

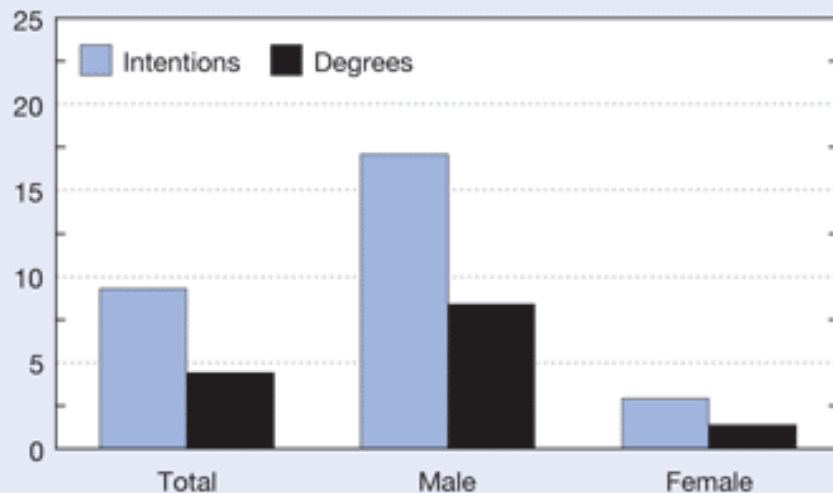
Women and minorities in physics

Some numbers and resources

Number of S&E degrees

Figure 2-7
Engineering: Freshmen intentions and degrees, by sex

Percent



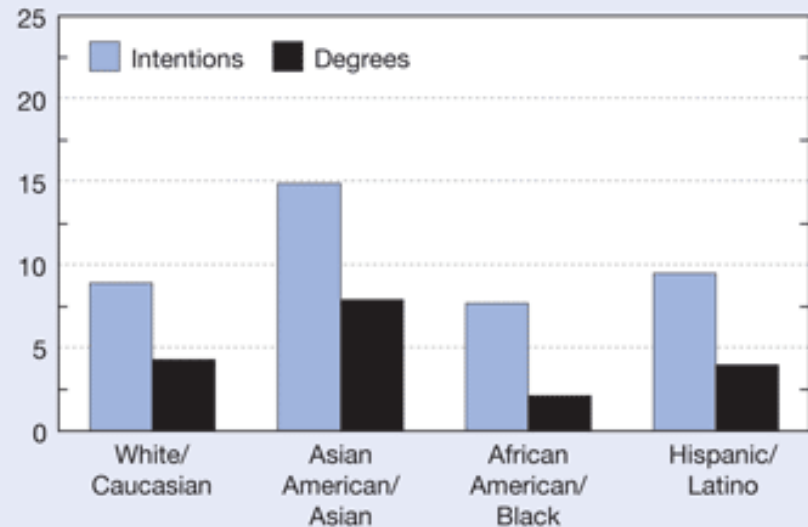
NOTES: Data for freshmen intentions are for 2003; data for degrees are for 2009. Degrees do not reflect the same student cohort.

SOURCES: Higher Education Research Institute, University of California at Los Angeles, Survey of the American Freshman: National Norms, special tabulations (2011); National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey; and National Science Foundation, National Center for Science and Engineering Statistics, WebCASPAR database, <http://webcaspar.nsf.gov>. See appendix tables 2-12 and 2-18.

