

# WOMEN IN STEM\*

SECTION 1.  
UNDERGRADUATE EDUCATION OF  
WOMEN IN STEM  
AT U.S. FOUR YEAR COLLEGES AND  
UNIVERSITIES

COMPILED BY  
THE ASSOCIATION FOR WOMEN IN SCIENCE

\*STEM = SCIENCE, TECHNOLOGY, ENGINEERING,  
AND MATHEMATICS

**AWIS**

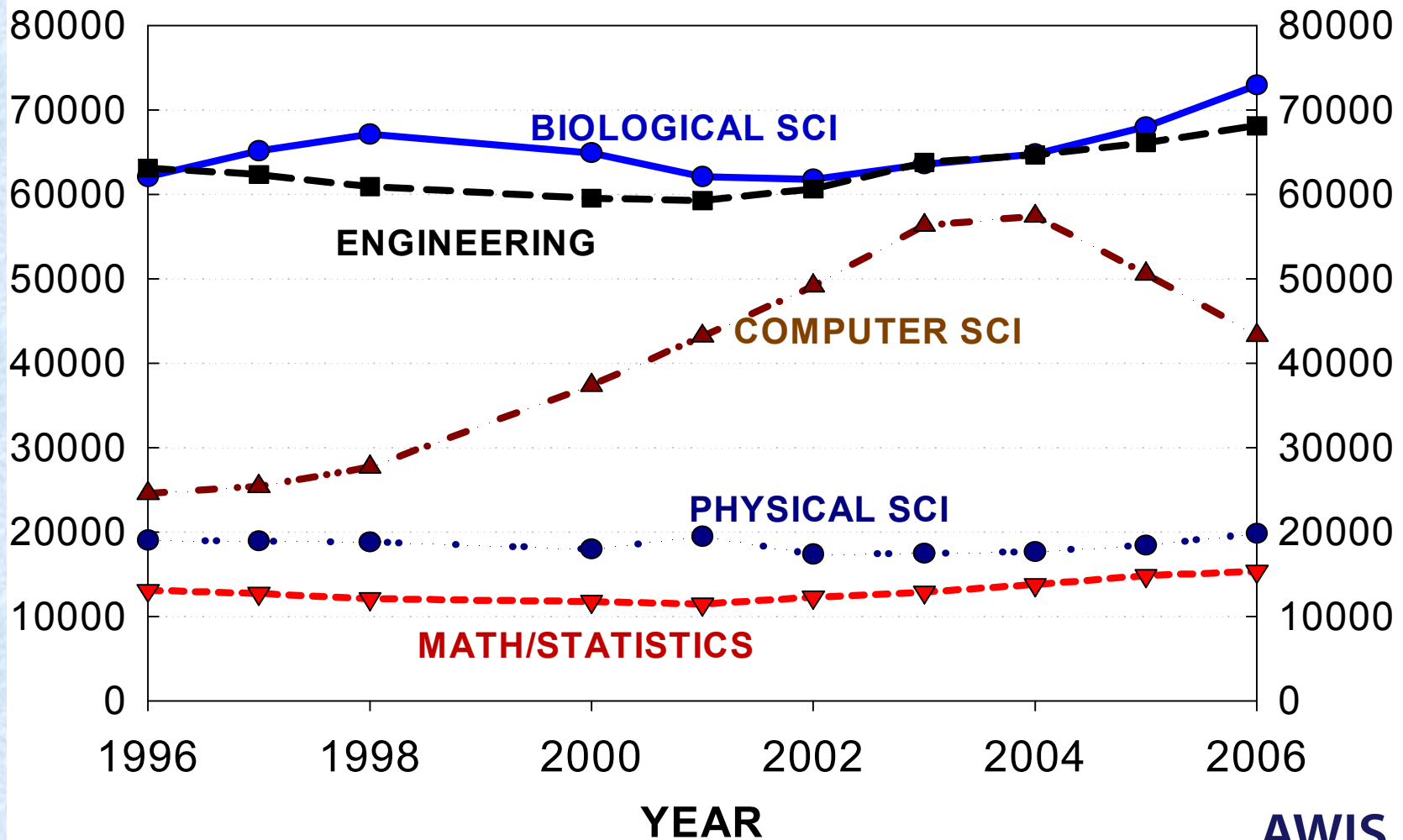
ASSOCIATION FOR WOMEN IN SCIENCE

A NETWORK, A RESOURCE, A VOICE

# MAJOR SOURCES FOR DATA

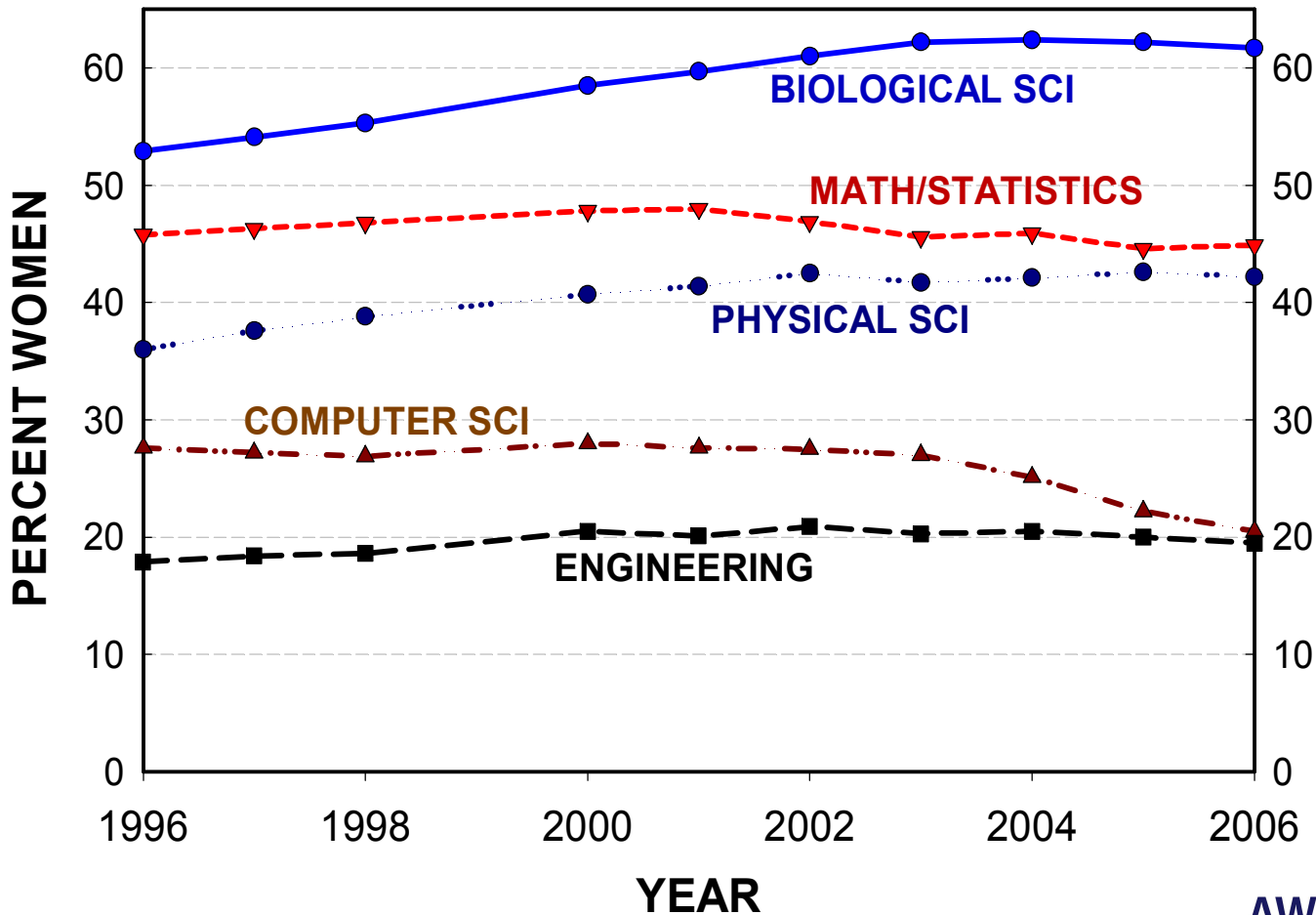
- NSF SESTAT Scientists and Engineers Statistical Data System <http://www.nsf.gov/statistics/sestat/>  
<http://www.nsf.gov/statistics/nsf08321/>
- Freshman intentions to major in STEM disciplines:  
NSF Science and Engineering Indicators, 2008

FIG 1-1  
 NUMBER OF U.S. UNDERGRADUATE  
 DEGREES/YEAR IN STEM FIELDS



Biological sciences, engineering and computer sciences are the largest STEM fields for undergraduate majors

