MLT PERSPECTIVES:
Minority Student Confidence in Tech Sector

MLT IS COMMITTED TO BUILDING A WORLD in which there is a critical mass of minorities at all levels of our best organizations and institutions (including top colleges, leading companies, major non-profits, innovative entrepreneurial organizations and best b-schools). We've worked with thousands of high-potential young people and over 100 of the best organizations over the past 10-plus years in pursuit of this goal. In our MLT Perspectives series, we want to share some of what we've learned through our experience, with the goals of helping organizations better recruit, retain, develop and advance diverse talent and helping more minority young people realize their professional and leadership potential.

Increasing diversity in the workforce and leadership pipeline is a major priority in many companies and sectors. Many companies in the tech sector have bravely illuminated the scope of their diversity challenges and committed to solving them. There are a number of factors that contribute to the problem and there are no easy solutions. There are, however, some steps that companies and individuals working within tech can take to contribute to making tech and Silicon Valley more diverse and inclusive. For our initial research, MLT focused on one challenge that we believe is an important part of the solution: giving minority young people the confidence that they belong and can succeed in the tech sector.

There are 800 MLT Rising Leaders (early- and mid-career minority professionals) working in the tech sector and hundreds of STEM[1] Rising Leaders not currently working in tech. We also work with hundreds of new minority college students each year to help them succeed in pursuing their ambitious post-college career goals. For our initial research, MLT spoke with and surveyed 400 academically high-performing minority college students from across the country. Our research found that lack of confidence they can succeed in tech is a major challenge that prevents more highly talented minority students from pursuing careers in tech. We've identified the major causes of the problem and some concrete steps that can be taken to increase minority student career confidence.

[1] Individuals who were Science, Technology, Engineering or Math undergraduate majors.

KEY FINDINGS:

- Confidence one can succeed in a given career path is a primary driver of career choices. Student confidence they can succeed typically tracks their knowledge of careers in a given sector.

- Tech is a noticeable outlier, where minority student confidence they can succeed is lower than it should be given their self-reported knowledge. The issue is worse with minority women in tech, finance and manufacturing.

- Students who know a minority who has been successful in an industry are more likely to be confident they can succeed in that industry. Most students say that having a mentor who has been successful in an industry would increase their confidence they can succeed in that industry.

- More information about careers in tech and a better understanding of the skills it takes to succeed in tech can increase minority student confidence they can succeed in tech.
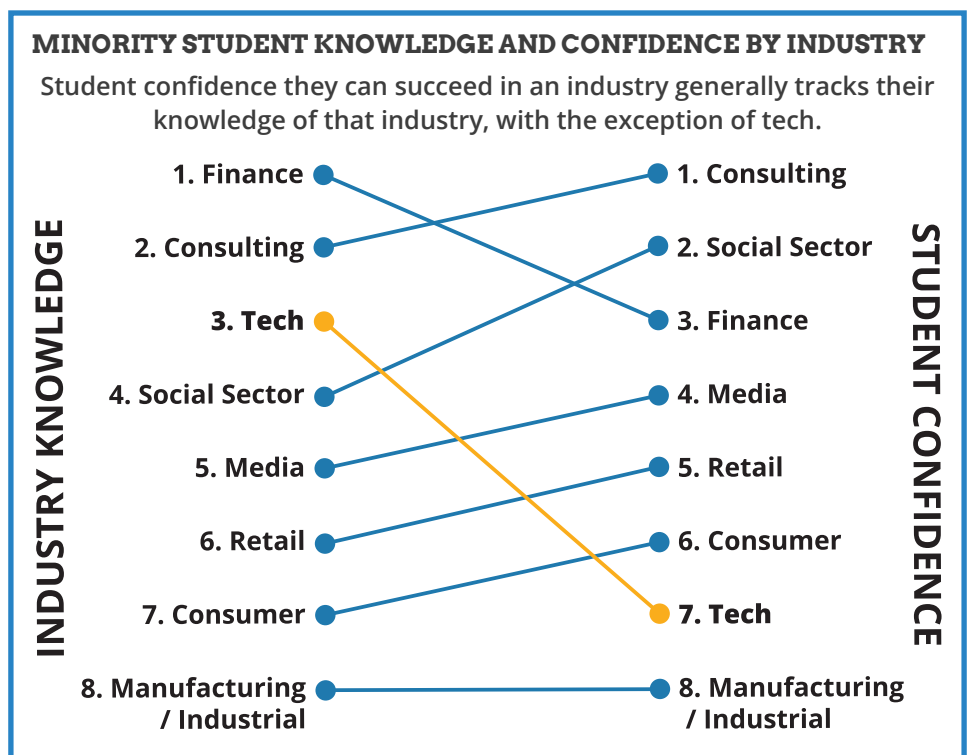
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WHY CONFIDENCE MATTERS

