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# AUDIOLOGY SURVEY 2006

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## **Clinical Focus Patterns**

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## Executive Summary

In the fall of 2006, 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, and to update and expand information gathered during previous Audiology and Omnibus Surveys.

The results are presented in a series of reports. This salary report is based on responses from audiologists to questions about patterns of clinical focus.

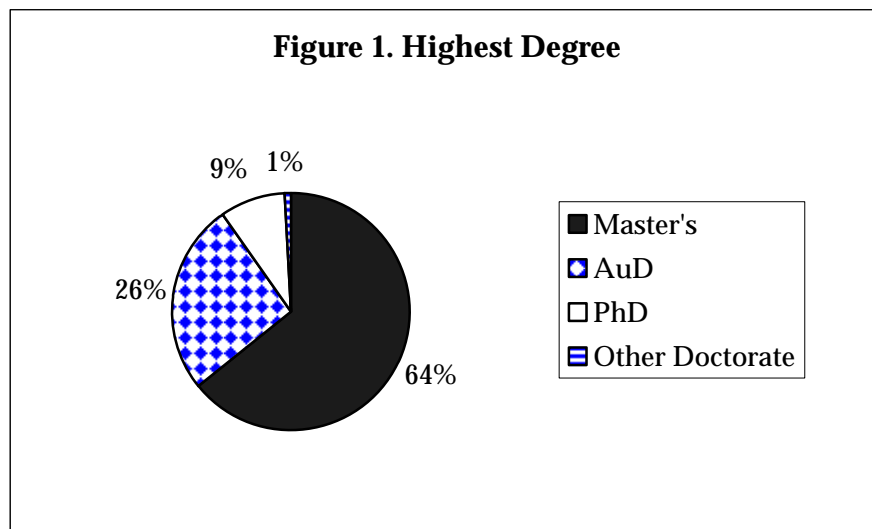
### *Highlights:*

- ◆ 64% held a master's, 26% an AuD, and 9% a PhD.
- ◆ 82% were clinical service providers.
- ◆ 73% received an annual wage.
- ◆ 9% provided professional services for adult CI recipients, 18% for children.
- ◆ More than 80% provided counseling (87%), fitting and orientation of hearing aids (82%), and demonstration of hearing assistive technology (82%).
- ◆ Initial hearing aid fitting typically took 1 hour.
- ◆ 96% provided AR services individually.
- ◆ 81% dispensed hearing aids.
- ◆ Most audiologists found CE courses from direct mail (72%).
- ◆ 9% rated themselves very qualified to provide services to multicultural populations.

## Who They Are

### Highest Degree

Nearly two thirds (64%) of the audiologists who responded to the 2006 Audiology Survey held a master's as their highest degree, 26% had an AuD, and 9% had a PhD (see Figure 1).



*n* = 2,349

### Function

Most of the audiologists were clinical service providers (82%), although a few were administrators (7%) or college or university faculty (6%) or performed some other function (5%).

### Facility

Approximately one quarter each worked in hospitals (26%), private physicians' offices (26%), or other nonresidential health care facilities (25%). The remaining audiologists were employed in schools (10%), colleges or universities (8%), or some other facility (4%).

### Salary

Approximately three fourths received an annual wage (73%), and the rest were paid hourly (27%).

### Years of Experience

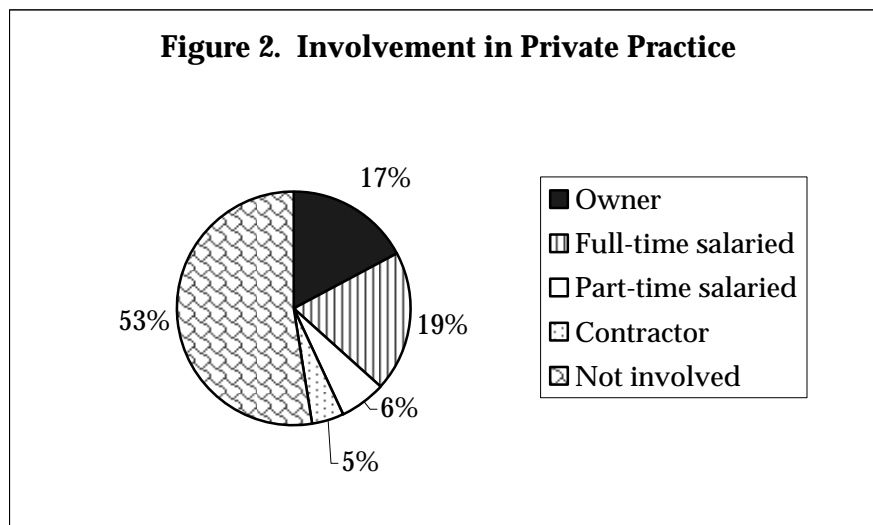
The median (50<sup>th</sup> percentile) number of years of experience was 15, ranging from a low of 11 years in private physicians' offices to a high of 22 years in colleges and universities.

