

DIVERSITY IN TECH 2021 U.S. REPORT

A report by mthree, a Wiley brand



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The lack of diversity in tech is widely reported, with many shocking statistics revealing the extent of the problem. Though Workforce Management estimates companies spend **\$8 billion a year collectively** on diversity and inclusion training, the pace of progress is far too slow. This suggests a further need to engage the right people within companies to implement new practices and a continuing need to better understand the root causes of the problem.

Encouraging a wider range of young people to consider careers in tech is critical to achieving greater equality in society, particularly as we look towards a future where it is predicted that 45 million Americans would lose their jobs to automation by 2030 (McKinsey Global Institute).

Unfortunately, the COVID-19 pandemic only exacerbated income inequality in the US (and globally). According to the **Institute for Policy Studies**, the combined wealth of all U.S. billionaires increased by \$1.138 trillion (39 percent) between March 18, 2020, and January 18, 2021. Whereas, the lowest-income group had the highest job loss rate between February 1, 2020, and the end of June 2020, while the highest-income workers had the lowest job loss rate during this period.

For the Diversity in Tech: 2021 U.S. Report, mthree surveyed more than 2,000 early career workers and 270 business leaders to gauge the progress of addressing the lack of diversity in U.S. technology-focused jobs.

In this report, mthree explores what roadblocks exist in technology jobs that slow progress in achieving greater diversity in the sector.



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About mthree

mthree is the emerging talent and reskill training partner for public and private organizations across the globe.

Futureproofing is more important than ever. The pace of change is on the up, widening the gap between the skills needed and their availability in the workforce.

More than 40 institutions in North America, EMEA and APAC, from government agencies to tier one investment banks to fintechs, have used mthree's solutions to meet this challenge.

We bridge the skills gap in technology and other high-demand disciplines by connecting education to the working world. Led by industry, our Academy curriculum adapts to meet everchanging requirements.

Our Alumni offering focuses on emerging talent. Through the hire-train-deploy model, we place outstanding graduates into a client's team for 12 to 24 months, after which they can convert to full-time employees at no extra cost.

Ninety percent of Alumni stay on under our clients' permanent headcount at the end of the program. In our Reskill offering, we create training for existing employees, enabling clients to retain valuable organizational knowledge while evolving along with the industry landscape.

Diversity underpins everything we do for our clients. Reskill opens up a new demographic, tackling biases from age to education, and the Alumni we placed in 2020 are 35% female and 46% Black, Asian, and Minority Ethnic, representing a step change in industry norms.

Together, Alumni and Reskill help build pipelines of diverse, custom-trained talent – complementing traditional hiring strategies like internal graduate programs and reactive recruitment.

In 2020 we joined John Wiley & Sons, Inc., a global leader in research, publishing and education for over 200 years.

Learn more: mthree.com wiley.com



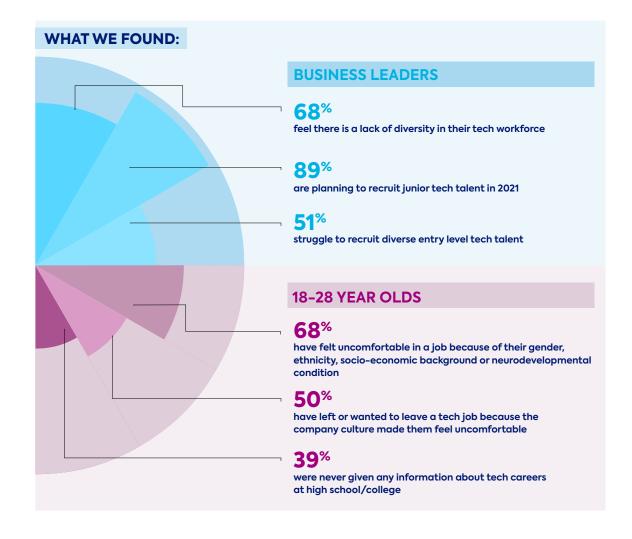


Key Findings

To determine the barriers preventing a broader range of young people from pursuing a career in technology, mthree surveyed 2,030 18-28 year olds to find out how attitudes towards tech and knowledge of the career opportunities in the industry differ across various demographic groups.

