



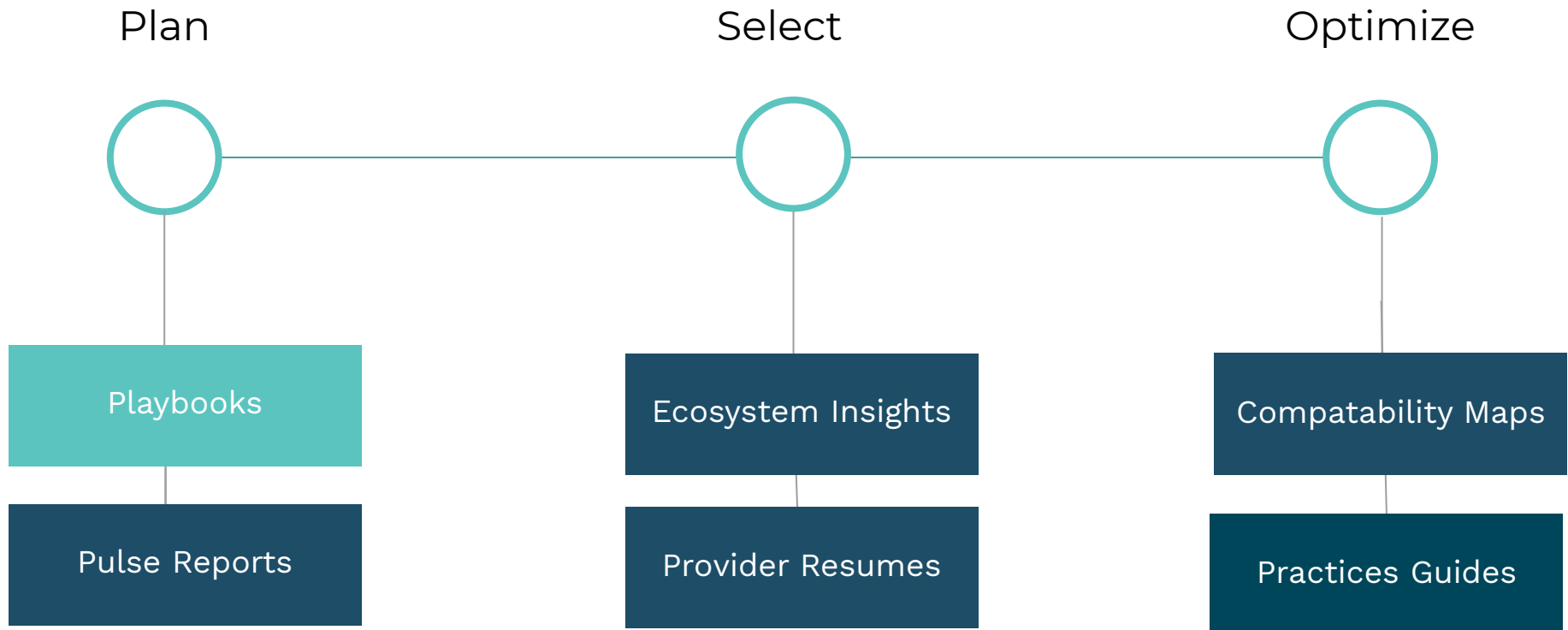
TALENT TECH LABS



PLAYBOOK:

Using Technology to Improve
Diversity in the Hiring Process
August 2019

RESEARCH LINES BY ADOPTION STAGE



HOW TO USE THIS REPORT



Playbooks

The Talent Tech Labs Playbooks Series™ of reports was created to help firms navigate technology solutions in terms of the specific business problems that companies are trying to solve. These reports are results- and case-study oriented, with a focus not just on technology, but also the business processes that need to be in place to support success. Stakeholders can use these reports as a literal “playbook” to help make strategic and tactical decisions to drive real business outcomes in their own organizations.

TABLE OF CONTENTS

05	Introduction
07	Definitions
08	Business Cases for Diversity and Inclusion
10	Diversity Hiring Technology
11	Overview
12	Job Advertising
14	Referral Tools
16	Brand Creation
18	Employer Reviews
20	Matching Systems
22	Temporary Labor Marketplace
24	Assessments
28	Diversity Hiring Maturity Model
32	Legal Considerations
33	Appendix i: Demographic Data
36	Appendix ii: TTL Workforce Diversity Report

INTRODUCTION

Diversity and inclusion has become one of the most important strategic priorities for companies around the world. In fact, many firms consider improving the diversity of their workforce so important they voluntarily publish their internal workforce demographics and hiring activity on annual basis, reporting on the progress (or lack thereof) they've made in hitting targets they've set for themselves, even when the results are not flattering (we ourselves went through this exercise and included our own workforce demographics at the end of this report).

The main purpose of this report is to highlight ways that employers can use technology in their hiring process to improve the diversity of their organizations. We start by defining diversity hiring and presenting the business case for investing in improving it. We then outline the areas in the hiring process that technology can improve, providing vendor examples, best practices, and considerations to ensure success. Next, we provide a Diversity Hiring Maturity Model -- a framework that you can use to benchmark your firm's progress, which provides a strategic roadmap for moving your organization forward. We close the report with US workforce demographic data you can use to benchmark against your own firm's demographics by occupational category.

It's important to note that while the focus of this report is on technology, there is no technological "magic bullet" that can solve a firm's diversity challenges, and any vendor that claims to do so is either ignorant or lying. Furthermore, we acknowledge that technology is just one part of the equation in a successful diversity and inclusion program; significant process -- and more importantly, cultural change -- is also required to create a program that permeates an organization and drives quantifiable results. We have done our best to include these broader strategic considerations into this report where appropriate. Finally, few companies are doing diversity hiring exceptionally well. The lack of case studies we could find (even reaching out directly to firms we thought doing well on diversity) suggests the "playbook" is still being written.

We don't think this report has all the answers, but we hope it is a useful resource for leaders in organizations that are looking for practical solutions for hiring more diverse talent, and are interested in finding ways that technology can improve the diversity of their workforce and effectiveness of their hiring processes, and are committed to making change happen.

WHAT IS DIVERSITY AND INCLUSION?

One of the challenges in addressing diversity and inclusion is that the terms mean different things to different people. Below are the definitions we used to guide us in putting this report together.

