

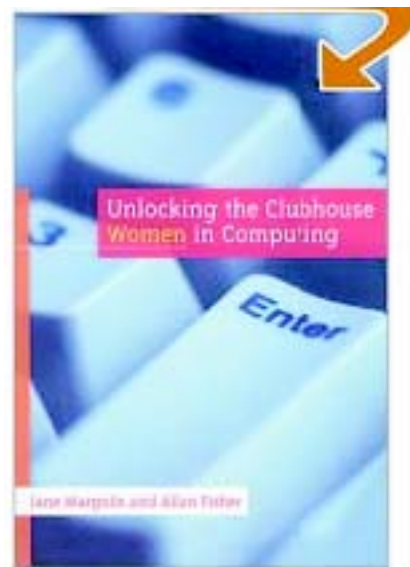
Preaching to the Choir???

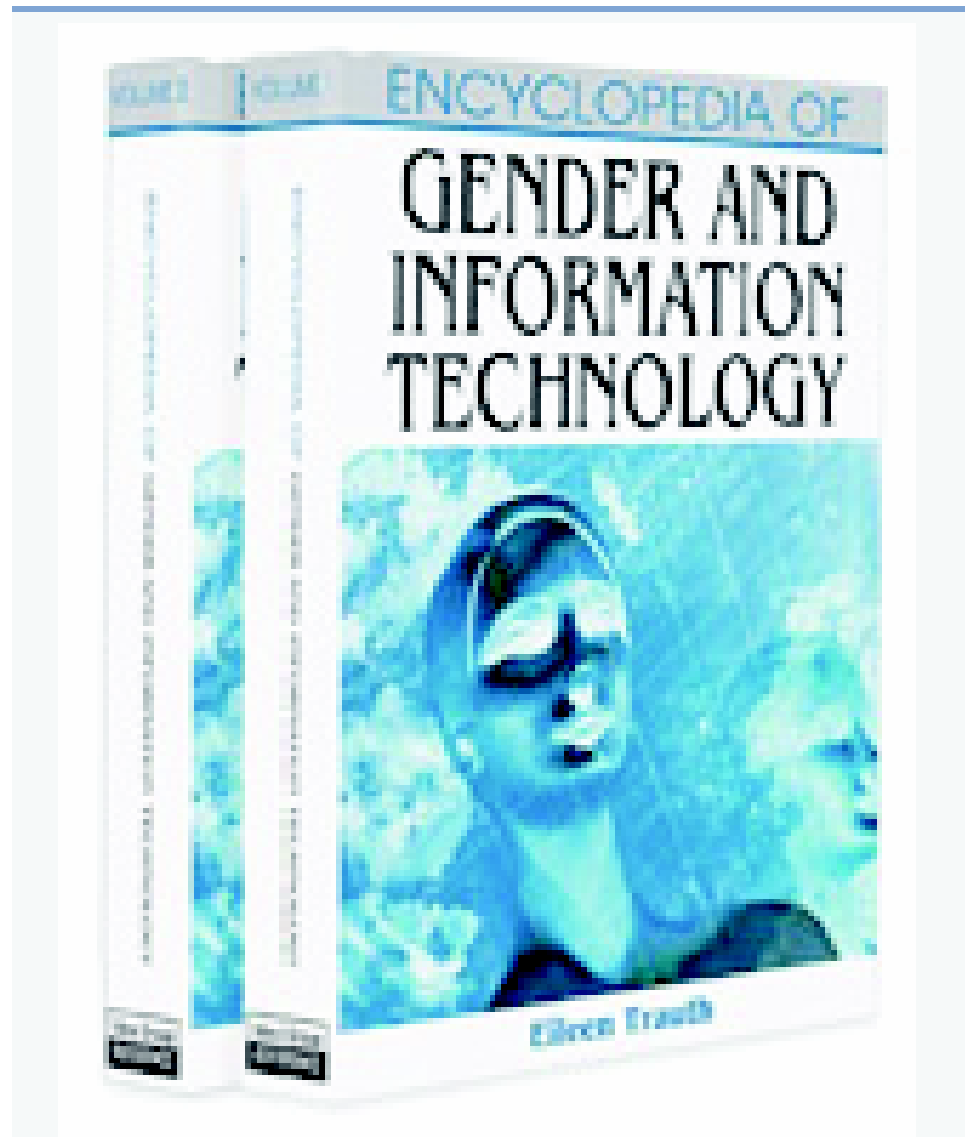
Some Thoughts on Dissemination.