In addition, mthree surveyed 270 senior business leaders in key industries, including financial services, insurance and healthcare, to determine hiring plans for 2021 and beyond, including what is currently being done to actively improve diversity in their tech teams, and to identify where more work is still required.

This report provides some key insights and findings on both the opportunity in this growth field as well as the causes behind the lack of diversity in workforces.









Why tech diversity and equality go hand in hand



Tech Careers:

Security in the face of instability?

2020 was a devastating year in many ways, especially for employment. According to research by the **Economic Policy Institute**, young people in the U.S. were hit particularly hard by Covid-19 job losses. It found that the overall unemployment rate for young workers aged 16-24 jumped from 8.4% to 24.4% from spring 2019 to spring 2020. Spring 2020 unemployment rates were even higher for young Black, Hispanic, and Asian American/Pacific Islander (AAPI) workers (29.6%, 27.5%, and 29.7%, respectively).

Although younger workers experienced disproportionate job loss in part because of their concentration in the hardest hit industries and occupations, leisure and hospitality, the picture was also bleak for recent graduates.

In October 2020, just 69% of adults ages 20 to 29 who had graduated from college with a bachelor's degree or higher during the previous spring were employed, lower than the share of 2019 graduates who were employed in October of that year (78%). The labor force participation rate for recent college graduates also dropped from 86% to 79% during this one-year period.







According to a summer 2020 YouGov poll, a majority (63%) of business leaders recruiting students "slowed" or "halted" college hiring following the outbreak of the coronavirus. As of May 2020, the number of entry level job openings, which are typically filled by recent college grads fell by 73%, with internship opportunities taking a similar dive. A recent Monster poll found that 45% of 2020 college graduates are still looking for a permanent job.

However, our survey of business leaders painted an altogether more promising picture when it comes to entry level and graduate technology recruitment. More than three quarters (78%) of businesses continued hiring for entry level and graduate tech roles from March 2020-March 2021, Of those, 40% continued hiring at the same level as usual, and 28% at a slightly reduced rate.

Looking ahead, 89% of businesses surveyed confirmed that they are currently planning to recruit for entry level and graduate tech roles over the next year, with 60% of those planning to do so at the level they usually would, and 22% a slightly reduced number.

This indicates the prospects for young people within the technology industry in the coming months are still excellent.

Given that research published by the National Academy of Sciences shows the COVID-19 pandemic exacerbated existing inequalities in the U.S., it's essential we ensure a broad crosssection of young people are able to benefit from the opportunities offered by careers in technology, as this could make a huge difference to the long-term prosperity of different minority groups.







What is behind the shortage of diverse candidates?

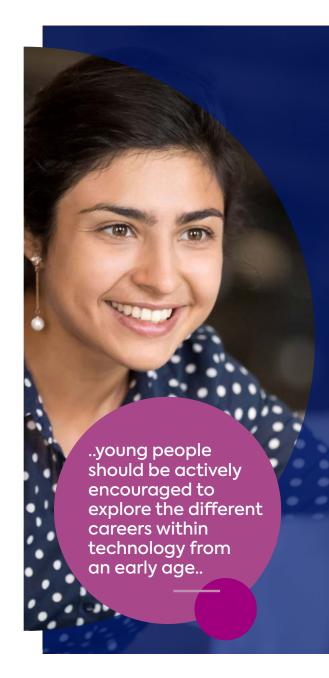


A lack of education and encouragement

In order to successfully tackle the lack of diversity in tech roles, it's essential to establish the root causes of the problem. If there is a lack of diverse candidates applying for roles, then we must look at why this is the case, and at what point certain demographics become more likely to consider technology as a potential career path.