Science and Engineering Indicators 2012

Figure 2-8
Engineering: Freshmen intentions and degrees, by race/ethnicity

Percent

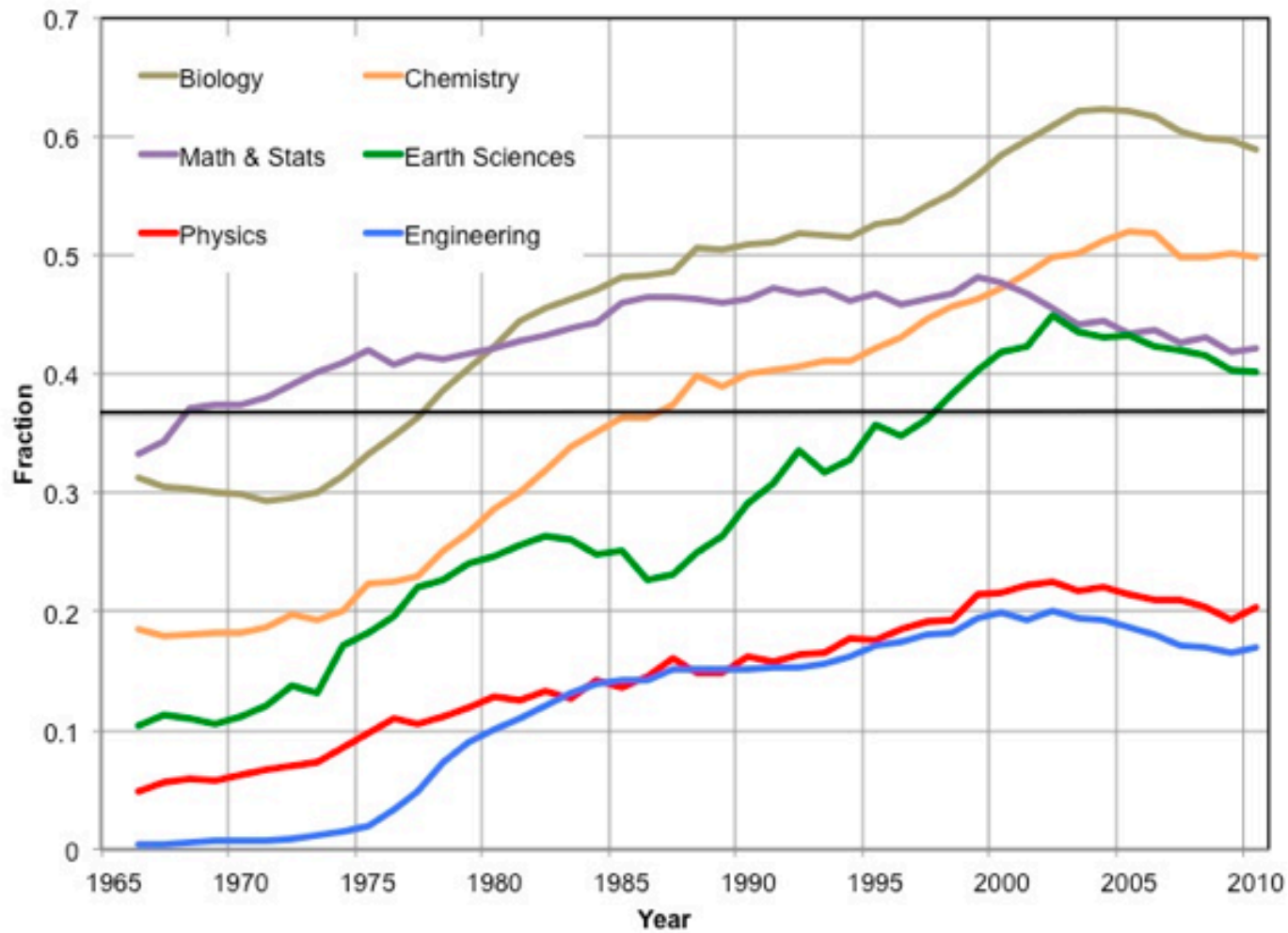


NOTES: Data for freshmen intentions are for 2003; data for degrees are for 2009. Degrees do not reflect the same student cohort. Asian American/Asian includes Native Hawaiian/Pacific Islander.

SOURCES: Higher Education Research Institute, University of California at Los Angeles, Survey of the American Freshman: National Norms, special tabulations (2011); National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey; and National Science Foundation, National Center for Science and Engineering Statistics, WebCASPAR database, <http://webcaspar.nsf.gov>. See appendix tables 2-12 and 2-19.