THERE IS AN IMPORTANT AND GROWING BODY OF ACADEMIC AND POLICY RESEARCH on increasing and maintaining diversity in the workplace. For example, towards the beginning of one's career exploration journey, high career aspirations and interests in prestigious careers at a young age may be limited by occupational stereotypes (Bigler, Averhart, & Liben, 2003) and perceptions of barriers (Fouad & Byers-Winston, 2005). As one continues to plan and prepare to enter the workforce, factors such as career exposure, opportunities for development and encouragement from teachers and professors further facilitate (or obstruct) self-efficacy and intent to remain in a field of study (Dawson, Thomas, & Goren, 2013) become increasingly important.

In 2014, MLT researched factors that influence the career decisions of high-potential minority young people. We asked over 500 minority college students and early-career professionals about how they made their early career decisions and why they chose one career path over another. We found that confidence they could succeed within an organization was the top factor that influenced which job these talented young people chose to pursue. Because confidence plays such a critical role in shaping the career decisions of young people, we decide to further explore the career confidence of minority college sophomores.

As research subjects, we worked with over 400 Black, Hispanic and Native American sophomores from over 100 4-year colleges and universities around the country. The students are pursuing a variety of majors and are generally high-performing (average GPA of the group is 3.3). They're exactly the type of students that leading companies compete to recruit.

MINORITY STUDENTS HAVE ESPECIALLY LOW CONFIDENCE THEY CAN SUCCEED IN TECH

WE ASKED THESE HIGH-PERFORMING minority students a series of questions about their knowledge of careers in eight major sectors and how confident they are they can succeed in those sectors. In general, student confidence increased with their knowledge of a given sector (i.e. the higher a student rated their knowledge of a particular sector, the more likely they were to believe they can succeed in that sector). The notable outlier was the tech sector. Students rated their knowledge of technology careers third only behind financial services and consulting. However, student confidence they can succeed in tech ranked 7th, second-to-last of the 8 sectors.

MINORITY STUDENT KNOWLEDGE AND CONFIDENCE BY INDUSTRY

Student confidence they can succeed in an industry generally tracks their knowledge of that industry, with the exception of tech.

INDUSTRY KNOWLEDGE

1. Finance
2. Consulting
3. Tech
4. Social Sector
5. Media
6. Retail
7. Consumer
8. Manufacturing / Industrial

STUDENT CONFIDENCE

1. Consulting
2. Social Sector
3. Finance
4. Media
5. Retail
6. Consumer
7. Tech
8. Manufacturing / Industrial

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THE PROBLEM IS WORSE AMONG MINORITY WOMEN

There are no significant differences in how male and female college students rate their knowledge of careers in any of the eight career sectors we explored. Female college students, however, are significantly less confident they can be successful in tech, finance and industrial / manufacturing careers (and somewhat less confident in consulting).