### Population Setting

More than half of the audiologists who worked in colleges or universities (59%) or in hospitals (67%) worked in metropolitan/urban areas.

*Private Practice*

Slightly fewer than half of the audiologists were affiliated with a private practice as owner, full-time salaried employee, part-time salaried employee, or contractor (see Figure 2).



*n* = 2,005

Audiologists who worked in private practice (*n* = 948) were asked to identify the type of practice. (The total exceeds 100% because multiple responses were allowed.)

- 30% worked in a solo practice.
- 40% worked with otolaryngologists.
- 38% worked with other audiologists.
- 4% worked with physicians other than otolaryngologists.
- 4% worked with speech-language pathologists.
- 7% worked with disciplines not included in the list.

**What They Say About**

*Cochlear Implants (CI)*

Approximately **9%** of the audiologists who were clinical service providers and who worked either full-time or part-time provided professional services for **adult** CI recipients, and twice that many (**18%**) provided services for **children**. There were significant differences that varied with employment setting. Services for **adults** were most commonly provided in hospitals—17% of audiologists in hospitals provided CI services for adults, as did

- 9% in private physicians' offices,
- 5% in other nonresidential health care facilities,
- 2% in schools.

*Audiologic  
Rehabilitation  
(AR)*

Services for **children** were, not surprisingly, more common in schools than in other types of facilities—**72%** of audiologists in schools provided CI services for children, as did

- 21% in hospitals,
- 7% in private physicians' offices,
- 7% in other nonresidential health care facilities.

When the audiologists who provided CI services were asked if they **programmed** the devices, **52%** said that they did not, but **36%** said they programmed the devices for **adults** and **38%** for **children**.

A definition of AR preceded a series of questions on the topic so that all respondents would use the same terminology. The definition read:

AR is a broad term that applies to almost every aspect of audiology practice. For this survey it includes: counseling on communication strategies and feelings about the hearing loss, hearing aid fitting and orientation, verification of amplification, and validation of treatment outcomes.

The definition was followed by a list of eight AR services, and respondents were asked which of the services they provide. Multiple services could be selected. Reading down the columns of Table 1, we see that two services tied for first place in the **schools**: counseling on communication strategies/realistic expectations and demonstration/fitting/orientation of hearing assistive technology. Counseling was also the service provided most often in **hospitals**. In **private physicians' offices**, counseling tied with fitting and orientation of hearing aids for first place. Fitting and orientation of hearing aids was the most frequently selected AR service in **other nonresidential health care facilities**.

Reading across rows shows that there are significant differences by type of facility in the rate at which AR services are provided. For example, although auditory training, in general, is provided by 18% of audiologists, it ranges from a low of 9% in private physicians' offices to 41% in schools. Six of the AR services were more likely to be provided in **other nonresidential health care facilities** than in other types of facilities, and two were most likely to be provided in **schools**. Audiologists in **hospitals** were the most likely group to state that they did not provide AR services.

<b>Service</b>	<b>Total</b>	<b>School</b>	<b>Hosp.</b>	<b>Phys. Office</b>	<b>Other Nonres.</b>
Auditory training*	17.6	<b>41.4</b>	11.6	9.0	22.6
Cerumen management*	39.3	14.3	29.5	35.9	<b>61.6</b>
Counseling on communication strategies/realistic expectations*	87.4	85.2	81.3	88.9	<b>92.5</b>
Demonstration/fitting/orientation of hearing assistive technology*	81.7	85.2	73.1	80.7	<b>89.1</b>
Fitting and orientation of hearing aids*	82.3	48.1	76.7	88.9	<b>93.1</b>
Speechreading*	6.0	<b>13.3</b>	4.3	2.8	7.3
Validation of treatment outcomes by self questionnaires*	35.4	27.6	37.4	24.4	<b>47.2</b>
Verification of performance of hearing aids*	71.9	67.6	69.6	67.8	<b>79.0</b>
I do not provide AR services*	6.6	5.7	<b>11.6</b>	6.2	2.9

*n* = 1,835; \* *p* = .000

**Time Spent With Clients**

The **median** length of time spent with clients in the initial hearing aid fitting and orientation was 1.0 hours in every facility except schools, where it was 0.5 hours. The **mean** time was also lower in schools (0.7 hours) compared with 1.1 hours in hospitals, private physicians' offices, and other nonresidential health care facilities.

