

**Report of the 2013–2018 Academic Affairs Board (AAB)
Strategic Plan to Increase the Student Pipeline and Workforce for
PhD Researchers and Faculty-Researchers**

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Executive Summary

In 2013, ASHA’s Academic Affairs Board (see Appendix A) established a strategic plan for implementation by December 31, 2018, to increase the student pipeline and workforce for PhD researchers and faculty-researchers. The Academic Affairs Board developed the plan as part of ASHA’s Strategic Pathway—the version that was in place from 2012 to 2014 and that aligned with what was then *Strategic Objective (SO9): Enhance the Science Base*. This plan was the third in a series of strategic plans implemented by ASHA and the Council of Academic Programs in Communication Sciences and Disorders (CAPCSD). These plans were implemented to address the PhD shortage and to sustain a sufficient PhD workforce that will meet the need for faculty-researchers in communication sciences and disorders (CSD) academic programs and researchers to advance the science of the discipline. Reports from the two prior multiyear strategic plans are listed and linked to below.

- [PhD Shortages in Communication Sciences and Disorders](#) [PDF]
Report of the Joint Ad Hoc Committee on PhD Shortages in Communication Sciences and Disorders (CAPCSD and ASHA), December 2008
- [Crisis in the Discipline: A Plan for Reshaping Our Future](#) [PDF]
Report of the Joint Ad Hoc Committee on the Shortage of PhD Students and Faculty in Communication Sciences and Disorders (CAPCSD and ASHA), December 2002

Efforts in the current plan focused on the following four identified areas of need:

- Communication to a broad public and scientific audience about (a) the CSD discipline and (b) the supply and demand for more PhDs to increase the number of PhDs in CSD.
- Curricular enhancement of the science base in CSD undergraduate education and the sharing of innovative models and best practices for CSD PhD education to enhance the quality of prepared new PhDs in CSD.
- Recruitment and retention of PhD students as well as early- and mid-career faculty-researchers.
- Advocacy for the funding of PhD education and research in CSD.

During the past 5 years, ASHA and CAPCSD have implemented a multitude of initiatives, programs, events, communications, and other activities as part of the most recent strategic plan.¹ Initiatives addressed the identified needs and built upon successful programming that ASHA and CAPCSD had initiated under the predecessor strategic plans.² Performance measures (PMs) were established based on 2012 baseline data, and targets (Ts) for progress were set.³

By 2018, three of the five performance measures exceeded the target level:

- The number of earned research doctorates granted annually
- The percentage of all PhD graduates in CSD who take research and academic appointments
- The percentage of PhD graduates in CSD who take positions as faculty-researchers in CSD academic programs in the United States

The following two performance measures did not change compared with baseline measures:

- The percent capacity filled with new PhD students enrolled in CSD programs annually. However, the lack of change is mostly because research doctoral programs reported an increase in capacity for PhD students in 2015–2016 and 2016–2017, which resulted in a greater decrease in percent filled capacity despite robust first year enrollment.
- The percentage of PhD graduates in CSD who take postdoctoral scholar appointments. On average, 92.9% of available postdoctoral appointments in CSD were filled annually. The lack of any increase in the number of postdoctoral scholar appointments is mostly a function of a lack of growth in the availability of postdoctoral opportunities in CSD.

Two initiatives begun under this plan will continue to be addressed as part of *ASHA's Strategic Pathway to Excellence (2015–2025)*—in particular, through *Strategic Objective 3: Enhance the Generation, Publication, Knowledge Translation, and Implementation of Clinical Research*. This includes conducting a CSD Science Teaching Symposium on May 21–22, 2020, as well as the development of multimedia resources to showcase research in the discipline and to promote faculty-researcher careers.

Ensuring a sufficient PhD student and faculty-researcher pipeline and workforce is imperative to the sustainability of all aspects of the CSD discipline—including teaching, research, and clinical practice. Even though the work of this multiyear plan concluded in 2018, the ongoing needs are well known, and efforts will continue to raise awareness about the CSD discipline, to evolve curricula, to recruit and retain PhD students and faculty-researchers, and to advocate for PhD education and funding of CSD science. ASHA will continue its operational outreach to the public and scientific communities; its successful award, mentoring, and research education programs and events; and its work in advocating for excellence in CSD education and research. Likewise, CAPCSD will continue to implement existing and new programming through its strategic priorities for providing resources to assist programs in (1) PhD student recruitment and support and (2) faculty support. The combined efforts of ASHA and CAPCSD—in conjunction with CSD academic programs, faculty, and students—are likely to further this positive trend on the health of the PhD pipeline and workforce.

¹ For details, see p. 5 of this report.

² For details of the initiatives undertaken in 2013–2018, see p. 8 of this report.

³ For a detailed summary of the data collected from 2012 to 2018, see pages 5–8 of this report.

Impact of Overall Efforts to Address the PhD Shortage Between 2002 and 2018

In 2002, ASHA and CAPCSD identified the PhD shortage in CSD as a crisis in the discipline. In 2004, ASHA established a Focused Initiative to address the shortage. It is important to examine the long-term impact of the successive strategic plans implemented by ASHA and CAPCSD between 2002 and 2018. Have we made progress since we first identified this critical issue in 2002? The answer is, “Yes!” The following summary observations are based on several data sources that inform PhD education in the CSD discipline.

Survey of Earned Doctorates (SED) (1995–2017)

- Between 1995 and 2005, the number of PhD graduates in CSD (audiology and speech-language pathology) averaged 96 (range = 88–106).
- Between 2006 and 2017, the number of PhD graduates in CSD (audiology and speech-language pathology) averaged 115 (range = 100–128).
- This constitutes a 13%–20% increase.

CSD Education Survey (2008–2018)

- Between 2008–2009 and 2017–2018, an average of 150 PhD degrees (range = 118–201) were awarded.
 - Between 2012–2013 and 2017–2018, the number of PhDs awarded in audiology/hearing science averaged 39 annually (range = 25–67).
 - Between 2012–2013 and 2017–2018, the number of PhDs awarded in speech-language pathology/speech-language science averaged 113 annually (range = 96–131).
- The average percentage of faculty positions filled was 90% over the last 6 academic years, ranging from 81% in 2013–2014 to 98% in 2017–2018, and increased by approximately 17%.
- On average, 63% of positions were filled with full-time faculty who hold a research doctorate in CSD or another discipline over the last 6 academic years.