Ideally, young people should be actively encouraged to explore the different careers within **technology from an early age**, to allow for informed decisions regarding their higher education. Without this encouragement, they may later lack the STEM-based qualifications required by a lot of entry level roles if they choose to pursue a career in the field.

But have high schools and colleges been doing their part to educate their students in this regard, and do all students feel equally well informed?

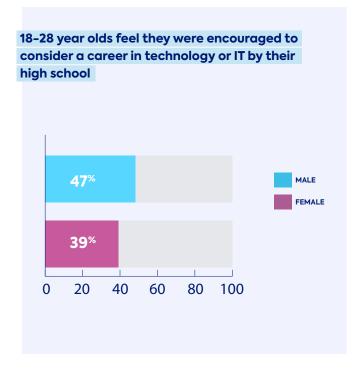






According to our research, 42% of 18-28 year olds feel they were encouraged to consider a career in technology or IT by their high school. Disappointingly, this figure drops to 39% of females, compared with 47% of males. In addition, 44% of female respondents said that they were never given any information or resources to help them learn about tech career opportunities, compared with 33% of males.

With such a persistent lack of gender diversity in the tech industry, and women's job prospects disproportionately impacted by the pandemic, we must ensure that male and female students are treated equally right from the beginning of their educations if we are to address these imbalances in the long-term.





There is less of a clear-cut difference between ethnic groups in this respect. The research found that 41% of white. 41% of Asian and Pacific Islander. 46% of Black and African American, and 44% of Hispanic or Latino respondents were given information regarding careers in tech and IT by their high school. This would suggest that, in a lot of cases, ethnicity does not have a significant impact on the likelihood that a young person will be encouraged to pursue a career in technology while at high school.

The survey also makes it clear that the level of information provided by educational institutions drops as students progress. While 42% of those surveyed felt their high school offered encouragement, only 26% said the same of their college.









The gender differences do become significantly less pronounced in the later stages of education, with 29% of males encouraged by their college, compared with 25% of females.

This is likely because by this point students will have begun to make choices regarding subjects which will lead professors and careers advisers to naturally push them towards different careers, regardless of their gender.

It's evident from this research that an important element in the journey towards diversity will be providing students with more information regarding tech jobs from a much younger age, and ensuring that pupils of every gender, ethnicity and socio-economic background are given equal opportunities and encouragement to learn about the different technology career paths and the qualifications they'll need to get there.

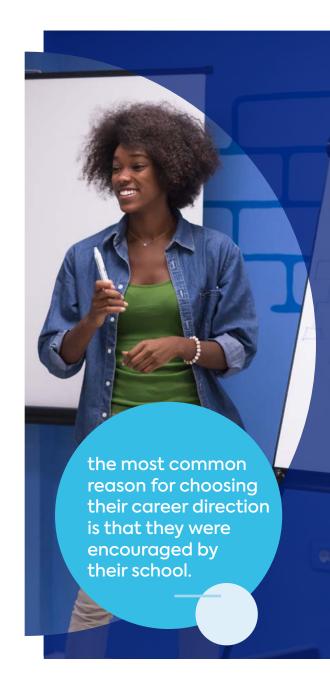


Inspiration:

The importance of role models

Amongst those aged 18-28 who have already begun a career in technology, the most common reason for pursuing their career is that they were encouraged to do so by their high school. Nearly half (47%) cited this as one of their main motivations, highlighting the necessity for schools to do more to promote tech roles to a wider range of students. Similarly, the next most commonly cited reason was because they were encouraged by their college (44%).

Interestingly, most reasons were cited fairly equally by males and females, but there are a few subtle but significant differences in the responses. Female respondents were slightly more likely to have pursued a career in tech because they were encouraged to do so by their friends and/or parents than males (1% difference), and 4% more likely to have been inspired by a high-profile person in the media.







This would suggest that social influence and role models are particularly significant to young girls, so there is a need to ensure positive representations of women in technology in the media – both traditional and other media channels - wherever possible, something that will require a collaborative effort between the tech and media industries.

