Survey Methodology, Respondent Demographics, and Glossary

For additional information, please contact Jeanette Janota, Surveys and Analysis
American Speech-Language-Hearing Association
Rockville, MD 20850
800-498-2071, ext. 8738
jjanota@asha.org
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The American Speech-Language-Hearing Association (ASHA) conducted a survey of speech-language pathologists (SLPs) in the spring of 2015. The survey was designed to provide information about health care-based service delivery and to update and expand information gathered during previous SLP Health Care Surveys. The results are presented in a series of reports.

Data for this report are drawn from all six types of health care facilities: general medical, Veterans Affairs (VA), and long-term acute care (LTAC) hospitals; rehabilitation (rehab) hospitals; pediatric hospitals; skilled nursing facilities (SNFs); home health agencies or clients’ homes; and outpatient clinics and offices.

**Highlights:**
- 47% was the response rate.
- Mean number of years of experience was 18.
- 3% held a doctoral degree.
- 24% of the respondents were employed in SNFs.
- Across settings, 88%-96% of SLPs were employed as clinical service providers.
- 62% of SLPs worked full time.
- 82% of SLPs in SNFs received an hourly wage.
- 38% of SLPs worked in the South.
- 39% of SLPs worked in urban areas.
- 41% of SLPs worked full or part time as a private practice owner or co-owner.
The survey was mailed on February 18, 2015, to a stratified, random sample of ASHA-certified SLPs who were employed in health care settings in the United States. Individuals who returned their surveys were removed from the second and third mailings (March 18 and April 15, respectively). Each mailing consisted of a personalized cover letter, a numbered survey, and a #10 postage-paid business return envelope inserted into a #11 window envelope with an ASHA return address. Metered postage was at the full, first-class rate. In addition, a reminder e-mail was sent to all sample members on February 23.

A sample of 4,000 ASHA-certified SLPs employed in health care settings was selected to participate in this survey. The sample group was stratified by type of facility and by private practice. A disproportional random sample (5% to 17%) was drawn from each facility from among SLPs who did not work in private practice. Disproportional stratified random sampling (ranging from 6% to 85%) was used to draw a sample of SLPs who did work in private practice, oversampling small groups like pediatric hospitals (see Table 1).

<table>
<thead>
<tr>
<th>Facility</th>
<th>Private Practice</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medical/VA/LTAC Hospital</td>
<td>No</td>
<td>6,984</td>
<td>480</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>526</td>
<td>220</td>
</tr>
<tr>
<td>Rehab Hospital</td>
<td>No</td>
<td>3,432</td>
<td>370</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>214</td>
<td>150</td>
</tr>
<tr>
<td>Pediatric Hospital</td>
<td>No</td>
<td>1,606</td>
<td>280</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>164</td>
<td>140</td>
</tr>
<tr>
<td>SNF</td>
<td>No</td>
<td>10,420</td>
<td>550</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>600</td>
<td>220</td>
</tr>
<tr>
<td>Home Health/Clients’ Homes</td>
<td>No</td>
<td>4,017</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>2,388</td>
<td>340</td>
</tr>
<tr>
<td>Outpatient Clinic/Office</td>
<td>No</td>
<td>3,745</td>
<td>370</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>7,520</td>
<td>480</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>41,616</td>
<td>4,000</td>
</tr>
</tbody>
</table>
Response Rate

Of the original 4,000 SLPs in the sample, 73 were ineligible. The number of respondents was 1,842, resulting in a 46.9% response rate (see Table 2).