Diversity: *The range of human differences, including but not limited to race, ethnicity, gender, gender identity, sexual orientation, age, social/socio-economic class, education, physical ability or attributes, religious or ethical value systems, national origin, and political beliefs.*

Diversity Hiring: *There are two aspects of diverse hiring. The first is hiring people who have demonstrated they can do the work, irrespective of their background. The second is when an organization goes out of its way to hire individuals with different backgrounds to increase the overall diversity of their workforce; that is, hiring not irrespective of an individual's background, but specifically because an individual's background is different and will add to the diversity of the organization.*

Inclusion: *Creating a workplace culture where individuals with diverse backgrounds are respected and treated with dignity and respect and have a sense of belonging. An inclusive company celebrates and promotes respect for the variety of talents, beliefs, backgrounds, and ways of living of its workforce. (Note: While inclusion is an important part of a company's overall diversity strategy, it is outside the scope of this report.)*

THE **BUSINESS CASE** FOR DIVERSITY AND INCLUSION:

Fostering a diverse and inclusive workforce sounds like the kind of things a business should do “just because,” and it may surprise many that a business justification is even necessary for hiring a diverse workforce in the first place. That said, firms have competing priorities and limited resources, and thus unless there’s a compelling business case, diversity programs may not receive the attention or funding they require to succeed. The business case for diversity hiring is threefold: 1.) diverse companies perform better, 2.) diversity makes recruiting easier because talented individuals want to work for diverse companies, and 3.) diverse hiring opens up entirely new pools of talent that may not have previously been considered.

DIVERSE COMPANIES PERFORM BETTER: More diverse companies generally perform better than their less diverse counterparts, in terms of [ability to innovate](#) and [bottom-line financial results](#). There are two explanations for this. One, firms that better reflect the customers they serve are better able to understand their needs and build products that meet those needs. Two, [research suggests](#) that teams composed of members with different backgrounds have to work harder to come to consensus and are more likely to challenge one another. Essentially, this means that diverse teams literally think and deliberate longer, deeper, and harder about problems in order to come to a solution, which makes them explore more paths and consider more points of view.

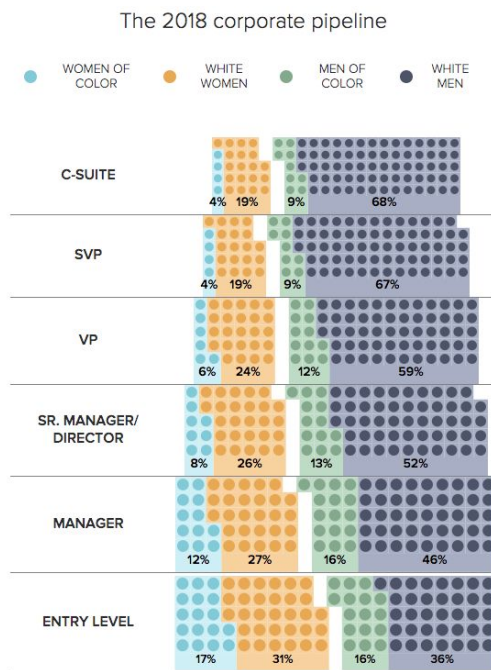
TALENT DEMANDS DIVERSITY: Talented individuals have never had more choice or opportunity in managing their careers, and are increasingly interested in working for firms that share their values. Firms that have a diverse and inclusive work culture can use that to attract and retain hard-to-recruit individuals.

UNDERSERVED COMMUNITIES ARE A WHOLE NEW TALENT POOL: Serving underserved communities can open up whole new talent pools from which firms can recruit. While some of the career paths or sourcing channels may not be traditional (for example a mid-career professional that retrains at a bootcamp as a software developer), firms have found great success in tapping into diverse communities for talent.

HOUSTON WE HAVE A PROBLEM: **THE CURRENT STATE OF DIVERSITY IN THE US WORKFORCE**

The reason focusing on diversity hiring is so important is because, despite significant gains in the workforce by women and minorities over the past few decades, there are still vast imbalances, particularly in managerial, professional, and technology roles. The charts on this page illustrate the situation (while the data is from the US, similar trends are seen in other developed economies). The chart on the bottom left shows the demographics of new hires in a sample of companies surveyed by LeanIn.org and McKinsey. The chart on the right shows the proportion of women employed in all occupations versus the total employment in each occupation. (The size of the circles denote the average annual wages earned by workers in the occupation; bigger circles=bigger salary). In short, women are over-represented in office/clerical, education & support roles, and under-represented in professional, technical, and managerial roles. While not shown here, the situation is similar for blacks and Latinx workers¹.

