



AMERICAN
SPEECH-LANGUAGE-
HEARING
ASSOCIATION

Academic Affairs Board

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Final Report

***Strategic Plan to Increase the Student Pipeline and Workforce for
PhD Researchers and Faculty Researchers***

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Contents	Page
Background and Overview of PhD Pipeline and Workforce Data	1
Strategic Plan (2015–2018)	13
Appendices A–C	19

I. Background and Overview of PhD Pipeline and Workforce Data

A. Background

In April 2013, ASHA’s Academic Affairs Board (AAB) met to develop a plan to increase the PhD student pipeline and workforce for researchers and faculty-researchers (ASHA 2012-2014 Strategic Plan, Strategic Objective 9–Improve the Science Base). Because there are multiple stakeholders with a vested interest in the success of this initiative, the plan was developed with input from the Council of Academic Programs in Communication Sciences and Disorders (CAPCSD) via the CAPCSD liaison to AAB as well as other ASHA entities identified in select proposed initiatives.

The intent behind this latest plan was to further efforts achieved through prior initiatives to address a PhD faculty shortage in communication sciences and disorders (CSD). Initiatives implemented in the past are outlined in the Report of the 2008 Joint Ad Hoc Committee on PhD Shortages in Communication Sciences and Disorders and the Report of the 2002 Joint Ad Hoc Committee on PhD Shortages in Communication Sciences and Disorders.

This 2013 report features a summary of currently known pipeline and workforce data, projected demand for PhD-level faculty-researchers and a proposed 2015–2018 plan for addressing current and future needs to recruit, retain, and develop a sufficient number of PhD-level faculty-researchers to better meet the teaching and scientific demands of the discipline.

B. Highlights of ASHA and Other Extant Data Sources on PhD Personnel in CSD

The following available data sources were reviewed to examine the supply and demand of PhD level personnel in the discipline.

1. American Speech-Language-Hearing Association. (2014). *Highlights and trends: Member and affiliate counts, year-end 2013*. Retrieved from www.asha.org.
2. American Speech-Language-Hearing Association. (2011). *2009–2010 academic year state-by-state data on graduate education in CSD*. Retrieved from www.asha.org.
3. Council of Academic Programs in Communication Sciences and Disorders and American Speech-Language-Hearing Association. (2013). *CSD education survey national aggregate data report: 2011–2012 academic year*. Retrieved from www.asha.org and www.capcsd.org.
4. Council of Academic Programs in Communication Sciences and Disorders and American Speech-Language-Hearing Association. (2012). *HES CSD education survey national aggregate data report: 2010–2011 academic year*. Available at www.asha.org and www.capcsd.org.

5. National Science Foundation. (2012). *Survey of earned doctorates (2000-2012): Research doctoral degrees trend data for speech-language pathology & audiology, health sciences, and all fields* (Table 15). Retrieved from www.nsf.gov/statistics/sed/2012/pdf/tab15.pdf.

Key points gleaned from a review of these data reports are highlighted below.

B.1. PhD Student Pipeline Data

The following PhD student pipeline data was derived from the CSD Education Survey National Aggregate Data Reports (2011–2012, 2010–2011, and 2009–2010). A trend analysis of the data is presented in Appendices B and C.

B.1.1 Applications and Admissions

Thirty-seven to thirty-eight percent of all applications to research doctoral degree programs in CSD are approved for admission. For academic year 2011–2012, a total of 538 research doctoral applications were received across all areas of study (audiology, speech-language pathology and speech and hearing science), 206 (38.3%) of which were approved for admission as reported by 91% (67/74) of institutions offering research doctoral degree programs. There were 640 applications received, 245 (38.3%) of which were approved for admission in 2010–2011 based on 94% (64/68) of institutions responding to the survey. In 2009–2010, a total of 726 applications were received, 270 (37.2%) of which were approved for admission, as reported by 92% (65/71) of institutions.

B.1.2. Enrollment

Student enrollment in research doctoral degree programs in CSD has remained steady in recent years. Roughly half of the institutions reported enrollment at capacity for admissions (26% for audiology, 50% for speech-language pathology, and 45% for speech and hearing science). Research doctoral degree first-year enrollment in 2011–2012 was 158, and total enrollment was 743 across all areas of study. In 2010–2011, first-year enrollment was 186, and total enrollment was 836. In 2009–2010, first-year enrollment was reported as 173. Total enrollment data was not collected in 2009–2010. Across all research doctoral programs, insufficient student funding and an insufficient number of qualified candidates applying were the two factors reported to have had the most impact on enrollment for the past 2 academic years (2010–2011 and 2011–2012).

Approximately half (48.8%) of audiology and one third of speech-language pathology and speech and hearing science research doctoral students enroll in a research doctoral program with 5 or fewer years of experience in the profession(s)/discipline as reported for the 2011–2012 academic year.

- Of first-year audiology research doctoral students, 29.3% enrolled while simultaneously enrolled in a clinical doctoral degree program (e.g., AuD/PhD), 22.0% enrolled immediately following receipt of a clinical doctoral degree, and 19.5% enrolled after practicing 5 or fewer years in the profession(s)/discipline.
- Of first-year speech-language pathology research doctoral students, 35.3% enrolled after practicing 5 or fewer years in the profession(s)/discipline, 25.9% after practicing 6 or more years, and 21.2% enrolled immediately following receipt of a master's degree.
- About a third (32.4%) of first-year speech and hearing sciences research doctoral students enrolled after practicing 5 or fewer years in the profession(s)/discipline, 19.4% upon receipt of their bachelor's degree, and 18.5% after practicing 6 or more years.

B.1.3. Graduation

A consistent number of PhD students are graduating in the field. With 91% of institutions that offer a research doctoral degree reporting, a total of 122 research doctoral degrees were granted in the 2011–2012 academic year—17 in audiology, 53 in speech-language pathology, and 52 in speech and hearing sciences. In the 2010–2011 academic year (94% of institutions reporting), a total of 113 research doctoral degrees were granted (14 in audiology, 48 in speech-language pathology, and 51 in speech and hearing sciences). For academic year 2009–2010 (94% of institutions reporting), a total of 120 research doctoral degrees were granted (19 in audiology, 33 in speech-language pathology, and 68 in speech and hearing sciences). The majority of all research doctoral students complete the degree within 4–6 years.

B.1.4. First Employment

In Table 1 below, an analysis of the HES CSD Education Survey First Employment Setting data for 2010–2011 shows that 35.7% of research doctoral degree graduates assumed a faculty/academic position in CSD in the first year after graduating, 5.4% assumed a faculty/academic position in another discipline, 14% assumed a clinical appointment (half in an academic setting), 4% assumed an administrative position (only .8% in an academic setting), 10% assumed a research position (6.2% in an academic setting), 20.9% took a post-doctoral position, and 3.1% postponed employment.

