



Participant Diversity Report
Four-Year Summary
September 1, 2008-March 31, 2012

National Institute for Mathematical and Biological Synthesis
March, 2012

NIMBioS Participant Diversity Report Four-Year Summary

Introduction

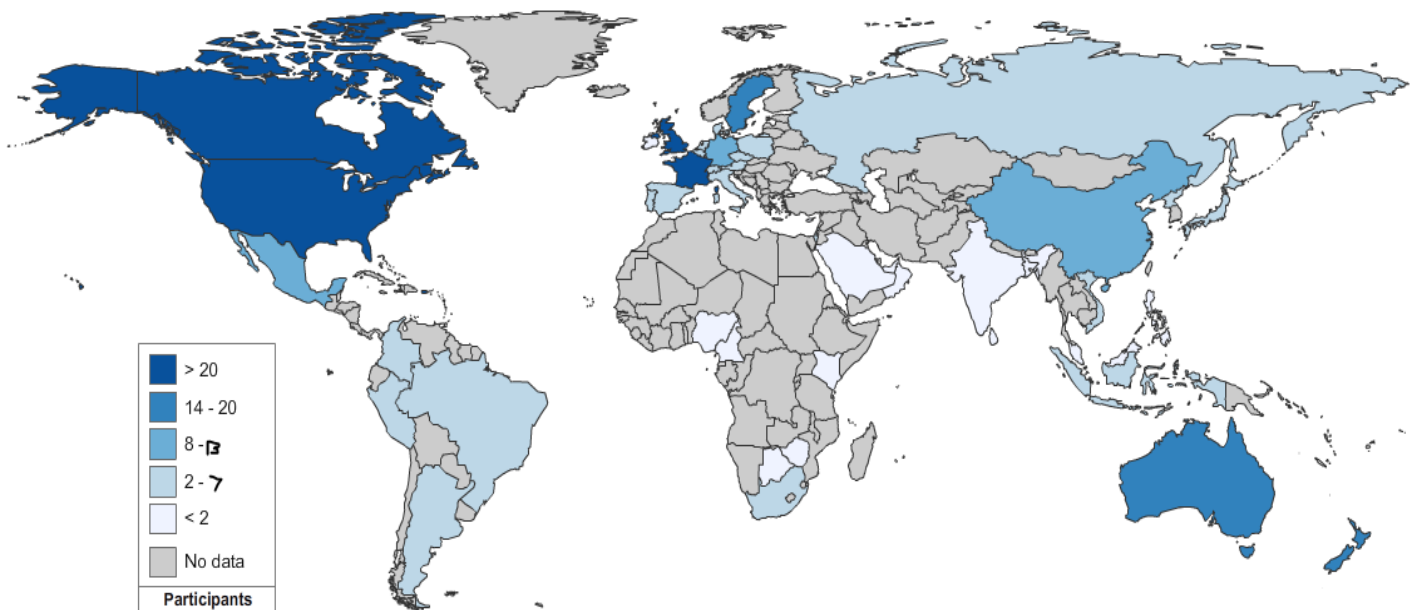
This is a summary report of the diversity represented by NIMBioS participants during the first four years of operation (YRS 1-4). The report covers the period of September 1, 2008-March 31, 2012. An electronic demographic survey aligned to the reporting requirements of the National Science Foundation was sent to all participants before their arrival at NIMBioS. Four weeks before the date of each event, a link to the survey was sent to each participant who had not visited NIMBioS within the last year. Reminder emails were sent to non-responding participants at one and two weeks after the initial contact date. Demographic questions regarding gender, race, ethnicity, and disability status were optional. When feasible, the evaluation staff supplied missing demographic data from other sources (e.g. institution, primary field of study). The evaluator did not assume race, ethnicity, or disability status for any participant who did not report this information. All demographic information is confidential, and results are reported only in the aggregate.

Participant Demographics

Geographic Diversity

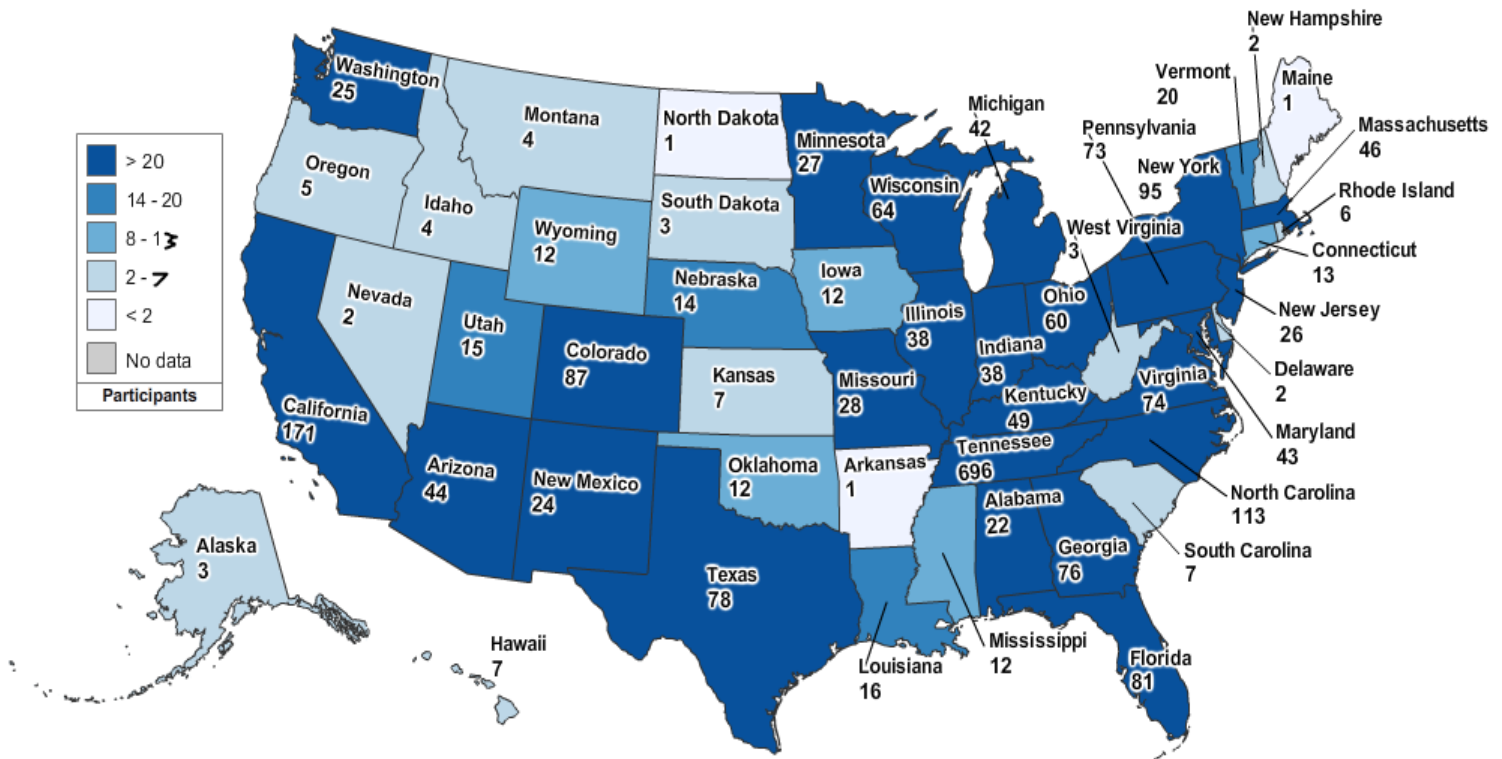
During YRS 1-4, a total of 2,654 participants (1,743 different individuals) from 47 countries participated in NIMBioS events. Most participants came from the United States (88.0%), Canada (2.5%), and the United Kingdom (2.3%) (Figure 1).

Figure 1. NIMBioS YRS 1-4 Participants by Country



Within the U.S., all 50 states were represented, as well as the District of Columbia and Puerto Rico. While many participants came from within Tennessee (29.8%), several other states were represented by a relatively large percentage of the total participant pool, including California (7.3%), North Carolina (4.8%), and New York (4.1%) (Figure 2).