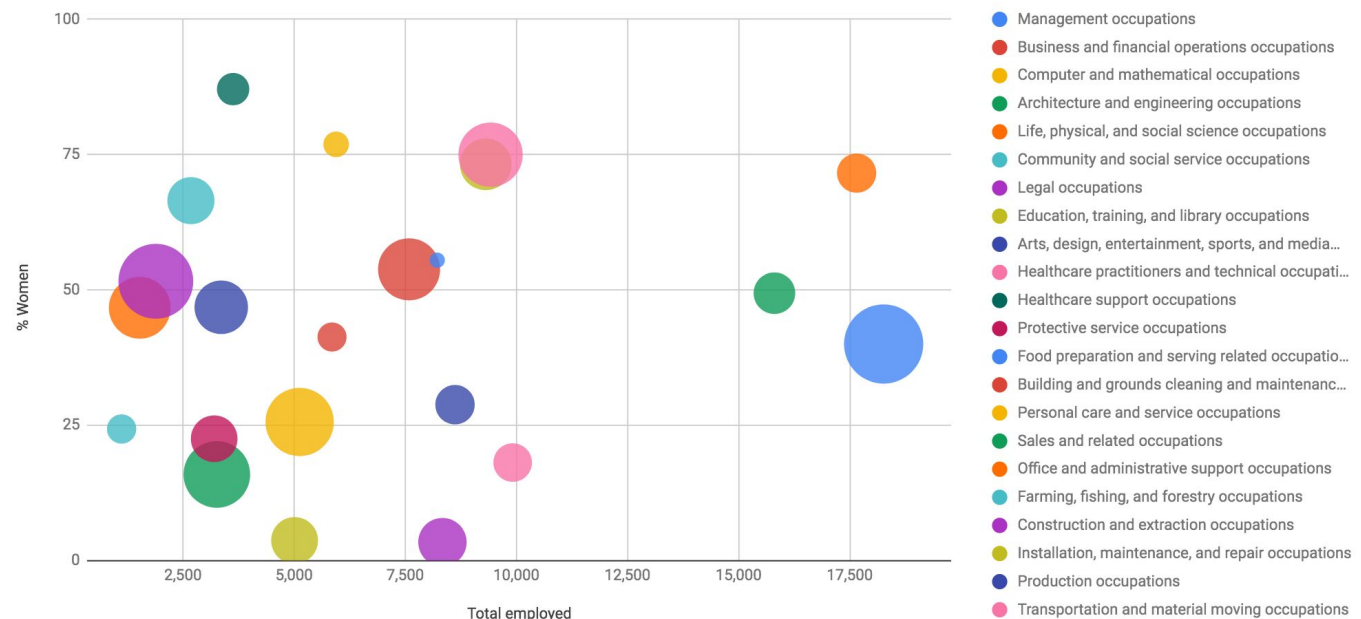
New hires by demographic, 2018



Source: Women in the Workforce 2018, LeanIn.org, McKinsey

Percent of women in the US workforce and wages by occupation, 2018

% Women vs. Total employed



Source: US Census Bureau & US Bureau of Labor Statistics

1. See the end of the this report for more in depth workforce demographic data

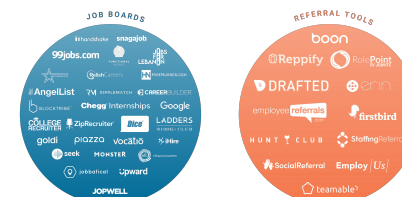
TECHNOLOGY OVERVIEW

To the right are different technologies that can be used to increase diversity in the hiring process. Some of these technologies are designed specifically to increase the number of diverse applicants that apply to jobs. Some are designed to help companies better discover diverse talent that may already be applying and remove bias from the application process. Some are designed to help firms better market themselves to candidates. Others are core recruiting technologies that can be modified or enhanced to make the application process more inclusive to diverse applicants.

The following pages examine each of these areas with specific recommendations on how they can be used to enhance diversity in the hiring process. As noted previously, there is no “magic bullet,” and thus our goal is to provide practitioners with a variety of ideas that they can use to craft solutions for their organizations.

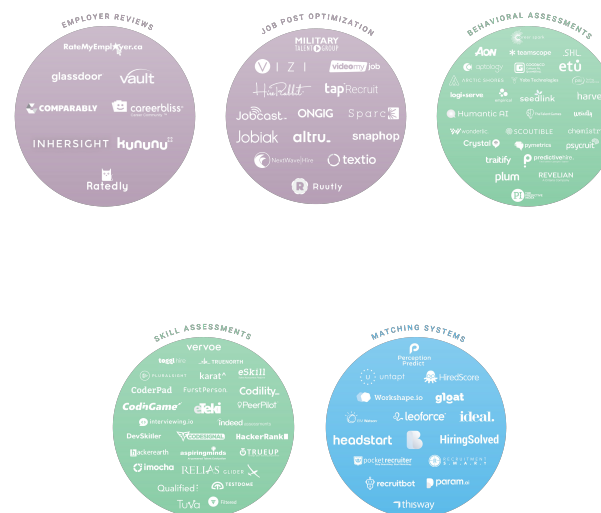
Source

- Job Advertising
- Referral Tools
- Brand Creation
- Employer Reviews



Select

- Assessments
- Matching Systems



HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE**: JOB ADVERTISING

JOB ADVERTISING OVERVIEW: The Job Advertising vertical includes job boards, job aggregators, job distributors, and programmatic job advertising. In short, these are websites, apps, and online communities where employers can post jobs and candidates can search for and apply to jobs. There are thousands of job sites that range in scale from massive global platforms such as LinkedIn and Indeed (and more recently, Google and Facebook) to micro sites focused on a single niche/geography such as corrosionjobs.com or deafjobwizard.com.

HOW IT RELATES TO DIVERSITY: Nearly every organization uses job boards to advertise its open positions, and for many, job boards are the primary source of applicants. Thus, how a firm manages its use of job boards and related job advertising technologies can have a direct impact on the number of diverse candidates that apply. The following page offers specific recommendations for how to leverage job boards to increase diversity.

Vendor Examples	Description	Why Did It Make It Here?
Blackjobs.com	Job board that targets well paying job opportunities for African American job seekers	Job board with diverse community
CampusPride.jobs	Job board for LGBTQ college students	Job board with diverse community
DiversityJobs.com	Jobs targeted at minorities and under-represented groups	Job board with diverse community
Jopwell.com	Black, LatinX, and Native American students and professionals	Job board with diverse community
Retired Brains.com	Job board for retired individuals	Job board with diverse community
WomenForHire.com	Job board for women professionals	Job board with diverse community

HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE**: JOB ADVERTISING

ANALYSIS: Job advertising is the primary channel through which candidates find and apply to jobs. The vendors highlighted on the previous page are a few examples of job boards and communities built specifically to help diverse job seekers find work (note there are thousands of job boards, and the firms on the previous page are a handful of examples). Job boards and similar online communities can be used to bolster the number of applicants from those communities. We note that it's unlikely any niche job board operator will be able to provide enough candidate flow to fill all of a large organization's job openings. That said, they can be used additively to ensure enough diverse applicants are finding and applying for your jobs. These channels will be particularly useful for firms struggling to get enough applicants, and may be less useful for firms that already generate a large number of applicants per job opening.

One way to approach using job boards in this way are to create a list of potential partners, and then contract with each individually. You might set a monthly budget to spend on x number of sites, and test for some period of time (e.g. three months or six months) to see which boards generate the most ROI. A possibly better way would be to empower your recruiters with a budget to spend on diverse job boards of their choosing; the thought being that local recruiters may have a better idea than the TA function which sites/boards/communities are most effective in their local community.

Another strategy to scale this kind of solution without having to contract with every single niche job board is to use a firm that has a job distribution network (i.e. a collection of job boards that re-post the job opening to increase its reach) such as Jobcast, eQuest, or Ziprecruiter; an employer could request that these providers be added to the list of job boards that a job posting is reposted to.

Beyond technology, it may be also useful to tap into local organizations, networks, societies, or communities with ties to diverse demographics (e.g. Young Jewish Professionals, Muslim Community Network, Black Women's Network, etc.). These organizations are often local with little online presence. The best way to find out about them is to ask your workforce which community groups they belong to, and have your TA team engage in outreach to encourage individuals from that community to apply.

HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE:** REFERRAL TOOLS

REFERRAL TOOLS OVERVIEW: Referral tools are part of the Peer to Peer Recruitment vertical. Firms in this category make it easy to implement employee referral programs, with software to support/automate various parts of the process, such as contacting individuals in an employee's network, activating and tracking a recruiting campaign, or providing some kind of compensation when a hire is made. Referrals by internal staff are generally considered one of the best sources of quality candidates, and these tools try to supercharge that channel.

HOW IT RELATES TO DIVERSITY HIRING: Referral tools can be used to find diverse candidates hidden in your internal staff's networks. Using a referral tool in and of itself will not automatically drive diverse candidates to apply. However, when thoughtfully used, these tools can help engage segments of your existing workforce that have diverse networks.

