

# Employer Playbook

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Best Practices  
and Tools to Recruit  
Technology Talent from  
Nontraditional Sources

CEB is supporting the TechHire initiative with a best practices playbook to guide private and public employers on recruiting technology talent from nontraditional sources. CEB is also providing free labor market snapshots from CEB TalentNeuron to selected communities involved in the TechHire initiative to identify job and skill segments where talent supply-demand gaps create opportunity for local workforce innovation.

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## Foreword

### Special Thanks

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### Additional Thanks

American Association of Community Colleges, Better Weekdays, Catalyst IT Services, Code2Work, Comcast, Delaware Governor's Office, The Flatiron School, Grads of Life, Gild, Hack Reactor, JP Morgan Chase, LaunchCode, St. Louis Regional Chamber, Trello, and YearUp

On 9 March 2015, President Obama announced the TechHire initiative—a multi-sector effort to empower Americans with the skills they need to qualify for well-paying information technology (IT) jobs. TechHire has two important and related goals. First, it aims to make significant inroads into our long-term unemployment challenge. Second, it gives companies access to a larger, more valuable talent pool for IT.

Through this initiative, the White House invites universities, community colleges, and providers of accelerated technology training (e.g., coding academies, online courses) to help build a tech-savvy talent pipeline. It is also a call to action to corporate employers—encouraging them to hire people trained in nontraditional pathways for jobs that don't actually require four-year computer science degrees.

CEB was privileged to be asked by the White House to participate in the TechHire initiative in various ways. First, through CEB TalentNeuron analytics, we provided the White House unique data about corporate demand, skills availability, and geographical trends to help size and quantify the opportunity. Next, we volunteered our expansive access to, and deep insight about, the workings of thousands of companies to help accelerate private-sector involvement with the TechHire initiative. In summary, we set ourselves a goal to help make hiring from nontraditional sources a viable opportunity for companies.

CEB started by questioning the conventional wisdom that every IT job requires a four-year computer science degree. It does not. Next, we compiled a compelling business case for employers to evaluate the potential of non-traditionally trained candidates. Layering targeted action steps into the recruitment life cycle, we recognized opportunities for improvement. From building a diverse pipeline of applicants to transforming the interview posture, our analysis aimed to eliminate bias against candidates and ultimately close the productivity gap of 500,000 open IT jobs in the United States.

Finally, we profiled exemplar organizations that hire successfully from nontraditional sources, and we documented their approaches for the benefit of other employers. Hiring is only half the battle, so we also looked at progressive companies that invest in onboarding and development programs specifically tailored to employees hailing from nontraditional backgrounds.

Through this playbook, we are delighted to share our findings with you, including best practices that we hope will facilitate more employment opportunities for deserving Americans and boost the economy as a whole.

CEB is proud to be a committed partner to the TechHire initiative and Opportunity@Work, a social enterprise committed to achieving upward mobility in the job market in its work with TechHire. We look forward to continued collaboration with our member companies as well as other committed partners to unlock TechHire's potential in communities across America.