Figure 2. NIMBioS YRS 1-4 Participants by U.S. State*

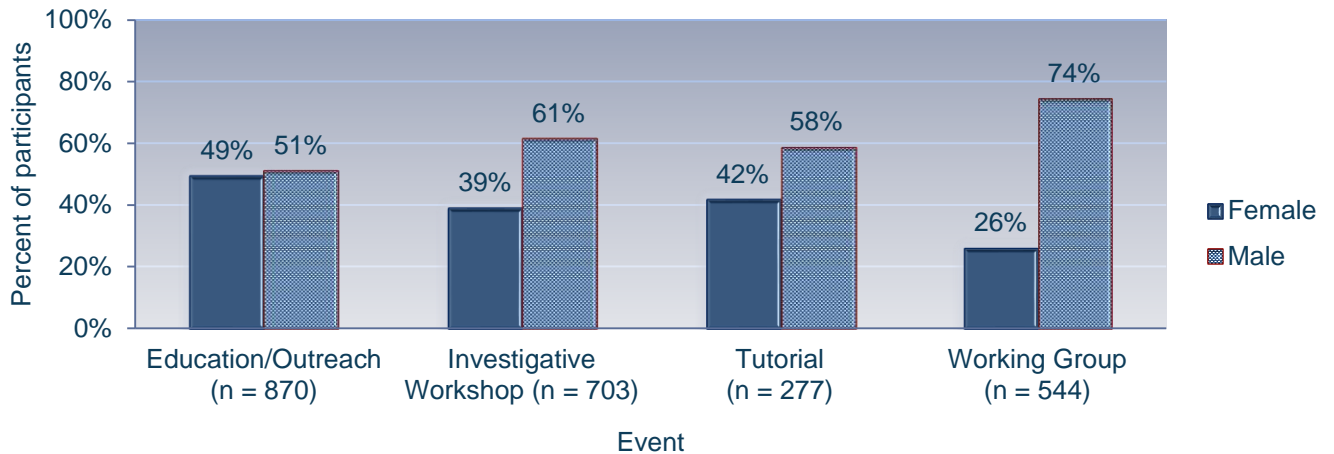


*Not shown District of Columbia (20) and Puerto Rico (13)

Gender, Racial, and Ethnic Diversity

Across *all* events during YRS 1-4, the ratio of gender was 61% male to 39% female. Within *specific activity* types, this gender ratio varied (Figure 3). (Note: Although tutorials are considered part of the Education and Outreach (EO) Program at NIMBioS, the NIMBioS leadership team is interested in analyzing the gender, ethnic, and racial composition of these events separately from the rest of the EO activities.)

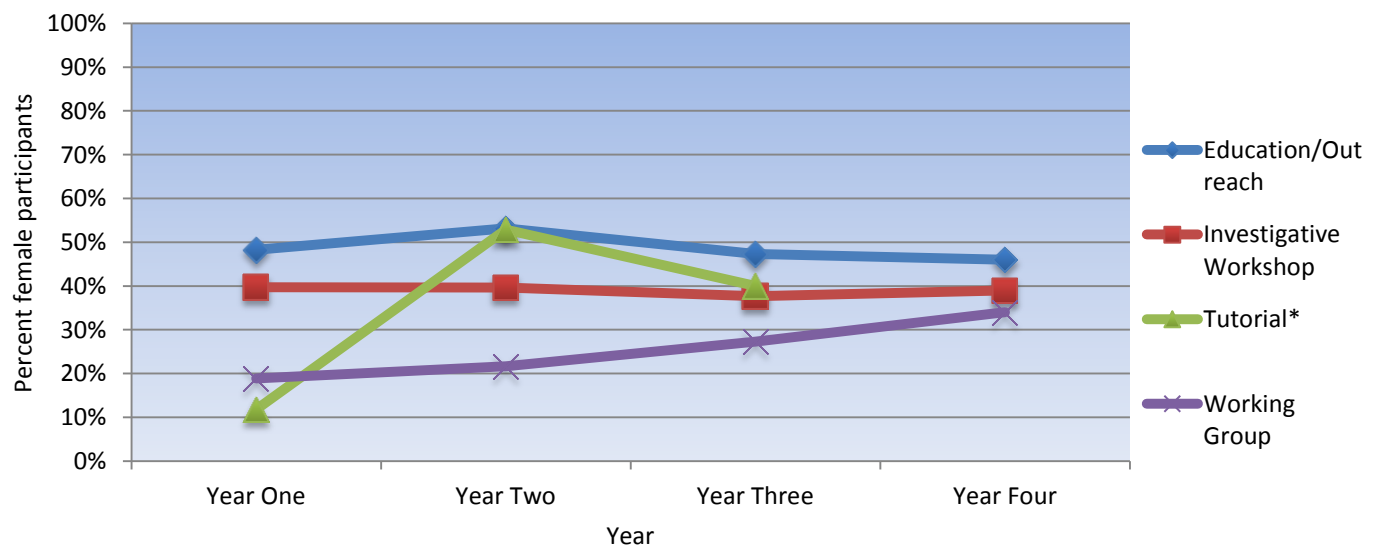
Figure 3. Gender composition of participants by event type



By year, the gender ratio remained fairly constant for education and outreach activities and investigative workshops, while female participation has increased among working group participants. Female participation in tutorials has fluctuated (it should be noted that NIMBioS hosted only one tutorial during year one and none in year four).

Figure 4).

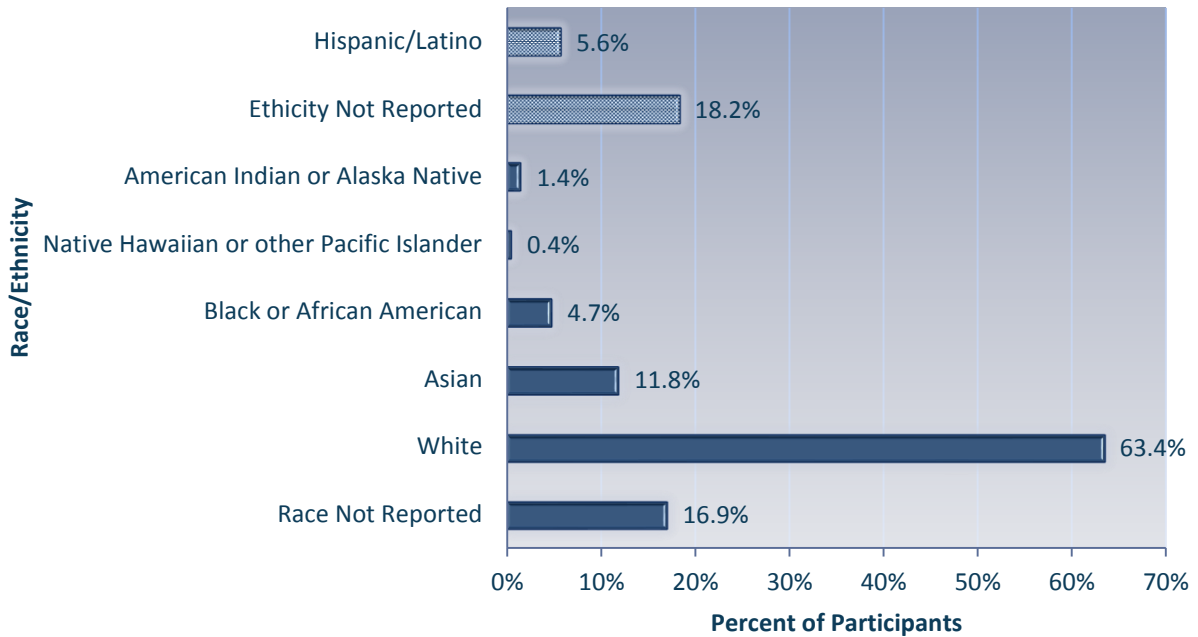
Figure 4. Percent females by event type and year



*NIMBioS hosted only one tutorial in year one, and none in year four

Around six percent of participants indicated they were Hispanic/Latino. The majority of participants (63.4%) indicated they were white; however, Asian, black or African American, native Hawaiian/Pacific islander, and Native American races were also represented (Figure 5).

Figure 5. Ethnic and racial composition of participants (n = 2,654)



White was the majority self-identified race each year, followed by Asian and black/African American. A small number of participants self-identified as Native Hawaiian or American Indian/Alaska native. The percent of those self-identifying as Hispanic/Latino increased from year one to year two, remained fairly constant from year two to year three, and increased again slightly in year four (Figure 6). Racial and ethnic totals for all years by event type can be found in Figure 7.