<table>
<thead>
<tr>
<th>Disposition</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original (gross) sample size</td>
<td>4,000</td>
</tr>
<tr>
<td>No longer employed in the field</td>
<td>6</td>
</tr>
<tr>
<td>Undeliverable addresses</td>
<td>14</td>
</tr>
<tr>
<td>Retired</td>
<td>5</td>
</tr>
<tr>
<td>Deceased</td>
<td>1</td>
</tr>
<tr>
<td>Ineligible for other reasons</td>
<td>47</td>
</tr>
<tr>
<td>Net sample size</td>
<td>3,927</td>
</tr>
<tr>
<td>Number of respondents</td>
<td>1,842</td>
</tr>
</tbody>
</table>

\[
\frac{1,842}{3,927} = 46.9\%
\]

All surveys had 39 questions on 25.5 in. × 11 in. paper folded to 8.5 in. × 11 in. and printed on five pages of a six-page, fold-out survey instrument. The final page contained a message about the ASHA 2015 Health Care/Business Institute as well as a thank-you note and contact information should respondents have questions.

A methodological experiment was incorporated into the survey to test whether presenting response categories below each question or to the right of each question would result in a higher response rate. Half of the 4,000 sample members were randomly assigned to the control group and received a survey with responses that were directly below the questions and that used Arial 11-point font style. The other half were assigned to the experimental group and received a survey with all questions in the left column and all response options in the right column. The font was changed to Bookman Old Style, 10 point. Both versions had two columns. Questions were in identical order and on the same pages throughout both instruments. See examples of Question 1 in both formats, below.
Control:

1. **In your opinion, what kind of job is the Association doing in serving its speech-language pathology members who work in health care?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor</td>
</tr>
<tr>
<td>2</td>
<td>Fair</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Experimental:

1. **In your opinion, what kind of job is the Association doing in serving its speech-language pathology members who work in health care?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor</td>
</tr>
<tr>
<td>2</td>
<td>Fair</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Calculated from Tables 1 and 2, response rates for the two groups were identical:
- 913 respondents (46.5%) in the control group
- 929 respondents (47.3%) in the experimental group

Anecdotally, respondents who returned the experimental-group form appeared to write more unsolicited messages on their survey instrument than did those who received the control-group form.

Conclusion: Combining questions and answers in the same column, or separating them to the left and right, made no difference in response rates.

Data Entry

To ensure the highest quality data reasonably possible, each of the 1,842 completed surveys was checked, and erroneous responses were corrected or deleted by the ASHA staff member with primary responsibility for the survey. The forms were then sent to an outside firm for two-pass (key and verify) data entry. This process was completed by May 13, 2015.

Demographics

Not only is it typically the case that some individuals who receive a survey do not complete it (unit nonresponse), but it is likewise true that some who return theirs do not answer every question (item nonresponse) and thus do not qualify for inclusion in portions of a report. They may be excluded from analyses because they did not answer a question at all or because one or more of their answers disqualified them (such as stating that they were employed part time when a particular analysis was limited to full-time employees). For example, among the 1,842 respondents, only 1,697 were included in reporting on their primary employment facility because they

- indicated that they held ASHA Certificate of Clinical Competence in speech-language pathology (CCC-SLP),
- indicated that they were employed full time or part time,
- identified the type of employment facility where they were employed.
As is our practice, we do not report data for categories with fewer than 25 respondents.

The median number of years of experience was 15, and the mean was 18. The median number of years ranged from 12 in pediatric hospitals to 19 in general medical, VA, and LTAC hospitals. Means ranged from 16 years in pediatric hospitals to 21 years in general medical, VA, and LTAC hospitals ($p = .015$).

Only 3% ($n = 53$) of the SLPs reported having received a doctoral degree. Pediatric hospitals were the least likely facility where SLPs reported having earned a doctoral degree (0%), and SNFs were the most likely (5%; $p = .006$).

Of the SLPs in the survey who were employed, 62% worked full time and 38% worked part time. The type of facility where they worked made no significant difference in their employment status ($p = .05$).

As shown in Figure 1, most of the respondents worked in outpatient clinics or offices (29%) and in SNFs (24%). Keep in mind that because a disproportional random sample was drawn from each facility, this distribution does not reflect the distribution of SLPs within the Association.

