



Gender Schemas: Consequences & Remedies

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What Are Schemas?

- Cognitive structures, ideas, or hypotheses
- Useful – allow us to orient, categorize, predict
- Mental shortcuts - allow us to process information quickly
- *Use of schemas* is inevitable in normal cognition
- The *content* of schemas continually changes



Consequences of Schemas

When Activated, Schemas --

- Direct our perception
- Skew our perception
- Influence our behavior

Usually Without Our Awareness

What are Gender Schemas?

- Gender schemas are hypotheses about what it means to be male or female.
- We all - male and female alike - share these hypotheses.
- Schemas assign different psychological traits to males and females (Martin and Halverson, 1987).





Questions Posed (by Virginia Valian)

- Are women paid less than men?
- Do women advance more slowly than men?



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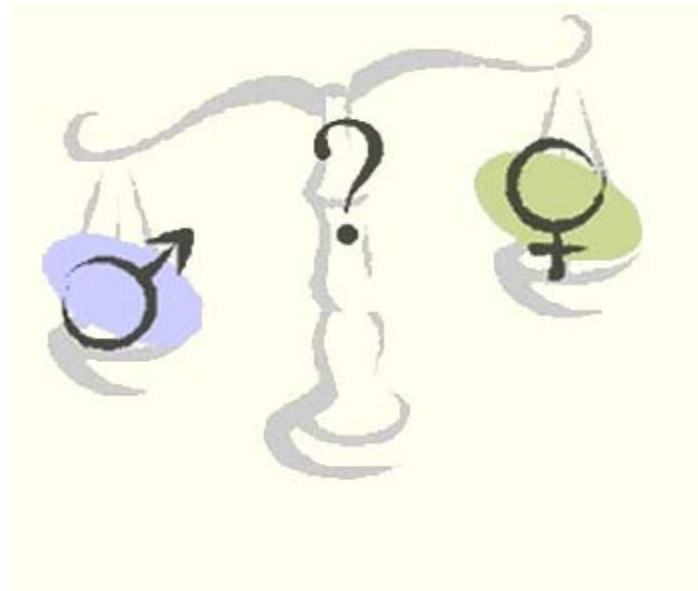
Both Answers: YES



Moreover, patterns occur across:

- *Science*
- *Humanities*
- *Medicine*
- *Law*

- ● ● | *There are sex disparities in salary & rate of career advancement*



(A Result of Gender Schemas)

