Society for Neuroscience

Report of Neuroscience Departments & Programs Survey (Academic Year 2016-2017)

Prepared by

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September 15, 2017

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Introduction

In the mid-1980s, the Association of Neuroscience Departments and Programs (ANDP) initiated a survey of neuroscience departments and programs (NDPs) to help monitor the development of programs and the growing field of neuroscience. Goals of this survey included providing data to allow programs, and the field in general, to better understand the development of the discipline and allow them to benchmark themselves relative to other neuroscience programs. The results were also presented to allow the departments to more fully represent themselves to colleagues, deans, students, and the federal agencies that support pre-doctoral and postdoctoral training programs. Conducted periodically by the ANDP, and later by the Society for Neuroscience (SfN) following the consolidation of the two organizations, the NDP Survey is now overseen by SfN's Neuroscience Training Committee (NTC). The survey instrument was distributed to all of SfN's active Institutional Program (IP) members, as well as expired and prospective members. As in the past, data have been considered in the context of previous surveys. However, updates to the previous surveys' scope, structure, and questions were added this year to reflect changes in the discipline and the education of neuroscience trainees. The NTC's NDP Survey Working Group and the SfN staff worked with an independent association consulting firm, McKinley Advisors, to update, field, and analyze survey results. SfN and the NTC wish to express their appreciation to the departments and programs that took the time to participate in this important research effort.

The results have been organized for presentation by geographic location and degree level and then in the following eight data categories. Since updates have been made to previous versions of the survey, a brief description of the data collected in each section is outlined on the next page.

Report Section	Data Collected
Structure of Neuroscience Programs	• Type of program • Administrative structure • Types of degrees granted
Training and Curricular Issues	• Number and type of courses[i] required to complete degree • Number and average time of required lab rotations • Frequency of evaluation for revisions of curriculum
Program Applicants	• Number of applicants, applicants offered admission and matriculated applicants • Detailed applicant information including ethnicity, region, previous academic information, test scores, etc. • Average increase/decrease in applicants/students accepted
Program Enrollment, Demographics, and Metrics	• Students receiving a PhD degree during AY 2015-2016 • Number of current students • Degree completion rates
Students' Careers After Completing Neuroscience Programs	• Percentage of students moving immediately to a postdoc position • Areas where students have taken positions • Changes to program based on these positions
Graduate Student Support	• Amount of guaranteed minimum stipend (if applicable) • Percentage of students with stipends from various sources • Other benefits provided by the program
Postdoctoral Training	• Detailed information about postdoctoral training programs and trainees • Average time spent as a postdoc trainee
Faculty	• Detailed information about faculty members • Numbers of hired faculty and those that have left the program, as well as hiring processes

Methodology

Responses were obtained from 120 of 364 identified NDPs for an overall response rate of 33%. The response rate differed for active SfN IP members and those programs that were no longer active or

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[i] Survey respondents were presented with a list of 13 different courses or subject areas and asked to indicate whether the course or subject area was required coursework, an elective course, informal coursework or not covered by their program. A table presents the percent of programs that cover a specific course or subject area (rows) in the specific formats/categories listed (columns). The table uses a color gradient to highlight differences within each column. Green cells are the highest in that column, yellow are in the middle and red are the lowest percentages in that column.

had never been active IP members. Active members had a 52% response rate, while expired/prospective programs had a response rate of 19%.

In order to gather background information on programs participating in the survey, respondents were asked to first indicate their program type (undergraduate; graduate). The majority of respondents (81% or 97 respondents) represented graduate programs, while only 19% (or 23 respondents) provided undergraduate program data. Sixty programs, or 50% of respondents, provided data about postdoctoral trainees. A breakdown of numbers of responding programs is included in the table below, and a complete list of the graduate programs and undergraduate programs that participated in the 2016 survey is provided in the appendix. For the purposes of this report, "US programs" include those programs based within the United States, while "non-US programs" include programs based outside of the United States. Overall there were 80 responding US graduate programs and 17 responding non-US graduate programs. In the US, all of the programs offering a Master's degree also offered a PhD, but not all of the non-US Master's programs also offered a PhD. Of those responding programs outside of the United States, eight were in Europe, three were in Canada, three were in Australia, one was in Asia, and one was in Latin America. For a more detailed look at the number of surveys sent, number of responding programs, and response rates by degree level please see the chart below.

Responding Programs

	# Sent Survey	# Responded	Response Rate
US Undergraduate	69	22	33%
US Graduate	195	80	47%
PhD	N/A	80	-
MS	N/A	17	-
Non-US Undergraduate	2	1	50%
Non-US Graduate	98	17	20%
PhD	N/A	13	-
MS	N/A	12	-
US Postdoctoral	N/A	53	-
Non-US Postdoctoral	N/A	7	-

While programs were given the opportunity to provide as much data as possible, different programs track varying levels of information resulting in changes to the sample sizes throughout the report. In most cases, as much data as was available was used for calculations (e.g., averages, percentages, etc.), but some exceptions are noted. For instances in which more than one answered question was needed to complete a calculation, programs who did not provide responses to both

questions were not included and as such, sample sizes for individual questions may differ. There were also instances where data were reported in various levels (e.g., overall total, gender breakdown, ethnicity breakdown) and programs provided data for some, but not all, of these various breakdowns. Throughout the report, average percentages were based on individual program level data, first finding a percentage for each program and then finding an average of those percentages across all programs. This process provides the most accurate information possible given the data collected; however, because of the way average percentages were calculated, numbers across tables showing these various breakdowns may not sum to equal values or 100% in all instances.

US Neuroscience Training

US PhD Programs

Eighty US PhD programs provided some level of data about their program. While programs were given the opportunity to provide as much data as possible, different programs track varying levels of information resulting in changes to the sample sizes throughout this section.

PROGRAM STRUCTURE

Programs were asked about the administrative structure that supports their neuroscience program. Almost half (49%) of responding programs reported being interdepartmental while 19% were located in the graduate school of their university. Another 12% were housed in a department of neuroscience or neurobiology, and four percent (4%) were in a separate Neuroscience Institute or Division of Neuroscience within the university. Fifteen percent (15%) reported they had another structure, such as being housed within the College of Arts & Sciences, Department of Biology, Division of Brain Sciences, Graduate Division of Biological and Biomedical Sciences, or the School of Mind, Brain, & Behavior.[1]

Indicate the administrative structure that supports your US PhD Program.
(N = 67)
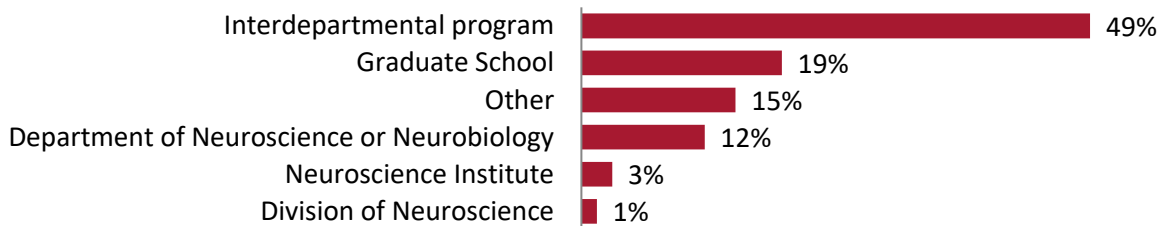
Interdepartmental program	49%
Graduate School	19%
Other	15%
Department of Neuroscience or Neurobiology	12%
Neuroscience Institute	3%
Division of Neuroscience	1%

Graduate programs were asked to specify which degree or degrees they offer in neuroscience or a neuroscience-related discipline. All responding graduate programs (N = 67) offered a PhD and 69% of all PhD programs reported that they have MD/PhD students participating in their PhD program.

Programs were also asked to report how long those degrees have been offered at their institution. About 80% of both doctoral degree programs and programs that have MD/PhD students were established more than 10 years ago. Additional details are shown in the figure below; programs that included MD/PhD students (N = 43) are a subset of those programs that offered a PhD degree in neuroscience or a neuroscience-related discipline (N = 65).

How long has your institution ...

■ Offered a PhD degree in neuroscience or a neuroscience-related discipline (N = 65)

■ Had MD/PhD neuroscience or neuroscience-related discipline students in the PhD program (N = 43)

	This is the first year	1-3 years	4-5 years	6-8 years	9-10 years	More than 10 years
Offered a PhD degree	0%	3%	5%	2%	11%	80%
Had MD/PhD students	0%	0%	5%	14%	0%	81%
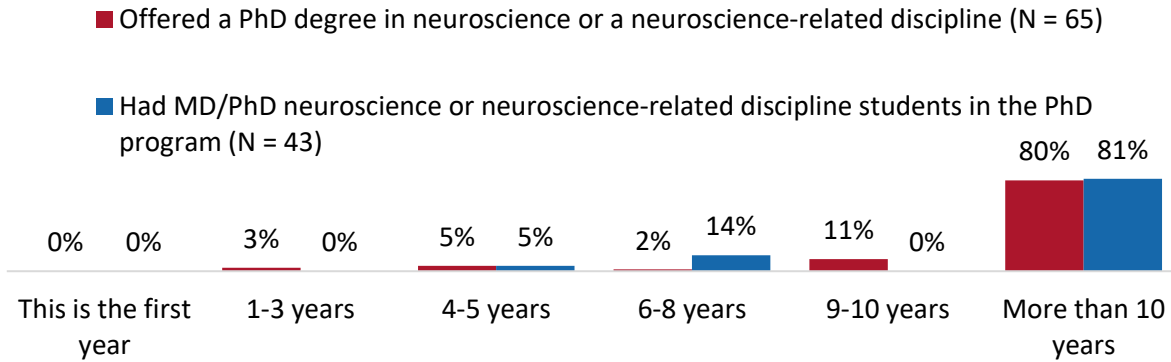
TRAINING AND CURRICULAR ISSUES

US PhD programs were asked to distinguish between core neuroscience courses that were open only to neuroscience trainees versus those core neuroscience courses that were open to both neuroscience trainees and students from other disciplines. Over half of all responding US PhD programs (56%) reported that their program has courses designed for only neuroscience trainees, while 95% reported that their program has courses available to both neuroscience trainees and students from other disciplines.

Does your program offer the following? (N = 60)

Core courses that are open solely to neuroscience trainees	Core courses that are open to both neuroscience trainees and students from other disciplines
56%	95%
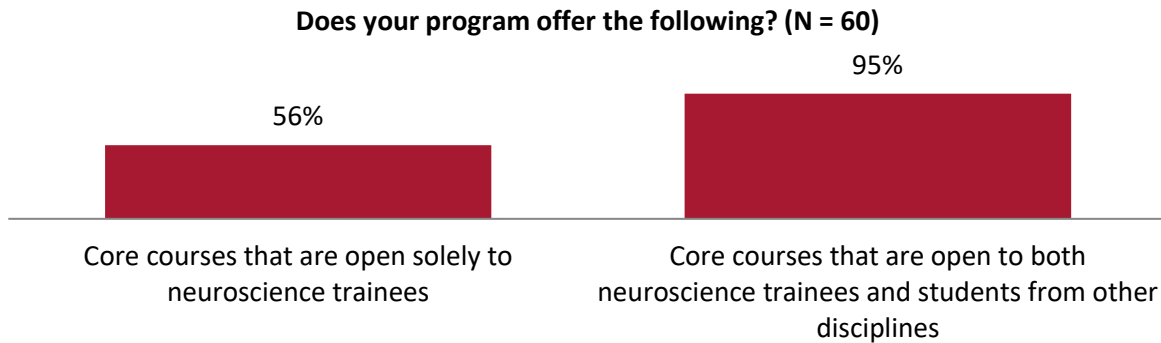
Programs were asked to report on the number of core or required credits to complete their degree, as well as the number of core or required credits for neuroscience trainees only and the number of elective course credits for neuroscience trainees only. On average, US PhD programs reported requiring 57 credits to complete the degree. Additional details are shown in the table below.

Average number of core or required credits that fit into each of the following categories:	
Number of credits required to complete the degree	57
Number of **core or required credits** for neuroscience trainees only	21
Number of **elective course credits** for neuroscience trainees only	7

Along with the number of credits required to complete the degree, programs were asked about requirements around lab rotations and their average duration. US PhD programs reported requiring, on average, three rotations. Fifty-nine percent (59%) of programs reported requiring three lab rotations, while another 21% required two. The average duration of these lab rotations was nine weeks. See below for the full distribution of the number of lab rotations per program and the full distribution of the average duration of lab rotations per program.

Average number of lab rotations and average duration of lab rotations required by programs	
Number of rotations (0 – 6)	3
Duration (in weeks)	9

Distribution of Average Number of Lab Rotations (N = 71)

	0	1	2	3	4	5 or more
	10%	1%	21%	59%	6%	3%
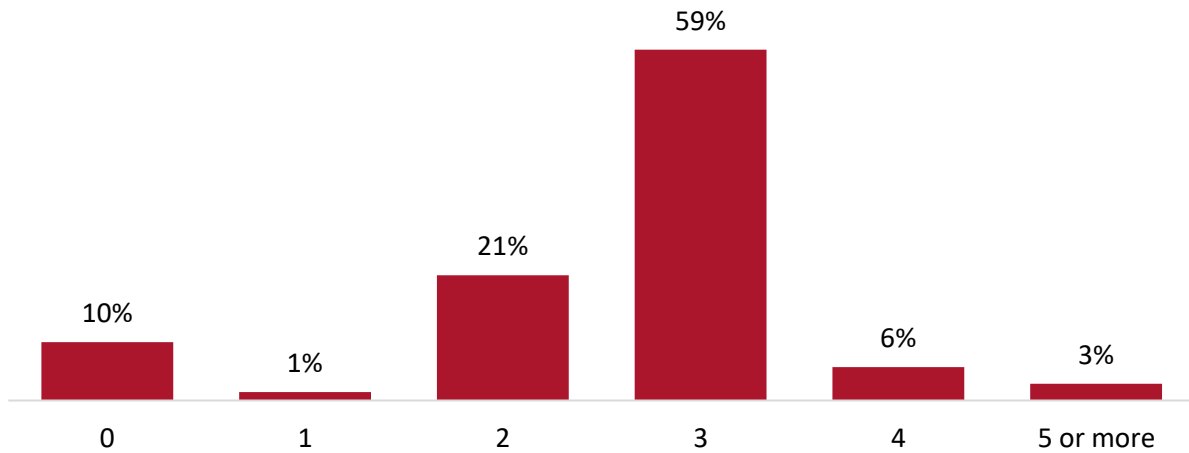
Distribution of Average Duration of Lab Rotations (in weeks) (N = 95)

	0	1-3	4-6	7-9	10-12	13-15	16-18	More than 18
	17%	1%	13%	13%	37%	11%	3%	6%
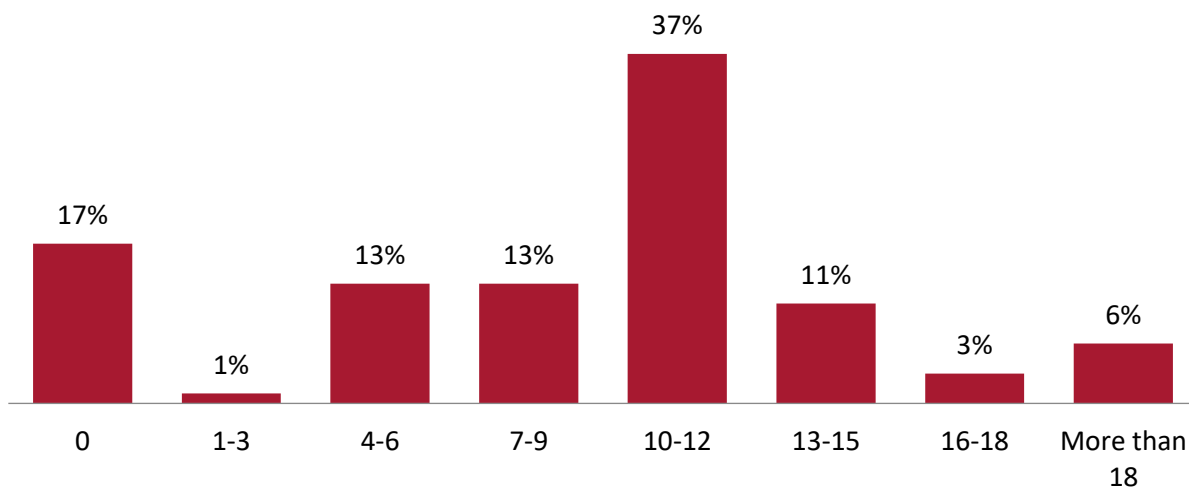
The number of lab rotations required by a program is not correlated with the number of faculty associated with that program ($r = 0.004$, $p = 0.65$). The number of rotations ranged from zero to six rotations for a program. Similarly, the average duration of a lab rotation for a program is only slightly correlated with the number of faculty associated with that program ($r = 0.07$, $p < 0.05$). The average duration of a lab rotation ranged from zero to 16 weeks. The number of faculty associated with graduate neuroscience programs ranged from seven to 143.

US PhD Programs were asked to report on how they provided training in different topics that supplemented technical neuroscience content, such as experimental design or the responsible conduct of research. Detailed responses are provided in the table below. For US PhD programs, the responsible conduct of research, ethics, and statistical reasoning and data analysis methods rose to the top of the list of most frequently required coursework. More than 80% of programs indicated that responsible conduct of research (85%) and ethics (85%) courses were required, while 79% indicated statistical reasoning and data analysis methods were required. Courses that were most likely to be deemed as elective also had lower percentages of programs indicating they were required coursework. US PhD programs were most likely to report computer programming as an elective course (55%), followed by data science/"big data" approaches (48%). These topics were also the ones least likely to be covered, with 19% and 16% of programs, respectively, reporting that these areas were not covered in their PhD program.

US PhD Course Requirements

	Required Coursework	Elective Courses	Informal Coursework	Not Covered
Responsible conduct of research	85%	7%	21%	3%
Ethics	85%	7%	24%	1%
Statistical reasoning and data analysis methods	79%	28%	12%	0%
Scientific rigor issues	64%	27%	28%	6%
Lab or method-based courses	64%	30%	9%	7%
Experimental design	58%	37%	19%	3%
Journal clubs	54%	22%	37%	3%
Public speaking	51%	19%	51%	3%
Grant writing	46%	36%	49%	1%
Writing	45%	43%	43%	4%
Computer programming	15%	55%	15%	19%
Data science/"big data" approaches	10%	48%	33%	16%
Science outreach and advocacy	7%	22%	69%	10%
Question: "In addition to your technical neuroscience content, how does your program provide training in the following topics? Select all that apply."				
Please note the table uses a color gradient to highlight differences within each column. Green cells are the highest in that column, yellow are in the middle, and red are the lowest percentages in that column.				

Seventy-eight percent (78%) of responding US PhD programs reported that their program was evaluated, in some manner, for revisions involving the structure of the curriculum on a regular schedule. Almost one third (32%) reported that their program was evaluated every year, while 23% reported their program was evaluated every other or every three years. Another 23%

reported their program was evaluated every five years and only 12% reported that the program was evaluated only when needed.[2]

How frequently is your program evaluated for revisions involving the structure of the curriculum? (N = 65)

Every year	Every other year	Every three years	Every five years	Only when needed	Other
32%	9%	14%	23%	12%	9%
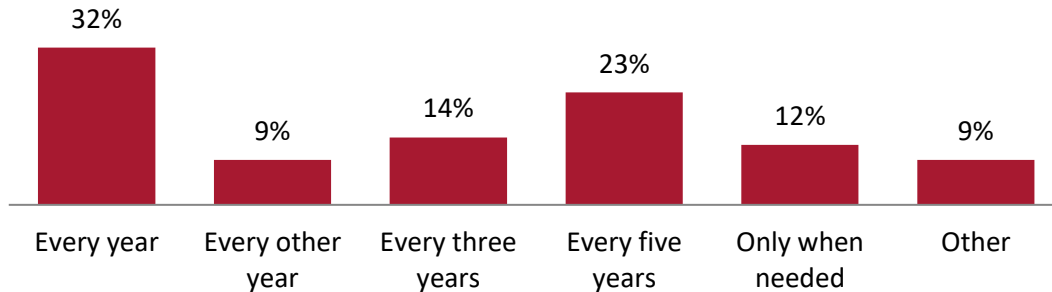
PROGRAM APPLICANTS

Graduate programs were asked to report information about applicants to their programs, including the number of applicants, changes in the number of applicants and those accepted, detailed information for first-year graduate students, and factors that influence the target number of students. US PhD programs received, on average, 170 student applications to their neuroscience program. However, there was a wide range in the number of applicants reported, from just five to 875. This range may be due, in part, to the varied administrative structures of neuroscience PhD programs. For example, for some programs, students apply directly to, and are accepted by, a neuroscience department or program, while for others, students apply to and are accepted by interdisciplinary umbrella programs before qualifying to enter neuroscience-specific PhD programs.