Science and Engineering Indicators 2012

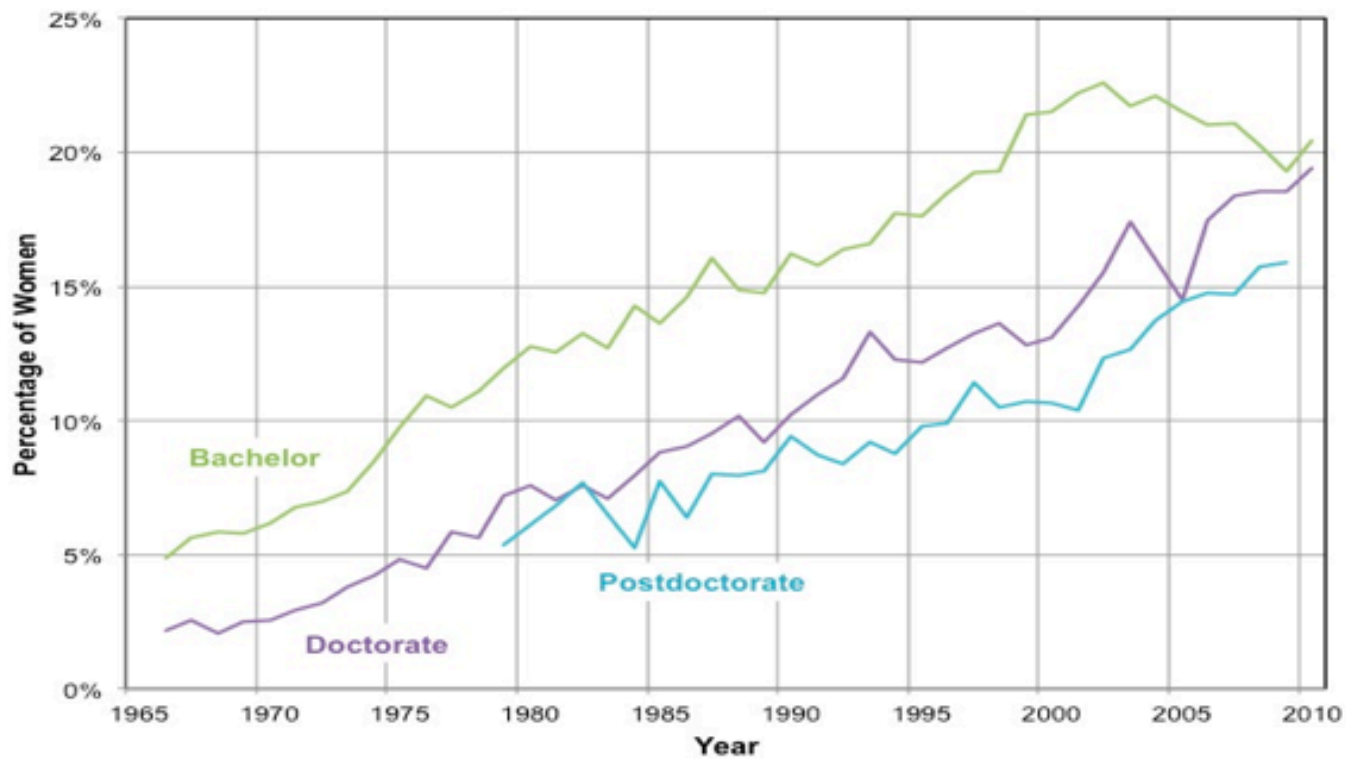
Fraction of Bachelor's Degrees Earned by Women, by Major



Credit: APS/Source: IPEDS Completion Survey

This graph shows the fraction of US bachelor's degrees awarded to women in Science, Technology, Engineering and Mathematics (STEM) fields.

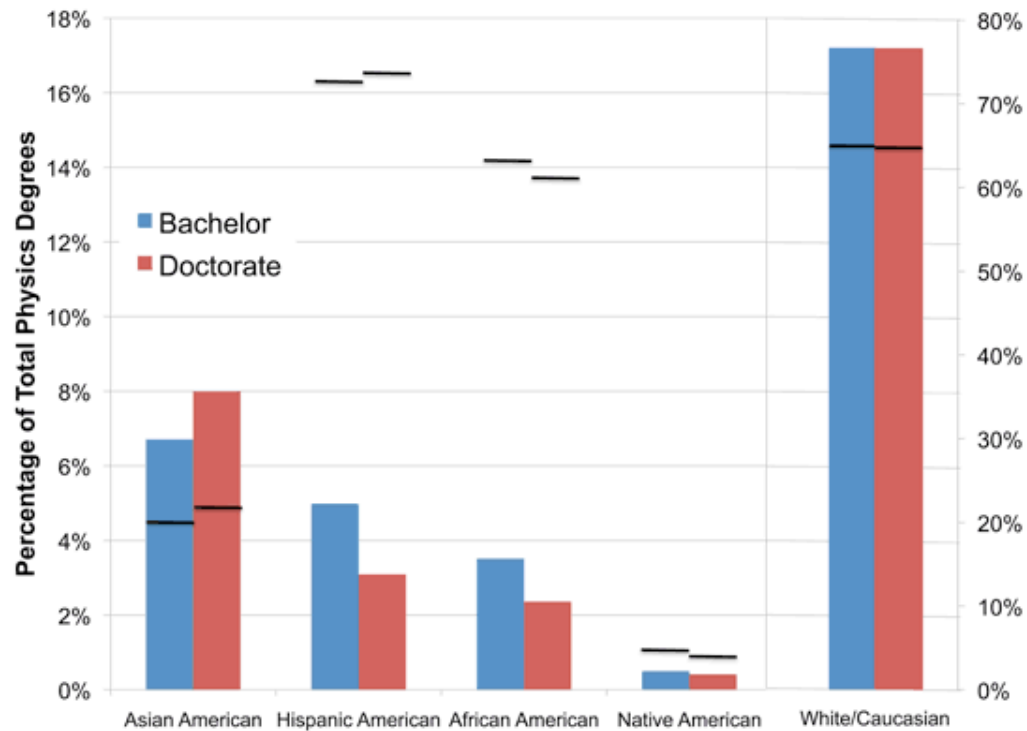
Percentage of Women in Physics



Credit: APS/Source: IPEDS Completion Survey & NSF-NIH Survey of Graduate Students & Postdoctorates in Science and Engineering

This graph shows the percentage of US bachelor and doctorate degrees awarded to women in physics and the percentage of women postdoctoral associates in physics.