Table 1. Research doctoral degree graduates' first employment by employment setting (Source: 2011 HES CSD Education Survey)

Employment Setting	#	%
1. Faculty/academic position in CSD program	46	35.7
2. Faculty/academic position in other discipline	7	5.4
3. Clinical position in academic setting	9	7.0
4. Clinical position in non-academic setting	9	7.0
5. Administration position in academic setting	1	0.8
6. Administration position in non-academic setting	4	3.1
7. Research position in academic setting	8	6.2
8. Research position in non-academic setting	5	3.9
9. Postdoctoral position	27	20.9
10. Postponed employment	4	3.1
11. Unknown	9	7.0
Total	129	100.0

B.2. Faculty-Researcher Workforce Data

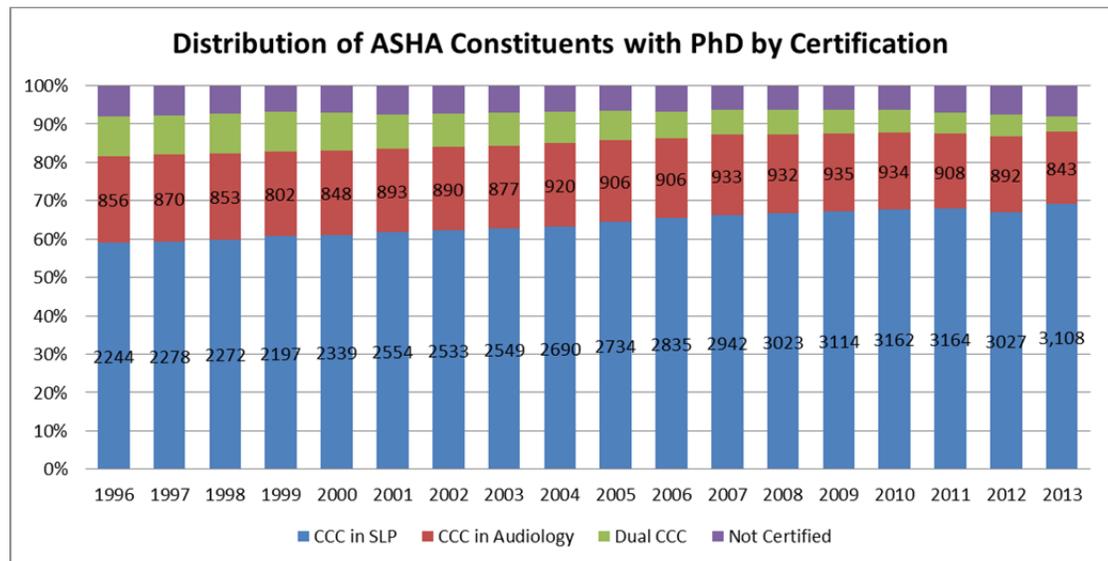
A total of 4,394 faculty were employed in the 2011–2012 academic year based on 84% of institutions responding to the CSD Education Survey. Of these, 1,843 were full-time academic faculty, 788 were part-time academic faculty, 921 were full-time clinical faculty, and 842 were part-time clinical faculty. More than half (58.0% or $n=1,013$) of faculty with research doctoral degrees held them in the area of speech-language pathology, 19.3% in audiology, 9.5% in speech/language science, 8.5% in another area, and 4.8% in hearing science.

The projected number of PhD level full-time faculty openings in our field for 2012–2017 is 408. The projected number of PhD-level research doctoral graduates who will be available for, and likely to seek, an academic faculty position as their first employment in the same timeframe is 279. Accordingly, it can be expected that nearly a third (31.6%) of faculty openings in CSD between 2012 and 2017 will remain unfilled.

There will continue to be fewer PhD holders than needed, but some positive trends are emerging. Although the percentage of ASHA-constituent PhD holders in colleges and universities age 61 and older has increased in the past 10 years, the percentage of PhD holders age 40 and younger has increased as well. Trend data on the age ranges of ASHA-constituent PhD holders in colleges and universities, included in the next section, provide insight into the projected future PhD faculty shortage in the professions.

B.2.1. All PhDs in Colleges and Universities

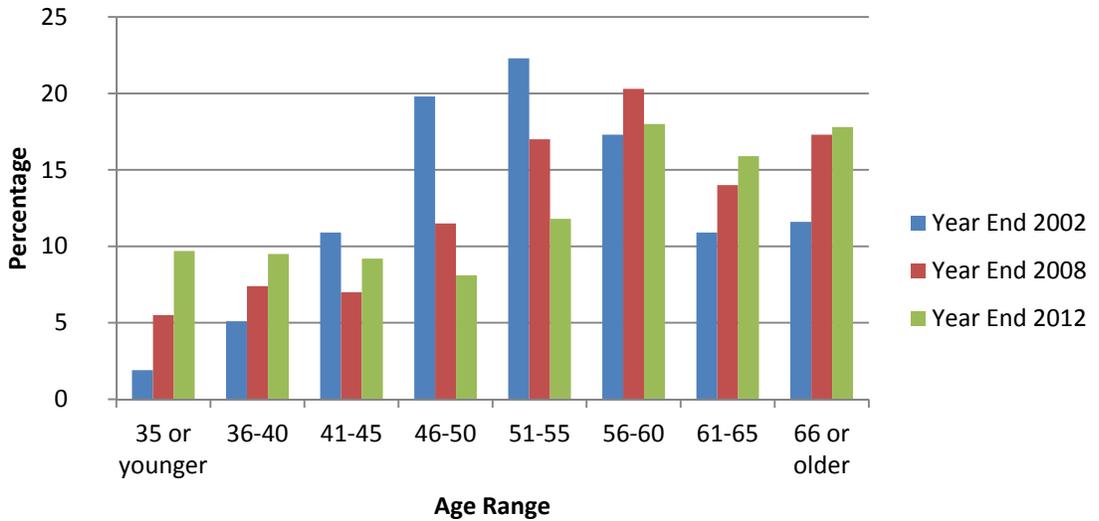
Analysis of ASHA constituents with PhDs by certification type was derived from the ASHA year-end counts 1996 through 2013. The trend indicates no significant changes to the distribution of PhD holders and certification status.



The following age range analyses of PhD holders was derived from the ASHA year-end counts for 2002, 2008, and 2012.

In 2012, about a third (34%) of ASHA-constituent PhD holders in colleges and universities were age 61 or older, up from 23% in 2002. The 56–60 age group rejuvenated at a rate of 9%. About a fifth (19%) were age 40 or younger, up from 7% in 2002. The 12% increase, between 2002 and 2012, in the number of PhD holders in colleges and universities who are 40 or younger should help to offset the 11% increase, between 2002 and 2012, in PhD holders in colleges and universities who are 61 or older.

