

CRISIS IN THE DISCIPLINE:
A PLAN FOR RESHAPING OUR FUTURE

Report of the
Joint Ad Hoc Committee on the Shortage of PhD Students and Faculty in
Communication Sciences and Disorders

A Committee of the
American Speech-Language-Hearing Association
And the
Council of Academic Programs in Communication Sciences and Disorders

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EXECUTIVE SUMMARY

The founders of the field of communication sciences and disorders established a standard requiring rigorous graduate education prior to receiving credentials as an audiologist or speech-language pathologist. We should be both grateful for this tradition and proud of it. Rigorous graduate education, however, depends upon knowledgeable faculty. Last year 6 –7% of all doctoral faculty positions in the field were unfilled, and current predictions indicate that number will climb significantly in the next ten years.

Our forebears also created a tradition of science and “ownership” of the research underlying our professions. Unlike many other health professions, speech-language and hearing professionals create the knowledge in our field. Knowledge creation, however, demands scientists, laboratories, and funding. As our PhD numbers decrease, all three of these are threatened. As a result, our knowledge base, our professional independence, our ability to educate adequate numbers of graduate students, and ultimately the quality of patient care is threatened. If we do not act, and act now, the field may be lost.

This report is a call to action on three fronts to:

- Increase the effectiveness of PhD recruitment and retention activities throughout the discipline by increasing coordination of efforts across associations and among academic programs
- Increase monitoring of those efforts to ensure effectiveness
- Re-engineer the academic culture in the field, at all levels from undergraduate, to graduate, to post-graduate

Significant efforts have been made in the past to address the shortage of PhD personnel in the field. Unfortunately, those efforts have not been well coordinated and there has been no systematic effort to assess their effectiveness. The 30 recommendations included in this report recognize the importance of coordination and monitoring, while focusing on changes to the prevailing academic culture of the discipline. Those recommendations are organized into the following categories.

- Create a structure to continue the momentum in addressing the PhD shortage
- Increase the visibility of the discipline, research opportunities, and promote higher education as a career
- Target and coordinate data collection and dissemination
- Develop a centralized mechanism for information exchange
- Enhance research training experience
- Enrich PhD program leadership

The most important advice that this committee can offer is to move quickly. The situation is dire and continues to grow worse with each passing day. At its core, this report is a call to action that must be heeded, and heeded quickly, if the discipline and the professions are to survive.

CHARGE TO THE JOINT AD HOC COMMITTEE ON THE SHORTAGE OF PhD STUDENTS AND FACULTY IN COMMUNICATION SCIENCES AND DISORDERS

RESOLVED, that the ad hoc joint committee will be charged with developing a plan to address the following issues: 1) increase the number of doctoral students in communication sciences and disorders, 2) retain current doctoral faculty, and 3) develop strategies for educating students in communication sciences and disorders in the current climate of doctoral shortages.

SUMMARY OF COMMITTEE ACTIVITIES

The Committee met for the first time in Cincinnati on Nov. 30 – Dec. 1, 2001, having rescheduled from the week of September 11. The first meeting began with a series of presentations summarizing the available data on the nature of the shortage and past efforts to address the issue. A summary of those efforts is provided in Appendix A.

This list represents a substantial effort on the part of the discipline to address the growing problem of the PhD personnel shortage. The impact of these activities, however, has been limited by a **lack of coordination** among them. As a result, numerous opportunities to build on existing programs and to create complementary initiatives have been lost. Similarly, there has been a **lack of systematic assessment of the effectiveness** of these collective activities that could guide continuing efforts to address the doctoral shortage. The Committee carefully reviewed this history of initiatives and discussed factors that posed the greatest impediment to past and current efforts. That discussion repeatedly returned to issues related to the **prevailing academic culture in the discipline**. As a discipline, we should be proud of our tradition of clinical preparation based on quality graduate education. We are the envy of many other health and education disciplines in this regard. At the same time, that tradition has limited the role of research instruction at all levels of our curriculum: bachelors, masters, and doctoral; it has limited the visibility of research as a viable career choice for our students; and it has shaped our interaction with other disciplines within the academy.

The three topics that emerged from that initial discussion—coordination of activities, assessment of effectiveness, and the limitations of the prevailing academic culture—serve as the primary themes of this report and of the recommendations that follow.

It also became clear at the first meeting that the PhD degree-granting programs would be key players in any effort to reverse the downward trend in PhD enrollment and faculty membership. As a result, two initiatives were begun at the first meeting. First, a subcommittee (Scott, Goldstein, Oller-Chair) was charged with the development of a survey of PhD programs to collect information that was not available from the two primary data sources: the ASHA Constituent Database (as supplemented by the ASHA Omnibus Survey) and the CAPCSD Survey. Second, the Council of Academic Programs

was asked to provide time at its spring meeting (April 2002, Palm Springs) for presentation of the survey data and for a meeting of PhD program representatives.

At the CAPCSD spring meeting, the Committee participated in the Issue section on the doctoral shortage via a databased presentation by committee co-chair Kim Oller. Dr. Oller presented data that included the Committee's survey (see committee survey results in Appendix B). The Committee also organized the first-ever Doctoral Summit, consisting of a meeting of more than 70 representatives of doctoral degree-granting programs in communication sciences and disorders. At this Summit, the Committee presented an overview of its initial impressions of the shortage and its antecedents, and solicited feedback from the group. The participants both endorsed the Committee's directions and expressed their desire to move ahead with the utmost speed. In addition, a third meeting comprised primarily of representatives of Bachelor and Master's programs was convened to discuss the doctoral education issue. This group also endorsed the broad directions identified by the Ad Hoc Committee and voiced their strong support for a final set of recommendations that focused on all academic programs, not just those offering the PhD.

The Committee held its second meeting in Phoenix on July 27-29, 2002. At that time the group reviewed individual member activities since December and crafted the majority of the recommendations included below. Following feedback from both the CAPCSD and ASHA Executive Boards, the Committee held its final meeting on November 20, in Atlanta.

DESCRIPTION OF THE ENVIRONMENT

A. Magnitude of the Problem

There are presently two primary data sets available with information pertinent to the shortage of PhD students and faculty in the field: the ASHA Constituent Database as supplemented by the ASHA Omnibus Survey and the CAPCSD biennial Survey of Programs in Communication Sciences and Disorders. The former focuses on tracking changes in the demographics of the more than 100,000 members of ASHA, while the latter focuses on the composition of current graduate student and faculty cohorts. Both of these surveys have proven their usefulness over many years, but together they do not provide all of the information needed to fully describe the size of the current doctoral shortage and its impact on all aspects of the professions. In addition, they are insufficient for monitoring future efforts to reverse the trend. At the same time, the two surveys solicit overlapping information from the same respondents in slightly different formats. This is both inefficient and potentially misleading when comparisons between the two data sets are made. As a result, the Committee created its own survey targeting specific information and recommends that both associations work to coordinate future data collection efforts.

The impact of the shortage of PhD students and faculty is widespread. The inability to recruit new PhD faculty is already putting some academic programs at risk. This means

potentially fewer professionals, which means fewer and/or poorer services for our clients. Fewer PhD faculty means less research in communication sciences and disorders, which in turn means a slowed growth in our understanding of human communication and a longer time to develop and test improvements to our treatment options. Fewer PhD faculty means fewer opportunities for doctoral study, which in turn means even fewer PhD faculty. This downward spiral in faculty preparation is perhaps the most significant threat to our future, and highlights the fact that it is the number of faculty (both entering and remaining) in the field that is the ultimate measure of the magnitude of the problem. It is for this reason that, based on existing and newly collected data, Kim Oller has pursued the development of new methods for monitoring the supply of faculty and for predicting their numbers into the future. He has reported regularly to the Joint Ad Hoc Committee and to CAPCSD on the progress of the effort.

A key type of previously unavailable information that is needed to understand and predict the supply is year-by-year data on the number and age of PhD and non-PhD faculty throughout the field, as well as number and age of faculty at the point of initial hiring into the field and at the point of retirement. Without empirical information of this sort, prediction must be based on speculative estimates. A method has been developed and preliminary empirical estimates have been established, making it possible to project that over the next 15 years the shortage of PhD faculty is likely to become so severe as to require massive restructuring of the field, with many program closures and reductions in the proportion of faculty holding the PhD. The projections are, however, based on preliminary estimates, because the data on number and age of faculty are both new and fragmentary, and consequently current estimates must be based on extrapolation and triangulation. Strong solutions to the problem of monitoring are, however, clearly possible to develop based on adjustments in surveying procedure. With yearly updates in the ASHA Constituent Database on members' PhD status and faculty roles as well as acquisition of the National Opinion Research Center's yearly data on doctoral graduates in Speech-Language Pathology and Audiology, it will be possible to coordinate data from the CAPCSD survey in order to provide a reliable picture of the faculty composition year-by-year as well as solid projections regarding likely future trends.

From these data sources, the message is clear: we are facing a crisis in personnel that will only increase in magnitude in the coming years. The data included in Appendix B highlight that crisis and the inability of current resources to address it.

B. Curricular Traditions and Constraints

PhD students are recruited by and educated by academic programs. PhD faculty are employed by academic programs and mentor PhD students in that environment. It is not surprising then that academic programs, their structures, and their traditions should be a primary focus of this report. Given the longstanding expectation that speech-language pathologists and audiologists have a minimum of a master's degree to practice in the field, most of our educational efforts are aimed at helping students achieve that degree and the clinical experience necessary to practice in the widest possible range of clinical settings. This singular goal has shaped nearly all aspects of the curriculum and has been

institutionalized through academic accreditation standards. It is important to note that the ASHA Educational Standards Board did significantly increase the basic coursework requirements regarding normal aspects of development and communication in the 1980s in an attempt to limit undergraduate professional preparation. At many institutions, however, those requirements are often filled by courses that are seen as helpful to future practitioners, not future scientists. Overall, undergraduate coursework in the major is typically heavily pointed toward clinical careers not academic ones; and the pressure to expand this focus at all levels increases as the scope of professional practice grows.

This stands in stark contrast to most other academic disciplines where the curriculum builds in an orderly progression from undergraduate student experience, to master's student experience, to doctoral student experience, to post-doctoral experience, to faculty member. For communication sciences and disorders there is a clear break in this progression at the end of the master's experience. Students choosing to seek a PhD are often asked to begin, what in many respects, is a new program, which may or may not build systematically on their previous six years of college education. Moreover, students who have been practicing for several years may conclude that re-entry into the educational continuum is simply too difficult and too costly. We must reexamine this progression and recommend serious changes if we are to survive as a discipline. Among the factors to consider:

- Encourage the creation of BA/PhD programs similar to those in the natural sciences
- Revise undergraduate curricula to increase the scientific rigor and highlight academic careers as a goal
- Encourage post-doctoral study prior to assuming faculty positions
- Rethink the role and the formulation of clinical education experiences to allow for a variety of means of completing the requirement, especially for those pursuing academic research careers
- Encourage interdisciplinary research training experiences

Communication sciences and disorders programs evolved in various ways within higher education. Some programs grew from the liberal arts and sciences tradition with a focus on basic research and knowledge for its own sake. Other programs have their roots in education with a focus on service to youth and ensuring that all children are prepared to take maximum advantage of the educational opportunities provided by society. Still others evolved within the health sciences with their focus on maintaining and recovering basic human function. All of these traditions contribute to the health of the discipline and the professions, but their diversity has limited the development of our academic identity. Oftentimes, this observation has led to a call for uniform titles for academic programs. Debates about common department titles distract us from the more fundamental issue: the lack of a common set of academic goals that ensure our future viability as a discipline. Regardless of the program's administrative setting (liberal arts, education, allied health), program type (undergraduate-only, master's, doctoral), its geographic location (urban, rural), or size, it is our collective responsibility not only to recognize the crisis at hand, but to restructure our most basic activities to reverse the present trend.

All programs must become engaged in this effort and must do so in real ways. Simply talking to the best students in a class and encouraging them to consider a career in academia has not been sufficient in the past and it will not be sufficient in the future. All program activities from coursework to extra-curricular activities must prepare students for a life in academia and must share the excitement of such a career. University faculty are given the unique opportunity to shape a four-year apprenticeship for hundreds of students. We have taken this gift for granted and not used it to our advantage. We must rethink this opportunity and use it to share the excitement of academic careers.

While all academic departments have a responsibility to help reverse this trend, those departments with doctoral programs have a special responsibility. We must realize that we have created a significant professional presence (more than 100,000 persons) on a relatively small academic base. Although there are more than 300 academic programs in the nation, only 62 of them prepare PhDs and fewer than 20 of those prepare the vast majority of future faculty members in the discipline. In fact, data from the Joint Ad Hoc Committee's survey (see Appendix B) indicate that just 11 programs account for 58% of the currently enrolled PhD students. In a sense, the entire discipline depends on the success of those departments, yet they cannot succeed in a vacuum. Regardless of size, all Ph D programs must simultaneously strengthen their doctoral offerings and reach out to departments without doctoral programs to assist them in strengthening their BA and MA offerings.

C. Organizations and Resources

This report calls for a unified and coordinated response to the existing crisis in PhD personnel. Such a response requires the support of all partners. To date, the American Speech-Language-Hearing Association and the Council of Academic Programs in Communication Sciences and Disorders have shared the lead in efforts to address the problem. It is clear that these two groups will continue to be key players in the future. It is important, however, to understand the role and traditions of each group. While originally founded by academics for the purpose of supporting the creation and dissemination of knowledge, in the past 75 years ASHA has grown to become one of the most influential organizations of professionals in health care and school settings in the nation. As such, it must balance a host of priorities across a diverse constituency. Similarly, CAPCSD represents all types of academic programs with diverse and sometimes competing needs.

The Committee spent many hours debating the need to create an organization of PhD degree-granting programs that could lead the efforts recommended here. The group should represent all levels of the professorate from junior to senior levels. The benefits of creating such a group include:

- A continuing forum for exchange of ideas
- A focused advocate for change in the academy and in other associations
- A manageable size for effecting change

This Committee believes the creation of such a group is paramount to the future of the discipline. We have not included it as a recommendation in this report, in that the impetus and organizational framework for such a group must come from the programs themselves. In that regard, the roles of all parties in addressing the personnel shortage is clear: the doctoral degree-granting programs must do some things, the non-doctoral granting programs must do some things, ASHA and the CAPCSD must do some things, etc.