**Figure 1. Primary Employment Facility**

The 49 individuals who reported working in an “other” type of facility have been included in the 2015 Health Care Reports only as part of the total, not as a separate category of facility, because of the ambiguous nature of this small group of individuals. Also included in the total are 22 respondents who were employed full or part time but did not answer the question about their type of facility.
Overall, 93% of respondents in all types of facilities were clinical service providers. At least 95% of SLPs in general medical, VA, and LTAC hospitals as well as in rehab hospitals and pediatric hospitals were clinical service providers (see Figure 2). The lowest number was in SNFs (88%; p = .005).

Figure 2. Clinical Service Providers

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medical/VA/LTAC</td>
<td>96%</td>
</tr>
<tr>
<td>Rehab</td>
<td>95%</td>
</tr>
<tr>
<td>Pediatric</td>
<td>96%</td>
</tr>
<tr>
<td>SNF</td>
<td>88%</td>
</tr>
<tr>
<td>Home Health</td>
<td>94%</td>
</tr>
<tr>
<td>Clinic/Office</td>
<td>93%</td>
</tr>
</tbody>
</table>

n = 1,614
Salary Basis

As a group, 58% of the SLPs received an hourly wage; 30%, an annual salary; and 13%, a per-visit payment.

Individuals in pediatric hospitals were the most likely group to be paid an annual wage. More than half of the SLPs in general medical/VA/LTAC hospitals, rehab hospitals, SNFs, and offices and clinics received an hourly wage. More than half of the SLPs in home health agencies and clients’ homes received a per-visit wage ($p = .000$; see Figure 3).

Figure 3. Salary Basis

<table>
<thead>
<tr>
<th>Geographic Region</th>
<th>Hourly</th>
<th>Annual</th>
<th>Per Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medical/VA/LTAC</td>
<td>60%</td>
<td>40%</td>
<td>0%</td>
</tr>
<tr>
<td>Rehab</td>
<td>60%</td>
<td>40%</td>
<td>0%</td>
</tr>
<tr>
<td>Pediatric</td>
<td>33%</td>
<td>66%</td>
<td>1%</td>
</tr>
<tr>
<td>SNF</td>
<td>82%</td>
<td>18%</td>
<td>0%</td>
</tr>
<tr>
<td>Home Health</td>
<td>54%</td>
<td>24%</td>
<td>22%</td>
</tr>
<tr>
<td>Clinic/Office</td>
<td>54%</td>
<td>41%</td>
<td>5%</td>
</tr>
</tbody>
</table>

$n = 1,703$

More than one third (38%) of the SLPs worked in the South. The rest were fairly evenly distributed with 20% working in the West, 21% working in the Northeast, and 22% working in the Midwest (not shown in any table). With the exception of rehab hospitals, more SLPs worked in the South than in any other geographic area ($p = .000$; see Figure 4). State-by-state listings for each of the geographic areas can be found on page 11.

![Geographic Region Map]
Most SLPs worked in either cities or suburbs, with a few in rural areas (see Figure 5). More than half of the SLPs in pediatric hospitals (69%) worked in cities and urban areas. Nearly half of the SLPs in outpatient clinics and offices (46%), home health agencies or client’s homes (47%) and rehab hospitals (48%) worked in suburban areas. The range in rural settings was from 3% of SLPs in pediatric hospitals to 28% in SNFs ($p = .000$; not shown in any table).
The representation of private practice owners and co-owners was higher than in the Association because they were oversampled for this survey. More than one third of the respondents said that they worked either full time (15%) or part time (26%) as private practice owners or co-owners. SLPs in clinics and offices and in home health agencies or client’s homes were the most likely groups to work part time as private practice owners or co-owners (p = .000; see Figure 6).