Physics Degrees by Race



Credit: APS/Source: IPEDS Completion Survey

This graph illustrates the percentage of physics degrees, bachelors and doctorates, awarded to various ethnicities.


- The degree data is an average of three years (2006-2008) and is collected from the IPEDS Completion Survey by Race.
- The White/Caucasian data is represented on a secondary axis. The percentage of college age students in each ethnicity is represented by the black lines on each column.
- For bachelor students, the population age examined is 21-24 year olds; for doctorate students, the population age examined is 25-29 year olds.
- The population data is from 2003 for earned bachelors and 2001 for earned doctorates to represent the time lapse between starting a degree program and being awarded the degree.
- This data is collected from the U.S. Census.

(Some) resources

http://www.aps.org/programs/minorities

The screenshot shows the American Physical Society (APS) website. At the top, there is a navigation bar with links for 'American Physical Society Sites', 'APS', 'Journals', 'PhysicsCentral', and 'Physics'. A search bar and links for 'Become a Member' and 'Contact Us' are also present. Below this is a main navigation menu with categories like 'Publications', 'Meetings & Events', 'Programs', 'Membership', 'Policy & Advocacy', 'Careers in Physics', and 'About APS'. The 'Programs' section is active, showing a sidebar with links to 'Education', 'International Affairs', 'Physics Outreach', 'Women in Physics', 'Minorities in Physics', 'Scholarships & Awards', 'Minority Physicist Profiles', 'Speakers List', 'APS Bridge Program', 'Resources', 'Site Visits', and 'Prizes, Awards & Fellows'. The main content area is titled 'Minorities in Physics' and includes a 'Home | Programs | Minorities in Physics' breadcrumb. It features a paragraph about the APS's commitment to diversity, a list of programs for minorities, and a section for the 'APS Minority Scholarship' which includes a congratulatory message for the 2013-14 class and a photo of students. Below that is the 'APS Bridge Program' section, which describes the program's goal to increase the number of underrepresented minorities in physics and includes a logo for the 'APS BRIDGE PROGRAM'. At the bottom, there is a 'Tweets' section showing a tweet from @APSDiversity about values affirmation and a counteract stereotype threat. On the right side of the page, there are 'Quick Links' for travel grants, rosters, posters, and committees, as well as 'Follow APS Diversity' social media icons and a 'Webinars' section listing a free public webinar for minority physicists. There are also 'Statistics' for physicist demographics and 'Publications and Reports' including a workshop and a book on energy efficiency.

http://www.aps.org/programs/women/



American Physical Society Sites | [APS](#) | [Journals](#) | [PhysicsCentral](#) | [Physics](#)

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[Publications](#) | [Meetings & Events](#) | [Programs](#) | [Membership](#) | [Policy & Advocacy](#) | [Careers in Physics](#) | [About APS](#)

Programs

- Education
- International Affairs
- Physics Outreach
- Women in Physics**
 - Workshops & Meetings
 - Scholarships & Awards
 - Publications & Multimedia
 - Women Speakers List
 - Site Visits
 - Assessing Graduate Programs
 - Resources
- Minorities in Physics
- Prizes, Awards & Fellows

Email Print Share

Pages For:
Physicists/Scientists Go


[Home](#) | [Programs](#) | [Women in Physics](#)

Women in Physics

APS, through the Committee on the Status of Women in Physics (CSWP), is committed to encouraging the recruitment, retention, and career development of women physicists at all levels.
▶ [About CSWP](#)

Woman Physicist of the Month

Each month, CSWP recognizes a female physicist who is making an impact in the physics community.
▶ [More about the program](#)




[Gabriela Gonzalez](#)
Physicist of the Month

APS Annual Meetings

Special Events and Opportunities at Meetings

Professional Skills Workshops

One-day workshops at the APS March and April Meetings for women physicists.
▶ [Professional Skills Development](#)




March Meeting 2012

Childcare Grants for Meeting Attendees

Small grants are available to assist attendees of the APS March and April Meetings with childcare costs.
▶ [Applying for a Child Care Grant](#)

Connect with Women Physicists


Join the Conversations!
▶ [Women in Physics on LinkedIn](#)
▶ [APS Women in Physics Group Email Lists](#)



Opportunities for Undergraduates

IBM Research Internship for Undergraduate Women

The paid internships are typically 10 weeks long at one of three IBM research locations.
▶ [Apply by February 1](#)



Conferences for Undergraduate Women in Physics (CUWIP)