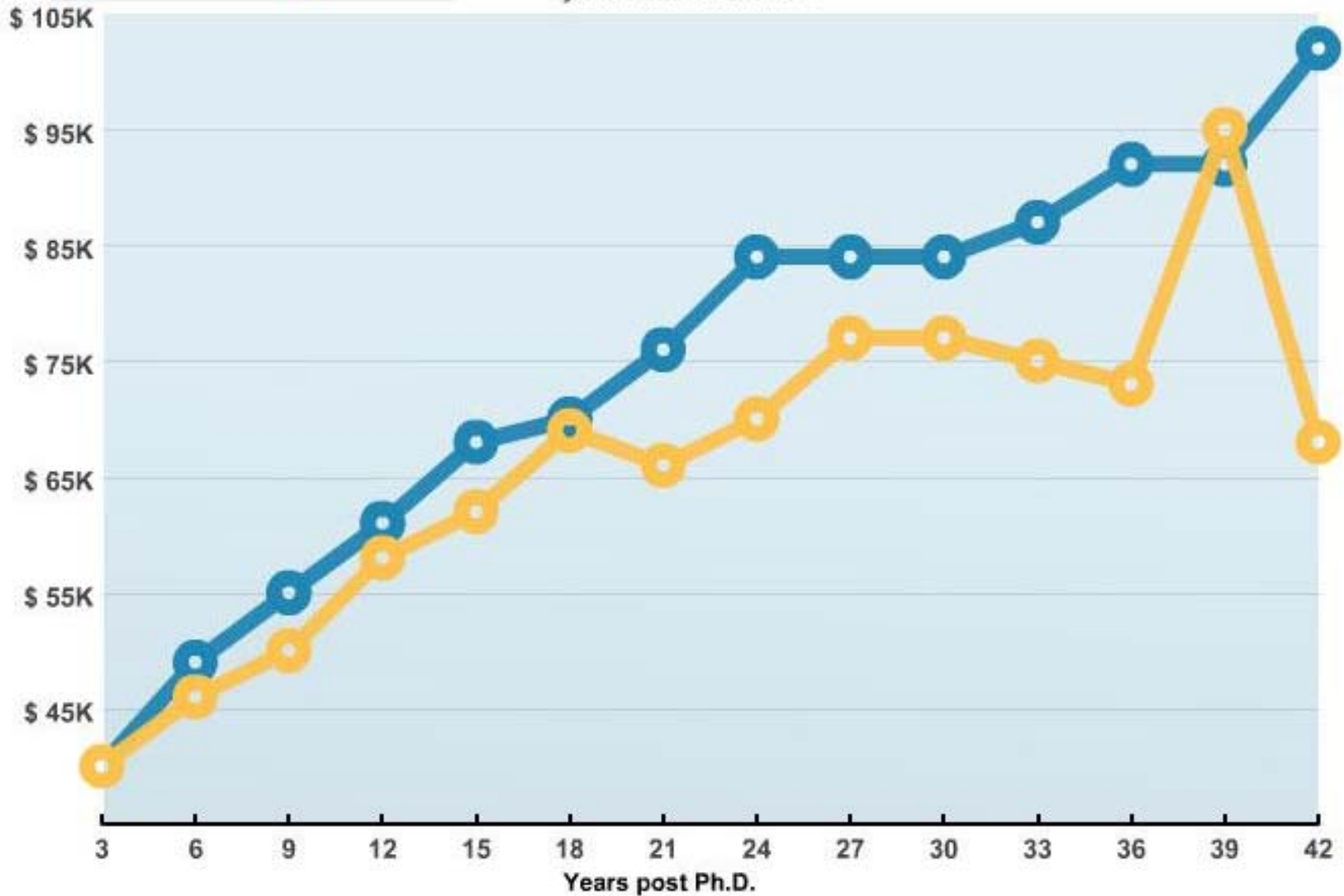


*For example -- salary
disparities....*

Sciences - Salary

Male Female

Median Salary of Doctoral Scientists employed full time in 4-year colleges or universities by sex and years since PhD: 2001



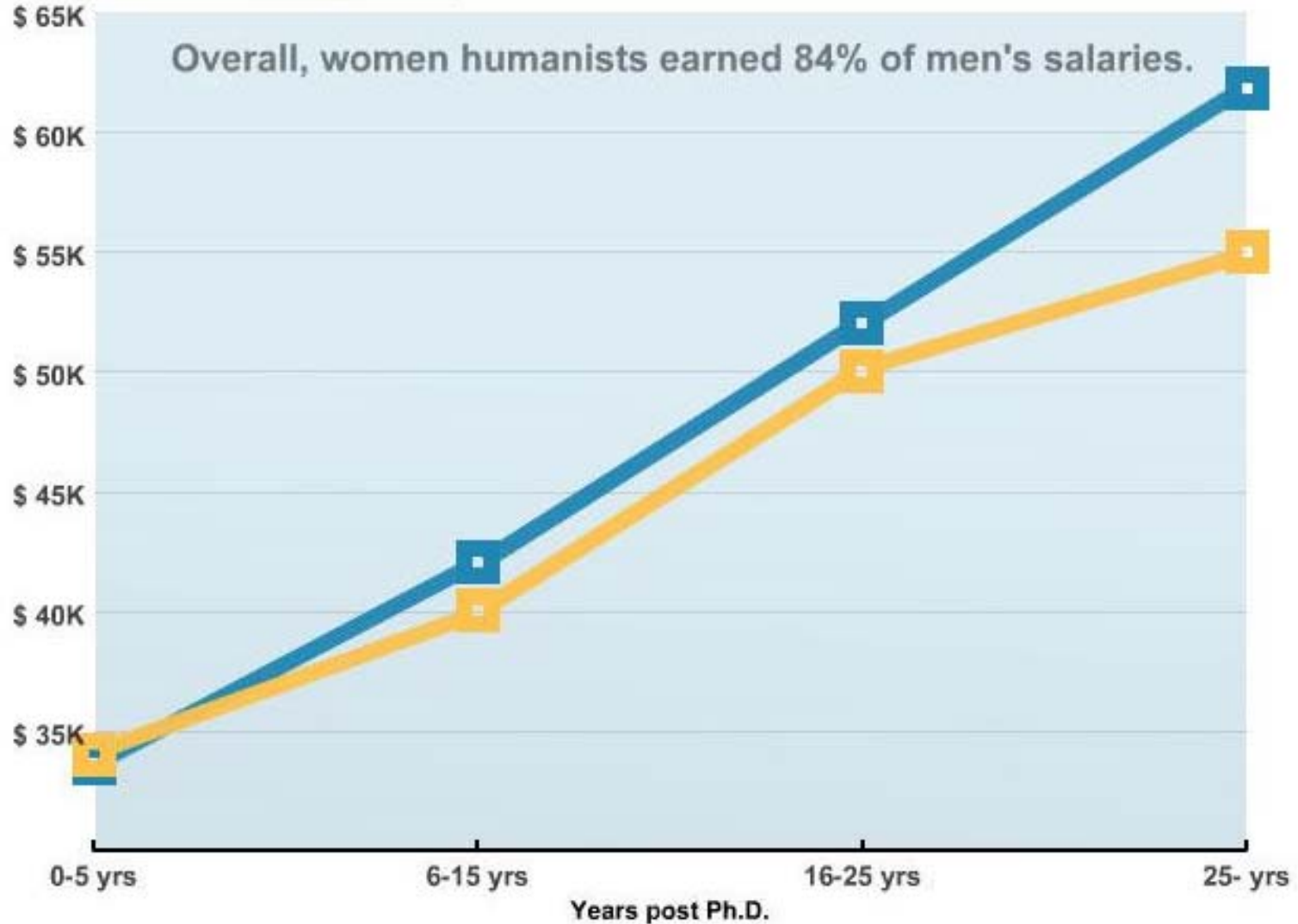
Source: National Science Foundation, Division of Science Resources studies Survey of Doctorate Recipients (2001)

(The actual numbers will appear when you place the cursor on the relevant data point.)