**AR Services: Individual or Group**

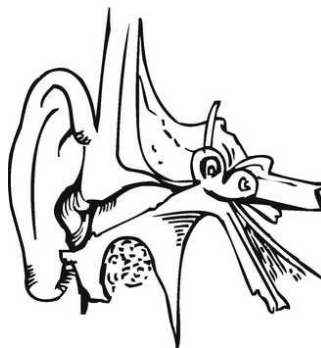
Nearly everyone provided AR services **individually (96%)**, although a few provided them in **groups (8%)**. The type of facility where they worked was significantly related to services to groups (*p* = .000) but not to individuals. With regard to services to groups,

- **29%** of audiologists in **schools** provide group services;
- **2%** in private physicians' offices, **6%** in hospitals, and **8%** in other nonresidential health care facilities provide services in groups.

*AR Following CI*

More audiologists provide AR following CI for **children (15%)** than for **adults (10%)**, and the type of facility where they work had a significant effect on their response for both age groups.

- 6% in private physicians' offices, 8% in other nonresidential health care facilities, 16% in hospitals, and 57% in schools provided AR services to **children** following CI ( $p = .000$ ).
- 2% in schools, 8% in other nonresidential health care facilities, 11% in private physicians' offices, and 13% in hospitals provided AR services to **adults** following CI ( $p = .000$ ).



*Practice Management*

Twelve devices were listed, and respondents were asked which of them they dispense. Multiple services could be selected. Reading down the columns of Table 2, we see that **BTE FM** was dispensed in **schools** more than any other device (62%). Hearing aids were dispensed more than any other device in **hospitals (79%)**, **private physicians' offices (89%)**, and in **other nonresidential health care facilities (94%)**.

Checking across rows shows that there are significant differences by type of facility in the rate at which each of the items was dispensed. For example, although alerting devices, in general, are dispensed by 38% of audiologists, this ranges from a low of 5% in schools to 59% in other nonresidential health care facilities. Eleven of the devices were more likely to be provided in **other nonresidential health care facilities** than in other types of facilities, and one was most likely to be provided in **schools**. Audiologists in **schools** were more likely than those in other types of facilities to state that they did not dispense any of the devices.

Item	Total	School	Hosp.	Phys. Office	Other Nonres.
Alerting devices*	37.7	5.2	28.1	39.2	<b>58.7</b>
Amplified telephones*	49.5	6.7	38.1	55.7	<b>70.7</b>
Body style FM*	23.7	<b>33.3</b>	20.5	16.3	30.6
BTE FM*	58.8	61.9	54.3	52.5	<b>68.8</b>
Cell phone interfaces for hearing aids*	27.0	5.2	19.6	27.2	<b>43.2</b>
Hard-wired devices (i.e., personal amplifier)*	35.3	15.2	30.6	35.0	<b>47.4</b>
Hearing aids*	81.1	31.4	79.0	88.5	<b>93.5</b>
Infrared systems*	34.3	26.7	23.5	30.7	<b>51.4</b>
Loop systems*	13.2	7.6	8.4	8.5	<b>24.7</b>
Telephone adaptors*	32.4	5.2	23.3	34.6	<b>49.3</b>
Telephone amplifiers*	33.5	3.8	25.6	33.9	<b>52.2</b>
TTY/TDD**	11.2	4.8	12.1	6.9	<b>17.0</b>
I do not dispense any of the above items.*	13.2	<b>32.9</b>	18.7	9.2	5.4

*n* = 1,421; \* *p* = .000; \*\* *p* = .003

**Continuing Education (CE)**

More than half of the audiologists selected **direct mail (72%)**, recommendation from colleagues (56%), e-mail distribution (53%), and print advertisements (51%) as ways they find CE courses. One third do Internet searches (33%), and some search for courses on ASHA's Web site (18%).

The most frequent way for audiologists in each type of facility to find CE courses is direct mail:

- 79% in schools
- 74% in private physicians' offices
- 72% in other nonresidential health care facilities
- 71% in colleges and universities
- 69% in hospitals

The **second place** source depends on the facility. For schools (65%), hospitals (64%), and private physicians' offices (53%), it is recommendations from colleagues. For colleges and universities, it's e-mail distribution (65%), and for other nonresidential health care facilities, it's print advertisements (55%).

*Interest in CE Topics*

The audiologists were asked to use a 5-point scale to rate their interest in each of five CE topics.