There was more variation in the responses between different ethnicities. White respondents were the most likely to have pursued a career in technology as a result of being encouraged by their high school (50%), compared with those who identify as Hispanic or Latino (48%), Black or African American (45%), and Asian (36%).

What made you decide to pursue a career in technology?

Ethnicity	Total	Asian/ Pacific Islander	Black or African American	Hispanic or Latino	Native American or American Indian	Other	White
I was encouraged to do so by my school		36%	45%	48%	14%	38%	50%
I was encouraged to do so by my college		55%	45%	43%	43%	25%	42%
My parents pushed me towards a career in tech		28%	28%	29%	0%	13%	28%
I was inspired by a high-profile person/ person in the media, in technology		23%	30%	32%	43%	13%	23%
I was encouraged by my friends		34%	22%	19%	29%	13%	28%
It seemed an obvious choice as I have a natural inclination for science/math	23%	26%	25%	19%	57%	0%	22%
I completed a degree in a related subject		17%	20%	16%	14%	13%	18%
I researched different industries and decided tech offered the best opportunities	15%	30%	15%	12%	29%	13%	14%

Tech careers

Perceptions and misconceptions

Having established the reasons some people from underrepresented groups do pursue a career in technology, it's also key to understand why significantly more do not. How do young people outside of the industry feel about careers in technology, and do certain minority groups have particular misconceptions about tech jobs that are preventing them from exploring the possibilities it offers?

According to the research, a little over half (51%) of 18–28-year-olds who are not currently working in tech believe it offers a wide range of career choices, and 42% do not believe that it currently provides excellent career opportunities. Meanwhile, only around a third (37%) think that careers in technology are likely to be amongst the most futureproof.

Only 14% stated they wished they decided to pursue a career in technology, and 13% would still like to. Worryingly, more than 1 in 10 (12%) of those surveyed said that they don't know anything about careers in technology. When looking specifically at respondents that are non-white identifying, this number rises to 17% saying they didn't know anything about careers in technology (compared to 12% for the larger sample), showing that significantly more needs to be done to

educate young people about their different career options.

The results also showed some differences between males' and females' perceptions of careers in technology. Interestingly, while women are underrepresented in tech, they are 10% more likely to think the industry offers a wide range of career opportunities, 7% more likely to think it currently offers excellent career opportunities, and 3% more likely to think that careers in tech are some of the most futureproof.

14% of both males and females said that they wished they pursued a career in technology, while 16% of males surveyed stated that they would still like to pursue a career in the industry, compared to just 11% of females.

This suggests that while awareness of the opportunities offered by careers in technology is generally quite low, it is not a lack of awareness that is specifically preventing more women from following this path. We must therefore explore other perceived barriers to entry that are potentially fueling tech's diversity problem.





What do they believe the barriers are?

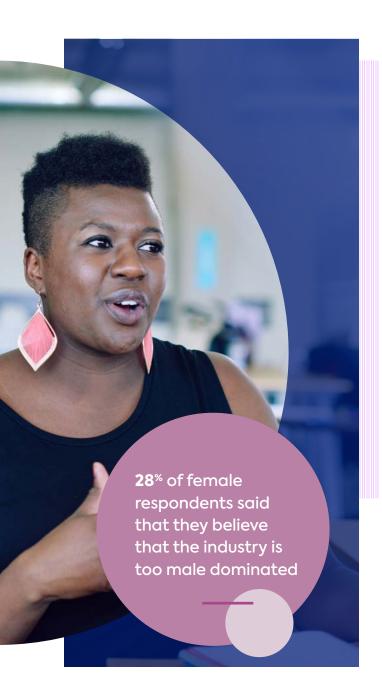
When it comes to the reasons deterring young people from pursuing a career in technology, nearly half (47%) are worried about not having the right qualifications, 31% believe they don't have the right educational background, and 31% don't know anything about the different technology jobs that are available.

When looking at only female-identifying respondents, we see increases to 48% are worried about not having the right qualifications, 33% believe they don't have the right educational background, and 32% don't know anything about the different technology jobs that are available.