Catherine Weinberger

UC Santa Barbara

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My talk might have looked something like this:

A common misunderstanding in many academic fields:

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“Women do not enter the field of _____ because, when they do, they earn less than men.”

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Catherine Weinberger in *Encyclopedia of Gender and IT*, edited by Eileen Trauth

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“Women do not enter the field of _____ because, when they do, they earn less than men.”

Fact #1: Women tend to earn less than men no matter which field they enter.

Fact #2: Women with college majors in computer science or in engineering fields earn 30-50 percent more than comparable women with other college majors.

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OR, my talk might have looked like this:

Some survey results, based on random samples of women in non-IT college majors (at 2 very different universities)

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Fact #1) Surveyed women do not view IT careers as difficult to combine with raising a family.

Fact #2) One-third of surveyed women view the climate in computer science and engineering classrooms and workplaces as unwelcoming.

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Fact #2) One-third of surveyed women view the climate in computer science and engineering classrooms and workplaces as unwelcoming. (Compared to zero men).

Fact #3) Forty percent of surveyed women enrolled in non-IT majors at a selective university believe that they would be unable to pass the courses required for a bachelor's degree in computer science.

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1) Teaching undergraduates

Actual Questions from a Quiz & the Final Exam:

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What effects did this study have?

True/False:

_____ Among workers who scored above the 90th percentile on high school math tests, men and women tend to do the same kinds of jobs.

Occupational Segregation in 1970

	1970 Occupations	
Data Source	Census (n=45356)	
	MEN	WOMEN
Engineer, Scientist, C.S.	7.3	0.3
Physician	1.4	0.1
Nurse/ Health Providing	0.5	2.3
School Teacher	3.1	4.9
Other Professional	10.0	3.2
Managerial	12.9	1.4
Skilled Technician	3.5	0.6
Sales	7.6	2.1
Clerical	7.0	17.3
Skilled Trades	17.3	0.6
Less Skilled Labor/Service	24.5	10.6
Out of Labor Force	3.1	55.1
Unemployed	1.7	1.6

(32-Year-Old Men and Women with At Least 12 Years of Education)

Occupational Segregation 1970 vs. 1999

	1970 Occupations	
Data Source	Census (n=45356)	
	MEN	WOMEN
Engineer, Scientist, C.S.	7.3	0.3
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	1999 Occupations	
	CPS (n=5112)	
	MEN	WOMEN
	6.8	1.7
	1.1	0.7
	0.4	3.9
	1.4	4.4
	4.8	3.6
	19.4	15.0
	3.4	3.8
	5.9	6.2
	5.5	17.6
	17.2	1.8
	25.9	16.1
	5.2	21.9
	3.0	3.2

(32-Year-Old Men and Women with At Least 12 Years of Education)

Occupational Segregation 1970 - 1999

	1970 Occupations		1986 Occupations		1999 Occupations	
Data Source	Census (n=45356)		NLS72 (n=9118)		CPS (n=5112)	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
Engineer, Scientist, C.S.	7.3	0.3	6.6	1.7	6.8	1.7
Physician	1.4	0.1	1.7	0.3	1.1	0.7
Nurse/ Health Providing	0.5	2.3	0.9	4.7	0.4	3.9
School Teacher	3.1	4.9	1.9	5.0	1.4	4.4
Other Professional	10.0	3.2	7.8	6.4	4.8	3.6
Managerial	12.9	1.4	18.7	9.3	19.4	15.0
Skilled Technician	3.5	0.6	4.2	2.8	3.4	3.8
Sales	7.6	2.1	6.0	4.0	5.9	6.2
Clerical	7.0	17.3	5.0	21.7	5.5	17.6
Skilled Trades	17.3	0.6	16.3	1.4	17.2	1.8
Less Skilled Labor/Service	24.5	10.6	20.6	12.2	25.9	16.1
Out of Labor Force	3.1	55.1	5.6	27.3	5.2	21.9
Unemployed	1.7	1.6	4.6	3.4	3.0	3.2

(32-Year-Old Men and Women with At Least 12 Years of Education)