CUWIP are three-day regional conferences held for undergraduate physics majors. The 2014 conferences will be held January 17-19, 2014 at eight regional sites.
▶ [Learn more](#)
▶ [Apply to host a future CUWIP](#)

Conversations on Gender Equity

Quick Links

- ▶ [Email Lists](#)
- ▶ [Female-Friendly Physics Depts](#)
- ▶ [Join Women Speakers List](#)
- ▶ [Roster of Women & Minorities](#)
- ▶ [Contact Women in Physics](#)

Statistics


- ▶ [Women in Physics Statistics](#)
Free graphs and raw data

Publications and Reports

- ▶ [The Gazette](#)
- ▶ [Gender Equity Report](#)
- ▶ [Recruiting and Retaining Women in Physics](#)

Upcoming Meetings

- ▶ [APS March Meeting 2014](#)
March 3-7, 2014
- ▶ [Physics of Sustainable Energy III: Using Energy Efficiently and Producing It Renewably](#)
March 8-9, 2014
- ▶ [APS April Meeting 2014](#)
April 5-8, 2014
- ▶ [15th Annual Meeting of the Northwest Section of the APS](#)
May 1-3, 2014
- ▶ [2014 Physics Teacher Education Conference \(PhysTEC\)](#)
May 19-20, 2014
▶ [Meeting Calendar](#)



Support improving physics education, physics outreach, increasing participation of women and minorities in physics, and travel grants for speakers and students.

<http://www.aps.org/programs/>

Opportunities for Undergraduates

IBM Research Internship for Undergraduate Women

The paid internships are typically 10 weeks long at one of three IBM research locations.

► [Apply by February 1](#)



Conferences for Undergraduate Women in Physics (CUWiP)

CUWiP are three-day regional conferences held for undergraduate physics majors. The 2014 conferences will be held January 17-19, 2014 at eight regional sites.

► [Learn more](#)

► [Apply to host a future CUWiP](#)

Conversations on Gender Equity

Inaugural Series of Site Visits Report

Conversations on Gender Equity site visits foster dialogue between visiting discussion leaders and the members of departments or laboratories they visit. These visits aim to learn what works best for physicists and to carry that information forward.

► [Download Conversations on Gender Equity Report](#) (16 pg) 

Is Your Graduate Department in Physics Female Friendly?

Learn about Female-Friendly Physics Departments

CSWP facilitates the collection of responses to a series of questions about graduate programs in physics to help assess the climate for women at various graduate schools.

► [Assessing Graduate Programs](#)

Improving the Climate for Women in Physics

Site Visit Program Offers Insights and Advice

The Climate for Women in Physics Site Visit program helps physics departments and research facilities warm the "chilly climate" that women in physics often experience.

► [Site Visit Information](#)

http://www.aip.org/statistics

Home > Programs and Resources

Statistical Research Center

The Statistical Research Center is your source for data on education and employment in physics, astronomy and allied fields.

Focus On reports



FOCUS ON
MCAT, LSAT and
Physics Bachelor's
December 2013



FOCUS ON
Women among
Physics &
Astronomy Faculty
August 2013



FOCUS ON
Roster of
Astronomy
Departments with
Enrollment and
Degree Data, 2012
August 2013

Physics bachelor's who apply to medical or law school typically do well on those entrance exams...

[Read the report ▶](#)

Average MCAT scores by selected majors, 2012

	Physical Science	Biological Science	Verbal Reasoning
Economics	10.8	10.8	9.9
Physics	11.1	10.4	9.8
Biomedical Engineering	11.1	10.6	9.6
Mathematics	10.6	10.4	9.3
Electrical Engineering	10.9	10.1	9.4
Neuroscience	10.1	10.6	9.5
English	9.6	10.1	10.2
Biochemistry	10.1	10.4	9.0
Chemistry	9.5	10.0	9.0
Microbiology	9.2	10.1	8.8
Psychology	9.1	9.6	9.1
Biology	9.0	9.7	8.7
Premedical	8.3	8.9	8.1
All Majors	9.5	9.9	9.0

Browse data by topic



High School



Employment & Careers



Undergraduate Education



Women



Graduate Education



Minorities



Faculty



International

Statistical Research Center News



Two all-time highs for US physics departments



International career development for women physicists

SRC's Rachel Ivie presents the findings of the Global Survey of Physicists.

E-MAIL ALERTS

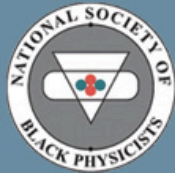
Get the latest data on education and employment in physics and related fields, delivered to your inbox.

