

In 1984, 37% of bachelor's degrees in Computer Science were earned by women. By 2014 that percentage dropped by half, with women earning only 18% of CS bachelor's degrees. In 2014 Google conducted a study of more than 1,700 students in the US in order to understand what motivates women to study Computer Science.

Researchers found four controllable indicators that contribute to women choosing to study Computer Science:

Social Encouragement

Encouragement from family, friends and educators, regardless of their technical expertise, reinforces existing interest and can foster interest where none exists. Outreach programs should include a parent education component, so that parents learn how to actively encourage their daughters.

Self Perception

Interest in puzzles, problem solving and tinkering can lead to a passion for, and personal confidence in, Computer Science abilities. Providing young women with the opportunity to practice these skills in a supportive environment in activities related to their passions can help build confidence and interest.

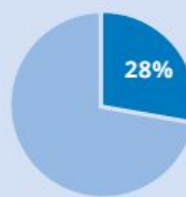
Academic Exposure

Experience with Computer Science in middle and high schools can motivate young women to pursue computing. Support for organizations working to expand these opportunities to more schools can increase academic and informal access, provide a greater understanding of Computer Science, and help young women make informed decisions about degree and career options.

Career Perception

Visibility of female role models in Computer Science and telling stories about the positive social impact careers in computing can have, can enable young women to visualize themselves in the field.

1. SOCIAL ENCOURAGEMENT



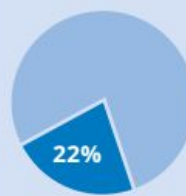
For young women in high school, it comprises 28.1% (total) of the explainable factors influencing the decision to pursue CS. Peer encouragement (11%) is almost as important as familial support (17%).

2. SELF PERCEPTION



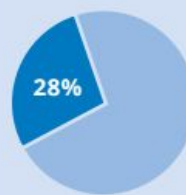
For young women in high school, self perception comprises 17.1% of the explainable factors influencing the decision to pursue a Computer Science degree.

3. ACADEMIC EXPOSURE



The ability to participate in Computer Science courses and activities accounts for 22.4% of the explainable factors influencing the decision to pursue a Computer Science degree.

4. CAREER PERCEPTION



For young women in high school, career perception accounts for 27.5% of the explainable factors influencing the decision to pursue a Computer Science degree.