MINORITY STUDENT CONFIDENCE THEY CAN SUCCEED BY GENDER
Despite similar knowledge of all sectors, women are much less confident they can succeed in technology, finance and industrial / manufacturing careers.
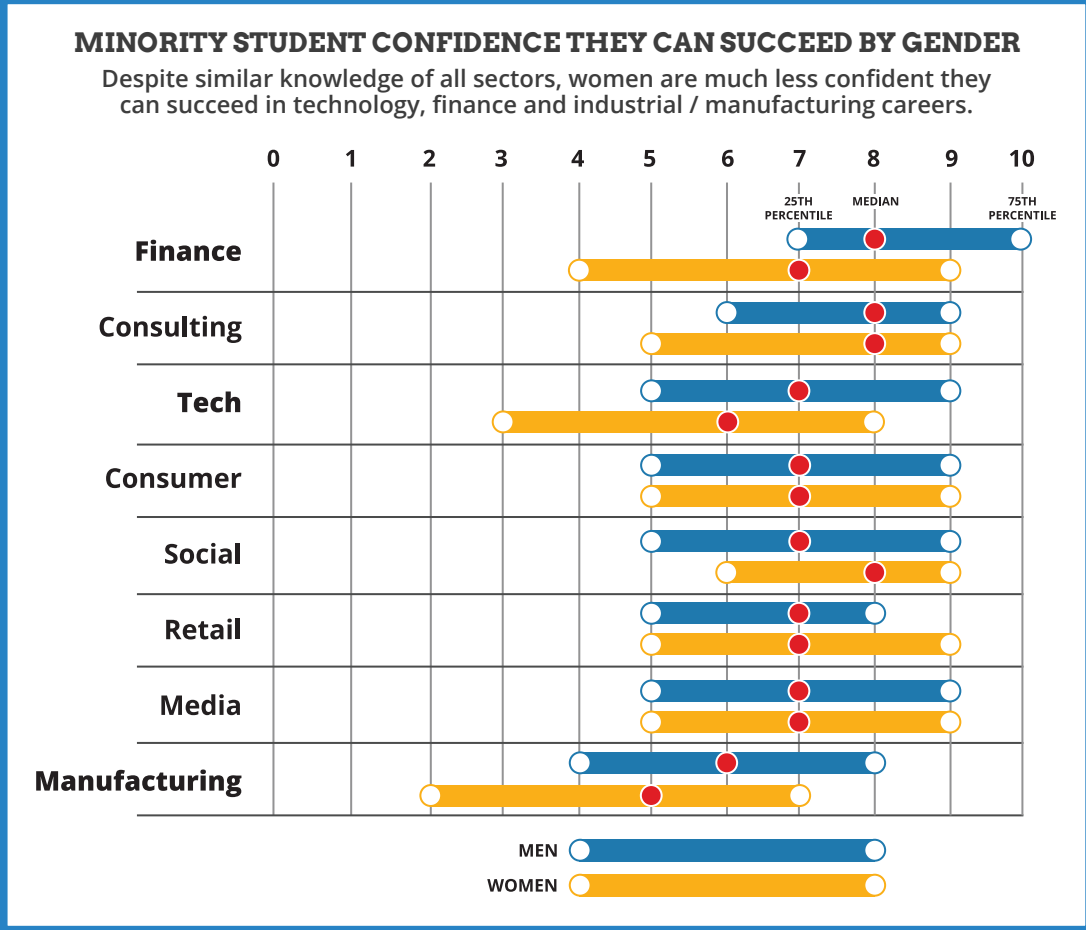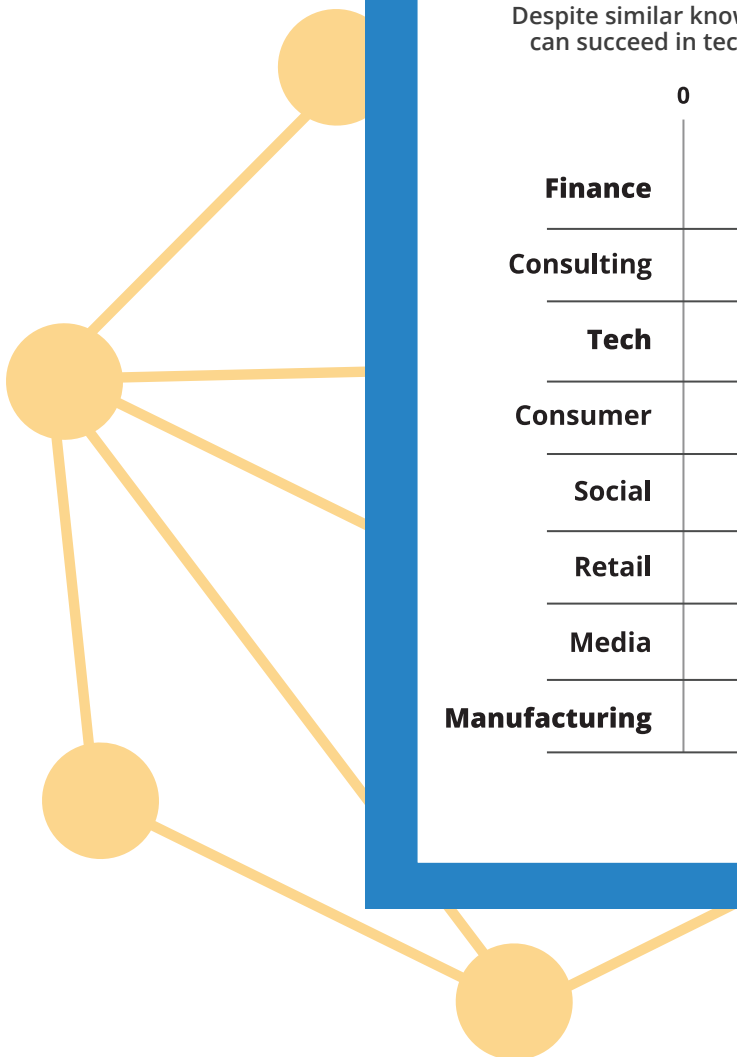
CAUSES OF LOW CONFIDENCE AND SOLUTIONS TO BUILD CONFIDENCE

