# **Diversity in Tech**

The lack of racial and gender diversity in the high-tech industries has been a long-term problem not only in America, but globally as well. While there are many factors contributing to this issue, the problems persist, and even though it is a challenge the industry, society, government, and educational institutions have been trying to correct, they have not yet been able to achieve the desired success in improving diversity in this otherwise rapidly growing industry. I can relate to this problem on a personal level, as my wife has experienced such issues. She has a degree in computer science and she mentioned that during college there were hardly any female students in her classes. Furthermore, her classmates and professors taunted and mocked her for choosing to pursue such a male dominated industry. Although she is very talented and smart, especially in computer science, it was a challenge to remain positive and to not allow her self-confidence to be diminished as a result. Ultimately, she graduated and pursued a career at a leading global tech company, but unfortunately, such behavior continued there as well.

After hearing such a story as I described above, or what one might ascertain anecdotally from their community or the media, one might assume that such cases are isolated, subjective, or indicative of the workforce as a whole. However, after reviewing statistical analysis of the lack of diversity in the industry, it becomes very clear that it is significantly more pronounced in the high tech industry. Compared to overall private industry, the high tech sector employed a larger share of whites (63.5 percent to 68.5 percent), Asian Americans (5.8 percent to 14 percent) and men (52 percent to 64 percent), and a smaller share of African Americans (14.4 percent to 7.4 percent), Hispanics (13.9 percent to 8 percent), and women (48 percent to 36 percent).[1]

After reviewing the statistics above, it might seem as though there is a concerted effort by the leaders and insiders of the high tech industry to actively resist efforts to diversify. However, it is very important to consider the fact that these types of racial and gender disparities in the industry, are also similar in the education system as whole. This creates a pipeline challenge, resulting in lower numbers of diverse candidates applying for high tech positions, because such fields were not pursued by those groups in sufficient enough of a rate to match the diversity rates of society as a whole.

Fortunately, progress does seem to be on the horizon when considering that graduate enrollments in science and engineering grew 35 percent over the last decade. Notably, science and engineering enrollments grew more for racial and ethnic groups generally under-represented in science and engineering. Hispanic/Latino enrollment increased by 65 percent. American Indian/Alaska Native enrollment increased by 55 percent. African American enrollment increased by 50 percent. [1]

However, after deeper analysis of the ratios minorities and females graduating with degrees in the high-tech sector, we can see a troubling trend when isolating the rates of placed graduates. Which demonstrates that attributing lack of employment diversity in high tech industries to lack of applicant diversity and self-selection of minorities and women away from STEM fields focuses on only part of the industries' hiring and retention situation. While there is some truth to the "pipeline" theory and anxiety over the ability of the US educational system to provide a sufficiently large, well trained, and diverse labor pool, there are additional factors at play. For example, about nine percent of graduates from the nation's top computer science programs are from under-represented minority groups. However, only five percent of the large tech firm employees are from one of these groups. This presents the unlikely scenarios that either major employers in the field are unable to attract four out of nine under-represented minority graduates from top schools or almost half of the minority graduates of top schools do not qualify for the positions for which they were educated. [1]

In conclusion, I believe that it is important to address this problem from multiple angles. We need to ensure that from a very young age all children regardless of race, gender, or socio-economic background have opportunities to pursue high-tech careers. This means educating them about their options, benefits of pursing such a field, resources to ensure they meet the requirements to continue pursuing such a field, and encouragement to believe that they can succeed. We also need to encourage high-tech companies to reach out to under-served communities to assist in this matter, and to ask that these organizations ensure that their hiring managers and workforce are making a concerted effort to be more inclusive and accepting of all groups in our diverse society.

[1] U.S Equal Employment Opportunity Commission’s recent report, Diversity in High Tech.