ASHA Year-End Counts (2002–2018)

- The percentage of ASHA-affiliated PhD faculty who are early-career PhDs (age 40 or younger) increased from 7% in 2002 to 22% in 2018.
 - The percentage of ASHA-affiliated PhD faculty certified in audiology who are early-career PhDs increased 7% between 2008 and 2018 (from 20% in 2008 to 27% in 2018).
 - The percentage of ASHA-affiliated PhD faculty certified in speech-language pathology who are early-career PhDs increased 14% between 2008 and 2018 (from 19% in 2008 to 33% in 2018).
 - The growth in the number of PhD faculty in CSD has been greater for speech-language pathology than for audiology.
- The greater increase in speech-language pathology PhDs versus audiology PhDs may be related to growth trends in each profession.
 - The number of ASHA-certified speech-language pathologists (SLPs) increased 4.0% annually during the past decade (2008–2018).
 - The number of ASHA-Certified audiologists remained relatively flat at a 0.4% increase annually during the past decade (2008–2018).
- The percentage of ASHA-certified audiologists who hold the AuD and PhD increased from 0.1% ($n = 17$) in 2008 to 0.8% ($n = 113$) in 2018 but remains less than 1% of CCC-A audiologists.
- The overall median age of PhD faculty in CSD in 2018 was 53—the same as in 2002.

- The median age of PhD faculty increased for audiology and decreased for speech-language pathology.
- The median age of PhD faculty with CCC-A in 2018 was 57—up from 55 in 2008—and in 2002 was 51. Nearly 60% (58%) of faculty with CCC-A are age 55 years or older.
- The median age of PhD faculty with CCC-SLP in 2018 was 52—down from 55 in 2008—and in 2002 was 53. About one half (45%) of faculty are age 55 years or older.

Overall, we have made significant progress since 2002. The annual number of PhD graduates, the number of early-career PhDs, and the percentage of PhD graduates taking academic-research positions is increasing. Likewise, the majority of PhD faculty searches in recent years (90%) are being filled, with 63% being filled by PhD degree holders. The median age of PhD faculty in SLP is holding steady and is comparable to the median age in 2002.

Continuing areas of concern include the fact that (a) the median age of PhD faculty who have their CCC-A has increased since 2002 and (b) the relatively flat growth in the audiology profession over the past decade has resulted in a limited pool of audiologists to recruit to PhD programs. It is noteworthy, however, that the number of PhDs in audiology/hearing science has increased by 7% (2008–2018) even while the growth in the audiology profession was 0.4% annually (2008–2018).

As described in the Executive Summary of this report (see pp. 1–2), ASHA and CAPCSD will continue their efforts to recruit and retain PhD students and PhD faculty-researchers in audiology, speech-language pathology, and the communication sciences.

Strategic Plan (2013–2018)

ASHA Strategic Objective 2012–2014 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):

[Baseline data obtained from the 2012 CSD Education Survey. On average, 92% of research doctoral programs responded to the CSD Education Survey for academic years 2011–2012 thru 2017–2018.]

1. **PM: # of earned research doctorates granted annually.**

T: 140 (baseline = 131 in 2011–2012 AY) 7% increase from baseline

The target of 140 research doctorates granted annually was met and exceeded. An average of 152 research doctoral degrees were granted between 2012–2013 AY and 2017–2018 AY with a range of 132–183 degrees granted.

See First Employment Tables in CSD Education Survey national aggregate data reports for actual numbers and Trend Data Report for extrapolated number of degrees granted.

132 degrees awarded in 2012–2013 (i.e., 16 in AUD + 64 in SLP+ 52 in SHS = 132) (= 154 degrees awarded when extrapolated to 100% of programs)

183 degrees awarded in 2013–2014 (i.e., 30 in AUD + 46 in SLP+ 107 in SHS = 183) (= 201 degrees awarded when extrapolated to 100% of programs)

156 degrees awarded in 2014–2015 (i.e., 12 in AUD + 70 in SLP+ 74 in SHS = 156) (= 162 degrees awarded when extrapolated to 100% of programs)

158 degrees awarded in 2015–2016 (i.e., 11 in AUD + 70 in SLP + 77 in SHS = 158) (= 170 degrees awarded when extrapolated to 100% of programs)

151 degrees awarded in 2016–2017 (i.e., 16 in AUD + 66 in SLP + 69 in SHS = 151) (= 160 degrees awarded when extrapolated to 100% of programs)

132 degrees awarded in 2017–2018 (i.e., 17 in AUD + 51 in SLP + 64 in SHS = 132) (= 149 degrees awarded when extrapolated to 100% of programs)

Year	Audiology/Hearing Science	Speech-Language Pathology/Speech Science
2012–2013	32	100
2013–2014	67	116
2014–2015	25	131
2015–2016	37	121
2016–2017	37	114
2017–2018	36	96

2. PM: % capacity filled with new PhD students enrolled in CSD programs annually.

T: 60% overall (baseline = 42.7% overall in 2011–2012 AY) 10% increase

The target of 60% filled capacity was not met. The average filled capacity was 46.9% between 2012–2013 AY and 2017–2018 AY, a 4.2% increase over the 42.7% reported at baseline. Programs reported an increase in capacity for PhD students in 2015–2016 and 2016–2017, resulting in a greater decrease in percent filled capacity despite robust first year enrollment.

See Student Capacity for Admissions Tables in CSD Education Survey national aggregate data reports.

- 54.6% in 2012–2013
- 45.4% in 2013–2014
- 61.6% in 2014–2015
- 38.5% in 2015–2016*
- 36.1% in 2016–2017*
- 45.1% in 2017–2018

*Programs reported an increase in capacity for PhD students in 2015–2016 and 2016–2017, resulting in a greater decrease in percent filled capacity despite robust first year enrollment. The drop from 61.6% in 2014–2015 to 38.5% in 2015–2016 and 36.1% in 2016–2017 is because CSD research doctoral programs reported higher capacity for 2015–2016 and 2016–2017, which caused the percent filled capacity to be lower. The total sum of capacity for all CSD research doctoral programs that responded was 237 in 2014–2015, 379 in 2015–2016, and 360 in 2016–2017.

Year	T: 40% for audiology (baseline = 26% in 2011–2012 AY) 14% increase	T: 70% for speech-language pathology (baseline = 50% in 2011–2012 AY) 20% increase	T: 70% for speech and hearing sciences (baseline = 45% in 2011–2012 AY) 25% increase
2012–2013	28.3%	58.4%	61.6%
2013–2014	16.7%	41.6%	67.0%
2014–2015	36.4%	56.4%	76.6%
2015–2016	28.6%*	33.3%*	47.7%*
2016–2017	22.9%*	27.8%*	47.8%*
2017–2018	22.5%	38.2%	61.7%

*Programs reported an increase in capacity for PhD students in 2015–2016 and 2016–2017, resulting in a greater decrease in percent filled capacity despite robust first year enrollment.