Tom Monahan  
Chairman & CEO



Jean K. Martin  
Executive Director

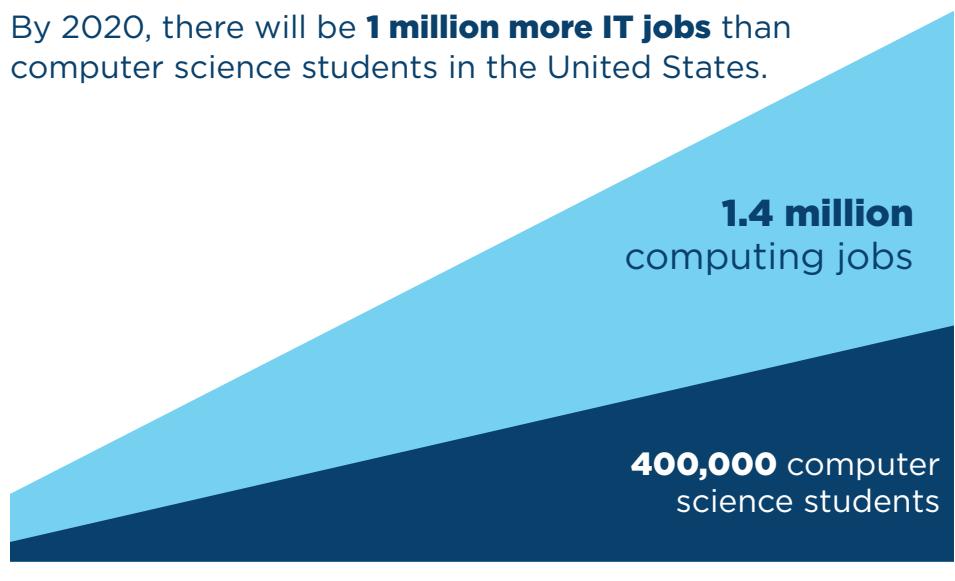
## Introduction

The United States has **more open jobs today than at any point since 2001.**

Over half a million are well-paying jobs in IT, more than any other major occupation.

The United States has five million open jobs, more than at any point since 2001. Over 500,000 of those jobs are in the IT field, including many in roles such as mobile applications developer, user experience designer, or cloud integration specialist—roles that did not exist a decade ago. The demand for technology jobs will only continue to increase, as 1.3 million IT and cybersecurity jobs will have to be filled by 2022. Despite this explosion in demand, the supply of computer science graduates is not keeping up. By 2020, there will be one million more IT jobs than computer science students in the United States.

By 2020, there will be **1 million more IT jobs** than computer science students in the United States.



Source: US Bureau of Labor Statistics.

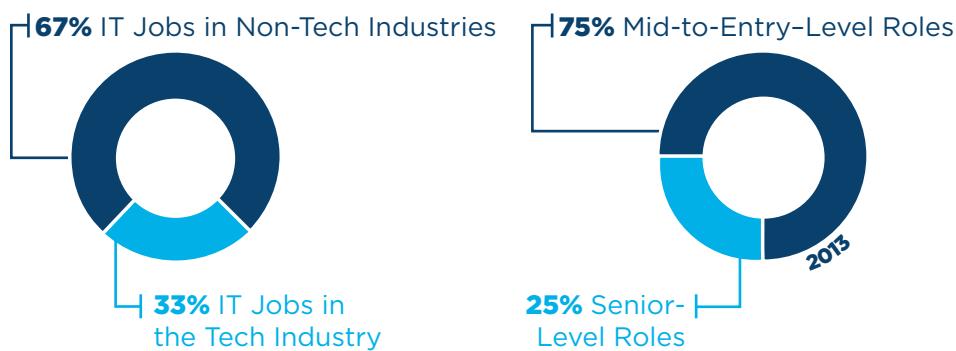
Note: "Computing jobs" refers to jobs in the disciplines of computer engineering, computer science, information systems, information technology, software engineering, and related fields.

**Nearly 40%** of IT jobs can be done without a four-year degree.

### Sample In-Demand Tech Jobs That Don't Require a Four-Year Degree

- User Experience Design
- Data Analytics
- Ad Operations
- Marketing Technology
- Software Development
- Applications Development
- Network Administration

This problem is not confined to Silicon Valley or technology companies, as nearly every industry has embedded technology into its daily workflow. In fact, the 10 US cities with the largest technology talent supply–demand gap are spread across the country. In these cities alone, more than 80,000 IT jobs are unfilled, a figure that is growing at 17% per year. Two-thirds of the demand for IT jobs comes from non-tech industries such as health care, manufacturing, or banking, and 75% of open IT jobs are at the middle or entry level.



Source: CEB analysis.

The skills necessary to thrive in many of the middle and entry-level IT jobs **can be mastered with accelerated technical training.**

These factors are causing many organizations to have trouble filling critical IT roles. Traditional recruiting mechanisms tend to focus on sourcing candidates with technology degrees from four-year colleges, yet nearly 40% of IT jobs can be done without a four-year degree. The skills necessary to thrive in many entry- and middle-level IT jobs can be mastered with accelerated technical training (e.g., accelerated tech training programs, online courses, community college programs), meaning these traditional screening processes eliminate highly qualified candidates from nontraditional sources.

