

2001 International Study of Women in Physics

Highlights

- The report contains country-level data and anecdotal information about the representation of women in physics from 34 countries (Table 1).
- Most of the women physicists who responded to this survey reported that they developed an interest in physics during or before they were in secondary school (Table 3). This emphasizes the importance of the opportunity to study physics and the encouragement to pursue science early in the academic system.
- Respondents felt they had generally positive experiences as undergraduates and as graduate students.
- About one-third of the women who responded felt that they had progressed more slowly in their careers than their colleagues had (Table 10).
- The demands of a career in physics seemed to preclude several of the women in our study from marrying or having children. Of those who are married, a significant number reported that marriage affected their work. When comparing themselves to their colleagues, women with children were more likely than women who do not have children to say their careers had progressed slowly (Table 15).
- The factor most frequently cited by women physicists as contributing to their success was the support of their families, including their parents and husbands. Many also mentioned the support of advisors, professors, and teachers, and some cited the support of colleagues. Also frequently mentioned were the women's own determination, will power, and hard work.
- Barriers that the women mentioned included the problems of balancing the demands of child care with the demands of a scientific career. Another barrier was discriminatory attitudes, usually expressed in the form of assumptions that women cannot do physics.
- Three out of four women who responded said that they would choose physics again.

TABLE 1. Percentages of Physics Degrees Awarded to Women in Selected Countries, 1997 and 1998 (2-year averages).

Country	Ph.D.'s %	First-Level %
France	27	33
Poland ^a	23	36
Norway ^b	23	20
Ukraine ^c	23	—
Australia ^d	22	20
Turkey	21	37
India ^e	20	32
Columbia ^f	—	28
Denmark	17	19
Lithuania ^g	17	—
United Kingdom	16	20
China-Taipei	13	19
United States	13	18
Sweden	13	17
Canada	12	22
Mexico ^h	10	18
Germany ⁱ	9	10
Switzerland ^j	9	9
The Netherlands	9	5
South Korea	8	30
Japan	8	13

Source: 2001 International Study of Women in Physics, Statistical Research Center of the American Institute of Physics

^aPoland: 1998 data only.

^bNorway: 1996-2001 data.

^cUkraine: 2000-2001 data.

^dAustralia: Ph.D. data include some master's degrees (higher degree by research).

^eIndia: Partial data from the Registrar General of India, 1998.

^fColumbia: 1998 and 1999 data.

^gLithuania: 1996-2001 data.

^hMexico: Ph.D. data for 1998 only. Bachelor's data for 1998 and 1999.

ⁱGermany: Includes astronomy and astrophysics.

^jSwitzerland: 1999-2000 data.

TABLE 3. When Did You First Think of Choosing Physics as a Career?

	Percent ^a
Before high school	13
During high school	58
During first-level degree	24
During graduate degree	4

Source: 2001 International Study of Women in Physics, Statistical Research Center of the American Institute of Physics

^aPercents do not sum to 100 due to rounding.

TABLE 10. How Quickly Have You Progressed in Your Career Compared with Colleagues Who Completed Degrees at the Same Time as You?

	Percent
More quickly	19
About the same	48
More slowly	<u>33</u>
	100%

Source: 2001 International Study of Women in Physics, Statistical Research Center of the American Institute of Physics

TABLE 15. Effect of Children on How Quickly Responding Women Physicists Say They Progressed in Their Careers Compared With Their Colleagues.

	<u>Children</u>	
	Yes (%)	No (%)
More quickly	15	23
About the same	45	52
More slowly	<u>40</u>	<u>25</u>
	100%	100%

Source: 2001 International Study of Women in Physics, Statistical Research Center of the American Institute of Physics