The challenge is to ensure that those efforts are complementary to one another and are sustained. Thus, the first recommendation is for ASHA and CAPCSD to continue the cooperation begun with the appointing of this committee by creating a task force that would be in operation for the next five years.

RECOMMENDATIONS

1. Create a Structure to Continue the Momentum in Addressing the PhD Shortage

1.1 Appoint a Joint Task Force on the PhD Shortage. (CAPCSD and ASHA)

The history of addressing this shortage is marked by numerous well-organized and well-intentioned activities. Unfortunately, those efforts have failed, due primarily to a lack of **coordination** among them. Success will only come from an organized and systematic effort with coordinated activities among all parties. It is the opinion of this Committee that the best way to achieve that coordination is through the continued formal cooperation of the CAPCSD and ASHA.

In addition to coordination, the other key ingredient for success is **stability**. One-year or two-year efforts will not succeed. As a result, this group should be appointed for a period of five years, to provide a sustained effort.

The Task Force should have the following charge:

- a. Continue to **assess** the extent and nature of the PhD shortage among students and faculty
- b. Coordinate **planning** among the various partners addressing the problem
- c. **Monitor** efforts and recommend modifications to those efforts, as appropriate

2. Increase the Visibility of the Discipline, Research Opportunities, and Promote Higher Education as a Career

2.1 Augment information geared to students considering PhD education.

This should include the addition of introductory material to the *Guide to Doctoral Educational* in regard to PhD careers and factors to consider in selecting a PhD program. Expand Web presence with materials describing the job opportunities and highlighting the personnel needs in academia. (ASHA)

2.2 Publicize the message regarding personnel shortages with outside audiences, including other higher education groups and disciplines.

Likely venues would include: the *Chronicle of Higher Education*, the Council of Graduate Schools, and other higher education associations. (ASHA, CAPCSD)

2.3 Explore the development of a “high-quality” video/CD highlighting academic and research careers in CSD.

This tape could be modeled on episodes of PBS’s Discovery and would be suitable for use in introductory courses in communication sciences and disorders or in recruitment activities in high schools or with the public. The costs might be underwritten by a publisher in the field. (ASHA)

2.4 Ensure the inclusion of research and teaching as career options in all recruitment materials and activities.

This must become routine in the activities of the professional associations as well as all academic programs. (ASHA, academic programs)

2.5 Expand and revitalize our systems of recognizing faculty and student research accomplishments.

Encourage additional nominations for existing awards to increase the perceived worth of researchers and research endeavors. Encourage national associations, state associations, and academic programs to create new awards that focus on research. (all groups and organizations)

2.6 Expand efforts to showcase student research and academic success at the ASHA Convention.

This could include the creation of a program for faculty mentor-student scholar presentations. (ASHA)

2.7 Encourage state associations to assist in disseminating information.

State conventions and mailings should increase their focus on student research, faculty research, and academic career options as a balance to practitioner-focused workshops and information. (ASHA, CAPCSD)

2.8 Develop a career development program for outstanding undergraduate students interested in academic research careers.

This program would create a cohort of potential future academicians by recognizing their past achievements and potential, by supporting enhanced educational experiences on their home campuses, as well as in laboratories outside the home department, and underwriting attendance at the ASHA convention where they would participate in targeted group activities. (ASHA, CAPCSD)

2.9 Increase focus on faculty retention.

The crisis in our discipline derives both from a shortage of students and from the loss of faculty from the academy. Targeted efforts should be initiated to assist junior faculty, including faculty of color, in succeeding professionally and personally in higher

education. In particular, efforts should be made to retain faculty of color. (all groups and organizations)

2.10 Urge ASHA to make the PhD shortage a Focused Initiative.

This would provide the topic both the visibility and the financial resources it deserves and highlight the significance of the shortage to all segments of the discipline and the professions. (ASHA)

2.11. Salaries

Salaries are a significant factor in recruiting and retaining faculty. The discipline has not effectively used competition from clinical salaries or the faculty shortage in the field to boost salaries in our academic departments. The entire discipline must become engaged in an effort to bolster academic salaries to make them competitive with other academic disciplines and with clinical and administrative salaries outside the academy. (all groups and organizations)

3. *Target and Coordinate Data Collection and Dissemination*

3.1 Develop an integrated data collection plan for all of communication sciences and disorders.

ASHA and CAPCSD should jointly review and revise their existing data collection processes to ensure the collection of all pertinent information relevant to the doctoral shortage, as well as reduce existing redundancy and confusion. In addition, other important sources of potential data should be coordinated and exploited, especially information from the National Opinion Research Center's annual survey of doctoral graduates. The Doctoral Survey Subcommittee created as part of this planning process should play a central role in that effort. (ASHA, CAPCSD)

3.2 Consider mechanisms for collecting information on academic program characteristics.

This should include program definitions of scholarship and the importance of research support for faculty as a step in re-engineering departmental cultures. (ASHA, CAPCSD)

3.3 Create a mechanism to obtain information from recent PhD program graduates employed in academic settings in regard to the relevance and quality of their PhD education.

This would provide important data to influence changes in PhD education from a highly relevant, but as yet untapped, source. (academic programs)

4. *Develop a Centralized Mechanism for Information Exchange*

4.1 Ensure ready access to survey results and analysis.

Develop a single website devoted to tracking the PhD shortage (students and faculty). In addition to providing the latest available data, the site should also provide analyses and projections based on that data. (ASHA, CAPCSD)

4.2 Create an information clearinghouse on doctoral education.

Develop a website to facilitate information exchange among academic programs on topics related to curriculum, recruitment, federal funding, available assistantships, administrative challenges, etc. (ASHA, CAPCSD)

5. Enhance Research Training Experience

5.1 Explore expansion of the BA to PhD model.

Obstacles to the model, including undergraduate curriculum, clinical training requirements, funding, etc., should be identified and efforts should be made to finding ways to overcome those obstacles. PhD degree-granting institutions should collaborate with non-PhD programs to develop effective transitions for academic career aspirants that do not necessarily revolve around the MA-clinical training model. (academic programs, CAPCSD)

5.2 Explore the development of other models of doctoral education.

This exploration should focus on a re-examination of the role of clinical training in doctoral education. The committee survey revealed that an overwhelming majority of currently enrolled PhD students enter PhD programs from a master's degree in speech-language pathology or audiology (66%). As a result, many of our students are not able to benefit from the natural progression of research training across the graduate experience that typifies other disciplines. Other models of entry into doctoral programs need to be developed. (academic programs, CAPCSD)

5.3 Increase flexibility for obtaining clinical requirements including the Clinical Fellowship (CF).

A substantial number of PhD students wish to complete requirements for the CCC. Committee members heard repeatedly that present models of clinical training (including the Clinical Fellowship for the CCC-SLP) make this very difficult. Creative models of clinical education that accommodate PhD students should be developed, promoted, and incorporated as options in the ASHA credentialing program. These models should facilitate the integration of research training and professional credentialing and should also be consistent with training models recognized by NIH, in order to facilitate student access to NIH training funds. (ASHA)

5.4 Revise curricula at all levels to enhance the scientific preparation of our students.

Undergraduate and MA research experiences must be enhanced. Challenging undergraduate options that focus on science and research should be developed for our best undergraduate majors. PhD curricula should center on the development of research skills (basic and/or applied) and the other skills necessary for success as an academic

(e.g., proposal development, grant management). Efforts should be made to engage faculty from all CDS departments in the research and development of pedagogy. (ASHA, CAPCSD, academic programs)

5.5 Expand collaborative efforts across academic programs.

Our ever-shrinking cadre of research faculty are becoming islands across the country. Inter-institutional collaborations for research, managing PhD student committees, creating doctoral student cohorts, etc. should be expanded. (academic programs)

5.6 Expand interdisciplinary efforts on campus.

This could include: joint doctoral courses/seminars, cluster hires with other departments, joint dissertation experience, etc. (academic programs)

5.7 Explore the creation of CSD Institutes.

Institutes modeled after the Linguistics Society of America Summer Institutes could provide PhD students access to coursework not available at their home campus and could provide isolated PhD students access to a cohort of student colleagues. (ASHA, CAPCSD)

5.8 Expand doctoral funding opportunities.

The most common need expressed by potential PhD students and PhD-granting institutions is funding for doctoral students. We must re-double our efforts to secure public and private funds to support doctoral education. (WHO?)

6. *Doctoral Program Leadership*

The recommendations in this section and throughout this document assume that all programs will continue to strive to achieve the highest standards in the quality of faculty, students, and curriculum. Given that assumption, students must become informed consumers, attending the highest quality PhD programs available. For their part, PhD degree-granting institutions must provide key leadership in the effort to resurrect the research and academic base of the discipline, including educational experiences and support that will fully prepare students for careers in higher education. (academic programs)

6.1 Devise faculty research development programs.

A discipline-wide perspective on faculty research development must be adopted. Departments must assist one another in providing the necessary intellectual and financial support for young scientists. This might include facilitating meetings of scientists working in the same subfield to provide young scientists direct access to senior mentors not available on their campus. (academic programs)

6.2 Connect peer research networks.

Supportive research networks are an important factor in faculty retention. Departments should assist young faculty in becoming engaged in such networks on their home campus or with colleagues in other institutions. (academic programs)

6.3. Revamp curricula.

Re-engineering the curriculum will require numerous changes in instruction. PhD programs must revamp their curricula at all levels in a way that is consistent with doctoral preparation, including: additional laboratory instruction, research instruction, additional course offerings (including honors coursework) in basic processes of communication, shifting the relative emphasis of research and clinical instruction at all academic levels (including masters), ensuring a research focus in PhD programs, and development of post-doctoral experiences. They must also assist non-PhD degree granting institutions with enhancing their curricula, especially in the areas of science and research. (academic programs)

6.4 Establishing systematic lines of recruitment from undergraduate- and MA-only programs.

There must be concerted effort to partner with undergraduate and master's programs in developing potential pipelines of doctoral students. This will demand reaching out on the part of the doctoral programs as well as receptivity and cooperation on the part of non-PhD programs. Committee survey data highlighted the extent to which current pipelines are dry in that there is considerable unused capacity in doctoral programs (333 unfilled seats). (academic programs)

6.5 Organize PhD student cohorts.

Existence of a peer support group is an important determiner of success in PhD studies. Unfortunately, many of our doctoral programs are too small to provide such a support system. Efforts should be made to create student cohorts across disciplines or among institutions. (academic programs)

IMPLEMENTATION PLAN

The first recommendation, above, suggests the creation of a task force to guide the various efforts needed to reverse the growing shortage of PhD students and faculty. The committee debated, at length, the need for a continuing group and was initially disposed to not recommend creating one. On reflection, however, we agreed that a lack of coordination and oversight has been our biggest failure in the past. If we are to succeed, we must create a mechanism that overcomes those two obstacles to our success. Thus, we are recommending the creation of a task force that would exist for the next five years. **This task force should focus on oversight, not implementation.** No single group can achieve all of the changes outlined in this report. Instead, all members of the discipline of communication sciences and disorders must see themselves as members of the implementation team. The oversight task force will then be left with coordinating those significant efforts.

Until the task force can be created, the members of the existing Ad Hoc Joint Committee suggest that they continue to provide that oversight and to pursue the initiatives that they have begun in the past 10 months. In addition, we will begin to investigate long-term financial support for these efforts and will be present at the April 2003 meeting of the Council of Academic Programs to report on our progress.

Appendix A

The Doctoral Shortage in CSD: A Legacy of Concern

Cheryl Scott

Appendix B

PhD Program Survey Results 2002

Subcommittee Members: D. Kimbrough Oller, Cheryl Scott, and Howard Goldstein

The Doctoral Shortage in CSD: A Legacy of Concern

Over the last 10 years, ASHA and the Council have invested time and resources in addressing the doctoral shortage. The Joint Ad Hoc Committee on the Critical Shortage of Doctoral Students and Faculty (2001-2001) has reviewed products and publications from these efforts in order to inform its current work.