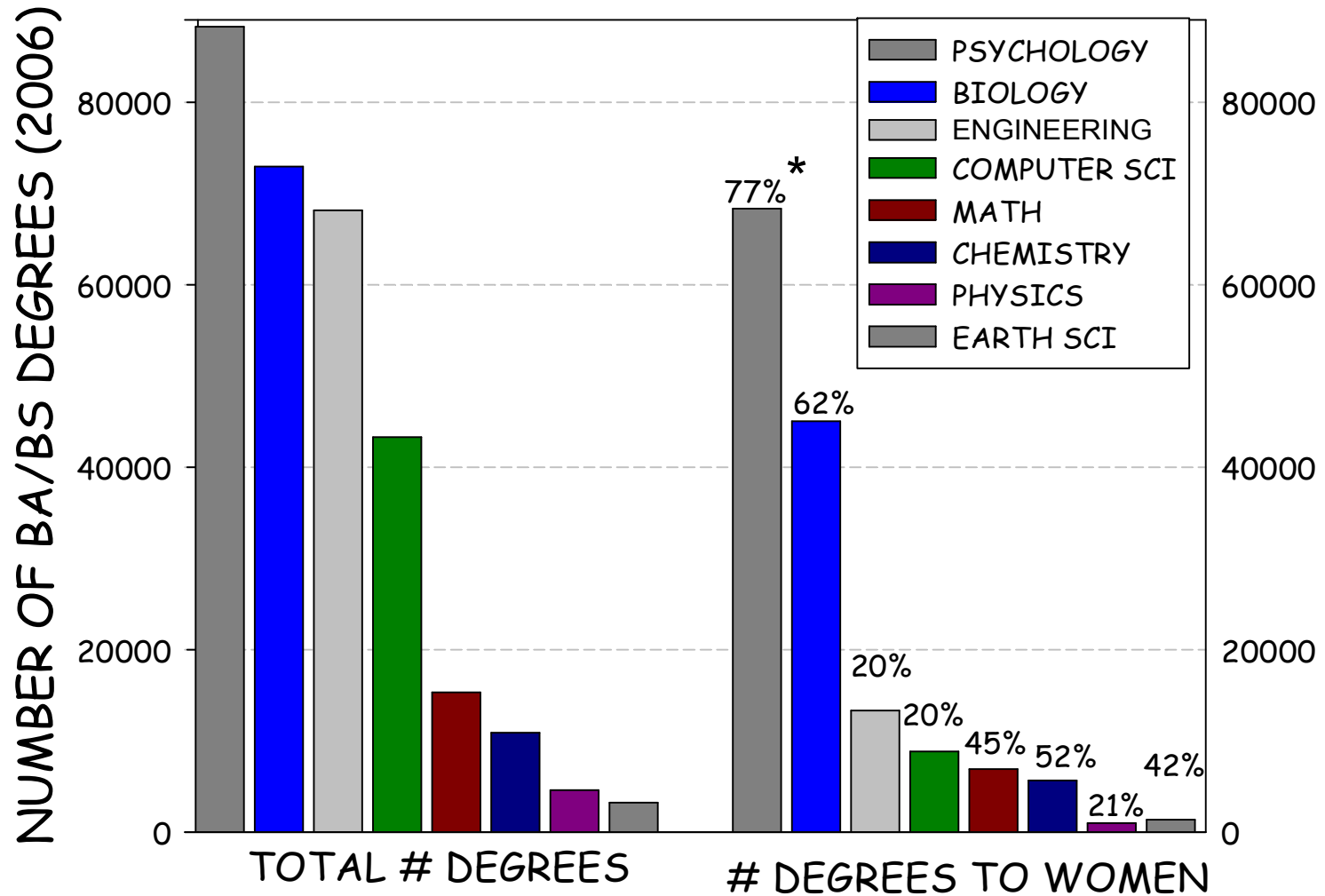
**FIG 1-2.  
PROPORTION OF U.S. UNDERGRADUATE  
DEGREES IN STEM AWARDED TO WOMEN**



Engineering & computer science are the only STEM fields in which women are less than 40% of undergraduate degree recipients.