[Sign up](#)



CONTACT THE STATISTICAL RESEARCH CENTER

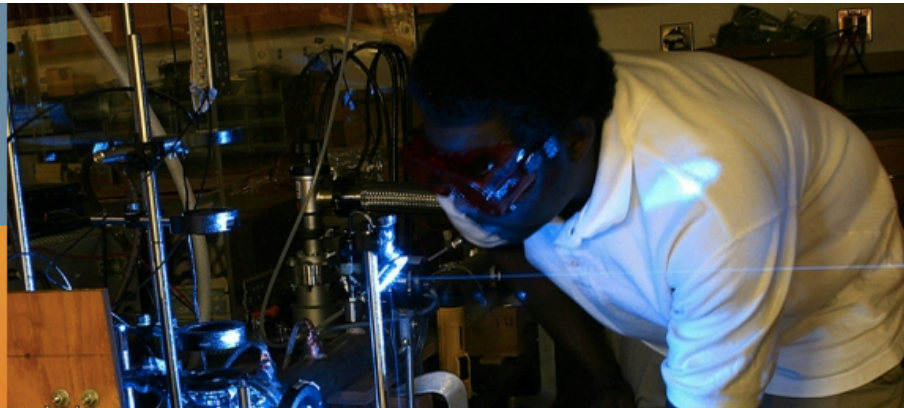
One Physics Ellipse,
College Park, MD 20740

<http://www.nsbp.org>



1100 N. Glebe Road
Suite 1010
Arlington, VA 22201

 (703) 536-4207
 (703) 536-4203
 headquarters@nsbp.org



Home

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About NSBP

NSBP Membership

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NSBP Programs

NSBP Career Services

Scholarships & Prizes

NSBP Public Policy

Publications

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NSBP Physics Sections

There are 16 Physics Sections of NSBP. These sections help plan symposia at our annual conference as well as other meetings, workshops, and mini-courses. They help keep the general membership aware of new and ongoing funding for research and training in the respective sub-fields. Each section is a forum for networking and information exchanges including student advising and mentoring as well as research collaboration.

Acoustics (ACOU)

Acoustics is a branch of physics concerned with the study of sound (mechanical waves in gases, liquids, and solids). Because mechanical waves are so ubiquitous, acoustics is by nature an inter-disciplinary field, drawing people from widely differing backgrounds. Any scientist that studies acoustics is called an acoustician.

Physical acousticians study the fundamental classical and quantum processes involved in wave generation and propagation in matter, including using sound to generate light (sonoluminescence), heat (thermoacoustics), or electricity (piezoelectricity); or using sound to study and manipulate the physical properties of matter. Other branches of acoustics include aeroacoustics, architectural acoustics, bioacoustics, medical acoustics, musical acoustics, psychoacoustics, seismology, underwater acoustics, and several more.

<http://www.hispanicphysicists.org/>



**National Society
of Hispanic Physicists**

[Home](#)

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[Becoming a Member](#)

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[A Brief History](#)

[The Board](#)

[Career Services](#)

[Resources and Links](#)

[Diversity Statement](#)

[Acknowledgements](#)

[Contact Us](#)

[Hispanic Americans in Physics:
Past, Present and Future](#)

[Student Gateway](#)

[Faculty Gateway](#)

Bienvenidos

Hola. And welcome to our website.

Though we have tried to anticipate your questions ... we are much more than these few pages can contain.

Here you will find physicists, people passionate about the study of the universe, who are also familiar with the problems and challenges you may encounter as you begin to study physics or as you join the professional community of physicists.

As few other groups are able, we recognize how poorly the words Hispanic-American, Latina, Chicano, or any other such term can capture the diversity, richness, complexity, joy and sorrows of our gente (people).

And as no one else can, we can speak to our experiences -- to why we study physics, some of the problems we encountered as we chose our future, and our difficulties and joys in being a physicist.

So ... please visit our pages ... learn what you can ... then feel free to reach out to one of us.

We are eager to speak to students (of all levels) as they begin the study of physics; to their parents and families who may need to know more; to junior Hispanic faculty/researchers as they start their careers; and to more senior Hispanic faculty and scientists who have learned much and are willing to share their experiences. We are

Instant Access to:

Our Next Meetings

Join NSHP at **SACNAS 2014, Creativity, Vision and Drive: Towards Full Representation in STEM**, Los Angeles, CA October 15-19.