Humanities - Salary

Male Female

Data is for full time employees who are not self-employed.

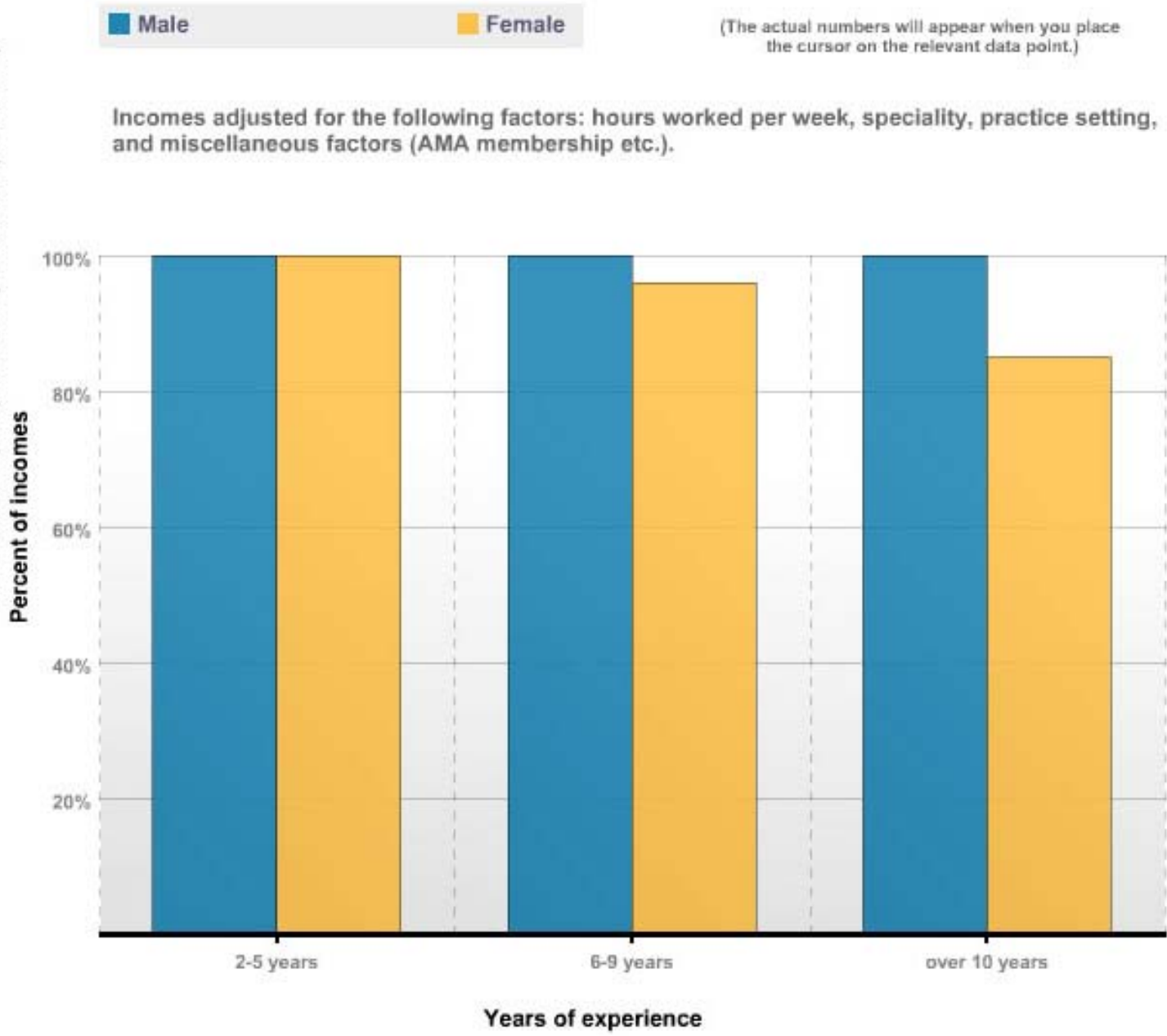


Source: National Research Council, Survey of Humanities Doctorates (Ingram & Brown, 1997)

(The actual numbers will appear when you place the cursor on the relevant data point.)