TechHire is a public-private initiative in American cities, states, and rural communities to train more Americans for well-paying technology jobs. This multi-sector effort to fill critical, US-based IT jobs is a call to action to empower a diverse array of Americans with the skills they need to fill these jobs, including through accelerated approaches such as nontraditional coding “boot camps,” next generation online courses, and short certification or competency-based programs at community colleges.

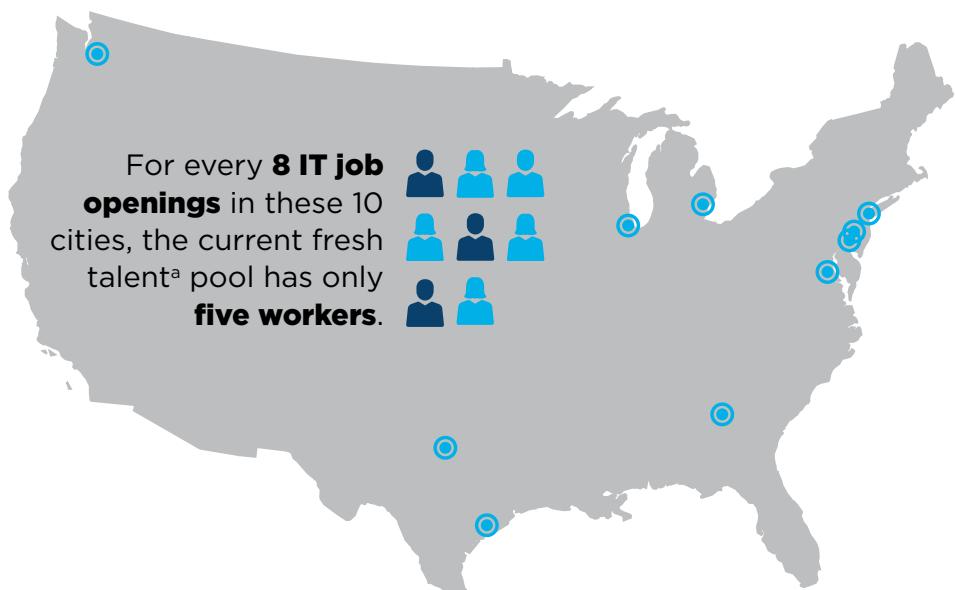
**This playbook provides a step-by-step approach for employers to plan for, source, attract, assess, and develop skilled technology professionals from nontraditional talent pools, and to create a more inclusive IT employee base.**

Use this playbook to:

1. Make the business case for adjusting hiring practices.
2. Follow best practice examples from peer companies.
3. Utilize existing tools and resources to revamp hiring process.

#### Top 10 US Cities with the Greatest Supply-Demand Gap in IT Jobs

1. New York
2. Washington, DC
3. Philadelphia
4. Atlanta
5. Chicago
6. Detroit
7. Dallas
8. Houston
9. Seattle
10. Baltimore



Source: CEB analysis.

<sup>a</sup> Fresh talent refers to the supply of job-seeking talent in a given area.

# The Business Case for Alternate Talent Pools

Companies who have successfully attracted talent from nontraditional talent pools have justified their approach in four primary ways:

- Reduced Difficulty in Filling Roles
- Improved Retention
- Reduced Cost
- Improved Workforce Diversity

When building the business case for adapting your approach, align your rationale to the pain points that resonate most within your organization.

## Reduced Difficulty in Filling Roles

**The time it takes to fill IT roles is already at a level managers consider unacceptable, and the trend is increasing.**

Lapses in several key recruiting performance metrics readily demonstrate the business pain associated with filling many IT roles today. Even in 2014, fill time for IT roles was already at a level managers considered unacceptable, and the trend is increasing—and comes at a high cost. Compared to 2010, it now takes five additional weeks to fill the average vacancy. This slowdown increases the risk of losing talent to competitors and costs an average of \$8.55 million per 1,000 vacancies through lost productivity and additional recruiting work. This unacceptable time to fill is a result of the supply–demand gap, and forecasts show that any employers not already feeling pressure in hiring these roles will likely start to feel that pressure as the demand increases.

Currently, the supply–demand imbalance creates a competitive environment for talent in which qualified candidates receive multiple offers. Even with all things equal, smaller, lesser-known employers often struggle to compete with the bigger, better brands. The likelihood that any extended offer will convert into an acceptance falls as a result, increasing the time it takes to fill those roles. Expanding the talent supply by tapping into nontraditional talent pools can reduce the competition intensity for these workers.

