

2020 SURVEY TOPIC BRIEF

BY THE STRUCTURAL ENGINEERING ENGAGEMENT AND EQUITY COMMITTEE
OF THE NATIONAL COUNCIL OF STRUCTURAL ENGINEERS ASSOCIATIONS

CAREER ASPIRATIONS

The 2020 SE3 Career Aspirations Brief explores the intentions and expectations related to advancement within the structural engineering profession based on responses to a nation-wide survey. In developing the 2020 NCSEA SE3 survey questions for this topic, the NCSEA SE3 Committee sought to understand the factors that influence the professional aspirations and expectations of structural engineers, and how these factors vary between demographic groups. The survey responses displayed significant associations with gender, race, and years of structural engineering experience.

The survey asked respondents questions regarding satisfaction with career advancement, career aspirations, and perceived fairness or barriers related to advancement and promotion.

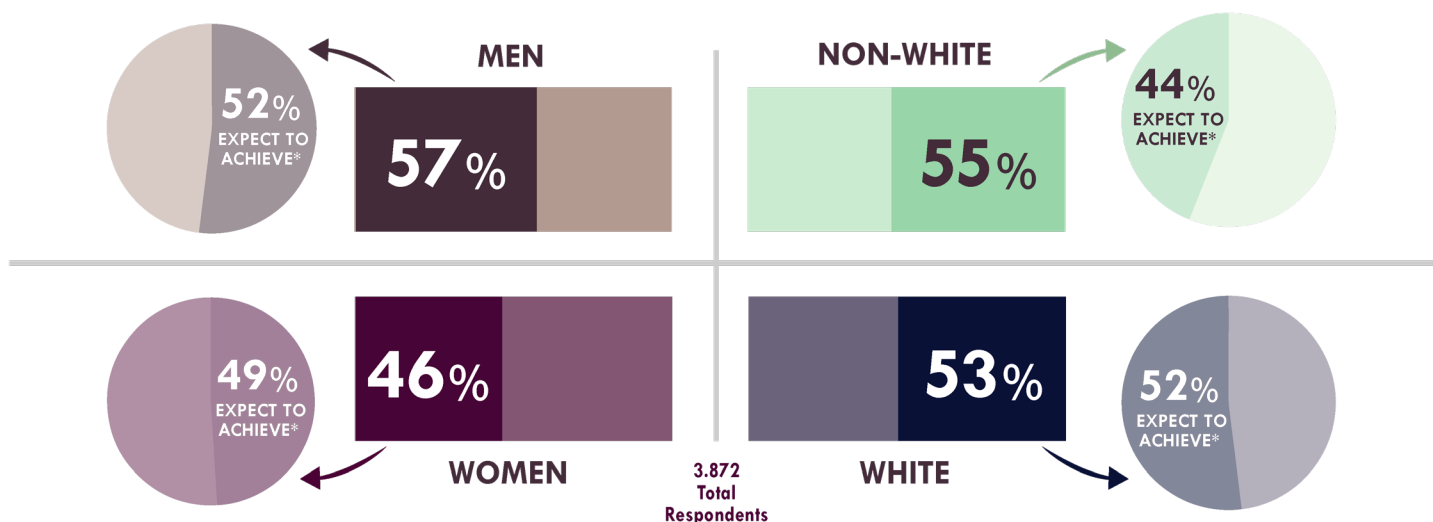
BRIEF HIGHLIGHTS

1. Women are less likely than men to aspire to a Principal role.
2. A higher percentage of White respondents are satisfied with career advancement compared to non-White respondents.
3. Women and non-White respondents advanced to senior position levels faster than men and White respondents.
4. Women and non-White respondents were less likely than men and White respondents to believe expectations for advancement were clearly communicated or to believe the promotion process is fair.
5. Respondents with mentors were more likely to be satisfied with career advancement. 72% of respondents with mentors were satisfied compared to 55% of respondents with no mentor.

CAREER ASPIRATIONS & EXPECTATIONS

The 2020 SE3 Survey asked respondents to indicate the highest position to which they aspire over the course of their careers. Of all respondents, 53% indicated that they aspire to achieve a Principal/Owner/Founder role, 26% percent aspire to an Associate/Shareholder role, 14% aspire to a Senior Project Engineer/Project Manager role, and the balance of respondents chose either Staff, Project Engineer, or other level. Respondents who indicated they aspire to the Principal role were further asked if they expect to achieve this position in their current firm. The figure below shows key findings comparing respondents by gender and race.