**Figure 6. Private Practice Ownership**

![Bar chart showing the distribution of private practice owners and co-owners across different settings.](chart)

It is valuable to know how closely respondents’ demographics correspond to those of the population of ASHA SLPs working in health care facilities in the United States—that is, the group from which they were drawn. Table 3 shows the comparison on three criteria.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>ASHA’s Population</th>
<th>Survey Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical service provider</td>
<td>86%</td>
<td>93%</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Region of the country:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>20%</td>
<td>21%</td>
</tr>
<tr>
<td>Midwest</td>
<td>22%</td>
<td>22%</td>
</tr>
<tr>
<td>South</td>
<td>42%</td>
<td>38%</td>
</tr>
<tr>
<td>West</td>
<td>16%</td>
<td>20%</td>
</tr>
</tbody>
</table>

n = 1,644
A glossary of terms used in the 2015 SLP Health Care Survey Reports is included below.

### Types of Facilities

<table>
<thead>
<tr>
<th>Facility</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>General medical</td>
<td>General medical hospital</td>
</tr>
<tr>
<td>Veterans Affairs (VA)</td>
<td>Veterans Affairs (VA) hospital</td>
</tr>
<tr>
<td>or long-term acute care (LTAC)</td>
<td>or long-term acute care hospital</td>
</tr>
<tr>
<td>Rehabilitation hospital</td>
<td>Rehabilitation hospital</td>
</tr>
<tr>
<td>Pediatric hospital</td>
<td>Pediatric hospital</td>
</tr>
<tr>
<td>Skilled nursing facility (SNF)</td>
<td>Skilled nursing facility (SNF)</td>
</tr>
<tr>
<td>Home health agency or client’s</td>
<td>Home health agency or client’s home</td>
</tr>
<tr>
<td>home</td>
<td></td>
</tr>
<tr>
<td>Outpatient clinic or office</td>
<td>Outpatient clinic or office</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
</tr>
</tbody>
</table>

Respondents self-identified the primary employment facility from the list above.

### Response Rate

The response rate was calculated using the following equation:

\[
RR = \frac{(C + P)}{S - (Ret + I)}
\]

where

- **RR** = Response rate
- **C** = Number of completed surveys
- **P** = Number of partial surveys
- **S** = Sample size
- **Ret** = Ineligible because of retirement
- **I** = Ineligible for other reasons (e.g., does not work in health care, no longer in the field, on leave of absence)

\[
RR = \frac{1,842}{4,000 - (5 + 68)} = 46.9\%
\]

### Measures of Central Tendency

- **Mean:** Add the total of all the values and divide by \( n \) (the number of items).

- **Median:** Arrange the values in order, from lowest to highest. Select the value in the middle position.

- **Mode:** The *mode* is the value that occurs more often than any other.

**Example:** Sample data set

\[
1, 1, 7, 34, 88
\]

Mean: \((1 + 1 + 7 + 34 + 88) / 5 = 26.2\)

Median: 7

Mode: 1

Medians are the most commonly presented statistic in the 2015 SLP Health Care Survey reports because they are more stable and less sensitive to extreme values than are means.
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
Results from the 2015 SLP Health Care Survey are presented in a series of reports at [www.asha.org](http://www.asha.org):

- Survey Summary
- Caseload Characteristics
- Workforce and Practice Issues
- Private Practice Owners and Co-owners
- Annual Salaries
- Hourly and Per Visit Wages
- Survey Methodology, Respondent Demographics, and Glossary


For additional information regarding the 2015 SLP Health Care Survey, please contact Gennith Johnson, associate director, Health Care Services, at 800-498-2071, ext. 5681, or [gjohnson@asha.org](mailto:gjohnson@asha.org); Monica Sampson, associate director, Health Care Services, at 800-498-2071, ext. 5686, or [msampson@asha.org](mailto:msampson@asha.org); or Janet Brown, director, Health Care Services, at 800-498-2071, ext. 5679, or [jbrown@asha.org](mailto:jbrown@asha.org). To learn more about resources for ASHA members working in health care, visit ASHA’s website at [www.asha.org/slp/healthcare](http://www.asha.org/slp/healthcare).

ASHA would like to thank the SLPs who completed the 2015 SLP Health Care Survey. Reports like this one are possible only because people like you participate.

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