Age Range of All ASHA-Member PhD-Holders in Colleges and Universities

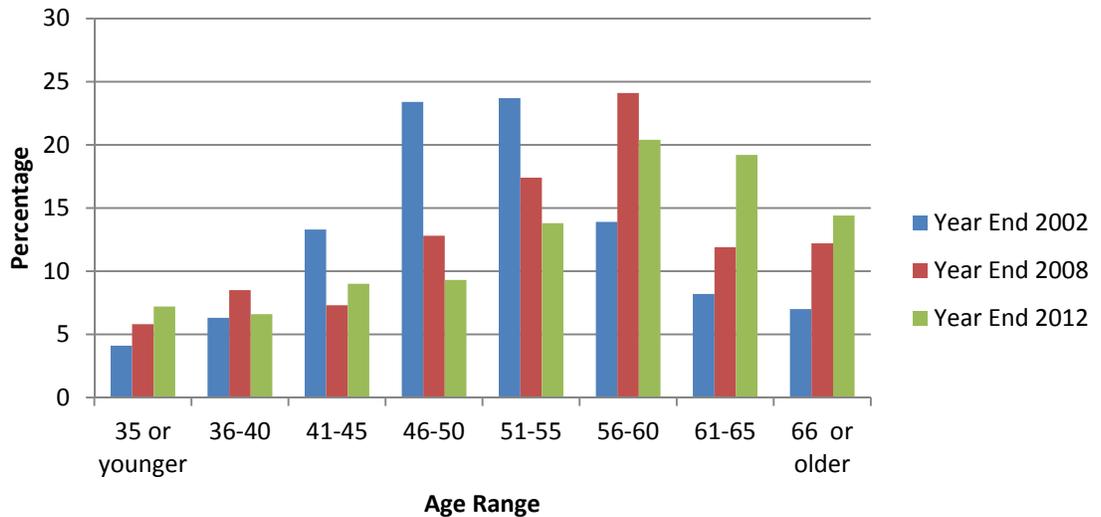


Note: Includes certified and non-certified constituents. Some age data are missing from all years. In 2002, there is no age data on 127 (7%) of the 1,771 known PhD-holders in colleges and universities; in 2008, age data are missing on 103 (5%) of the 1,890; in 2012, age data are missing on 81 (4%) of the 2,070. Previous analyses have shown that individuals for whom there is no age data tend to be in the younger age ranges; therefore, the data presented in the table may underestimate the number of PhD-holders in colleges and universities who are age 40 or younger.

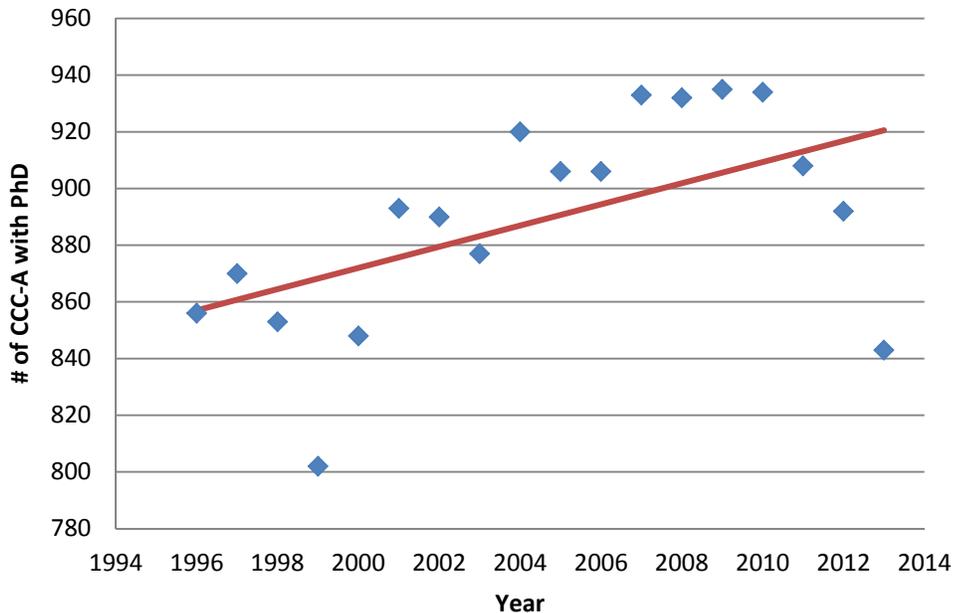
B.2.2. Audiology PhDs in colleges and universities

The challenges in audiology and hearing sciences are greater. In 2012, about a third (34%) of ASHA-constituent PhDs in colleges and universities who hold audiology certification (CCC-A) were age 61 or older, up from 15% in 2002 (a 19% increase). More than a tenth (14%) were age 40 or younger, up from 10% in 2002 (a 4% increase).

Age Range of ASHA-Member PhDs Certified in Audiology in Colleges and Universities



Regression Analysis Table—Number of CCC-As with PhDs from 1996 to 2013

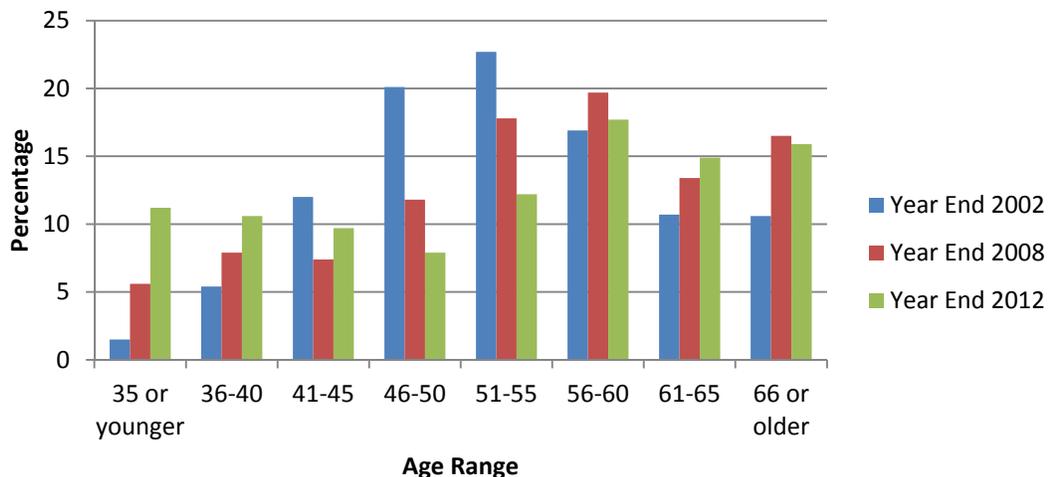


Linear regression analysis was carried out using IBM SPSS software on the number of ASHA-certified audiologists (individuals holding the CCC-A) with a PhD. The overall trend is clearly increasing, though the numbers in 2011, 2012 and 2013 are less than those of the preceding years

B.2.3. Speech-language pathology PhDs in colleges and universities

In 2012, nearly a third (31%) of ASHA-constituent PhDs in colleges and universities with speech-language pathology certification (CCC-SLP) were age 61 or older, up from 21% in 2002 (a 10% increase). Nearly a quarter (22%) were age 40 or younger, up from 7% in 2002 (a 15% increase).