OUR RESEARCH POINTED TO SEVERAL FACTORS that contribute to relatively low student confidence and also suggested a number of actions that can be taken to increase confidence. Our research drew on MLT's 10+ years of experience helping minority college students succeed in the most competitive post-college jobs, tested the impact of a number of potential causes and solutions to low confidence and gathered student opinions.
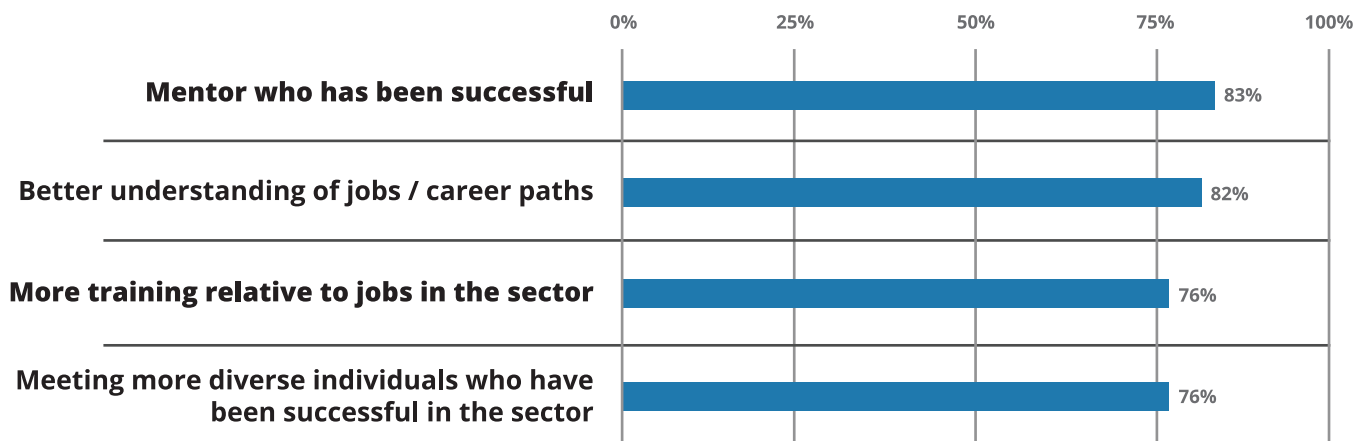
STUDENT-REPORTED WAYS TO INCREASE CONFIDENCE

WHEN WE ASKED STUDENTS with relatively low confidence they can succeed in a sector what would help build their confidence, the following top answers emerged.

