

Recruiting Under-Represented Audiences
Women and Minorities Among Bachelor's Degree
Recipients in Physics and Related Fields

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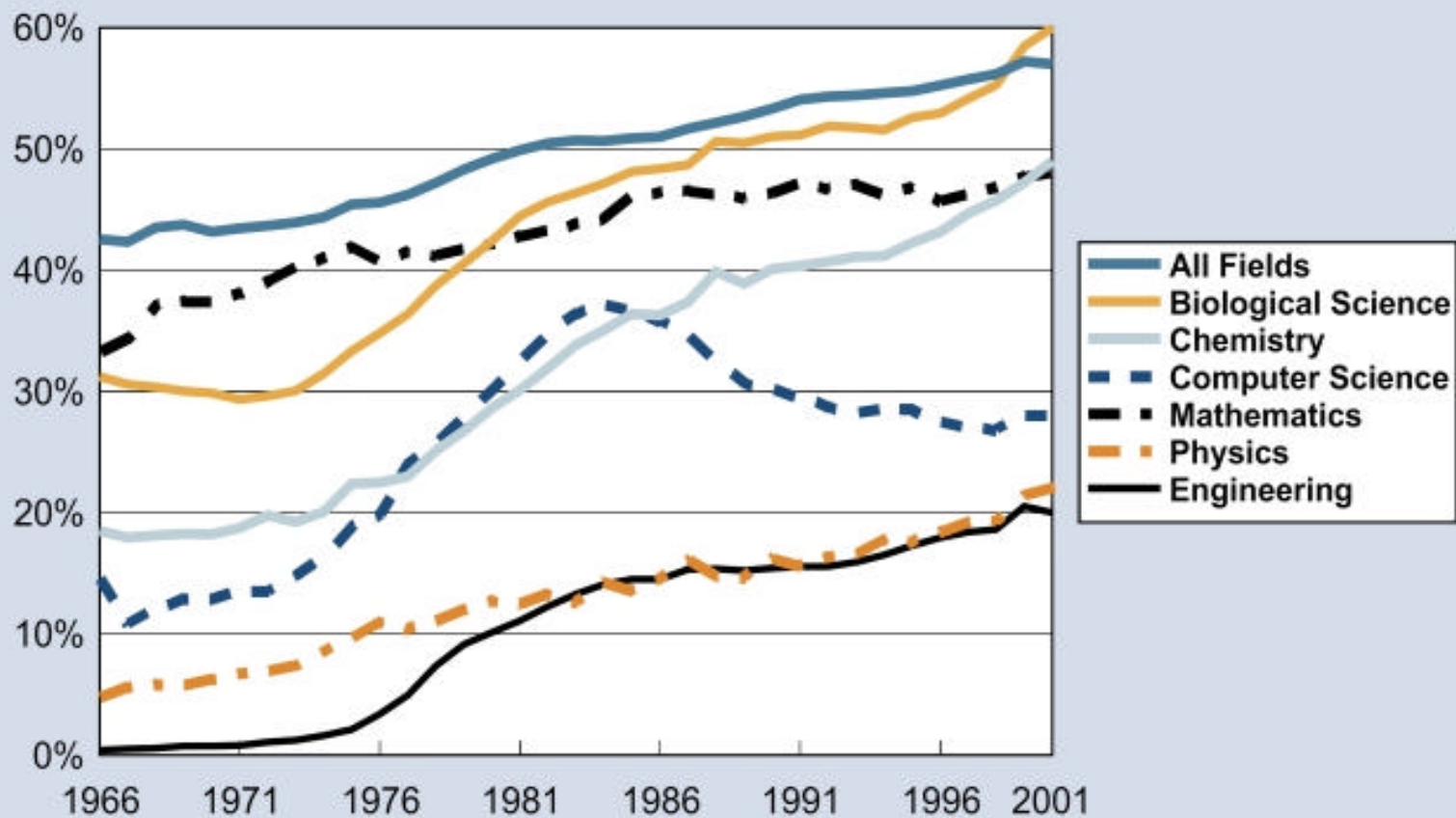
“ The time to deal with women as a special professional group has passed. I do not know if minorities require any special consideration, but probably not. The scientific community seems to embrace all individuals quite fairly as far as I can tell.”

Quote from a scientist responding to a recent AIP survey

“I believe the concept of "under-represented" to be a fallacy. No specific group of people (clergy, lawyers, professional baseball players, conspiracy theorists, you name it) is a microcosm of the larger population of the nation-world, nor should we expect it to be I do not agree that if there are fewer women (for example) than men in the field, then something must be wrong.”