Age Range of ASHA-Member PhDs Certified in Speech-Language Pathology in Colleges and Universities



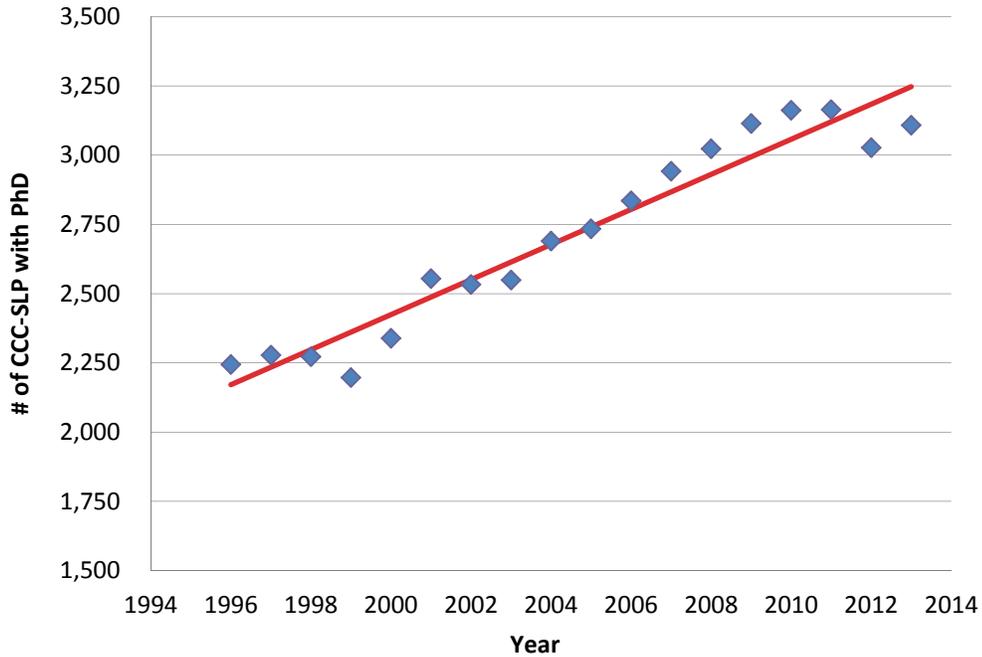
Infographic notes

- Excludes other doctorates (AuD, EdD, MD)
- Excludes non-U.S./U.S. territory constituents.
- Includes only those who indicated “college/university” as their primary employment facility on ASHA membership or dues renewal forms.
- The apparent increase in the number of constituents holding PhDs who are younger than 35 is a bit conflated as this category spans more than 5 years and thus has a wider catchment.
- A comparison of data from the 2011–2012 ASHA/CAPCSD CSD Education Survey report and the 2012 ASHA year-end counts indicates that the majority of PhD holders in colleges and universities are included in the ASHA membership data.

Infographic sources

2002, 2008, and 2012 ASHA year-end counts; specialized analyses conducted by ASHA's Surveys and Analysis Unit, 2013.

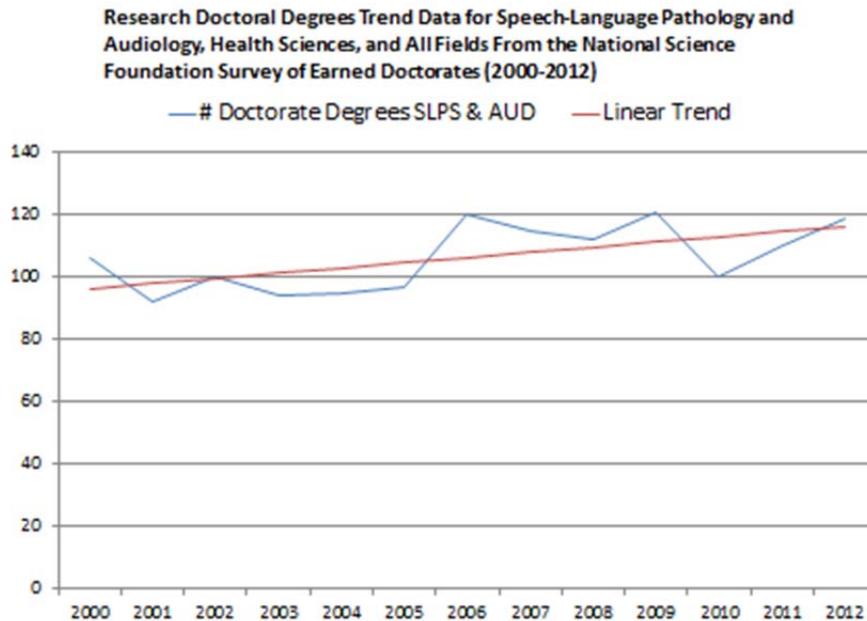
Regression Analysis Table—Number of CCC-SLPs with PhDs from 1996 to 2013



Linear regression analysis was carried out using IBM SPSS software on the number of ASHA certified speech-language pathologists (CCC-SLP) with a PhD degree. The overall trend is clearly increasing, though the numbers in 2012 and 2013 are less than those of the preceding years.

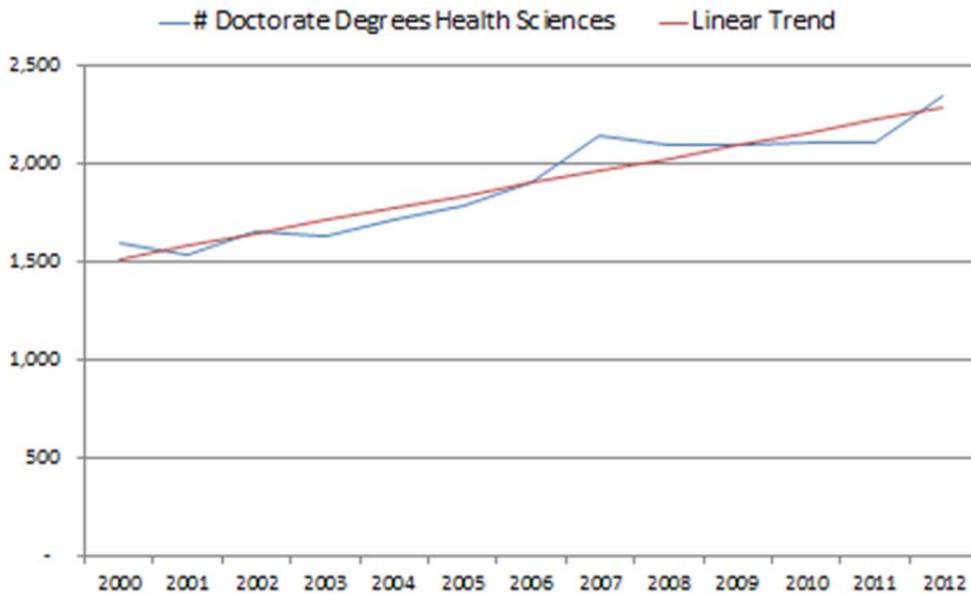
B.2.4. Research Doctoral Degrees Trend Data for Speech-Language Pathology and Audiology, Health Sciences, and All Fields From the National Science Foundation Survey of Earned Doctorates (2000–2012)