3. **PM: % of all PhD graduates in CSD who take research and academic appointments** (includes faculty/academic position within CSD or other discipline, clinical position in an academic setting, research position in an academic or non-academic setting, or postdoctoral appointment)
T: 70% (baseline = 56.6% in 2011–2012) 13% increase

The target of 70% was met and exceeded. An average of 78.3% of all PhD graduates in CSD took research and academic appointments between 2012–2013 AY and 2017–2018 AY, with a range of 72.7%–84.9%.

See First Employment Tables in CSD Education Survey national aggregate data reports.
Combined faculty, researcher and postdoctoral appointments:

72.7% in 2012–2013
84.9% in 2013–2014
80.6% in 2014–2015
78.6% in 2015–2016
77.6% in 2016–2017
75.1% in 2017–2018

- a. **PM: % of PhD graduates in CSD who take positions as faculty-researchers in CSD academic programs in the U.S.** (includes faculty/academic position in CSD program, clinical position in an academic setting, or research position in an academic setting)
T: 40% (baseline = 35.7% in 2011–2012 AY) 4% increase

The target of 40% was met and exceeded. An average of 53.3% of PhD graduates in CSD took faculty-researcher positions in CSD academic programs in the U.S. between 2012–2013 AY and 2017–2018 AY, with a range of 40.6%–60.3%.

60.3% in 2012–2013*
40.6% in 2013–2014
50.6% in 2014–2015
53.8% in 2015–2016
55.3% in 2016–2017
59.2% in 2017–2018

*2012–2013 data were collected for all faculty appointments and non-faculty appointments specifically in CSD. Data were collected for all research positions and not separately for academic and non-academic settings.

- b. **PM: % of PhD graduates in CSD who take postdoctoral scholar appointments**
T: 30% (baseline = 20.9% in 2011–2012 AY) 9% increase

The target of 30% was not met. The percentage of PhD graduates in CSD who took postdoctoral scholar appointments remained stable and averaged 20.8% between 2012–2013 AY and 2017–2018 AY, with a range of 12.4%–27.8%.

12.4% in 2012–2013
27.8% in 2013–2014
21.3% in 2014–2015
20.7% in 2015–2016
21.1% in 2016–2017
21.7% in 2017–2018

It is important to note that, on average, 92.9% of the available postdoctoral appointments in CSD were filled annually between 2012–2013 AY and 2017–2018 AY, with a range of 86.5%–96.5%. The lack of progress to increase the number of postdoctoral scholar appointments is a function of a lack of growth in the availability of postdoctoral opportunities in CSD.

2012–2013—48 open; 46 filled = 95.8% filled (87.5% response rate)
2013–2014—57 open; 55 filled = 96.5% filled (93.0% response rate)
2014–2015—52 open; 45 filled = 86.5% filled (93.0% response rate)
2015–2016—66 open; 63 filled = 95.5% filled (93.9% response rate)
2016–2017—89 open; 83 filled = 93.3% filled (93.6% response rate)
2017–2018—77 open; 69 filled = 89.6% filled (90.5% response rate)

Initiatives Implemented (2013-2018)

I. Communication

A. About the Discipline

1. ASHA’s Chief Staff Officer for Science and Research will work to promote and enhance the visibility of science in the discipline, including carrying out the following two tasks:
 - 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

Completed: Presentations were given at the 2016–2018 American Association for the Advancement of Science annual conferences, which is a media event specifically aimed at getting science across all disciplines into the press. See Appendix B for a list of presentations and some of the media coverage that these presentations attracted.

In addition, ASHA’s Chief Staff Officer for Science and Research presented and/or attended numerous interdisciplinary events and conferences in 2015–2018 to promote research and/or research opportunities in CSD. For example, see the following list:

- Academy of Health Annual Research Meeting (2017)

- Annual Conference of the American Association for the Advancement of Science (2015–2018)
 - Annual Conference of the American Congress of Rehabilitation Medicine (2015–2017)
 - College of Public Health, Temple University (2017)
 - Galveston Brain Injury Conference (2016)
 - Global Implementation Conference (2017)
 - Motor Speech Conference (2018)
 - National Black Association of Speech, Language, and Hearing (2018)
 - Texas Tech University Health Sciences Center (2017)
 - University of Iowa (2015)
 - University of Kansas (2017)
2. ASHA’s Director of Public Relations and ASHA’s Director of Serial Publications and Editorial Services will explore ways to raise the profile of scientific accomplishments and contributions from the CSD discipline with appropriate audiences.

Completed: ASHA’s Public Relations unit implements campaigns to raise awareness about the discipline and professions. ASHA’s Publications unit implements a variety of mechanisms to communicate CSD research externally to audiences in the United States and internationally, including faculty, researchers, and students. Fundamental changes in the ASHA Journals Program were implemented with respect to how the research is produced and made available, thus laying the foundation for its greater discovery and consumption. The ASHA Journals Program has seen increased journal submissions as well as greater usage of content overall. Usage of the ASHA journals went up by 15% from 2016 to 2017, by roughly 30% from 2017 to 2018, and by more than 36% over the past year. In that same 2016–2019 timeframe, the number of manuscript submissions received each year changed from 1,701 to 2,282—a 34% increase.

Public Relations: Examples of ASHA Public Relations campaigns reaching the public and related professions include *Value of the CCCs*, *Identify the Signs*, *Pediatrician Outreach*, and ASHA’s *Healthy Communication & Popular Technology Initiative*. (See Appendix C.)

Publications: Examples of publication mechanisms used to increase discovery and consumption of CSD research includes the publication model, discovery tools, curation and promotion methods, and knowledge translation. (See Appendix D.)

B. About PhD Personnel Supply and Demand

1. 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).

Completed: An average completion rate of 91% was attained on the *CSD Education Survey* over the past 5 years (93% in 2014, 92% in 2015, 93% in 2016, 89% in 2017, 90% in 2018). A CAPCSD and ASHA communication plan is implemented annually, with incentives for programs to complete the survey during the 3-month open period.

2. ASHA's Academic Affairs Board 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.

Completed: National and state aggregate data reports along with trend data reports are published annually on the ASHA website. Data are reviewed by the Academic Affairs Board at its annual spring meeting and at its annual Committee Day meeting in November. The CAPCSD Communication Committee reviews the data and provides access to the CAPCSD membership via the CAPCSD website. A presentation on the data is given at the ASHA Convention and at the CAPCSD conference annually.

3. ASHA and CAPCSD will offer sessions at their respective conferences designed to engage department chairs in discussions about innovative faculty workforce solutions (e.g., managing faculty workload, using clinical faculty tracks, examining models from other disciplines).