The acceptance rate was calculated as the number of students offered admission relative to the number of applicants to a US PhD program; the average acceptance rate for US PhD programs was 19%. The acceptance rate from AY 2010-2011 was four percentage points higher than the US PhD acceptance rate in AY 2016-2017 at 23%.[3]

The matriculation rate, or the number of students who matriculate relative to those accepted, by a US PhD program was 52%. The matriculation rate from AY 2010-2011 was 11 percentage points higher than the US PhD matriculation rate in AY 2016-2017 at 63%.[3]

US PhD Program Applicants	
Average number of program applicants	170
Lowest number of program applicants	5
Highest number of program applicants	875
25th percentile	50
Median	94
75th percentile	254
Average acceptance rate[3]	19%
Average matriculation rate[3]	52%

The average number of applicants to US-based programs was 170 per program, with 24 applicants offered admission and 10 matriculating into US PhD programs. Fifty-seven percent (57%) of those applicants were women, 17% were minorities[4] and 27% were non-US citizens. Unless otherwise noted, minorities include anyone not identifying as "White" or "Caucasian." Additional detail related to PhD program applicant ethnicity is provided in the Diversity section on page 66.

Data regarding acceptance and matriculation rates for women, minorities, and non-US citizens are presented in the table below.[5]

US PhD Program Applicant Averages

		Program Applicants	Applicants Offered Admission	Matriculated Applicants
Average Per Program	*Average Per Program*	170	24	10
	Acceptance/ Matriculation Rates[3]	-	19%	52%
Women	*Average Per Program*	95	14	6
	% of total[5]	57%	58%	53%
	Acceptance/ Matriculation Rates[3]	-	19%	49%
Minorities[4]	*Average Per Program*	28	5	2
	% of total[5]	17%	22%	18%
	Acceptance/ Matriculation Rates[3]	-	24%	45%
Non-US Citizens	*Average Per Program*	57	4	2
	% of total[5]	27%	13%	15%
	Acceptance/ Matriculation Rates[3]	-	11%	51%

Comparisons of US PhD program applicant data related to women, minorities and non-US citizens for AY 2016-2017, AY 2010-2011, and AY 2000-2001 are in the tables below.

US PhD Program Applicant Averages

	Years	Program applicants	Applicants offered admission	Matriculated applicants
Average Per Program	AY 2016-2017	170	24	10
	AY 2010-2011	88	20	13
	AY 2000-2001	66	14	9
Average Women (% of total)	AY 2016-2017[5]	57%	58%	53%
	AY 2010-2011	51%	52%	56%
	AY 2000-2001	38%	44%	47%
Average Minorities (% of total)[4]	AY 2016-2017[5]	17%	22%	18%
	AY 2010-2011	12%	17%	12%
	AY 2000-2001	5%	9%	12%
Average Non-US Citizens (% of total)	AY 2016-2017[5]	27%	13%	15%
	AY 2010-2011	31%	16%	12%
	AY 2000-2001	42%	19%	23%

US PhD Acceptance and Matriculation Rate Averages

	Years	Acceptance Rate	Matriculation Rate
Average Per Program	AY 2016-2017	19%	51%
	AY 2010-2011	23%	63%
Women	AY 2016-2017[5]	19%	48%
	AY 2010-2011	N/A	N/A
Minorities[4]	AY 2016-2017[5]	24%	45%
	AY 2010-2011	30%	44%
Non-US Citizens	AY 2016-2017[5]	11%	51%
	AY 2010-2011	11%	52%

US PhD programs were asked to provide data about how the number of applicants and accepted students has changed over the past five years, as well as report on factors that underlie the target number of accepted students. Individual-level US PhD program responses are below.[2]

Generally, in the last five years, the total number of applicants/students accepted to your program has ... (N = 61)
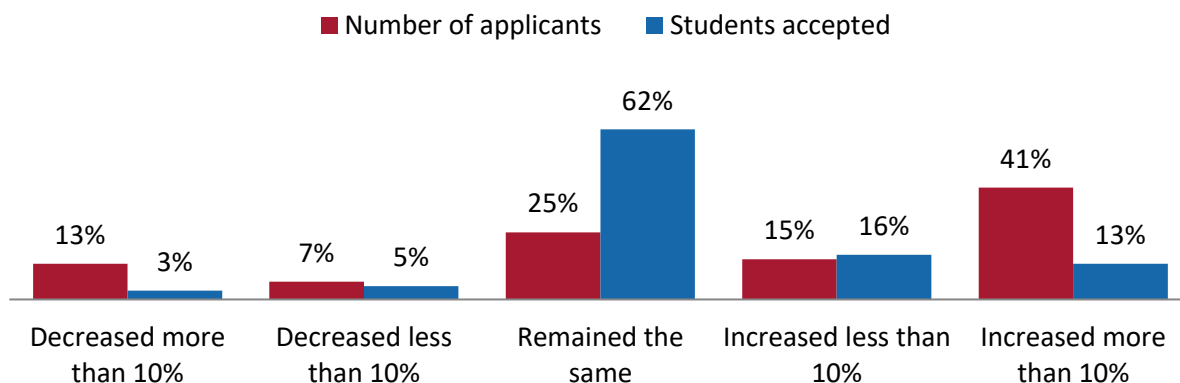
When looking at the percent change in the number of applicants over the last five years by the total number of students in a program, medium-sized programs (those reporting between 21 and 45 students) and large programs (those reporting 46 or more students) were more likely to report an increase in the number of applicants than small programs (those reporting 20 or fewer students). Large programs were the most likely to see an increase in the number of applicants (75%) followed by medium-sized programs (48%). Small programs were the most likely to see a decrease in the number of applicants they have received over the last five years (37%), compared to 22% percent of medium-sized programs and just 10% of large programs.[2]

Percent Change in Number of Applicants Over the Last Five Years by the Number of Students in the Program (N = 59)
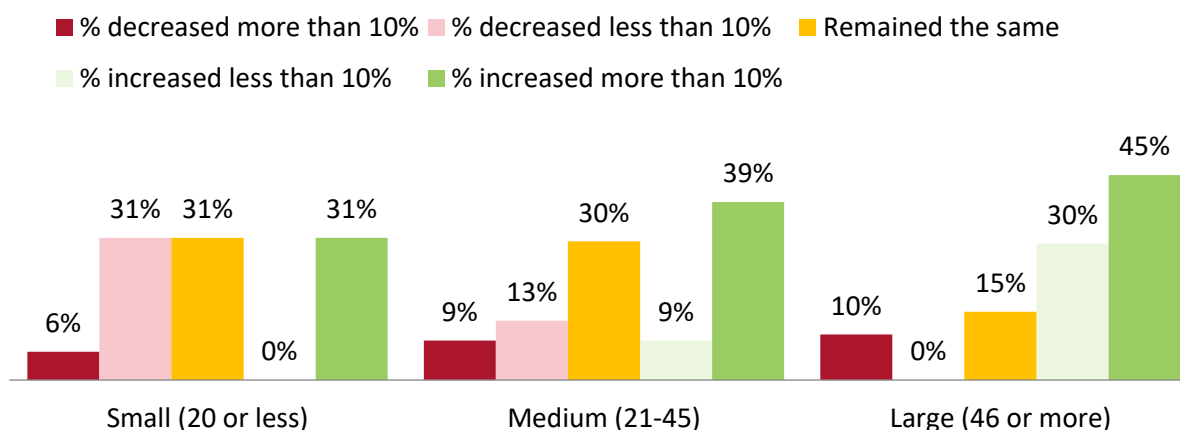
When looking at the percent change in the number of students accepted over the last five years by the total number of students in a program, programs of all sizes were most likely to report that the number of applicants they have accepted has remained the same over the last five years. Small programs were the most likely to report the number of students accepted over the last five years

has remained the same, with 69% of small programs indicating this, followed by 61% of medium-sized programs and 60% of large programs reporting the same. Thirty-five percent (35%) of both medium-sized and large programs reported an increase in the number of students they have accepted over the last five years, compared to just a quarter (25%) of small programs. Small programs were more likely than both medium-sized and large programs to report that the increase in students was larger than 10%. Approximately five percent (5%) of small, medium, and large programs reported decreases in the number of students accepted over the last five years.

Percent Change in Number of Students Accepted Over the Last Five Years by Number of Students in Program (N = 59)

Legend:
- ■ % decreased more than 10%
- ■ % decreased less than 10%
- ■ Remained the same
- ■ % increased less than 10%
- ■ % increased more than 10%

Small (20 or less):
- % decreased more than 10%: 6%
- % decreased less than 10%: 0%
- Remained the same: 69%
- % increased less than 10%: 6%
- % increased more than 10%: 19%

Medium (21-45):
- % decreased more than 10%: 4%
- % decreased less than 10%: 0%
- Remained the same: 61%
- % increased less than 10%: 22%
- % increased more than 10%: 13%

Large (46 or more):
- % decreased more than 10%: 0%
- % decreased less than 10%: 5%
- Remained the same: 60%
- % increased less than 10%: 30%
- % increased more than 10%: 5%

In an open-ended question, programs were asked to report on the factors that influence the target number of applicants accepted to their program. Half (50%) of responding US PhD programs reported that the availability of funding, including institutional training grant (T32) slots, teaching assistantships, fellowships, and grants, impacted the target number of applicants accepted. Another 34% reported that faculty must be available to take on those students, which in turn impacts the target number of applicants accepted.

Please use the space below to describe the factors that influence the target number of applicants accepted into your program (e.g., T32, number of faculty etc.). (N = 56, coded open-ended responses)

Factor	Percentage
Availability of funding (e.g., T32 slots, teaching assistantships, fellowships, grants, etc.)	50%
Availability of faculty	34%
Matched interests with faculty / mentor (e.g., same discipline)	8%
Quality of applicants	3%
Other	3%
Keeping class sizes small	2%
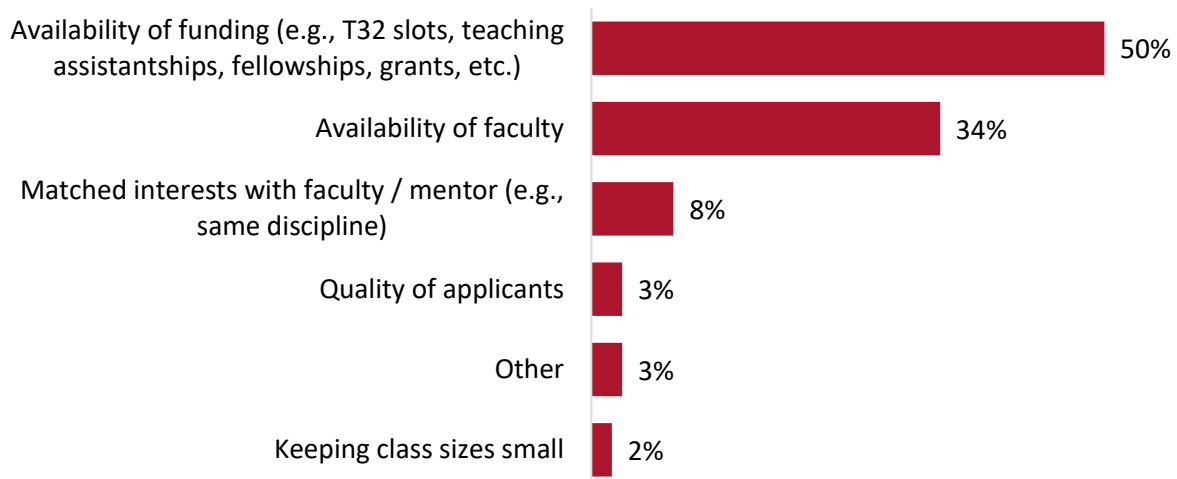
The number of applicants offered admission to a program is correlated with the number of applicants to that program ($r = 0.76$, $p < 0.001$) such that the greater the number of applicants to the program, the more applicants were generally offered admission. For this comparison, the average number of applicants to a program was 170 (median: 94).[6] The average number of applicants offered admission to a program was 24 (median: 16).[7]

Number of Applicants Offered Admission by Number of Applicants (N = 65)
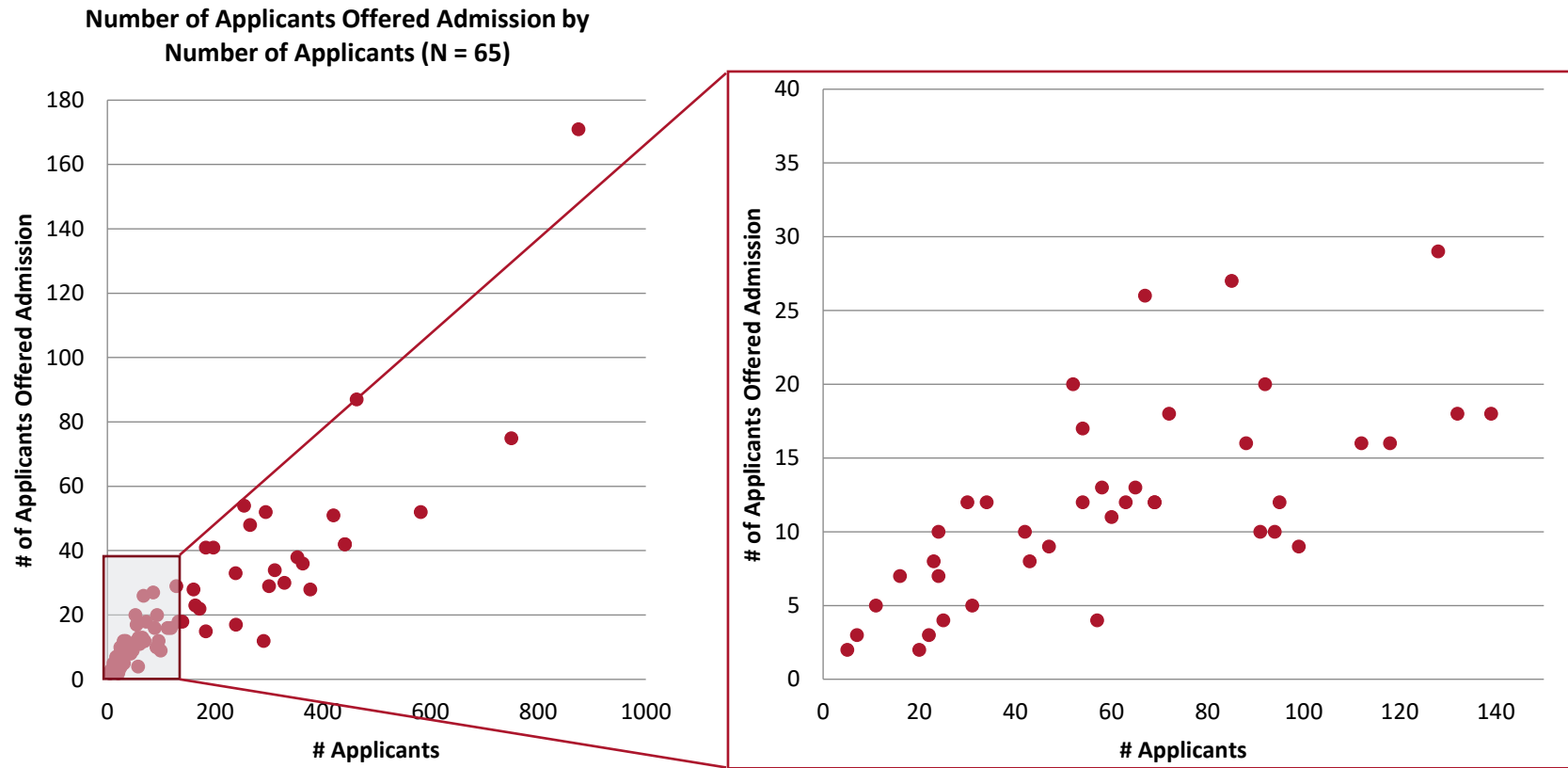
The number of matriculated applicants to a program is also correlated with the number of applicants offered admission into that program (r = 0.91, p < 0.001) such that the greater the number of applicants to the program, the more applicants matriculate into the program. For this comparison, the average number of applicants offered admission to a program was 24 (median: 16). The average number of applicants matriculated into a program was 10 (median: 8).[6]

Number of Matriculated Applicants by Number of Applicants Offered Admission (N = 67)

The number of applicants to a program is correlated with the number of current students in that program ($r = 0.30$, $p < 0.001$) such that larger programs received a greater number of applicants. For this comparison, the average number of applicants to a program was 156 (median: 93) and the average number of students in a program was 40 (median: 33).[6]

Number of Applicants by Number of Students in the Program (N = 58)

The number of applicants to a program is also correlated with the number of faculty in that program ($r = 0.16$, $p < 0.01$) such that programs with more faculty received a greater number of applicants. For this comparison, the average number of applicants to a program was 168 (median: 97) and the average number of faculty associated with a program was 67 (median: 63).[6]

Programs were asked to provide specific information regarding their applicants, including whether they had undergraduate research experience and how long it had been since their previous degree, as well as previous institution information and academic scores. Average information for US PhD program applicants is below.[8]

US PhD Program Applicant Averages	
Percentage with undergraduate research experience[7]	98%
Percentage in MD/PhD program, now completing PhD portion of degree[7]	15%
Average time since previous degree awarded	1 year 8.5 months
Percentage of in-state or surrounding state applicants[7]	37%
Percentage of domestic applicants[7]	74%
Percentage of international applicants[7]	21%

Previous Institution Information	
Percentage of applicants with a degree from your institution[7]	15%
Percentage from a Research 1 University[9,7]	54%
Percentage from 4-year liberal arts college[7]	27%

The average undergraduate grade point average (GPA) of US PhD program applicants was 3.56 in AY 2016-2017 (median: 3.56), compared to 3.47 in AY 2010-2011. The mean GRE Verbal score for AY 2016-2017 was two points higher at 158 compared to 156 in AY 2010-2011, and the mean GRE Quantitative score was four points higher at 158 in AY 2016-2017 compared to 154 in AY 2010-2011. The mean GRE Analytical Reasoning score was 4.1 in AY 2016-2017 compared to 4.4 in AY 2010-2011.

Academic GPA and Scores

US PhD Program Applicants	AY 2016-2017	AY 2010-2011
Mean undergraduate GPA	3.56	3.47
Mean GRE Verbal Score	158	156
Mean GRE Quantitative Score	158	154
Mean GRE Analytical Reasoning Score	4.1	4.4

See the graphs that follow for a distribution of undergraduate GPA and average GRE scores for AY 2016–2017 US PhD program applicants.

Distribution of Mean Undergraduate Grade Point Average (N = 61)

Mean Undergraduate GPA
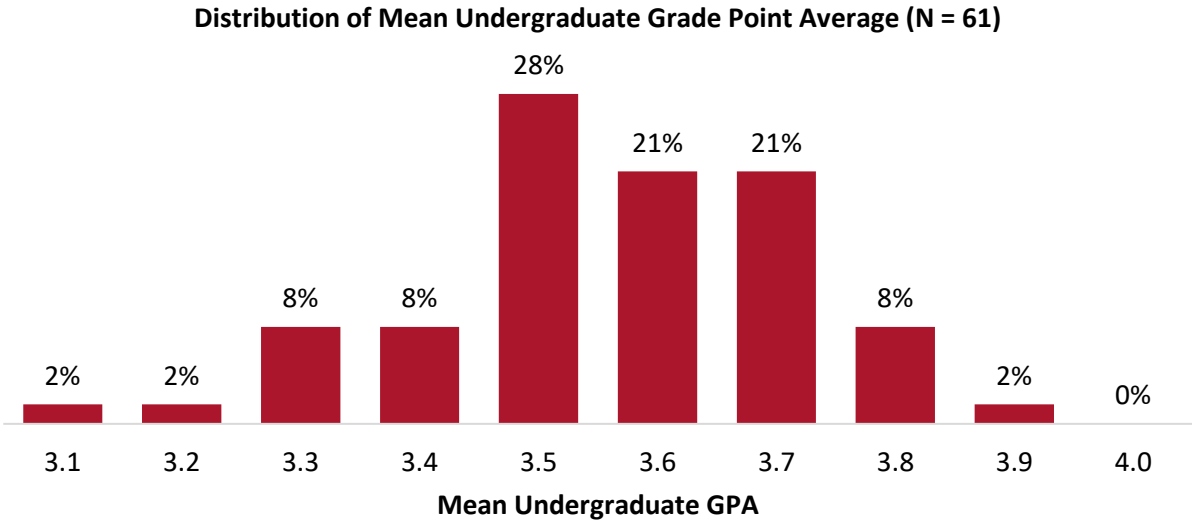
For the 62 US PhD programs that provided these data, the overall mean GRE Verbal score for program applicants was 158 (median: 158) and the overall mean GRE Quantitative score was 158 (median: 158).[2]

Distribution of Combined Mean GRE Verbal and Quantitative Score (N = 62)
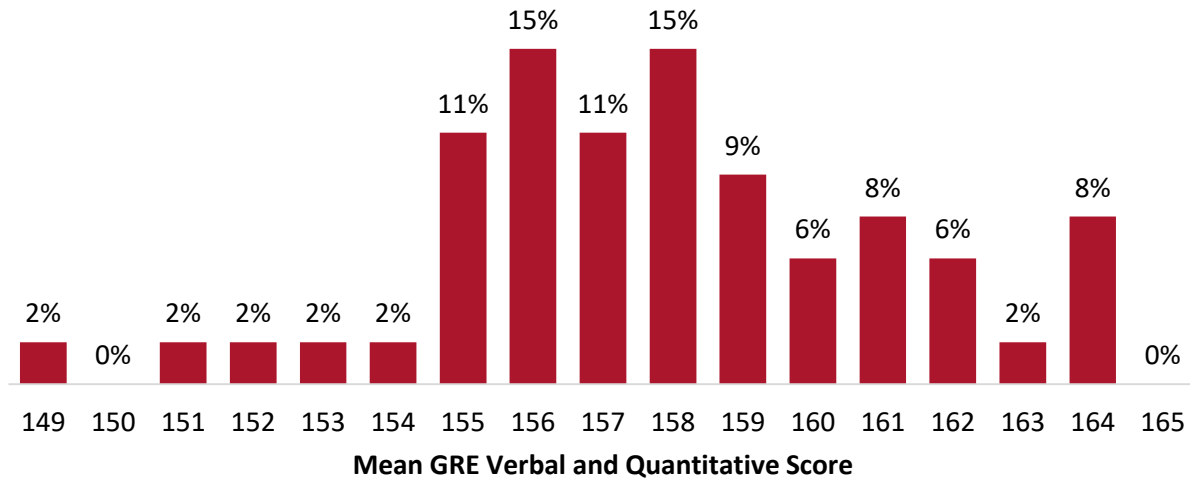
Score	Percentage
149	2%
150	0%
151	2%
152	2%
153	2%
154	2%
155	11%
156	15%
157	11%
158	15%
159	9%
160	6%
161	8%
162	6%
163	2%
164	8%
165	0%

Mean GRE Verbal and Quantitative Score

US PhD programs were asked to indicate the undergraduate disciplines of first year PhD students in fall 2016. Seventy two percent (72%) of programs have at least one applicant with an undergraduate degree in neuroscience. Other than neuroscience, the most common disciplines for undergraduate degrees are biology (64%) and psychology (52%).