According to the National Science Foundation Survey of Earned Doctorates (2000–2012), the number of PhD graduates in Speech-Language Pathology (SLP) and Audiology (AUD) trends similarly to that of Health Sciences and across All Fields. There was a sharp increase in 2006 for SLP and AUD, while the increase in the number of PhD recipients in Health Sciences and All Fields was more gradual from 2002 to 2007. The drop in numbers in 2010 for SLP and AUD appears greater than the aggregates of all Health Sciences and All Fields for the same year. However, a drop in the number of doctoral degrees across all fields was reported in 2010. See this article: www.nsf.gov/statistics/infbrief/nsf12303/. There was a slight uptick in the number of doctoral degrees awarded in 2012 in SLP and AUD, in Health Sciences, and across All Fields.



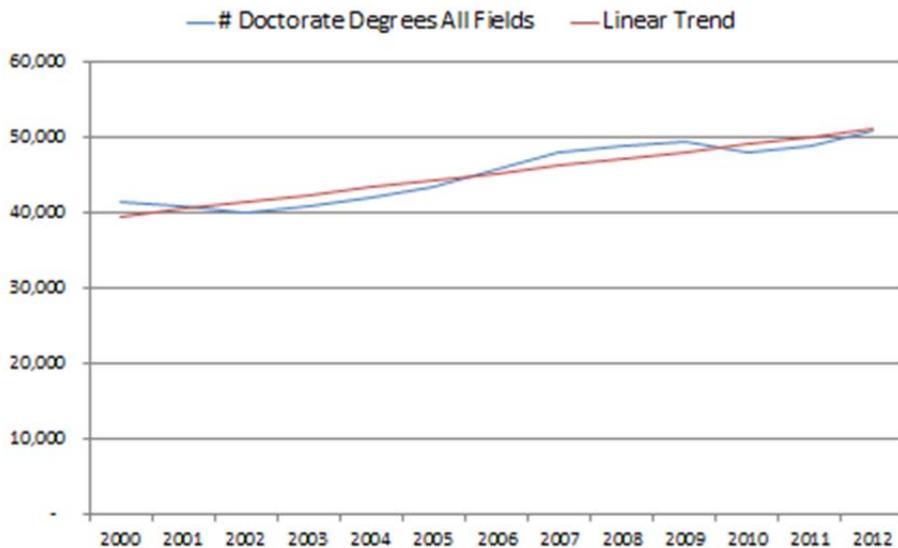
Source: <http://www.nsf.gov/statistics/sed/2012/pdf/tab13.pdf>, Table 13

Research Doctoral Degrees Trend Data for Speech-Language Pathology and Audiology, Health Sciences, and All Fields From the National Science Foundation Survey of Earned Doctorates (2000-2012)



Source: <http://www.nsf.gov/statistics/sed/2012/pdf/tab13.pdf>, Table 13

Research Doctoral Degrees Trend Data for Speech-Language Pathology and Audiology, Health Sciences, and All Fields From the National Science Foundation Survey of Earned Doctorates (2000-2012)



Source: <http://www.nsf.gov/statistics/sed/2012/pdf/tab13.pdf>, Table 13

C. Critical Issues Associated With Sustaining a Sufficient PhD Personnel Pipeline

The following critical issues associated with addressing the PhD pipeline were identified by the AAB following a review of critical issues and outcomes addressed during prior PhD strategic plans (2002, 2008), a review of available PhD student and faculty data, and discussion of factors thought to impact the student and faculty pipeline.

1. While we are graduating a consistent, if not increasing, number of PhD holders, the number of retiring faculty exceeds the number entering the field. Therefore, there continues to be a strong need to (a) increase awareness of the shortfall for PhD holders and (b) continue efforts to recruit and retain a sufficient number of PhD students and faculty.
2. Job opportunities, money, and location impact decisions to pursue a PhD and to pursue a faculty-researcher career. Therefore, a faculty-researcher career should be promoted as a rewarding choice that helps people, allows one to pursue a passion for research, and affords job satisfaction, flexibility, and work-life balance.
3. Advancing the knowledge base of the discipline in the context of a limited, if not declining, pool of scientists is a serious concern. Further, scientists in all disciplines are challenged to support their research in the current funding climate; arguably, this situation has potentially perilous effects on smaller disciplines, such as CSD. Therefore, advocacy for research funding, greater CSD representation on grant review panels, and guidance about how to survive in a weak research-funding climate are all essential to support the success of CSD researchers.
4. The undergraduate curriculum in CSD may not optimally prepare students for contemporary clinical practice or scientific careers in our field. Therefore, stronger training in the sciences may be needed to better prepare students for both PhD education and clinical practice.
5. How we communicate about our field impacts awareness of our discipline, recruitment to our field, and the value placed on our contributions in academic, research, and clinical arenas. Yet, awareness about CSD, the value of our research, and the impact we have on the conditions we treat is not high. Therefore, there is a need to enhance communication about who we are as a discipline, including the value of our research and the impact of our clinical services.

In response to these critical issues, the AAB outlined a series of proposed initiatives encompassing the following themes.

- I. Communication
 - a. About the discipline
 - b. About PhD personnel supply and demand
- II. Curricular Models
 - a. Undergraduate curriculum
 - b. PhD curriculum
- III. Recruitment
- IV. Funding Advocacy
 - a. PhD student funding
 - b. Research funding

Report of the 2013 Academic Affairs Board (AAB) Strategic Plan to Increase the Student Pipeline and Workforce for PhD Researchers and Faculty-Researchers

II. Strategic Plan (2015–2018)

ASHA Strategic Objective Supported: Improve the Science Base

Academic Affairs Board (AAB) Strategic Objective: Increase the Student Pipeline and Workforce for PhD Researchers and Faculty-Researchers

Strategic Objective Commentary: This objective includes collaborating with the Council of Academic Programs in Communication Sciences and Disorders (CAPCSD), CSD academic programs and faculty to (a) address the PhD shortage to increase the student pipeline and workforce for PhD researchers and faculty-researchers, and (b) facilitate an increase in the quantity and quality of the discipline's science base, especially with respect to research that advances clinical practice and improves patient/client outcomes.