Vendor Examples	Description	Why Did It Make It Here?
Drafted	Referral platform w/ matching tools for recruiters and several out of the box ATS integrations	Minority-owned; heavy D&I focus
ROIKOI	Tool that asks employees to select the contacts they would want to work with, then matches against open positions.	Supports blind hiring, and has been used by clients specifically to increase diverse applicant pools
Rolepoint ¹	Referral tool with many pre-built ATS integrations	Leading tool in the industry
Teamable	Aggregates employees' contacts from social networks and email, and organizes into a database that recruiters can search and target.	Woman co-founded and one of the leaders in the category

1. Acquired by Jobvite February 2019

HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE:** REFERRAL TOOLS

IMPORTANT CONSIDERATIONS: We think referral tools can be a great way to tap into your employees' networks to find diverse candidates. For example, all four of the firms noted on the previous page have case studies whereby they were able to increase the number of diverse applicants after implementing.

That said, using Referral Tools effectively to increase diversity also requires strategic planning and good process to be successful. Employee Referral technology is only as good as the referrals that employees actually make; that is, on top of using a technology platform, you will also have to educate your employees on how to use the software and ensure that they actually make referrals. Further, you will need to have a process in place to make sure that employees who make referrals are informed of the process and results; nothing will kill a referral program faster than if employees refer connections who subsequently have a bad application experience (we note that some providers have built tech to alleviate this specific concern). In short, if you decide to invest in a Referral Platform, you should make sure that you have a strategy for how you will engage and incent your employees to participate.

Further, when using referral platforms to increase diversity, not all individuals from the communities you are targeting may wish to participate. You also can't exclude any individuals from making referrals based on protected statuses, and thus, if for example you have a very zealous group of white men in the organization actively referring their friends (more so than other groups), it can reinforce the imbalances that already exist. We think the best way to handle this situation is to engage with key stakeholders early in the process, and reinforce the value and impact of having under-represented groups participate in the referral process.

HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE:** BRAND CREATION

BRAND CREATION: Firms in this category help build an employer's brand by adding onto and/or re-engineering all or part of a firm's career site. This could include making a site mobile optimized, adding video capabilities, or modifying the actual text of the job description.

HOW IT RELATES TO DIVERSITY: There are two main ways this technology can be used to enhance diversity. The first is using marketing materials that highlight the firm's commitment to diversity (e.g. by having a video of people with different background describe what it's like to work at the company embedded along with the job description for the role being hired). By having career sites that are engaging, mobile friendly, and that highlight the company's culture and diversity, it can make an individual with a diverse background more likely to apply. The second way this technology can be used to enhance diversity is using it to 'read' job descriptions and make modifications, incorporating gender and ethnic-neutral language. This has been shown in practice to increase the number of diverse applicants, particularly women.

Vendor Examples	Description	Why Did It Make It Here?
Jibe ¹	Holistic recruitment marketing platform.	Good example of inclusive marketing: https://www.pepsicojobs.com/main?
Sparc	Tool to create short videos to attach to jobs, aka "sparks"	Point solution that's been used in diversity initiatives; candidates apply to jobs where they see people "like" them succeed.
TalVista	Interview platform that optimizes job descriptions, redacts identifiable resume info, and provides a structured interview template.	Solution designed specifically for D&I
TapRecruit	Software that helps optimize job descriptions.	Earlier stage alternative to Textio
Textio	Augmented writing software. Can make recommendations in real time about ways to change job descriptions to make them more inclusive.	Leading vendor in the category, validated use cases of increasing diverse applicants

1. Acquired by iCIMS June 2019

HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE:** BRAND CREATION

IMPORTANT CONSIDERATIONS: Brand creation is about making your organization more attractive and engaging to candidates. Most hiring managers are not experts at writing job descriptions, and thus there is substantial room for improvement in this area. We believe that investing in technology that improves/modifies job descriptions can have a substantial and quantifiable impact on the number and quality of candidates a firm is able to get to apply, though these impacts tend to manifest when hiring at significant scale (i.e. thousands of hires per year), and thus may be less impactful for firms that hire a lower volume of workers. Further, pricing may be prohibitive for smaller organizations (upwards of \$50k+ per year), though newer vendors are coming in at lower price points.

We think adding short-form videos to job postings can be engaging and provide a potentially more “authentic” experience to candidates (particularly younger workers), and provides an opportunity for employers to highlight their diversity. That said, if not done well, videos may also come off as “gimmicky.” Incorporating video comes with the following challenges:

1. Videos in a job context have to be compliant, and so a review process often needs to be in place before it can be attached to a job post. While most vendors now have functionality built in that supports a review/approval process, it nonetheless adds an extra step.
2. Despite the fact that video can be engaging and drive applicants, hiring managers may not be comfortable with video, and thus even if the technology is robust, adoption/use may be low.
3. In the context of diversity and inclusion, if all the job videos or graphics on your career site are white men, you’ve probably missed the point of using video/alternative channels as a medium to highlight the diversity of your company.

When it comes to video and career site marketing, how you market your firm is arguably more important than the tech that you use to support the process, though obviously technology is an important part of being able to execute. In other words, great technology will not make up for terrible marketing, but it’s hard to do great marketing without great technology. When it comes to job descriptions, most are poorly written and could be improved to make them more inclusive, and is an area where technology is a perfect solution.

HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE:** EMPLOYER REVIEWS

EMPLOYER REVIEWS: Employer Review sites are a job board variant that attract candidates by providing information about employers including company reviews, salaries, work experiences, and benefit information in a “Yelp-like” format. This gives candidates a sense of what it’s like to work at an organization, and allows them to make apples-to-apples comparisons across firms.

HOW IT RELATES TO DIVERSITY: Whether employers like it or not, candidates use Employer Reviews as part of their job search. Some firms, such as Comparably, offer information specifically related to employers’ culture, diversity and inclusion, while others such as InHerSight or FairyGodBoss are designed for and with a specific audience in mind (in these cases, women professionals). Employers can use these websites to 1.) gauge their performance and measure/receive employee sentiment in real time, and 2.) advertise open positions on such websites, which typically have an engaged audience of diverse candidates.

Vendor Examples	Description	Why Did It Make It Here?
Comparably	Provides culture and compensation information for companies	Has section devoted to companies’ D&I performance
FairyGodBoss	Marketplace of women professionals including company reviews	Women focused
Glassdoor ¹	Largest employer reviews site	Large enough that it would be weird not to include it; brand is essentially synonymous with the category
InHerSight	Anonymous company ratings by and for women.	Women focused

1. Acquired by Indeed May 2018

HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE:** EMPLOYER REVIEWS

IMPORTANT CONSIDERATIONS: Employer Reviews are a two edged sword. On the one hand, they empower candidates to make better, more informed decisions about their careers and give employers the opportunity to differentiate themselves from their competitors as employers of choice. At the same time, the crowdsourced nature of these firms means that employees and candidates can, and will, amplify sentiments that many employers would rather not be amplified. The best way to approach this is to be proactive in managing one's online reputation, responsive and empathetic to negative reviews, and use the information to make informed decisions about your hiring process and gaps in culture or as a call to action.