Occupational Segregation Among Individuals with High Math Scores

	1972 Seniors with very high math scores, % in occupation in 1986 at age 32		All 1972 Seniors, % in occupation in 1986
	men	women	
Engineer, Scientist, Computer Specialist, Mathematician	18	7	4
Physician or Other Health Diagnosing	6	2	1
Nurse or Other Health Providing	1	10	3
Teacher (Preschool through High School)	3	7	3
Highly Skilled Professional	12	11	4
Other Professional	4	4	2
Managerial	20	13	14
Skilled Technician	3	5	3
Sales	8	2	5
Clerical	3	7	14
Skilled Trades	6	1	9
Sample Size	577	324	9118

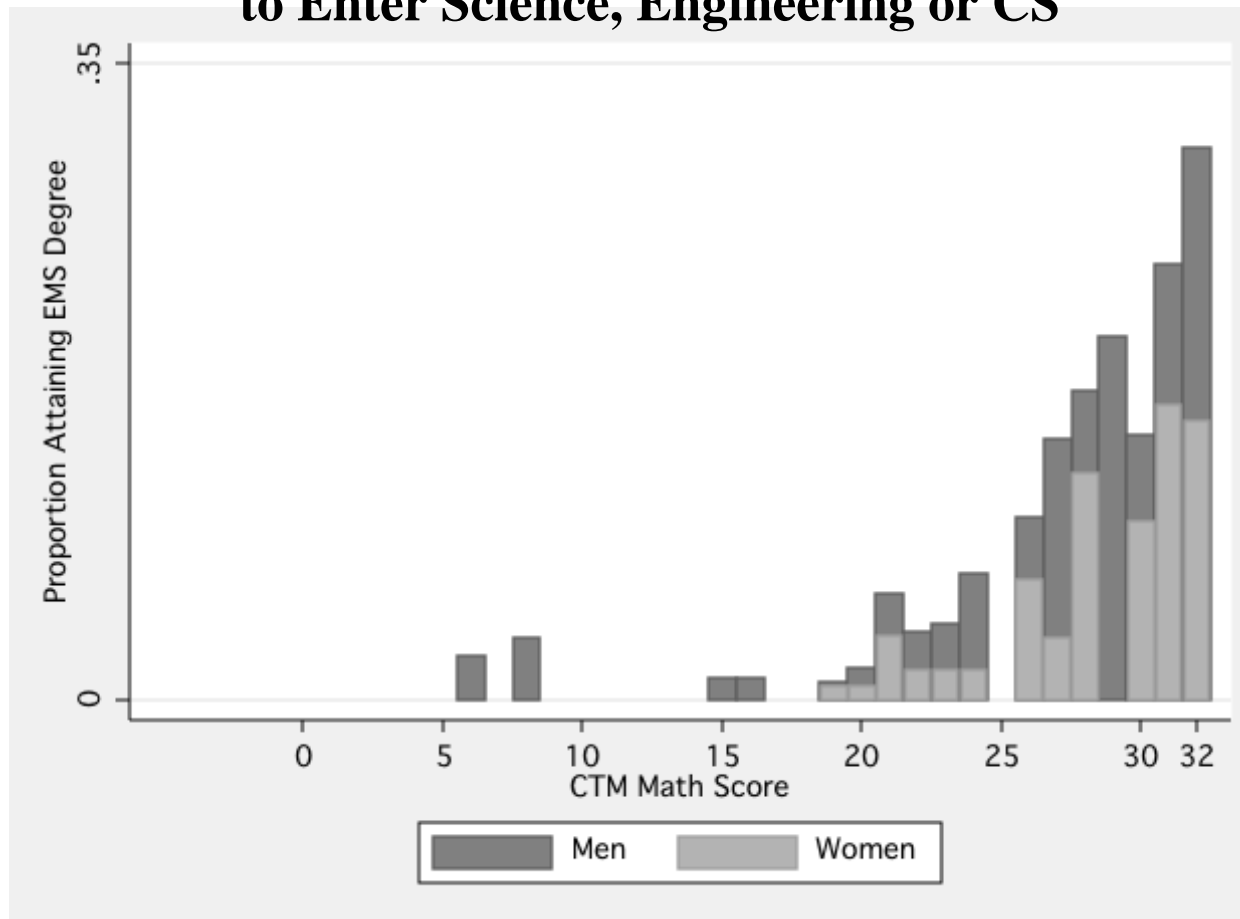
Weinberger, 2001, in "Squaring Up..." edited by Mary C. King

