

## Perceptions about Women in Science and Engineering History



BACKGROUND: For at least forty years, women's history scholars have investigated who is responsible for advances in science and technology. Their findings have dismantled assumptions that have excluded women's scientific contributions. While the role of women in the history of science has been recovered, it is uncertain whether this information has made its way into the classroom and into cultural consciousness.

## Research Methodology

- College students at 3 institutions took a
   3-minute, 3-question survey on paper.
- Q1 asked students to name famous or historically important scientists, engineers or inventors. Q2 asked them to name just women figures. Q3 was a general question about women in history.

### Survey Demographics

	Student Major		
	STEM	Non-STEM	Total
Male	389	124	513
Female	477	157	634
Total	866	281	1147

### Research Questions

RQ1: Do college students name significantly more men than women in Q1?

RQ2: Do they name more men in the general Q1 than they name women when specifically asked about women in Q2?

RQ3: Is there a difference between female and male students' responses?

RQ4: Is there a difference between STEM and non-STEM students' responses?

RQ5: What famous or historically important scientists, inventors or engineers do students name most frequently?

#### Results Results RQ5: What famous scientists do students name most frequently? 919 Thomas 494 Edison Q1 Total # of Sir Isaac 414 Newton Men Named **279** Charles 393 Darwin Results RQ1 & RQ2: Gregor 386 Mendel # Men vs. Women Named 5.02 Marie 179 # of men named Curie when Q1 is genderneutral Q1 Total # of Rosalind Franklin # of women named Women Named when Q1 is gender-Florence neutral Nightingale # of women named when Q2 is gender-0.25 specific Goodall m **Results RQ4: Results RQ3:** Maud Menten Male vs. Female Students STEM vs. Non STEM Students # of figures named # of figures named by by female students 4.25 non-STEM students 4.91 # of figures named # of figures named by by male students STEM students 5.27 5.14 0.76 # of women named # of women when Q2 # of men named when # of women named # of women when Q2 # of men named when Q1 is genderwhen Q1 is gender- is gender-specific Q1 is gender-neutral when Q1 is genderis gender-specific neutral

# Responding to Results

What can educators do to promote awareness about women scientists and career role models

Incorporate stories of women scientists into your class.

### Our Intervention

A play featuring monologues about individual women scientists

Off the Record: Untold Stories about Women, Science, and Technology



Lady Mary Wortley Montagu 1689-1762



Emily Warren Roebling 1843-1903



Alice Eastwood 1850-1953



Lillian Moller Gilbreth 1878-1972



Rosalind Franklin 1920-1958

Audiences of all ages have responded enthusiastically and reflectively

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