CAPCSD

- 1983 +: Survey of Undergraduate and Graduate Programs
- 1990: Ad Hoc Committee on Doctoral Education (Draft report in 1990 Proceedings)
- 1991: Hixon, T. Some ingredients of a quality doctoral program in Speech-Language Sciences. (in 1991 Proceedings; see also discussion summary on Hixon's paper); also published in *National Student Speech Language Hearing Association Journal*, 19, 89-93 (1991-92)
- 1994: Arranged for a NIDCD Working Group on Research Training Needs of Graduate Programs in Communication Sciences and Disorders, Bethesda, MD: Report from the conference (papers) available on request, CAPCSD.
- 1997: Working Group on Doctoral and Postdoctoral Education (<http://www.capcsd.org/proceedings/1998/Updates.htm>)
- 1998: Wilcox, K. Replacing the professorate: Perspectives from a doctoral program. <http://capcsd.org/proceedings/1998/ReplacingProfessorate.htm>
- 2000: Bernthal, J. & Mendel, M. Recruiting and retaining doctoral students http://www.capcsd.org/proceedings/2000/00_bernamdend.html
- 2001: Hurtig, R. Creative strategies for recruitment of doctoral students: An overview; Stathopoulos, E. Creative strategies for recruiting doctoral students. 2000 CAPCSD Proceedings 2001 CAPCSD Proceedings <http://www.capcsd.org/proceedings/2001/toc2001.html>

ASHA

- 1989: Ad Hoc Committee on Models of Doctoral Education (American Speech-Language-Hearing Association (1991). Report on Doctoral Education. *Asha*, 33 (Suppl 3), 1-9.
- 1994: Research and Scientific Affairs Committee published a Technical Report (American Speech-Language-Hearing Association (1994). The role of research and the state of research training within communication Sciences and disorders. *Asha*, 36, (March, Suppl. 12, pp. 21-23).
- 1994: Education Future Professionals: Challenges and Solutions for Academia: Blueprint for a New Academic Agenda (American Speech-Language-Hearing Association, 1995).
- 1996: Legislate Council Issues Forum: Scientific Bases of the Discipline and the Professions (presented by Bruce Tomblin, Chair of the Research and Scientific Affairs Committee)
- 1997: Working Group on Recruitment, Retention, and Academic Preparation of Researchers and Teacher-Scholars. (Selected papers, American Speech-Language-Hearing Association , 1997).
- 1997 - present: Articles in the *ASHA Leader* by Seymour, Geffner, Logemann, Bernthal, Creaghead
- 1998: Working Group on Mentoring. Academic Briefing Paper, November 1998.
- 1999 +: Research in Higher Ed Mentoring Program http://professional.asha.org/academic/research_mentor.cfm
- 2000 : Survey on the Shortage of Teacher-Scholars 2000 +: Science and Research Career Forum
- 2000 +: Workshops on Grant Writing, Research Integrity, sponsored by Research and Scientific Affairs Committee and ASHA's Science and Research Unit.
- 2001: Teleseminar: Doctoral Education in Communication Sciences and Disorders, Schuele & Bacon
- 2001 +: Infusion into GRPP, PR units

ASHA Foundation

- 1993 (ASHF and NIDCD): Minghetti, N. , Cooper, J., Goldstein, H., Olswang, L., & Warren, S. (1993). Research mentorship and training in Communication Sciences and Disorders: Proceedings of a national conference. Rockville, MD: American Speech Language Hearing Foundation.
- ASHF: Graduate Scholarships and Research Grants (including the New Investigator Awards)

- Resources for Funding Doctoral Students: 2002 edition <http://www.asha.org/members/phd-faculty-research/grants-funding/FundingStudents.htm>
- Lovitts, B., & Nelson, C. (2000). The hidden crisis in graduate education: Attrition from Ph.D., programs. *Academe*, Nov-Dec, 45-50. <http://www.aaup.org/publications/Academe/00nd/ND00LOVLIHTM> (full text)
- The Preparing Future Faculty Program: <http://www.preparing-faculty.org/PFFWeb.History.htm>

PH.D. PROGRAM SURVEY RESULTS 2002

The Joint Ad Hoc Committee
on the Shortage of Ph.D. Students and Faculty
in Communication Sciences and Disorders

Subcommittee for the survey:

D. Kimbrough Oller, Cheryl Scott, and Howard Goldstein

PH.D. PROGRAM SURVEY RESULTS, 2002

Executive Summary

- The Joint Ad Hoc Committee on the Shortage of Ph.D. Students and Faculty in Communication Sciences and Disorders was established to address the shortage of Ph.D. faculty in Communication Sciences and Disorders.
- The committee was formed by the Council of Academic Programs in Communication Sciences and Disorders (CAPCSD) and the American Speech-Language-Hearing Association (ASHA).
- A subcommittee of the Joint Ad Hoc Committee (D. Kimbrough Oller, Cheryl Scott, and Howard Goldstein) was formed to survey Ph.D. programs. The subcommittee received assistance from the staff of both ASHA and CAPCSD.
- This report, compiled by Oller, Scott, and Goldstein, summarizes results from survey results collected in winter and spring of 2002.
- The survey was preliminarily analyzed for presentation at a special meeting organized by the Joint Ad Hoc Committee regarding Ph.D. programs and training at the CAPCSD meeting in Palm Springs in April, 2002. To our knowledge, this was the first general meeting ever of Ph.D. program directors in CSD.

- **Reporting rate.** A total of 56 programs responded (52 US universities). The Joint Ad Hoc Committee hereby expresses its gratitude to the program directors and their representatives for responding to the survey. The rate of response was impressive – 86%. Not all items, however, were answered by the entire sample of respondents. Where fewer than 86% responded on a particular item, the accompanying slides indicate the actual response rates. ‘Adjusted’ values in the slides have been extrapolated to a 100% response rate, based on the obtained data and the actual response rates. Unadjusted values are displayed without comment in the slides.
- **Age of faculty members.** To project retirement rates over the next 20 years, we needed to know ages of faculty, full and part time, with and without research doctorates. Estimated from a sample of 575 full-time faculty, the mean age of Ph.D. faculty in Ph.D. training programs was 49 years. These data provide the first characterization of the distribution of Ph.D. faculty by age within Ph.D. programs in Communication Sciences and Disorders.
- **Size of programs.** The majority of programs had 6-15 students each, while the 10 smallest programs had fewer than 6 students each, and the 4 largest had more than 25 each. The 4 largest programs accounted for about a quarter of the total current enrollment of Ph.D. students. The most typical programs in terms of size (6 to 15 students each) accounted for 46% of the total enrollment.
- **Capacity for additional doctoral training.** Programs reported a total of 333 unfilled slots (value adjusted to 100% reporting rate) available for Ph.D. students in 2001-2002. The mean number of slots per program was 2.9 students in SLP, 2.0 students in Audiology, 1.9 students in Communication Science, and 2.6 students in other or unspecified categories.

- *What happened to Ph.D. students enrolled since 1995?* Approximately 41% graduated; approximately 8% dropped out; approximately 52% of graduates were hired as faculty members.
- *Relative importance of factors restricting enrollment.* Availability of funding was the one factor rated as highly important. Other factors were rated as moderately important (i.e., number of faculty, faculty time, faculty expertise).
- *Recommended funding initiatives.* The survey sought to provide information that might be helpful to CAPCSD, ASHA, the ASHA Foundation, and other potential sponsors who were exploring funding mechanisms and other strategies that might be effective in increasing the supply of Ph.D. graduates. Among several possible strategies, recruiting first year students was most highly rated by Ph.D. program representatives. Other high ratings were obtained for supplemental training awards, supplemental research awards for doctoral candidates, and supplemental research awards.
- *Perceived success of recruitment strategies.* Funded research assistantships and Master's theses were rated as most successful in recruiting future doctoral students. Master's research projects, summer research internships, undergraduate honors theses and research projects were rated slightly lower. Volunteering in labs was considered less than moderately successful.
- *Comparing faculty composition in Ph.D. programs versus all training programs.* Comparative data for 'all programs' were drawn from four cycles of the CAPCSD regular survey conducted every two years. The great majority (63%) of the faculty in programs offering the Ph.D., held the Ph.D. and worked full time as faculty. In all programs combined, fewer than half the faculty held the Ph.D and worked full time.

➤ *Reported and recommended levels of financial support for Ph.D. students.* The reported range in funding levels was large. The average levels for extramurally funded Ph.D. trainees or fellows, extramurally funded research assistants, university-funded research assistants, and university-funded teaching assistants was \$14,730, \$13,550, \$13,320, and \$11,360, respectively. Recommended funding levels averaged from \$17,500 to \$15,170 for the various categories.

➤ *Student involvement in research.* Ph.D. programs reported the involvement of 431 undergraduate students and 697 master's students (estimates adjusted to 100% reporting rate), averaging 8.7 and 11.6 students per program, respectively.

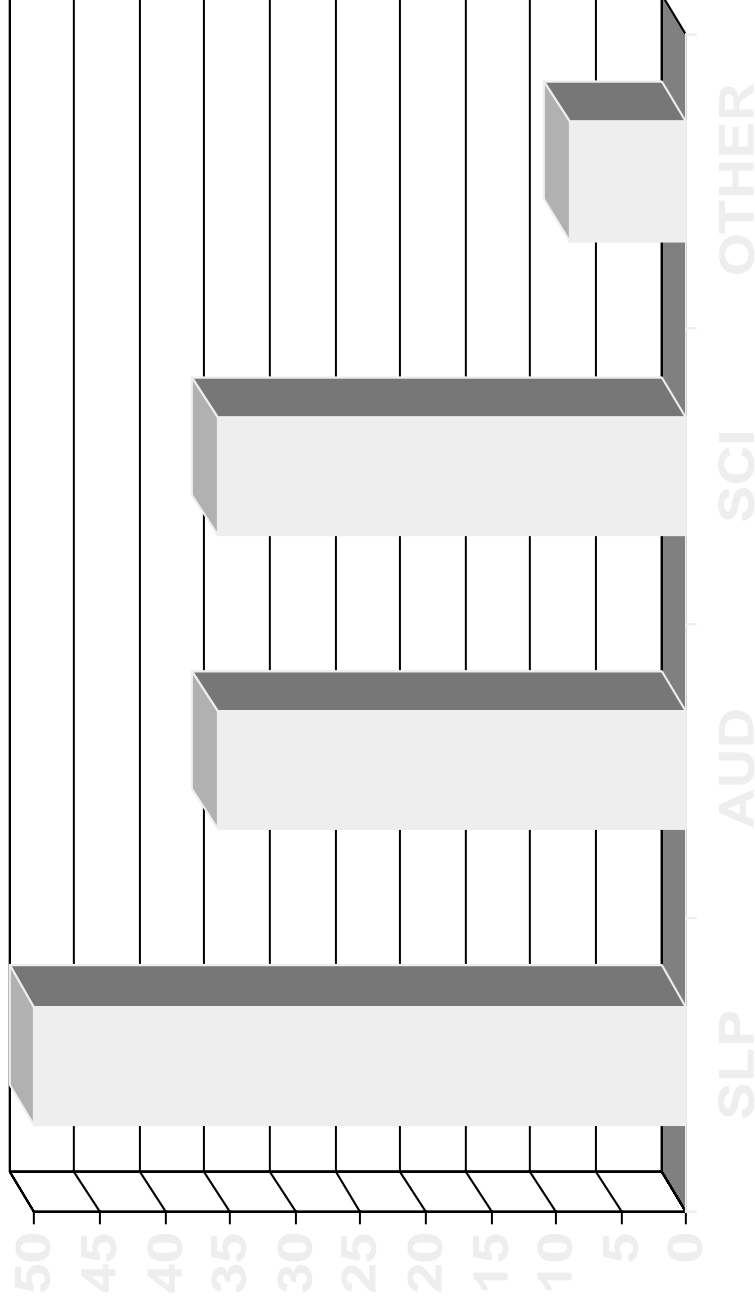
➤ *Demographics of current students.* The adjusted estimate of the total number of doctoral students in CSD in 2001 based on the survey was 813. Among the doctoral programs reporting, 65% detailed information for a sample of 405 individual students. At least 67% of students were full-time. The proportions were distributed among SLP (68%), Audiology (22%), Communication Science (5%), and other (5%).

Gender	82% female
Color	13% of color
Disability	2% with disability
Citizenship	20% international
Prior degree	77% CSD Master's, 11% Master's from other fields, 12% bachelor's only
Source of degree	31% from same University, 55% from other US Universities, 14% from non-US University.

- *Student funding types and sources.* Approximately 24% of doctoral students were reported to be self-supporting. The majority were supported by university funds (50%); other major sources were research grants (22%) and training grants (14%). Some students were funded from multiple sources. Most often Ph.D. students were funded as research assistants (46%); approximately 35% as teaching assistants, ~ 15% as trainees, ~ 6% as clinical supervisors, and ~ 12% in other categories. An estimated 64% and 19% of Ph.D. students received full tuition waivers and partial tuition waivers, respectively.

Survey of Ph.D. programs, number responding by area of training

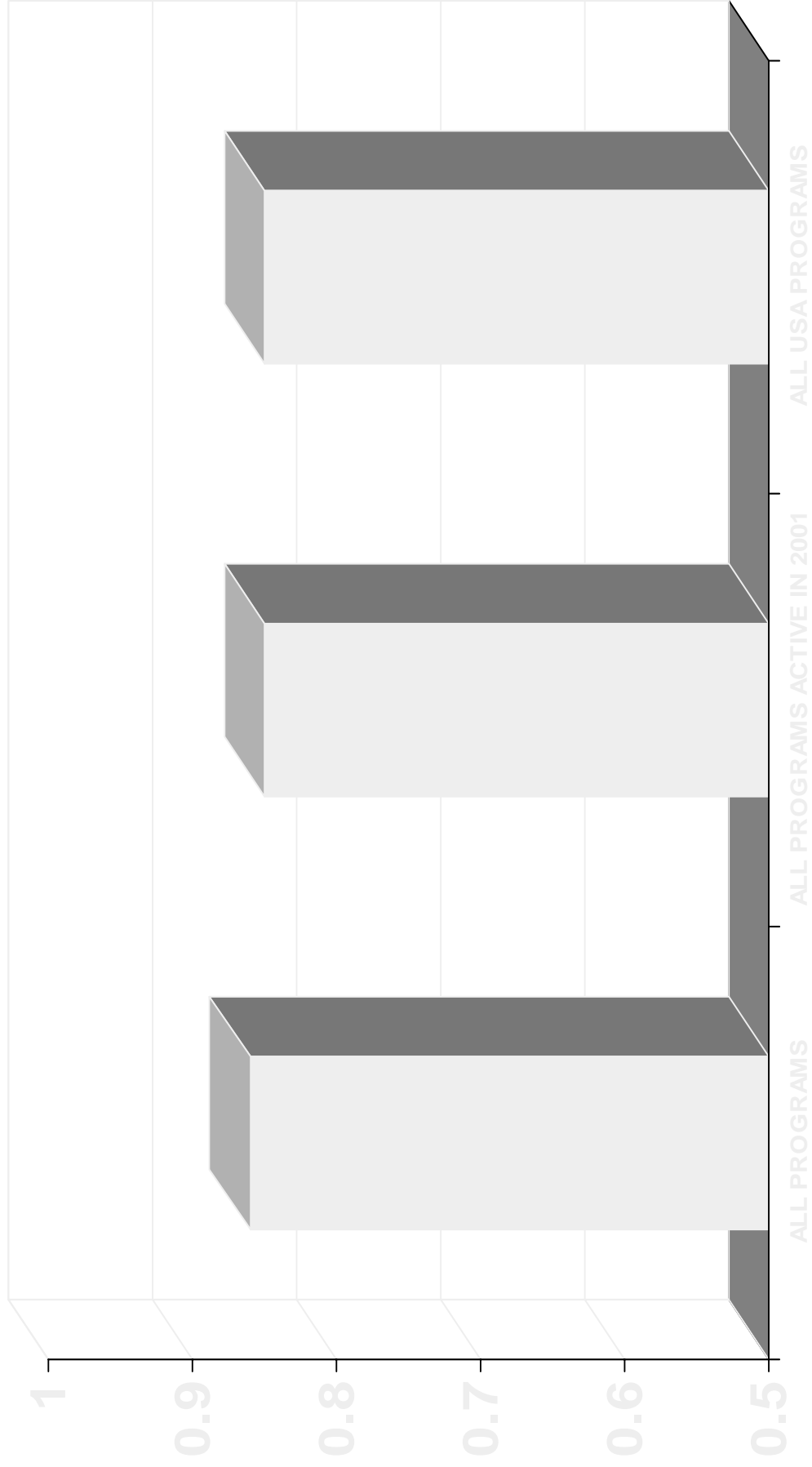
Total number of programs responding = 56
(52 from the US)