Firms can also use their online reputations as a hiring tool. For example, Lever, a San Francisco-based tech startup that has done some great work on diversity hiring, doesn't just advertise jobs on Employer Review sites, it also includes links to its Glassdoor and TheMuse profiles on the homepage of its careers site, and encourages candidates to explore the reviews there. This kind of transparency is a strong signal that the firm is confident in its culture, and also signals that the firm values transparency -- signals not lost on candidates that care about what the organization they are considering working for cares about.

Finally, as these firms are essentially job boards with a unique offering to drive candidate engagement, employers can also advertise their open positions directly on these sites, where they may be viewed by candidates doing research on specific roles or companies.

HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE**: TEMP LABOR MARKETPLACES

TEMP LABOR MARKETPLACES: Temp labor marketplaces are online talent marketplaces where buyers and sellers of labor services can find and transact with each other, negotiate payment and contract terms, and complete work, all through the platform. Most work (by volume and revenue) is completed remotely, that is, at a location of the worker's choosing.

HOW IT RELATES TO DIVERSITY: Having a mechanism to support remote work can empower stay-at-home moms, military spouses, and others to participate in the labor force, and temp labor marketplaces provide the infrastructure to make that possible. Further, removing location from the equation means that employers can tap talent from underserved communities and redistribute economic opportunity from large, expensive metropolises to rural areas in the process. While most are not diversity focused per se, in practice many platforms have diverse workforces since the model tends to attract individuals looking for additional economic opportunity outside the traditional "9-5" employment model.

Vendor Examples	Description	Why Did It Make It Here?
PowerToFly	Temp labor marketplace focused on women professionals	Mission driven, remote work platform focused on women
The Mom Project	Temp labor marketplace for mothers returning to the workforce	Mission driven, remote work platform focused on women
Upwork	Largest temp labor marketplace in the world with ~\$2 billion in freelancer earnings per annum	Largest company in its category, transparent business model and diversity of freelancer population on the platform

HOW TO INCREASE DIVERSITY IN THE **SOURCING STAGE:** TEMP LABOR MARKETPLACES

IMPORTANT CONSIDERATIONS: Temp labor marketplaces are online communities where sellers and suppliers of labor can connect. The work performed on these platforms by the freelancers that supply labor is generally short-term, contingent, project-based work, and thus most TA executives may think the use of these platforms outside the scope of their responsibility. That said, these firms have built massive communities of skilled individuals that are ready and willing to work, and by removing location as a requirement to participate, offer employers the chance to find talent and recruit from communities they might not have a presence in. In that sense, firms may use these platforms similar to how they would use a job board, except for project-based work.

The best way to incorporate a temp labor marketplace is to find a niche or occupational category that will work well with this kind of solution -- low hanging fruit includes copy-writing, editing, software development/design, financial analysis, and marketing -- and re-design the workflow to accommodate using remote freelancers. The individuals engaged through these platforms, though not within your four walls, will expand the diversity of your organization and teach you new ways of working with a distributed team. You'll likely need to pick a handful of vendors with the occupational expertise to supply the individuals for the work that needs to be done, and the contracting process will likely be similar to using a staffing supplier.

Further, beyond using a Temp Labor Marketplace, we think remote work is an option that more organizations should consider offering to employees, as it can make work-life balance easier for women juggling family needs and career aspirations. By not requiring all employees to be in the office all the time, it levels the playing field for workers that may be unable to be physically present from 9am - 6pm every day, but who can nonetheless produce the same (or better) outcomes than their office-going counterparts.

HOW TO INCREASE DIVERSITY IN THE **SELECT STAGE**: MATCHING SYSTEMS

MATCHING TECHNOLOGY: Matching Systems use parsing software, algorithms, natural language processing, and machine learning to “read” resumes and match candidates to available jobs. These systems can often qualify candidates, automatically aggregate disparate candidate data across the web into a single profile, and predict fit/job success based on a number of inputs/signals.

HOW IT RELATES TO DIVERSITY: Most sourcing is done by humans, and humans are inherently biased. Humans also rely on “signals” in decision making (for example, a degree from an Ivy League school is a “signal” to a recruiter that a candidate is smart and capable). Unfortunately, signals can reinforce all kinds of biases, and human matching, even when well intentioned, introduces the biases of the matcher. Matching systems can be used to decrease bias in the sourcing process, either by automating the sourcing process entirely, hiding applicant demographic information, or simply by scoring/ranking candidates, which provides quantifiable evidence that a candidate is qualified and should move forward in the process, and can be used as a check on the fairness of the hiring process for under-represented groups.

Vendor Examples	Description	Why Did It Make It Here?
Blendoor	Early stage Matching System with diverse candidate database and blind scoring	Built from the ground up for diversity hiring
HiredScore	AI-based matching and sourcing platform	Example of non boolean/AI--based matching
Untapt	White-labelled talent marketplaces and AI-based matching platform	Example of non boolean/AI--based matching, case study of increasing # of qualified applicants through funnel

HOW TO INCREASE DIVERSITY IN THE **SELECT STAGE:** MATCHING SYSTEMS

IMPORTANT CONSIDERATIONS: Thus far, the focus of the technologies we've explored have been on increasing the number of diverse applicants. Matching systems are the first area of technology where the focus is not on increasing the number of candidates that apply, but rather on ensuring that candidates that have applied are measured in a fair and unbiased manner. Humans are biased, and there is a huge opportunity to use technology to help move more qualified diverse candidates through the funnel using technology. According to survey data from McKinsey and LeanIn.org, only 23% of employers reported using automated resume screening tools as part of their hiring process¹.

Historically, Matching Systems would merely parse resumes and match boolean keyword searches against words contained in the resume. Modern Matching Systems use machine learning and natural language processing to “understand” resumes and the skills of the workers they represent, build enhanced profiles from publicly available data, and contextually match them against open jobs, typically including a scoring or ranking mechanism. These systems may take more time to implement (and are pricier), but should perform better than their boolean counterparts over time.

It's important to note that many of these systems use historical data to train and model their algorithms. Because historical data means data decisioned by humans, and humans are biased, unless corrected for, AI-based matching can actually reinforce historical biases (for example, an AI model trained on historical hiring data to hire a new CEO for a Fortune 500 company would likely recommend a white male). Thus, it's important when evaluating these systems to be extra vigilant in determining how they correct for embedded bias.

Last, if a firm is not ready to implement a new system, even merely removing demographic information from the resume/application process can improve outcomes for diverse groups. For example, Greenhouse's Inclusion product (part of its ATS) gives companies the ability to hide gender, name, college, and other demographic info from the recruiter, ensuring this information is not considered (consciously or subconsciously) in the application process. Regardless the vendor you use, removing such demographic info is a great first step towards a fairer application process.