Completed: Subject matter was infused into conference program activities (e.g., sessions, workshops, events, and meetings) at the ASHA Convention and at CAPCSD conferences.

II. Curricular Models

A. Undergraduate Curriculum

1. By December 31, 2015, ASHA's Academic Affairs Board and CAPCSD will explore the need to develop guidance for undergraduate curricula.

Completed: The Academic Affairs Board, including representation from CAPCSD, prepared and disseminated a report in 2015, *The Role of Undergraduate Education in Communication Sciences and Disorders* [PDF], to provide guidance to academic programs on how to enhance undergraduate curricula in CSD.

2. By December 31, 2016, ASHA's Academic Affairs Board 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.

Completed: The Academic Affairs Board, including representation from CAPCSD, prepared and disseminated a report in 2015, *The Role of Undergraduate Education in Communication Sciences and Disorders* [PDF]. The report recommends that CSD programs broadly focus on all aspects of human communication, with an emphasis on science, technology, engineering, and math (STEM) and behavioral sciences learning. Undergraduate preparation should provide students with greater depth and breadth in science and in the foundations of the discipline than have been provided in the past. This focus needs to be continually modified as science, technology, health care, and educational models evolve, with the hope that, through this process, the value of the CSD degree will be enhanced and research careers in the discipline will be fostered.

3. ASHA and CAPCSD will identify and showcase innovative models of undergraduate education that can be used to enhance undergraduate science and research education.

Completed: The CAPCSD Annual Conference and the ASHA Convention included sessions on undergraduate education, the value of the undergraduate degree in CSD, and innovative models with enhanced undergraduate science and research education. In 2014, ASHA sponsored a YouTube vodcast, *Promoting Undergraduate Research in Communication Sciences and Disorders*, that featured innovative undergraduate research strategies.

4. ASHA and CAPCSD will facilitate sharing ideas to advance undergraduate CSD science courses (e.g., anatomy and physiology, speech science, hearing science, language science) among academic programs and faculty.

In Progress: A 2018 ASHA Convention pre-conference workshop was sponsored by the Massachusetts Speech-Language Hearing Association (MSHA) on “Advancing the Scholarship and Practice of Teaching and Learning Science in CSD” as a pilot for a proposed 2020 ASHA-sponsored symposium titled “Innovations in Teaching and Learning: Speech, Language, and Hearing Sciences.” Beginning in 2018, this initiative has been incorporated into ASHA’s *Strategic Objective 3: Enhance the Generation, Publication, Knowledge Translation, and Implementation of Clinical Research*. A Master Class titled “Innovations and Best Practices for Teaching Foundational Sciences in CSD” is planned for the 2019 ASHA Convention. In addition, the ASHA Board of Directors (Resolution No. BOD 12-2019) approved the sponsorship of a 2020 CSD Science Teaching Symposium that will be held at the ASHA National Office, May 21–22, 2020.

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.

Completed: CAPCSD developed the survey in 2015 and fielded it in the first quarter of 2016.

In 2009, CAPCSD fielded a survey to PhD students in CSD. In 2016, CAPCSD fielded a survey to PhD graduates of CSD programs. The 2016 survey was generated through the work of Elizabeth Crais (2016 Chair, ASHA Academic Affairs Board), Melody Harrison (Past President of CAPCSD), and Rich Folsom (2014–2016 CAPCSD liaison to the Academic Affairs Board). The purpose of the survey was to provide input to doctoral programs to help recruit, graduate, and encourage PhD students to take academic positions. PhD graduates were surveyed so that they could reflect on the preparation they received and the facilitators and barriers they encountered in their program. The survey focused on the graduate’s preparation in teaching, research, their current positions, and overall preparation, as well as on facilitators and barriers to program completion, characteristics of their current position, and demographic information about the graduates. All coordinators of the 76 research doctoral programs in CSD were contacted by email and were asked to send out a Qualtrics link to their graduates between 2011 and 2015. In March 2016, 56 of 76 programs indicated they had sent out the survey link to approximately 325 graduates whom they were able to contact. A total of 240 graduates responded to the survey. Preliminary results were presented at the 2016 CAPCSD conference, *Inspiring Doctoral Students to Take Academic Positions: Generating Solutions* [PPT] (Crais, Folsom, & Harrison, 2016).

2. By December 31, 2017, ASHA’s Academic Affairs Board and CAPCSD will identify and showcase an array of PhD educational models that prepare future scientists in CSD.

Completed: ASHA and CAPCSD published a 2016 report, *PhD Programs in Communication Sciences and Disorders: Innovative Models and Practice* [PDF] identifying the strengths, innovations, and challenges of PhD education models in CSD and disseminated the results via email broadcasts, presentations, and articles. Innovative PhD program strategies were showcased in articles and at conference sessions.

III. Recruitment and Retention

1. CAPCSD will sponsor an annual discussion forum for PhD coordinators to discuss best practices in recruitment and retention.

Completed: The CAPCSD Annual Conference program included sessions on PhD education data, innovative models, and strategies promoting recruitment and retention. Enhancement of PhD programming beginning in 2020 is under consideration by CAPCSD.

2. CAPCSD will foster PhD recruitment and retention.

Completed: Information about CAPCSD's [scholarship programs](#) are communicated regularly to faculty to foster recruitment and retention of PhD students. CAPCSD's [Plural Research Scholarships](#) encourages research among all CSD students, and its [PhD Scholarships](#) support PhD students preparing for academic careers in CSD.

3. ASHA's Academic Affairs and Research Education unit will coordinate use of ASHA's social media avenues to communicate compelling messages about faculty-researcher careers.

Completed: Annual communications on ASHA research education and mentoring programs includes messaging promoting faculty-researcher careers. Announcements were communicated via Facebook, Twitter, and LinkedIn for researcher career Convention activities (e.g., Research Roundtables) and faculty-researcher career award opportunities.

4. ASHA's Academic Affairs and Research Education unit, 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.

Completed: Data reports, articles, brochures, other resources, and presentations are disseminated annually by ASHA and CAPCSD.

5. ASHA's Academic Affairs and Research Education unit will continue to enhance successful ASHA award, mentoring, and research education programs in support of (a) recruitment of students seeking careers as faculty-researchers and (b) the success and retention of current and emerging PhD faculty-researchers.

Completed: Through ASHA's award, mentoring, and research education programs, provided [research career mentoring](#) to support academic and research careers in CSD for a total of 900 students and more than 350 early-career scientists between 2015 and 2018.