Proportion reporting

- The Joint Ad Hoc Committee is pleased to report that the great majority of program directors or their representatives responded to the survey
- The rate of response was 85-86% depending upon criteria indicated in the next slide
- Not all items, however, were answered by the entire sample of respondents
- Where fewer than 86% responded on any item, the slides that follow indicate the actual response rates
- ‘Adjusted’ values in the slides have been extrapolated to a 100% response rate, based on the obtained data and the actual response rate

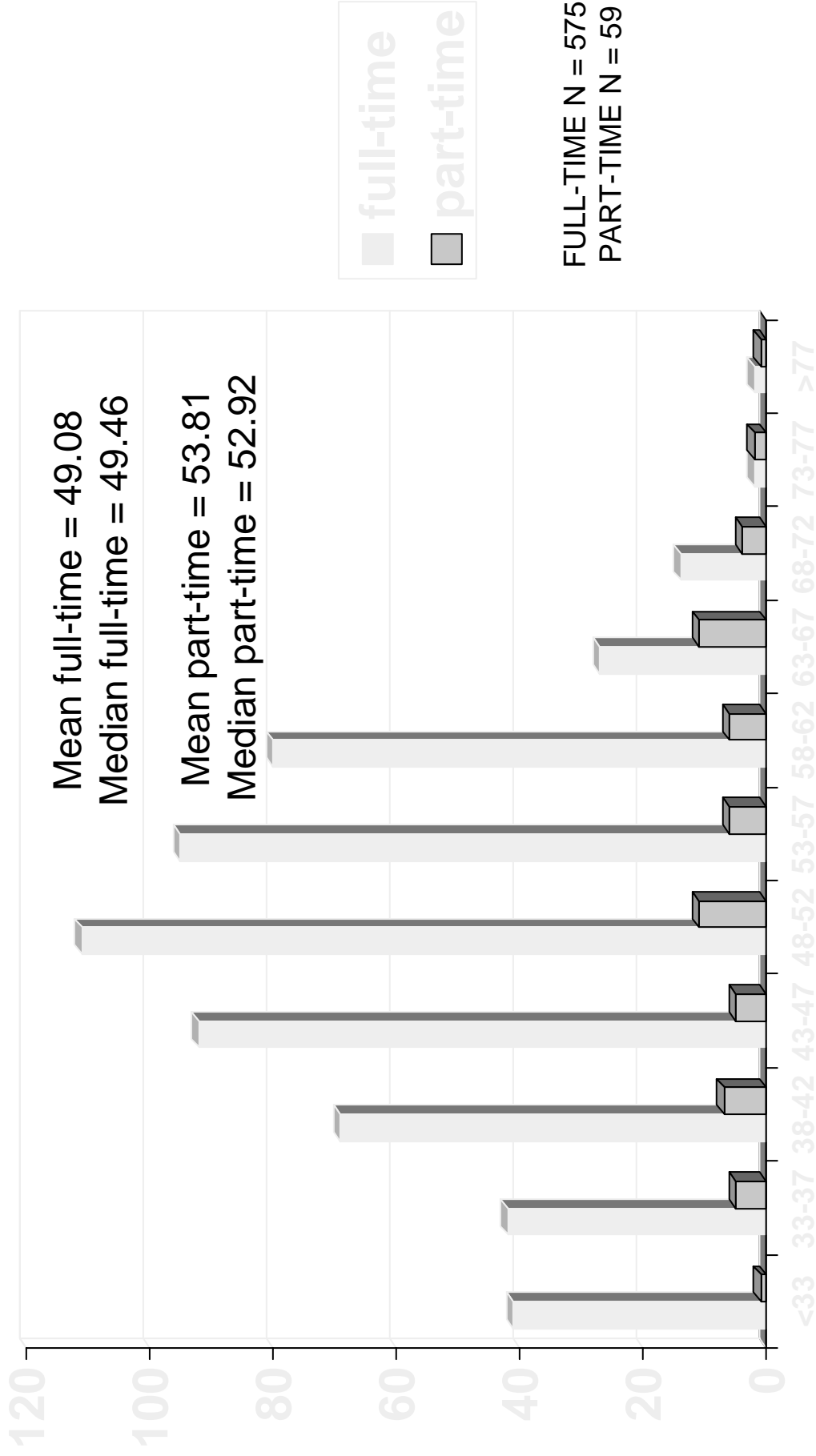
PROPORTION OF PROGRAMS REPORTING IN THE 2002 PH.D. PROGRAM SURVEY FROM THE JOINT AD HOC COMMITTEE



Item wording for next slide

In order to project retirement rates over the next 20 years, we need to know ages of faculty, full- and part-time, with and without research doctorates. Indicate the numbers of faculty in each category, accounting for all faculty (excluding individuals who are contracted to perform off-site supervision only or to teach an occasional course) in the program. If ages are not known to you with certainty, please estimate.

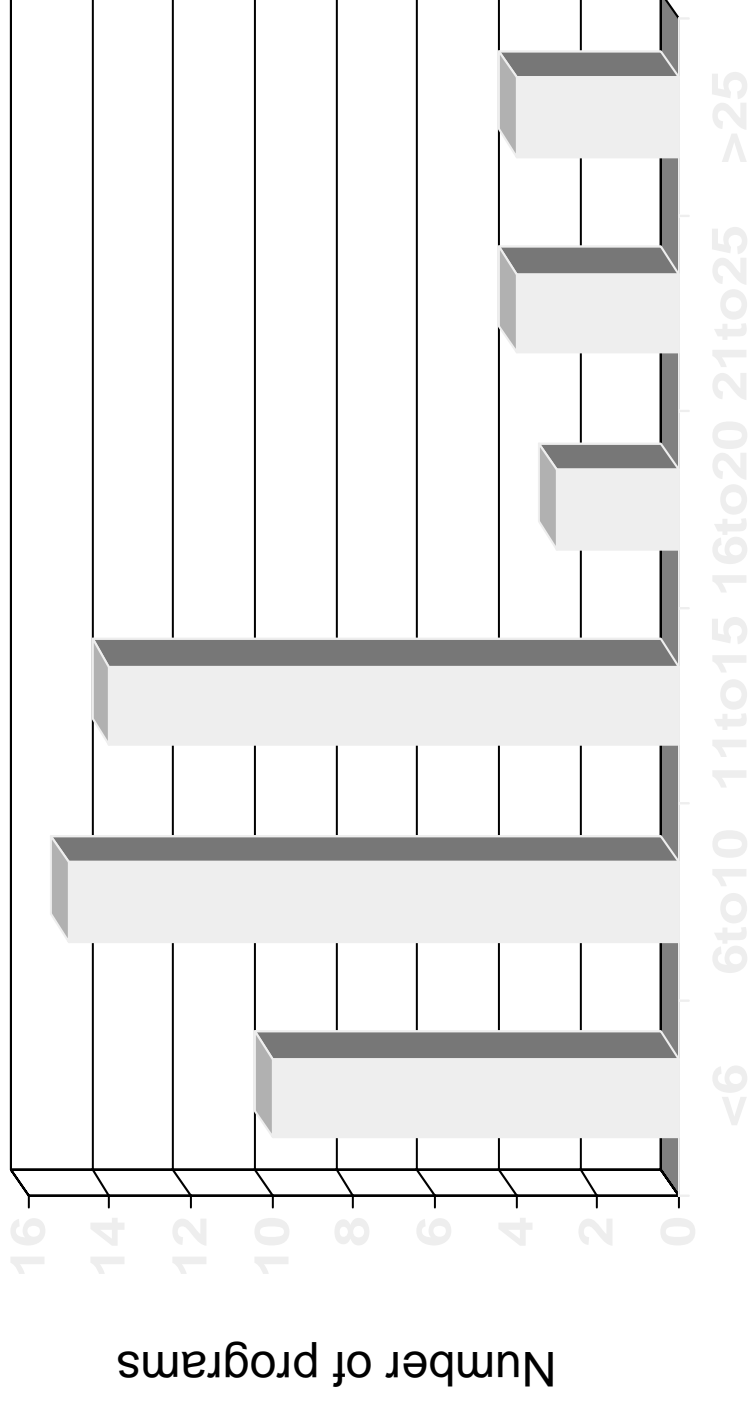
Distribution of faculty holding the Ph.D. by age in Ph.D. Programs, from the Joint Ad Hoc Committee Survey, 2002



Interpretation of the previous slide

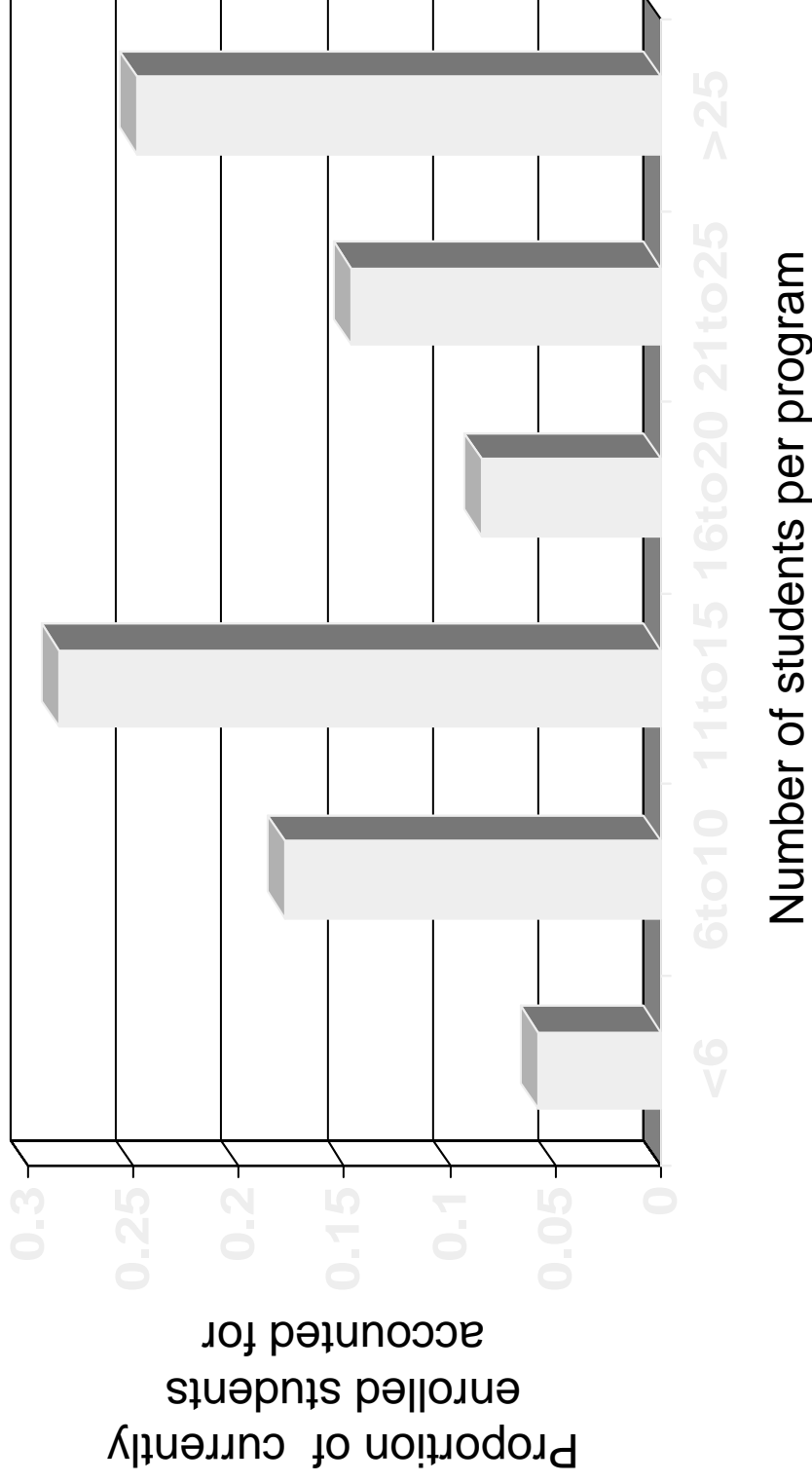
- The age of faculty holding the Ph.D. is distributed such that the vast majority were 38 to 62 years of age.
- The distribution provides the first available indication that retirement from full-time faculty roles by Ph.D. holders in Communication Sciences and Disorders (with the proviso that only individuals in programs offering the Ph.D. are represented in the sample) seems to occur most commonly at or around 65 years of age.

Number of Currently Enrolled Ph.D Students in 50 Currently Active Ph.D. Programs



Number of students per program

Proportion of Ph.D Students Accounted for by 50 Currently Active Ph.D. Programs with Varying Numbers of Students



Notable conclusion: The 4 largest programs accounted for about a quarter of the total current enrollment of Ph.D. students. The most typical programs in terms of size (6 to 15 students each) accounted for 46% of the total enrollment.