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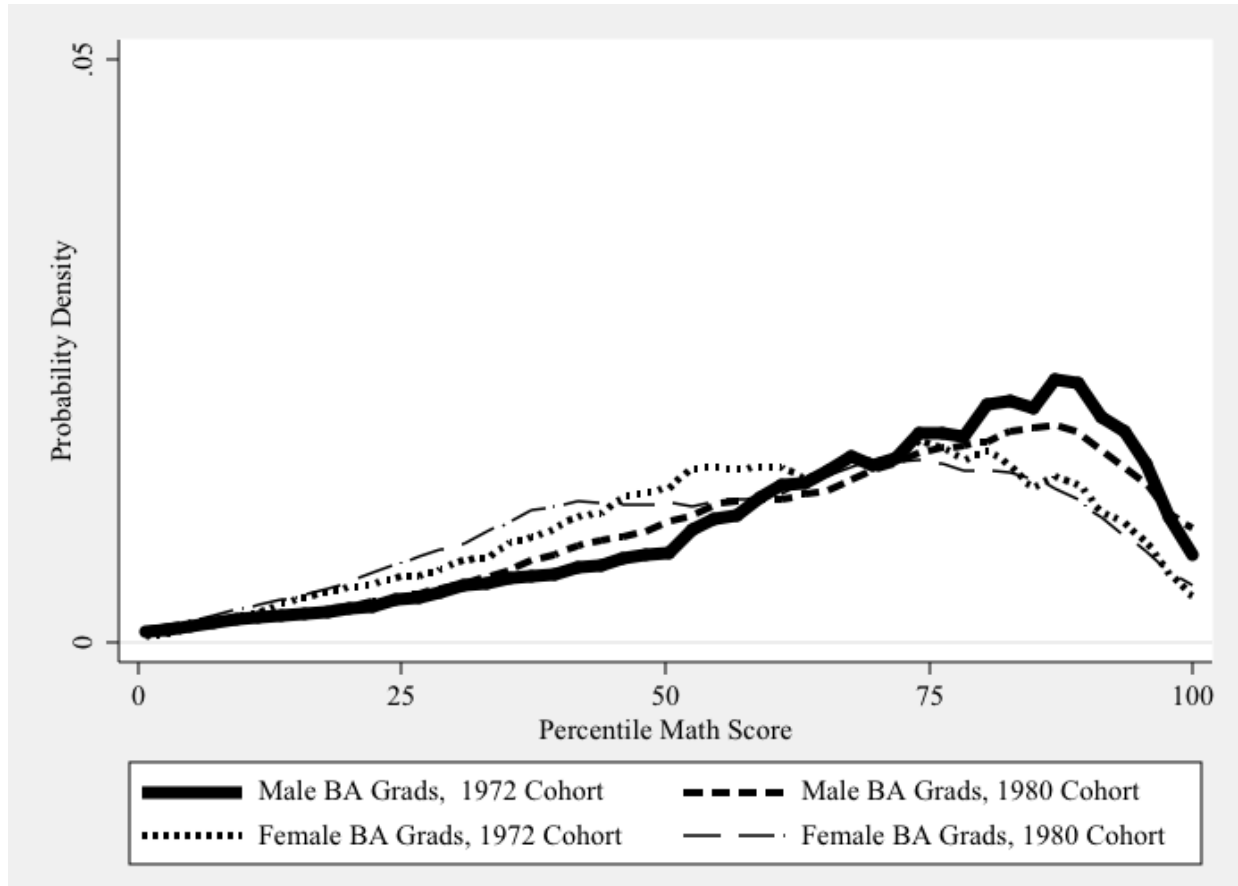
- 1) Teaching undergraduates**
- 2) Teaching the faculty**

At A Given Math Score, Men are More Likely than Women to Enter Science, Engineering or CS