1. Source: Women in the Workplace 2018; LeanIn.org & McKinsey

HOW TO INCREASE DIVERSITY IN THE **SELECT STAGE**: ASSESSMENTS

ASSESSMENTS: We break Assessments into two sub-verticals: skills and behavioral. Skills assessments measure candidates hard skills and/or ability to do the work being hired for, often through a simulated work environment or a game. Behavioral assessments measure psychometric traits such as general intelligence, work ethic, and personality traits. Both are used to predict top performers from a pool of applicants.

HOW IT RELATES TO DIVERSITY: When done right, assessment technology allows firms to move away from using resumes as the primary signal in hiring decisions. Assessment platforms can be used to find highly capable and talented individuals that don't "fit the profile" of what a successful person for that role looks like on paper. Assessments technology can provide an unbiased way to measure job performance, and can open up access to opportunities to underrepresented groups by facilitating the means to demonstrate mastery and fit in a role without having to "look the part".

Vendor Examples	Description	Why Did It Make It Here?
GapJumpers	Blind hiring assessment platform	Focus on diversity from inception
Koru	Predictive psychometric assessment, modelled after top performers	Focus on D&I, removing bias from hiring process
Pymetrics	AI-based games modelled after top performers	Focus on D&I/removing bias from hiring process
Vervoe	AI-based multi-medium skills testing platform	Vetted example of skills-based assessment platform

HOW TO INCREASE DIVERSITY IN THE **SELECT STAGE:** ASSESSMENTS

IMPORTANT CONSIDERATIONS: For better or worse, the resume is by far the dominant mechanism used to screen candidates and make hiring decisions. (It's so important in fact, there's an industry built around helping candidates optimize their resume in hopes of making it past ATS/screening). While resumes can be an important data point, they do not indicate whether someone can actually do the job. Assessments have been used for decades in hiring decisions, and research has shown that they are strong predictors of employee performance. Only recently, however, has technology made employment assessments accessible enough to implement at scale.

The challenge with assessment technology is that the market is flooded with solutions, and seemingly every job needs a special kind of assessment. Where does one start?

Generally, the earlier in the hiring process an assessment can be implemented the better. This gives the most applicants the opportunity to participate. The challenge is that having a lengthy assessment at the beginning of the application process may cause some candidates not to apply, especially for roles where candidates are more passive than active. As a general rule of thumb, for roles that generate a high volume of applications, assessments should be implemented as early in the process as possible. For roles that need to be actively recruited/sourced (e.g. software developers in San Francisco, petroleum engineers in Houston), the assessment may be embedded later in the process, once a candidate has already expressed interest and been engaged by the recruiting team. For all assessments, they should be as short as possible and directly relevant to the work that they will be doing.

Skill assessments are good at creating a level playing field in that either the candidate can do the job or they can't. While psychometric (behavioral) assessments have demonstrated the ability to unearth candidates that don't fit a certain profile on paper, they can also lead to bias because they are evaluated by humans. To illustrate, aggression could be seen as a negative trait or a positive trait, depending on the role and the organization (i.e. sales) and a human will need to decide whether certain levels of aggression is good or bad, which could lead to discrimination against certain demographics. In short, behavioral assessments are promising (e.g. identifying a person that could be a great salesperson even though she never was in sales), but require an extra level of scrutiny in assessing their impact.

PRIORITIZING THE TECH STACK

The previous section highlighted a variety of tools and strategies firms can use to increase the diversity of their applicant pool and diminish bias in the hiring process. With an understanding of the tools in the market and how they can be used to increase diversity, the question becomes: which specific areas/technologies should firms focus on first? Should companies implement a new assessment platform, or instead first dedicate resources to advertising on new channels? Should you invest in matching technology, or would those resources be better spent launching a new career site designed to market your firm's brand which could appeal to and attract diverse candidates?

The answer, as always, is "it depends." Every company is unique, and even firms in the same industry face different challenges and circumstances. Below are some points/questions you can use to navigate how you might approach answering the tech stack for your specific organization:

1. **EVALUATE YOUR PROCESS TO SEE WHERE IT IS BROKEN:** A first step in determining which areas to focus on is measuring/tracking candidate diversity throughout the application process to see which parts may be broken. For example, you might measure the number of male and female candidates for a sampling of jobs in a specific role throughout each stage of the hiring process. If you found gender parity in the number of applicants but an imbalance in the number of finalists/interviewed, that suggests the assessment process needs improvement. If, on the other hand, there was an imbalance in the number of applicants, it suggests the job advertising/sourcing needs improvement.
2. **OPTIMIZE FOR IMPACT/COST:** Nearly every technology requires investment, and so one way to prioritize the tech stack is to optimize for the tools that will have the greatest impact at the lowest cost. To do this, a firm would first internally assess how big an impact different technologies could have on their hiring process, and then come up with a cost range for each category. From this framework/matrix, firms could then stack rank categories by impact to cost, and decide which areas present the optimal investment opportunity.

DIVERSITY HIRING MATURITY MODEL

Stage 1: Reactionary:

At this stage, diversity and inclusion are not formally part of a company's hiring strategy. The firm doesn't collect information on its workforce demographics, has not set diversity goals, and does not communicate its diversity efforts or programs to employees.

Reactionary

Stage 2: Discovery:

At this stage, firms begin measuring their workforce and doing the preliminary work for creating a formal diversity hiring program. Firms in this category have a desire (from the executive team down) to increase diversity, but have not yet created a governance structure or invested the resources to make a program successful across the company.

Exploratory

Stage 3: Strategic Focus:

At this stage, the firm has not only measured its progress, it has set clear goals for its diversity hiring and made it a strategic priority. The firm will have person or team responsible and accountable for achieving objectives, and has broken down the challenge into an executable action plan. The plan is disseminated to the whole organization, and there is consistent communication about the efforts and progress made over time.

Strategic
Focus

Stage 4: Strategic Execution:

At this stage, a firm is typically several years into a strategic initiative to increase the diversity of its workforce. It may have begun to hit some of its long-term targets, is likely adding diversity dimensions to its goals, and the focus is on optimization and execution.