- **Genetics of hearing loss**
  - More audiologists said they were very interested in this topic than in the other four topics (29%).
  - The greatest interest was in colleges and universities (35%), hospitals (34%), and schools (32%).
- **Patient safety and prevention of medical errors**
  - 15% were very interested in patient safety.
  - The range was from 10% in colleges and universities to 16% in hospitals and other nonresidential health care facilities.
- **Leadership and administration in audiology**
  - Leadership and administration had the third highest percentage of audiologists who were very interested in the topic (13%).
  - The range was from 8% in schools to 17% in colleges and universities.
- **Industrial audiology and hearing conservation**
  - Industrial audiology was in fourth place, with 10% very interested in the topic.
  - The range was from 7% in schools to 11% in other nonresidential health care facilities.
- **Intraoperative monitoring**
  - Overall, 7% were very interested in this topic.
  - The range was from 3% in schools to 11% in hospitals.

*Cultural and Linguistic Diversity*

The audiologists who received this survey used a 5-point scale (from *not at all qualified* to *very qualified*) to rate how qualified they were to provide rehabilitation services to multicultural populations.

- Overall, 9% rated themselves as 5 (very qualified). The range was from 5% in private physicians' offices to 12% in schools and hospitals.
- 32% rated themselves as 4 or 5. Ratings of 4 or 5 ranged from 22% in private physicians' offices, 29% in other nonresidential health care facilities, 39% in schools and colleges and universities, to 41% in hospitals.

## **Survey Notes and Method- ology**

### *Response Rate*

The 20-year-old ASHA Omnibus Survey has been retired, replaced by surveys specific to work settings and/or professions in order to better meet affiliates' needs. This 2006 Audiology Survey is one of the replacements and melds topics from both the Omnibus Surveys and previous Audiology Surveys.

The survey was mailed in September 2006 to a random sample of 4,000 ASHA-certified audiologists in the United States who worked in schools, colleges or universities, hospitals, or other nonresidential health care facilities. Second and third mailings followed, at approximately 4-week intervals, to individuals who had not responded to earlier mailings.

Of the original 4,000 audiologists in the sample, 7 were no longer employed in the field, 5 were retired, and 3 were ineligible for other reasons, leaving 3,985 possible respondents. The actual number of respondents was 2,354, resulting in a 59.1% response rate. The results presented in this report are based on responses from the 952 audiologists who worked in private practice. Data are excluded for cell sizes smaller than 25.

### *Other Reports*

Results from the 2006 Audiology Survey are reported in a series of reports:

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

## **Electronic Copy**

An electronic copy of this report will be available for a limited time on the ASHA Web site at <http://www.asha.org/about/membership-certification/member-data/member-counts.htm> and for members at <http://www.asha.org/members/aud/Audsur>.

## Suggested Citation

American Speech-Language-Hearing Association. (2006). *2006 Audiology Survey report: Clinical focus patterns*. Rockville, MD: Author.

## Supplemental Sources

[http://www.asha.org/NR/rdonlyres/F4D3F0DF-F483-40CF-8AF5-EFC7488F97B/0/TreatmentEfficacy\\_AudiologicRehabilitation.pdf](http://www.asha.org/NR/rdonlyres/F4D3F0DF-F483-40CF-8AF5-EFC7488F97B/0/TreatmentEfficacy_AudiologicRehabilitation.pdf)  
(Efficacy statement )

<http://www.agbell.org/DesktopDefault.aspx> (CI)

[http://www.asha.org/continuing\\_ed/coursesearch/](http://www.asha.org/continuing_ed/coursesearch/) (CE)

<http://www.asha.org/about/publications/leader-online/b-line/>  
(Coding and reimbursement)

<http://www.asha.org/members/aud/audrehab.htm> (AR products)

[http://www.asha.org/members/issues/reimbursement/coding/ar\\_reimbursement.htm](http://www.asha.org/members/issues/reimbursement/coding/ar_reimbursement.htm) (AR reimbursement and coding)

<http://www.asha.org/about/leadership-projects/multicultural/>

## Thank You

ASHA would like to thank the audiologists who received the 2006 Audiology Survey and completed it. Reports like this one are possible only because people like **you** participated. If you find this information valuable, please accept the invitation 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.

## Additional Information

For additional information regarding the 2006 Audiology Survey, please contact Pam Mason, Director of ASHA's Audiology Professional Practices, at 301-897-5700, ext. 4135, [pmason@asha.org](mailto:pmason@asha.org). To learn more about how the Association is working on behalf of ASHA-certified audiologists, members may visit ASHA's Web site at <http://www.asha.org/members/aud/default>.