SELF-REPORTED WAYS TO INCREASE MINORITY STUDENT CONFIDENCE

Top answers when minority students were asked what could be done to increase their confidence in career paths where they do not think they can succeed*.
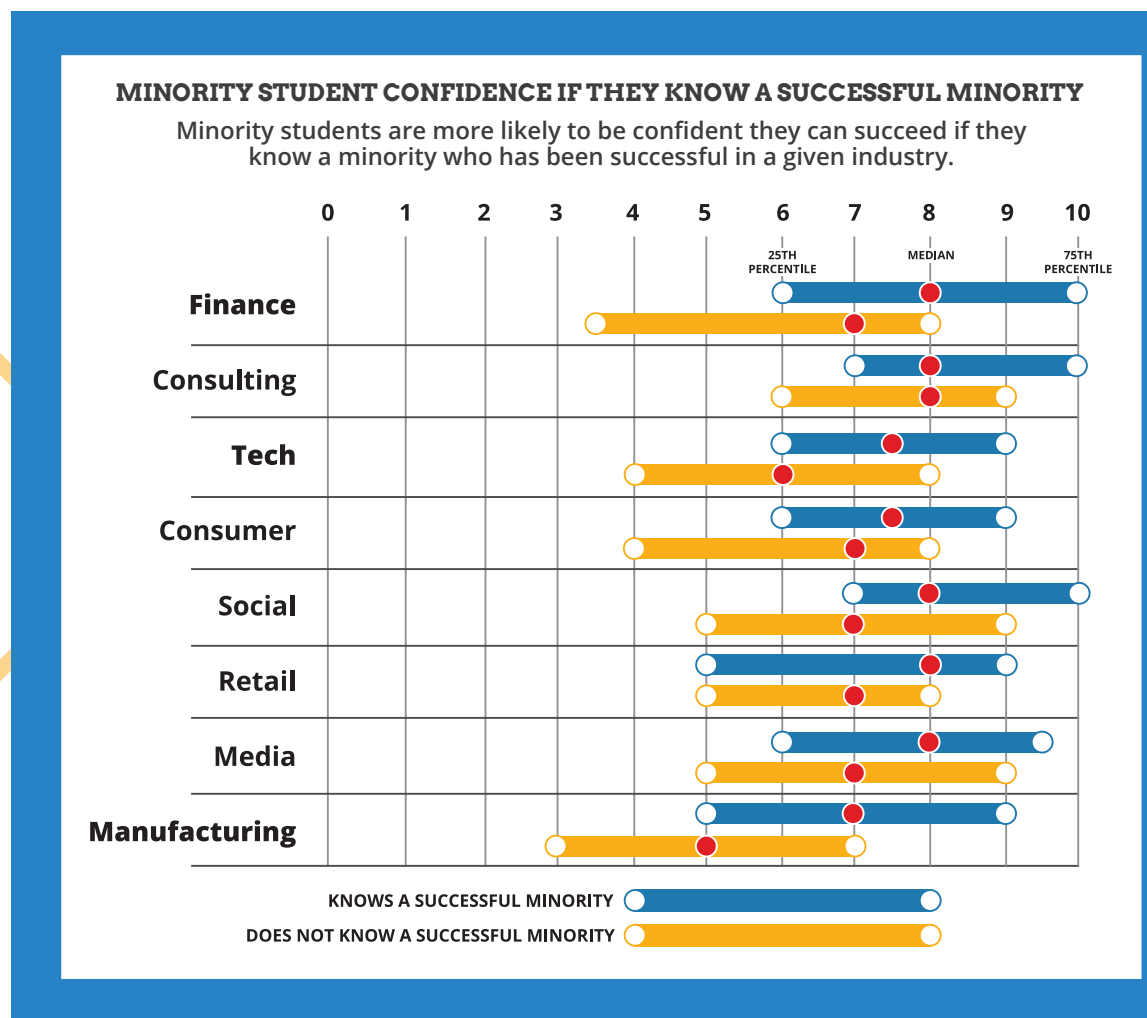
Mentor who has been successful	83%
Better understanding of jobs / career paths	82%
More training relative to jobs in the sector	76%
Meeting more diverse individuals who have been successful in the sector	76%

*Percent of students who said each answer would increase their confidence they can succeed

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We explored many of these self-reported solutions with further research.