Figure 6. Ethnic and racial composition of participants by year

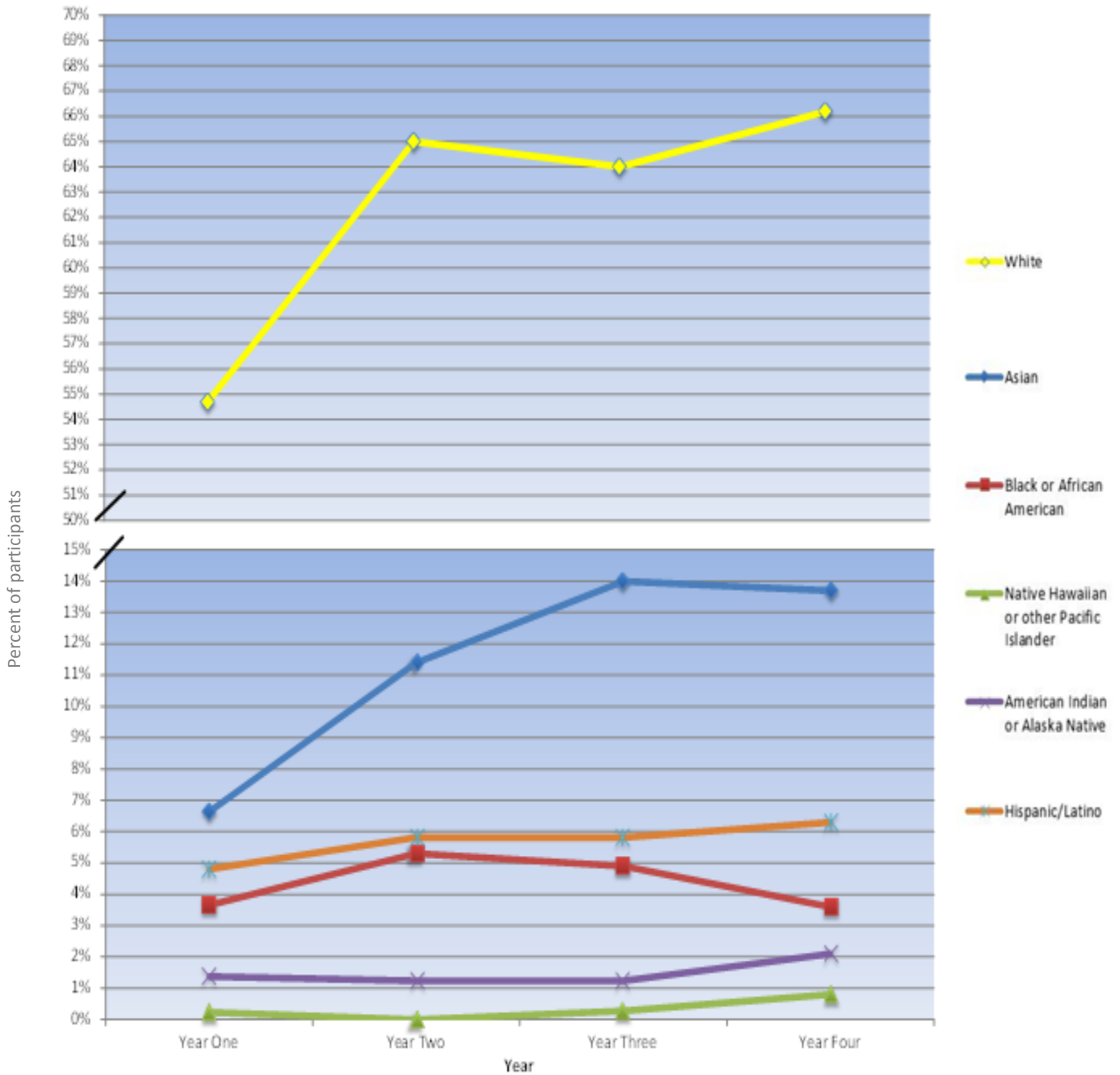
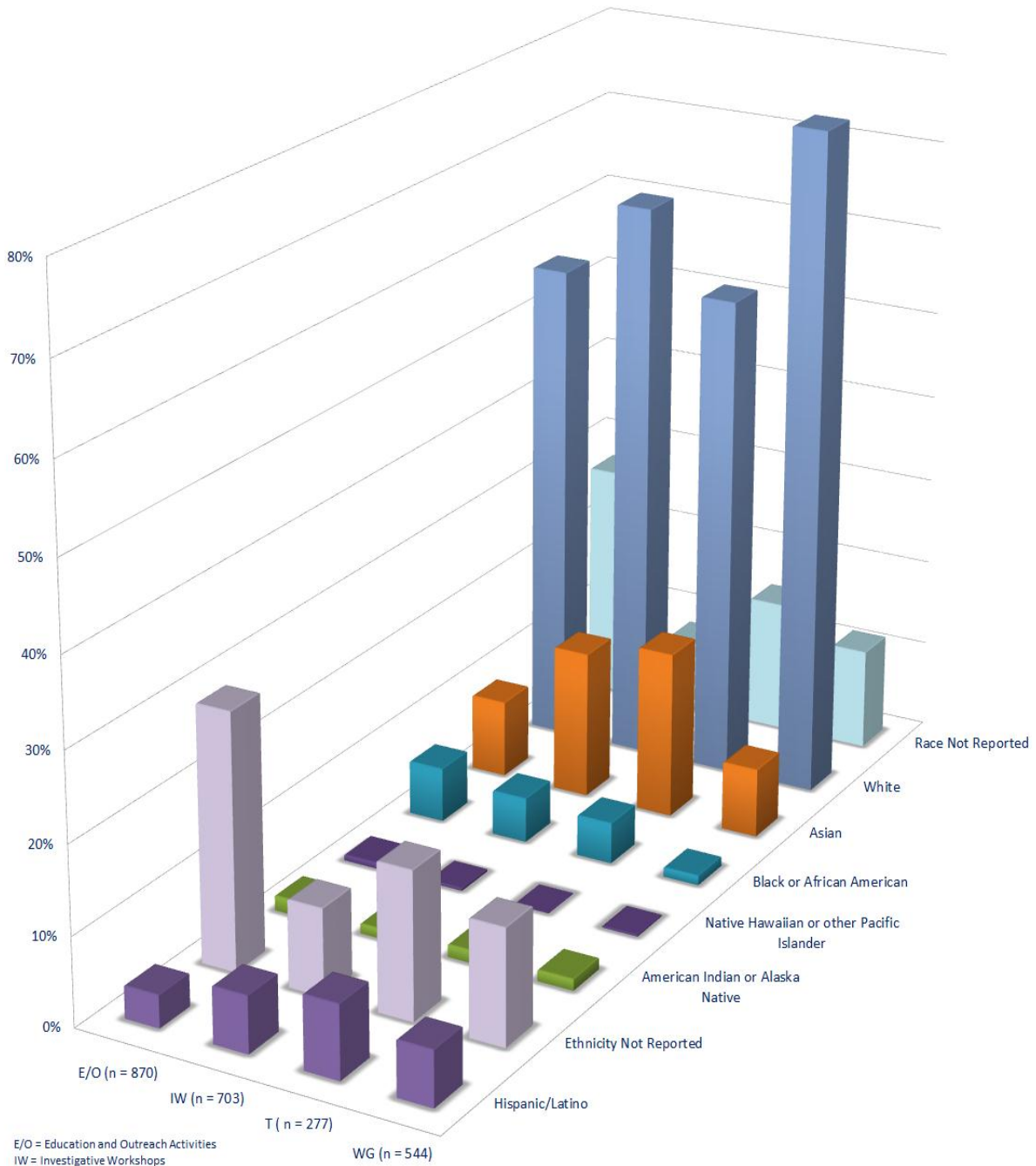


Figure 7. Ethnic and racial composition of participants, by event type, all years



E/O = Education and Outreach Activities
 IW = Investigative Workshops
 T = Tutorial
 WG = Working Groups

	E/O (n = 870)	IW (n = 703)	T (n = 277)	WG (n = 544)
Hispanic/Latino	3.7%	6.4%	8.3%	6.3%
Ethnicity Not Reported	28.9%	9.8%	16.6%	13.1%
American Indian or Alaska Native	1.7%	1.1%	1.4%	1.3%
Native Hawaiian or other Pacific Islander	0.7%	0.3%	0.0%	0.2%
Black or African American	6.2%	5.1%	4.7%	1.1%
Asian	8.9%	16.9%	19.1%	7.9%
White	55.6%	64.6%	55.6%	76.5%
Race Not Reported	27.2%	8.3%	15.2%	11.6%

Diversity Benchmarks

As per the suggestion of the Site Review carried out at NIMBioS in June 2010, the NIMBioS Leadership Team has consulted with the NIMBioS Advisory Board in response to the recommendation by the Site Review that we establish a variety of benchmarks for our programs.