Females are more likely to have doubts about their skills and expertise than males, with 48% worried about their qualifications compared with 43% of males, 31% concerned that they are not good enough at math and science compared with 18%, and 33% worried that they don't have the right educational background compared with 24%.







While some math/science ability or experience may be required for some tech roles, this does not necessarily correlate with the math studied at school. It's possible from the research that this is not being conveyed effectively to young people, who could be assuming that there is not a suitable career path for them within the industry when that may not be the case.

With the widespread attention given to the lack of diversity in the industry in recent years, it is perhaps unsurprising that 28% of female respondents said they believe the industry is too male dominated, and 18% think they wouldn't feel welcome in the industry.

These fears were echoed by other minority groups, with 40% of Asian respondents, 27% of Black or African American respondents, and 20% of Hispanic or Latino respondents worried that the industry is not ethnically diverse enough.

These statistics show there is work to be done to change the reputation of the tech industry amongst different groups of young people, with many deterred from pursuing job opportunities as a result of their preconceptions.





How do young tech workers feel about their careers?

But are these preconceptions justified? In order to find out, we asked a selection of 18-28-year-old technology workers about their experiences in the industry so far. Encouragingly, our research revealed that 69% of those surveyed had an overall positive experience. 38% stated that their experience was entirely positive, 31% mostly positive, and 26% a mixture of positive and negative. Only 3% had a mostly negative experience, and 1% an entirely negative experience.

However, it also showed that experiences differ between different demographics. 77% of white respondents said that their experience so far has been mostly or entirely positive, compared with 66% of Asian, 63% of Black or African American, and 64% of Hispanic or Latino respondents.

While women were slightly less likely than men to have a mostly or entirely negative experience (3% vs 5%), men were significantly more likely to have mostly or entirely positive experiences (74% vs 66%). About a third (31%) of female respondents reported a mixture of positive and negative experiences, compared with 22% of men.

When asked what made their experience positive, 58% said that they enjoyed the work, and half (51%) said that they found the work interesting. Only 16% said they actively found the work uninteresting, while 23% said that they found it too difficult. It would therefore seem that the nature of the work itself is not the root of the negative experiences for the majority of young tech employees.







Instead, the research suggests that the biggest issue for many businesses is that they are still struggling to establish an inclusive, welcoming environment. Only a fifth (20%) of those surveyed said they like their company culture, and only a quarter (24%) felt welcomed by their colleagues.

When asked if they had ever felt uncomfortable in a tech-related role because of their gender/ethnicity/socio-economic background or neurodevelopmental condition, 68% said yes. This number rose to 75% of all female respondents (77% when looking at only women of color), 69% of Hispanic and Latino respondents, and 81% of Black and African American respondents.

Meanwhile, half (50%) said they had left, or wanted to leave, a tech or IT job because the company culture made them feel unwelcome or uncomfortable. Once again, this figure was higher amongst many minority groups, with 53% of female respondents, 53% of Asian respondents, 56% of Black and African American respondents, 58% of Hispanic or Latino respondents agreeing with the statement.

A significant proportion of all surveyed (64%) said they believe people from minority backgrounds are discriminated against in the recruitment process for technology jobs. Interestingly, this number was relatively consistent across the different demographics, which would imply that it is a problem that is apparent to many of those in the industry, not just those who are discriminated against as one might expect.









What could businesses be doing better?



