

WOMEN'S LEADERSHIP FACT SHEET: A Project of Women Leaders Count

Women in Science: Degrees and Faculty in Natural & Applied Sciences

The Institute for Women's Leadership is committed to increasing the numbers of women in decision making and leadership positions across all sectors and professions. Our series of Women's Leadership Fact Sheets is designed to increase awareness of women's current progress and continued underrepresentation. In the sciences, the number of women graduates drops as the degree level increases.¹ Men outnumber women in all scientific fields of study except the biological sciences, in which there were slightly more female graduates at all levels. Physical sciences and computer sciences & engineering show the highest gender disparity, with women earning 24% of bachelor's,

Gender Distribution of Science Degrees Awarded in the United States in 2008						
	Bachelor's		Master's		Ph.D.	
	Women	Men	Women	Men	Women	Men
Biological Sciences	49,257 (59.8 %)	33,130 (40.2 %)	5,610 (58.7 %)	3,953 (41.3 %)	3,707 (50.6 %)	3,612 (49.4 %)
Earth, Ocean, & Other Environmental Sciences	11,208 (49.2 %)	11,571 (50.8 %)	2,953 (52.1 %)	2,719 (47.9 %)	689 (39.1 %)	1,074 (60.9 %)
Physical Sciences	1,375 (23.6 %)	4,444 (76.4 %)	530 (24.8 %)	1,608 (75.2 %)	333 (19.5 %)	1,377 (80.5 %)
Chemistry	5,909 (49.9 %)	5,923 (50.1 %)	1,035 (46.3 %)	1,201 (53.7 %)	768 (34.2 %)	1,479 (65.8 %)
Mathematics & Statistics	6,956 (43.9 %)	8,884 (56.1 %)	2,207 (42.8 %)	2,945 (57.2 %)	423 (31.1 %)	939 (68.9 %)
Computer Sciences & Engineering	19,801 (18.2 %)	89,010 (81.8 %)	12,231 (24.3 %)	38,092 (75.7 %)	2,121 (21.6 %)	7,685 (78.4 %)
TOTALS	94,506 (38.2 %)	152,962 (61.8 %)	24,566 (32.7 %)	50,518 (67.3 %)	8,041 (33.2 %)	16,166 (66.8 %)

25% of master's, and 19.5% of Ph.D.'s and 18% of bachelors, 24% of master's, and 21% of Ph.D.'s, respectively.

Fewer female graduates in scientific higher education translate into fewer women working in scientific research and occupations. That women comprise only one-third of all master's and doctoral science degree recipients means that fewer women occupy high positions in the research industry. In addition, fewer women teach science in universities, direct research facilities, chair science departments, receive endowments, and make decisions regarding research questions and distribution of resources.

¹ More information and reports on the status of women in science can be accessed through the Institute for Women's Leadership's website, Research section, Reports on the Status of Women: http://iwl.rutgers.edu/research_status_summary.html.

FACULTY IN NATURAL & APPLIED SCIENCES

During the academic years 2010 - 2011 and 2002-2003 respectively, Rutgers University – New Brunswick and Princeton University --the two Research 1 universities in New Jersey--conducted studies of the gender distribution of their faculty members. They found that men outnumbered women across all fields in the natural and applied sciences. In both institutions women faculty members comprised less than 20% of science faculty members: 19.5 % at Rutgers University-New Brunswick, and 13.9 % at Princeton University.² Women are most represented in the biological sciences, where they are 25.2 % of the biological scientists at Rutgers, and 27.1 % at Princeton. The highest gender disparity among science faculty members at both institutions is in physical sciences, computer

Gender Distribution of Full Time Tenured & Tenure-Track Science Faculty at Rutgers University 2010 - 2011			Gender Distribution of Science Faculty at Princeton University in 2002 - 2003		
	Women	Men		Women	Men
Biological Sciences	27 (25.2 %)	80 (74.8 %)	Biological Sciences	19 (27.1 %)	51 (72.9 %)
Environmental, Marine, & Agricultural Sciences	37 (31.1 %)	82 (68.9 %)	Physics & Astronomy, Geosciences, Mathematics and Chemistry	14 (10.3 %)	122 (89.7 %)
Physical Sciences & Astronomy	10 (15.6 %)	54 (84.4 %)			
Chemical Sciences	8 (22.2 %)	28 (77.8 %)			
Mathematics & Statistics	3 (5.0 %)	57 (95.0 %)			
Computer Sciences	3 (8.1 %)	34 (91.9 %)	Engineering	12 (10.2 %)	106 (89.8 %)
Engineering	19 (15.0 %)	108 (85.0 %)			
TOTALS	107 (19.5 %)	443 (80.5 %)		45 (13.9 %)	279 (86.1 %)

science, engineering, and mathematics.

Tenured women surveyed for these studies reported having served on important departmental committees or leadership positions less frequently than tenured men. In addition, these studies revealed that women hold a smaller percentage of endowed chairs than would be expected from their percentages in the science faculty. During the academic year 2011-2012, 5 women held an endowed science chair at Rutgers University, while men held 15 chairs.³

² Difference in the grouping of the scientific fields in this section reflects differences between the categories used in the Rutgers and Princeton studies. The categories used here differ from those used in the studies, and were chosen to show a more detailed overview of gender distribution within the disciplines included in the schools and departments surveyed.

³ Data obtained from the offices of Rutgers University Foundation <http://support.rutgers.edu/s/896/Foundation/Givestart.aspx>.