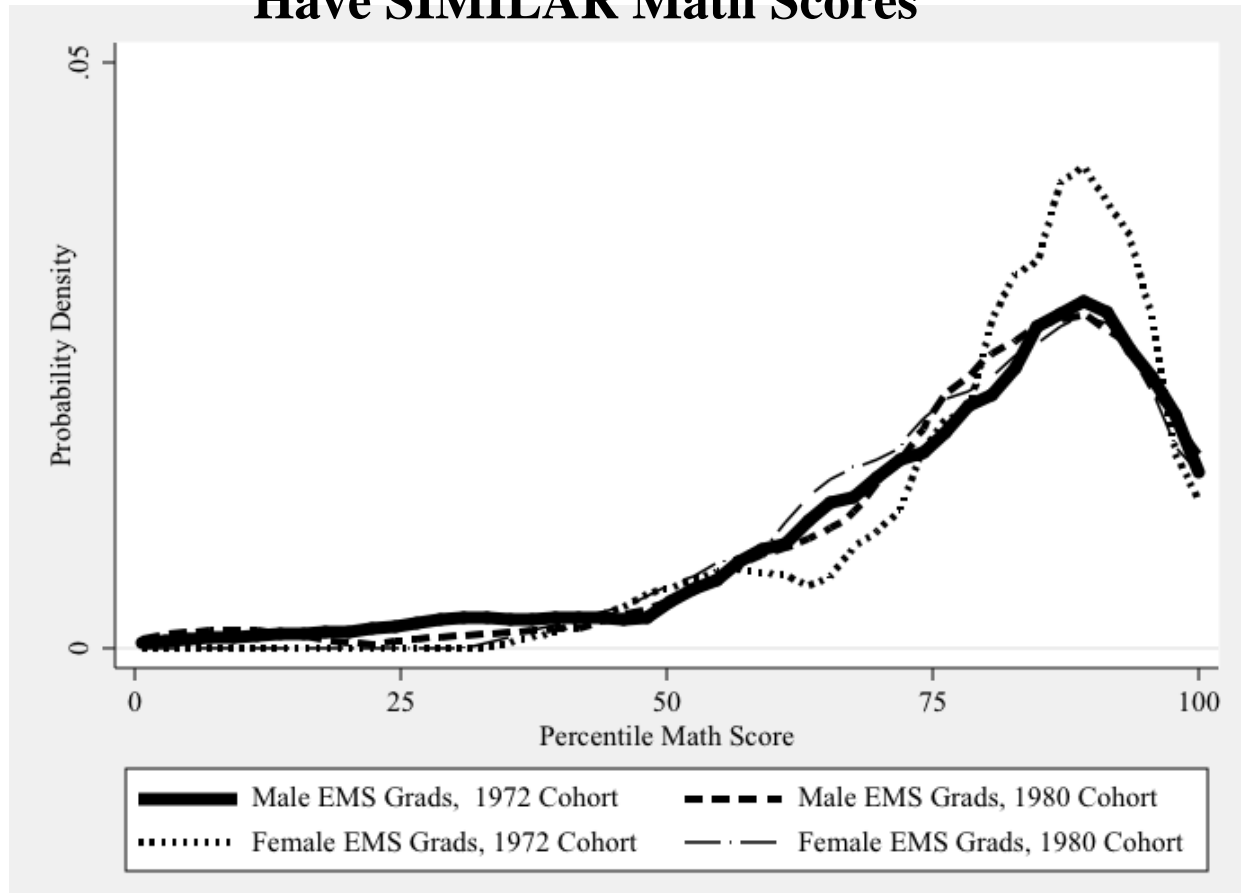
Proportion of White 1980 High School Seniors who Later Completed a College Degree in Engineering, Mathematics, Computer Science, or Physical Sciences (EMS), as a Function of 12th Grade Mathematics Test Score (CTM), By Sex. (n=2117 men, 2443 women)

More Men than Women in College Have Very High Math Scores, but...



12th Grade Math Test Score Probability Density Distributions of White Men and Women who Later Completed a College Degree, by Sex and Cohort.

Men and Women in Science, Engineering or CS Have SIMILAR Math Scores



12th Grade Math Test Score Distributions of White Men and Women who Later Completed a College Degree with Major in Engineering, Mathematics, Computer Science or Physical Sciences, by Sex and Cohort.

Dissemination ideas:

Books & Journals

Undergraduate Courses

Getting faculty (and policymakers) to READ the books...

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...will it be on the exam?