Awareness does not equal successful action

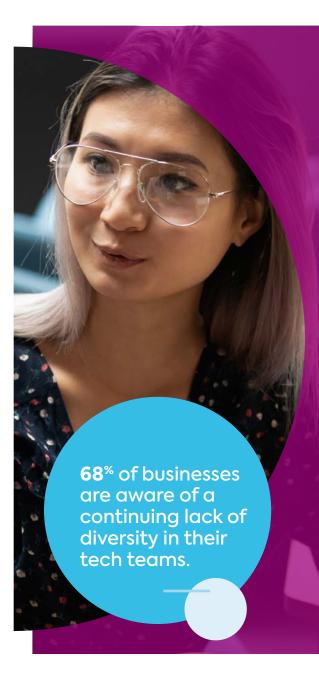
The extent of the lack of diversity in tech is widely publicized and discussed and yet, despite this attention, diversity remains a key challenge for businesses, with only 30% of the U.S. tech workforce identifying as Black, Asian or Hispanic, and gender diversity currently sitting at around 25%, compared with 47% for all other jobs.

But has this attention translated into action? The research found that 68% of businesses are aware of a continuing lack of diversity in their tech teams. Of those, 46% are actively trying to address the issue. but 22% said that they do not know how to change things. Only 12% said that they did have a lack of diversity, but have successfully improved the situation. Even less (4%) said that they have never even considered whether there is a lack of diversity.

However, the persistent lack of diversity in the industry would suggest that current efforts to tackle the problem are not sufficient, despite many businesses believing they are already addressing the issue. **Only half (51%)** of those surveyed currently have diversity targets in **place**, suggesting that many are still failing to take it as seriously as they should.

Given that so many young tech employees reported feeling unwelcome in the industry, it is unsurprising that more than 1 in 10 (11%) businesses admitted to not having a diversity and inclusion strategy in place. And although the remaining businesses said they are actively trying to ensure all employees feel comfortable and welcomed, nearly a fifth (18%) have still received complaints from current or former employees in this regard.

The good news is the majority of businesses surveyed (82%) currently operate a mentorship scheme for graduates, apprentices and other entry level employees to support their professional and personal development, and most (77%) have a system in place to identify whether additional support may be needed for entry level employees from different backgrounds. It may be that they just need to listen more to their young tech employees to ensure these systems are working as effectively as possible.





Why diverse junior tech talent is most elusive

According to the research, the majority of businesses have trouble recruiting diverse tech talent at every level – only 24% said they have no difficulties at all. However, it's clear that diverse entry level talent is the most difficult to find. More than half (51%) said that they struggle to recruit diverse entry level employees, compared with 34% about mid-level positions, and 28% about senior roles.

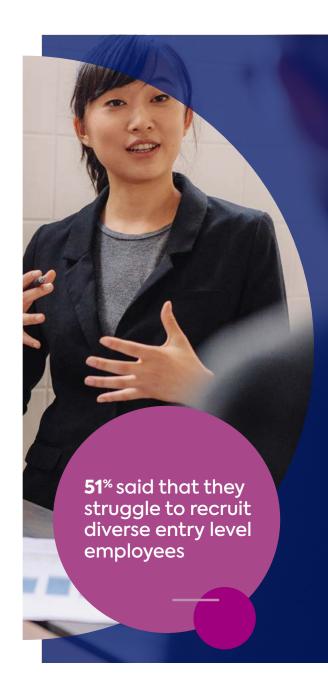
And yet, despite a definite awareness of the problem, the survey also revealed that many businesses are still recruiting entry level talent from a very narrow pool of talent. For some of the largest and best-known companies, competition for entry level roles and graduate program can be extremely fierce.

It's clear that this resulted in many being extremely selective about the applicants they accept and consequently hiring a disproportionate number of candidates from the most prestigious colleges, because of false apprehension that they will automatically be the best qualified.

Of those surveyed, a fifth (20%) said that they exclusively hire graduates from top colleges, and a further 29% said that they are more likely to hire graduates from those institutions. Only 24% said that they consider applications from all universities equally, with even fewer (22%) stating that they consider all types of higher education qualifications.

Prioritizing graduates from a small selection of colleges means that those businesses will be relying on the diversity strategies of the universities themselves. While the Ivy League schools are actively trying to improve the diversity of their students, young people from certain socio-economic backgrounds are inevitably more represented than others.