Respondents were also asked to report the percentage of matriculated students with degrees in each discipline. The percentage of matriculated students with undergraduate degrees in neuroscience increased from 18% in the 2011 survey to 23% in the 2016 survey. The percentage of matriculated students with degrees in all other disciplines, except biology, also increased from AY 2010-2011. The greatest increase occurred in the area of dual majors, which include a combination of a neuroscience major with philosophy, math, chemistry, psychology, or anthropology.

Disciplines of Matriculated Students

	Percentage of programs with at least one applicant from listed disciplines	Average percentage of matriculated students with degrees in each discipline	
		AY 2016-2017	AY 2010-2011
Neuroscience	72%	23%	18%
Biology	64%	23%	29%
Psychology	52%	19%	13%
Other	42%	19%	-
Chemistry or Biochemistry	42%	15%	11%
Dual Majors	40%	19%	9%
Biopsychology, Psychobiology or Behavioral Neuroscience	28%	12%	9%
Mathematics or Statistics	24%	10%	-

Question: "Please select each applicable discipline below and enter the percentage of matriculated students (e.g., first year PhD students in fall 2016) with undergraduate degrees in the following: Report all that apply."

Dual Majors include: Biology & Psychology/Chemistry/Math; Neuroscience & Philosophy/Math/Chemistry/Psychology /Anthropology; Neurobiology & Anatomy; Biochemistry & Economics; Cognitive Studies & English, etc.

PROGRAM ENROLLMENT, DEMOGRAPHICS, AND METRICS

Survey respondents were asked to provide data about students enrolled in US PhD programs, including the number of students in the fall 2016 entering class, as well as the number of students in PhD programs who were pre-doctoral, women, minorities[4] and non-US citizens during the 2016-2017 academic year.[9] Unless otherwise noted, minorities include anyone not identifying as "White" or "Caucasian." Additional detail related to PhD program enrollee ethnicity is provided in the Diversity section on page 66.

US PhD Program Enrollees

Number of…	Average Number Per Program	Average Percent Per Program[10]	Range	Median
Students in the fall 2016 entering class	10	-	0-29	8
Pre-doctoral students in the program during AY 2016-2017	38	-	0-124	32
Women in the program during AY 2016-2017	21	58%	2-64	18
Minorities[4] in the program during AY 2016-2017	7	21%	0-24	6
Non-US citizens in the program during AY 2016-2017	6	16%	0-35	3

The number of students in a program is correlated with the number of faculty associated with the program (r = 0.41, p < 0.001) such that the more faculty associated with a program, the greater the number of students in the program. For this comparison, the average number of students in a program was 39 (median: 33) and the average number of faculty was 65 (median: 59).[11]

Number of Students in the Program by the Number of Faculty (N = 56)

y = 0.4723x + 8.5849
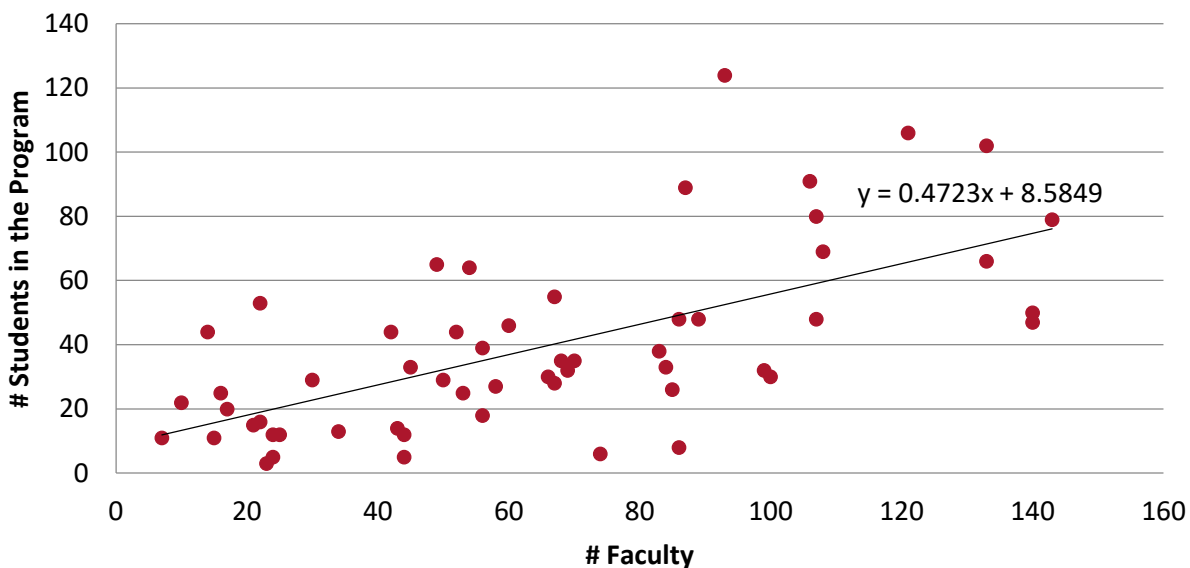
Forty-four responding programs then provided information on students' PhD completion rates. The average PhD degree completion rate for all responding US programs was 85%. The average PhD completion rate for students who did not already hold a Master's degree was 86%, while students with a Master's degree before entering the PhD program had a PhD completion rate of 79%.

Average US PhD Program Degree Completion Rates	
Degree completion rate (N = 44)	85%
Degree completion rate for students *with* Master's degree before entering PhD program (N = 28)	79%
Degree completion rate for students *without* Master's degree before entering PhD program (N = 29)	86%

On average, US PhD program graduates took 5.6 years to complete their degree (N = 55 programs representing 413 students). Completion times for US programs ranged from 2.6 years to 12 years, while the gender breakdown remained consistent, with males taking 5.6 years to PhD completion and females taking 5.7 years.

Average Time to PhD Completion (in years)	
Average years to PhD completion	5.6
Lowest years to PhD completion	2.6
Highest years to PhD completion	12.0
25th Percentile	5.0
Median	5.6
75th Percentile	6.0
Male	5.6
Female	5.7

The number of students in a program is correlated with the average number of years to PhD completion (r = 0.13, p <0.01) such that students in larger programs took longer to complete their PhD degree. For this comparison, the average number of students in a program was 41 (median: 33) and the average number of years to PhD completion was 5.4 (median: 5.4).[11]
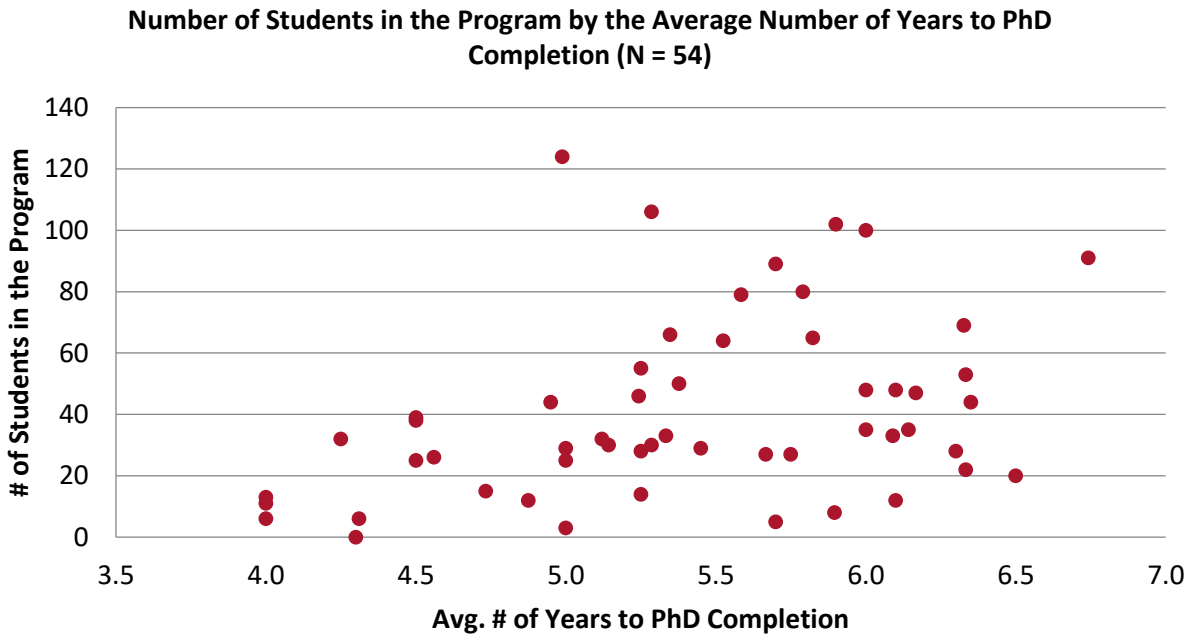
Number of Students in the Program by the Average Number of Years to PhD Completion (N = 54)

US programs were asked to report on the gender of students who received a PhD degree during AY 2015-2016; details are included in the table below.

US PhD Program Degrees Awarded by Gender

	Average Number of Degrees Awarded Per Program	Average Percent of Degrees Awarded Per Program	Range	Median
Female (N = 209)	3.8	52%	0-28	3.0
Male (N = 205)	3.7	48%	0-11	3.0

US PhD programs were asked to report the ethnicity of students who received a PhD degree during AY 2015-2016; details are included in the table below.

US PhD Program Degrees Awarded by Ethnicity

	Average Number of Degrees Awarded Per Program[12]	Average Percent of Degrees Awarded Per Program[13]	Average Percent of Underrepresented Minorities[14] Per Program	Range
Asian	1.00	13%	N/A	0-6
Black or African American	0.29	4%	34%	0-2
Hispanic or Latino	0.60	8%	48%	0-6
American Indian or Alaska Native[15]	0.00	0%	0%	0
Native Hawaiian or Other Pacific Islander[15]	0.02	0%	2%	0-1
Other	0.20	3%	16%	0-3
White/Caucasian	5.40	72%	N/A	0-30

STUDENTS' CAREERS AFTER COMPLETING DOCTORAL NEUROSCIENCE PROGRAMS

Programs were asked questions regarding students' careers after completing a graduate neuroscience program. Ninety-eight percent (98%) of all responding programs (N = 64) reported that they do collect information on what positions their students take after completing their graduate degree. Only two percent (2%) of responding programs reported they do not track this information.

Programs were also asked to report on their methods for collecting information about past students' careers. Of those 61 programs that do collect information about past student's careers, more than one third (37%) of programs indicated they collected this information through personal

contact from the director of the program or the individual student's mentor. Another quarter (27%) of responding programs reported that they did informal social media or web searches to find this information. Many programs cited using LinkedIn to find updated information on past graduates. The remaining 36% used a more formalized approach of alumni email messages or surveys (19%) or exit interviews (17%).

Please use the space below to describe how your program collects information on what positions your students take after completing their graduate program. (N = 61, coded open-ended responses)

Personal contact from director / mentors	37%
Social media / web searches	27%
Alumni email message or survey	19%
Exit interviews	17%
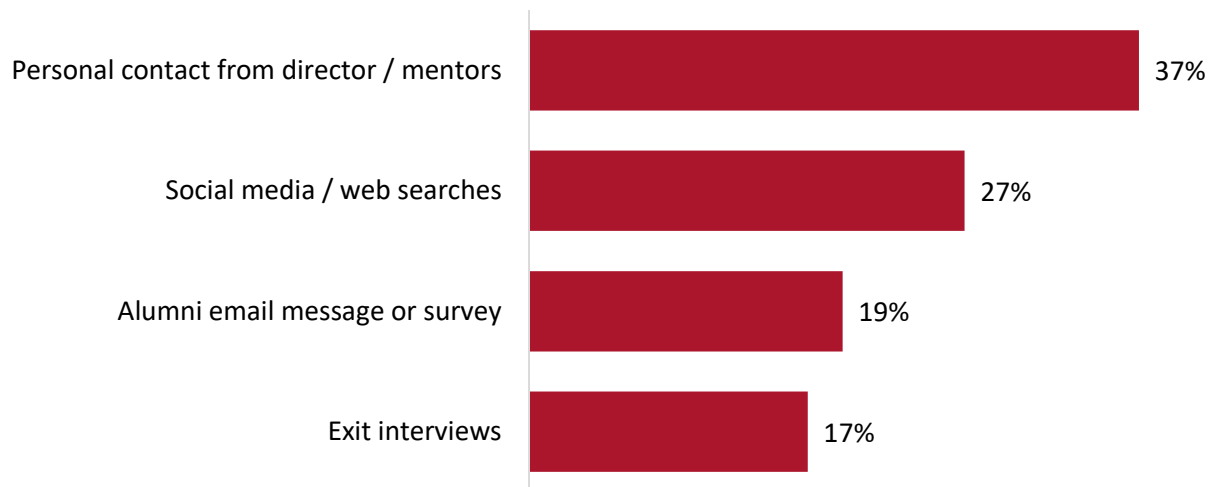
Programs that reported they collected information on students' positions after graduation were asked what percentage move immediately to a postdoctoral position. On average, 72% of PhD students in AY 2015-2016 moved immediately to a postdoctoral position, compared to 65% from AY 2010-2011. The lowest percentage of students from an individual program who moved immediately into a postdoctoral position was 20%, while there were a few programs that reported 100% of their students moved immediately into a postdoctoral position after completing their degrees.

Students Moving Immediately into a Postdoctoral Position (N = 61)	
Average % moving immediately into a postdoctoral position	72%
Lowest % moving immediately into a postdoctoral position	20%
Highest % moving immediately into a postdoctoral position	100%
25th percentile	61%
Median	76%
75th percentile	85%

The percentage of students who moved immediately into a postdoc position for a program is not necessarily correlated with the size of that program, as indicated by number of students ($r = 0.009$, $p = 0.51$). For this comparison, the average number of students in a program was 42 (median: 33) and the average percentage of students moving immediately into a postdoc position was 73% (median: 76%).[16]

Number of Students in the Program by the Percentage Moving Immediately to a Postdoc Position (N = 53)
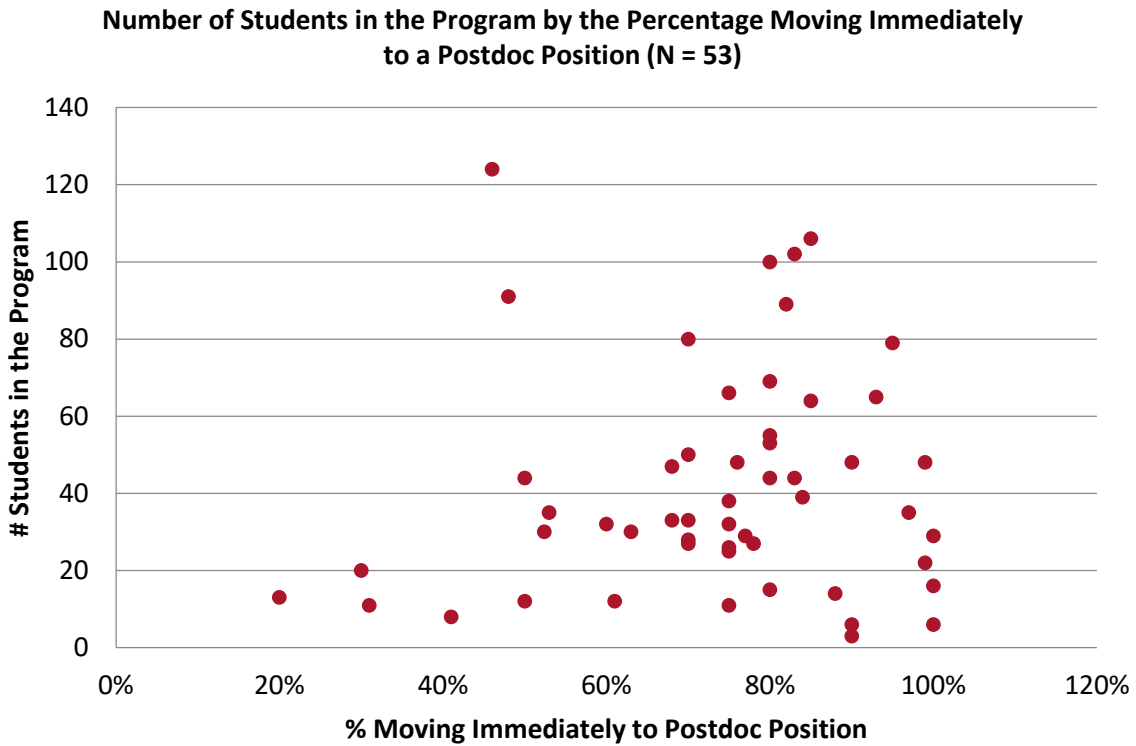
In addition to collecting data about what percentage of students moved immediately into a postdoctoral position, the survey also asked programs about employment sectors their graduates have taken positions in over the last five years.[16] The graph below indicates the employment sectors in which *at least one* student from US PhD programs have taken positions in within the last five years. Overall, results were consistent for students in US PhD programs and MD/PhD students in PhD programs. See page 73 in the appendix for a list of "other" positions listed by US PhD programs and programs with MD/PhD students in them.

Please indicate areas where students from your program have taken positions over the last five years Select all that apply.
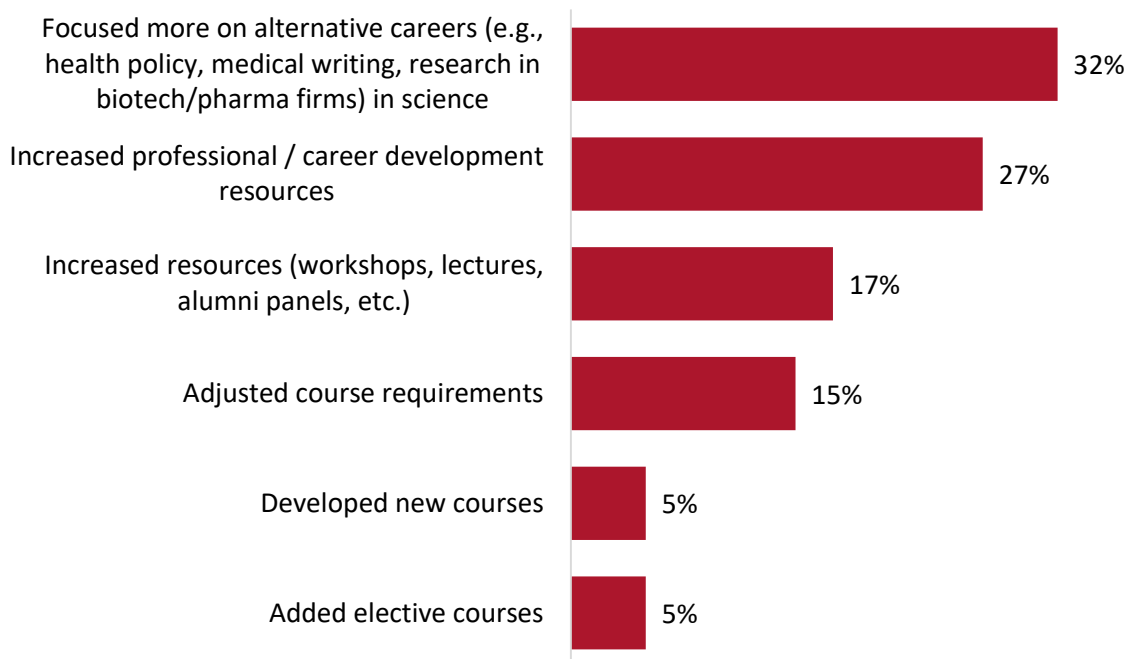
■ PhD Programs (N = 63)   ■ MD/PhD Students in Program (N = 43)

Sector	PhD Programs	MD/PhD Students
Biotech or pharmaceutical company	76%	84%
Scientific non-profit institution/non-governmental organization	70%	70%
Independent research institute	57%	63%
Hospital	57%	65%
Government	56%	58%
Other scientific private sector entity	43%	14%
Pursued another scientific degree	32%	30%
Self-employed	29%	33%
Other non-scientific private sector entity	24%	51%
Non-scientific non-profit institution/non-governmental organization	21%	16%
Pursued another non-scientific degree	13%	12%
Other	13%	26%

After collecting information about what employment sectors graduate students take positions in after completing their PhD degrees, programs were asked whether these employment placement data have led to any changes in their program curricula over the last five years. Thirty-seven percent (37%) of responding programs (N = 60) have made adjustments to their curriculum, while almost half (47%) have not. Of the 37% of programs that have made curricular changes within their program, specific adjustments are described in the figure below.[17] Approximately 17% of responding programs were unsure whether the positions students have taken have led to adjustments or changes over the last five years.