EXPOSURE TO DIVERSE LEADERS, ROLE MODELS AND MENTORS

Increased exposure to diverse individuals who have been successful is a critical lever for raising student confidence. We asked students a number of questions about their relationships and examined how their answers impacted their confidence. **Students who report knowing a diverse individual who has been successful in a sector are much more likely to be confident they can succeed in that sector.**

MINORITY STUDENT CONFIDENCE IF THEY KNOW A SUCCESSFUL MINORITY

Minority students are more likely to be confident they can succeed if they know a minority who has been successful in a given industry.

KNOWS A SUCCESSFUL MINORITY

DOES NOT KNOW A SUCCESSFUL MINORITY

Interestingly, knowing a non-diverse person who has been successful has no impact on student confidence they can succeed.

EXPOSURE TO DIVERSE LEADERS IN TECH

STUDENTS WHO ARE STEM MAJORS RATED MENTORS IN TECH and knowing more diverse individuals who have been successful in tech as even more important to building their confidence than our average student. We also heard comments from many students that they felt like minorities couldn't be successful in tech.

> "When you see the top players in tech you do not get the feeling that you belong."

> "It was the first career track that I was exposed to. I have met a great deal of people in the industry and I know, for the most part, what it takes to be successful in the industry."

We know that students pursue careers in sectors and companies where they can see themselves succeeding. It's important that students hear from individuals with diverse backgrounds and life experiences about how they succeeded in tech and how their skills and backgrounds contributed to their success. We heard from many students whose confidence they can succeed was rooted in hearing the story of someone else from a similar background who had been successful in tech and whose path to success they could see themselves taking.

On-campus events are a primary venue by which students meet professionals in various industries. Students report that tech companies recruit heavily on their campuses (along with financial services and consulting firms). Students are about 30% more likely to meet a diverse individual at a finance or consulting on-campus event than they are at a tech event

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BETTER UNDERSTANDING OF
CAREERS AND THE SKILLS NEEDED TO SUCCEED

WE KNOW THAT BETTER UNDERSTANDING OF JOB OPPORTUNITIES is highly correlated with increased confidence students can be successful. In addition, over 80% of students self-report that gaining a better understanding of jobs would increase their confidence they can be successful (the second most popular answer). While student self-rated knowledge of tech careers is relatively high (compared with their knowledge of other sectors), there is still ample opportunity to increase student confidence through better knowledge of tech careers.

We've found that general knowledge of careers isn't enough. Young people need to understand specifically what skills and accomplishments are required to be successful in those careers. Importantly, they also need to understand how their skills, competencies and performance will be evaluated by decision-makers and gate-keepers. Job descriptions are a good start, but truly understanding what separates the few applicants who get and are successful in a job from the many who don't is something that typically comes from knowing someone who has been successful in the path you're looking to pursue. Minority students tend to have fewer relationships with the types of people who can pass down this critical information, in large part due to the underrepresentation of minorities currently working in the tech sector.

There are a number of ways to provide students with a better understanding of careers and the skills that are required for success in tech. More exposure to individuals who have been successful in tech and opportunities to hear their stories is a good start. Even better is to connect high-potential young people with a mentor who has been successful in tech and can provide personalized guidance, support and exposure. At MLT, we provide students with an opportunity to actively participate in simulations of the type of work they could be doing in various roles in tech. Students work alongside individuals who currently hold these roles at top companies and receive feedback on their performance in a low-risk environment. MLT recently hosted a workshop in the Bay Area for 300+ minority college sophomores from around the country, all pursuing a variety of professional careers. LinkedIn served as our primary co-host and numerous other companies participated including Google, Intuit, Salesforce, Uber, Amazon and Pandora. The event was designed to give students an immersive experience that provided unique insight into tech careers and the skills it takes to be successful in the sector. Student interest in tech careers doubled as a result of the event, with over half of students indicating that they are "very interested" in a career in tech after the event.