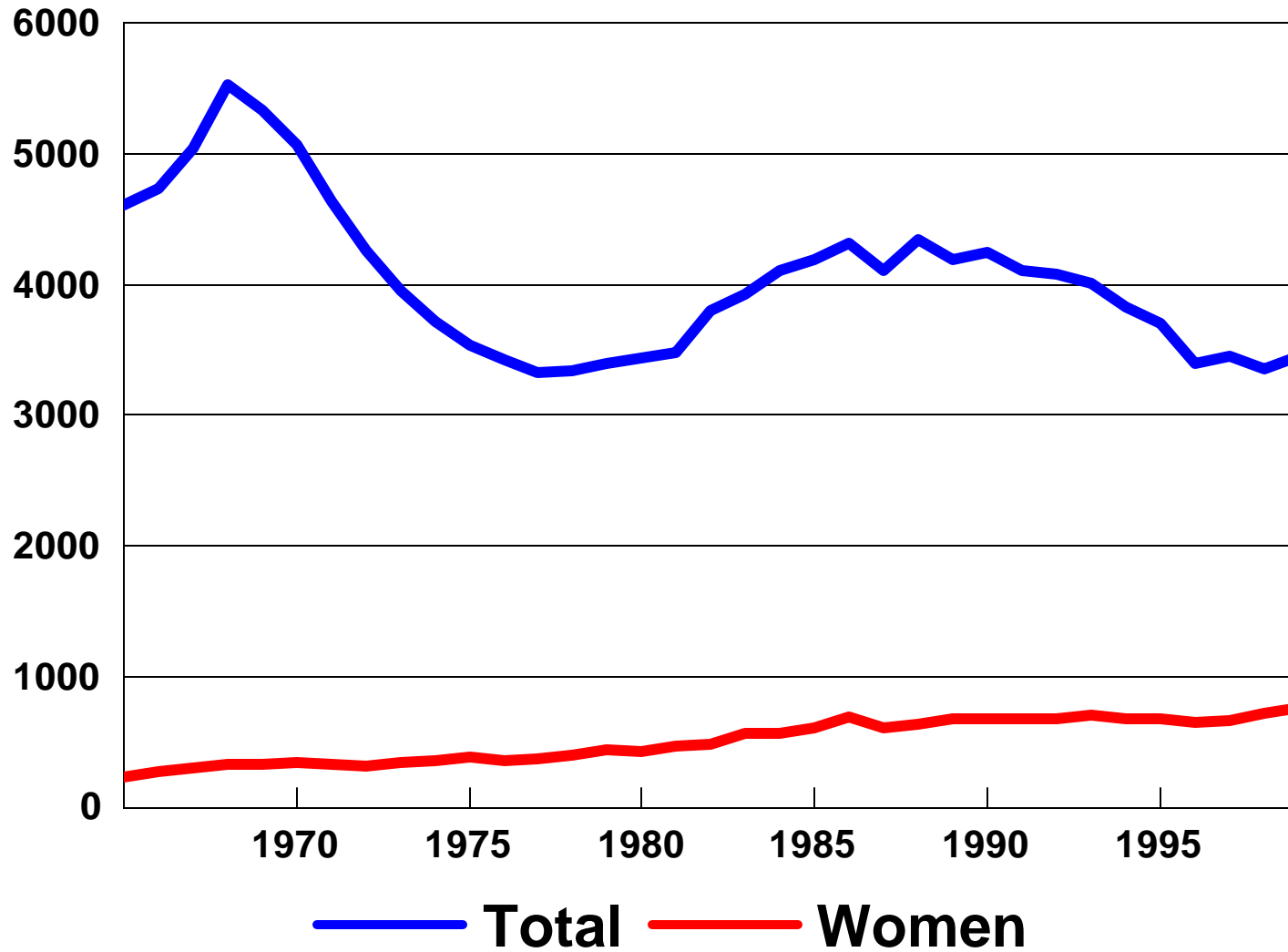
Quote from a scientist responding to a recent AIP survey

Percent of bachelor's degrees earned by women in selected fields, 1966-2001.



National Center for Education Statistics. Data for academic year 1999 not available.
Compiled by AIP Statistical Research Center.

Number of Bachelor's Degrees Earned in Physics, 1966 – 2001



Source: National Center for Education Statistics. Compiled by AIP.

Percent of Physics Bachelors Degrees Earned by Women In Selected Countries: 2-Year Averages

Physics Bachelors Women

%

39	Turkey
36	Poland
34	Greece
33	France
30	South Korea
29	Sweden
26	Latvia
21	Australia
21	United Kingdom
21	Norway

Physics Bachelors Women

%

21	United States
20	Taiwan
19	Slovenia
18	Estonia
18	Mexico
17	Denmark
13	Japan
12	The Netherlands
9	Germany
9	Switzerland

Compiled by AIP Statistical Research Center. To be included, countries had to provide appropriate data from a reliable statistical agency for 1998-99 or 1999-2000.