Please describe the ways in which your program has made adjustments/changes based on where graduate students are taking positions after graduation. (N = 20, coded open-ended responses)

Focused more on alternative careers (e.g., health policy, medical writing, research in biotech/pharma firms) in science	32%
Increased professional / career development resources	27%
Increased resources (workshops, lectures, alumni panels, etc.)	17%
Adjusted course requirements	15%
Developed new courses	5%
Added elective courses	5%

**STUDENT SUPPORT IN DOCTORAL NEUROSCIENCE PROGRAMS**

US PhD programs were asked to report information regarding financial support provided to students by the program. Eighty-nine percent (89%) of the 65 responding programs provided a guaranteed minimum stipend to their graduate students, while 11% indicated that they do not. Of those 58 programs in AY 2016-2017 that do offer a guaranteed minimum stipend, 38% reported that the amount changed for students with external support.

Programs that provided a guaranteed minimum stipend were asked to provide additional data about the degree of support that they offer to students. No parameters were set on how programs were to report this information, and thus a wide range of responses was collected. The lowest amount entered was $12,800 and the highest was $37,500. However, the majority of responses

(88%) fell between $22,501 and $35,000.[18] The average stipend level was $28,358.29 (median: $28,500.00).

Distribution of Stipend Levels (N = 56)
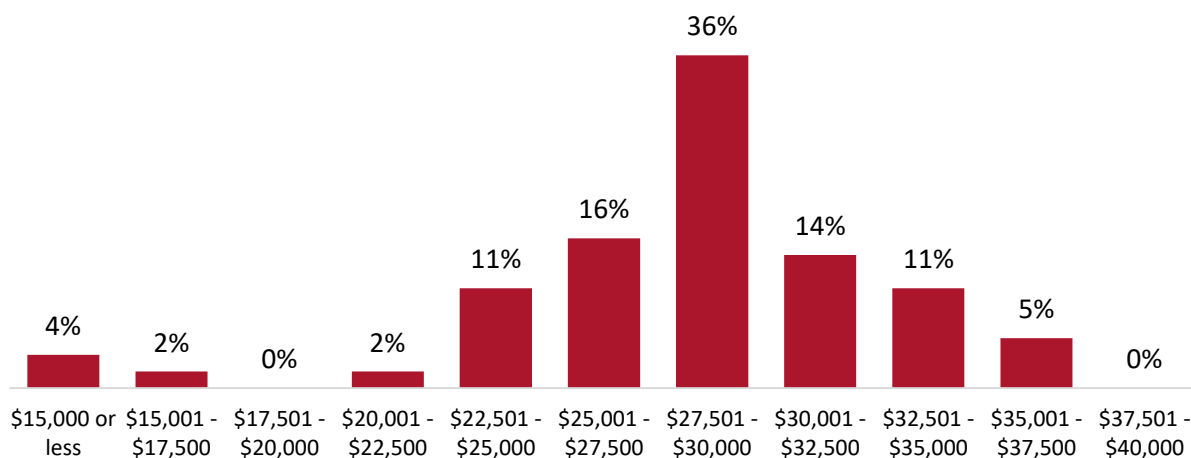
US PhD programs were asked to provide information about the source of graduate student support. Programs were presented with a list of common graduate stipend sources and more than one source could be indicated by a single institution; data are included in the table below. Reported N's represent the number of programs that have students with stipends derived from each of the following sources. Responding programs were most likely to report that students with stipends derived those stipends from individual Principal Investigators' (PIs') research grants, with 39% of students, on average, within a program receiving stipends from these sources. On average, 23% of graduate students received stipend funding from other university funds, while 30% received funding from teaching assistantships (15%) or institutional training grants (15%). Almost 20% of students per program, on average, were funded by federal fellowships (12%) or other fellowship programs (7%).

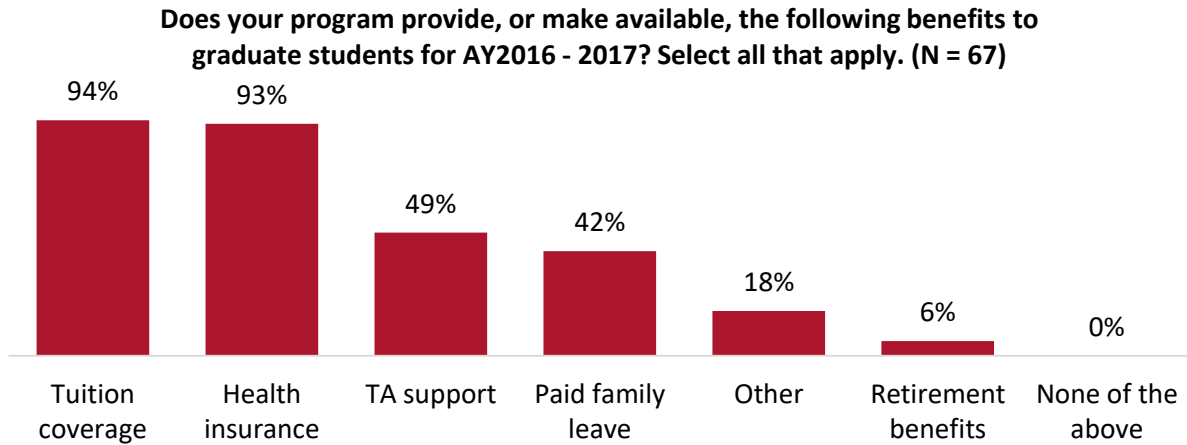| Average percentage of current students with stipends that were derived from each of the following sources in AY 2016-2017	
Individual PIs' Research Grants (N = 55)	39%
Other University Funds (N = 52)	23%
Teaching Assistantships (N = 48)	15%
Institutional Training Grants (N = 47)	15%
Federal Fellowships (N = 48)	12%
Other Fellowships (N = 34)	7%

Question: "Indicate the approximate percentage of current students with stipends that were derived from each of the following sources in AY 2016-2017. Report all that apply."

Almost all US PhD programs reported providing or making available tuition coverage (94%) or health insurance (93%). Approximately half (49%) of programs also made available teaching assistant (TA) support, while 42% provided paid family leave. Eighteen percent (18%) reported providing some other type of benefits to graduate students, while six percent (6%) provided retirement benefits. None of the US PhD programs reported that they do not provide any of the listed benefits.

Does your program provide, or make available, the following benefits to graduate students for AY2016 - 2017? Select all that apply. (N = 67)

Tuition coverage	Health insurance	TA support	Paid family leave	Other	Retirement benefits	None of the above
94%	93%	49%	42%	18%	6%	0%

FACULTY

US PhD Programs were asked to provide information about their faculty, including detailed information such as citizenship, ethnicity, gender, academic rank, tenure status, and employment status. The distribution of the number of faculty across all programs varied from as few as seven faculty to greater than 100. In AY 2010-2011, approximately half of all programs had fewer than 30 faculty on staff, compared to 37% of programs in AY 2016-2017. Similarly, in AY 2010-2011, 15% of programs had 90 or more faculty, compared to 25% of programs in AY 2016-2017. See below for the full distribution of faculty as well as faculty distribution by administrative structure.

Distribution of Faculty
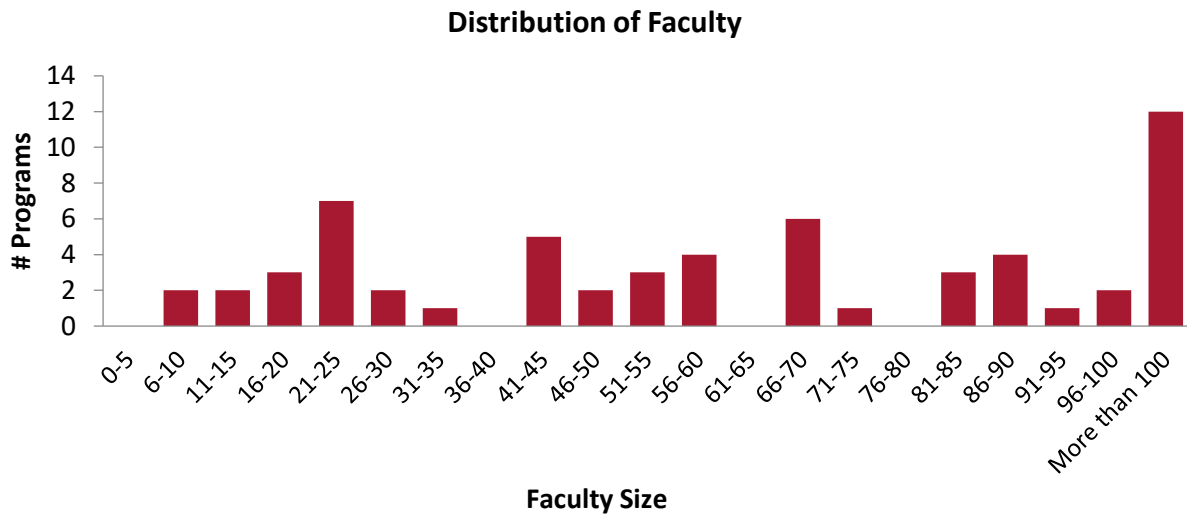
Number of Faculty by Administrative Structure

 # Faculty (y-axis: 0, 20, 40, 60, 80, 100, 120, 140, 160)

Administrative Structure (x-axis)

Categories: Interdepartmental program (N = 30), Graduate School (N = 10), Department of Neuroscience or Neurobiology (N = 8), Neuroscience Institute (N = 2), Other (N = 10)
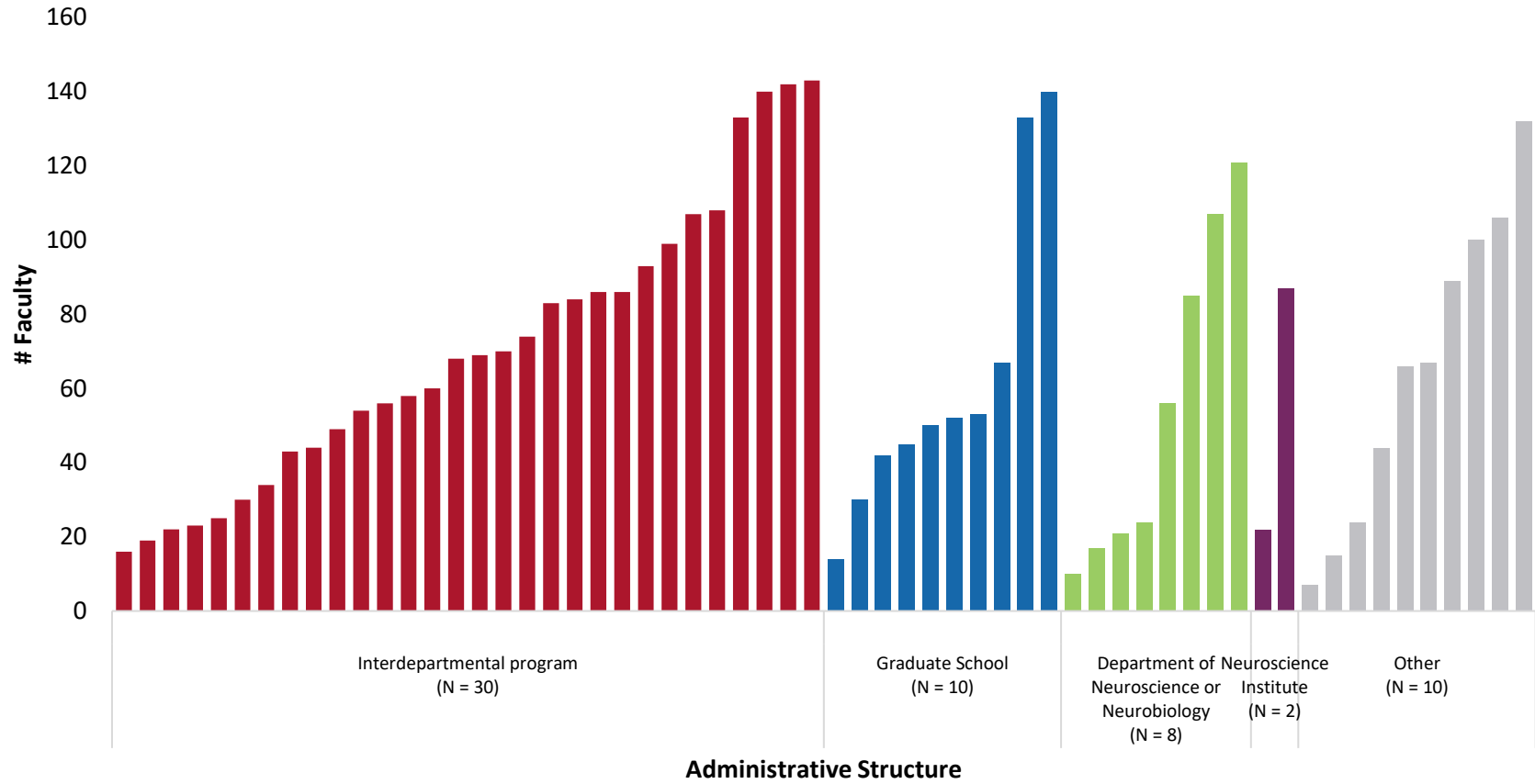
Of the 66 programs that responded, the average number of faculty associated with US PhD programs in AY 2016-2017 was 66 (median: 58). This represents an increase from prior year's surveys (2005 = 50 faculty; 2009 = 51 faculty; 2011 = 42 faculty).[18] In AY 2016-2017, women represented 30% of all faculty for US PhD programs with an average of 18 female faculty members per US program. Female neuroscience faculty representation remained consistent in the 2011 and 2009 surveys (29% reported in both surveys), after rising slightly from 24% in 1998. Minority representation, which unless otherwise noted includes anyone not identifying as "White" or "Caucasian," accounted for 10% of faculty per program within the United States during AY 2016-2017, with an average of five minority faculty members per program.[4] Additionally, non-US citizen faculty represent nine percent (9%) of faculty per program, with an average of four non-US citizen faculty per program during AY 2016-2017. Additional detail related to faculty ethnicity is provided in the Diversity section on page 66.

Average number of faculty affiliated with neuroscience programs during AY 2016-2017		
	Average Number[19]	Average Percentage[20]
Number of faculty for AY 2016-2017	66	-
Number of women faculty	18	30%
Number of minority[4] faculty	5	10%
Number of non-US citizen faculty	4	9%

Faculty affiliated with neuroscience programs during AY 2016-2017 were most likely to be tenured or on a tenure-track. On average, 39 faculty per program had received tenure, while 23 faculty were on the tenure-track. On average, in AY 2016-2017, 93% of faculty were on the tenure-track or had achieved tenure, compared to only 86% in AY 2010-2011. In AY 2016-2017, per program, only five faculty, on average, were on a non-tenure track. These numbers have remained consistent from 2011, when an average of 5.8 faculty were reported to be outside of the tenure-track.

Average number of faculty affiliated with neuroscience programs during AY 2016-2017[20]	
Number of tenured faculty	39
Number of tenure-track faculty	23
Number of non-tenure track faculty	5

Programs were also asked to provide data about academic rank for current professors, those who were hired in the last five years and those who have left the program in the last five years. Data for the average appointment length for each academic rank was also gathered. Most hiring occurred in the assistant professor rank, with an average of seven new assistant professors hired in the last five years compared to two to three new hires in each of the other ranks. Additionally, full and associate professors had the greatest rate of turnover. On average, two full and two associate professors left

each program in the past five years, as compared to only one assistant professor and no adjunct professors. The average appointment length was 12 years for full professors, seven years for associate professors, and four years for assistant professors.

Average number of faculty affiliated with neuroscience programs during AY 2016-2017[20]				
	Current	**Hired**	**Left**	**Average appointment length (in years)**
Full professors	29	3	2	12
Associate professors	14	2	2	7
Assistant professors	13	7	1	4
Adjunct professors	5	2	0	-
Overall average	66[20]	4	2	7

Programs were also asked to indicate whether their neuroscience department or program gathered input from stakeholders in other departments or programs during the hiring process for neuroscience faculty. Half of programs gathered input from outside stakeholders during the hiring process, while the other half reported they do not get input from other departments or programs. Programs that indicated they gather input from outside stakeholders during the hiring process were asked to describe the model of hiring at their institution for faculty associated with their program or in their department; responses are below.