MISCONCEPTION THAT A TECHNICAL DEGREE IS REQUIRED TO WORK IN TECH

STUDENTS ARE MUCH MORE LIKELY TO REPORT that a specific degree or major is required to be successful in the tech sector than in other major sectors. Over half of the students surveyed indicated that a computer science, engineering or other technical degree is required to be successful in the tech sector. This is significantly higher than other sectors that we asked about.

STUDENT BELIEF THAT A SPECIFIC DEGREE IS REQUIRED FOR SUCCESS

Significantly more minority students believe a specific / technical degree is <u>required</u> for success in tech than in other sectors*

Sector	Percentage
Tech	52%
Finance	34%
Consulting	23%
Consumer Goods	23%
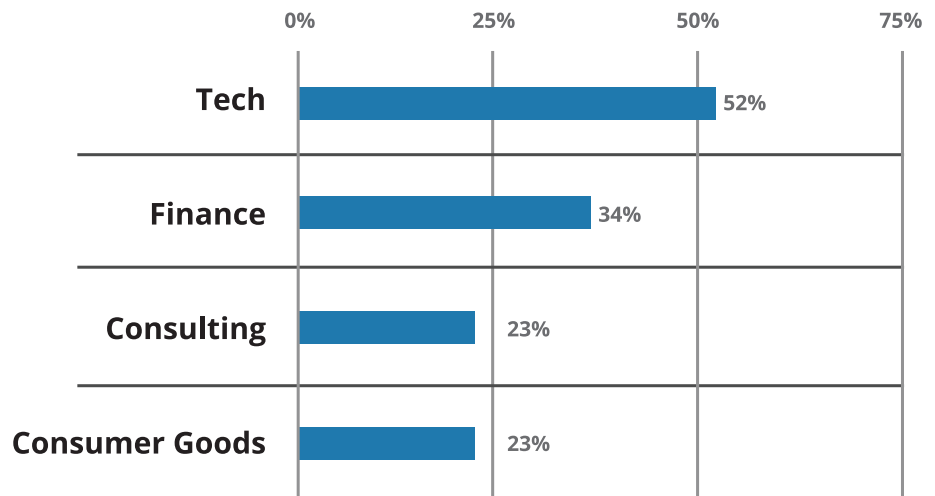
*Do you need an engineering, computer science or technical degree in tech; a finance degree in finance; a business degree in consulting; and a business or marketing degree in consumer goods.

This sentiment was also backed up by a number of student comments:

"I can use technology well and efficiently, however I would not enjoy writing computer code."

"I used to be interested in the tech industry, however... I don't believe I have the coding skills necessary to be successful."

"I don't know how to code. I would love to work in tech, but I don't have the technical skills to do so."

EXPOSURE TO NON-TECHNICAL ROLES AND SUCCESS STORIES

WHILE A TECHNICAL DEGREE IS REQUIRED for roles like software developer, and can be an important asset in other roles, there are many important jobs in technology that don't require a technical degree. It's troubling that so many high-performing diverse college students believe a technical degree is required for success in the tech sector. Particularly at a pivotal moment when they are deciding which post-college careers to pursue.

It's important that education about careers in tech includes both technical and non-technical roles. Students need a better understanding of the number and types of non-technical roles available in the tech sector. They need to hear from leaders and rising leaders from non-technical backgrounds about how they've succeeded in tech companies, how they've learned to interact with technical talent and what they've done to become familiar with the technical aspects of their business in lieu of a technical degree. Students not pursuing a technical degree can feel intimidated engaging with engineers and other technology professionals, but there's no reason to be. There are many resources available to help non-technical students learn enough about how the technology they use all the time works that they can very effectively work with technical talent.

Jamie Coleman, an MLT Fellow and junior at Alabama State University, told Diverse Issues in Higher Education this about her experience at MLT's workshop at LinkedIn:

> "I was nervous about how well my skills would translate. You never know. But it turns out technology is so much more than just coding and computer systems. Marketing is needed, so people like me are needed."

