

Women in STEM

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Introduction

As women in the STEM field, the three of us have all personally seen how disproportional the ratio of women to men is, just within our classes. There are various reasons and ways women are at a disadvantage in STEM;

- Women have historically been considered caretakers (teachers, nurses, etc) which has created a cultural norm that excludes women from the more business-oriented STEM environment.
- There are studies saying many women are affected by “Imposter Syndrome” thought patterns, where they feel as though they do not actually know what they are doing and they do not fit in, making them feel bound to fail and therefore they often do not pursue the more rigorous STEM fields.
- There are not many women in STEM to begin with, which creates a lack of role models.
- The pay gap between men and women makes many women feel as though even if they do work in the field, they will not have the opportunity to succeed.

Objective

We wanted to see the trend of women compared to men in the STEM field. The best way to do this is by constructing a graph.

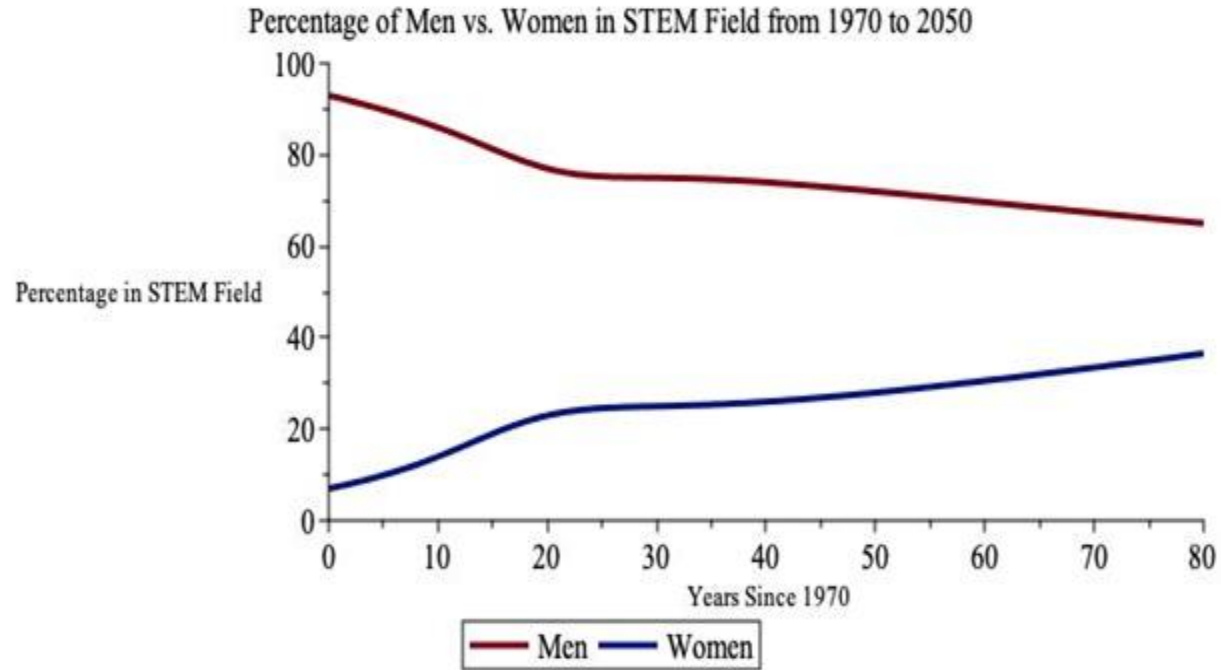
We also set out to learn more what was causing this difference, and what might be encouraging women to join the field and how to get even more women in STEM.

Modeling this Issue

From the U.S. Census Bureau, we gathered the data that:

- In 1970, only 7% (7/100) of the STEM workforce is made up of women,
- in 1980, 14%
- 1990, 23%
- 2000, 25%
- 2010, 26%
- and today (2020), 28%.

We took these data points and constructed a graph to model the logistic growth of women in the field. The top curve is the percentage of men in the field whereas the bottom curve is percentage of women. We extended the graph to represent the predicted percentage of men and women in the field up to the year 2050. As can be seen, both graphs are slowly growing to level out at an even 50/50



Conclusion

Over the past 50 years, the percentage of women in stem has increased greatly. Why is this?

- In 1972, Title IX was passed which prohibited discrimination due to gender in the educational or work setting. This allowed for more women to be able to get degrees in STEM majors, resulting in more women in STEM careers. This is where our graph begins.
- Today there is a large feminist movement pushing for equal pay, equal opportunity, and equal rights that is playing a large role in why there are more women in STEM compared to ever before.
- Exposing women to STEM as young children can also help spark an interest, resulting in more women in the field.

Resources

<https://www.wgu.edu/blog/why-are-there-so-few-women-in-stem1907.html>

<https://edventures.com/blogs/stempower/the-past-present-and-future-of-women-in-stem>

https://www.census.gov/content/dam/Census/newsroom/releases/2013/cb13-162_stem_female.pdf

<https://ngcproject.org/statistics>

<https://inside.collegefactual.com/stories/women-vs-men-in-stem-degrees>

<https://research.swe.org/2016/08/earning-gap/>