Special Announcements

IPLS Conference
Applications are now open to attend the NSF-supported Introductory Physics for the Life Sciences Conference, to be held March 14-16, 2014 at the Key Bridge Marriott, Arlington, VA. See [IPLS Conference](#) for more details.

http://awis.org/

The screenshot shows the homepage of the Association for Women in Science (AWIS). The header features the AWIS logo and tagline "ASSOCIATION FOR WOMEN IN SCIENCE YOUR NETWORK, YOUR RESOURCE, YOUR VOICE". Navigation links include Home, Join, About Us, and Donate, along with a search bar. A dark blue navigation bar contains links for Membership, Careers, AWIS in Action, Community, Programs & Events, Chapters, Awards & Funding, and Resources. Below this is a login section with fields for Username and Password, and buttons for Login and Forgot password?. The main content area is divided into several sections: 1. Advocacy: A photo of three women in a meeting, with text "ADVOCACY Inspire. Promote. Engage." and a link to "Subscribe to AWIS in Action". 2. Career Resources: A green header with links for "Find a Job", "Post a Job", "STEMINARs", and "Mentoring". 3. This Month's Events: A green header with a "View All" link and two event listings: "AWIS Bethesda Chapter Planning for Retirement and Financial Literacy" on Jan 22 and "AWIS Massachusetts" on Jan 29. 4. Partner with AWIS: A green header with links for "Press", "Corporations", "Institutions", "Donate", and "Advertise with Us". 5. Latest News: A blue header with a "Follow Us on Twitter" link and a "Tweets" section. A tweet from NOAA Fish media team (@NOAAFishMedia) dated 14 Jan is shown, featuring a photo of a scientist and a link to a tweetpic. 6. Keep Women in the Picture: A green header with a photo of a group of women and the URL www.awis.org/donate.

<http://www.iupap.org/wg/wip/>



International Union of Pure and Applied Physics

To stimulate and facilitate international cooperation in physics and the worldwide development of science.

WG.5: Working Group on Women in Physics

The working group was formed by resolution of the Atlanta General Assembly in 1999.
The mandate of the group is:
To survey the situation for women in physics in IUPAP member countries. To analyse and report the data collected along with suggestions on how to improve the situation. To suggest ways that women can become more involved in IUPAP, including the Liaison Committees, the Commissions, the Council, and the General Assemblies. To report all findings at the General Assembly in 2002.

In carrying out the above charge, it may prove useful to organise and convene an international meeting on women in physics. If such a meeting occurs, it should be planned so that a full account can be provided with the report at the General Assembly in 2002.

Website:
<http://wgwip.df.uba.ar/>

Conferences:
[The Fourth International Conference on Women in Physics 2011 - Stellenbosch, South Africa](#)
[The Third International Conference on Women in Physics 2008 - Seoul, Korea Resolutions](#)
[The Second International Conference on Women in Physics - Rio de Janeiro Resolutions](#)
[The First International Conference on Women in Physics - Paris Resolutions](#)
[Recommendations](#)
[Proceedings](#)
[Statistical Reports](#)
[Sumarized Data from Posters](#)

Reports of the Meetings of the Working Group:
[Report to the IUPAP Council and Commission Chairs](#): Delhi, India, November, 2010
[Report at the General Assembly](#) - Tsukuba, Japan, October, 2008
[Report from the Working Group to the General Assembly](#) Cape Town, South Africa, October 2005.
[Fifth Meeting of the Working Group](#) - Rio de Janeiro, Brazil, May 2005.
[Report from the Working Group to IUPAP](#) - Berlin, Germany, October 2004.
[Report at the General Assembly](#) - Berlin, Germany, October 2002.
[Second Meeting of the Group](#) - Geneve, Switzerland, February 2001.

- General Assembly
- Major Resolutions
- Members/Liaison
- Executive Council
- Commissions
- Working Groups
- Sponsored Conferences
- Statues & Bylaws
- Visiting Scientists
- News Bulletins
- Related Websites

<http://wgwip.df.uba.ar/>

IUPAP Working Group on Women in Physics

- [The Charge](#)

- [Group Members](#)

- **News:**

- [ICWIP 2014](#) will be held at [Wilfrid Laurier University](#), Waterloo, Ontario, Canada, August 5-8, 2014. Visit the conference web page <http://icwip2014.wlu.ca/> and start to prepare your country teams!

- The Proceedings of ICWIP11 are now available online at: <http://proceedings.aip.org/resource/2/apcpcs/1517/1?isAuthorized=no>

- [2013 Travel Grants, Awards](#)

- [IUPAP International Conferences on Women in Physics \(ICWIP\)](#)

- [2011 IUPAP International Conference on Women in Physics \(ICWIP11\)](#)

- [ICWIP11 Resolutions \(final\)](#)

- [Group Picture](#)

- [Material from ICWIP11](#)

- [Videos of ICWIP11 \(thanks to the Jemison Foundation\)](#).