- 158 students and more than 108 early-career scientists in 2015

- 236 students and more than 90 early-career scientists in 2016
- 229 students and more than 74 early-career scientists in 2017
- 277 students and more than 81 early-career scientists in 2018

In addition, several activities are held annually at the ASHA Convention to provide information and networking opportunities that are key to building and advancing a research career, such as the Research Symposium and its associated travel award (the Research Mentoring-Pair Travel Award [RMPTA]); sessions coordinated by ASHA's Research and Scientific Affairs Committee; the Researcher-Academic Town Meeting; the Research Roundtables; the Faculty-Researcher Lounge; and the Academic Affairs & Research Education reception.

6. ASHA's Academic Affairs and Research Education unit and ASHA's science and research committees and boards will make available to other disciplines resources about the PhD pipeline as well as the need for faculty-researchers and research opportunities in CSD.

Completed: Information and materials disseminated to other disciplines at conferences as opportunities arose.

7. ASHA's Academic Affairs and Research Education 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 the impact of that research.

In Progress: Discussions and planning were initiated with ASHA's Communications team and Creative Media team for video production featuring faculty-researcher careers and science in the discipline. ASHA invited a small group of researchers to participate in a pilot video program. Beginning in 2018, this initiative was incorporated into ASHA's *Strategic Objective 3: Enhance the Generation, Publication, Knowledge Translation, and Implementation of Clinical Research*.

8. ASHA's Academic Affairs and Research Education unit will refresh, augment, or develop ASHA resources (e.g., brochures, web content) that feature a broad range of research opportunities in the discipline.

Completed: ASHA developed a new career brochure (2015–2016) to promote faculty and research careers in CSD. We also refreshed web content featuring PhD student and faculty-researcher career mentoring opportunities.

9. ASHA's Chief Staff Officer 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.

Completed: Dissemination goals through 2018 were completed, however, this effort will continue in the future as opportunities arise. (See Initiative I.A on p. 9.)

10. Two ASHA units—the Academic Affairs and Research Education unit and the Membership unit—will provide materials related to recruiting students to become faculty-researchers in CSD to organizations for high school guidance counselors as well as 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).

Completed: Materials are disseminated annually at ASCA, HOSA, NAAHP, and NCHSE.

11. ASHA's Academic Affairs Board and CAPCSD will consider developing a faculty champion program that would highlight the benefits of working in academe.

Completed: ASHA and CAPCSD implemented this initiative via ongoing operational opportunities and activities. Conference sessions convened at the ASHA and CAPCSD conferences, and articles that were published in *The ASHA Leader* and in ASHA's e-newsletters highlighted the positives of faculty-researcher careers and employment in academe.

IV. Funding Advocacy

A. PhD Student Funding

1. ASHA's Academic Affairs and Research Education 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 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).

Completed: Messages were disseminated to relevant ASHA committees and communities.

2. ASHA's Government Affairs and Public Policy (GAPP) unit will continue advocacy activities as part of ASHA's Public Policy Agenda in support of funding for PhD students.

Completed: Appropriations requests for NIH and IDEA Part D funding were made. In 2018, ASHA joined scores of other stakeholders in successfully lobbying against proposals in tax reform legislation that would have significantly raised taxes on graduate and PhD students.

3. ASHA's GAPP unit will advocate through coalitions and monitor federal incentives pertaining to Pell and Stafford loans and support state efforts to adopt loan forgiveness provisions for audiologists and SLPs. This may also include amortization of tuition. In addition, ASHA's GAPP unit will pursue opportunities to advocate for the Higher Education Act (HEA) reauthorization to support students pursuing advanced degrees in audiology and speech-language pathology.

Completed: Worked through ASHA membership in the Committee for Education Funding to advance support of student funding initiatives. Monitored and provided comments on HEA reauthorization policy proposals. The following HEA reauthorization topics are of continued interest for ASHA:

- Ensuring that students seeking a clinical doctorate in audiology or a master's degree in speech-language pathology have access to appropriate levels of federally funded student loans.

- Protecting current eligibility requirements for programmatic accreditors, such as the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA).
- Exempting programmatic accreditors from gainful employment accountability as it pertains to student loan repayment.

B. Research Funding

1. ASHA’s Chief Staff Officer for Science and Research will continue ASHA’s research education and mentoring programs that prepare emerging researchers for grant writing and grant review opportunities.

Completed: In 2015, the Research Symposium grant was funded by the National Institute on Deafness and Other Communication Disorders (NIDCD) for 2016–2020. The funds support the Research-Mentoring Travel Awards associated with the Research Symposium.

The four programs that support the development of research career competencies, including grant writing and grant review, were held in 2015 through 2018. In addition, ASHA developed a fifth program.

1. Pathways—for those who might not yet have experience writing a grant.
 2. Lessons for Success—for those who have already submitted an extramural grant. Lessons for Success was also funded by NIDCD for 2015–2018 and supports approximately 30 early-career researchers to attend a 2.5-day research mentoring and educational workshop. A proposal to support the 2019–2023 program was submitted in December 2017, and NIDCD funding was awarded.
 3. Clinical Practice Research Institute—for mid-career researchers who have previous research funding and have submitted a federal grant proposal. In 2018, ASHA implemented a second round to better meet members’ needs.
 4. Grant Review and Reviewer training—to help those with federal funding but no federal review experience learn about grant review.
 5. The Dissemination and Implementation Science Travel Award (DISTAnce) program—for researchers who have submitted a federal grant proposal. This program was planned in 2018, during which time the purpose, eligibility, requirements, application materials, and web pages were developed. The program will launch in 2019.
2. ASHA’s Chief Staff Officer for Science and Research will facilitate advocacy efforts to funding agencies for research funding in CSD.

Completed: Met with funding agency representatives from the Institute for Educational Sciences (IES), National Institute of Child Health and Human Development (NICHD), NIDCD, National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), Veterans Administration Office of Rehabilitation Research & Development (VARRD), and the National Science Foundation (NSF) to discuss funding mechanisms and program announcements that are appropriate for researchers in CSD and also for early-career funding opportunities. This

information is made available on the ASHA website, and agency representatives are invited to provide overviews at both Lessons for Success and Pathways research mentoring programs.

3. ASHA's GAPP unit will work during annual congressional appropriations to advocate as part of ASHA's Public Policy Agenda in support of funding for CSD research.

Completed: Appropriations requests were made for more NIH and IDEA Part D funding.

4. In collaboration with ASHA, the American Speech-Language-Hearing Foundation (ASHFoundation) 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.