The Site Review particularly recommended that benchmarks be developed on participation in Working Groups and Investigative Workshops relative to gender and under-represented groups, and on geographical diversity of participants.

Benchmarks for diversity in participants at NIMBioS activities:

1. Gender: Across all Working Groups and Investigative Workshops, the proportion of female participants will be at least 30%.
2. Geographic - International participation: Across all Working Groups and Investigative Workshops, at least 10% of participants will be from outside the USA.
3. Under-represented groups (overall): Across all NIMBioS activities, we will increase the percent of participants from under-represented groups by approximately 10% per year. [$F(t+1) = 1.1 F(t)$ where $F(t)$ is the proportion of total participants from underrepresented groups in Year t , and $F(t+1)$ is the proportion of total participants from underrepresented groups in Year $(t+1)$].
4. Underrepresented groups (Working Groups and Investigative Workshops): Comparably to the overall goal for all activities, we aim to increase the proportion of participants from under-represented groups in Working Groups and Investigative Workshops by 10% per year.
5. Local participants: To avoid overrepresentation of the University of Tennessee community in activities, we will limit participation by UT/ORNL faculty/staff to approximately 15% of the total participants in Working Groups and Investigative Workshops.

Benchmarks for diversity in activity organizers:

1. Gender: Across all Working Groups and Investigative Workshops, approximately 30% of the organizers will be female.
2. Local: No more than 25% of Working Group/Investigative Workshop organizers will be UT faculty/staff.
3. Underrepresented groups: We will encourage researchers from underrepresented groups to be organizers/co-organizers of requests for support, but no specific goal is set because of the small number of organizers.

Table 1 shows values by year for the above benchmarks.

Table 1. Diversity measures for NIMBioS working groups, investigative workshops, and all events (including tutorials and outreach and education activities in addition to working groups and workshops) by year

		Year 1*	Year 2	Year 3	Year 4*	Overall
Participant diversity						
Gender	(Benchmark: approximately 30% female)					
	Working groups	19%	22%	27%	34%	25%
	Workshops	40%	40%	38%	39%	39%
	All events	37%	42%	38%	39%	39%
International	(Benchmark: approximately 10% outside USA)					
	Working groups	20%	19%	19%	18%	19%
	Workshops	10%	22%	21%	17%	17%
	All events	7%	12%	14%	13%	11%
URG	(Benchmark: increase proportion approximately 10% per year)					
	Working groups	9%	10%	7%	6%	8%
	Workshops	7%	10%	14%	11%	10%
	All events	9%	11%	11%	11%	11%
Local	(Benchmark: No more than 15% from UT/ORNL)					
	Working groups	14%	15%	16%	22%	17%
	Workshops	22%	23%	10%	7%	16%
	All events	35%	20%	16%	18%	22%
Organizer diversity						
Gender	(Benchmark: approximately 30% female)					
	Working groups	11%	13%	16%	30%	17%
	Workshops	25%	29%	38%	33%	31%
	All events	23%	28%	27%	34%	28%
Local	(Benchmark: No more than 25% UT Faculty/Staff)					
	Working groups	28%	22%	20%	30%	25%
	Workshops	75%	36%	12%	25%	37%
	All events	57%	42%	33%	32%	41%

*Year 1 includes activities from March-August 2009

**Year 4 includes activities from September 1, 2011-March 31, 2012.

Disability Status

For all events across all years, around 7% of participants indicated having some sort of visual impairment, while 2.2% indicated having a hearing impairment. A smaller percentage indicated having mobility impairment (Figure 8 & Figure 9).

Figure 8. Disability status of participants, all years (n = 2,655)

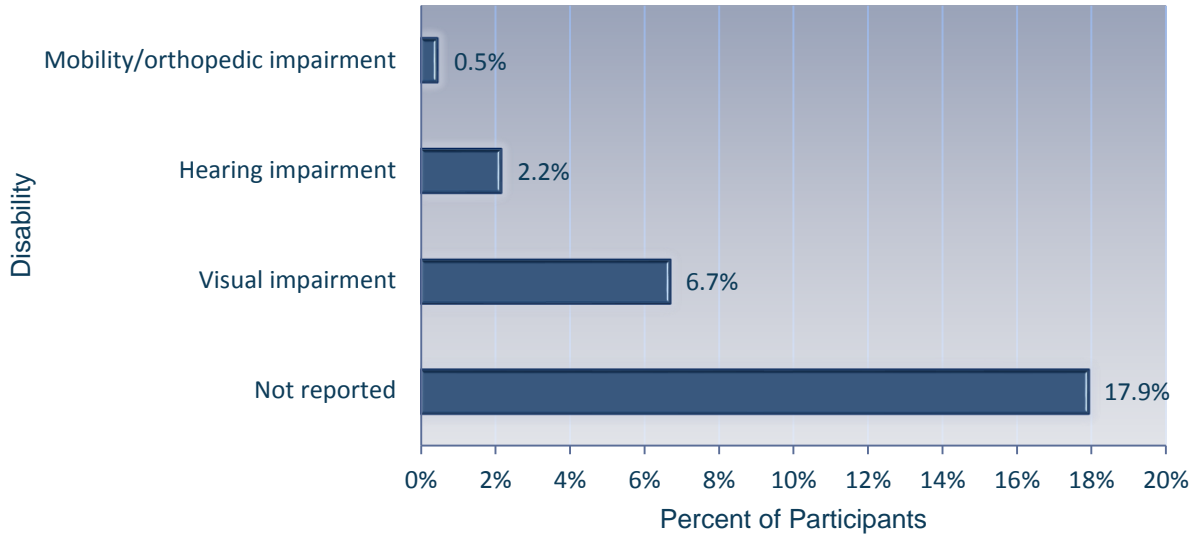
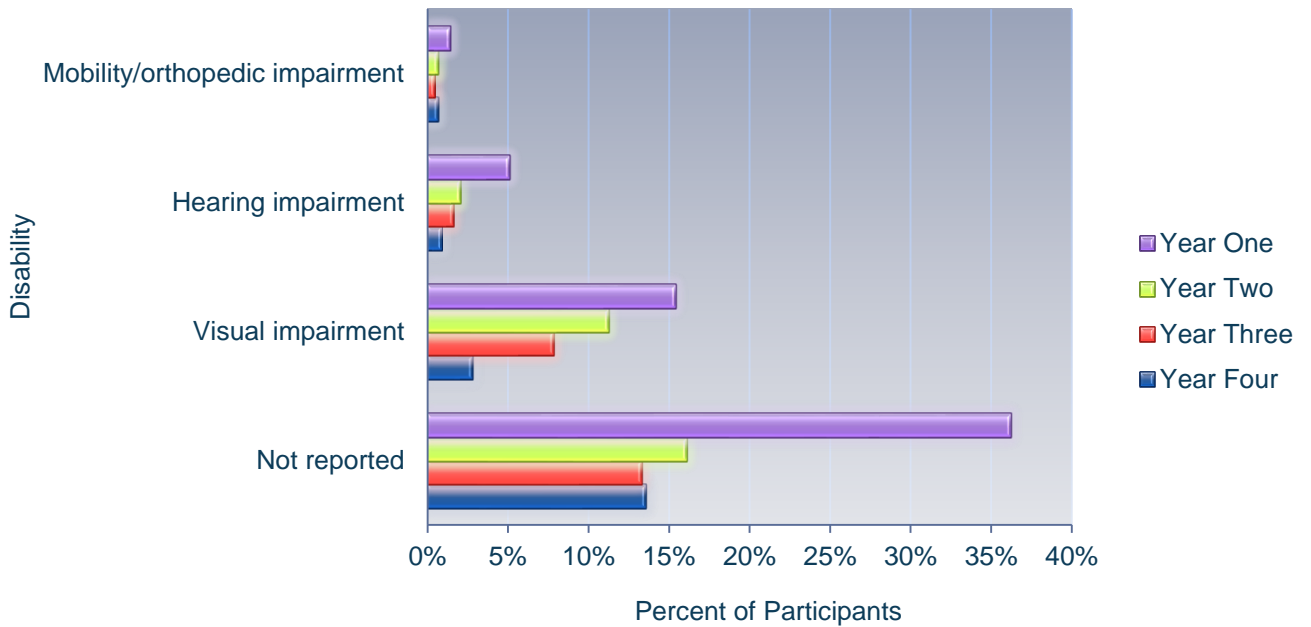


Figure 9. Disability status of participants by year



Institutional and Disciplinary Diversity

The majority of NIMBioS participants during YRS 1-4 were college/university faculty or staff, graduate students, or undergraduate students; however, many participants came from other positions (Figure 10 & Figure 11).