Strategic
Execution

DIVERSITY HIRING MATURITY MODEL

	Maturity Stage			
	Reactionary	Discovery	Strategic Focus	Strategic Execution
Goals and Objectives	Company does not have any formal D&I policy, goals or objectives	Get accurate measure of workforce demographics (understand current state) Define success metrics/scope	Set specific strategic diversity targets for organization Get executive-level support Invest resources to accomplish strategic priorities	Optimize program performance, accountability, initiatives. Update strategic goals and expand program
Process	No process in place	Create policy Link policy to action items	Create D&I function(s)/ERGs Update processes and procedures Educate workforce	Benchmark and track initiatives, modify process as necessary. Invest in experimental channels/initiatives
Technology	Little to none, tech may be used for general recruiting but not tailored for D&I objectives	Systems to track/measure. May assess new tech/verticals to support initiatives	New systems added, existing systems modified to better support D&I strategy	Every piece of the recruiting tech stack optimized for D&I
Governance	None, or possibly HR	Typically Human Resources, usually not accountable for performance/ objectives	Dedicated D&I lead (CEO, CDO), or at minimum line of sight to executive team or board	Dedicated D&I lead (CEO, CDO), or at minimum line of sight to executive team or board
Organizational Scope and Insight	None	Human Resources, sometimes hiring managers/business units. Basic benchmarks understood	Company-wide Executive-level down	Company-wide Executive-level down
Culture	D&I culture non-existent	D&I talked about, but not ingrained in DNA	Leadership committed to and talks about D&I, mgmt & employees understand its importance	D&I core part of culture and competitive differentiator

LEGAL CONSIDERATIONS

ARE DIVERSITY AND INCLUSION PROGRAMS LEGAL?

Generally speaking, programs that encourage the hiring of diverse workers are both legal and encouraged. That said, if not careful, diversity programs have the potential to run afoul of the law, specifically Title VII of the Civil Rights Act, which prohibits employers from discriminating against employees on the basis of race, sex, national origin, and other measures. As the New York City Bar states:

“Companies that embrace diversity and seek to have their workplace populations better reflect the demographics of the qualified workforce populations in which they operate, ironically, find themselves facing the threat of litigation or other legal impediments to promoting and maintaining diversity. For example, seemingly objective criteria adopted to ensure nondiscrimination and merit-based decisions may, unintentionally, have a disparate impact on a particular group. Likewise, well-intentioned efforts to promote diversity may run afoul of laws they were intended to respect. For example: laws that are designed to ensure confidentiality of medical conditions preclude employers from taking voluntary surveys of employees with disabilities that might aid in developing programs to provide training and work opportunities to such employees or assessing accommodation efforts; special mentoring and other programs for people of color and women may be viewed as improperly excluding Whites and men in violation of Title VII’s absolute prohibition of discrimination on the basis of race or gender; and laws that are designed to help veterans (especially through federal contractor hiring) may have an adverse impact on women. Employers must walk a tightrope, carefully balancing competing legal obligations.”

In essence, if a well-intentioned program has a disparate impact on a particular group (either explicitly or as an unintended consequence), that group may have a case under Title VII. Unfortunately, courts have not been clear as to what exactly constitutes a lawful/unlawful diversity program. That said, the courts have typically interpreted cases in the spirit of the law, which is to promote diversity and take affirmative action in support of historically underrepresented groups. The main way that employers can protect themselves is by ensuring that hiring is not done *to the exclusion* of any group. As with most matters related to employment, legal counsel should be consulted to ensure your diversity program is compliant and not inadvertently putting your organization at risk of a lawsuit.

Source: <https://www2.nycbar.org/pdf/report/uploads/20072272-EmploymentDiversityInitiatives.pdf>

APPENDIX i: DEMOGRAPHIC DATA

The following pages contain US population and workforce demographic data that you can use to benchmark your own workforce and gain a better understanding of areas that may be performing well or require additional focus. For example, you might compare the ratio of women in tech roles at your organization to the ratio of women in Computer and Mathematical occupations across the US, and find that you are over or under performing (the baseline for that demographic is 25.6%, so if the ratio at your company is higher than that, give yourself a small pat on the back).

Note that these are national estimates, and thus may mask significant variation by locale. That said, we think these can be used as a proxy in benchmarking your own performance and to highlight areas that require further investigation.

US Population Demographics, 2018		
Category	Total	% of US population
US Population	327,167,434	100%
Female	166,038,755	50.8%
Male	161,128,679	49.2%
White Female	100,127,799	30.6%
White (Male)	97,418,608	29.8%
Total (White)	197,546,407	60.4%
Black or African American (Female)	21,342,200	6.5%
Black or African American (Male)	19,560,023	6.0%
Total Black or African American	40,902,223	12.5%
Asian (Female)	9,809,751	3.0%
Asian (Male)	8,918,924	2.7%
Asian Total	18,728,675	5.7%
Hispanic (Female)	29,637,561	9.1%
Hispanic (Male)	30,234,185	9.2%
Hispanic (Total)	59,871,746	18.3%
Other, inc. Two or More Races (Female)	5,121,444	1.6%
Other, incl. Two or More Races (Male)	4,996,939	1.5%
Other, inc. Two or More Races (Total)	10,118,383	3.1%