Medicine - Salary

Female physician's median incomes as percentages of male physicians' median incomes (1990) from "Study on income" (Baker, 1996)



Law Incomes

Gender gaps for lawyers' earnings, 1969-1989

	1969		1979		1989	
	\$	%*	\$	%	\$	%
Unadjusted gap	31,098	45.5	30,645	53.3	31,588	41.4
Adjusted gap adjusting for						
(1) Hours worked	24,407	35.7	25,910	45.1	28,090	36.8
(2) (1)+ weeks worked	20,891	30.5	22,165	38.6	25,709	33.7
(3) (2)+ class of worker	17,588	25.7	20,684	36.0	23,508	30.8
(4) (3)+ age and age ²	19,416	28.4	14,056	24.4	16,488	21.6
(5) (4)+ marital status and race	16,677	24.4	12,921	22.5	15,277	20.0

* Gender gap as a percentage of men's mean earnings

- Study using cohort data from the National Survey of Lawyers' Career Satisfaction (Chiu & Leicht, 1999)
- The gap narrows the most when adjusting for age.

IMPACT

The gender gap in lawyers' earnings is decreasing slowly but is persistent.

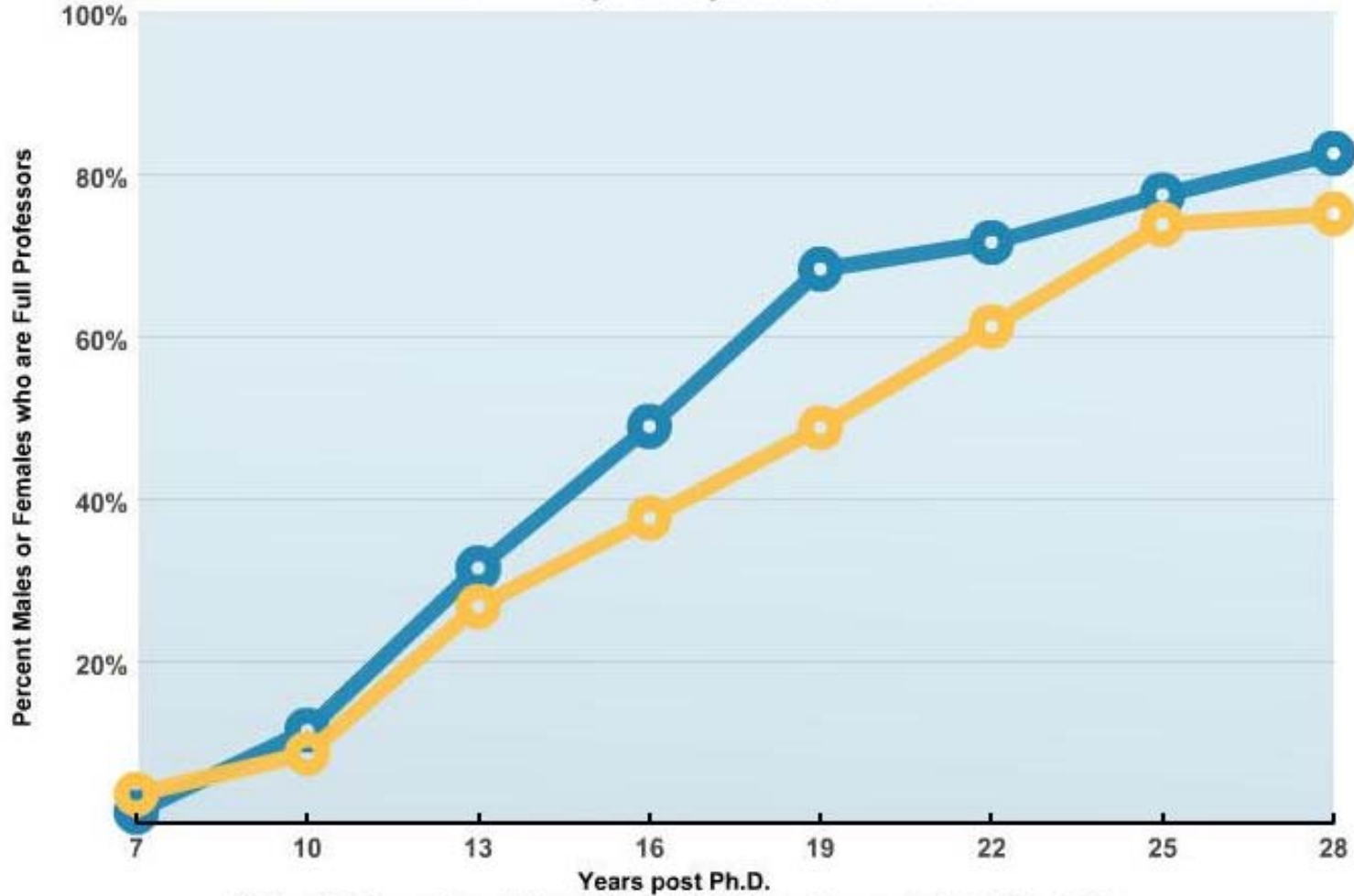


Data on rate of advancement..