**72% of recruiters agree or strongly agree** with the following statement:

*"I often screen out otherwise qualified candidates because of hiring managers' high standards for technical expertise."*

Unnecessary restrictions such as screening for technical degrees (rather than technical competencies) also might eliminate many candidates from consideration and result in an artificially small number of candidates who make it through to the offer stage, creating a drag on many recruiting metrics. In fact, the majority of recruiters (72%) report that they often screen out otherwise qualified candidates because of hiring managers' high standards for technical expertise.

By considering nontraditional talent pools and removing overly restrictive hiring filters, organizations can increase the supply of candidates for their open roles, thereby improving recruiting outcomes.

*Suggested Key Performance Indicators (KPIs): Average time to fill; offer conversion rate (ratio of extended to accepted offers); time to shortlist*

## Nontraditional Talent Pools May Include:

- Accelerated tech training programs (e.g., coding academies, developer bootcamps)
- Community college programs
- Two-year degree programs
- Online degree and job training programs
- The military

## STEM Roles Take Longer to Fill Today Median Time to Fill for STEM Roles (Business Days)



### The Pain of a Longer Vacancy to the Business

- Risk of losing highest-quality candidates to competitors
- Lost productivity in the role
- Damaged productivity of employees who depend on the vacant role
- Higher burnout and disengagement for role's immediate network while it compensates for the vacancy
- Increased spend on temporary staffing
- Higher recruiter and hiring manager time spend

Source: CEB analysis.

<sup>a</sup> Cost of vacancy accounts for lost productivity in the role, decreased productivity of the role's immediate network, and cost per hire (including higher recruiter and hiring manager time spend), as well as savings to the organization due to deferred salary and benefits costs. Calculations were made using the Turnover Cost Calculator (a CEB Corporate Leadership Council™ resource), a proprietary algorithm that integrates dozens of potential cost inputs to calculate the overall cost per turned-over employee. We accept all of CEB Corporate Leadership Council's assumptions except for the following inputs: median salary (US\$65,000), average turnover (16%), average organization size (15,000 employees), and percentage of salary paid in benefits per employee (24%). Time to fill was also updated to reflect today's average time to fill of 63 days. Additional costs per 1,000 vacancies were calculated by multiplying the cost per day (US\$407) by the difference in time to fill from 2010 to 2015 (21 business days), and again by 1,000 vacancies.

For each additional day that a single vacancy is open, the average organization loses roughly

**US\$407**

per vacancy.<sup>a</sup>

At an average time to fill per role of 63 days, that amounts to an additional annual cost of roughly

**US\$8,550,000**

per 1,000 vacancies.<sup>a</sup>

**“We are struggling to attract qualified IT staff; we just aren't a ‘sexy’ tech company.”**

VP of Recruiting  
Financial Services Industry

### Improved Retention

Hiring managers and recruiters report that one of the most frustrating aspects of hiring for IT roles is high turnover after only a short time. Even after organizations expend significant effort and extend high salaries to attract high-quality talent, these workers are not always successful in role, and those that are will often only stay for a short period before moving on to another opportunity.

Early experience with alternative hiring programs shows evidence of retention benefits. In addition to being easier to attract, candidates sourced from nontraditional talent pools (e.g., accelerated degree programs, coding academies) are more likely to stay with their employers than candidates recruited from more traditional sources (e.g., four-year degree programs). Second, candidates from nontraditional sources may be more likely to stay longer at their organizations. Candidates from nontraditional talent pools report higher levels of loyalty to organizations that give them the opportunity to build IT careers. By contrast, many traditional candidates' in-demand skills provide them the optionality to continuously shop around for the most competitive employment offers.

Fortune 500 companies that hired from nontraditional talent pools saw a **45% reduction** in defect rates compared to traditional hiring models.<sup>a</sup>

Source: Catalyst IT services.

<sup>a</sup> Companies included in this data are Catalyst clients who have evaluated teams of 30–50 engineers for each model, and the data is statistically significant.