Item wording for next slide

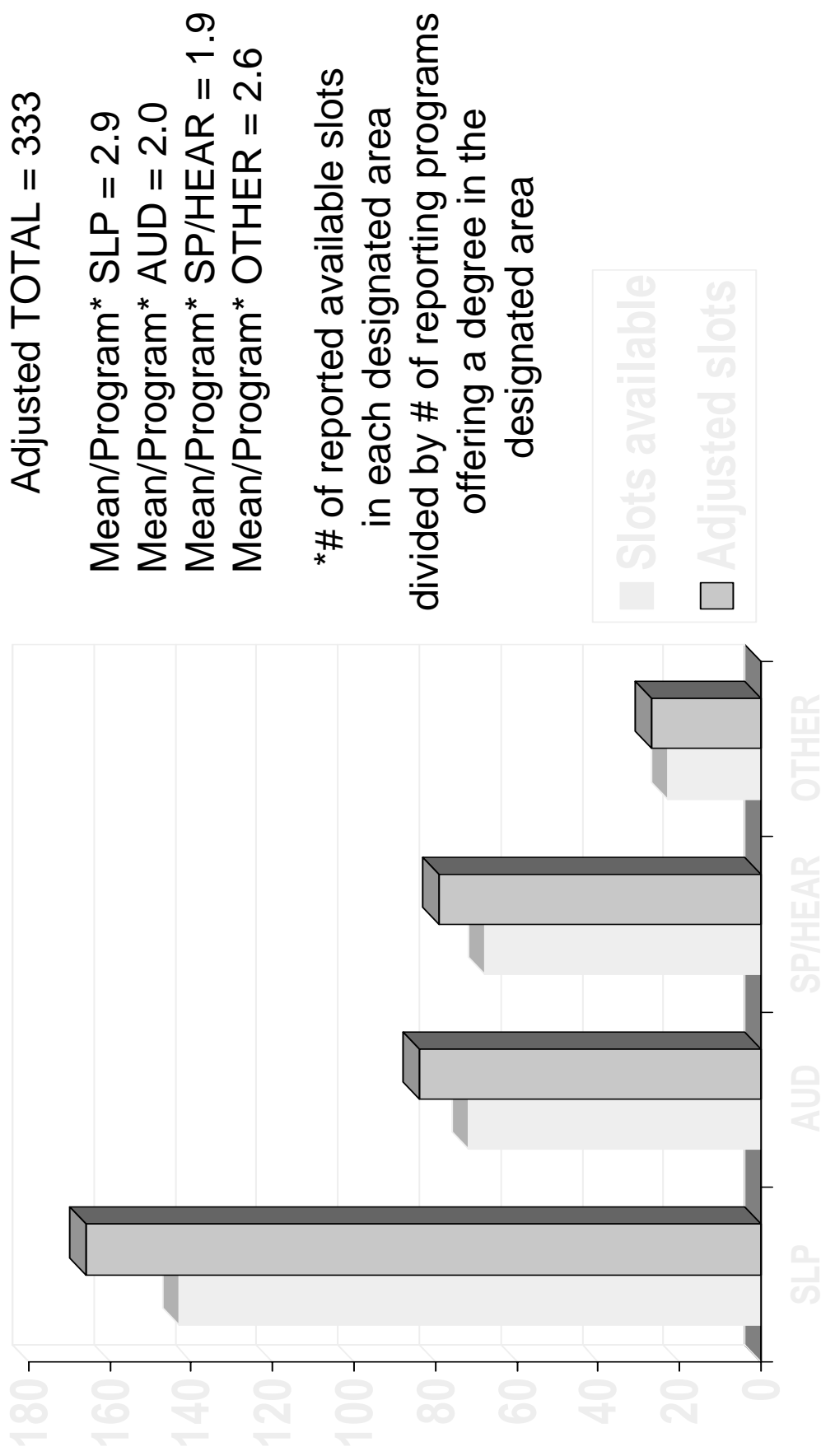
All factors considered (e.g., funding, faculty resources, lab space), are you presently at maximum research doctoral enrollment capacity?
If not, approximately how many more research doctoral students could you enroll (#)?

SLP: yes no #___ Speech and/or Hearing Science: yes no #___

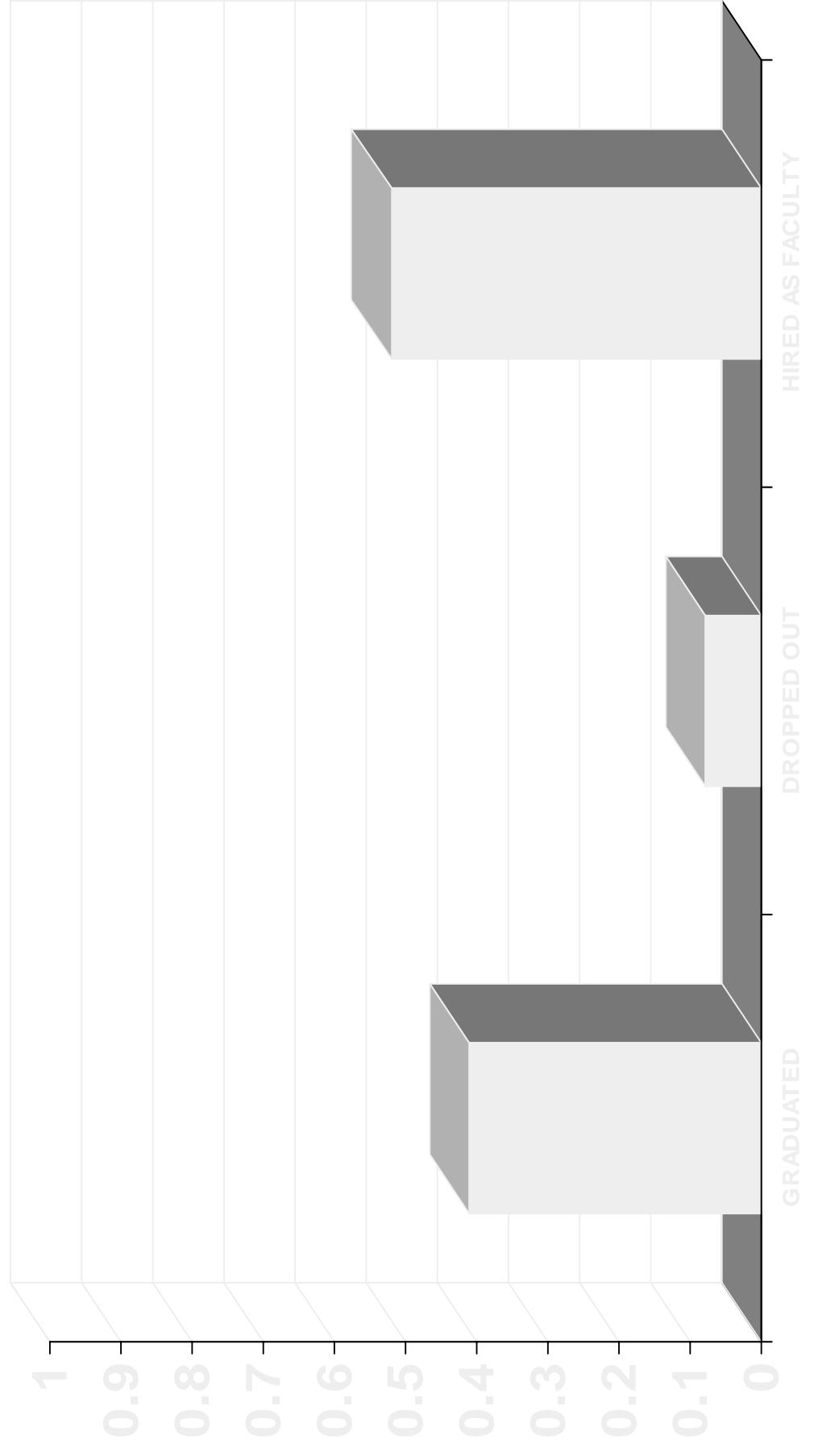
Audiology: yes no #___ Other: yes no #___

Capacity for additional Ph.D. training:

Unfilled slots reported to be available for Ph.D. students, 2001-2002



PROPORTION GRADUATED OR DROPPED OUT OF
PH.D. PROGRAMS SINCE 1995, AND IF GRADUATED,
PROPORTION HAVING TAKEN FACULTY POSITIONS



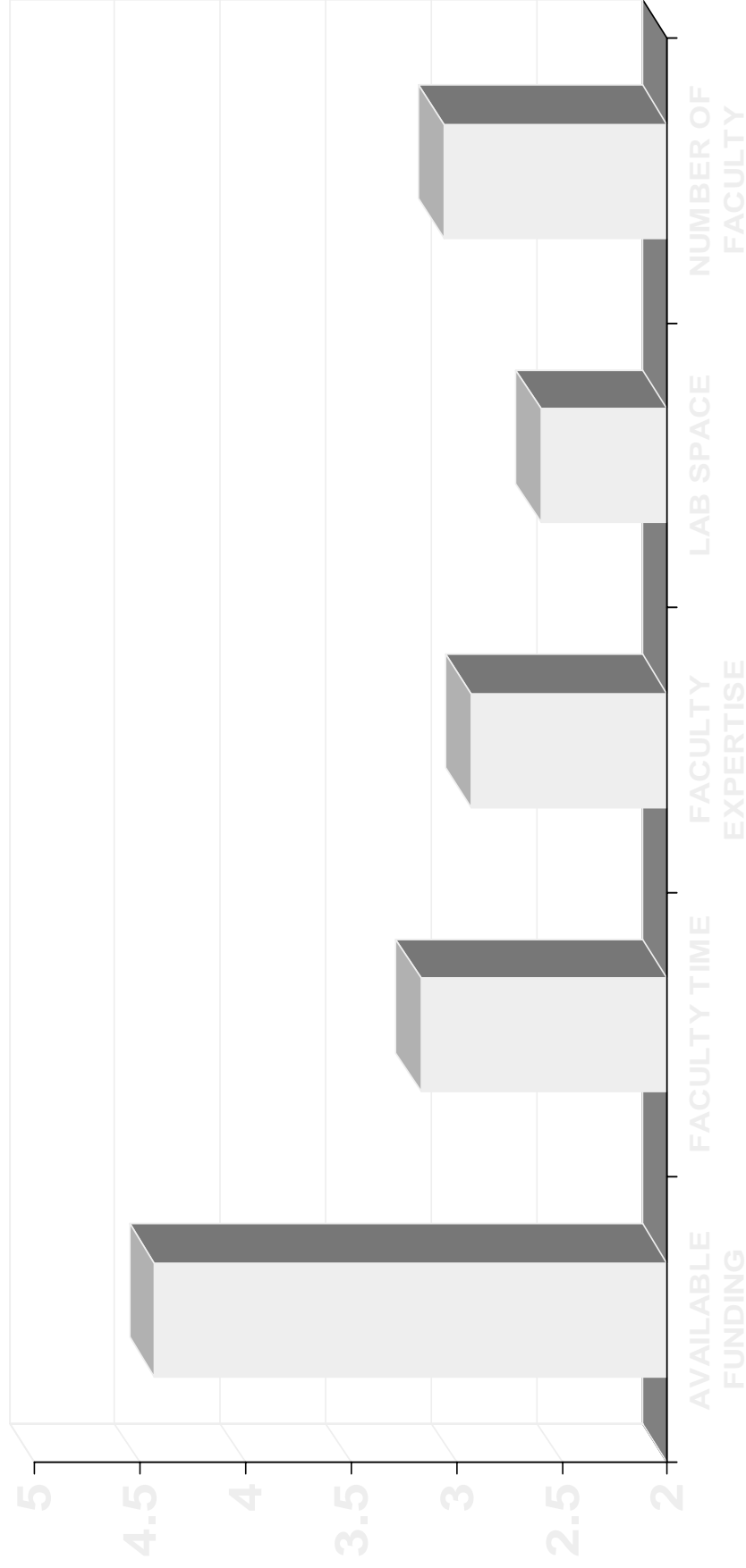
Item wording for next slide

- In your opinion, how important are each of the following factors in placing restrictions on your research doctoral enrollment? Rate the perceived importance of each factor using 1=none, 3=moderate, 5=high.
 - 1 2 3 4 5 Availability of student funding
 - 1 2 3 4 5 Competing demands on faculty time
 - 1 2 3 4 5 Faculty expertise
 - 1 2 3 4 5 Lab space
 - 1 2 3 4 5 Number of faculty
 - 1 2 3 4 5 Other, specify:

PROGRAM DIRECTORS' JUDGMENTS REGARDING RELATIVE IMPORTANCE OF FACTORS RESTRICTING ENROLLMENT

Many entered
'too few applicants'
under 'other'