Figure 10. Status of participants, all years

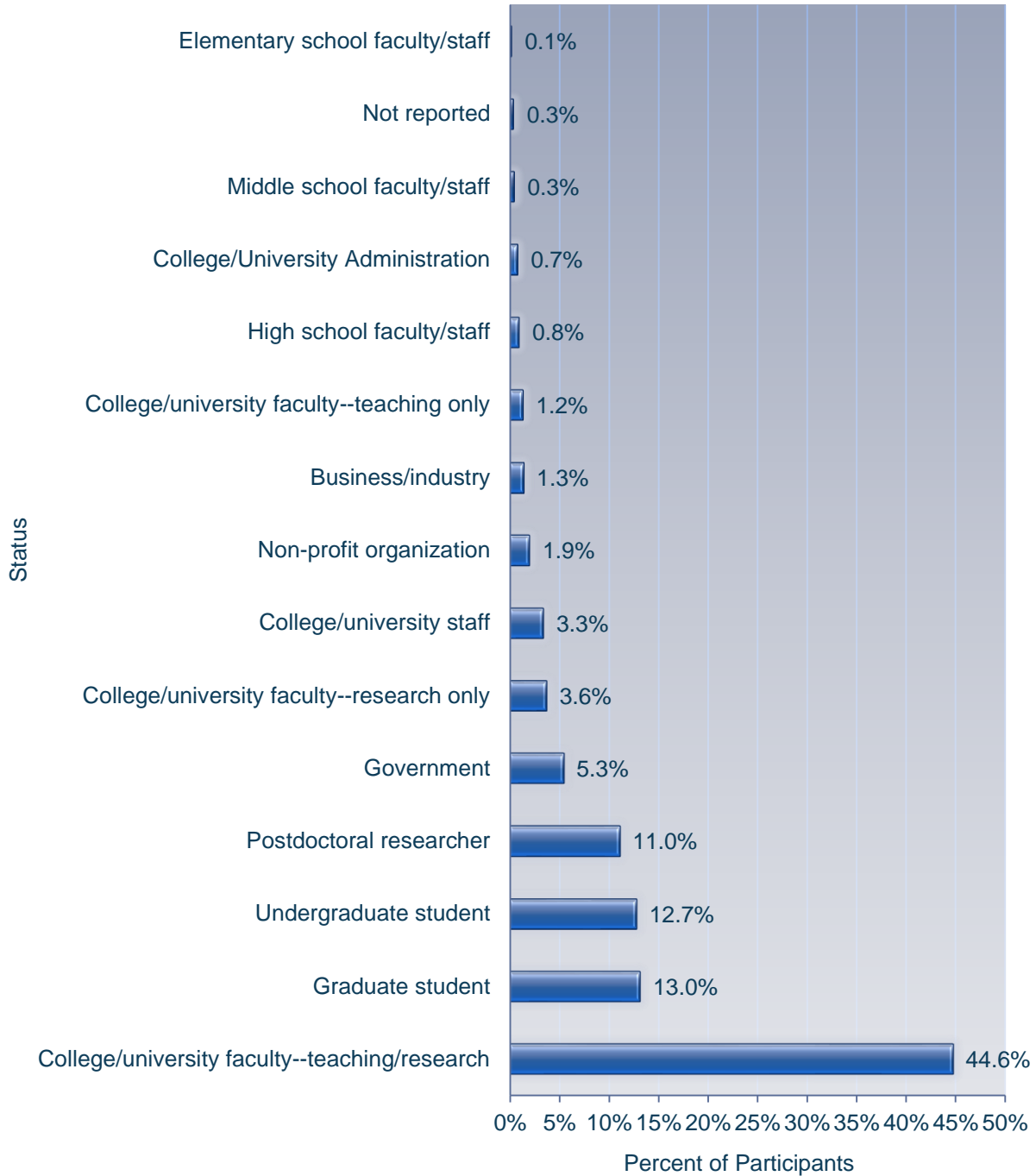
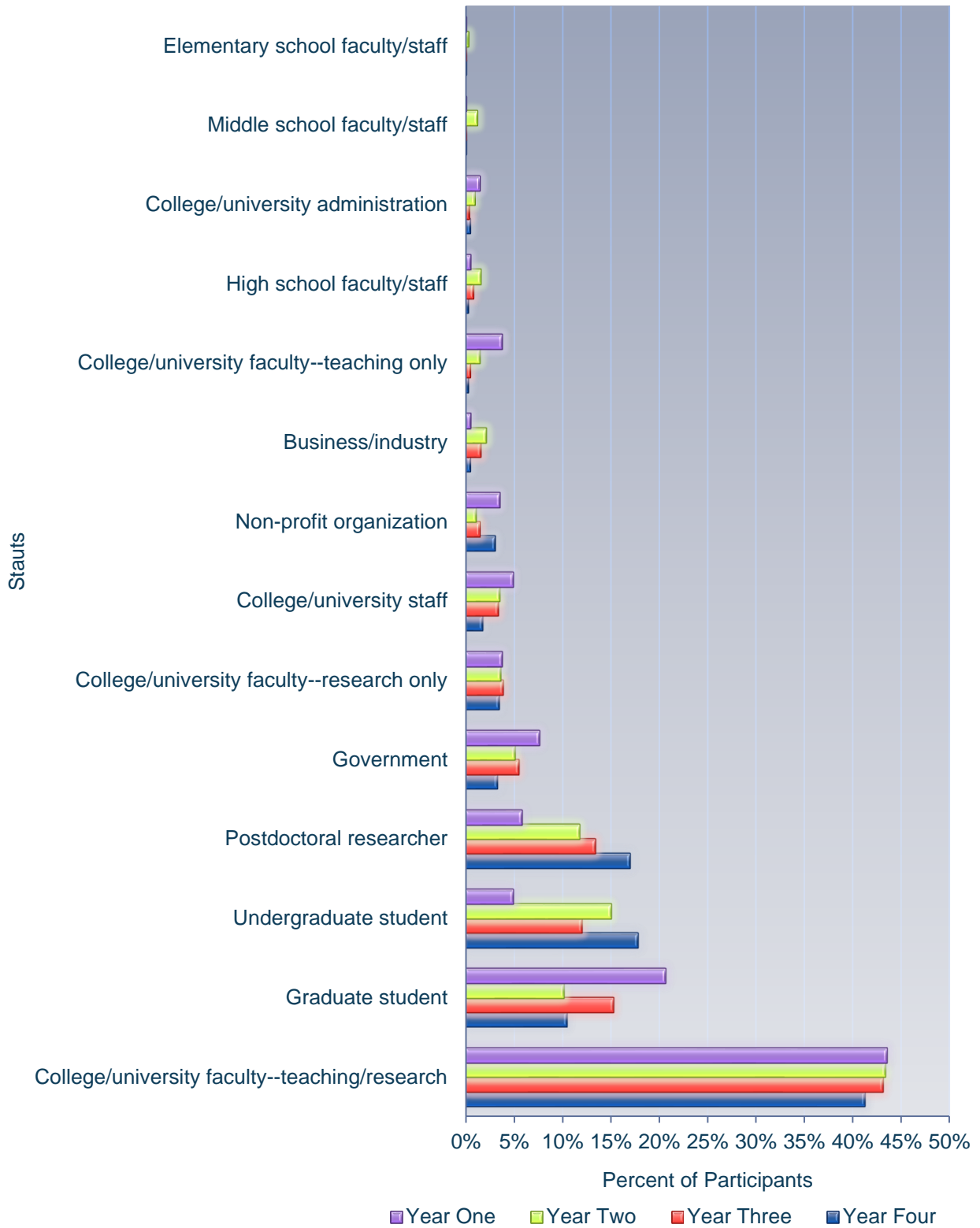


Figure 11. Status of participants by year



Participants at NIMBioS were given the opportunity to indicate their primary, secondary, and tertiary fields of study, as well as areas of concentration within those fields. The most commonly reported fields of study included biological/biomedical sciences, mathematics, health, and agricultural sciences, although many other disciplines were represented (Figure 12 and Figure 13).