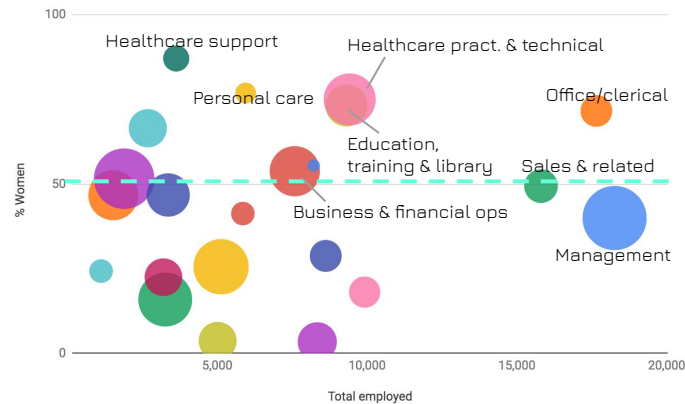
Source: US Census Bureau

Source: US Census Bureau, US Bureau of Labor Statistics

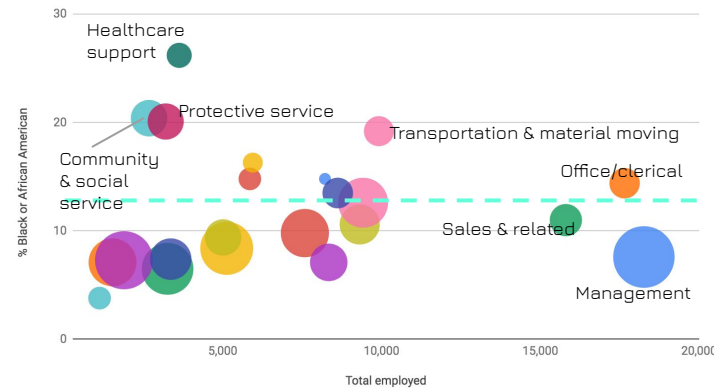
Demographics by Occupational Category, 2018	Total employed	Gender		Race & Ethnicity			
		% Women	% Men	% White	% Black or African American	% Asian	% Hispanic or Latino
Management	18,263	40	60	83.9	7.6	5.9	10.3
Business and financial operations	7,587	53.8	46.2	78.8	9.8	9.1	8.7
Computer and mathematical	5,126	25.6	74.4	67	8.4	22	7.5
Architecture and engineering	3,263	15.9	84.1	79.3	6.5	11.9	8.9
Life, physical, and social science	1,529	46.7	53.3	78.1	7.1	12.8	8.7
Community and social service	2,680	66.5	33.5	71.8	20.4	3.9	12.1
Legal	1,891	51.6	48.4	85.7	7.3	4.7	9.9
Education, training, and library	9,313	73.2	26.8	81.5	10.6	5.2	10.7
Arts, design, entertainment, sports, and media	3,362	46.8	53.2	83.6	7.4	5.5	11.8
Healthcare practitioners and technical	9,420	75	25	75.2	12.6	9.9	8.5
Healthcare support	3,629	87.1	12.9	64.3	26.2	5.7	18.3
Protective service	3,203	22.5	77.5	73.5	20.1	2.4	13.8
Food preparation and serving related	8,220	55.5	44.5	73.2	14.8	6.5	25.9
Building and grounds cleaning and maintenance	5,854	41.3	58.7	77.3	14.8	3.1	38.8
Personal care and service	5,947	76.9	23.1	69.2	16.3	10.5	17.8
Sales and related	15,806	49.4	50.6	80.2	11	5.3	16.3
Office and administrative support	17,655	71.6	28.4	77.1	14.4	4.6	16.9
Farming, fishing, and forestry	1,121	24.3	75.7	89.9	3.8	2.2	46
Construction and extraction	8,338	3.4	96.6	87.5	7.1	1.6	37
Installation, maintenance, and repair	5,012	3.7	96.3	83.4	9.4	3.3	20.1
Production	8,621	28.8	71.2	76.6	13.5	5.8	23.4
Transportation and material moving	9,918	18.1	81.9	72.5	19.2	4.5	22.3

US EMPLOYMENT/INCOME BY GENDER, RACE, & ETHNICITY, 2018

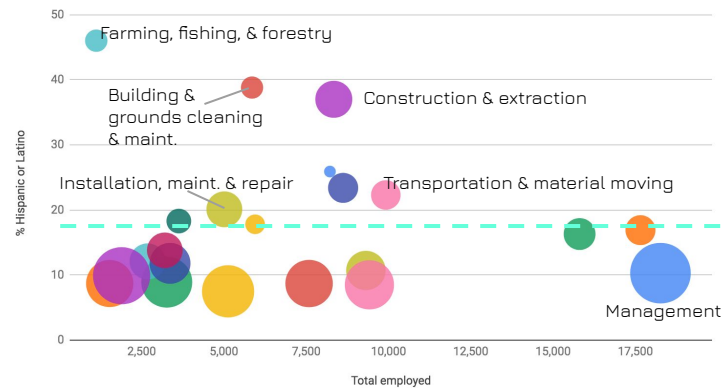
% Women vs. Total employed



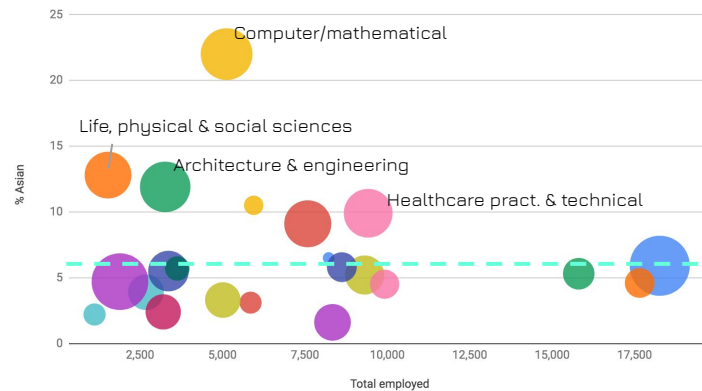
% Black or African American vs. Total employed



% Hispanic or Latino vs. Total employed



% Asian vs. Total employed



- Management
- Business and financial operations
- Computer and mathematical
- Architecture and engineering
- Life, physical, and social science
- Community and social service
- Legal
- Education, training, and library
- Arts, design, entertainment, sports, and media
- Healthcare practitioners and technical
- Healthcare support
- Protective service
- Food preparation and serving related
- Building and grounds cleaning and maintenance
- Personal care and service
- Sales and related
- Office and administrative support
- Farming, fishing, and forestry
- Construction and extraction
- Installation, maintenance, and repair
- Production
- Transportation and material moving

— US Population Average

How to interpret the data: These charts show the proportion of US minority workers per occupation on the x-axis and the total US employment of the occupation on the y-axis. The size of the circles is based on the average annual wages for that occupation.

Sources: US Census Bureau and US Bureau of Labor Statistics

TALENT TECH LABS WORKFORCE DIVERSITY REPORT

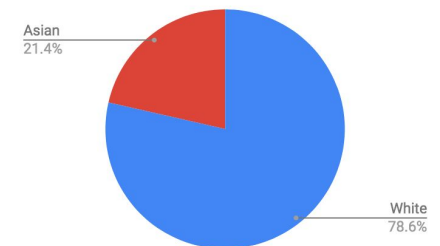
Talent Tech Labs is a research and advisory firm whose mission is to elevate the state of the art in recruitment technology. We are a small and fast-growing startup, and are privileged that many of the world's largest and most respected companies trust our insights to drive their talent acquisition strategies.

As part of putting together this report about technology that supports diversity hiring, we decided to measure on our own internal workforce demographics and publish them publicly, something we admonish our constituents to do.

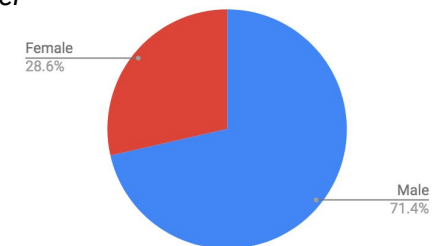
What we found out is that we have work to do. Our executive leadership team is 100% white and male, women make up less than a third of our workforce, and we don't have a single black, latinX, or Native American employee (yet). While we are a small team (and thus imbalances are amplified), that is no excuse.

We've decided to target our hiring process to make sure we get more women and minorities to the interview stage, and have a goal of halving the gap between where we are now and the US average in gender and race by the time we double in size. We look forward to sharing our progress in the coming years.

TTL August 2019 Workforce Demographics: Race



TTL August 2019 Workforce Demographics: Gender





TALENT TECH LABS

Contact Us:

hello@talenttechlabs.com

(646) 300-7060