Sciences - Rank

Male Female

Full professors as a percentage of full-time ranked S&E doctorate holders in 4-year colleges and universities, by sex and years since PhD: 2001



National Science Foundation, Division of Science Resources Statistics, 2004

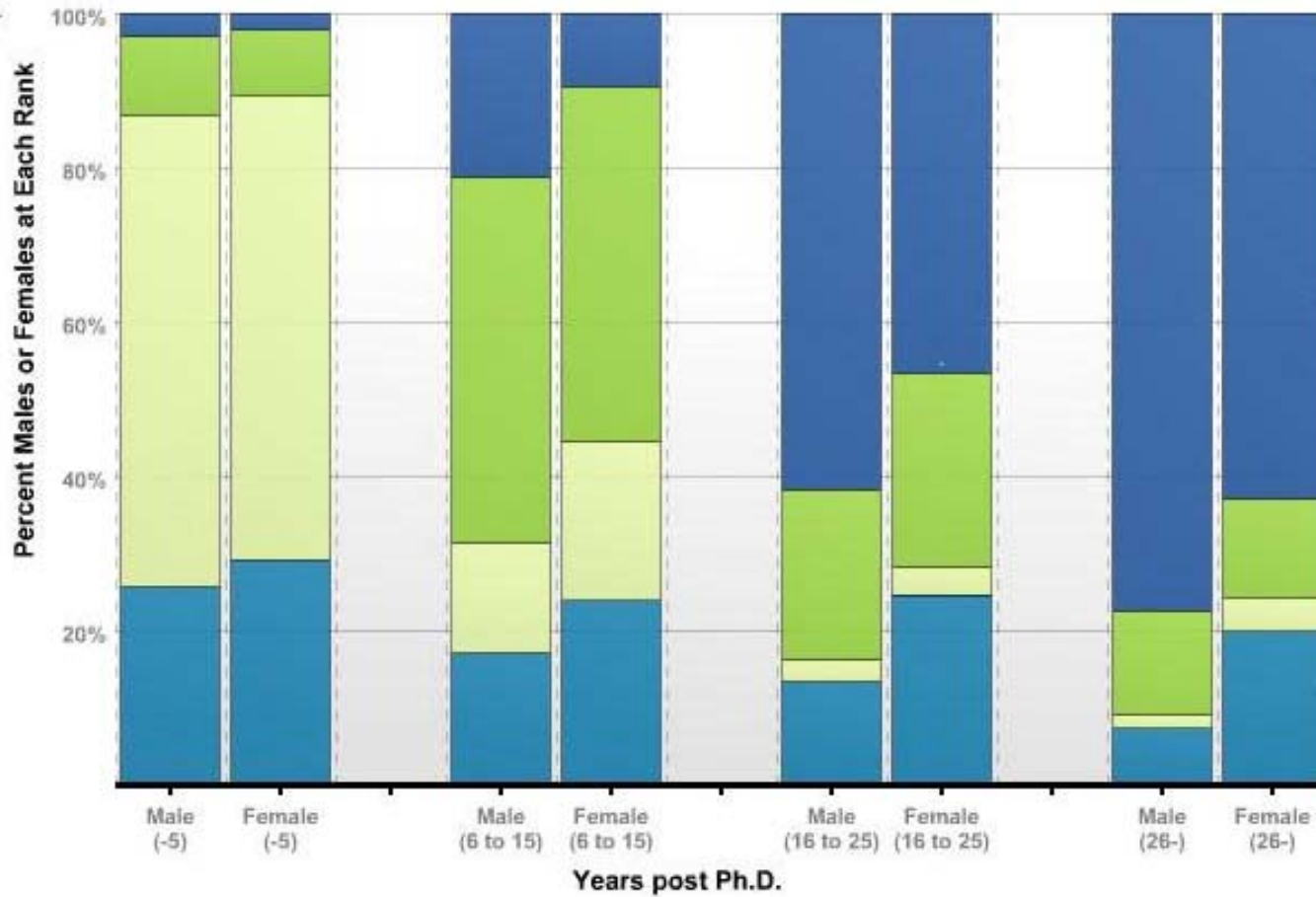
(The actual numbers will appear when you place the cursor on the relevant data point.)

Humanities - Rank

National Research Council, Survey of Humanities Doctorates
(Ingram & Brown, 1997)

■ Others
 ■ Assistant
 ■ Associate Prof.
 ■ Full Prof.

According to NRC, women in the humanities in 1995 who were 0-5 years post-Ph.D. fared less well in rank than men, despite their overall equality of salary.

