residential (*n* = 25)	Elementary (*n* = 42)	Combination (*n* = 92)
City/urban area	40.9	52.0	42.9	34.8
Suburban area	41.2	40.0	38.1	44.6
Rural area	17.9	8.0	19.0	20.7
Not employed (SKIP Q. 32)		Removed from analyses		
		Statistical significance: $\chi^2(4) = 3.7$, $p = .450$		

32. In what state is your primary employment FACILITY located? *Use standard post office two-letter code (e.g., ID for Idaho).*
    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)	2	North Dakota (ND)	0
Alaska (AK)	1	Louisiana (LA)	4	Ohio (OH)	7
Arizona (AZ)	5	Maine (ME)	0	Oklahoma (OK)	0
Arkansas (AR)	0	Maryland (MD)	6	Oregon (OR)	2
California (CA)	11	Massachusetts (MA)	6	Pennsylvania (PA)	6
Colorado (CO)	12	Michigan (MI)	7	Rhode Island (RI)	0
Connecticut (CT)	4	Minnesota (MN)	7	South Carolina (SC)	2
Delaware (DE)	1	Mississippi (MS)	3	South Dakota (SD)	1
District of Columbia (DC)	2	Missouri (MO)	4	Tennessee (TN)	4
Florida (FL)	7	Montana (MT)	0	Texas (TX)	13
Georgia (GA)	6	Nebraska (NE)	2	Utah (UT)	4
Hawaii (HI)	0	Nevada (NV)	1	Vermont (VT)	0
Idaho (ID)	1	New Hampshire (NH)	0	Virginia (VA)	8
Illinois (IL)	7	New Jersey (NJ)	3	Washington (WA)	9
Indiana (IN)	1	New Mexico (NM)	3	West Virginia (WV)	1
Iowa (IA)	5	New York (NY)	15	Wisconsin (WI)	5
Kansas (KS)	4	North Carolina (NC)	6	Wyoming (WY)	1
				Total	200

(Question 32 continues on next page.)

32. (cont'd) In what state is your primary employment FACILITY located? *Use standard post office two-letter code (e.g., ID for Idaho).*

Analyses limited to respondents who met the following criteria:
- ❖ CCC-A
- ❖ Employed full time or part time

Region/Division	Facility Type			
	All Responses (n = 200)	Special Day/ Residential ($n \geq 24$)	Elementary ($n \geq 45$)	Combination ($n \geq 95$)
Northeast	**16.6**	**33.3**	**4.4**	**20.8**
Middle Atlantic	11.8	24.0	0.0	15.8
New England	4.8	8.0	4.3	4.2
Midwest	**25.5**	**20.8**	**24.4**	**28.1**
East North Central	14.1	12.0	13.0	14.7
West North Central	11.4	8.0	13.0	13.7
South	**32.8**	**37.5**	**37.8**	**27.1**
East South Central	4.6	12.0	2.2	4.2
South Atlantic	19.7	24.0	21.7	16.8
West South Central	8.5	0.0	10.9	6.3
West	**25.1**	**8.3**	**33.3**	**24.0**
Mountain	13.7	8.0	15.2	13.7
Pacific	11.4	4.0	19.6	10.5
		Statistical significance: FOR 4 REGIONS: $\chi^2(6)$ = 14.0, ***p* = .030**, Cramer's V = .206 FOR 9 DIVISIONS: Too many cells (52%) have an expected count of less than 5.		

Appendix

Summary Report 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
	
	$RR = \dfrac{(C + P)}{S - (Ret + I)}$
	
	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)
	
	$RR = \dfrac{208}{500 - (0 + 7)} = 42.2\%$

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	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 <u>strength</u> 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*. Newbury Park, CA: Sage.