Figure 12. Primary, secondary, and tertiary discipline areas of participants, all years

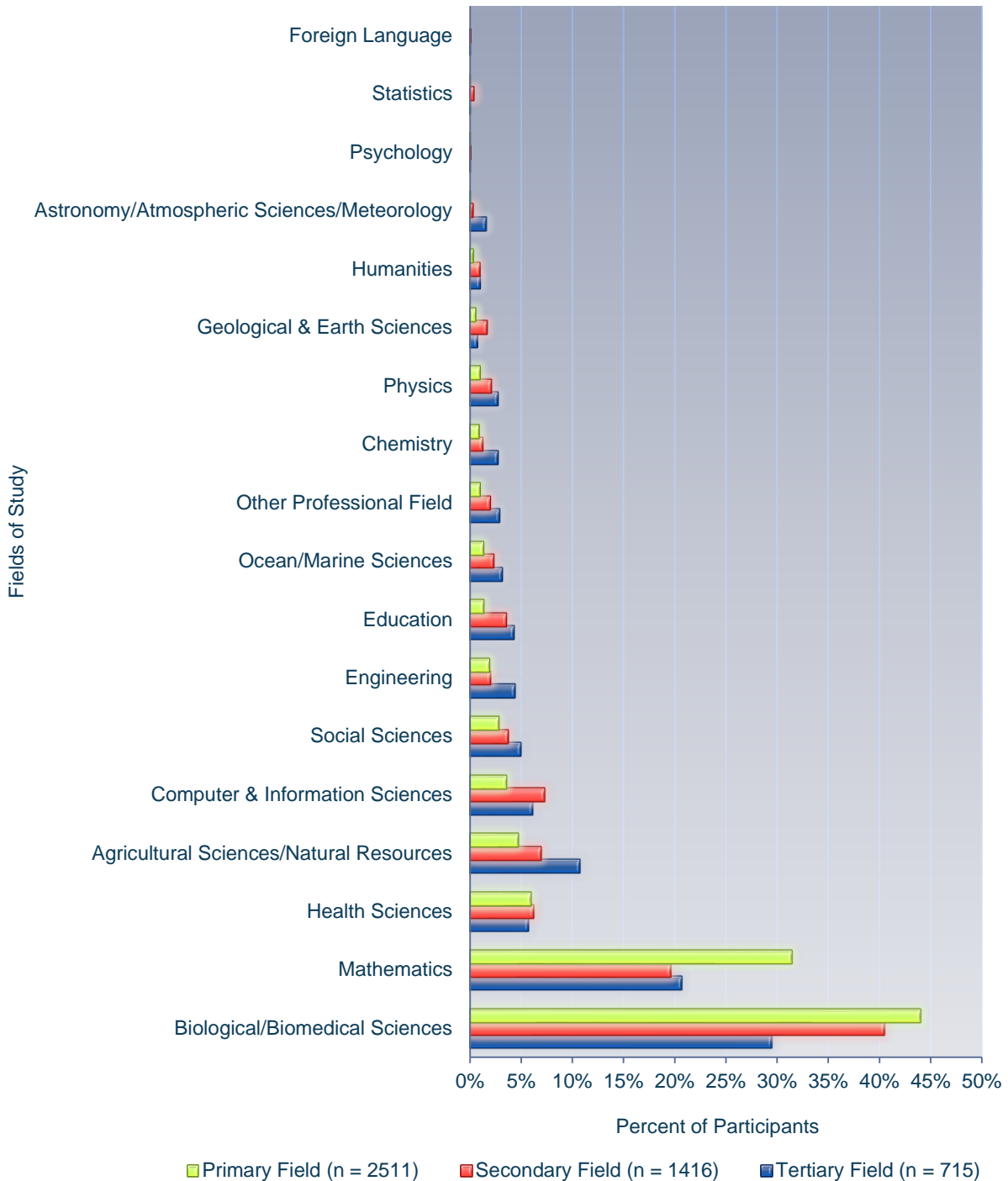
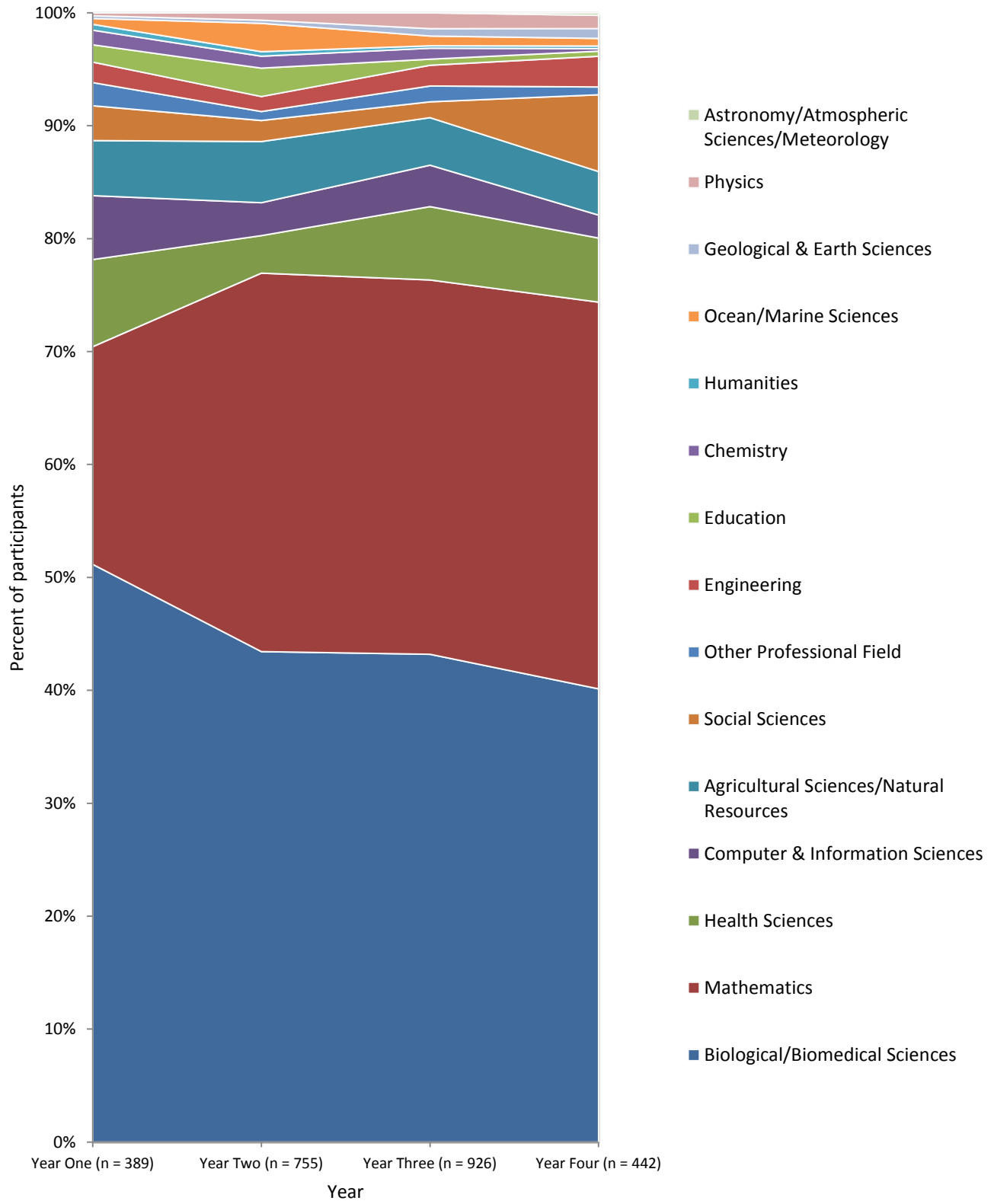