Completed: The ASHFoundation Program Committee of the Board of Trustees was made aware of this initiative in 2015. Although the purpose and scope of this proposed funding program does not align with the ASHFoundation's strategic priorities and objectives, the Committee recommended to revisit the proposed idea in 2016 to determine if/how the identified need might inform future planning and future funding mechanisms. The ASHFoundation Program Committee of the Board of Trustees subsequently revisited the proposed idea in 2016 to determine if/how the identified need might inform future planning and future funding mechanisms. It was concluded in 2016 that the Board's strategic priority for funding would be focused on developing a new researcher-practitioner collaboration grant and identifying sources of support to launch this program in 2018. With this in mind, there are no immediate resources concurrently available to devote to a "bridging grant program." The Program Committee, however, will keep the intention of this idea on its annual program review cycle and asks that the Academic Affairs Board keep the ASHFoundation informed of any further discussion on this topic.

NOTE: The objective of this bridging grant program is to provide interim support during a funding hiatus that ASHA will use to improve previously submitted proposals. These competitive awards provide interim support to those who have submitted grants to national organizations—grants that were approved on the basis of scientific merit but that 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.

Appendixes

Appendix A

Academic Affairs Board (AAB) Members 2013–2019

The following members of the Academic Affairs Board (2013–2019) contributed to the development and implementation of the *2013–2018 Strategic Plan to Increase the Student Pipeline and Workforce for PhD Researchers and Faculty-Researchers*.

2013 AAB Members

Malcolm R. McNeil, Chair
Maria Armiento-DeMaria
Kathy L. Chapman
Anthony DiLollo
John A. Ferraro
Richard C. Folsom, CAPCSD representative
Melody F. Harrison
Julie A. Honaker
Janet D. Koehnke
Susan N. Nittrouer
Loretta Nunez, ex officio
Shari Robertson, Vice President for Academic Affairs in Speech-Language Pathology
Neil T. Shepard, Vice President for Academic Affairs in Audiology

2014 AAB Members

Janet D. Koehnke, Chair
Kathy L. Chapman
Elizabeth R. Crais
Anthony DiLollo
Richard C. Folsom, CAPCSD representative
Julie A. Honaker
Malcolm R. McNeil
Susan N. Nittrouer
Jennifer Simpson
Loretta Nunez, ex officio
Barbara Cone, Vice President for Academic Affairs in Audiology
Shari Robertson, Vice President for Academic Affairs in Speech-Language Pathology

2015 AAB Members

Elizabeth R. Crais, Chair
Ruth Bentler
Anthony DiLollo
Richard C. Folsom, CAPCSD representative
Ronald B. Gillam
Lynne E. Hewitt
Jennifer J. Lister
Susan N. Nittrouer
Jennifer Simpson
Loretta Nunez, ex officio

Barbara Cone, Vice President for Academic Affairs in Audiology
Shari Robertson, Vice President for Academic Affairs in Speech-Language Pathology

2016 AAB Members

Elizabeth R. Crais, Chair
Ruth Bentler
Ann Clock Eddins, CAPCSD representative (term commenced July 2016)
Richard C. Folsom, CAPCSD representative (term ended June 2016)
Ronald B. Gillam
Lynne E. Hewitt
Jennifer J. Lister
M. Dawn Nelson
Jennifer Simpson
Glen M. Tellis
Loretta Nunez, ex officio
Barbara Cone, Vice President for Academic Affairs in Audiology
A. Lynn Williams, Vice President for Academic Affairs in Speech-Language Pathology

2017 AAB Members

Lynne E. Hewitt, Chair
Ruth Bentler
Ann Clock Eddins, CAPCSD representative
Ronald B. Gillam
Jennifer J. Lister
Srikanta Kumar Mishra
M. Dawn Nelson
Glen M. Tellis
Ann A. Tyler
Sally Wilson, NSSLHA representative
Loretta Nunez, ex officio
Janet Koehnke, Vice President for Academic Affairs in Audiology
A. Lynn Williams, Vice President for Academic Affairs in Speech-Language Pathology

2018 AAB Members

Glen M. Tellis, Chair
Barbara Cone
Ann Clock Eddins, CAPCSD representative
Maria Claudia Franca
Jessica J. Messersmith
Srikanta Kumar Mishra
M. Dawn Nelson
Jeff P. Searl
Ann A. Tyler
Sally Wilson, NSSLHA representative
Loretta Nunez, ex officio
Janet Koehnke, Vice President for Academic Affairs in Audiology
A. Lynn Williams, Vice President for Academic Affairs in Speech-Language Pathology

2019 AAB Members

Ann Tyler, Chair

Artemis Alexandra Basilakos

Candace Bourland Hicks

Barbara Cone

Vikram Dayalu, CAPCSD representative

Maria Claudia Franca

Jessica Messersmith

Srikanta Kumar Mishra

Jeff Searl

Karla N Washington

Chelsea Woodard, NSSLHA representative

Loretta Nunez, ex officio

Elizabeth R. Crais, Vice President for Academic Affairs in Speech-Language Pathology

Janet Koehnke, Vice President for Academic Affairs in Audiology

Appendix B

2016–2018 American Academy for the Advancement of Science Presentations and Media Coverage

American Academy for the Advancement of Science 2016

1. At a loss for words, or losing your mind? New views of language problems in aging (Margaret A. Rogers)
2. Connections, disconnections & neuromodulation: Advancing prognosis and therapy in PPA (Argye Hillis-Trupe)
3. Hearing loss and dementia—who’s listening? (Frank R. Lin)
4. “My words come out wrong”—when thought and language are disconnected from speech (Joseph R. Duffy)

News feeds from this session:

<http://www.theatlantic.com/science/archive/2016/04/lost-for-words/476208/>

http://tucson.com/news/science/health-med-fit/mystery-brain-disorder-robs-patients-of-their-words/article_fb93296c-fb09-5f77-9591-9f842ee588bf.html

<https://danablog.org/2016/02/16/aaas-2016-hearing-for-life/>

http://newsletters.mayo.edu/newscenter/Article.aspx?ContentID=DOCMAN-0000166700&Category=Shield%20Updates&Subcategory=Research&pk_campaign=Email-Rochester&pk_kwd=Institutional

<http://mobile.journals.lww.com/neurotodayonline/layouts/15/oaks.journals.mobile/articleviewer.aspx?year=2016&issue=01070&article=00004#ath>

<http://www.eurekalert.org/aaasnewsroom/2016/briefings/>

AND ALSO IN 2016

5. I can’t hear myself think in here! Noise and the developing brain: From infancy to adulthood (Nan Bernstein Ratner)
6. Learning to hear: Understanding speech in noise from infancy to adolescence (Lori Leibold)
7. Finding the words in the blooming, buzzing confusion: Noise impacts on toddlers (Rochelle Newman)
8. Too noisy, too early: Evidence from premature newborns in the NICU (Amir Lahav)

News feeds from this session:

<http://abcnews.go.com/Health/wireStory/noise-harder-children-adults-hinders-learn-36917978>