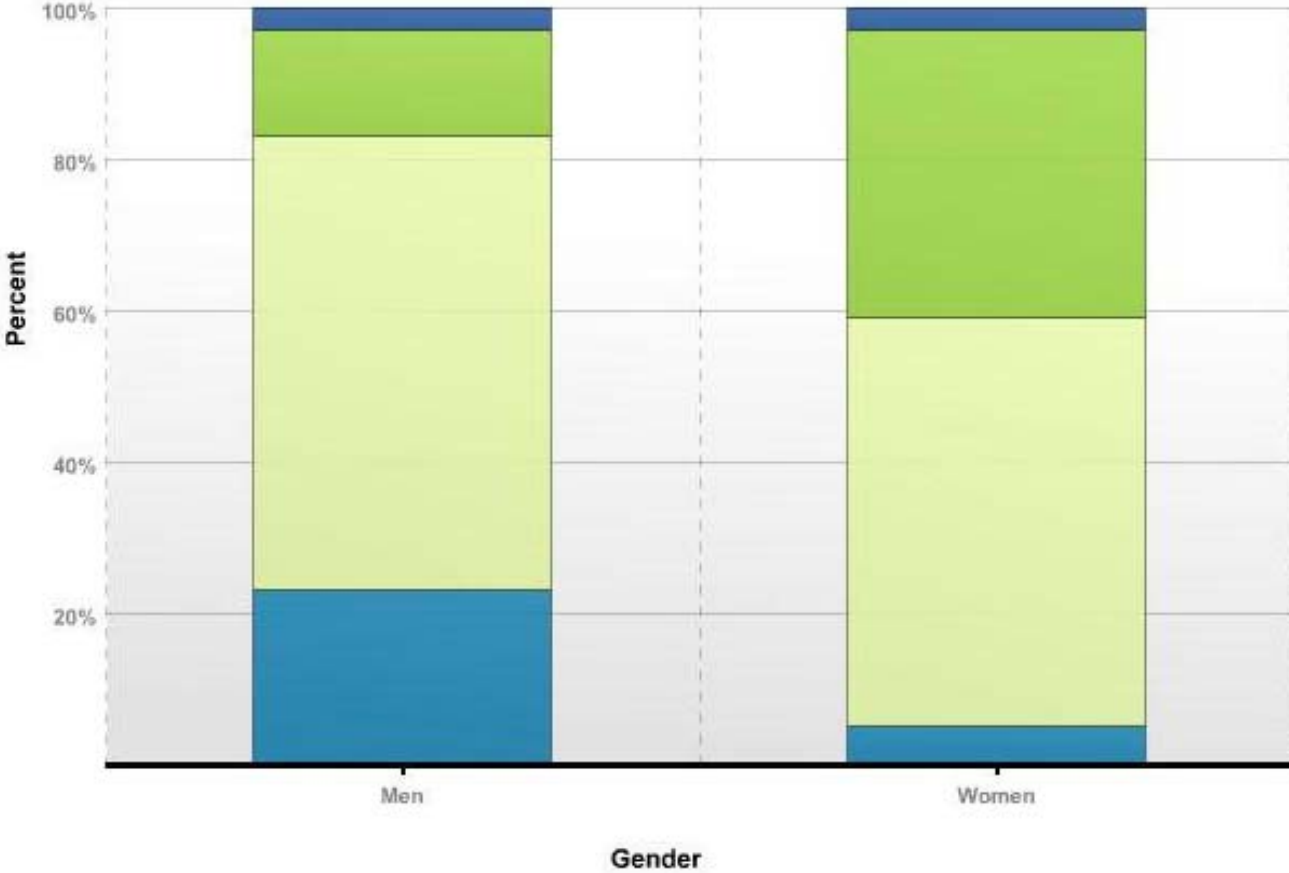


Medicine - Rank and Promotion

Percentage Faculty at Different Ranks, 11 Years after First Appointment (1991)