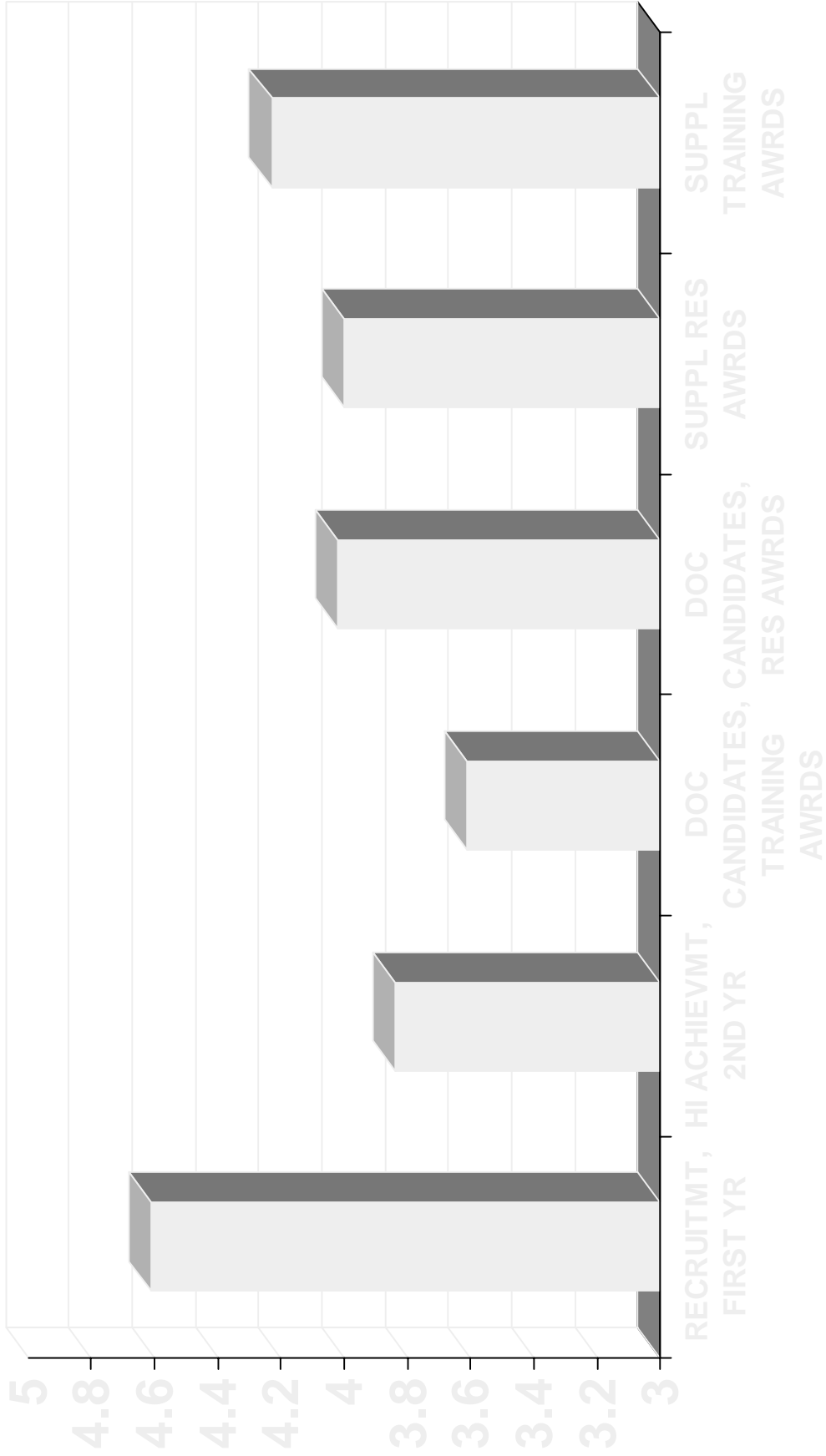
2001-2002, 83% of programs reporting, Scale 1-5



Item wording for next slide

- The CAPCSD, ASHA, the ASHF Foundation, and other potential sponsors are interested in exploring funding mechanisms that might be effective in increasing the supply of research doctoral graduates. Please rate the importance that should be given to the following targets. Rate the perceived effectiveness of each funding mechanism using 1=none, 3=moderate, 5=high.
 - 1 2 3 4 5 Recruitment of new students (1st year)
 - 1 2 3 4 5 High achieving students (2nd year) in Ph.D. programs
 - 1 2 3 4 5 Students admitted to candidacy (3-4th year) training stipends
 - 1 2 3 4 5 Students admitted to candidacy (3-4th year) research awards
 - 1 2 3 4 5 Training stipends to supplement institutional funding
 - 1 2 3 4 5 Research awards to supplement institutional funding
 - 1 2 3 4 5 Other, specify: _____
-

PROGRAM DIRECTORS' RECOMMENDED FUNDING TARGETS ON A SCALE OF 1 TO 5, with 79% reporting

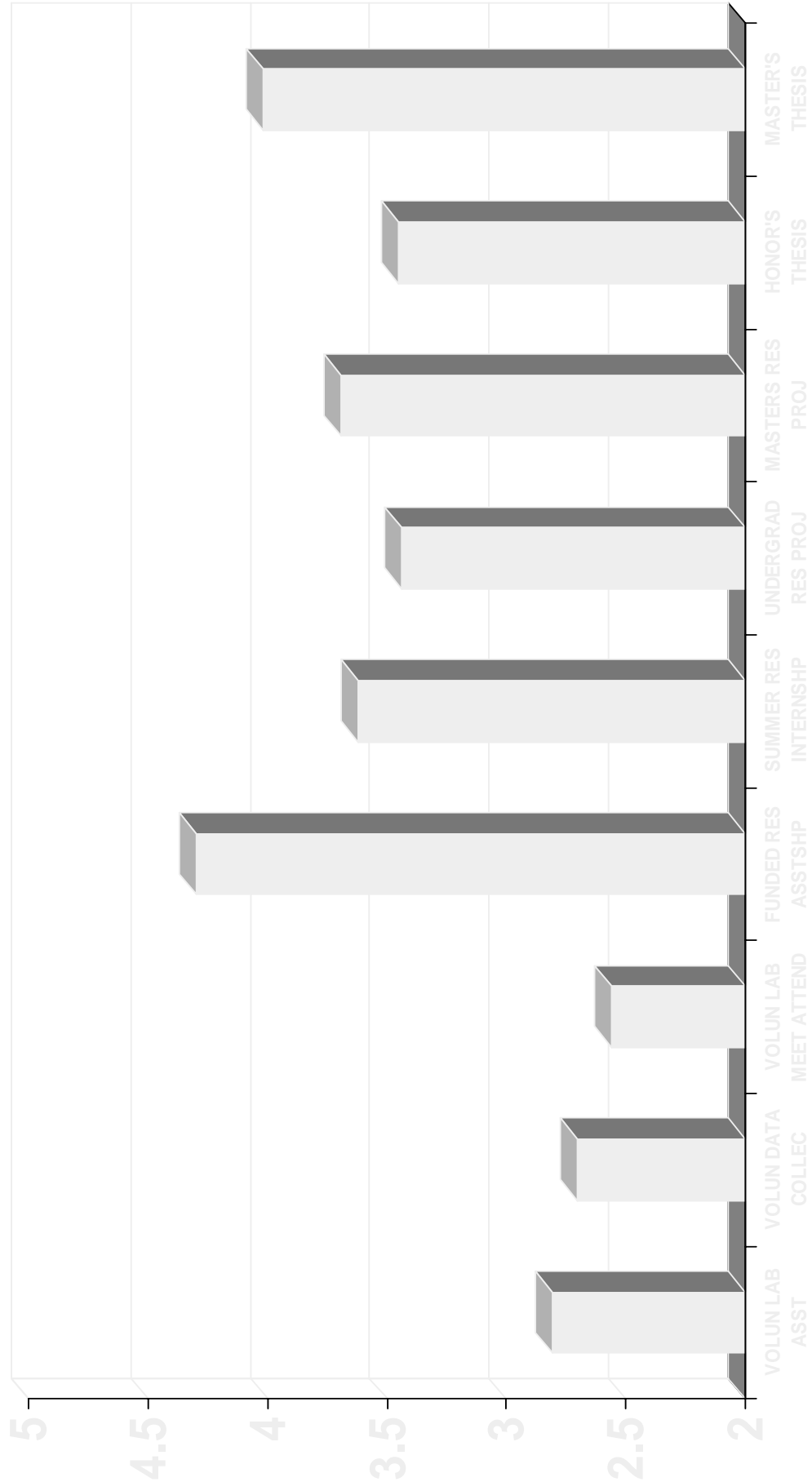


Item wording for next slide

- At the CAPCSD meeting, we would like participants to discuss strategies that programs have implemented that you believe have assisted in research doctoral recruitment efforts. Rate the perceived usefulness of the following activities using 1= not useful, 5=highly useful.
 - 1 2 3 4 5 Volunteer lab assistant
 - 1 2 3 4 5 Volunteer data collection
 - 1 2 3 4 5 Volunteer lab meeting attendance
 - 1 2 3 4 5 Funded research assistantship
 - 1 2 3 4 5 Summer research internship program
 - 1 2 3 4 5 Undergraduate research project
 - 1 2 3 4 5 Master's research project
 - 1 2 3 4 5 Honor's thesis
 - 1 2 3 4 5 Master's thesis

PROGRAM DIRECTORS' JUDGMENTS REGARDING SUCCESSFUL RECRUITMENT STRATEGIES

with 73% responding

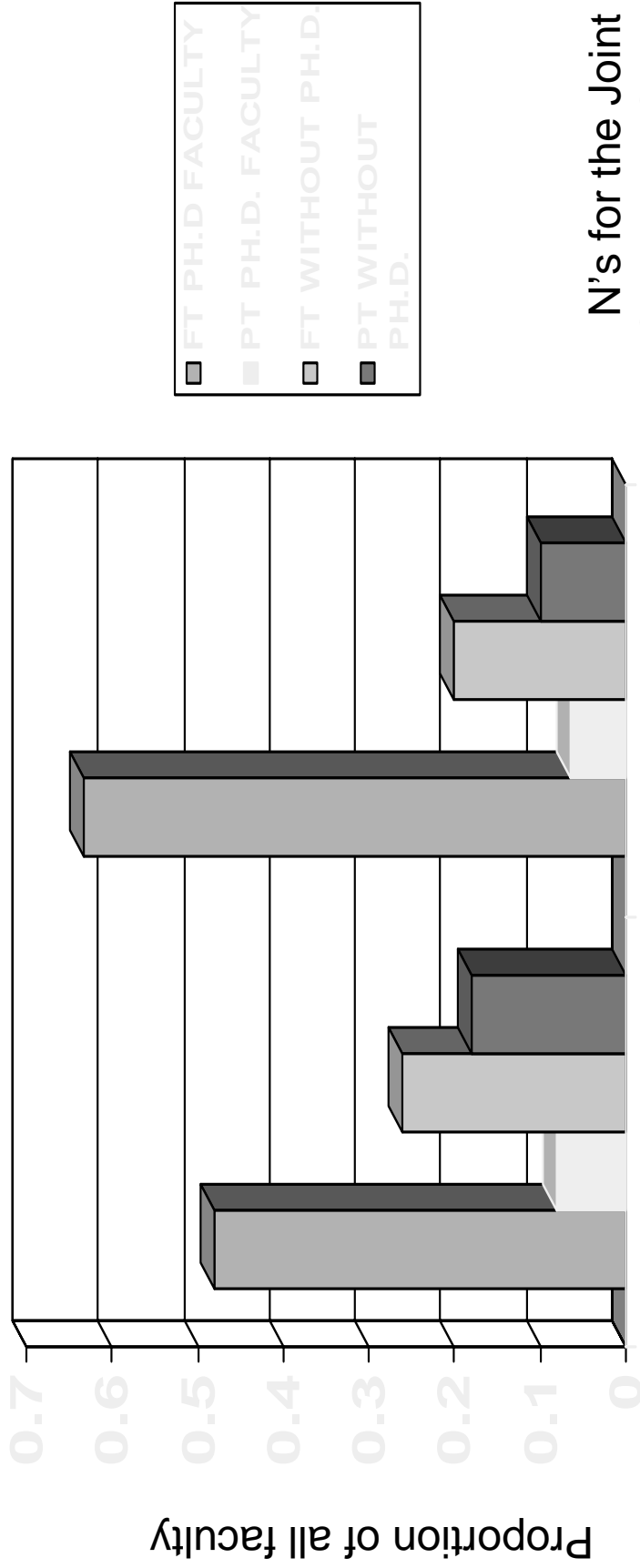


PH.D. PROGRAMS DIFFERED FROM OTHER PROGRAMS IN PROPORTIONS OF PH.D. FACULTY IN FT ROLES

- The next slide indicates that the great majority (63%) of faculty in programs offering the Ph.D. worked full time as faculty and held the Ph.D.
- On the other hand, fewer than half the faculty members (48%) in all programs worked full time and held the Ph.D.
- The comparative data for 'all programs' were drawn from four cycles of the CAPCSD regular survey conducted every two years

COMPARISON OF PH.D. PROGRAMS WITH ALL PROGRAMS

Subgroups of faculty as a proportion of all faculty



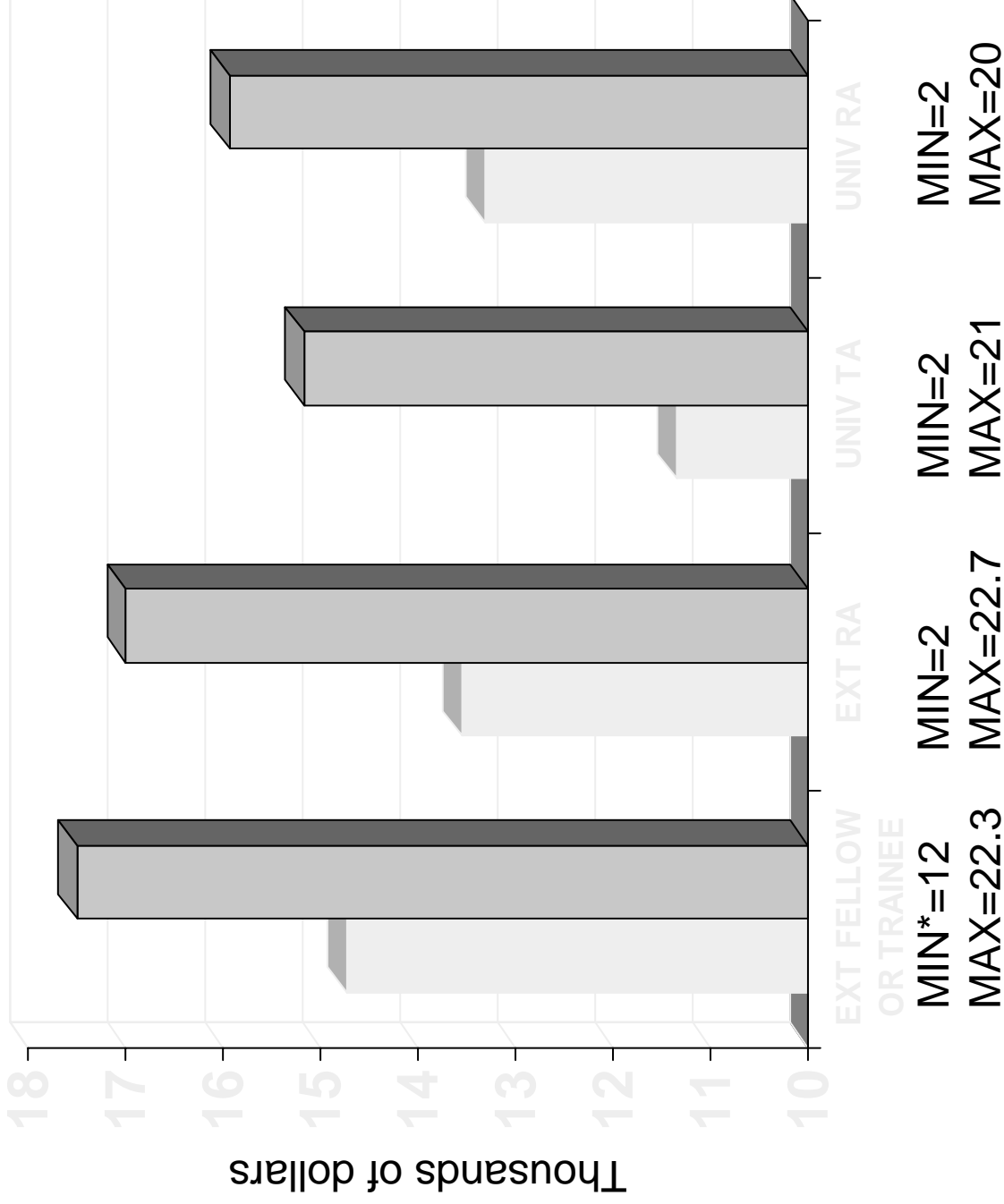
N's for the Joint
Committee Survey

FULL-TIME PH.D. N = 575
 PART-TIME PH.D. N = 59
 FULL-TIME NON-PH.D. N = 183
 PART-TIME NON-PH.D. N = 90

IN ALL PROGRAMS IN PH.D.

