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### Asian Women in STEM Industry

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# ASIAN WOMEN IN STEM INDUSTRY

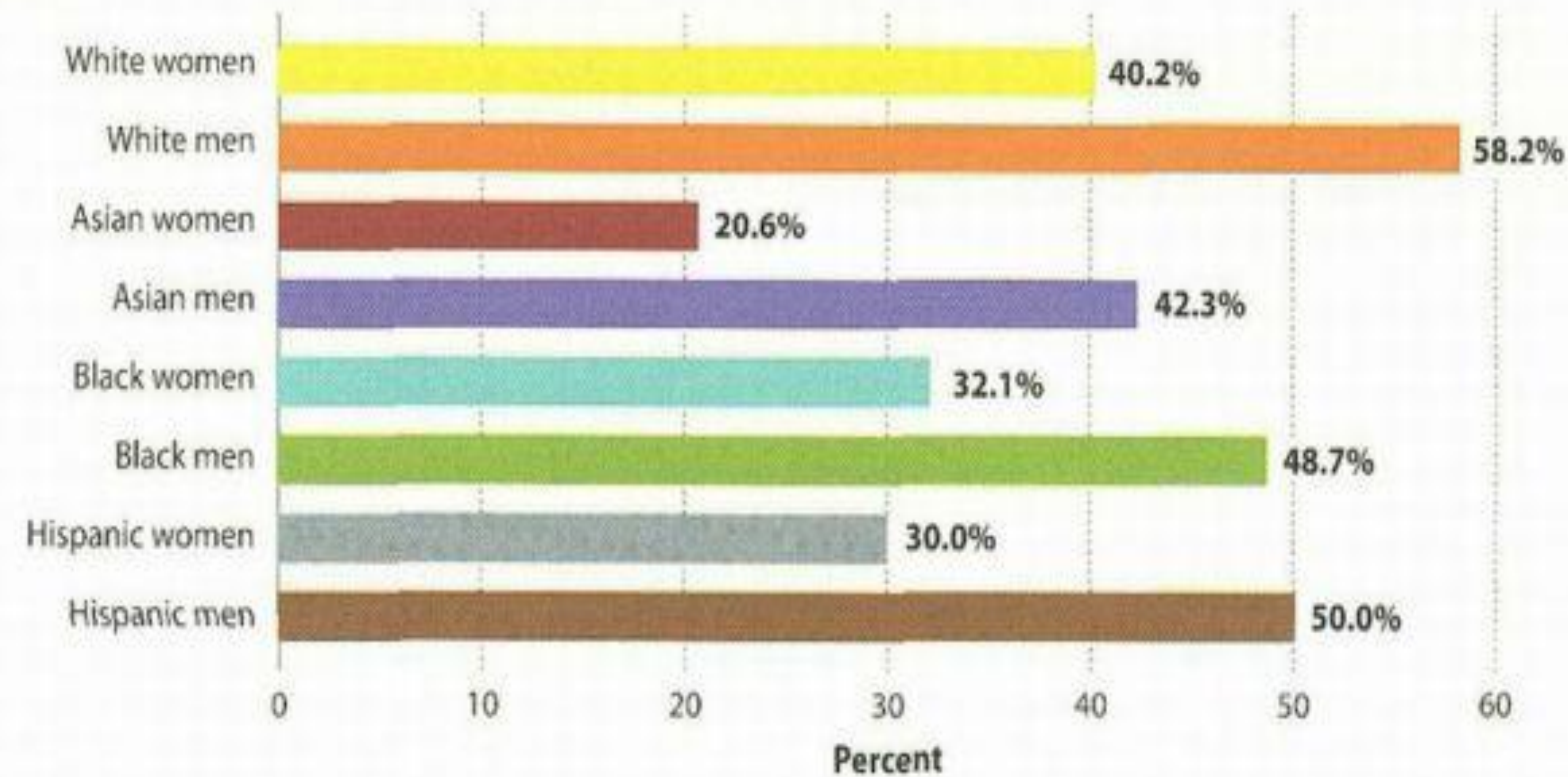
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## INTRODUCTION

Engineering can be termed as one of the most male-dominated field in the USA, as only 13% of the engineering workforce constitutes women. Historically, engineering has always been considered to be a masculine profession. Even in the current time, females are less considered for the engineering fields, especially Asian females. This issue is global; both Asian women and most American women face the discrimination in engineering industry. The cultural shock makes it more difficult for Asian women to be able to cope with the situation. The image of engineering as a masculine profession has reproduced the perception that engineering is unsuitable for women. Various strategies have been used to try to increase the number of women entering engineering education and employment, but their success has been limited.

Percentage of doctoral scientists and engineers employed in universities and 4-year colleges (S&E occupations) who are tenured, by race/ethnicity and gender (2008)



Source: National Science Foundation, Division of Science Resources Statistics, Survey of Doctorate Recipients: 2008. Table 9-26 "Employed doctoral scientists and engineers in 4-year educational institutions, by broad occupation, sex, race/ethnicity, and tenure status: 2008" <http://www.nsf.gov/statistics/wmpd/pdf/tab9-26.pdf> Accessed July 16, 2011

Note: Data of American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander is suppressed for data confidentiality reasons.

Percentage of doctoral scientists and engineers employed in universities and 4-year colleges (S&E occupations) who are tenured, by race/ethnicity and gender (2008)

## DOUBLE BIND

Wu, L., & Jing, W. (2011), in their article- "Asian women in STEM careers: an invisible minority in a double bind. *Issues in Science and Technology*, "", reports the double bind faced by the Asian women. The concept of Double bind was initially studied 35years ago. The double bind of Asian women indicates the two stereotypes that the Asian women face. Two stereotypes are:

- A) Gender bias of being a female
- B) Bias due to the Asian origin.

Researchers study the insufficiency of the Asian women in the in higher authoritative and important positions in the STEM workforce. Contrary to the popular belief, of Asian women being in most dominant positions as well as being the majority in the American STEM industry. The Advancement of Asian female in STEM careers are left behind the men colleagues as well as the native American women. A minority of the Asian females are progressing as the engineers or as the scientists. Asian females becoming deans in the academia is also scarce. Simultaneously, Asian women working in the corporate industry in leading and administrative positions is significantly low when compared to the natives. Asian women serving in administrative positions in government are considerably low in comparison to the American women.

## Gender Identity Over Professional Identity

Women in the gendered professions (like engineering), are often identified with their gender rather than with their technical expertise. The workplace interactions play a vital role in terms of self-validation. Hatmaker, D. M. (2013), gives an account on how social interactions demote the professional identity of women at work place. He also provides details about the manner, which women use to address the identity crisis using distinct variety of strategies. Hall, W. M., Schmader, T., & Croft, E. (2015), analyzed the workplace interactions of the participants with their peers and their officials. The analysis is done by coding the conversations.

The analysis shows that, a few discussions seemed to test the female employees work abilities in terms of their profession. These interactions degraded the proficiency of the females by giving the excessive priority to the gender. In the study the ways in which the capability of the women engineers was questioned. These discussions challenged the female professionals on their technical expertise by the usage of statements based on the gender stereotypes. This is done through emphasizing the sexual orientation, and by doubting the particular capabilities of the women. References to femininity by members in the organization were in some cases clear, however not generally. Two kinds of identity construction strategies were used by the participants in response to these downgrading interactions were studied: Impression management tactics and coping strategies.

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