<http://www.scienceupdate.com/2016/02/children-noise/>

<http://www.latinpost.com/articles/114994/20160215/researchers-say-noise-can-restrict-childrens-learning-process.htm>

<https://danablog.org/2016/02/16/aaas-2016-hearing-for-life/>

<http://www.eurekaalert.org/aaasnewsroom/2016/briefings/>

American Academy for the Advancement of Science 2017

1. Bridges to Success from Birth: Novel Community Programs to End “Poverty of Words” (Nan Bernstein Ratner)
2. Nurses Aim to Cure Generational Poverty With Four Simple Words: Talk With Your Baby (Ashley Darcy Mahoney)
3. Bridging the Word Gap by Linking Pediatric Health Care and Community Services (Alan Mendelsohn)
4. Providence Talks: How to Close a “Word Gap” at a Citywide Scale (Courtney Hawkins)

News feeds from this session:

<http://bigstory.ap.org/article/647ba5b170b94d6f896b9e0728c04a4f/talk-babies-and-let-them-babble-back-bridge-word-gap>

<http://www.kmov.com/story/34534835/talk-to-babies-and-let-them-babble-back-to-bridge-word-gap>

<https://fbvideodownloader.info/videos/10155092362368675>

<https://www.eurekaalert.org/aaasnewsroom/2017/webcast/?b=11>

American Academy for the Advancement of Science 2018

1. Gender in Translation: How Speech Communicates Sex, Gender Identity, and Sexuality (Nan Bernstein Ratner)
2. The Dynamic Fluidity of Gender and Communication: A Focus on the When, How, and Why (Nicholas Palomares)
3. Cues to Sex, Sexual Orientation, and Gender Identity in Speech: Myth and Reality (Benjamin Munson)
4. She Doesn’t Want to Sound like a Man: Transgender Communication Interventions (Adrienne Hancock)

News feeds from this session:

<http://www.sciencemag.org/podcast/animals-don-t-need-people-be-domesticated-astonishing-spread-false-news-and-links-between>

<http://skepticlab.com/category/episodes-science-magazine-podcast/>

<https://www.pinknews.co.uk/2018/02/17/a-childs-gender-can-be-revealed-in-their-speech-from-age-five-study-reveals/>

<https://www.theguardian.com/science/2018/feb/16/child-gender-speech-age-five-research-university-minnesota>

<https://www.pressreader.com/uk/daily-mail/20180217/281595241003740>

<http://www.dailymail.co.uk/sciencetech/article-5402005/Boys-unsure-gender-pronounce-letter-S-lisp.html>

<https://aaas.confex.com/aaas/2018/meetingapp.cgi/Session/17710>

Appendix C

ASHA Public Relations Campaigns 2015–2018 (most recent campaigns listed first)

ASHA's Healthy Communication and Popular Technology Initiative 2017–2018

www.communicationandtech.org

Addresses the potential impact of popular technology overuse on both hearing and speech.

ASHA's World Hearing Day (March 3) social media campaign 2017–2018

<https://internationalcommunicationproject.com/campaign-news/world-hearing-day/>

1. In 2017 and 2018, ASHA conducted week-long social media campaigns that promoted World Hearing Day, a World Health Organization–designated observance. The 2018 campaign also had the participation of the National Student Speech Language Hearing Association.

ASHA participation in the International Communication Project (ICP) 2017–2018

www.internationalcommunication.com

1. A founding International Communication Project (ICP) member, ASHA contributed to several international social media campaigns in 2017–2018.

ASHA's collaboration with Read Aloud Fifteen Minutes 2017

1. In 2017, ASHA collaborated with Read Aloud Fifteen Minutes on national outreach promoting literacy and encouraging early intervention.

ASHA's Value of the CCCs campaign 2015–2018 www.ashacertified.org

1. Featured ASHA Certified Members and highlighted the Certificate of Clinical Competence (CCC) credential.
2. Ran prominent ads in medical, health, and education publications and outlets.
3. Exhibited at conferences of the American Academy of Pediatrics; the American Health Care Association (long-term care professionals); the National Association of Elementary School Principals Association; National Association for the Education of Young Children (NAEYC) (special needs educators), and the American Academy of Audiology.
4. Since its mid-2015 launch and through 2018, the campaign has had an audience reach of approximately 90 million.

ASHA's Identify the Signs campaign 2013–2018 www.identifythesigns.org

1. Launched in 2013, this campaign had an audience reach in the hundreds of millions.
2. Partners included the American School Counselor Association, National Head Start Association, Easter Seals, and the Child Mind Institute.
3. The campaign was “relaunched” during Better Hearing & Speech Month 2018 with a renewed emphasis of educating the public about the warning signs of communication disorders.

Pediatrician Outreach: 2015–2017

1. Contributed articles on select issues of focus to pediatricians via *Pediatric News* magazine:
 - [The Buzz About Noise-Induced Hearing Loss](#)

- [Technology Misuse Hinders Development in Very Young](#)
 - [Screening for Speech/Language Disorders: The Case for Pediatrician Involvement](#)
2. Participated in article collaborations with HealthyChildren.org, the consumer website of the American Academy of Pediatrics (AAP), to educate and promote audiology and speech-language pathology treatment:
 - [Stuttering in Toddlers & Preschoolers: What's Typical, What's Not?](#)
 - [How to Raise Concerns About a Child's Speech and Language Development: Do's and Don'ts](#)
 - [Parents of Young Children: Put Down Your Smartphones](#)
 - [10 Non-Tech Holiday Gift Ideas to Promote Kids' Language & Learning](#)
 - [10 Tips to Preserve Your Child's Hearing During the Holidays](#)
 3. Exhibiting efforts at the AAP annual conference, 2015–2017, included a social media push on technology, which complemented new AAP guidelines: [The Tech Effect: How Too Much Device Time May Be Taking a Toll on Today's Children](#).
 4. Social media promotion during Better Hearing & Speech Month and December holidays: ASHA has provided information, resources, and articles to AAP's HealthyChildren.org that it has disseminated during specific times of outreach for ASHA via its social media accounts. This affords much greater visibility (among consumers and pediatricians) to ASHA resources.

ASHA's *Listen To Your Buds* campaign 2006–2016 www.asha.org/buds

1. Partnered with national music education associations
2. Put on “safe listening concerts” in approximately 65 schools around the country; these concerts were well received by educators
3. Consistently attracted prominent media coverage that featured audiologists
4. The campaign ended its 10-year run in 2016; it has been succeeded by ASHA's *Health Communication and Popular Technology Initiative* (www.communicationandtech.org), which addresses the potential impact of popular tech overuse on both hearing and speech.