Strategic Objective Outcome: An increased number of PhD graduates with earned research doctorates are available to fill faculty positions in CSD programs.

Performance Measures (PM) and Targets (T):

1. PM: # of earned research doctorates granted annually.
T: 140 (baseline=122 in 2011-2012 AY*)
2. PM: % capacity filled with new PhD students enrolled in CSD programs annually.
T: 60% overall (baseline=50% overall in 2011–2012 AY*)
T: 40% for audiology (baseline=26% in 2011–2012 AY*)
T: 70% for speech-language pathology (baseline=50% in 2011–2012 AY*)
T: 70% for speech and hearing sciences (baseline=45% in 2011–2012 AY*)
3. PM: % of all PhD graduates in CSD who take research and academic appointments (includes faculty-researchers and postdoctoral scholar appointments combined)
T: 70 % (baseline = 56.6% in 2011-2012)
 - a. PM: % of PhD graduates in CSD who take positions as faculty-researchers in CSD academic programs in the US.
T: 40% (baseline=35.7% in 2011–2012 AY*)
 - b. PM: % of PhD graduates in CSD who take postdoctoral scholar appointments.
T: 30% (baseline=20.9% in 2011–2012 AY*)

[* Baseline data obtained from the 2012 HES CSD Education Survey]

Strategies

I. Communication

A. About the Discipline

1. In 2015–2018, ASHA’s Science Advisory Board (SAB) and CAPCSD will work to promote and enhance the visibility of science in the discipline:
 - a. Raise awareness about CSD among other disciplines (e.g., psychologists, linguists, neuroscientists)
 - b. Promote the need and opportunities for interdisciplinary collaboration among related disciplines to advance basic and clinical practice research in CSD
2. By December 31, 2015, ASHA’s SAB in consultation with the ASHA Chief Staff Officer (CSO) for Communications and Director of Public Relations will have explored ways to raise the profile of scientific accomplishments and contributions from the CSD discipline with appropriate audiences.

B. About PhD Personnel Supply and Demand

1. In 2015–2018, ASHA’s Academic Affairs and Research Education (AARE) unit and CAPCSD will encourage academic programs to complete the CSD Education Survey annually to maintain an authoritative source for data about CSD education (undergraduate through PhD).
2. In 2015–2018, ASHA’s AAB and CAPCSD will review annually CSD Education Survey data, ASHA year-end counts, and other extant data sources for trends related to the supply and demand of PhD-level personnel and disseminate information about the trends.
3. In 2015–2018, ASHA and CAPCSD will offer sessions at their respective conferences designed to engage department chairs in discussions about innovative faculty workforce solutions (e.g., faculty workload management, using clinical faculty tracks, examining models from other disciplines).

II. Curricular Models

A. Undergraduate Curriculum

1. By December 31, 2015, ASHA’s AAB and CAPCSD will explore the need to develop guidance for undergraduate curricula.
2. By December 31, 2016, ASHA’s AAB and CAPCSD will identify what scientific underpinnings are needed and appropriate at the undergraduate level to support contemporary clinical practice and to foster research careers in the discipline.

3. In 2015–2018, ASHA and CAPCSD will identify and showcase innovative models of undergraduate education that can be used to enhance undergraduate science and research education.
4. In 2015–2018, ASHA and CAPCSD will facilitate sharing ideas to advance undergraduate CSD science courses (e.g., physiology, speech science, hearing science, language science) among academic programs and faculty.

B. PhD Curriculum

1. By December 31, 2016, CAPCSD will evolve the 2009 CAPCSD survey of PhD students into a longitudinal survey of PhD students and graduates to identify strengths and needs associated with PhD education in CSD.
2. By December 31, 2017, ASHA's AAB and CAPCSD will identify and showcase an array of PhD educational models that prepare future scientists in CSD.

III. Recruitment and Retention

1. In 2015–2018 CAPCSD will sponsor an annual discussion forum for PhD coordinators to discuss best practices in recruitment and retention.
2. In 2015–2018, CAPCSD will develop a faculty toolkit for PhD recruitment and retention.
3. In 2015–2018, ASHA's AARE unit will coordinate use of ASHA's social media avenues (i.e. ASHA Sphere, Facebook, Twitter, and Pinterest) to communicate compelling messages about faculty-researcher careers.
4. In 2015–2018, ASHA, CAPCSD and academic programs will collaborate to disseminate materials/resources related to the PhD pipeline and the opportunities in the CSD discipline to facilitate the recruitment of high quality master's degree and AuD students to enter PhD programs.
5. In 2015–2018, ASHA's AARE unit will continue to enhance successful ASHA award, mentoring and research education programs in support of recruitment of students seeking careers as faculty-researchers and the success and retention of current and emerging PhD faculty-researchers.
6. In 2015–2018, ASHA's AARE unit and ASHA's science and research committees and boards will make available to other disciplines resources about the PhD pipeline, the need for faculty-researchers and research opportunities in CSD.
7. By December 31, 2016, ASHA's AARE unit will re-tool, or augment with another presentation, the current flash web clip presentation "Get a Ph.D. in Communication Sciences and Disorders" to make more explicit the wide variety of research being done in CSD and its impact.

8. By December 31, 2017, ASHA's AARE unit will refresh, augment, or develop, among others, the following ASHA resources:
 - a. The web-based Academic-Research Career Profiles by transitioning them from text to video clips
 - b. The "Reward Yourself With a Career as a College Professor in CSD" brochure to feature additional positives—flexibility, family-life balance
 - c. A "Reward Yourself With a Career as a Scientist in CSD" brochure on CSD science/research careers, featuring a broad range of research opportunities in the discipline to appeal to a wide audience of potential researchers from CSD and other disciplines
9. In 2015–2018, ASHA's CSO for Science and Research will facilitate the discipline's having a presence at scientific meetings to showcase research in CSD for the purpose of enhancing recruitment of PhD faculty-researchers.
10. In 2015–2018, ASHA's AARE and its Membership unit will provide materials related to recruiting students to become faculty-researchers in CSD to organizations for high school guidance counselors and science and health professions advisors and their members, such as the American School Counselor Association (ASCA), Health Occupations Student Association (HOSA), National Association of Advisors for the Health Professions (NAAHP), Sigma Xi, and the National Consortium for Health Science Education (NCHSE).
11. In 2015–2018, ASHA and CAPCSD will consider developing a faculty champion program that would highlight the benefits of working in academe.