Please use the space below to explain the model of hiring at your institution for faculty associated with your program/in your department. (N = 20, coded open-ended responses)

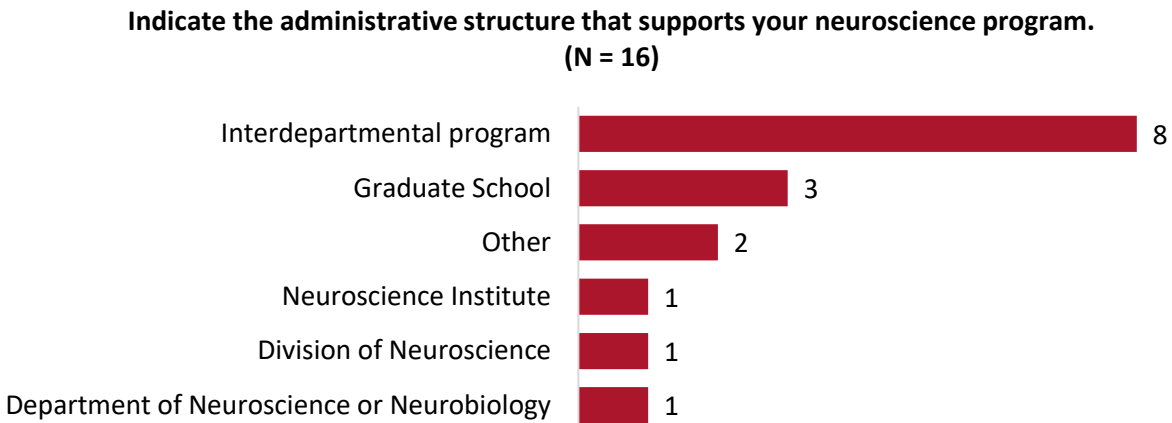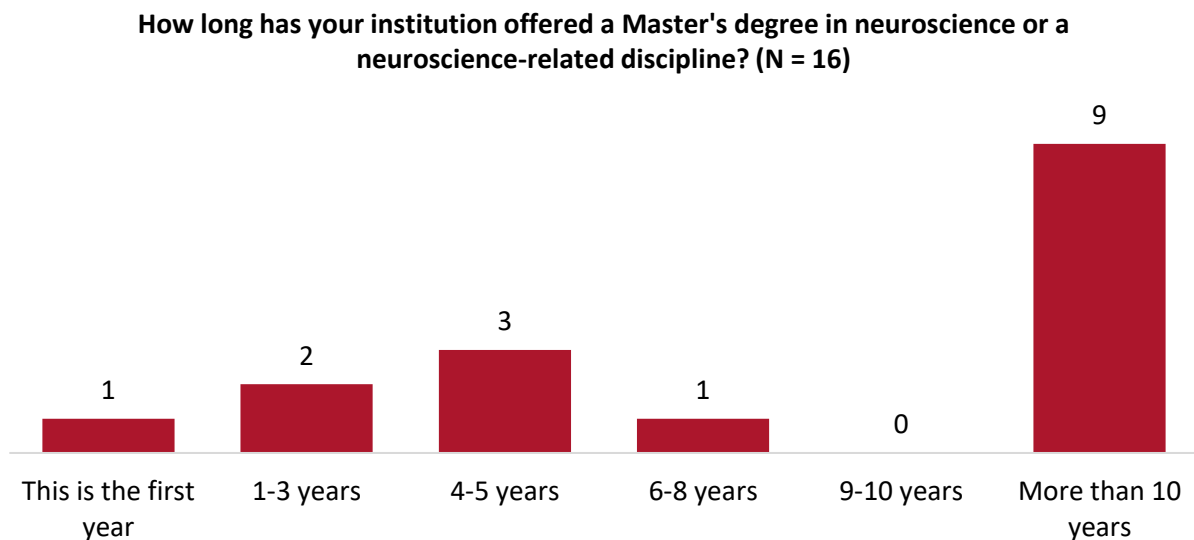| Category	Percentage
Interdepartmental search committee	43%
Departmental search committee	26%
Other neuroscience stakeholders involved (e.g., faculty in the Neursocience program from other departments)	13%
Dean (of faculty, of school, etc.)	9%
Institutional level	4%
Other stakeholders involved (e.g., students, librarians, academic deans, etc.)	4%
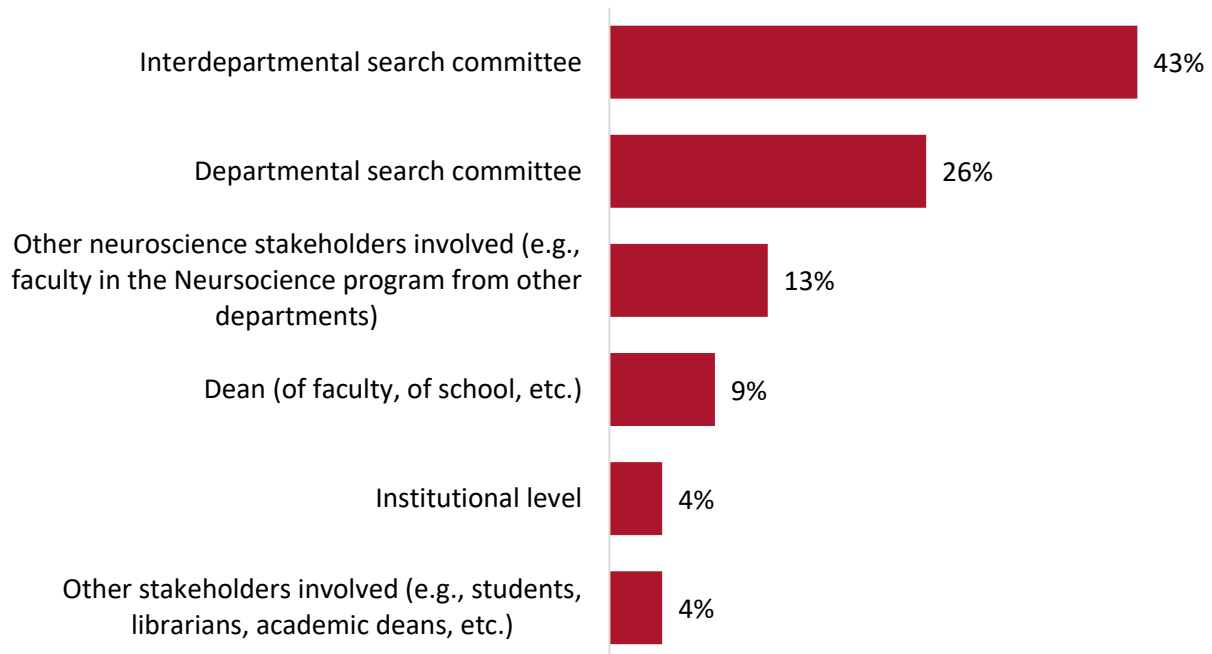
US Master's Programs

Seventeen US Master's programs provided some level of data about their program. While programs were given the opportunity to provide as much data as possible, different programs track varying levels of information resulting in changes to the sample sizes throughout this section.

PROGRAM STRUCTURE

US Master's programs were asked about the administrative structure that supports their neuroscience program. Data are included in the figure below for the 16 programs that responded to this question.[1]

Indicate the administrative structure that supports your neuroscience program.
(N = 16)

Interdepartmental program	8
Graduate School	3
Other	2
Neuroscience Institute	1
Division of Neuroscience	1
Department of Neuroscience or Neurobiology	1

Sixteen US Master's programs reported on how long they have offered a Master's in neuroscience, as shown below, and provided additional data about the format of the Master's degree that they offer.

How long has your institution offered a Master's degree in neuroscience or a neuroscience-related discipline? (N = 16)

This is the first year	1-3 years	4-5 years	6-8 years	9-10 years	More than 10 years
1	2	3	1	0	9

Of the 16 responding US Master's programs, 12 reported they were thesis-based, while three indicated they were capstone-based. One program wrote-in responses describing the format of their Master's degree as "thesis or non-thesis."[1]

TRAINING AND CURRICULAR ISSUES

US Master's programs were asked to distinguish between core neuroscience courses that were open only to neuroscience trainees versus those core neuroscience courses that were open to both neuroscience trainees and students from other disciplines. Eight US Master's programs reported that their program has courses designed for only neuroscience trainees, while all programs reported having courses available to both neuroscience trainees and students from other disciplines.

Programs were asked to report on the number of core or required credits to complete their degree, as well as the number of core or required credits for neuroscience trainees only and the number of elective course credits for neuroscience trainees only.

Average number of core or required credits that fit into each of the following categories:	
Number of credits required to complete the degree	58
Number of **core or required credits** for neuroscience trainees only	25
Number of **elective course credits** for neuroscience trainees only	11

Along with the number of credits required to complete the degree, 14 programs provided data pertaining to lab rotations and their average duration. US Master's programs reported requiring, on average, two rotations. No programs required only one lab rotations, while five required two rotations, another five required three rotations and one required four rotations. Four programs reported no lab rotation requirement. The average duration of these lab rotations was 11 weeks.

Average number of lab rotations and average duration of lab rotations required in programs	
Number of rotations (0 – 4)	2
Duration (in weeks)	11

US Master's programs were asked to report on how they provided training in different topics that supplemented technical neuroscience content, such as experimental design or the responsible conduct of research. Detailed responses are provided in the table below.

US Master's Course Requirements

	Required Coursework	Elective Courses	Informal Coursework	Not Covered
Responsible conduct of research	76%	6%	6%	12%
Ethics	76%	6%	6%	6%
Scientific rigor issues	65%	12%	6%	24%
Statistical reasoning and data analysis methods	59%	29%	6%	0%
Experimental design	59%	35%	6%	6%
Lab or method-based courses	59%	18%	12%	12%
Public speaking	41%	12%	47%	0%
Writing	35%	41%	29%	6%
Journal clubs	29%	18%	41%	12%
Grant writing	24%	41%	41%	0%
Data science/"big data" approaches	18%	35%	12%	18%
Computer programming	12%	47%	18%	18%
Science outreach and advocacy	6%	12%	59%	18%
Question: "In addition to your technical neuroscience content, how does your program provide training in the following topics? Select all that apply."				
Please note the table uses a color gradient to highlight differences within each column. Green cells are the highest in that column, yellow are in the middle, and red are the lowest percentages in that column.				

Of the 17 responding US Master's programs, 16 programs reported that their program was evaluated, in some manner, for revisions involving the structure of the curriculum on a regular schedule. Five reported that their program was evaluated every year, while another five reported their program was evaluated every other or every three years. Six reported their program was evaluated every five years. No programs were evaluated only when needed, but one program did report they were evaluated on another schedule not listed.

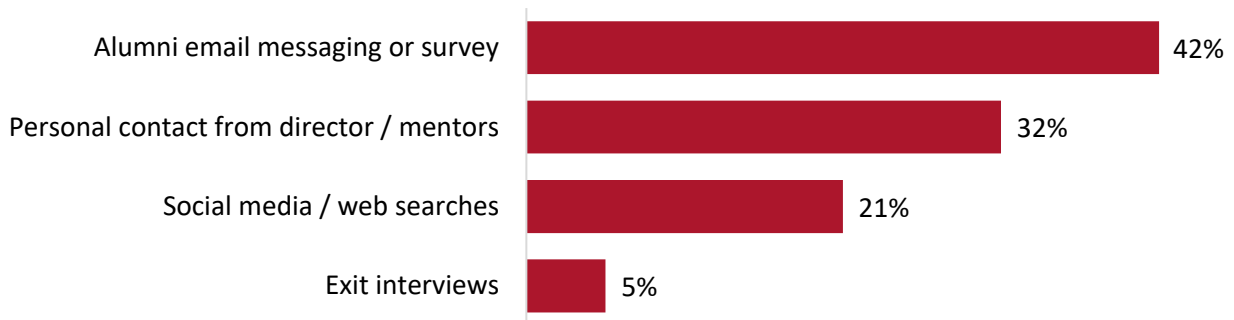**How frequently is your program evaluated for revisions involving the structure of the curriculum? (N = 17)**

5	3	2	6	0	1
Every year	Every other year	Every three years	Every five years	Only when needed	Other
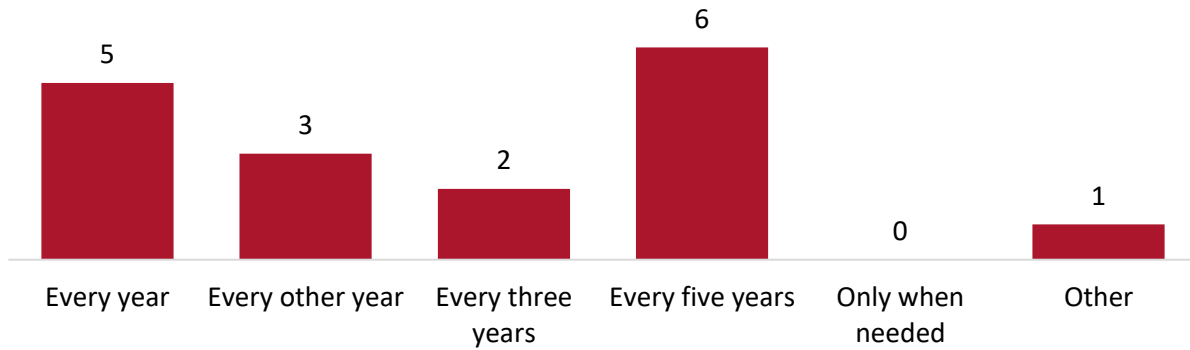
**STUDENTS' CAREERS AFTER COMPLETING GRADUATE MASTER'S NEUROSCIENCE PROGRAMS**

US Master's programs were asked questions regarding students' careers after completing a graduate neuroscience program and about what methods were used to collect information about past students' careers. All 17 responding US Master's programs reported that they do collect information on what positions their students take after completing their graduate degree. Of the 17 responding programs, 13 provided data on how their program collects this information. Forty-two percent (42%) of these programs indicated they collected information on what positions students take after completing their programs through alumni messaging or an alumni survey, while 32% reported that they collected this information through personal contact from the director of the program or the individual student's mentor. Twenty-one percent (21%) of programs reported that they did informal social media or web searches to find this information, and most respondents cited using LinkedIn to find updated information on past graduates. The remaining five percent (5%) of US Master's programs used a more formalized approach of exit interviews.

**Please use the space below to describe how your program collects information
on what positions your students take after completing their graduate program.
(N = 13, coded open-ended responses)**

Alumni email messaging or survey	42%
Personal contact from director / mentors	32%
Social media / web searches	21%
Exit interviews	5%

The survey also asked US Master's programs about the employment sectors their graduates have taken positions in over the last five years. The graph below indicates the employment sectors in which at least one student has taken a position within the last five years. Programs were most likely to report that they have had at least one student take a position in biotech/pharmaceutical companies (47%), scientific non-profit/NGOs (41%), hospitals (41%), and government organizations (41%). Twenty-four percent (24%) of programs reported that at least one student has taken a position at a non-scientific, non-profit/NGO, while another 24% reported that at least one student has pursued another scientific degree. Eighteen percent (18%) of programs reported that at least one student went on to an independent research institute and 36% of programs indicated students were split evenly between self-employment (12%), other non-scientific private sector entities (12%), and other scientific private sector entities (12%). Programs were least likely to report that they have had at least one student pursue another non-scientific degree (6%) or other position not listed (6%).[1]

Please indicate areas where students from your program have taken positions over the last five years Select all that apply. (N = 17)

Category	Percentage
Biotech or pharmaceutical company	47%
Scientific non-profit institution/non-governmental organization	41%
Hospital	41%
Government	41%
Non-scientific non-profit institution/non-governmental organization	24%
Pursued another scientific degree	24%
Independent research institute	18%
Self-employed	12%
Other non-scientific private sector entity	12%
Other scientific private sector entity	12%
Other	6%
Pursued another non-scientific degree	6%
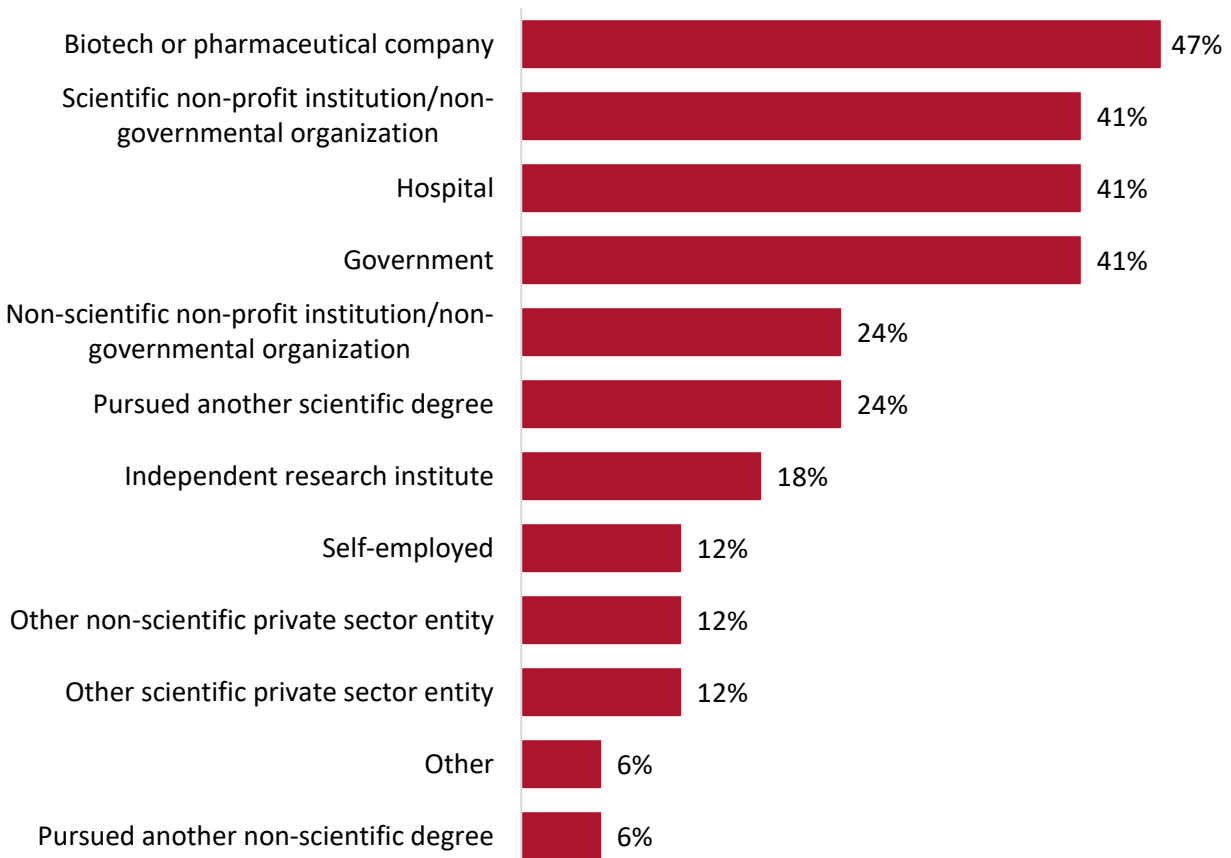
After collecting information about the specific types of positions graduate students take after graduation, 16 programs provided responses concerning whether these employment placement data have led to any changes in their program curricula over the last five years. Thirty-one percent

(31%) of programs have made adjustments to their curriculum, while half (50%) have not. Approximately 19% were unsure whether the positions students have taken have led to adjustments or changes to the program curricula over the last five years.

STUDENT SUPPORT IN MASTER'S NEUROSCIENCE PROGRAMS

US Master's programs were asked to report on information regarding financial support provided to students by the program. Of the 16 responding programs, 69% provided a guaranteed minimum stipend to their graduate students, while 31% indicated that they do not. Of those Master's programs that do offer a guaranteed minimum stipend, 18% reported that the amount changed for students with external support. The sample size was insufficient to segment the minimum stipend provided to US Master's programs.

US Master's programs were asked to provide information about the source of graduate student support. Programs were presented with a list of common graduate stipend sources and more than one source could be indicated by a single institution; data are included in the table below. Reported N's represent the number of programs that have students with stipends derived from each of the following sources. Responding programs were most likely to report that students with financial support derived those stipends from individual Principal Investigators' (PIs') research grants, with 36% of students within a program receiving stipends from these sources. On average, 21% of US Master's students received stipend funding from other university funds, while 15% received teaching assistantships and 14% received funding through institutional training grants. Another 20% were funded by federal fellowships (13%) or other fellowship sources (7%).

| Average percentage of current students with stipends that were derived from each of the following sources in AY 2016-2017	
Individual PIs' Research Grants (N = 11)	36%
Other University Funds (N = 9)	21%
Teaching Assistantships (N = 8)	15%
Institutional Training Grants (N = 8)	14%
Federal Fellowships (N = 8)	13%
Other Fellowships (N = 7)	7%

Question: "Indicate the approximate percentage of current students with stipends that were derived from each of the following sources in AY 2016-2017. Report all that apply."

Eighty-eight percent (88%) of responding US Master's programs reported that their program provides or makes available health insurance, while 82% provide tuition coverage. Sixty-five percent (65%) also make available teaching assistant (TA) support and almost one quarter (24%) provide paid family leave. Only 12% reported providing or making available retirement benefits

and six percent (6%) offer benefits not listed below. No US Master's programs reported that they do not provide any of the listed benefits.

Does your program provide, or make available, the following benefits to graduate students for AY2016 - 2017? Select all that apply. (N = 17)

88%	82%	65%	24%	12%	6%	0%
Health insurance	Tuition coverage	TA support	Paid family leave	Retirement benefits	Other	None of the above
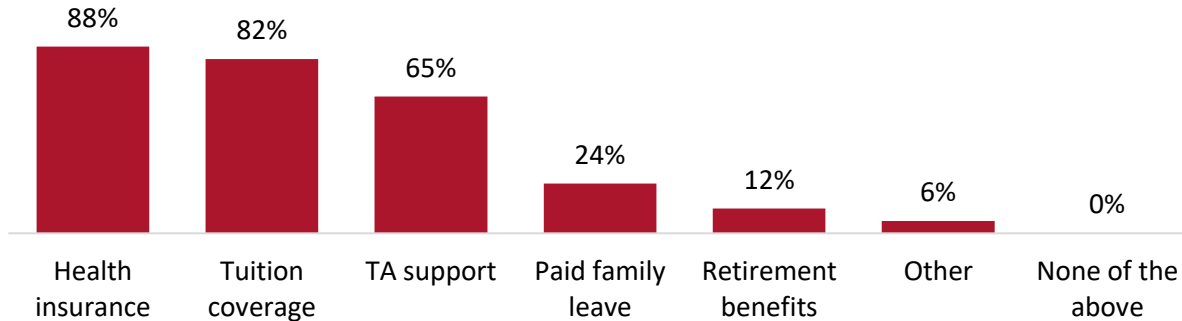
FACULTY

US Master's programs were asked to provide information about their faculty, including detailed information such as citizenship, ethnicity, gender, academic rank, tenure status, and employment status. The distribution of the number of faculty across all programs varied from as few as 15 faculty to greater than 100. Almost half of responding US Master's programs (six of 13 programs) had 25 or fewer faculty, while four had between 26 and 50 faculty and two had between 51 and 100. Only one program reported having a faculty size of more than 100.