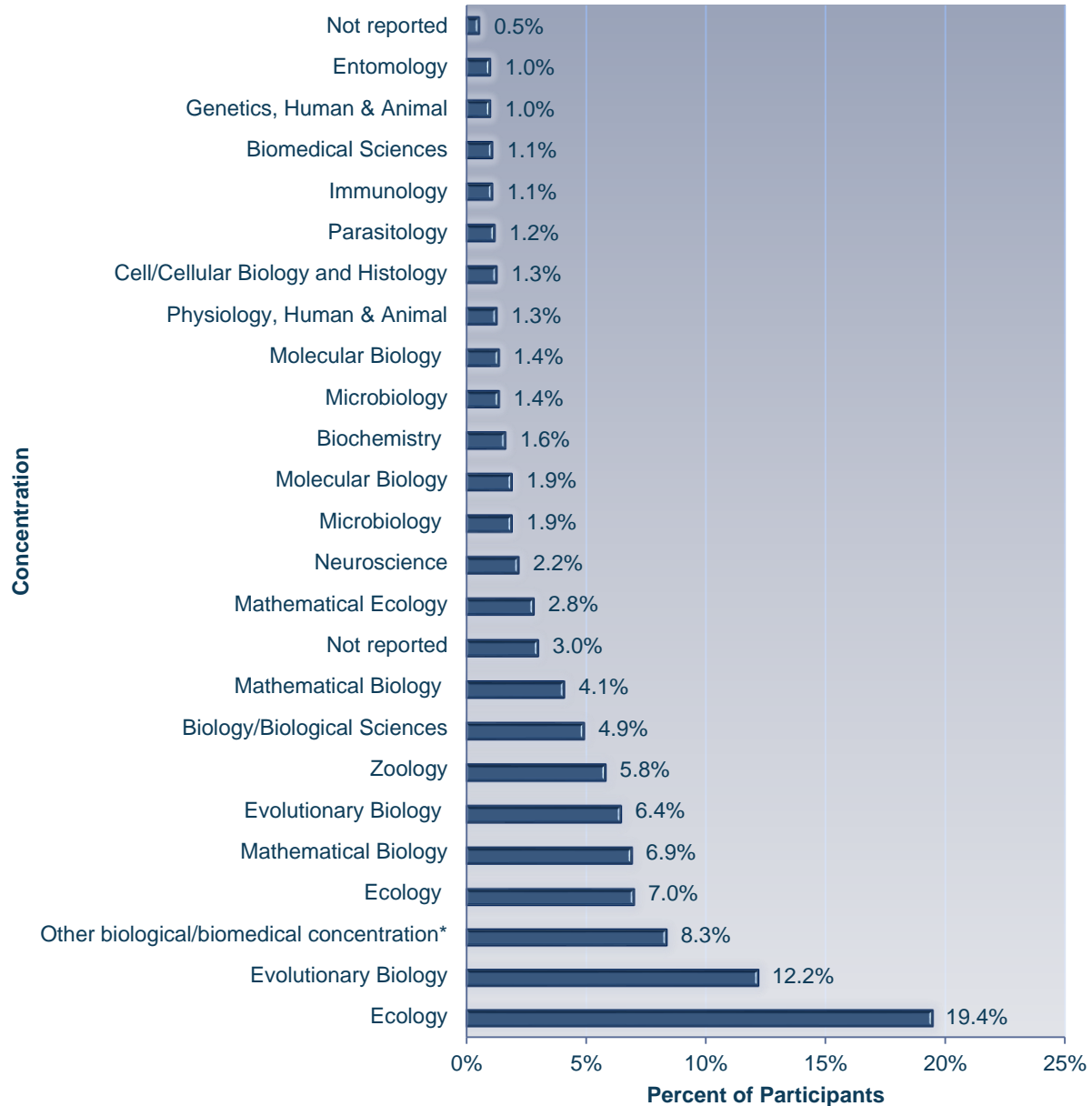
Figure 13. Primary discipline areas of participants by year



The 1,102 participants naming Biological/Biomedical Sciences as their primary field of study indicated 37 different areas of concentration within which they would classify their primary areas of research/expertise (Figure 14 and

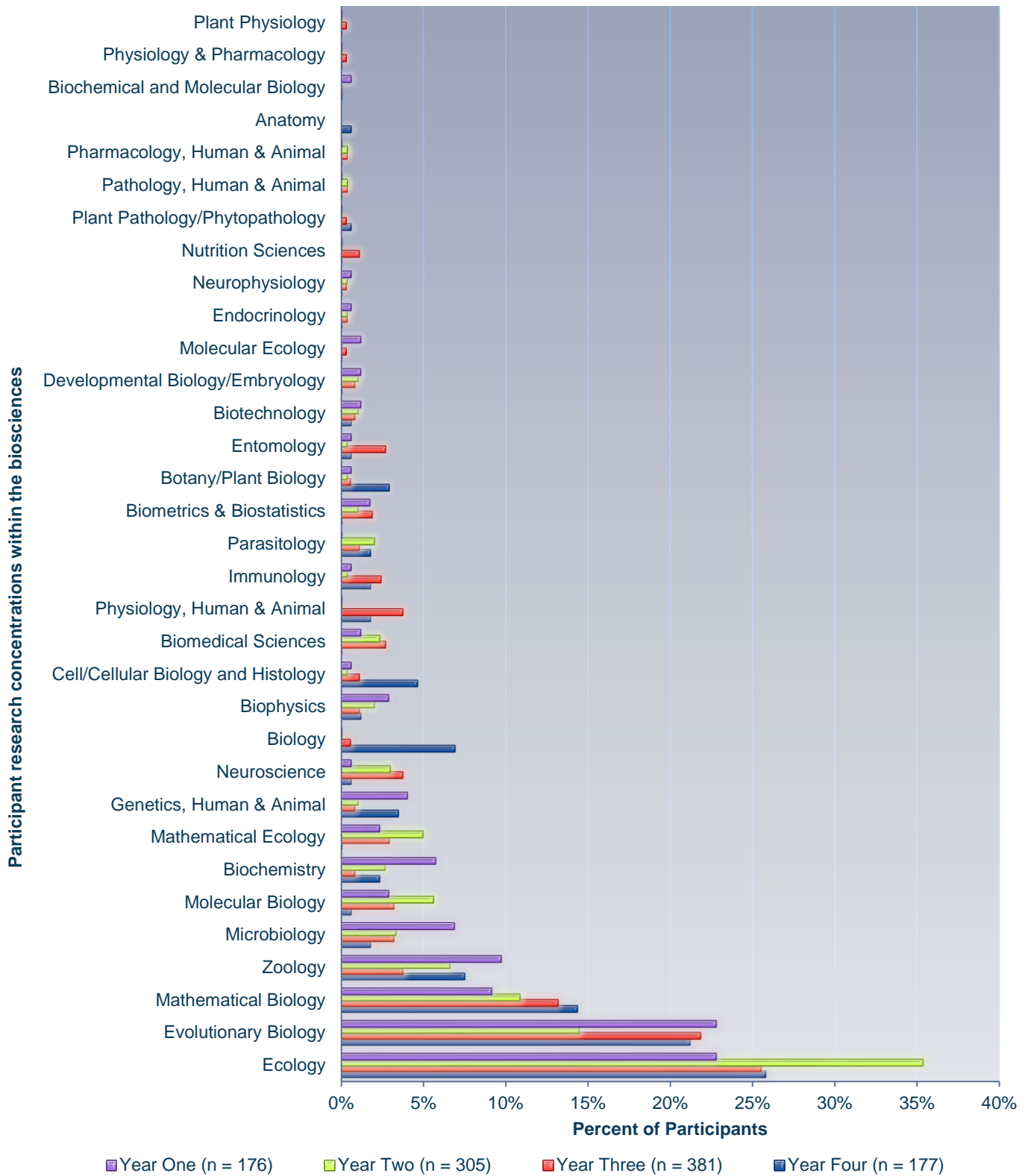
Figure 15).

Figure 14. Participant research/expertise area concentrations within biological/biomedical sciences field of study, all years (n = 1,102)



* Other concentrations indicated by less than 1% participants: Biotechnology, Botany/Plant Biology, Developmental Biology/Embryology, Nutrition Sciences, Plant Pathology/Phytopathology, Pharmacology, Human & Animal, Endocrinology, Anatomy, Pathology, Human & Animal, Plant Physiology, Immunology, Anatomy, & Plant Physiology.