IV. Funding Advocacy

A. PhD Student Funding

1. In 2015–2018, ASHA's AARE unit will encourage the academic and research member community to complete ASHA's annual Public Policy Survey with suggestions to inform ASHA's Public Policy Agenda (PPA) and advocacy efforts related to increasing the number of PhDs and enhancing PhD student funding (e.g., student loans, loan forgiveness and other higher education student financial incentives).
2. During 2015–2018, ASHA's Government Relations and Public Policy (GRPP) unit will continue advocacy activities as part of ASHA's PPA in support of funding for PhD students.
3. During 2015–2018, ASHA's GRPP unit will advocate through coalitions and monitor federal incentives pertaining to Pell grants, Stafford loans and support for federal and state efforts to adopt loan forgiveness provisions for audiologists and speech-language pathologists. This may include financial restructuring of tuition (e.g., amortization, repayment plans, refinancing). In addition, ASHA's GRPP unit will pursue opportunities to advocate for the reauthorization of the Higher Education Act to support students pursuing advanced degrees in audiology and speech-language pathology.

B. Research Funding

1. In 2015–2018, ASHA’s CSO for Science and Research will continue ASHA’s research education and mentoring programs that prepare emerging researchers for grant writing and grant review opportunities.
2. In 2015–2018, ASHA’s CSO for Science and Research will facilitate advocacy efforts to funding agencies for research funding in CSD.
3. In 2015–2018, ASHA’s GRPP unit will work during annual congressional appropriations to advocate as part of ASHA’s PPA in support of funding for CSD research.
4. In 2015–2018, in collaboration with ASHA, the American Speech-Language-Hearing Foundation will explore, as part of its Future Planning process, the feasibility of creating a source of funds to provide research funding for highly scored proposals (to federal funding agencies) that did not get paid with the intention of improving the chances of getting funded upon reapplication.

NOTE: The objective of this “Bridging Grant program” is to provide interim support during a funding hiatus that will be used to improve previously submitted proposals. These competitive awards provide interim support to those who have submitted grants to national organizations that were approved on the basis of scientific merit, but did not receive priority scores within the funding range. This interim funding is intended to assist investigators in obtaining data needed to enhance the success of a revised application.

Appendix A
Communication Sciences and Disorders (CSD) Education Survey Entry Level Degrees Trend Report
2008–2009 to 2011–2012

Audiology Clinical Doctorate: Entry-Level # and [% programs responding]	Applications	Admissions	First Year Enrollments	Total Enrollment	Degrees Granted
2011–2012	4,404 [92%]	1,791 [92%]	678 [92%]	2,279 [92%]	494 [92%]
2010–2011	3,755 [95%]	1,633 [95%]	675 [95%]	2,386 [95%]	554 [95%]
2009–2010	3,249 [95%]	1,468 [95%]	787 [95%]	Not available	548 [95%]
2008–2009	2,703 [83%]	1,264 [83%]	584 [83%]	Not available	415 [83%]

Audiology Clinical Doctorate: Entry-Level # and [% programs responding]	First Employment					
	Healthcare	School (K-12)	College/ University	Unknown	Other	Not Employed
2011–2012	357 [92%]	12 [92%]	16 [92%]	27 [92%]	20 [92%]	12 [92%]
2010–2011	345 [95%]	17 [95%]	8 [95%]	65 [95%]	21 [95%]	9 [95%]
2009–2010	284 [95%]	8 [95%]	22 [95%]	71 [95%]	141 [95%]*	9 [95%]
2008–2009	Data presented in report not disaggregated by degree type. Requires special analysis.					

*“Other” specified as “Other CSD Setting” on survey.

SLP Master's # and [% programs responding]	Applications	Admissions	First Year Enrollments	Total Enrollment	Degrees Granted
2011-2012	52,339 [89%]	12,844 [89%]	6,818 [89%]	14,038 [89%]	6,340 [89%]
2010-2011	45,790 [89%]	11,866 [89%]	6,847 [89%]	13,507 [89%]	6,241 [89%]
2009-2010	37,067 [[89%]	11,789 [89%]	7,791 [89%]	Not available	6,009 [89%]
2008-2009	29,634 [78%]	10,170 [78%]	6,003 [78%]	Not available	5,080 [78%]

SLP Master's # and [% programs responding]	First Employment					
	Healthcare	School (K-12)	College/ University	Unknown	Other	Not Employed
2011-2012	2,053 [89%]	2,272 [89%]	15 [89%]	1,001 [89%]	217 [89%]	100 [89%]
2010-2011	2,006 [89%]	2,443 [89%]	23 [89%]	988 [89%]	258 [89%]	101 [89%]
2009-2010	1,681 [89%]	2,364 [89%]	14 [89%]	1,164 [89%]	485 [89%]*	61 [89%]
2008-2009	Data presented in report not disaggregated by degree type. Requires special analysis.					

*2009-2010—"Other" specified as "Other CSD Setting" on survey.

SLP Clinical Doctorate: Post-Entry-Level # and [% programs responding]	Applications	Admissions	First Year Enrollments	Total Enrollment	Degrees Granted
2011–2012	14 [67%]	12 [67%]	8 [67%]	56 [67%]	9 [67%]
2010–2011	21 [100%]	22 [100%]	17 [100%]	23 [100%]	7 [100%]
2009–2010	19 [100%]	15 [100%]	11 [100%]	Not available	14 [100%]
2008–2009	6 [100%]	4 [100%]	8 [100%]	Not available	0 [100%]

SLP Clinical Doctorate: Post-Entry-Level	First Employment					
	Healthcare	School (K-12)	College/ University	Unknown	Other	Not Employed
2011–2012	1 [67%]	2 [67%]	2 [67%]	3 [67%]	1 [67%]	0 [67%]
2010–2011	2 [100%]	0 [100%]	0 [100%]	0 [100%]	0 [100%]	0 [100%]
2009–2010	4 [100%]	6 [100%]	1 [100%]	0 [100%]	3 [100%]*	0 [100%]
2008–2009	Data presented in report not disaggregated by degree type. Requires special analysis.					

*2009–2010—“Other” specified as “Other CSD Setting” on survey.

Appendix B
Communication Sciences and Disorders (CSD) Education Survey Research Doctoral (PhD) Trend Report
2008–2009 to 2011–2012

All Research Doctorates # and [% institutions responding]	Applications	Admissions	First Year Enrollments	Total Enrollment	Degrees Granted
2011–2012	538 [91%]	206 [91%]	158 [91%]	743 [91%]	122 [91%]
2010–2011	640 [94%]	245[94%]	186 [94%]	836 [94%]	113 [94%]
2009–2010	726[92%]	270 [92%]	175 [92%]	Not available	120 [92%]
2008–2009	386 [77%]	180 [77%]	155 [77%]	Not available	93 [77%]

All Research Doctorates # and [% institutions responding]	First Employment						
	Faculty Positions in CSD Programs*	Clinical Positions Outside of Academe	Research Positions Outside of Academe	Administrative Positions Outside of Academe	Post- Doctoral Positions	Postponed Employment	Unknown
2011–2012	Not available	Not available	Not available	Not available	Not available	Not available	Not available
2010–2011	64 [94%]	9 [94%]	5 [94%]	4 [94%]	27 [94%]	4 [94%]	9 [94%]
2009–2010	Not available	Not available	Not available	Not available	Not available	Not available	Not available
2008–2009	Not available	Not available	Not available	Not available	Not available	Not available	Not available

*Includes academic, clinical, research, and administrative positions. Excludes $n=7$ who held faculty position in other discipline.