In order to achieve greater diversity at a junior level, businesses must actively work to widen their talent pool, publicizing their roles to a wider variety of people and encouraging them to apply. Businesses should consider partnering with less obvious colleges, attending a greater number of university job fairs, as well as paying more attention to job fairs and other events aimed at non-graduates.



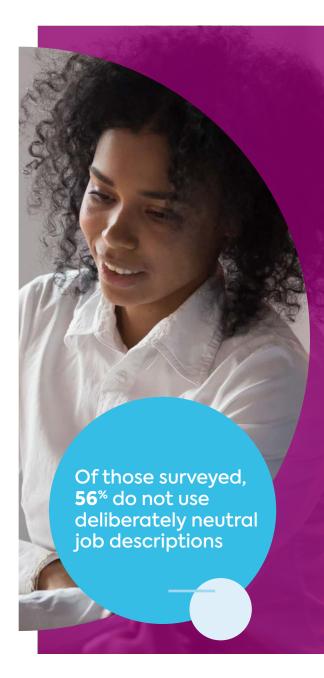


Tackling unconcious bias

Crucially, they must also take a close look at their recruitment process, to ensure that unconscious bias is not causing young people to miss out on opportunities they would be well qualified for. However, our research found that there are a disappointing number of well-established anti-bias hiring practices that many businesses are yet to introduce.

Nearly half (45%) of businesses are yet to invest in anti-bias training for hiring managers, without which the risk of potential employees being unfairly judged - however unintentionally at the interview stage is increased. It's important to enable those responsible for recruitment to recognize their own unconscious biases and give them the tools they need to approach the process more objectively.

Of those surveyed, 56% do not use deliberately neutral job descriptions. If not worded carefully, job descriptions can be inadvertently off-putting, for example certain language can create the impression that employers are exclusively interested in candidates from particular backgrounds. In order to avoid this, businesses should make use of proofing tools which can effectively identify words or phrases that may discourage applicants from certain groups.







Only 41% currently anonymize resumes. Removing all potentially identifying information, such as name, age, and educational background, makes it impossible for recruiters or hiring managers to make subconscious judgements about an applicant. They then have no choice but to judge a candidate only on their qualifications and experience, which should ensure that those best-qualified for the role are invited to interview rather than those that fit a particular profile.

Less than a quarter (22%) said that they request diverse shortlists from recruiters. If chosen carefully, employment agencies and other talent partners can be an invaluable tool in the quest for diversity. However, this is only the case if businesses deliberately choose a partner that shares their attitude and values when it comes to diversity, and have their own comprehensive strategies in place to ensure inclusivity.

Shockingly, nearly a fifth (17%) of those surveyed do not currently have any anti-bias hiring practices in place at all. Of those that do, the vast majority (79%) have noticed an improvement to some extent. 42% said there was a significant improvement, while 37% noticed an improvement but still have more work to do, showing that anti-bias hiring practices are essential in the fight for greater diversity and quality in the tech industry, and could make a marked difference if adopted by more businesses.







Conclusion



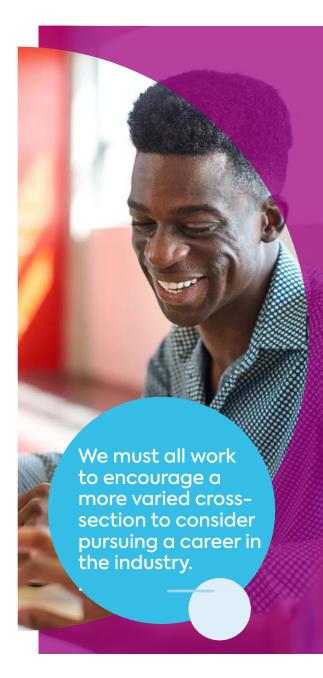
Conclusion

It's clear from the research that technology jobs offer excellent opportunities for young people, particularly now amidst the economic uncertainty brought by the COVID-19 pandemic. To ensure these opportunities are not enjoyed by only a select group – and thus perpetuating existing, persistent inequalities – we must all work to encourage a more varied cross-section to consider pursuing a career in the industry.