Figure 15. Participant research/expertise area concentrations within biological/biomedical sciences field of study by year



During YRS 1-4, participants represented 626 *different* institutions, including colleges/universities, government institutions, non-profits, private businesses, and K-12 schools (Figure 16 and Figure 17).

Figure 16. Types of institutions represented (n = 626)

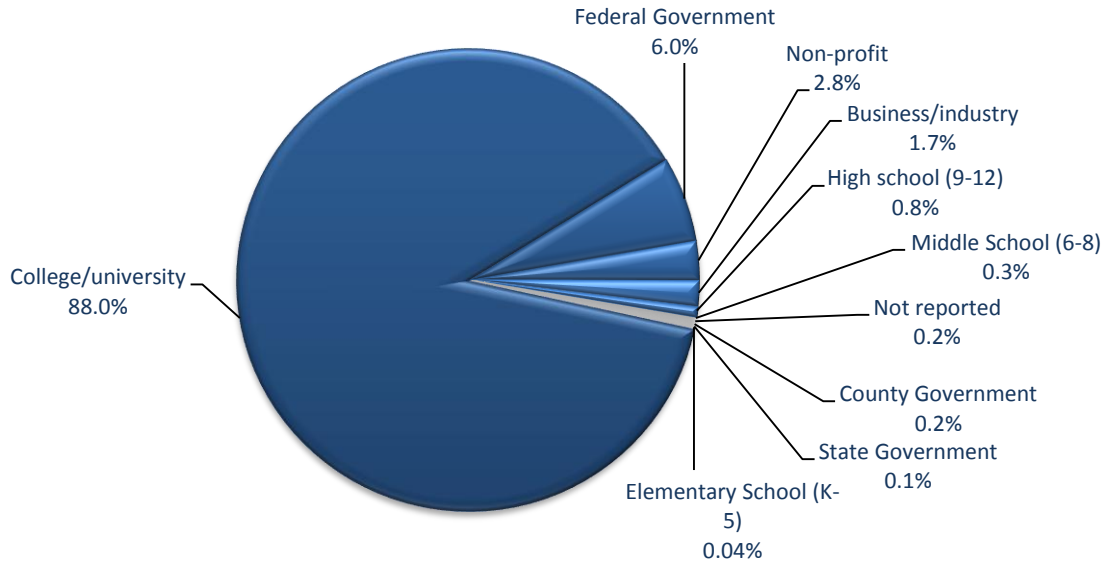
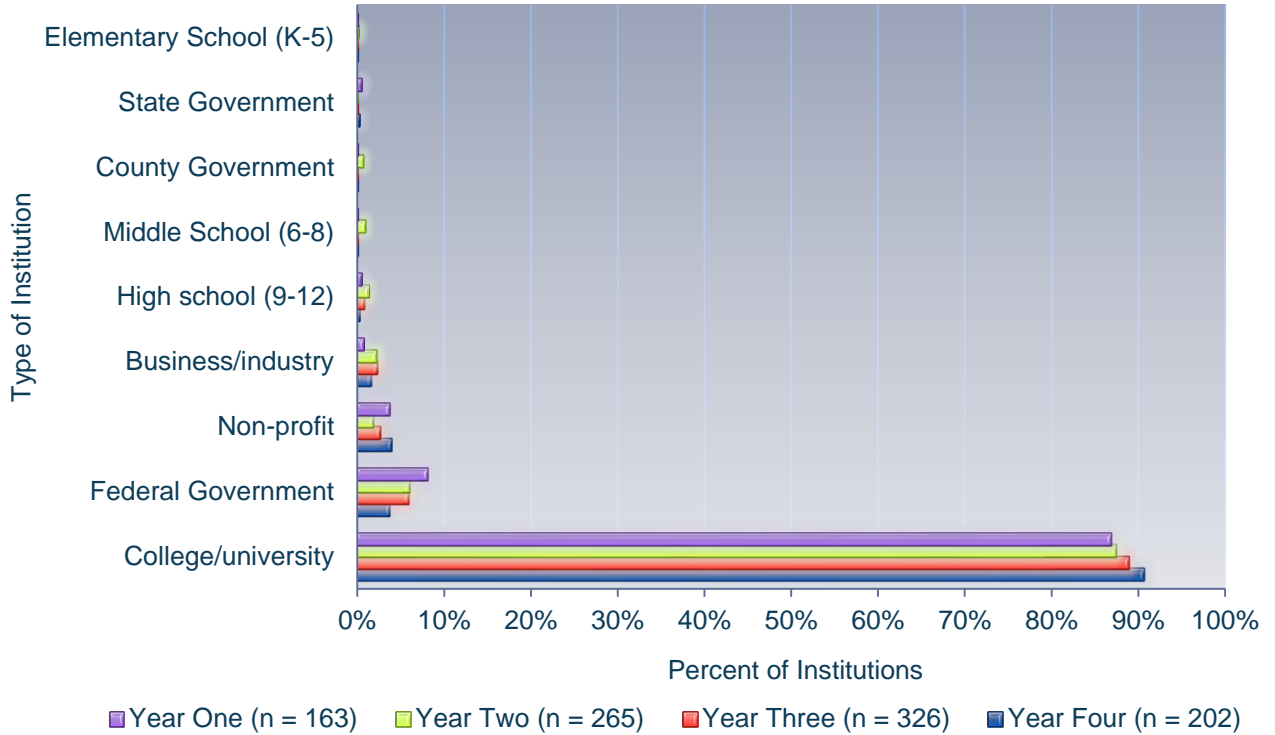


Figure 17. Types of institutions represented by year



Of the 503 *different* colleges/universities represented, most were classified as comprehensive (having undergraduate and graduate programs) (Figure 18 and Figure 19).

Figure 18. Characteristics of participants' colleges/universities (n = 503 all; n = 366 U.S. only)

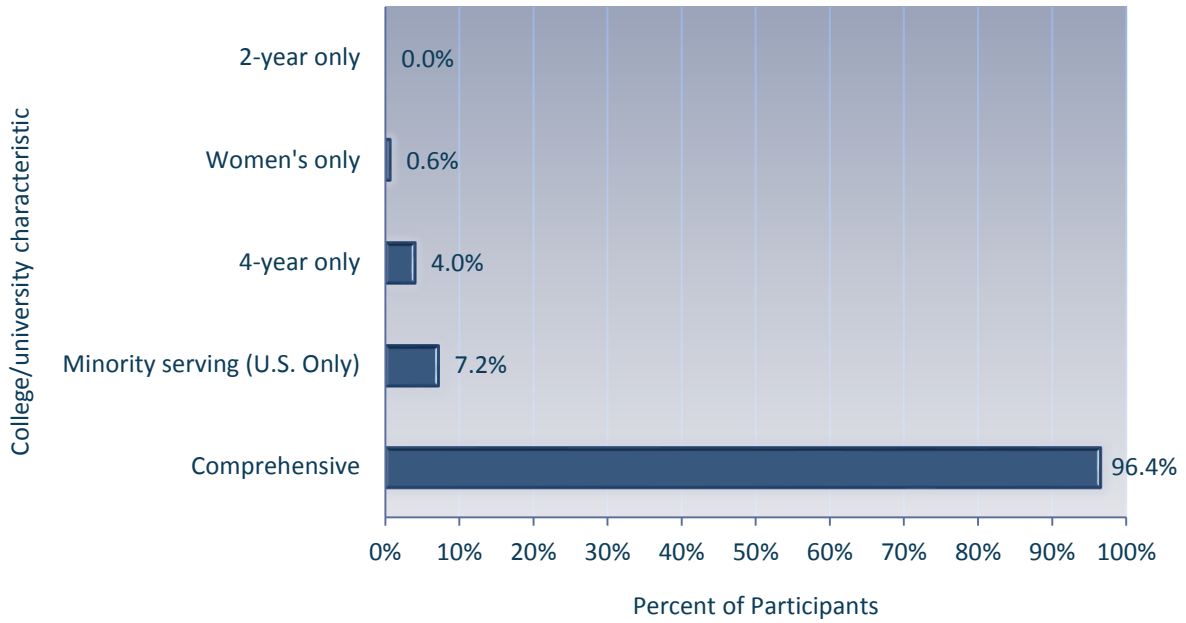


Figure 19. Characteristics of participants' colleges/universities by year