- [Global Survey of Physicists:](#)

Now closed with ~15K responses from over 140

IUPAP Working Group on Women in Physics



General Information

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[Contact Jackie](#)

[Williamina Lazaro](#)
c/o Institute of Physics
76 Portland Place
London, W1B 1NT UK
Fax:
Phone:


<http://www.nsf.gov/statistics/seind12/start.htm>

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National Science Board

SCIENCE AND ENGINEERING INDICATORS 2012

A broad base of quantitative information on the U.S. and international science and engineering enterprise



OVERVIEW

Chapters

1. Elementary and Secondary Mathematics and Science Education
2. Higher Education in Science and Engineering
3. Science and Engineering Labor Force
4. R&D: National Trends and International Comparisons
5. Academic Research and Development
6. **Industry, Technology, and the Global Marketplace**
7. Science and Technology: Public Attitudes and Understanding
8. State Indicators

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Methodology and Statistics
Recommended Citation
Errata



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Trends and Challenges for Public Research Universities

Interactive



http://sites.nationalacademies.org/ PGA/cwsem/PGA_049131



COMMITTEE ON WOMEN IN SCIENCE, ENGINEERING, AND MEDICINE
Policy and Global Affairs

THE NATIONAL ACADEMIES

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Quick Links

CURRENT PROJECTS

PUBLICATIONS

STAFF

EVENTS

RECENT EVENTS

CWSEM Committee Meeting
Washington, DC
November 12, 2013

CWSEM Committee Meeting
Irvine, CA
June 5-7, 2013

Workshop on Career Outcomes of Female Engineering Bachelor's Degree Recipients
Washington, DC
April 24, 2013

IANAS Women Scientists in the Americas Book Launch Event
Lecture Room, NAS Building
2101 Constitution Avenue, NW
Washington, DC 20418
10:00 am, April 17, 2013

[View more past events...](#)

Contact Us
Committee on Women in Science, Engineering, and Medicine
The National Academies
500 5th Street NW
Washington, DC 20001
Tel: 202.334.1737
Fax: 202.334.2290
Email: cwsem@nas.edu

Women in Science and Engineering Statistics

We have compiled this directory of statistical sources to serve as a resource for discussions of women in science and engineering. Although these data highlight the success women have had in increasing the number of degrees earned by women in science and engineering, it also shows how this success has yet to be completely translated into the S&E workforce.

As with all data, it is important to look for true trends. For example, when all the S&E disciplines are aggregated, it is easy to overlook both the advances in education attainment women have made in the life sciences, as well as the continuing challenges women face in some of the physical sciences and engineering fields. To avoid this, we have tried to include data analyzed by field of study whenever possible.

EDUCATION

[High school graduates who completed advanced science courses \(1990-2000\)](#)
[Women in the Academic Pipeline](#)
[Percentage of Engineering Degrees Awarded to Women by Discipline \(2002\)](#)

Undergraduate
[Freshmen intending to major in S&E, by race/ethnicity, field, and sex \(1975-2000\)](#)
[Freshmen intending to major in selected S&E fields, by sex and race/ethnicity \(1983-2004\)](#)
[Earned bachelor's degrees, by field and sex \(1983-2002\)](#)
[Ratio of total bachelor's degrees and S&E bachelor's to the 24-year-old population \(1980, 1998\)](#)
[Undergraduate enrollment in engineering and engineering technology programs \(1983-2003\)](#)

Graduate
[Earned master's degrees, by field and sex \(1983-2002\)](#)
[Science and Engineering graduate enrollment, by field and sex \(1983-2003\)](#)
[Female enrollment in US graduate S&E programs among racial/ethnic groups and foreign students \(1999\)](#)
[Institutions awarding S&E degrees, by field, degree level, and Carnegie institution type \(2002\)](#)

Doctorate
[Earned S&E doctoral degrees in selected regions \(international\) and locations, by sex and field \(1999\)](#)
[Women and PhDs in Physics and Astronomy \(2005\)](#)
[Primary mechanisms of support for S&E doctorate recipients \(2003\)](#)
[S&E degrees awarded, by degree level, Carnegie institution type, and field \(2002\)](#)
[Doctorates awarded to women, by field of study and year of doctorate \(1992-2001\)](#)
[Earned doctoral degrees, by field, sex, and citizenship \(1983-2003\)](#)
[Postgraduation plans of doctorate recipients \(US citizens and non-US citizens with permanent visas by sex \(2001\)](#)
[Increase in women Ph.Ds \(1973-2005\)](#)

EMPLOYMENT

Total Workforce
[Employment and education status of S&E bachelor's and master's degree recipients \(1995, 2001, 2003\)](#)
[Employment status and median salary of S&E and health doctoral degree recipients \(2003, 2004, 2005\)](#)
[S&E doctorate holders employed in academia \(1973-2003\)](#)

Academia
[S&E doctorate holders employed in academia by type of position \(1973-2003\)](#)
[Age distribution of S&E doctorate holders employed in academia, by type of position \(1973-2003\)](#)
[Tenured/Tenure-Track Faculty at the "Top 50" Physics Departments \(2002\)](#)