Distribution of Faculty

# of Programs			
6	4	2	1
0-25	26-50	51-100	More than 100

Faculty Size
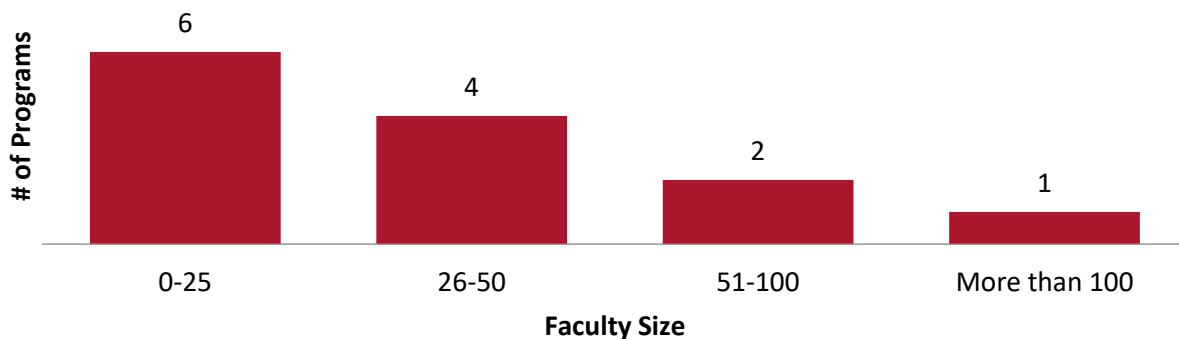
Among the 13 US Master's programs that provided the number of faculty in their program, the average number of faculty was 44 per program. Women represented 32% of all faculty for US Master's programs for AY 2016-2017, with an average of 13 female faculty members per US program. Minority[4] representation, which unless otherwise noted includes anyone not identifying as "White" or "Caucasian," accounted for 16% of faculty per Master's program within the United States during AY 2016-2017, with an average of six minority faculty members per program. Non-US citizen faculty also represented 16% of faculty per program, with an average of six per program during AY 2016-2017.

Average number of faculty affiliated with neuroscience programs during AY 2016-2017		
	Average Number[20]	Average Percentage[21]
Number of faculty for AY 2016-2017	44	-
Number of women faculty	13	32%
Number of minority[4] faculty	6	16%
Number of non-US citizen faculty	6	16%

Faculty affiliated with US Master's neuroscience programs during AY 2016-2017 were most likely to be tenured or on a tenure-track. On average, 26 faculty per program had achieved tenure, while 15 faculty were on the tenure-track. Per program, only nine faculty, on average, were not on a tenure-track.

Average number of faculty affiliated with neuroscience programs for each of the following during AY 2016-2017[20]	
Number of tenured faculty	26
Number of tenure-track faculty	15
Number of non-tenure-track faculty	9

Programs were also asked to provide data about academic rank for current professors as well as the average appointment length for each academic rank; average data for the responding programs are in the table below.[20] Although the survey asked for information on the number of faculty who were hired in the last five years and those who have left the program in the last five years, the sample size of those who actually reported this information was too small to report.

Average number of faculty affiliated with neuroscience programs during AY 2016-2017[20]		
	Current	Average appointment length (in years)
Full professors	20	11
Associate professors	10	5
Assistant professors	10	3
Adjunct professors	15	-
Overall average	55[20]	6

US Master's programs were also asked to indicate whether their neuroscience department or program gathered input from stakeholders in other departments or programs during the hiring process for neuroscience faculty. Of the 14 responding programs, 10 programs gathered input from outside stakeholders during the hiring process, while four reported they do not get input from other departments or programs. Some programs reported in an open-ended question that the model for hiring faculty includes faculty from multiple departments, including neuroscience faculty, but also including those outside of the neuroscience department. Others reported that neuroscience faculty hires take place within the neuroscience department and did not explicitly state they included faculty from outside of neuroscience. At least one program noted that the head of the home department makes the final hiring decision after a committee made up of faculty from multiple departments reviews candidates.

US Undergraduate Programs

Overall, 22 US undergraduate programs provided some level of data about their program. While programs were given the opportunity to provide as much data as possible about training and curricular issues and faculty levels, different programs track varying levels of information resulting in changes to the sample sizes throughout this section.

TRAINING AND CURRICULAR ISSUES

US undergraduate programs were asked to distinguish between core neuroscience courses that were open only to neuroscience trainees versus those core neuroscience courses that were open to both neuroscience trainees and students from other disciplines. Over half of the 16 responding US undergraduate programs (56%) reported that their program has courses designed for only neuroscience trainees, while all programs reported that their program has courses available to both neuroscience trainees and students from other disciplines.

Programs were asked to report on the number of core or required credits to complete their degree, as well as the number of core or required credits for neuroscience trainees only and the number of elective course credits for neuroscience trainees only. On average, US undergraduate programs reported requiring 68 credits to complete the degree. The per program average number of core or required credits that were for neuroscience trainees only was 26, while the per program average number of elective course credits for neuroscience trainees only totaled nine.

Average number of core or required credits that fit into each of the following categories:	
Number of credits required to complete the degree	68
Number of **core or required credits** for neuroscience trainees only	26
Number of **elective course credits** for neuroscience trainees only	9

Along with the number of credits required to complete the degree, 20 US undergraduate programs provided data pertaining to lab rotations and their average duration. Programs reported requiring two rotations on average. Fifteen programs reported no lab rotation requirement. Two programs reported requiring one lab rotation, while another two required two and one program required more than two. The average duration of these lab rotations was nine weeks.

US undergraduate programs were asked to report on how they provided training in different topics that supplemented technical neuroscience content. Detailed responses are provided in the table below.

US Undergraduate Course Requirements

|	Required Coursework	Elective Courses	Informal Coursework	Not Covered
Writing	78%	50%	11%	0%
Statistical reasoning and data analysis methods	78%	39%	0%	6%
Lab or method-based courses	78%	39%	0%	0%
Experimental design	72%	50%	6%	0%
Scientific rigor issues	72%	50%	6%	0%
Public speaking	67%	39%	17%	11%
Responsible conduct of research	56%	22%	28%	0%
Ethics	50%	33%	11%	11%
Grant writing	28%	33%	17%	28%
Computer programming	28%	50%	6%	17%
Science outreach and advocacy	11%	33%	39%	17%
Data science/ "Big data" approaches	6%	56%	22%	22%
Journal clubs	0%	44%	39%	17%

Question: "In addition to your technical neuroscience content, how does your program provide training in the following topics? Select all that apply."

Please note the table uses a color gradient to highlight differences within each column. Green cells are the highest in that column, yellow are in the middle, and red are the lowest percentages in that column.

Of the 16 responding US undergraduate programs, nine programs reported that their program was evaluated, in some manner, for revisions involving the structure of the curriculum on a regular schedule. Six reported that their program was evaluated every year, while three reported their program was evaluated every five years. Six programs were evaluated only as needed and one reported that they were evaluated on another schedule not listed.

How frequently is your program evaluated for revisions involving the structure of the curriculum? (N = 16)
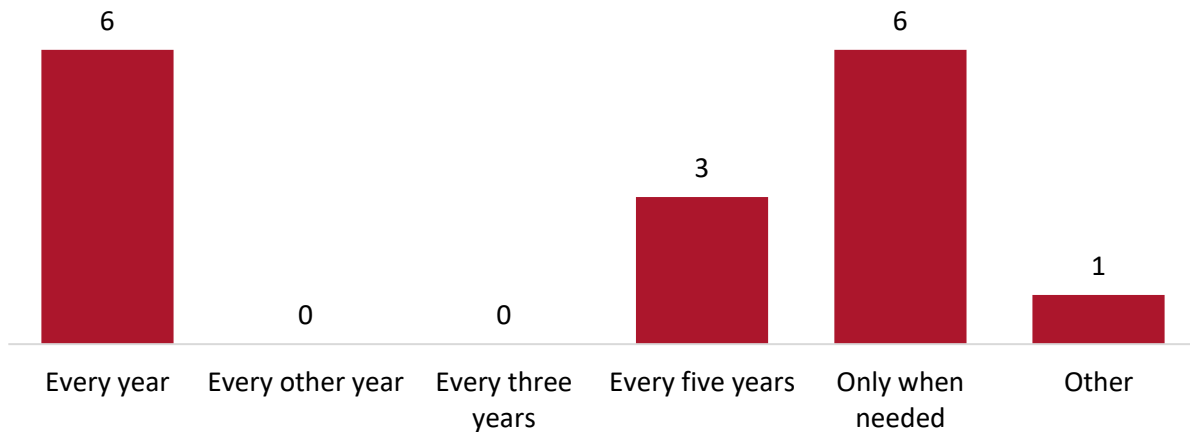
FACULTY

US undergraduate programs were asked to provide information about their faculty, including the number of faculty in the program, tenure, and rank. The distribution of the number of faculty across all programs varied from as few as four faculty to as many as 91. Of the 18 responding programs, eleven had 15 or fewer faculty, while four had between 16 and 25 faculty and one had between 26 and 50. Only two programs reported having a faculty size of more than 50.

Distribution of Faculty
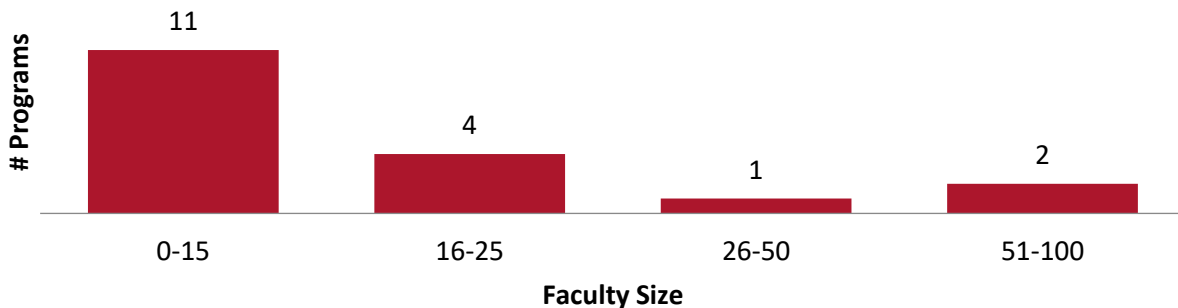
Among the 18 US undergraduate programs that provided the number of faculty in their program, the average number of faculty was 19 per program. Women represented 44% of all faculty for US undergraduate programs for AY 2016-2017, with an average of eight female faculty members per US program. Minority representation, which unless otherwise noted includes anyone not identifying as "White" or "Caucasian," accounted for eight percent (8%) of faculty per undergraduate program within the US during AY 2016-2017, with an average of one minority faculty member per program. Additionally, non-US citizen faculty represented five percent (5%) of faculty per program, with an average of one per program during AY 2016-2017.

Average number of faculty affiliated with neuroscience programs during AY 2016-2017		
	Average Number[20]	Average Percentage[21]
Number of faculty for AY 2016-2017	19	-
Number of women faculty	8	44%
Number of minority[4] faculty	1	8%
Number of non-US citizen faculty	1	5%

Faculty affiliated with neuroscience programs during AY 2016-2017 were most likely to be tenured or on a tenure-track. On average, nine faculty per program have received tenure, while six faculty were on the tenure-track. On average, only two faculty per program were not on a tenure-track.

Average number of faculty affiliated with neuroscience programs for each of the following during AY 2016-2017[20]	
Number of tenured faculty	9
Number of tenure-track faculty	6
Number of non-tenure track faculty	2

Programs were also asked to provide data about academic rank for current professors, those who were hired in the last five years, and those who have left the program in the last five years. Data for the average appointment length for each academic rank was also gathered and presented below.

Average number of faculty affiliated with neuroscience programs for each of the following during AY 2016-2017[20]				
	Current	Hired	Left	Average appointment length (in years)
Full professors	6	1	1	12
Associate professors	5	2	0	7
Assistant professors	4	3	0	4
Adjunct professors	1	2	2	-
Overall average[20]	15	2	1	7

Programs were also asked to indicate whether their neuroscience department or program gathered input from stakeholders in other departments or programs during the hiring process for neuroscience faculty. Of the 16 responding US undergraduate programs, 13 gathered input from outside stakeholders during the hiring process, while three reported they do not get input from other departments or programs.

Programs that indicated they gather input from outside stakeholders during the hiring process were asked to describe the model of hiring at their institution for faculty associated with their program or in their department; responses are below.

Please use the space below to explain the model of hiring at your institution for faculty associated with your program/in your department.
(N = 11, coded open-ended responses)

Category	Count
Departmental search committee	8
Other neuroscience stakeholders involved (e.g., faculty in the Neursocience program from other departments)	4
Interdepartmental search committee	3
Dean (of faculty, of school, etc.)	2
Other stakeholders involved (e.g., students, librarians, academic deans, etc.)	1
Institutional level	0
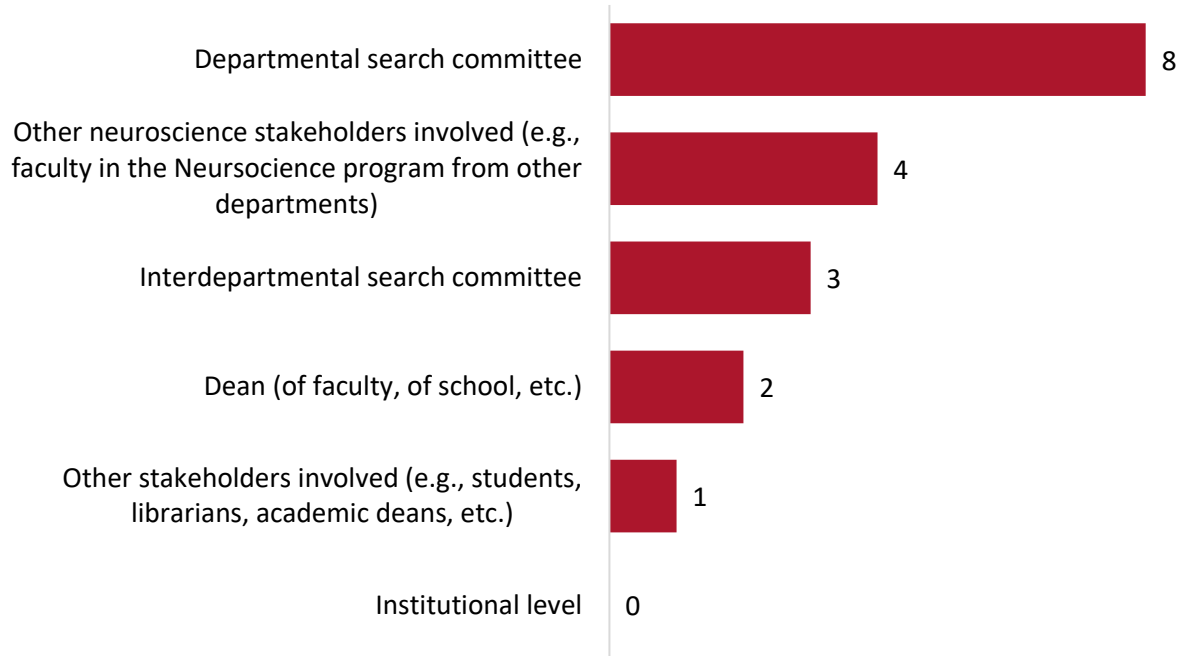
International Neuroscience Training

International PhD Programs

Overall, 13 non-US PhD programs provided some level of data about their program. Six of the programs were located in Europe, three were in Canada, two were in Australia, one was in Asia, and one was in Latin America. While programs were given the opportunity to provide as much data as possible, different programs track varying levels of information resulting in changes to the sample sizes throughout this section. Additionally, the small number of programs that did provide data throughout this section resulted in limited quantitative analysis.

PROGRAM STRUCTURE

Non-US PhD programs were asked about the administrative structure that supports their neuroscience program. Of the 11 programs that responded to this question, more than one third reported being interdepartmental. Two programs reported being housed in either a Neuroscience Institute or a Department of Neuroscience or Neurobiology, while one program was housed in a Graduate School. Two programs reported that they had another structure, such as being housed within the Division of Brain Sciences or the school's Neuroscience Foundation. No responding programs were administered by a Division of Neuroscience.[1]

Graduate programs were asked to specify which degree or degrees they offer in neuroscience or a neuroscience-related discipline. All responding graduate programs (N = 14) offered a PhD and six non-US PhD programs (43%) reported that they have MD/PhD students participating in their PhD program.

Respondents were also asked to report how long those degrees have been offered. Eight PhD programs have been in existence for more than 10 years, while two have been around for between nine and 10 years. One PhD program has been offered for between six and eight years and no programs have been in existence for five years or less.

TRAINING AND CURRICULAR ISSUES

Non-US PhD programs were asked to distinguish between core neuroscience courses that were open only to neuroscience trainees versus those core neuroscience courses that were open to both neuroscience trainees and students from other disciplines. Four of 10 non-US PhD programs reported that their program has courses designed for only neuroscience trainees. The sample size for programs reporting on whether they have core courses available to both neuroscience trainees and those from other disciplines was too small for meaningful analysis.

Programs were asked to report on the number of core or required credits to complete their degree, as well as the number of core or required credits for neuroscience trainees only and the number of elective course credits for neuroscience trainees only. The 11 responding non-US PhD programs, reported requiring, on average, 110 credits to complete the degree. The per program average

number of core or required credits that were for neuroscience trainees only was 85, while the sample size was too small to report on the per program average number of elective course credits for neuroscience trainees only.

Along with the number of credits required to complete the degree, 10 non-US PhD programs provided data pertaining to lab rotations. Non-US PhD programs reported requiring, on average, two rotations. Five programs reported no lab rotation requirement. One program reported requiring one rotation, one required two rotations, three required three rotations and one required more than three rotations. Sample sizes were too small to report on the average duration of lab rotations.

Non-US PhD programs were asked to report on how they provided training in different topics that supplemented technical neuroscience content. Detailed responses are provided in the table below.

Non-US PhD Course Requirements

	Required coursework	Elective Courses	Informal Coursework	Not Covered
Responsible conduct of research	64%	0%	21%	0%
Ethics	57%	0%	29%	0%
Statistical reasoning and data analysis methods	43%	29%	21%	0%
Experimental design	36%	36%	29%	0%
Lab or method-based courses	36%	21%	29%	7%
Public speaking	29%	7%	50%	0%
Journal clubs	29%	14%	64%	0%
Scientific rigor issues	29%	36%	14%	14%
Writing	21%	29%	43%	14%
Grant writing	21%	7%	43%	14%
Science outreach and advocacy	14%	14%	50%	0%
Data science/ "Big data" approaches	14%	57%	14%	0%
Computer programming	0%	50%	14%	14%
Question: "In addition to your technical neuroscience content, how does your program provide training in the following topics? Select all that apply."				
Please note the table uses a color gradient to highlight differences within each column. Green cells are the highest in that column, yellow are in the middle, and red are the lowest percentages in that column.				

Of the 12 responding non-US PhD programs, 11 reported that their program was evaluated, in some manner, for revisions involving the structure of the curriculum on a regular schedule. Five reported that their program was evaluated every year, one reported being evaluated every other year, while three reported their program was evaluated every three years. Another two reported their program was evaluated every five years and only one reported that the program was evaluated only when needed.

PROGRAM APPLICANTS

Non-US PhD programs were asked to report on information about applicants to their programs, including the number of applicants and detailed information for first-year, doctoral students such as undergraduate research experience and time since applicants' previous degree was awarded. Of the nine non-US PhD programs that responded, they received, on average, 77 student applications to their neuroscience program. However, there was a wide range in the number of applicants reported, from as few as seven applicants to as many as 201. Additional applicant data include: median = 40; 25th percentile = 11; 75th percentile = 134. Sample sizes were insufficient to segment non-US PhD programs' acceptance rate, matriculation rate, breakdown of women applicants, reported changes in the number of applicants, and number of students accepted into PhD programs within the last five years.

Programs were also asked to provide specific information regarding their applicants, including whether they had undergraduate research experience and how long it had been since their previous degree. On average, 80% of all applicants to the eight non-US PhD programs that responded to these questions had undergraduate research experience. Twenty-three percent (23%) of all applicants to non-US PhD programs were in an MD/PhD program and currently completing the PhD portion. The average time since applicants' previous degree was awarded was one year and 10.8 months. On average, 53% of a program's applicants were domestic, while 41% were international.[7]

Non-US PhD programs were asked to indicate the undergraduate disciplines of first year PhD students in fall 2016. Of the 14 programs that responded, 10 programs reported that they have at least one applicant with an undergraduate degree in biology. Other than biology, the most common disciplines for undergraduate degrees included neuroscience (N = 8), psychology (N = 8), and other disciplines not listed (N = 8). Half of all programs (N = 7) had at least one applicant with a background in chemistry/biochemistry, while just over one third of programs had at least one applicant with a background in mathematics/statistics (N = 5) or biopsychology/ psychobiology/ behavioral neuroscience (N = 5). Programs were least likely to have applicants with dual majors (N = 1). Programs were also asked to report the percentage of matriculated students with degrees in each of the listed disciplines. However, sample sizes were too small to report on non-US PhD programs reporting this information.

PROGRAM ENROLLMENT, DEMOGRAPHICS, AND METRICS

On average, non-US PhD program graduates took 4.1 years to complete their degree (N = 6 programs, covering 72 students). Completion times for non-US programs ranged from 3.0 years to 5.2 years. On average, males took 4.2 years to PhD completion and females took 4.0 years.

Non-US programs were asked to report on the gender of students who received a PhD degree during AY 2015-2016. On average, females were awarded 2.4 PhD degrees per program, while males were awarded 2.1 degrees.