Fig 1-3

# UNDERGRADUATE DEGREES AWARDED IN U.S. (2006)



SOURCE: NSF Women, Minorities, & Persons with Disabilities

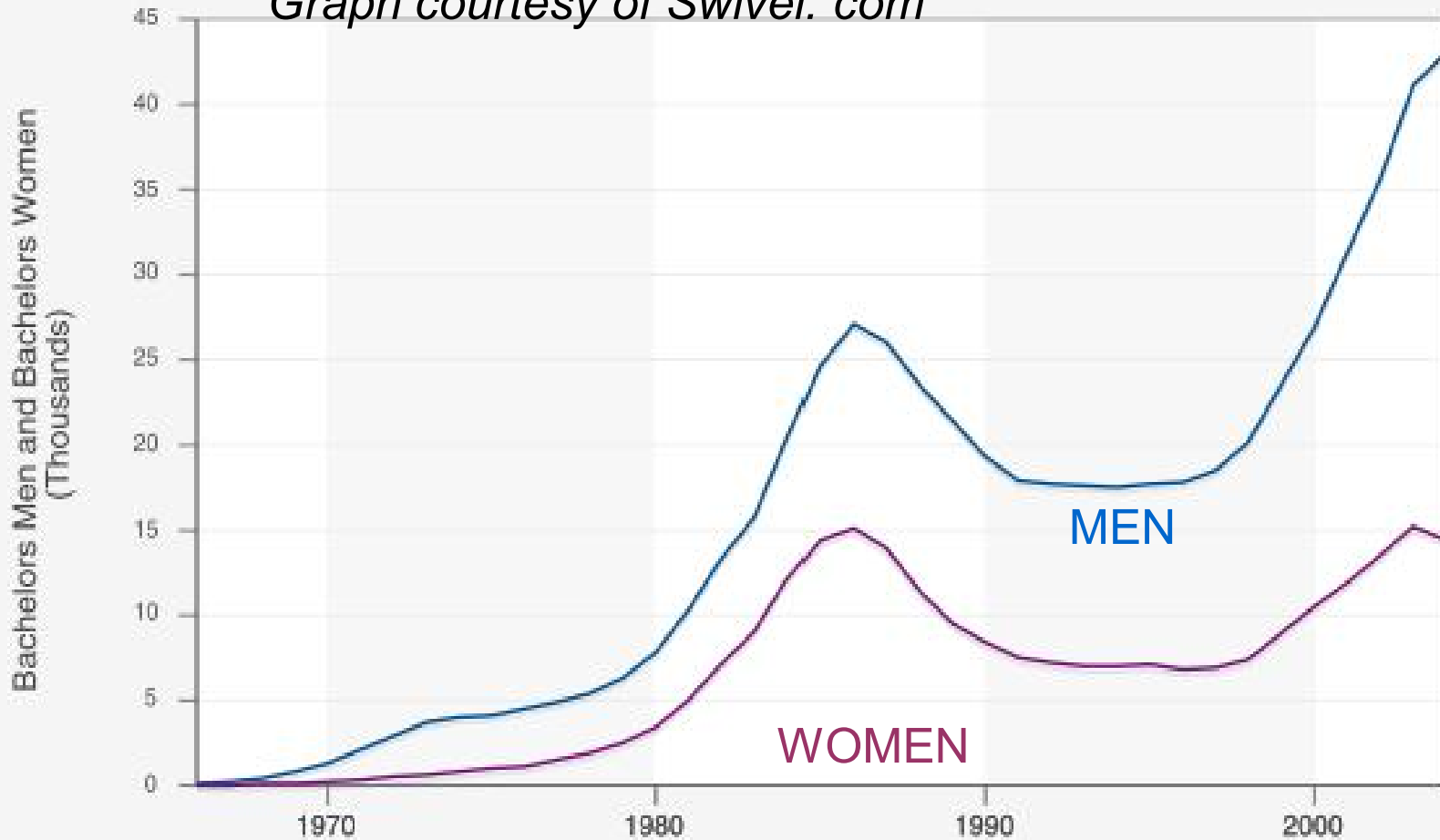
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\*Proportion of degrees in the discipline awarded to women