ASPIRATION TO PRINCIPAL POSITION VS. EXPECTATION OF ACHIEVEMENT



* For each demographic group, the percentage who expect to achieve Principal in their current firm is reported as a subset of those who aspire to the position

Over 50% of men, White respondents, and non-White respondents aspired to achieve a Principal role, while only 46% of women aspired to this level. Of those respondents who indicated they aspire to a Principal position, 52% of men and White respondents expected that they could achieve this role at their current firm; 49% of women and 44% of non-White respondents held the same expectation.

The data suggests that aspirations correlate with both age and years of experience. Only 50% of respondents under the age of 25 aspire to become Principal, with the percentage rising steadily with age to a peak of 65% and starting to decline around the age of 40. After the age of 45, the percentage of respondents aspiring to Senior Engineer/Project Manager or Associate/Shareholder positions increases through age 65. Years of experience also has a major impact on career aspirations, with 65% of respondents with 10-19 years of experience aspiring to a Principal role.

Additionally, 74% of respondents who have already achieved an Associate/Shareholder role aspire to a Principal role. 57% of Associates/Shareholders expect that they can achieve a Principal role at their current employer, while 40% expect that they have already achieved the highest position possible at their current firm.

FACTORS INFLUENCING ASPIRATIONS

Survey respondents who indicated they do not aspire to achieve a Principal/Owner role were asked to share their reasons. The top three reasons cited were, "I have other priorities in my life," "I do not want to work the hours required to be a principal at my firm," and "I do not want the responsibility." The responses varied by race, gender, age, number of employers, and length of time at current position. Women and non-White respondents were significantly more likely than men and White respondents to report they did not want the responsibility. Men were more likely than women to report being happy in their current position. The percentage of respondents selecting "Happy in current role" increased with age, and respondents under the age of 25 selected "Have other priorities" at a higher percentage than any other age group.



ALL RESPONDENTS WHO DO NOT ASPIRE TO PRINCIPAL

1,700
Total Respondents

38% of all respondents who indicated they do not aspire to the Principal position specified "Have other priorities" as the reason. Further study would be required to understand whether those priorities are organizational priorities or personal priorities. Another 36% of respondents do not want to work the required hours or accept the responsibilities associated with Principal/Owner role.

HIGHLIGHT

Across all demographics, the top reason for not aspiring to a Principal role was cited as, "I have other priorities in my life."

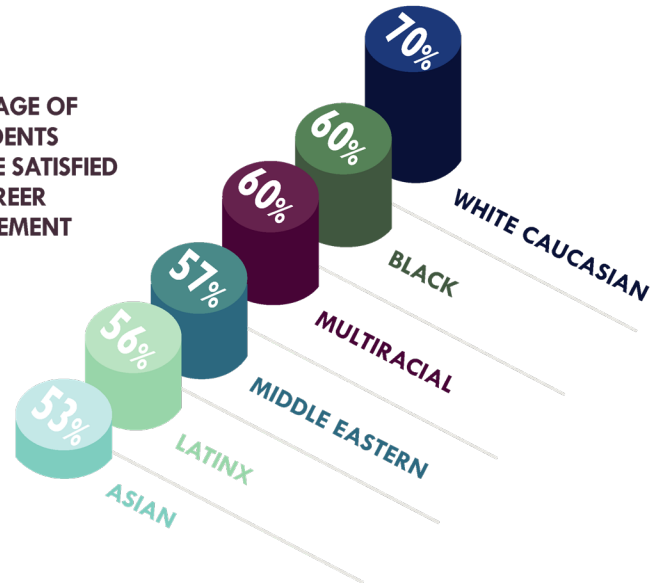
SATISFACTION WITH CAREER ADVANCEMENT

The survey investigated satisfaction with overall career advancement. Overall, 66% of survey respondents reported satisfaction with their career advancement. These results varied by gender and race. 60% of women respondents reported satisfaction compared to 69% of men. White respondents were also more likely than all other racial groups to report satisfaction. 70% of White respondents reported satisfaction compared to 60% of Black and multi-racial respondents, 57% of Middle Eastern respondents, 56% of LatinX respondents, and 53% of Asian respondents.

WHAT CHANGED?