Students who received PhD degrees from non-US programs were broken down by geographical region. The data did not reveal an overwhelming majority of graduates from one region compared to another, despite the fact that eight of 16 responding non-US programs were located in Europe. On average, two non-US PhD degrees were awarded to students from Asian countries, while just one was from Europe. On average, fewer than one non-US PhD degree was awarded by the responding programs to students from Africa, Canada, Latin America, US citizens, and students from regions not listed.

Samples sizes for non-US PhD programs were too small to report additional details concerning overall degree completion rates, or completion rates for students with or without a Master's degree before entering the PhD program. In addition, sample sizes for non-US PhD programs were insufficient to report on the numbers of students in the fall 2016 entering class, the number of pre-doctoral students, or women currently enrolled in PhD programs.

STUDENTS' CAREERS AFTER COMPLETING DOCTORAL NEUROSCIENCE PROGRAMS

Non-US PhD Programs were asked questions regarding students' careers after completing a graduate neuroscience program. Ten of the 12 non-US PhD programs that responded reported that they do collect information on what positions their students take after completing their graduate degree, while two reported they do not track that information.

The survey also asked non-US PhD programs about students' careers after completing PhD programs.[18] The sample size was too small to segment non-US PhD programs reporting the percentage of students who move immediately into a postdoctoral position. The data that follow indicate the employment sectors in which at least one student has taken a position within the last five years.

Of the 10 non-US PhD programs that responded to this question, respondents were most likely to report that students take positions in biotech/pharmaceutical companies (six programs) and scientific non-profits or NGOs (six programs), hospitals (six programs), and government organizations (six programs). Four of the ten programs reported that students have pursued another scientific degree while three reported students taking positions at other non-scientific private sector entities, other scientific private sector entities, and independent research institutes. Two of the 10 responding programs reported that students were self-employed or have pursued

another non-scientific degree. Programs were least likely to report that students have taken positions in non-scientific institutions/NGOs, with only one program reporting having a former student in this employment area.

The sample size for responding non-US PhD programs was also too small to segment whether changes in the types of positions graduate students take after graduation led to any adjustments or changes in curriculum over the last five years.

STUDENT SUPPORT IN DOCTORAL NEUROSCIENCE PROGRAMS

Non-US PhD programs were asked to report information regarding financial support provided to students by the program. Eight of the 10 responding programs provide a guaranteed minimum stipend to their graduate students, while two programs indicated that they do not. Despite asking about a variety of areas involved in graduate student support, sample sizes for non-US PhD programs were too small to report on guaranteed minimum stipend amounts, whether the minimum stipend changes for students with external support, and the approximate percentage of current students with stipends that were derived from a provided list of sources in AY 2016-2017.

Fourteen non-US PhD programs provided data about what benefits they provide, or make available, to graduate students for AY 2016 – 2017. Five out of 14 non-US PhD programs reported providing or making available tuition coverage or health insurance. Two non-US PhD programs provide paid family leave, one provides retirement benefits, and another one makes available teaching assistant (TA) support. One program also reported providing or making available other benefits not listed below. Additionally, three programs reported they do not provide any of the listed benefits.

FACULTY

Non-US PhD programs were asked to provide information about their faculty, including detailed information such as citizenship, ethnicity, gender, academic rank, tenure status, and employment status. Within the nine programs that responded, the distribution of the number of faculty across all programs varied from as few as 25 faculty to greater than 200. Almost half of responding non-US PhD programs (four of nine programs) had 51-90 faculty, while three out of nine had more than 90. One of nine responding programs reported having between 0-30 and one had between 31-50 faculty members.

Within the nine responding programs, the average number of faculty for non-US PhD programs was 80 per program. The average number of women faculty per program was 23, which accounted for approximately 34% of faculty in these programs. Programs were asked to report on the number of faculty by tenure status, level (e.g., full professor, associate professor, assistant professor or adjunct professor), and whether programs gather input from stakeholders from other departments or programs in the hiring process. However, sample sizes were too small to report on this data.

International Master's Programs

Overall, 12 non-US Master's programs provided some level of data about their program. Six of the programs were located in Europe, three were in Canada, two were in Australia, one was in Asia, and one was in Latin America. While programs were given the opportunity to provide as much data as possible, different programs track varying levels of information resulting in changes to the sample sizes throughout this section. Additionally, the small number of programs that did provide data throughout this section resulted in limited numerical analysis.

PROGRAM STRUCTURE

Non-US Master's programs were asked about the format and administrative structure of their Master's degree in neuroscience. Of the 12 programs that provided data about the format of the Master's degree that their program offered, 10 programs reported their programs were thesis-based, while none indicated they were capstone-based. Only two programs wrote-in responses describing the format of their Master's degree, including "taught and research thesis" and "taught component (120 credit points); lab-based research project and thesis (60 credit points)."[1] Sample sizes were too small to report on the administrative structure and the time since programs have been established, but were large enough to report on the format of the degrees.

TRAINING AND CURRICULAR ISSUES

Non-US Master's programs were asked to report on the number of core or required credits to complete their degree, as well as the number of core or required credits for neuroscience trainees only and the number of elective course credits for neuroscience trainees only. On average, 11 responding programs reported requiring 75 credits to complete the degree. The per program average number of core or required credits that were for neuroscience trainees only was 54, while the per program average number of elective course credits for neuroscience trainees only totaled 19.

Along with the number of credits required to complete the degree, programs were asked about requirements around lab rotations and their average duration. The 11 responding non-US Master's programs reported requiring, on average, two rotations. Two programs reported requiring one rotation, one program required two rotations, three programs required three rotations, and one program required more than three rotations. Four programs reported no lab rotation requirement. For those programs that do require lab rotations, the average duration was seven weeks.

Non-US Master's programs were asked to report on how they provided training in different topics that supplemented technical neuroscience content. Detailed responses are provided in the table below.

Non-US Master's Course Requirements

	Required Coursework	Elective Courses	Informal Coursework	Not Covered
Responsible conduct of research	67%	8%	8%	0%
Ethics	67%	8%	8%	0%
Lab or method-based courses	50%	17%	25%	0%
Statistical reasoning and data analysis methods	42%	42%	8%	0%
Experimental design	42%	42%	17%	0%
Public speaking	33%	17%	42%	0%
Scientific rigor issues	33%	42%	8%	8%
Writing	25%	33%	25%	25%
Grant writing	25%	0%	25%	33%
Science outreach and advocacy	17%	17%	42%	8%
Data science/"big data" approaches	17%	58%	0%	8%
Journal clubs	17%	25%	58%	8%
Computer programming	8%	50%	8%	8%
Question: "In addition to your technical neuroscience content, how does your program provide training in the following topics? Select all that apply."				
Please note the table uses a color gradient to highlight differences within each column. Green cells are the highest in that column, yellow are in the middle, and red are the lowest percentages in that column.				

Of 11 responding non-US Master's programs, 10 reported that their program was evaluated, in some manner, for revisions involving the structure of the curriculum on a regular schedule. Three programs reported that their program was evaluated every year, while one reported being evaluated every other year and another two reported their program was evaluated every three years. Four programs reported that their program was evaluated every five years and one reported that the program was evaluated only when needed. Sample sizes for responding non-US Master's programs were insufficient to adequately answer questions about whether core courses were open to both neuroscience trainees and students from other disciplines or were offered exclusively to neuroscience Master's degree students.

STUDENTS' CAREERS AFTER COMPLETING MASTER'S NEUROSCIENCE PROGRAMS

Non-US Master's programs were asked questions regarding students' careers after completing a graduate neuroscience program. Eight of the 10 responding non-US Master's programs reported that they do collect information on what positions their students take after completing their graduate degree. Two programs reported they do not track that information.

The survey also asked non-US Master's programs for information regarding the areas where students from their program have taken positions over the last five years and whether the types of positions graduate students have taken after graduation led to any adjustments or changes in program curriculum over the last five years. However, sample sizes were too small to report on this data.

STUDENT SUPPORT IN MASTER'S NEUROSCIENCE PROGRAMS

Ten non-US Master's programs provided data about what benefits they provide, or make available, to graduate students for AY 2016 – 2017. Two responding non-US Master's programs reported that their program provides or makes available tuition coverage, while another two programs provide health insurance. One program also makes available teaching assistant (TA) support, while none reported providing retirement benefits or paid family leave. Three of the responding programs reported that they do not provide any of the listed benefits to their students. Non-US Master's programs were asked to report whether they provide a guaranteed minimum stipend to graduate students, whether that stipend changes for students with external support, and the percentage of current students with stipends derived from a list of sources in AY 2016-2017. However, sample sizes were too small to segment non-US Master's programs reporting this data.

FACULTY

Non-US Master's programs were asked to provide information about their faculty, including number of faculty, faculty by tenure status and level (e.g., full, associate, assistant, adjunct), average number of years in appointment, and whether input is gathered from stakeholders from other programs in the hiring process. However, sample sizes were too small to report on this data for non-US Master's programs.

International Undergraduate Programs

Although non-US undergraduate programs were asked most of the same questions as US undergraduate programs, the sample size is too small to report on these data.

US Postdoctoral Training Programs

Graduate programs were asked to provide basic information about postdoctoral training at their institutions. Of the 66 responding US programs, 83% reported that they offer postdoctoral training opportunities. Of the 54 programs who train postdocs, 83% reported they have a dedicated office of postdoctoral affairs or office of postdoctoral training.

The average number of postdoctoral trainees affiliated with a neuroscience program in the US is 20. Detailed breakdowns are in the table below.

Average Number of Postdoctoral Trainees in US PhD Programs Affiliated with Neuroscience Faculty

	Average Number of Postdoc Trainees Per Program	Average Percent of Postdoc Trainees Per Program[21, 22]	Range	Median
Number of postdoc trainees	20	N/A	0-90	5
Women	8	50%	0-40	3
Minorities[4]	2	22%	0-9	1
Non-US citizens	9	39%	0-32	2
Number of years as a postdoc trainee	3	N/A	0-5	3
Number of years as a postdoc trainee at current institution	3	N/A	0-6	3

Programs were also asked to report on the graduate degrees that postdoctoral trainees held. All postdoctoral trainees affiliated with US PhD neuroscience program faculty held a PhD degree, while three also held a master's degree. On average, one postdoc per program held an MD degree, while MD/PhD degrees were not held by postdocs in programs that provided these data.[22] Demographic breakdowns for postdocs affiliated with US graduate programs for AY 2016-2017 are found in the table below.

Average Number/Percentage of Postdoctoral Trainees Affiliated with US PhD Neuroscience Program Faculty

	AY 2016-2017[22]
Number of postdoctoral trainees per program	20
Women	50%
Non-US citizens	39%
Postdocs holding a PhD degree	100%
Postdocs holding an MD degree	1%
Postdocs holding an MD/PhD degree	0.3%

International Postdoctoral Training Programs

Non-US PhD programs were asked to provide basic information about postdoctoral training at their institutions. Of the 13 programs that responded, 10 programs reported that they do offer postdoctoral training opportunities, while three responding programs did not. The sample size of responding non-US PhD programs was too small to segment data based on whether institutions had a dedicated office of postdoctoral affairs or office of postdoctoral trainees, or determine the number of postdoctoral trainees per program.

Diversity: US PhD & Postdoctoral Training Programs

The following section of the report provides more detailed information about diversity within neuroscience PhD programs in the US. Overall, the percentages of women and minorities[4] at all training stages have increased between AY 2010-2011 to AY 2016-2017. For the purposes of this data collection, when asking for breakdowns by "minority" status, respondents were asked to include all individuals *not* identifying as "White" or "Caucasian" or those who are *not* a person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Training Stage	Women (% of total)		Minorities[4] (% of total)	
	AY 2010-2011	AY 2016-2017	AY 2010-2011	AY 2016-2017
Program Applicants	51%	57%	12%	17%
Pre-Doctoral Students	56%	58%	14%	21%
Postdoctoral Trainees	38%	50%	9%	22%
Faculty	29%	30%	6%	10%

The following sections provide additional detail about diversity in neuroscience programs. Overall, fewer programs provided this level of detail in the survey and not all ethnicities were represented in every program that responded. While this data provides a more detailed snapshot of minority representation in neuroscience programs, it is not intended to provide a comprehensive assessment of minority representation in all programs. For more representative data pertaining to US PhD program applicants, enrolled students, PhD degree awardees, postdoctoral trainees, and faculty, please refer back to the appropriate section of the report.

US DOCTORAL PROGRAMS

Doctoral Program Applicants

Diversity data for applicants to US PhD programs for AY 2016-2017, and comparisons between AY 2016-2017 data and results from previous surveys, are found in the tables below.[5]

US PhD Program Averages

		Program applicants	Applicants offered admission	Matriculated applicants
Average Per Program		170	24	10
# of women	% of total[5]	57%	58%	53%
	Average per program	95	14	6
# of minorities[4]	% of total[5]	17%	22%	18%
	Average per program	28	5	2
# of non-US citizens	% of total[5]	27%	13%	15%
	Average per program	57	4	2

US PhD Program Averages

	Years	Program applicants	Applicants offered admission	Matriculated applicants
Average Per Program	AY 2016-2017	170	24	10
	AY 2010-2011	88	20	13
	AY 2000-2001	66	14	9
Average % of Women	AY 2016-2017[5]	57%	58%	53%
	AY 2010-2011	51%	52%	56%
	AY 2000-2001	38%	44%	47%
Average % of Minorities[4]	AY 2016-2017[5]	17%	22%	18%
	AY 2010-2011	12%	17%	12%
	AY 2000-2001	5%	9%	12 %
Average % of Non-US Citizens	AY 2016-2017[5]	27%	13%	15%
	AY 2010-2011	31%	16%	12%
	AY 2000-2001	42%	19%	23%

Doctoral Program Enrollees

The following data tables provide a breakdown of US PhD program enrollees by ethnicity and gender. Overall, fewer programs provided this level of detail in the survey and not all ethnicities were represented in every program. While this data provides a more detailed snapshot of minority enrollment in neuroscience programs, it is not intended to provide a comprehensive assessment of minority representation in all programs.

Diversity data for pre-doctoral students enrolled in US PhD programs are included in the tables below.

US PhD Program Enrollees

	Average Number of Enrollees[12]	Average Percent of Pre-doctoral Students Per Program[12,23]	Average Percent of Underrepresented Minorities Per Program[14]	Range	Median
Asian	3.6	9%	-	0-28	2.0
Black or African American	1.9	6%	31%	0-13	1.0
Hispanic or Latino	4.2	14%	55%	0-24	3.0
American Indian or Alaska Native	0.3	1%	3%	0-3	0.0
Native Hawaiian or Other Pacific Islander	0.2	0%	3%	0-2	0.0
Other	0.8	2%	9%	0-11	0.0
White/Caucasian	25.2	57%	-	0-87	19.5

US PhD Program Enrollees

	Average Number of Female Enrollees Per Program[12]	Average Percent of Female Enrollees Per Program[13]	Average Number of Male Enrollees Per Program[12]	Average Percent of Male Enrollees Per Program[13]
Asian	2	7%	2	11%
Black of African American	1	7%	1	4%
Hispanic or Latino	3	12%	2	16%
American Indian or Alaska Native	0	1%	0	0%
Native Hawaiian or Other Pacific Islander	0	0%	0	0%
Other	1	3%	1	2%
White/Caucasian	15	70%	12	67%

Doctoral Degrees Awarded

The following data tables provide a breakdown of degrees awarded in US PhD program by ethnicity and gender. Overall, fewer programs provided this level of detail in the survey and not all ethnicities were represented in every program. While this data provides a more detailed snapshot of degrees awarded to minorities in neuroscience programs, it is not intended to provide a comprehensive assessment of minority representation in all programs.

Diversity data for doctoral students who were awarded PhD degrees in AY 2015-2016 by US PhD programs are included in the tables below.

US PhD Program Degrees Awarded by Gender

	Average Number of Degrees Awarded Per Program	Average Percent of Degrees Awarded Per Program	Range	Median
Female	3.8	52%	0-28	3.0
Male	3.7	48%	0-11	3.0

US PhD Program Degrees Awarded

	Average Number of Female Degrees Awarded Per Program[12]	Average Percent of Female Degrees Awarded Per Program[13]	Average Number of Male Degrees Awarded Per Program[12]	Average Percent of Male Degrees Awarded Per Program[13]
Asian	0.5	13%	0.5	14%
Black or African American	0.2	5%	0.1	2%
Hispanic or Latino	0.3	8%	0.3	8%
American Indian or Alaska Native	0.0	-	0.0	-
Native Hawaiian or Other Pacific Islander	0.0	-	0.0	-
Other	0.1	2%	0.3	3%
White/Caucasian	2.7	72%	2.6	73%

Postdoctoral Training

The following data tables provide a breakdown of US postdoctoral trainees by ethnicity and gender. Overall, fewer programs provided this level of detail in the survey and not all ethnicities were represented in every program. While this data provides a more detailed snapshot of minority enrollment in postdoc training programs, it is not intended to provide a comprehensive assessment of minority representation in all postdoc programs.

Diversity data for postdoctoral trainees affiliated with neuroscience faculty in US PhD programs are included in the tables below.

US Postdoctoral Trainees

	Average Number of Postdoc Trainees Per Program[12]	Average Percent of Postdoc Trainees Per Program[24]	Range	Median
Asian	1.3	9%	0-7	1.0
Black or African American	0.4	3%	0-2	0.0
Hispanic or Latino	0.6	8%	0-3	0.0
American Indian or Alaska Native	0.1	3%	0-1	0.0
Native Hawaiian or Other Pacific Islander	0.0	0%	0	0.0
Other	0.2	1%	0-3	0.0
White/Caucasian	7.8	76%	1-39	4.0

US Postdoctoral Trainees

	Average Number of Female Postdocs Per Program[12]	Average Percent of Female Postdocs Per Program[13]	Average Number of Male Postdocs Per Program[12]	Average Percent of Male Postdocs Per Program[13]
Asian	1	9%	1	9%
Black or African American	0	4%	1	3%
Hispanic or Latino	1	11%	0	8%
American Indian or Alaska Native	0	0%	0	8%
Native Hawaiian or Other Pacific Islander	0	0%	0	0%
Other	0	1%	0	2%
White/Caucasian	4	75%	4	71%

Faculty

The following data tables provide a breakdown of US PhD program faculty by ethnicity and gender. Overall, fewer programs provided this level of detail in the survey and not all ethnicities were represented in every program. While this data provides a more detailed snapshot of minority program faculty, it is not intended to be fully representative of all programs.

Diversity data for faculty affiliated with US neuroscience PhD programs are included in the tables below.

US PhD Program Faculty

	Average Number of Faculty Per Program[12]	Average Percentage of Faculty Per Program[13]	Range	Median
Asian	5	10%	0-20	4
Black or African American	0	1%	0-4	0
Hispanic or Latino	2	5%	0-11	1
American Indian or Alaska Native	0	0%	0-1	0
Native Hawaiian or Other Pacific Islander	0	0%	0-1	0
Other	1	2%	0-9	0
White/Caucasian	38	76%	0-80	34

US PhD Program Faculty

	Average Number of Female Faculty Per Program[12]	Average Percent of Female Faculty Per Program[13]	Average Number of Male Faculty Per Program[12]	Average Percent of Male Faculty Per Program[13]
Asian	2	8%	5	13%
Black of African American	0	0%	1	1%
Hispanic or Latino	1	5%	1	3%
American Indian or Alaska Native	0	0%	0	0%
Native Hawaiian or Other Pacific Islander	0	1%	0	0%
Other	1	3%	1	1%
White/Caucasian	11	77%	27	77%

Appendix A: "Other, Please Specify" Responses

INDICATE THE ADMINISTRATIVE STRUCTURE THAT SUPPORTS YOUR PROGRAM

1	Campus wide program
2	College of Arts + Sciences
3	College of Biological Sciences Dean's Office and Center for Neuroscience
4	College of Liberal Arts and Sciences
5	Concentration in Neuroscience is a division of the Biomedical Sciences Graduate Program
6	Department of Biology
7	Department of Biology
8	Department of Psychology/College of Arts and Sciences
9	Division of Brain Sciences
10	Emory College Neuroscience and Behavioral Biology Program
11	Faculty of Biological and Environmental Sciences
12	Foundation ENP
13	Grad School and Neuroscience Center
14	Graduate Division of Biological and Biomedical Sciences
15	Intercollege; dedicated Neuroscience Grad Program Admin office
16	Inter-institute Program
17	Provost Office
18	Psychology
19	School of Clinical Sciences within the Faculty of Health Sciences
20	School of Life Sciences
21	School of Mind, Brain & Behavior
22	School of Pharmacy
23	We are an interdisciplinary undergraduate program with a steering committee

WHAT FORMAT IS THE MASTER'S DEGREE IN NEUROSCIENCE?