Audiology Research Doctorate # and [% programs responding]	Applications	Admissions	First Year Enrollments	Total Enrollment	Degrees Granted
2011–2012*	52 [97%]	21 [97%]	35 [97%]	101 [97%]	17 [97%]
2010–2011	129 [100%]	47 [100%]	22 [100%]	99 [100%]	14 [100%]
2009–2010	98 [88%]	51 [88%]	23 [88%]	Not available	19 [88%]
2008–2009	32 [66%]	18 [66%]	21 [66%]	Not available	9 [62%]

Audiology Research Doctorate # and [% programs responding]	First Employment						
	Faculty Positions in CSD Programs*	Clinical Positions Outside of Academe	Research Positions Outside of Academe	Administrative Positions Outside of Academe	Post- Doctoral Positions	Postponed Employment	Unknown
2011–2012	Not available	Not available	Not available	Not available	Not available	Not available	Not available
2010–2011	11 [65%]	5 [65%]	1 [65%]	0 [65%]	5 [65%]	0 [65%]	0 [65%]
2009–2010	Not available	Not available	Not available	Not available	Not available	Not available	Not available
2008–2009	Not available	Not available	Not available	Not available	Not available	Not available	Not available

*Note that not all programs provided data on the number of admissions and/or newly enrolled PhD students. Therefore, the number of newly enrolled students exceeds the number of reported PhD admissions. Data have not been extrapolated to account for the difference."

SLP Research Doctorate # and [% programs responding]	Applications	Admissions	First Year Enrollments	Total Enrollment	Degrees Granted
2011–2012	238 [90%]	100 [90%]	66 [90%]	320 [90%]	53 [90%]
2010–2011	230 [94%]	107 [94%]	103 [94%]	391 [94%]	48 [94%]
2009–2010	364 [85%]	98 [85%]	64 [90%]	Not available	33 [90%]
2008–2009	127 [60%]	70 [60%]	43 [60%]	Not available	38 [57%]

SLP Research Doctorate # and [% programs responding]	First Employment						
	Faculty Positions in CSD Programs*	Clinical Positions Outside of Academe	Research Positions Outside of Academe	Administrative Positions Outside of Academe	Post- Doctoral Positions	Postponed Employment	Unknown
2011–2012	Not available	Not available	Not available	Not available	Not available	Not available	Not available
2010–2011	24 [60%]	4 [60%]	2 [60%]	2 [60%]	11 [60%]	3 [60%]	8 [60%]
2009–2010	Not available	Not available	Not available	Not available	Not available	Not available	Not available
2008–2009	Not available	Not available	Not available	Not available	Not available	Not available	Not available

*Includes academic, clinical, research, and administrative positions.

Speech and Hearing Sciences Research Doctorate # and [% programs responding]	Applications	Admissions	First Year Enrollments	Total Enrollment	Degrees Granted
2011–2012	248 [92%]	85 [92%]	57 [92%]	322 [92%]	52 [92%]
2010–2011	281 [97%]	91 [97%]	61 [97%]	346 [97%]	51 [97%]
2009–2010	264 [90%]	121 [90%]	88 [90%]	Not available	68 [90%]
2008–2009	227 [69%]	92 [69%]	91 [69%]	Not available	46 [69%]

Speech and Hearing Sciences Research Doctorate # and [% programs responding]	First Employment						
	Faculty Positions in CSD Programs*	Clinical Positions Outside of Academe	Research Positions Outside of Academe	Administrative Positions Outside of Academe	Post-Doctoral Positions	Postponed Employment	Unknown
2011–2012	Not available	Not available	Not available	Not available	Not available	Not available	Not available
2010–2011	29 [68%]	0 [68%]	2 [68%]	2 [68%]	11 [68%]	1 [68%]	1 [68%]
2009–2010	Not available	Not available	Not available	Not available	Not available	Not available	Not available
2008–2009	Not available	Not available	Not available	Not available	Not available	Not available	Not available

*Includes academic, clinical, research, and administrative positions. Excludes $n=7$ who held faculty position in other discipline.

Appendix C
Extrapolated Trend Analysis by Area of Study and Degree Type
2008–2009 to 2011–2012

Clinical Degrees

	% programs responding	Applications	First-Year Enrollments	Total Enrollment	Degrees Granted
Audiology Clinical Doctorate: Entry-Level					
2011-2012	92%	4787	737	2477	537
2010-2011	95%	3953	711	2512	583
2010-2009	95%	3420	828	n/a	577
2008-2009	83%	3257	704	n/a	500
SLP Master's					
2011-2012	89%	58808	7661	15773	7124
2010-2011	89%	51449	7693	15176	7012
2010-2009	89%	41648	8754	n/a	6752
2008-2009*		37994	7696	n/a	6430
SLP Clinical Doctorate: Post-Entry-Level					
2011-2012	67%	21	12	84	13
2010-2011	100%	21	17	23	7
2010-2009	100%	19	11	n/a	14
2008-2009	100%	6	8	n/a	0

78%/79% response rate for degrees granted*

Research Doctoral Combined Areas of Study				
	Applications	First-Year Enrollments	Total Enrollment	Degrees Granted
2011-2012	594	175	821	135
2010-2011	680	198	888	120
2010-2009	793	191	n/a	131
2008-2009	500	201	n/a	121

	% programs responding	Applications	First-Year Enrollments	Total Enrollment	Degrees Granted
Audiology Research Doctorate					
2011-2012	97%	54	36	104	18
2010-2011	100%	129	22	99	14
2010-2009	88%	111	26	n/a	22
2008-2009**		48	32	n/a	15
SLP Research Doctorate					
2011-2012	90%	264	73	356	59
2010-2011	94%	245	110	416	51
2010-2009***		428	71	n/a	37
2008-2009****		212	72	n/a	67
S&H Research Doctorate					
2011-2012	92%	270	62	350	57
2010-2011	97%	290	63	357	53
2010-2009	90%	293	98	n/a	76
2008-2009	69%	329	132	n/a	67

66%/62% response rate degrees granted**

85%/90% response rate first-year enrollments & degrees granted***

60%/57% response rate degrees granted****