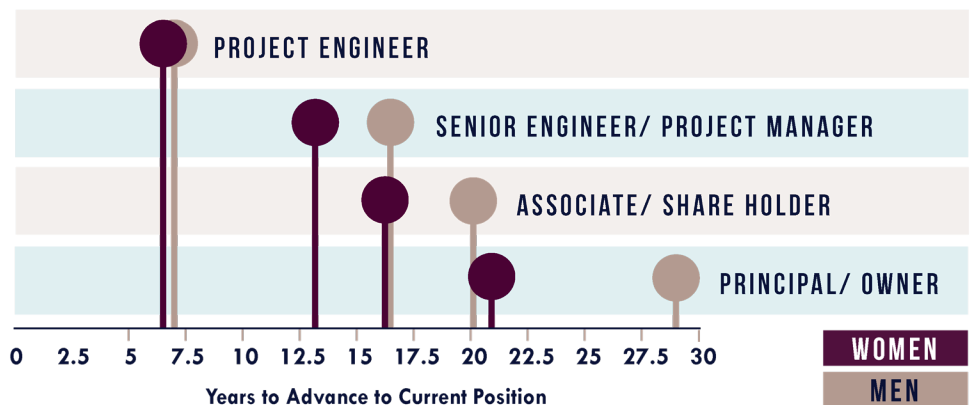
70% of respondents to the 2016 SE3 survey and 68% of respondents to the 2018 SE3 survey reported satisfaction with career advancement, compared to 66% of respondents to the 2020 SE3 survey.

PERCENTAGE OF RESPONDENTS WHO ARE SATISFIED WITH CAREER ADVANCEMENT BY RACE

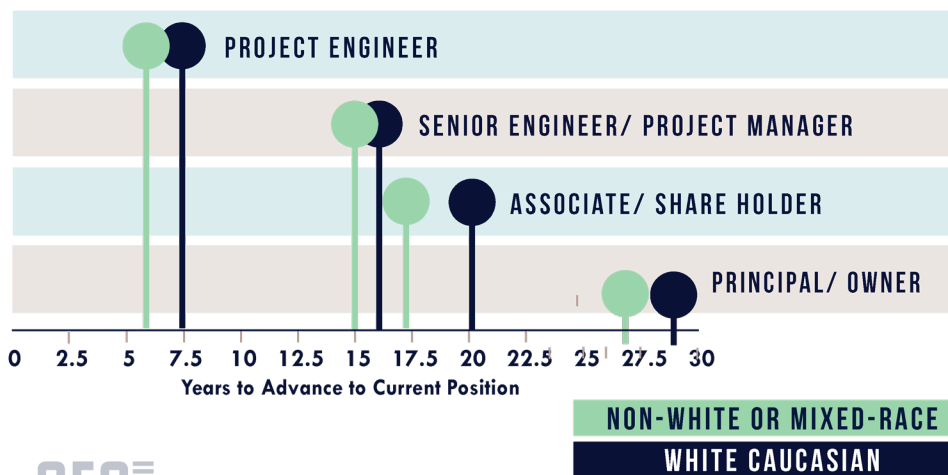


Despite the higher levels of dissatisfaction reported above, women and non-White respondents advanced to their current position more quickly than men and White respondents for all positions except for staff/entry level. The greatest gap was observed between women and men at senior position levels.

CAREER ADVANCEMENT BY GENDER

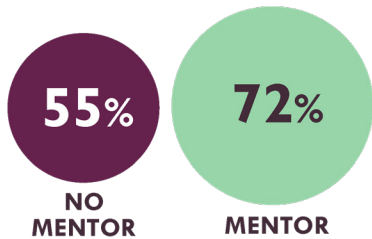


CAREER ADVANCEMENT BY RACE



The data indicates that non-White respondents advanced faster than White respondents during their early career, and moved into Associate/Shareholder and Principal/Owner position levels earlier than their counterparts.

PERCENTAGE OF RESPONDENTS WHO ARE SATISFIED WITH CAREER ADVANCEMENT BY MENTORSHIP



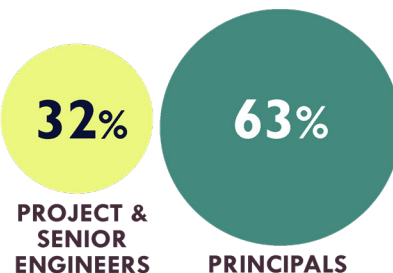
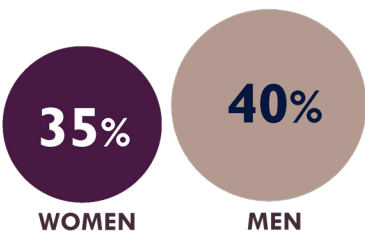
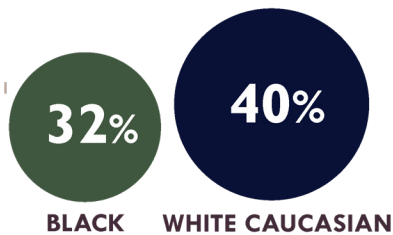
Satisfaction with career advancement correlated with mentorship. 72% of respondents with mentors were satisfied with their career advancement compared to 55% of respondents with no mentor.