1	Examined taught + research thesis
2	Taught component (120 credit points); Lab-based research project and thesis (60 credit points)
3	Thesis or non-thesis

PLEASE USE THE SPACE BELOW TO DESCRIBE THE FACTORS THAT INFLUENCE THE TARGET NUMBER OF APPLICANTS INTO YOUR PROGRAM

1	A combination of institutional commitment and faculty funding.
2	Availability of first year university support
3	Availability of funding
4	Availability of mentors with funding
5	Availability of state line (teaching assistant) fellowships, availability of extramural grant support, number of faculty seeking new trainee
6	Available fellowships

7	Available Research Laboratories Available T32 Independent Funding
8	Faculty funding, department funding, class sizes, number of faculty
9	Faculty with funding who wish to recruit
10	Faculty with grant support, student fellowships
11	Faculty with research funding, funding from the University
12	Financial support, availability of host laboratories/mentors
13	Funding
14	Funding available Faculty lab space by discipline, i.e. cell and molecular vs systems
15	Funding available from T32 and other sources
16	Funding Quality of students Faculty interest
17	Funding, Faculty support
18	It is a combination of Graduate School Support (~4 students) and our JSPTPN T32 (~ 3 first year slots)
19	N/A
20	Number of available faculty, funding, matched research interest, etc.
21	Number of faculty able to accept students, and T32s
22	Number of faculty accepting students, applicant pool
23	Number of faculty and corresponding funding availability
24	Number of faculty is 37 persons
25	Number of faculty members with lab space available up to 21
26	Number of faculty who are funded and are willing to take students into their labs.
27	Number of faculty with funding for a student
28	Number of faculty with sufficient funding and slots available in their labs, number of competitive high quality applicants
29	Number of faculty, financing for minimum stipend
30	Number of Faculty, interviews
31	Number of faculty, T32 slots, faculty funding, institutional funding
32	Number of faculty.
33	Number of fellowships available
34	Number of grant funded faculty that can commit to supporting students in the final 2 years of degree
35	Number of studentships provided by funder
36	Number of TA slots, Number of faculty with open slots for a graduate student.
37	Our program has roughly 12 faculty accepting students per year. There are no T32 or other federal training grants supporting the program. Our students are supported mostly through teaching assistants and university fellowships.
38	Research grant positions P50 and P32 positions
39	Support from the dean (dean determines number of slots)
40	T32 grant, faculty of interest.
41	T32 in Neuroscience, T32 in Psychology, Endowment, number of faculty, number of students admitted prior year
42	T32 slots # of faculty accepting grad students
43	T32 slots and funding from Dean's Office, School of Medicine.

44	T32 slots available, number of faculty seeking new students, institutional funds for first year stipends
45	T32 slots funding from graduate/medical school
46	T32 slots, available institutional funding, availability of faculty with matching research interests
47	T32 training spots, number of faculty looking for students, university funding available through fellowships, outside fellowship holders
48	T32, institutional support, and number of faculty
49	T32, number of faculty able to support the students.
50	T32, number of faculty, amount of student support we receive from the university, faculty-student research interest matching.
51	TA lines Number of faculty
52	The number of applicants accepted in the program is primarily influenced by the number of faculty with open slots in their laboratories and the number of grants and other mechanisms of funding that are active to support student research projects.
53	The target number is assigned to the various PhD program by the Biological Sciences Division. Factors of influence are: faculty funding, training grants, departmental endowed funds, and similar.
54	The target number of applicants accepted to our program is based on applicant and faculty area of interest, number of faculty, and our T32 Training Grant criteria.
55	Umbrella graduate program; answers on acceptance are for all matriculants, since students will not choose graduate program until Spring semester 2017
56	University and faculty funding
57	University first year stipends. We have 8-9 depending on year.
58	We are a mentorship program, so the match between the student's research interest and that of the applicant is critically important. We have limited number of program assistantships each year (2-3) and the rest come from external funding.
59	We are allowed to accept up to 3 applicants/year and this is limited by the UCL-NIMH MoU which allows for 3 students/yr in the program.
60	We have a T32 grant for Neuroscience doctoral students. There is an additional T32 grant for MD/PhD students. Other factors include laboratory funding and mentor availability.
61	We take of census of funded labs and ask who is willing and able to support a student 18 months after matriculation.
62	We try to keep our class size small and interpersonal, with an average class size of 10 students.

PLEASE INDICATE THE AREAS WHERE STUDENTS FROM YOUR PROGRAM HAVE TAKEN POSITIONS OVER THE PAST FIVE YEARS. SELECT ALL THAT APPLY.

1	A few are staying home with young kids
2	Biomed Research in Academic university
3	High School Teacher; Lecturer
4	MD/PhD students return to Medical School to complete Medical degree.
5	Medical school
6	Most MD/PhD students have gone on to residencies
7	Research laboratory in academic institution, teaching positions at 4-year colleges or health-sciences professional schools
8	Science journalism and communication.
9	Teaching college, university

DOES YOUR PROGRAM PROVIDE, OR MAKE AVAILABLE, THE FOLLOWING BENEFITS TO GRADUATE STUDENTS FOR AY 2016-2017?

1	Dental
2	Dental and conference travel funds
3	Dental coverage
4	Dental, legal assistance, extracurricular opportunities
5	First-years covered by the program; other funding may be available for continuing students to cover tuition, fees, stipend, health insurance.
6	Funds for travel to scientific conferences; funds for travel to professional development workshops
7	Health center /student life fee
8	Mini-grants for travel, equipment available by application
9	Parental Accommodations - up to six weeks
10	Professional Travel
11	Public transportation
12	Subsidized student housing
13	ravel stipend, awards for best grant proposal, best poster, and travel to a collaborator's lab

Appendix B: Responding Programs

US PhD Programs	
University	**Program Name**
Albert Einstein College of Medicine	Graduate Program in Biomedical Sciences
Arizona State University	Interdisciplinary Graduate Program in Neuroscience
Binghamton University	Behavioral Neuroscience
Boston University	Graduate Program for Neuroscience
Brown University	Neuroscience Graduate Programs
Case Western Reserve University	Neurosciences PhD Program
Central Michigan University	M.S. and Ph.D. Program in Neuroscience
Cold Spring Harbor Laboratory	Watson School of Biological Sciences
Columbia University	Doctoral Program in Neurobiology & Behavior
Drexel University	Neuroscience
Emory University	Neuroscience Graduate Program
Georgetown University	Interdisciplinary Program in Neuroscience
Georgia State University	Neuroscience
Icahn School of Medicine at Mount Sinai	Graduate Training Program in Neuroscience
Indiana University	Program in Neuroscience
Johns Hopkins University School of Medicine	Neuroscience Training Program
Michigan State University	Neuroscience Program
New York University	Doctoral program in neuroscience & physiology
New York University	Neural Science
Northwestern University	Northwestern University Interdepartmental Neuroscience Program (NUIN)
Oregon Health & Science University	Behavioral Neuroscience Graduate Program
Penn State University	Neuroscience
Purdue University	Behavioral Neuroscience
Purdue University	Purdue Institute for Integrative Neuroscience
Rosalind Franklin University of Medicine & Science	Interdepartmental Neuroscience Program
Rutgers, The State University of New Jersey	Rutgers Graduate Program in Neuroscience
Stony Brook University	Graduate Program in Neuroscience
Texas A&M University	Neuroscience
The City University of New York	CUNY Neuroscience Collaborative
The Ohio State University	Neuroscience Graduate Program
The Rockefeller University	Neuroscience
The University of Chicago	PhD program in Neurobiology
The University of North Carolina at Chapel Hill	Neuroscience Curriculum

Tulane University	Neuroscience PhD Program
University of Alabama at Birmingham	Behavioral Neuroscience
University of California, Berkeley	Neuroscience PhD Program
University of California, Davis	Neuroscience Graduate Program
University of California, San Diego	Neurosciences Graduate Program
University College London - NIMH	University College London - NIMH Joint Graduate Neuroscience Program
University at Buffalo, SUNY	Behavioral Neuroscience
University of Arizona	UA Neuroscience
University of California, Los Angeles	Neuroscience Interdepartmental Graduate Program
University of Cincinnati	Neuroscience Graduate Program
University of Colorado, Anschutz Medical Campus	Neuroscience Program
University of Connecticut	Physiology & Neurobiology Graduate Ph.D./M.S. Degree Program
University of Illinois at Chicago	Graduate Program in Neuroscience
University of Iowa	Interdisciplinary Graduate Degree Program in Neuroscience
University of Kansas	Graduate Study in Neurosciences
University of Louisville	Anatomical Sciences & Neurobiology
University of Maryland School of Medicine	Program in Neuroscience
University of Maryland, College Park	Neuroscience and Cognitive Science
University of Michigan	Neuroscience Graduate Program
University of Minnesota	Neuroscience
University of Minnesota	University of Minnesota
University of Mississippi Medical Center	Graduate Program in Neuroscience
University of New Mexico	Concentration in Neuroscience
University of Oklahoma	Cellular & Behavioral Neurobiology
University of Pennsylvania	Neuroscience Graduate Group
University of Pittsburgh	Center for Neuroscience Graduate Training Program
University of Puerto Rico School of Medicine	Department of Anatomy & Neurobiology Graduate Program
University of Rhode Island	Interdisciplinary Neuroscience Program
University of Rochester	Brain and Cognitive Sciences
University of Rochester	University of Rochester Neuroscience Graduate Program
University of South Carolina	Integrated Biomedical Science Program - Neuroscience Track
University of Southern California	Hearing & Communication Neurosciences
University of Southern California	Neuroscience Graduate Program
University of Tennessee Health Science Center	UTHSC Neuroscience Graduate Program

University of Texas at San Antonio	Neurobiology Ph.D.
University of Texas Health Science Center at San Antonio	Neuroscience Graduate Program
University of Texas Southwestern Medical Center	Neuroscience Graduate Program
University of Utah	Neuroscience Program
University of Vermont	Neuroscience Graduate Program
University of Washington	Graduate Program in Neuroscience
University of Texas Health, MD Anderson	Neuroscience Graduate Program
Vanderbilt University	Vanderbilt Neuroscience Graduate Program
Wake Forest University	Neuroscience
Washington State University	Graduate Neuroscience Program
Washington University in St. Louis	Neuroscience Graduate Program
Weill Cornell Medicine	Weill Cornell Neuroscience Graduate Program

US Master's Programs	
University	**Program Name**
Binghamton University	Behavioral Neuroscience
Central Michigan University	M.S. and Ph.D. Program in Neuroscience
Drexel University	Neuroscience
Georgia State University	Neuroscience
Penn State University	Neuroscience
Purdue University	Purdue Institute for Integrative Neuroscience
University of Connecticut	Physiology & Neurobiology Graduate Ph.D./M.S. Degree Program
University of Kansas	Graduate Study in Neurosciences
University of Louisville	Anatomical Sciences & Neurobiology
University of Maryland, College Park	Neuroscience and Cognitive Science
University of New Mexico	Concentration in Neuroscience
University of Rhode Island	Interdisciplinary Neuroscience Program
University of South Carolina	Integrated Biomedical Science Program - Neuroscience Track
Wake Forest University	Neuroscience
Washington State University	Graduate Neuroscience Program

US Undergraduate Programs	
University	**Program Name**
Augsburg College	Biopsychology
Boston University	Undergraduate Program in Neuroscience
Central Michigan University	Program in Neuroscience
College of Charleston	Interdisciplinary Minor in Neuroscience
Davidson College	Neuroscience
Emory University	Neuroscience and Behavioral Biology Program

Franklin & Marshall College	Biological Foundations of Behavior
Ithaca College	Neuroscience Minor
Johns Hopkins University	Undergraduate Neuroscience Program
Macalester College	Neuroscience Studies
Muhlenberg College	Neuroscience
Northeastern University	Behavioral Neuroscience
Regis University	Neuroscience Program
Syracuse University	Integrated Learning Major in Neuroscience
University of Alabama at Birmingham	Undergraduate Neuroscience Program
University of Arizona	Neuroscience and Cognitive Science Undergraduate Program
University of Minnesota	Department of Neuroscience
University of Rochester	Neuroscience Major
University of St. Thomas	Neuroscience Program
Washington	Neurobiology
Western Washington University	Behavioral Neuroscience Program
Williams College	Neuroscience
US Postdoc Programs	
University	**Program Name**
Albert Einstein College of Medicine	Graduate Program in Biomedical Sciences
Arizona State University	Interdisciplinary Graduate Program in Neuroscience
Boston University	Graduate Program for Neuroscience
Brown University	Neuroscience Graduate Programs
Case Western Reserve University	Neurosciences PhD Program
Central Michigan University	M.S. and Ph.D. Program in Neuroscience
Cold Spring Harbor Laboratory	Watson School of Biological Sciences
Drexel University	Neuroscience
Emory University	Neuroscience Graduate Program
Georgetown University	Interdisciplinary Program in Neuroscience
Georgia State University	Neuroscience
Johns Hopkins University School of Medicine	Neuroscience Training Program
Michigan State University	Neuroscience Program
Oregon Health & Science University	Behavioral Neuroscience Graduate Program
Penn State University	Neuroscience
Purdue University	Purdue Institute for Integrative Neuroscience
Rosalind Franklin University of Medicine & Science	Interdepartmental Neuroscience Program
Rutgers, The State University of New Jersey	Rutgers Graduate Program in Neuroscience
Stony Brook University	Graduate Program in Neuroscience
The Ohio State University	Neuroscience Graduate Program

The University of Chicago	PhD program in Neurobiology
The University of North Carolina at Chapel Hill	Neuroscience Curriculum
University of Alabama at Birmingham	Behavioral Neuroscience
University of California, Berkeley	Neuroscience PhD Program
University of California, Davis	Neuroscience Graduate Program
University College London - NIMH	University College London - NIMH Joint Graduate Neuroscience Program
University at Buffalo, SUNY	Behavioral Neuroscience
University of California, Los Angeles	Neuroscience Interdepartmental Graduate Program
University of Cincinnati	Neuroscience Graduate Program
University of Colorado, Anschutz Medical Campus	Neuroscience Program
University of Illinois at Chicago	Graduate Program in Neuroscience
University of Iowa	Interdisciplinary Graduate Degree Program in Neuroscience
University of Kansas	Graduate Study in Neurosciences
University of Louisville	Anatomical Sciences & Neurobiology
University of Maryland School of Medicine	Program in Neuroscience
University of Maryland, College Park	Neuroscience and Cognitive Science
University of Mississippi Medical Center	Graduate Program in Neuroscience
University of New Mexico	Concentration in Neuroscience
University of Oklahoma	Cellular & Behavioral Neurobiology
University of Pennsylvania	Neuroscience Graduate Group
University of Puerto Rico School of Medicine	Department of Anatomy & Neurobiology Graduate Program
University of Rhode Island	Interdisciplinary Neuroscience Program
University of Rochester	University of Rochester Neuroscience Graduate Program
University of South Carolina	Integrated Biomedical Science Program - Neuroscience Track
University of Southern California	Hearing & Communication Neurosciences
University of Southern California	Neuroscience Graduate Program
University of Texas Health Science Center at San Antonio	Neuroscience Graduate Program
University of Texas Southwestern Medical Center	Neuroscience Graduate Program
University of Utah	Neuroscience Program
Vanderbilt University	Vanderbilt Neuroscience Graduate Program
Wake Forest University	Neuroscience
Washington State University	Graduate Neuroscience Program
Washington University in St. Louis	Neuroscience Graduate Program

International PhD Programs	
University	**Program Name**
Imperial College London	BSc & MSc Neuroscience
Karolinska Institutet	Neuroscience
McGill University	Integrated program in neuroscience
McMaster University	MiNDS Neuroscience Graduate Program
Monash University	Neuroscience
National University of Mexico	Graduate Program of the Institute for Neurobiology
Queen's University	Neuroscience Graduate Program
The University of Queensland	Neuroscience
Trinity College Dublin	Institute of Neuroscience,
Universiti Sains Malaysia	Integrated Doctor of Neuroscience Program, Master of Neuroscience and PhD by research, Master of Cognitive Neurosciences, Integrated Program Clinical Psychology and Clinical Neuropsychology
University of Edinburgh	Welcome Trust 4 year PhD Programme in Translational Neuroscience
University of Tübingen	Graduate Training Centre of Neuroscience
International Master's Programs	
University	**Program Name**
Goethe University	Master Interdisciplinary Neuroscience
Imperial College London	BSc & MSc Neuroscience
McGill University	Integrated program in neuroscience
McMaster University	MiNDS Neuroscience Graduate Program
Monash University	Neuroscience
National University of Mexico	Graduate Program of the Institute for Neurobiology
Queen's University	Neuroscience Graduate Program
Technische Universitaet Berlin	International Master Program Computational Neuroscience
Universiti Sains Malaysia	Integrated Doctor of Neuroscience Program, Master of Neuroscience and PhD by research, Master of Cognitive Neurosciences, Integrated Program Clinical Psychology and Clinical Neuropsychology
University of Bristol	MSc Molecular Neuroscience
University of Helsinki	Master's Programme in Neuroscience
University of Tübingen	Graduate Training Centre of Neuroscience
International Undergraduate Programs	
University	**Program Name**
Utrecht University	Master's program Neuroscience and Cognition

International Postdoc Programs	
University	**Program Name**
Imperial College London	BSc & MSc Neuroscience
McGill University	Integrated program in neuroscience
McMaster University	MiNDS Neuroscience Graduate Program
National University of Mexico	Graduate Program of the Institute for Neurobiology
Queen's University	Neuroscience Graduate Program
Universiti Sains Malaysia	Integrated Doctor of Neuroscience Program, Master of Neuroscience and PhD by research, Master of Cognitive Neurosciences, Integrated Program Clinical Psychology and Clinical Neuropsychology
University of Edinburgh	Welcome Trust 4 year PhD Programme in Translational Neuroscience

[1] See Appendix A beginning on page 73 for additional "other, please specify" responses.

[2] Percentages may not add to 100% due to rounding.

[3] Only programs that provided **both** number of program applicants **and** number of applicants offered admission or **both** number of applicants offered admission **and** the number of matriculated applicants were included in acceptance/matriculation rate calculations.

[4] For the purposes of this data collection, when asking for breakdowns by "minority" status, respondents were asked to include all individuals **not** identifying as "White" or "Caucasian" or those who are **not** a person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

[5] Only programs that provided **both** the number of program applicants **and** number of women/minority/non-US citizen applicants were included in percentage calculations.

[6] Only programs that provided **both** the number of applicants and the number of applicants offered admission/matriculated applicants/students in the program/faculty included in these average and median calculations.

[7] Only programs that provided **both** the number of applicants and the number of applicants offered admission/matriculated applicants/students in the program/faculty included in these average and median calculations.

[8] Only programs that provided **both** the number of program applicants **and** the number of applicants with undergraduate research experience, domestic applicants, etc. included in percentage calculations.

[9] Research 1 University defined as institutions that awarded at least 20 research/scholarship doctoral degrees during the year and are classified with the highest level of research activity by the Carnegie Classification of Institutions of Higher Education. Please see *http://carnegieclassifications.iu.edu/classification_descriptions/basic.php* for more information.

[10] Only programs that provided **both** the number of pre-doctoral students in the program during AY 2016-2017 **and** women/minorities/non-US citizens in the program during AY 2016-2017 were included in percentage calculations.

[11] Only programs that provided both the number of pre-doctoral students in the program during AY 2016-2017 **and** the number of faculty during AY 2016-2017 included in average and median calculations.

[12] Due to survey respondents answering individually for each ethnicity, sums may not be equal across tables.

[13] Each ethnicity/region reported individually and therefore, the sum of all ethnicities/regions may not add up to 100%.

[14] For the purpose of this report, Black or African American, Hispanic or Latino, American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and "Other," have been included as underrepresented minorities. Underrepresented minority group figures do not include Asians.

[15] Ethnicity added only in the most recent iteration of the survey so no trend data is available.

[16] Employment sectors of graduates from PhD programs was asked **in addition** to percentages of graduates who immediately moved into a postdoctoral position. These numbers are not necessarily exclusive of each other.

[17] Percentages may not add to 100% due to rounding.

[18] The average number of faculty in 2011 was 42 per program.

[19] Due to survey respondents answering individually for each category (i.e., women faculty, tenured faculty, ethnicities, etc.), sums may not be equal across tables.

[20] Only programs that provided both the overall number of faculty and the number of women faculty/minority faculty/non-US citizen faculty included in percentage calculations.

[21] Only programs that provided **both** the number of postdoctoral trainees **and** the number of women postdoctoral trainees/minority postdoctoral trainees/non-US citizen postdoctoral trainees included in percentage calculations.

[22] Percent calculations were done on an individual program level and then averaged across programs. For example, a percentage of women postdocs was calculated for each individual program and then those were averaged across all responding postdoc programs to determine the average percent of postdoc trainees per program that were women.

[23] Only programs that provided **both** the number of pre-doctoral students in the program during AY 2016-2017 **and** the number within the corresponding ethnicity/region in the program during AY 2016-2017 were included in percentage calculations. Because of the level of detail required to answer these questions, percentages may not be fully representative of overall minority representation per program.

[24] Only programs that provided **both** the number of postdoc trainees in the program during AY 2016-2017 **and** the number within the corresponding ethnicity/region in the program during AY 2016-2017 were included in percentage calculations. Because of the level of detail required to answer these questions, percentages may not be fully representative of overall minority representation per program.