4 cycle ave. of data from Joint Ad Hoc
 from Council survey Committee Survey, 2002

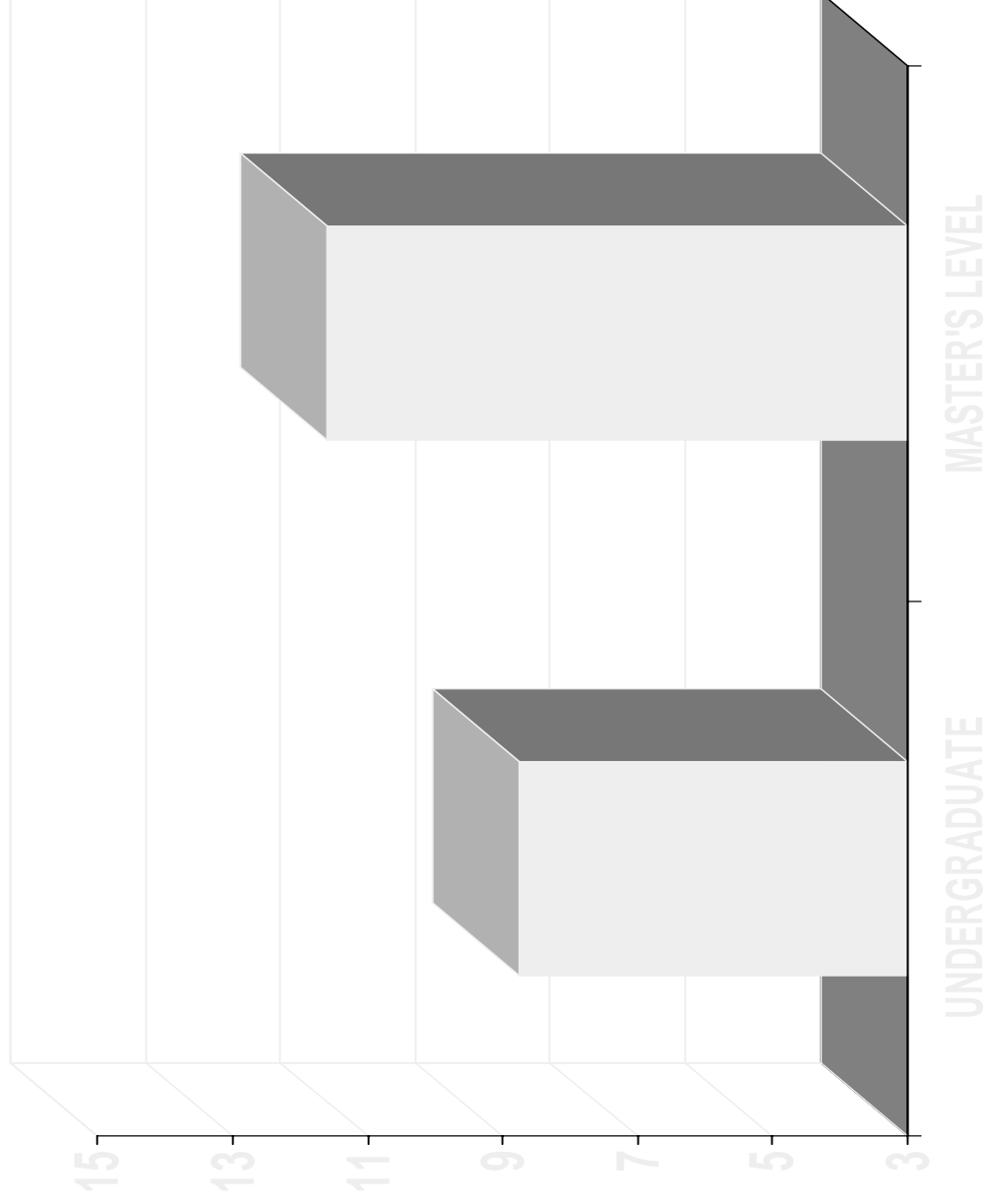
AVERAGE FUNDING LEVELS FOR PH.D. STUDENTS WITH FUNDING



■ ACTUAL
■ RECOM'D

*MIN AND MAX REFER TO ACTUAL FUNDING LEVELS

AVERAGE NUMBER OF UNDERGRADUATE AND MASTER'S STUDENTS INVOLVED IN RESEARCH PER PROGRAM



Interpretation of next slide: “Ph.D. students admitted and enrolled”

The data here were based on the following survey item:

For the most recent academic year (2001-2002):

___/___ # research doctoral students admitted/# enrolled with funding commitment

___/___ # research doctoral students admitted/# enrolled **without** funding commitment

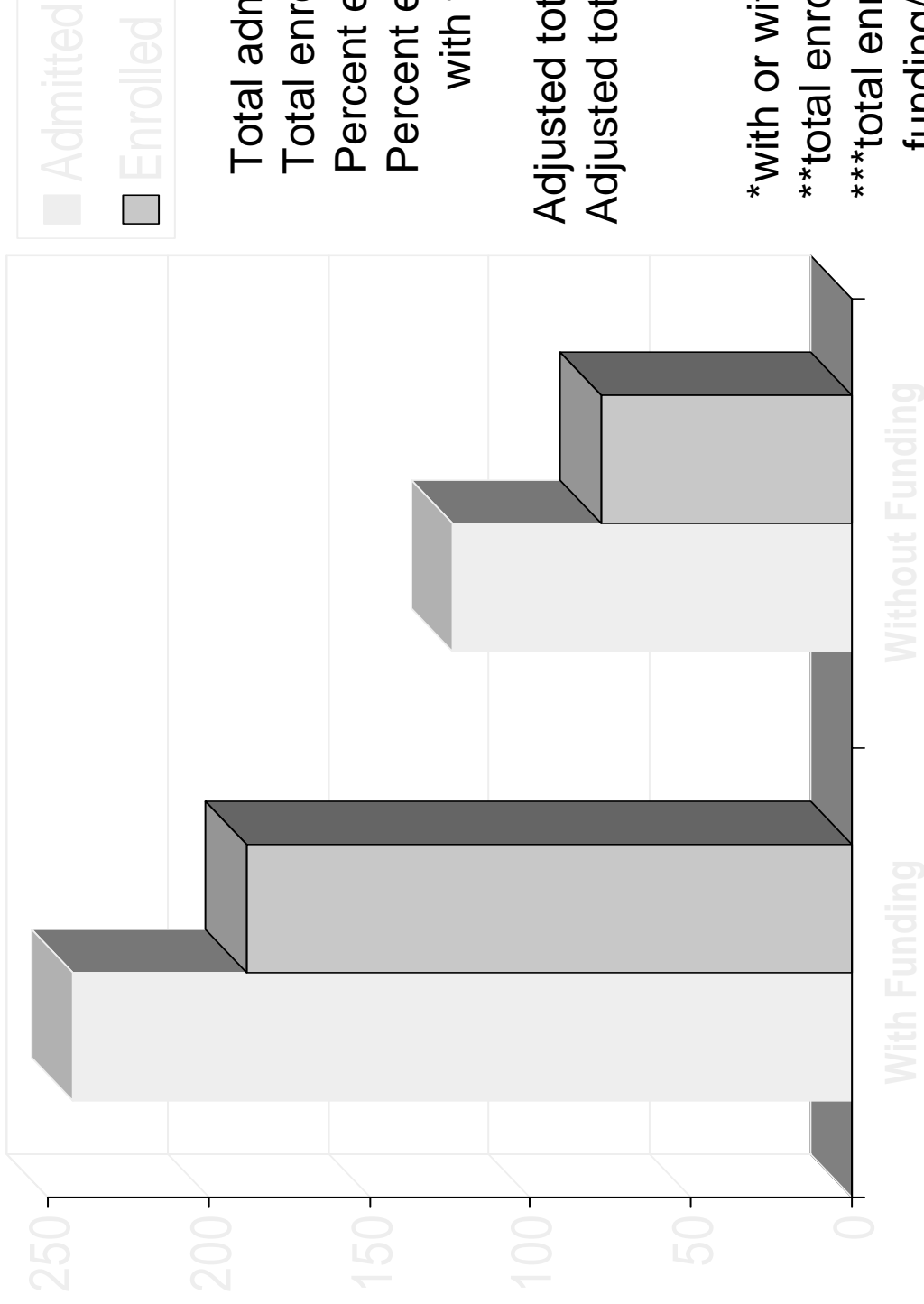
It appears that not all the programs interpreted the question identically. The intention was for programs to respond with information about the most recent year only, excluding students admitted or enrolled in prior years. But some seem to have understood the question as meaning ‘during the most recent year, how many total students are enrolled and how many have been admitted (at any prior time)?’

Consequently, the total enrolled and admitted figures may be overestimated in the following slide. In addition there are other ways that the data in response to this item do not check out well with other responses to surveys from a few of the programs – we presume the item was occasionally interpreted in ways we did not intend due to ambiguity of the item’s phrasing.

If this item is utilized in future surveys, we will, of course, recommend that it be revised to eliminate the apparent ambiguity.

Ph.D. students admitted and enrolled, 2001-2002,

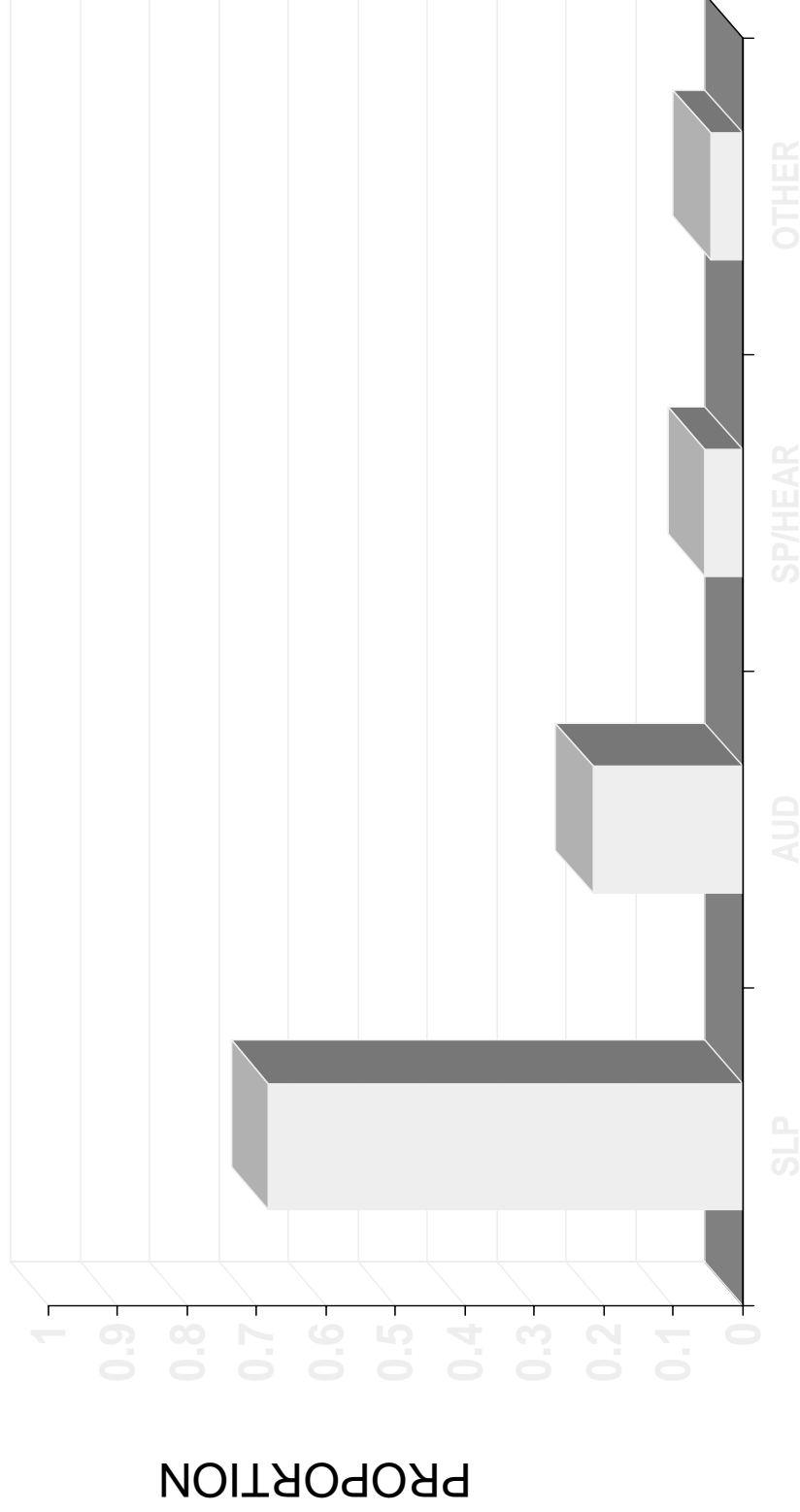
77% of programs reporting on this item



Data on individual Ph.D. students

- The Joint Ad Hoc Committee survey was broken down into two broad components:
- the first component (with data summarized in the preceding slides) focused on program characteristics and had an overall 86% response rate from programs
- the second component (with data summarized in the following slides) focused on characteristics of individual students and had an overall 65% response rate, accounting in the maximum case for 405 currently enrolled Ph.D. students