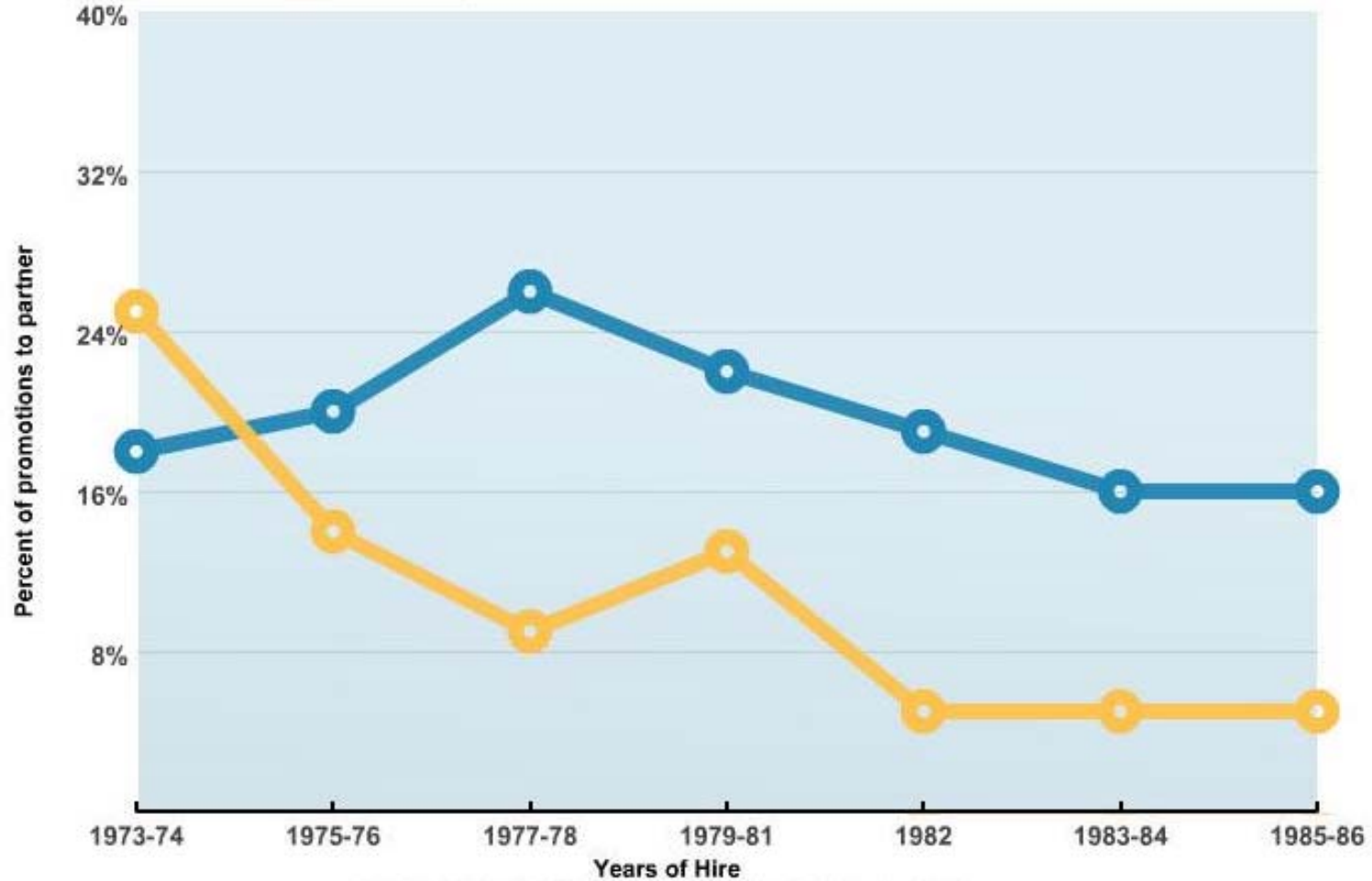
Survey in 1991 of US medical school faculty first appointed in 1980 (Tesch et al., 1995)



Law - Partnership

Male Female

Percent of promotions to partner by sex, 1973-86



Study of 8 large Manhattan firms (Epstein et. al., 1995)

(The actual numbers will appear when you place the cursor on the relevant data point.)



Summary

What do the data show?

- **Progress**

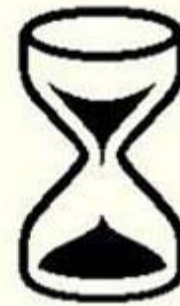
To a certain degree...

- **Problem**

Advancement is slower for women

- **Generality**

A similar problem across all disciplines





Why?

- *Are Women Paid Less Than Men?*
- *Do Women Advance More Slowly?*



Common Explanations

- *Pipeline Problem*
- *Childcare Problem*
- *Values Problem*
- *Acculturation Problem*
- *Women Less Competent?*



Best Explanation of Sex Disparities

Two Key Concepts

- **Gender Schemas**

Hypotheses about what it means to be male or female, hypotheses that we all (male and female) share.