The data also shows a direct positive correlation between satisfaction with career advancement and increasing age, position level, and years of experience.

CAREER ADVANCEMENT AND THE PROMOTION PROCESS

The survey asked respondents if they believe expectations for promotion and advancement are clearly communicated within their organization and if they believe the promotion process is fair. Overall, 39% of respondents agreed that expectations are clearly communicated, while 36% disagreed and 25% were neutral. This varied significantly by race, gender, and position level.

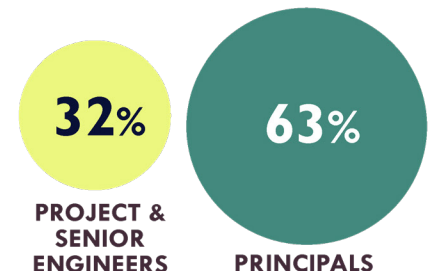
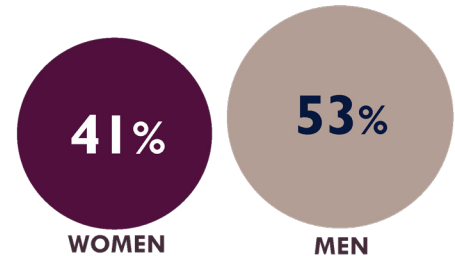
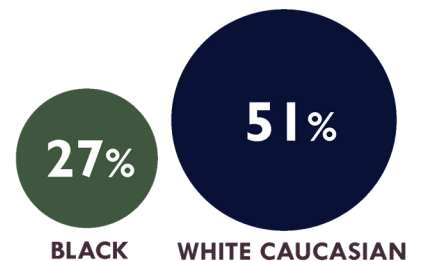
BELIEVE EXPECTATIONS FOR ADVANCEMENT ARE CLEARLY COMMUNICATED



40% of White respondents believed the expectations were clearly communicated compared to 36% of non-White respondents. Black and LatinX respondents were especially less likely than other racial groups to agree, 32% and 33%, respectively. 40% of men believed that expectations were clearly communicated compared to 35% of women respondents. Despite 63% of Principals believing that expectations for promotion and advancement were clearly communicated, only 32% of Project Engineers and Senior Engineers agreed. This last finding may indicate that company leaders have identified the pathways and criteria for advancement but not communicated them effectively to their employees.

Principals were also more likely than respondents at other position levels to believe the promotion process is fair. Of all respondents, 49% agreed that the promotion process is fair while 18% disagreed and 33% neither agreed nor disagreed. 63% of Principals agreed compared to 32% of Project Engineers and Senior Engineers. Women were less likely than men to believe the promotion process is fair (41% vs 53%). White respondents were much more likely than all other racial groups to believe the promotion process is fair. 51% of White respondents agreed, compared to only 27% of Black respondents.

BELIEVE THE PROMOTION PROCESS IS FAIR



DISCUSSION QUESTIONS

1. How can firms support career growth for employees who do not aspire to senior position levels or to firm leadership?
2. What types of feedback or guidance can leaders provide to help set realistic expectations for career advancement within their firms?
3. What opportunities are being provided within your firm and structural engineering community to promote mentorship?



The information contained in this report was gathered from an NCSEA sponsored survey administered online by the SE3 Committee in early 2020. The survey is an on-going effort to identify trends, to understand the underlying factors, and to initiate conversations on engagement and equity within the profession. The 2020 NCSEA SE3 Survey was developed with a focus on key study topics; including career development, compensation, work flexibility, and overall retention, among others. While we believe the information presented in this document is an accurate, unbiased representation of the data received in the survey, the matters discussed are sometimes subject to differences in opinion or approach. As such, neither NCSEA nor its Board, committees, writers, editors, firms, or individuals who have contributed to this report make any warranty, expressed or implied, or assume any legal liability or responsibility for the use or reference to findings, conclusions, or recommendations expressed herein.

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