We heard similar comments from some of our minority sophomores who were confident they could succeed in tech. One sophomore, who was one of the lucky few who has a relative working in tech, said the following:

> "My sister is a non-STEM major working at a big tech company and she has explained to me the most important thing for me to have is intellectual curiosity."

We need to make sure that the vast majority of high-potential minorities who do not have a relative working in tech hear the same message.

Some of this needs to be done through one-on-one or small group engagement and mentoring, but we can also help with more effective marketing and storytelling. While technical founders like Mark Zuckerberg, Jack Dorsey, Larry Page and Bill Gates have well known and celebrated origin stories and paths to leadership, we need to do more to tell the stories and more importantly illuminate the career paths of leaders who do not come from a strictly technical background like Jeff Weiner, Sheryl Sandberg, Marc Benioff, Tim Cook, Meg Whitman, Dick Parsons and Dave Sze. While many of these leaders have strong name recognition, we know much less about their career paths and the skills and experiences that have enabled them to be successful in tech. Students need to understand that it's possible to become a very successful leader in the tech sector without a technical degree and have a better understanding for what non-technical skills make an effective leader in the sector.

CONCLUSION

AS COMPANIES WORK TO INCREASE THE NUMBER OF TALENTED MINORITY YOUNG PEOPLE pursuing careers in the technology sector, it's clear that building their confidence that they can succeed in tech will continue to be a key factor. The good news is that there are some concrete steps that can be taken to increase student confidence, including:

- more exposure to individuals who have been successful in tech who are minorities (racial minorities and women), come from diverse backgrounds and don't have technical degrees;

- better understanding of tech careers; and

- better visibility into the skills and accomplishments that they must demonstrate to be successful in tech (and an understanding of where the student stands relative to that "bar" for success).

Each year MLT works with hundreds of high-performing minority college juniors and seniors (plus hundreds more early- to mid-career professionals) to help them build the confidence, skills and relationships they need to succeed in highly demanding professional careers. We're also working with some of the best companies, non-profits and schools in the country to help them build more diverse talent pipelines. Contact MLT at (202) 202-751-2330 or info@ml4t.org to learn more about how you can get involved and how your organization can become a partner. For information on our programs visit ML4T.org.

ABOUT MANAGEMENT LEADERSHIP FOR TOMORROW (MLT)

MLT is a non-profit organization that is changing the face of leadership in the private and social sectors. MLT provides high-achieving African Americans, Latinos and Native Americans with a winning professional playbook, one-on-one coaching and door-opening relationships that accelerate their career paths from college to MBA to senior leadership. MLT has created a thriving network of more than 5,000 rising leaders and is fundamentally transforming the diverse talent pipelines at its partner organizations, including more than 100 leading corporations, nonprofits and graduate business schools. For more information, visit ML4T.org.

METHODOLOGY

RESEARCH SUBJECTS: HIGH-PERFORMING MINORITY COLLEGE SOPHOMORES
For our research subjects, we chose a diverse mix of Black, Hispanic and Native American college sophomores from a variety of schools across these country. The 400 students are academically high performing and career-oriented. They should have every reason to be confident that they will have successful professional careers after college.

The students all applied to MLT's Career Prep program shortly before participating in our study. Career Prep prepares minority college juniors and seniors for careers at leading organizations, like MLT's partners, and applying is a strong indication that these sophomores have lofty post-collegiate professional goals. Some demographics of the 400 students who participated in our study:

- They're attending over 100 colleges and universities across the country

- 51% female and 49% male

- 62% Black, 36% Hispanic and 2% Native American

- 3.3 average GPA

- 60% business majors, 20% STEM majors and 20% other / liberal arts

RESEARCH METHODOLOGY

MLT'S PRIMARY DATA COLLECTION METHOD was via a survey answered by college sophomores. The survey was developed based on MLT's experience delivering career development curriculum and coaching to thousands of minority college juniors and seniors. MLT also conducted focus groups with its career coaches, who each work with 50+ minority college students each year on a sustained one-on-one basis to help them achieve their career goals.

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