Number of Bachelor's Degrees Awarded by Fine Field, Two-Year Averages

	1987-1988 N	2000-2001 N
Oceanography	150	174
Solid Earth Sciences	3100	2808
Earth & Planetary Sciences	520	528
Astronomy & Astrophysics	130	200
Atmospheric Science & Meteorology	350	468

Percentage of Bachelor's Degrees Awarded to Women by Fine Field, Two-Year Averages

	1987-1988 %	2000-2001 %
Oceanography	18	50
Solid Earth Sciences	24	42
Earth & Planetary Sciences	25	42
Astronomy & Astrophysics	17	37
Atmospheric Science & Meteorology	17	26

Bachelor's Degrees and Race

Bachelor's Degrees Awarded in Selected Fields by Race, Class of 2001

	African American %	Hispanic American %	Total Number
Psychology	10	8	74,124
Computer Science	10	5	43,597
Business & Management	9	8	275,287
Chemistry	8	7	9,815
Biological Sciences	8	7	62,010
Mathematics & Statistics	7	5	11,437
Education	7	6	118,492
Engineering	8	7	71,825
Physics	4	4	3,447
Geosciences	1	4	3,968
TOTAL	8	7	1,260,308

Engineering includes Engineering Technologies.

Source: NSF WebCASPAR database. Compiled by AIP Statistical Research Center.

Total Bachelors Degrees Awarded by Field During Five Academic Years, 1996-2001.

	All Students <u> N </u>	African Americans <u> N </u>
All Fields	5,708,200	488,600
Physics	19,343	788
Solid Earth Sciences	18,085	279
Atmospheric Sciences	2,253	38
Oceanography	994	51
Astronomy	785	9

**Source: AIP Statistical Research Center compiled from
data collected by U.S. Department of Education**

Ration of Bachelors Degrees in Select Fields Per 100,000 Total Degrees, 1996-2001.

	Per 100,000 Students <u> N </u>	Per 100,000 African Americans <u> N </u>
Physics	339	161
Solid Earth Sciences	317	57
Atmospheric Sciences	39	8
Oceanography	17	10
Astronomy	14	2

Source: AIP Statistical Research Center compiled from
data collected by U.S. Department of Education

Which Institutions Graduate Minorities?

African American Bachelor's in Physics

Universities that awarded the largest number of bachelor's over last five years

African American

5-Year Totals

57	Xavier University (LA)
40	Lincoln University (PA)
39	Southern University A&M (LA)
25	Alabama Agricultural & Mechanical University (AL)
22	Dillard University (LA)
22	Grambling State University (LA)
22	Hampton University (VA)
20	Benedict College (SC)
19	Jackson State University (MS)
19	Tuskegee University (AL)
18	Norfolk State University (VA)
17	Morehouse University (GA)

788 Total Number of African American physics bachelor's from all degree granting departments: 1996, 1997, 1998, 2000 & 2001

Source: AIP Statistical Research Center compiled from data collected by NCES

African-American Bachelor's in the Geosciences

Departments that awarded the largest number of bachelor's over the last 5 years

African-American five-year totals

42	Hampton University (VA)
15	Spelman College
14	United States Naval Academy (MD)
13	Savannah State University
11	Elizabeth City State University
11	Jackson State University
7	University of Oklahoma, Norman
7	CUNY City College
7	Cleveland State University
5	University of South Carolina at Carolina State
336	Total Number of African American geoscientists from all degree-granting departments, 1996 through 2001

Hispanic-American Bachelor's in Physics

Universities that awarded the largest number of bachelor's over the last five years

Hispanic-American five-year totals

48	University of Puerto Rico – Humacao University
37	University of Puerto Rico – Mayaguez
21	Embry-Riddle Aeronautical University (FL)
15	University of California - Davis
14	University of California - Berkeley
12	Florida International University
11	Massachusetts Institute of Technology
10	University of Texas – El Paso
9	University of California – Los Angeles
9	Harvard University (MA)
9	Cornell University (NY)
9	Southwest Texas State University
642	Total number of Hispanic-American physicists from all degree-granting departments, five year total

Hispanic-American Bachelor's in the Geosciences

Departments that awarded the largest number of bachelor's over the last 5 years

Hispanic-American five-year totals

58	University of Puerto Rico – Mayaguez
29	United States Naval Academy (MD)
19	Texas A&M University
16	University of Texas – El Paso
14	Stanford University
14	University of Texas – Austin
12	University of New Mexico
10	University of Washington – Seattle
9	University of California – Santa Barbara
9	University of Arizona
618	Total Number of Hispanic American geoscientists from all degree-granting departments, 1996 through 2001

Thank You