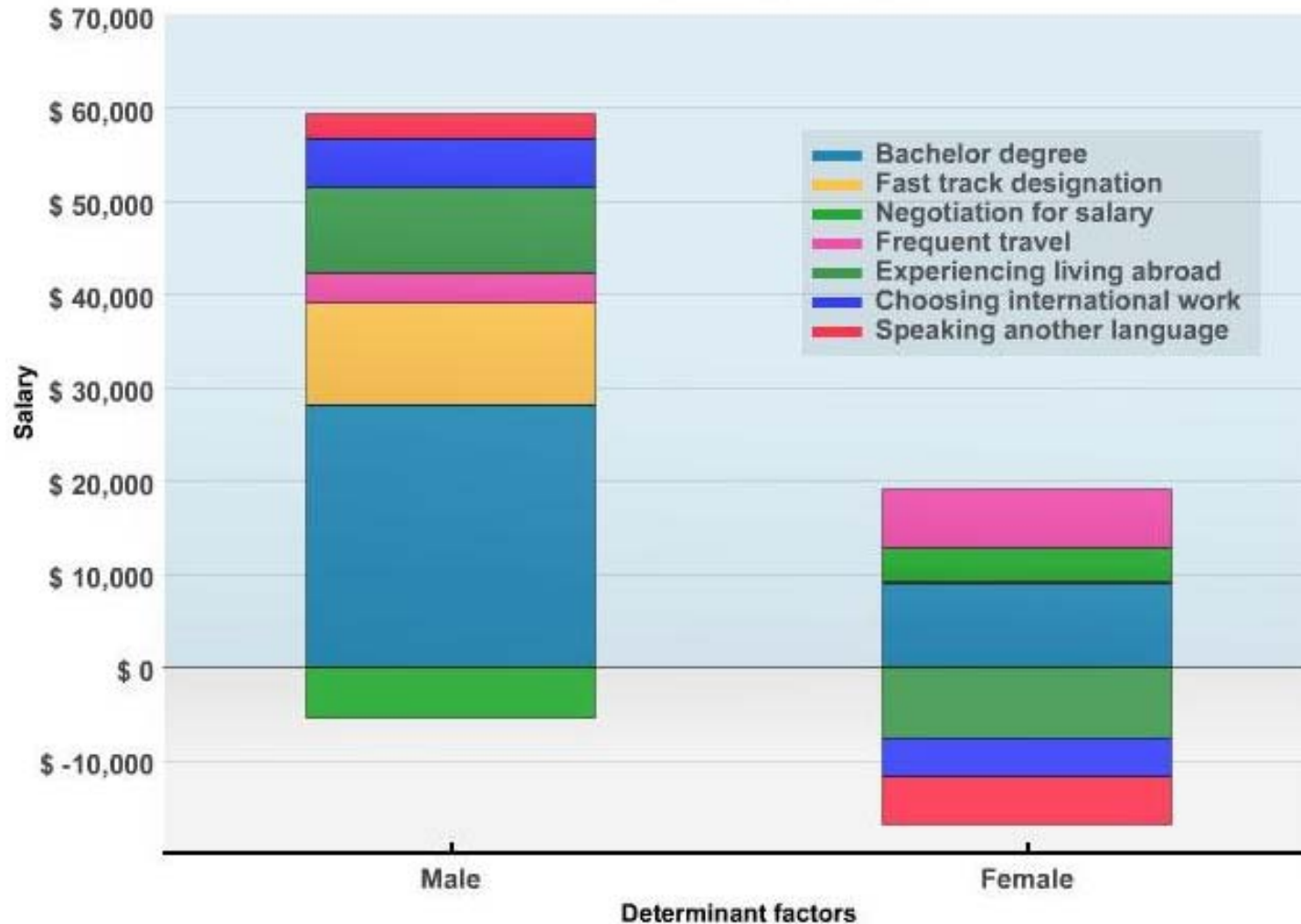
- **Accumulation of Advantage**

Success is largely the accumulation of many small advantages. Small imbalances accumulate to disadvantages for women.



Salary determinants

Table 6; Survey of US professionals working internationally; Based on multiple regression analysis



Source: International business careers in the U.S.: salaries, advancement and male-female differences (Egan & Bendick, 1994)



Conclusion.... (Egan & Bendick, 1994)

- Women's salaries benefit less from qualifications than men's
- Women's achievements and qualifications appear to be worth less than men's
- Supported by research in diverse domains



Peer review of research...

(Wenneras & Wold, 1997)

- Swedish Medical Research Council
- Applicants 46% women; Fellowships 20% to women
- Created objective “Total Impact Points” scale to assess qualifications (e.g., publications, journal prestige, etc)
- *Found:* Gender influenced judges’ evaluation -- Women needed 100 points to get same judge recommendation as men with 40 points
- *CONCLUSION:* Women had to reach higher standard to get same recognition as men



Evaluating musical ability....

(Goldin & Rouse)

- Orchestras adopted “blind” auditions, concealing candidates’ behind a screen
- Hiring of women musicians increased
- *Conclusion:* Blind auditions eliminated use of gender schemas including beliefs that women have “smaller techniques”, “poorer sound”



Hiring faculty... (Steinpres et al., 1999)

- 238 faculty members evaluated same vitae with either female or male name
- Both men and women faculty were more likely to recommend hiring the man
- *Conclusion:* Gender schemas cause both men and women
 - to evaluate men more favorably
 - to be more likely to hire men



Why do these effects occur?

- Gender schemas skew our perception
- Gender schemas bias our judgment
- Gender schemas change the way we see others



Job performance always includes ambiguous, subjective aspects...

- *Gender schemas influence ambiguous evaluation, disadvantaging women*
- *Gender schemas influence even highly objective dimensions (e.g., height...)*

Experimental Data: Height

(Biernat, Manis, & Nelson, 1991)

- College students viewed photos of men and women matched for height
- Models stood near doorway to provide reference point
- Students over-estimated men's height men, under-estimated women's height
- *Conclusion*: Gender schemas skew perception even on *objective* factors





Summing it up ...

- No one is exempt. We all share gender schemas, which cause –
- ...men to be viewed as more competent and capable than women
- ...men's work to be overrated and overvalued relative to women's



Small, systematic undervaluation of women...

- ...can be largely unintentional and unaware
- ...accumulates over time
- ...leads to smaller salaries, slower promotion for women
- ... has real consequences: Women must achieve more than men to receive same recognition



What to do?

- Awareness is key
- First, understand implications of research
- Second, raise our own awareness of bias
- Third, combat bias in our own lives



The end and a beginning...

Thank you.