With young people so heavily influenced by their schools and colleges, it's vital that they are provided with more extensive information and education about the different career paths – both tech and non-tech related. For certain groups, celebrities and public figures play a particularly important role, so we should also be offering young people a wide variety of role models who can extol the value of joining the sector.

While there are certainly some negative perceptions of the industry amongst some demographics, it's also apparent that these are not all unjustified. Many of those who have already started working in the industry found their experience not entirely positive. Businesses need to do more to fix this, or they will never be able to make any real improvement when it comes to improving diversity.

By working to develop an inclusive and welcoming company culture, coupled with more widespread implementation of anti-bias hiring practices, we should start to see positive changes that will ultimately make a big difference to the long-term prospects of many ambitious, diverse young people, and go a long way to improving equality in our society.





Summary of recommendations

Below are some actions for corporations struggling to build a more diverse workforce.

Focus on bridging the gap between college and

career: The majority of businesses surveyed said they have trouble recruiting diverse tech talent at the entry level. In order to achieve greater diversity at a junior level, businesses must actively work to widen their talent pool, publicizing their roles to a wider variety of people and encouraging them to apply. Businesses should consider partnering with less obvious colleges, attending a greater number of university job fairs, as well as paying more attention to job fairs and other events aimed at non-graduates. This can expand the demographics businesses reach and get diverse workers in highdemand, high-powered tech jobs faster.

On the job training can be an asset to attract next gen workers looking for Best Place to Learn, not just Best Place to Work. A focus on credentialing and reskilling, removes concerns over education background from candidates, and therefore expands the candidate pool. mthree offers a "last-mile" training services to help find, train and place job-ready tech-talent with leading

corporations. In conducting similar training processes, companies can alleviate education bias and expand to more diverse talent.

Offer mentorship programs for entry level employees to support personal and professional development. This provides a support system to identify whether additional resources are needed for entry level employees from different backgrounds.

Companies that prioritize and invest in unconscious bias training will win. Companies must take a close look at their recruitment process to ensure unconscious bias is not causing young people to miss out on opportunities for which they would be well-qualified. Something as simple as anonymizing resumes to remove all potential identifying information such as name, age and educational background ensures candidates are judged based on qualifications and experience only. In addition, companies should use neutral job description and carefully select words to avoid deterring candidates from applying. This can help companies immediately build a more diverse talent pipeline and workforce.





Report methodology

Employee:

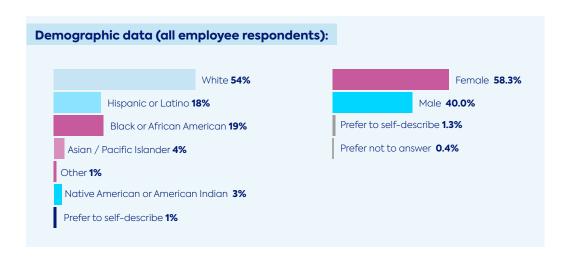
The employee sample consisted of 2,030 respondents comprised of individuals ages 18-28. Individuals working in a tech or IT based role represent 36% of respondents; individuals not working in a tech or IT based role represent 64% of respondents.

To recruit for the employee/consumer sample within the US, a panel of consumers from across the nation were asked to participate in an online survey through custom email invitations. All respondents resided in the United States at the time they participated in the survey. Texas residents accounted for the largest percentage of respondents (15%), followed by New York (14%), and Florida (10%).

Employer:

The employer sample consisted of 270 respondents who were serving in leadership roles within the financial services, healthcare or insurance industries at the time they completed the survey. Respondents needed to be serving in C-suite, executive level, senior management, vice president, or director positions in order to participate.

To recruit for the employer sample within the US, a panel of consumers from across the nation were asked to participate in an online survey through custom email invitations. All respondents resided in the United States at the time they participated in the survey. Florida residents accounted for the largest percentage of respondents (18%), followed by New York (14%), and Illinois (11%).









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