65% OF PH.D. PROGRAMS REPORTED DETAILS ON STUDENTS; THIS FIGURE DISPLAYS THE REPORTING PROGRAMS IN EACH SUBAREA AS A PROPORTION OF ALL REPORTING PROGRAMS, AND SUBSEQUENT SLIDES PROVIDE THE DATA ON INDIVIDUAL STUDENTS

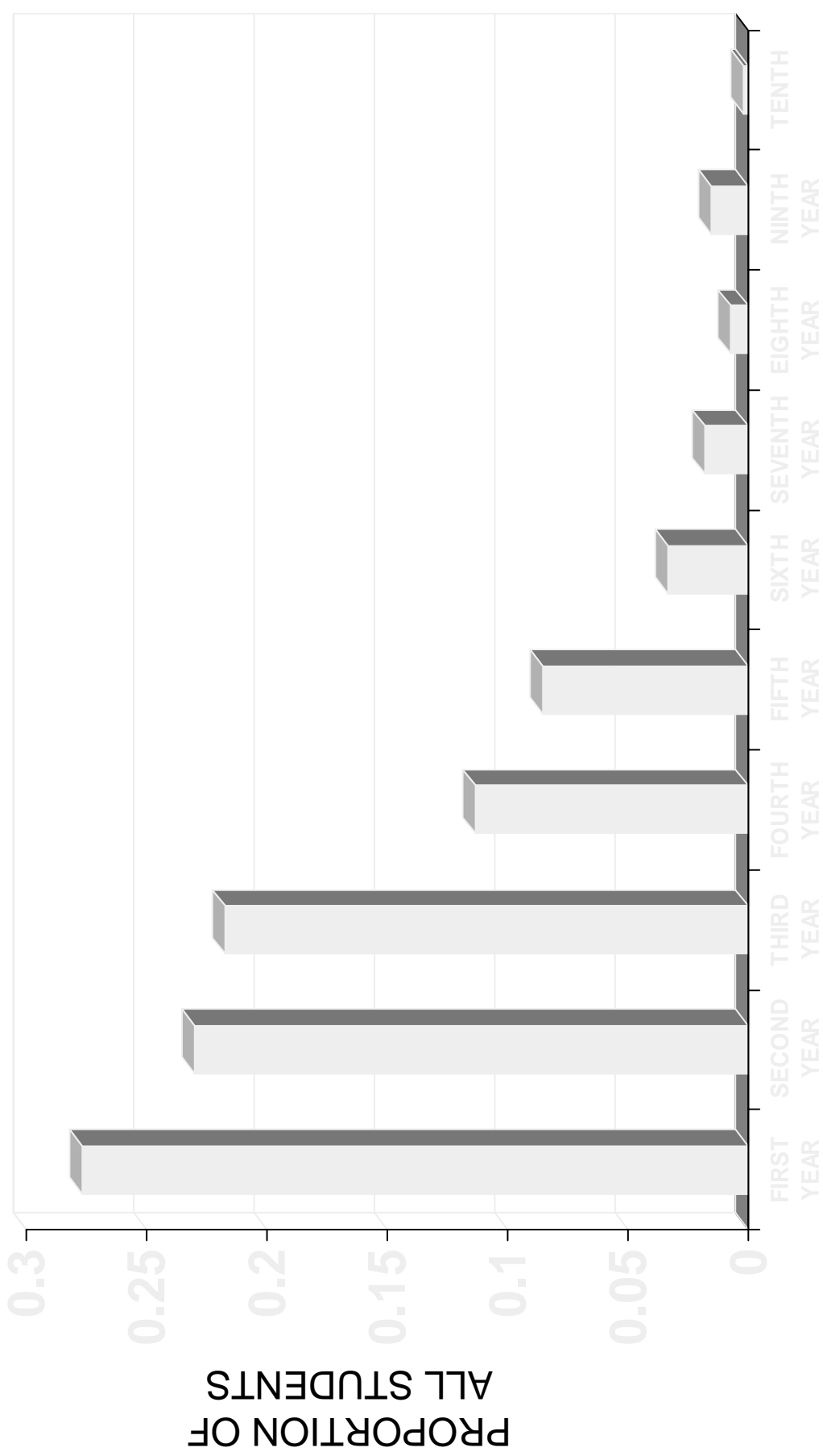


DEMOGRAPHICS ON PH.D. STUDENTS FROM SAMPLE OF 405 INDIVIDUALS IN 2001

Gender	82% female
Color	13% of color
Disability	2% with disability
Citizenship	20% international
Prior degree	77% CSD Master's, 11% Master's from other field, 12% Bachelor's only
Source of degree	31% same Univ., 55% other US Univ., 14% non-US Univ.
Full-time or Part	67% Full-time

Notable conclusions: Ph.D. students were very predominantly white American women who had completed a Master's degree in Communication Sciences and Disorders, and the 2/3 were studying full-time

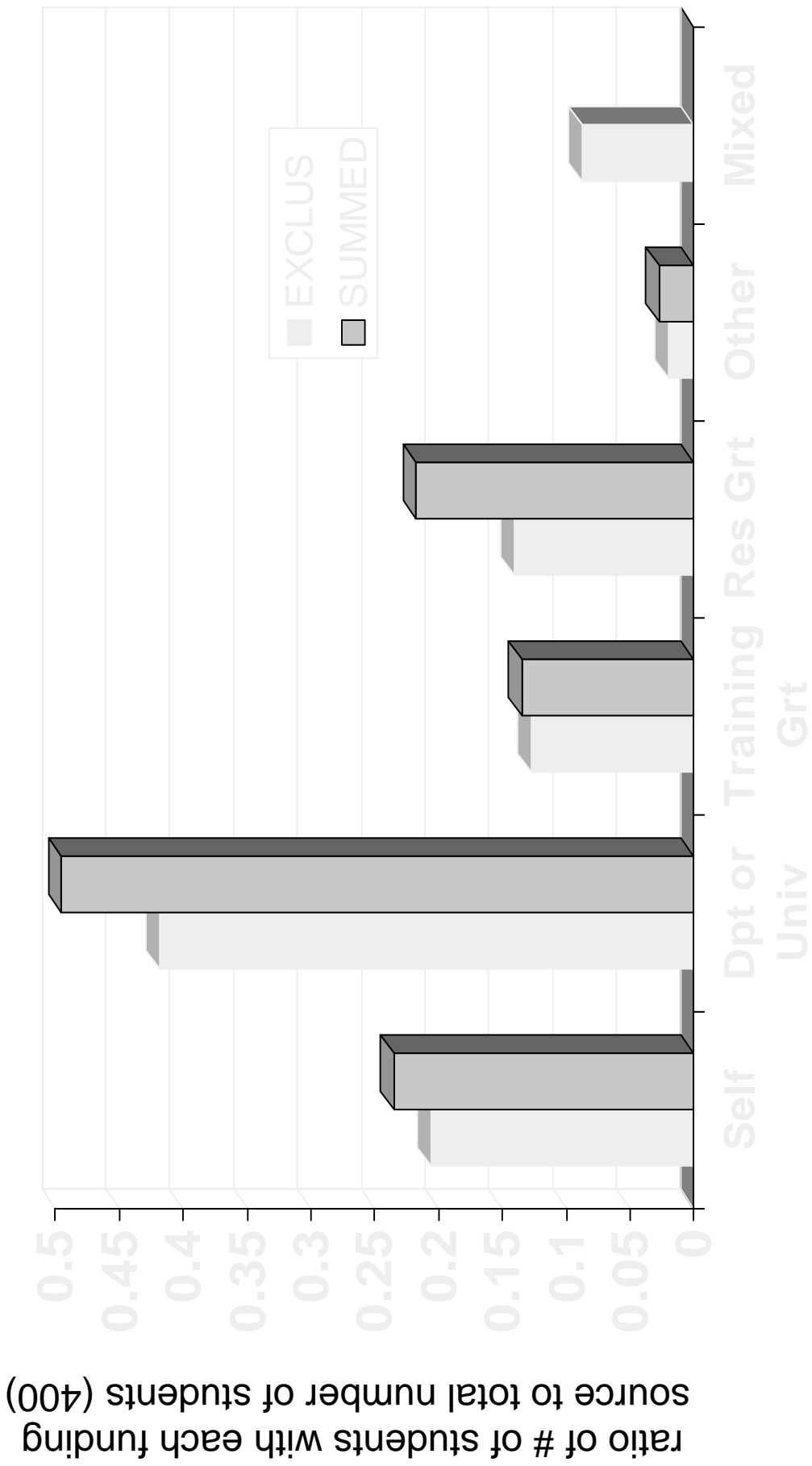
YEARS IN PH.D. PROGRAM FOR STUDENTS ENROLLED with 63% of programs reporting on this item



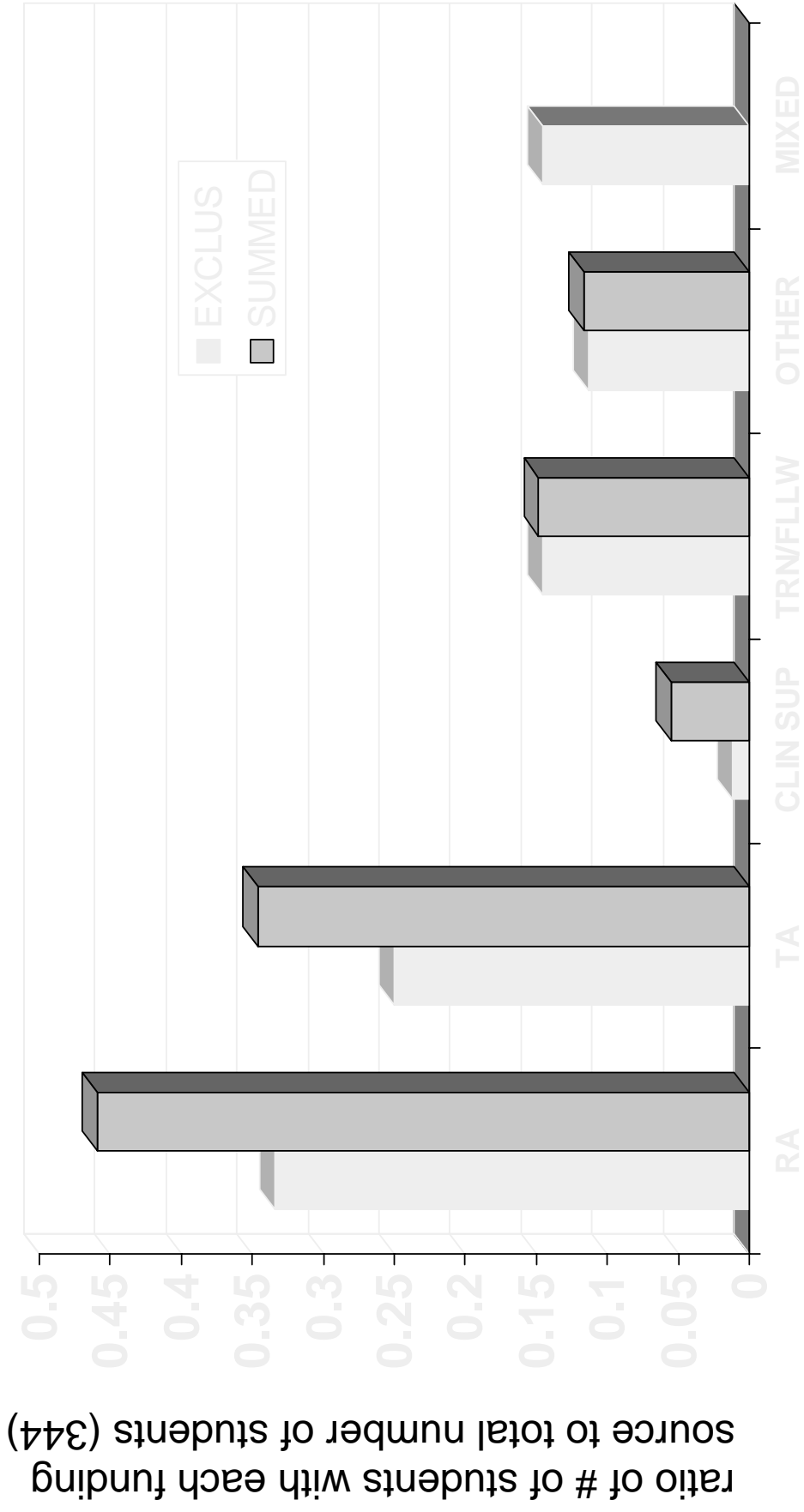
Interpretive assistance for next slide

- Data are represented in two forms: exclusive or summed
- For exclusive data, each individual was assigned to one and only one funding category (if students had more than one source of funding, they were assigned to 'mixed')
- For summed data, individuals that had multiple sources of funding were assigned to each category where they had funding ('mixed' in this case is zero and the sum of all categories exceeds 1)

Funding sources for students in Ph.D. programs from sample of 400



Appointment/funding type among students in Ph.D. programs from sample of 344



Tuition waivers for students in Ph.D. programs from sample of 403