Appendix D

ASHA Publication Efforts to Raise Awareness and Utilization of CSD Research

Publication Model

- In 2014, the ASHA journals switched to continuous publication. Instead of only making research available in issues, articles are published one at a time, as soon as they are ready, thus eliminating the delay between when articles were ready and when issues were scheduled. Scheduled issues are still published that carry final pagination and archival bibliographic information.
- In 2015, *AJA* switched from biennial (an issue every 6 months) to quarterly publication due to an increased volume of submissions following *AJA* achieving an Impact Factor.
- In 2016, 19 Special Interest Group *Perspectives* were consolidated into one publication, and a continuous publishing option was made available to the SIG editors to promote greater affiliate engagement with the research published in *Perspectives*.
- In 2017, *JSLHR* switched from bimonthly to monthly issues due to its increased size. Monthly issues have fewer articles and are easier to browse through.
- In 2017, a program of special issues for the journals launched that gives Editors-in-Chief a means of publishing focused or themed groups of articles in between regularly scheduled issues.
- Associated with these changes, biweekly New Content Alerts that inform users of the latest published research were added. For the journals (in conjunction with other publication model changes), alerts have increased from 16 per year across all four journals to 128 per year across all four journals.
- In 2017, 81% more articles were published in the journals than in the previous year.
- In 2017, *Perspectives* was officially identified as being peer reviewed. Approval was also gained for transitioning the publication to a scholarly review journal by January 1, 2019.
- Editorial boards for all the journals were launched in 2017, with 221 individuals now serving in Editor-in-Chief, Editor, or Editorial Board Member roles. As part of the recognition of their service, the Publons reviewer recognition platform was launched as well. The editorial board model for the journals features peer review templates, committed reviewers, and different time frames; time to first decision in the new model decreased by as much as 64%.
- In 2018, *Perspectives of the ASHA Special Interest Groups* was reconfigured as a scholarly review journal and launched on the Atypon publications platform for Publications, which also launched, effectively, at the turn of the year. As a scholarly review journal, *Perspectives* will publish six bimonthly issues per year, with continuous publishing between issues as well. The journal now has the full array of manuscript types in use for the other journals, and a SIG Special Topics section was added for featuring of articles and forums on research, evidence-based practice issues, implementation studies, and other topics of broad interest across topics or settings.

Discovery

- In 2014, the [ASHAWire platform](#) launched to bring together the four journals, the SIG *Perspectives*, and *The ASHA Leader*.
- A key aspect of ASHAWire is the semantic tagging that is applied to each article. This allows for related article recommendations throughout the platform as well as 40 topic collections that give users a more focused way of diving into the literature. Users can also sign up for any number of Topic Collection Alerts.

- By having the different types of ASHA publications fully interconnected on ASHAWire, users receive more context. Research articles are now connected to the stories in the *Leader* about professional and clinical issues and to the more clinically focused research disseminated in *Perspectives*.
- In 2014, the Altmetric badge was added to all journals, allowing for display of all online mentions of research by channel/type. See, for example, this Altmetric dashboard that is connected to a popular *AJA* article: <https://asha.altmetric.com/details/16931581>.
- In 2015 and 2016, the range of full-text HTML content was expanded from 2006 to present to 1990 to present. This increased the precision of the semantic tagging on the platform and improved the topic collections, in addition to providing a greater range of related article recommendations.
- In 2015, ASHA journals were added to the ReadCube Discover index, thus increasing awareness of the journals among the 12 million worldwide users of the index.
- In late 2015, automatic deposits were added to PubMed Central on behalf of authors, and the deliverable switched to the final published article (instead of the accepted manuscript) and reduced the availability embargo from 12 months to 6 months post publication.
- In 2016, ReadCube Connect PDFs were launched. These enhanced PDFs feature related article recommendations from PubMed, information on the number of citations of the article being read, and the Relative Citation Ratio metric.
- In 2017, the ASHA Figshare data portal (<https://asha.figshare.com/>) was launched to centralize and enhance access to supplemental materials and data sets associated with articles. A project is underway in 2018 to migrate all pre-2017 materials to the portal. Materials there are then fully citable, with their own digital object identifiers (DOIs), usage data, and Altmetric attention data.
- In 2017, the ASHA Journals Author Services Portal (<http://authorservices.pubs.asha.org/>) was launched, featuring a full array of research communication services that authors can choose to take advantage of in order to promote and increase understanding of their work.
- Downloads of journal articles in 2017 increased by roughly 36% compared with the previous year.
- In 2018, the ASHA Journals Academy grew significantly through the integration of the CRED Library (which had been housed on ASHAWire). Integration with the Academy and the learning aims therein will strengthen ASHA's presence in the CSD research.

Curation and Promotion

- Launched the @ASHAJournals Twitter account in early 2015: <https://twitter.com/ASHAJournals>. Every article and issue published is tweeted about, and there are now nearly 8,000 followers throughout the world.
- In early 2015, launched a content curation partnership with the @WeSpeechies Twitter group based in Australia, which involves providing free access to up to 10 journal articles for 2 weeks in support of the WeSpeechies topically focused chats on Twitter. Later added access to up to 10 *Perspectives* articles as well.
- Since 2015, individual journal articles have frequently been featured on the ASHA Facebook Research Tuesday campaign. In 2018, there were 56 journal articles featured on Research Tuesday.
- In mid-2015, added a Pinterest board on which all of ASHA's published articles are posted: <https://www.pinterest.com/ashaweb/asha-journals/>.

- In 2016, launched the @SIGPerspectives Twitter account: <https://twitter.com/SIGPerspectives>, which now has more than 1,100 followers.
- In 2017, launched the [ASHA Journals Academy](#), which features the [Context blog](#) on which particular articles and special issues are showcased. There have been more than 175,000 views of the Academy since launch in January 2017. In 2018, there were 114 mentions of ASHA journal articles over the course of the year's posts.

Knowledge Translation

- ASHA journals are now provided as complimentary resources to up to 25 Wikipedia editors through support of the [Wikipedia Library initiative](#). This helps connect CSD research to a wide range of topics covered on Wikipedia. Since the launch of this initiative, links to ASHA publications on Wikipedia have risen by 220%.
- In 2016, launched the GrowKudos system to help authors explain and share their research. An example of an author's use of the platform is featured at <http://academy.pubs.asha.org/2017/01/experiences-with-kudos-an-interview-with-dr-kerry-danahy-ebert/>. More than 1,200 ASHA authors have now used the system, leading to an additional 125,000 views of information about their articles.
- Efforts are continuing to increase the pace of providing author interview videos to help increase awareness and understanding of particular studies and of research issues in general. See the [ASHAWire playlist](#) on the ASHA YouTube channel for a full list of ASHA publication videos.