Fig 1-4

# BA/BS DEGREES IN COMPUTER SCIENCE

Graph courtesy of Swivel. com



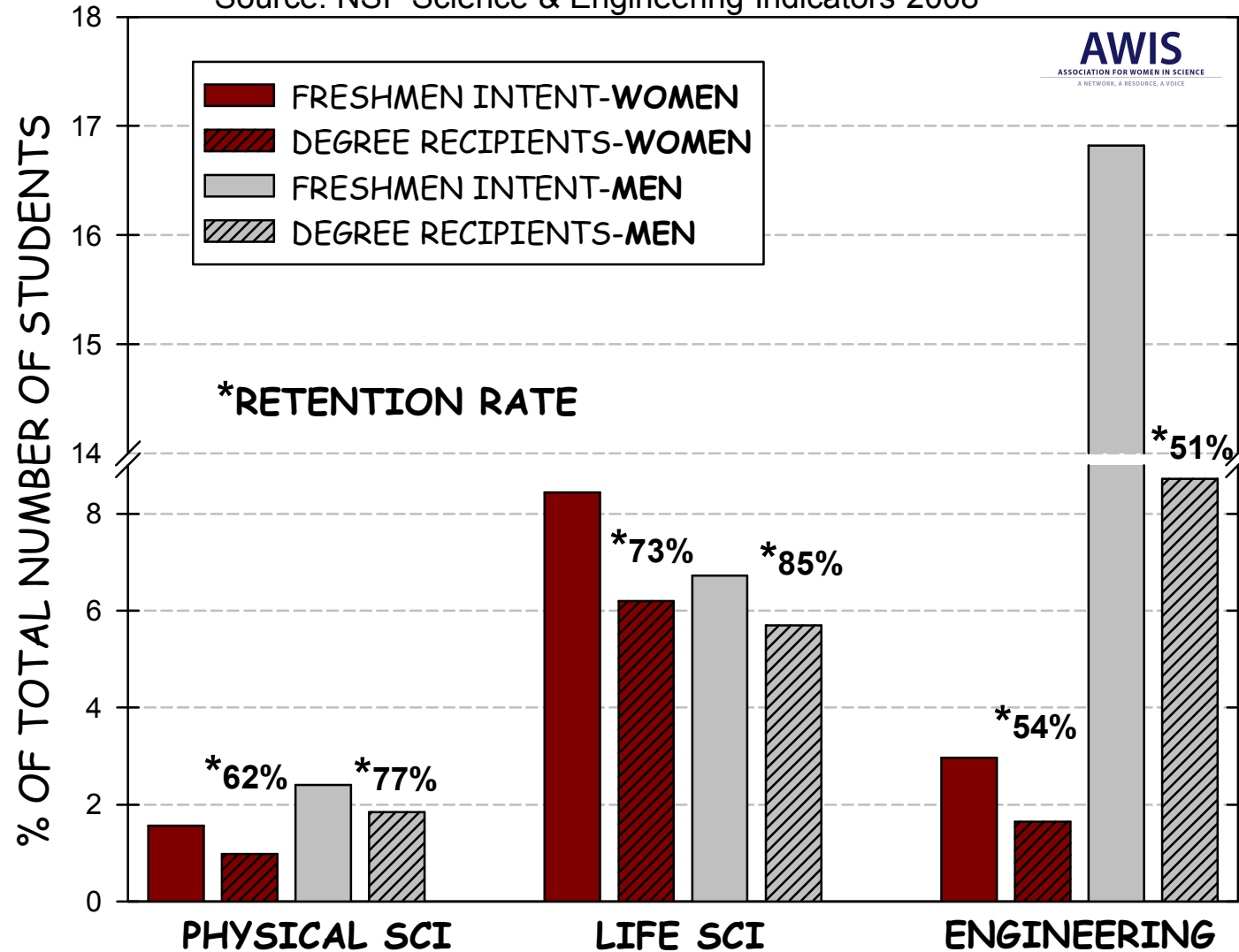
Women earned a much higher proportion of computer science undergraduate degrees in the mid-1980s than they do now.

# Fig 1-4

## RETAINING UNDERGRADUATES IN S&E DISCIPLINES (2001-06)

Freshman intention to major (1997-2003) vs degree recipients in major (2000-06)

Source: NSF Science & Engineering Indicators 2008



Men and women leave engineering programs at comparable rates.

Women leave physical and life science majors at slightly higher rates than men.

# ADDITIONAL DATA SOURCES

- National Center for Education Statistics (NCES), US DOE  
<http://nces.ed.gov/>
- Beyond Bias and Barriers (National Academies Press)
- Women in Engineering ProActive Network (WEPAN)  
[www.wepan.org](http://www.wepan.org)
- American Chemical Society Annual Reports of Earned Degrees  
[www.acs.org/education](http://www.acs.org/education)
- American Institute of Physics Roster of Physics Departments with Enrollment and Degree Data 2007  
[www.aip.org/statistics/trends/reports/physrost.pdf](http://www.aip.org/statistics/trends/reports/physrost.pdf)
- Computing Research Association (CRA) Taulbee Trends: Female Students and Faculty  
[www.cra.org/info/taulbee/women.html](http://www.cra.org/info/taulbee/women.html)