*Suggested KPIs:* Workforce attrition rate; workforce intent to stay (target segment compared to total organization workforce)

The average cost of recruiting STEM talent in North America is **\$12,309.<sup>a</sup>**

Source: CEB analysis.

<sup>a</sup> Refers to average cost per hire, recruiter and hiring manager compensation costs, relocation and signing bonuses, and orientation expenses; does not include average starting salary for employees.

## Reduced Cost

Your organization may be able to realize cost benefits from sourcing and/or compensating alternative hires.

### Sourcing

Entry-level IT roles are often filled by a university recruiting process that requires representatives from your recruiting department to travel to target schools to engage with and interview candidates. Although some large employers may have the scale to offer independent information sessions, most employers will engage with students via career fairs that draw students from a wide assortment of backgrounds, many of whom may not be seeking a career in IT. This enhanced focus can potentially allow recruiters to more efficiently and cost-effectively engage with viable candidates who are interested in your roles.

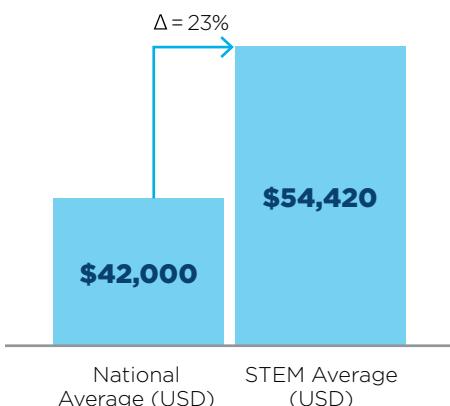
### Comparison of Candidate Engagement for Traditional and Nontraditional Recruiting Sources

	Traditional University Recruiting	Nontraditional Coding Academy Recruiting
Career Fair/Candidate Engagement Events	<ul style="list-style-type: none"><li>■ General</li><li>■ Large</li><li>■ Infrequent</li></ul>	<ul style="list-style-type: none"><li>■ Focused</li><li>■ Intimate</li><li>■ Frequent</li></ul>
Travel to Events	<ul style="list-style-type: none"><li>■ High (Overnight Travel Often Required)</li></ul>	<ul style="list-style-type: none"><li>■ Low (Often In-City)</li></ul>
Availability of Candidates	<ul style="list-style-type: none"><li>■ Seasonal</li><li>■ Several-Month Lead Time for Candidates</li></ul>	<ul style="list-style-type: none"><li>■ Frequent</li><li>■ Candidates Often Immediately Available</li></ul>

Source: CEB analysis.

### STEM Talent Earns a Higher Salary Than Peers

Average Starting Salary in the United States for STEM Employees Compared to the National Average



Source: CEB analysis.

Depending on the proximity of the target schools in your university recruiting program, recruiter travel can also be a significant expense. Accelerated training programs such as coding academies, which require a smaller physical footprint than higher-education institutions, are often located in metropolitan areas and may be more convenient to your organization's offices. As more accelerated training programs are founded, location advantages may become even more pronounced.

If your organization happens to be within a convenient distance from such an institute, their graduates are likely to find your location desirable, as they are already nearby. This may be a distinct advantage compared to targeting schools outside of your metropolitan area, where relocation may present another recruiting challenge. For a partial list of institutions offering accelerated training programs, see p. 24.

*Suggested KPIs:* Recruiter efficiency metrics (e.g., positions filled per recruiter); recruiter travel expenses

### Compensation

Qualified IT candidates from traditional university pipelines are often in great demand and are likely to receive multiple employment offers. This competition drives up the salary necessary to attract these candidates. In contrast, candidates

sourced from the relatively nascent, but emerging, accelerated training programs can be a source of competitive advantage for organizations who hire them. In addition, nontraditional candidates, due to their more focused training, can be equally, if not more, qualified and likely to succeed in a particular IT role, yet they may be willing to accept a slightly lower offer.

*Suggested KPIs:* Number of employment offers received by target candidates; offer-to-acceptance ratio; average compensation by role

“Even though we have changed our student hiring approach, we are still able to fill an even greater number of entry-level roles, and with great talent, too. I’m impressed that, despite their different backgrounds, they perform just as well on the job.”

IT Executive  
First National Bank of South Africa

Women make up over half of the US workforce but **only 31%** of the total US technology workforce.

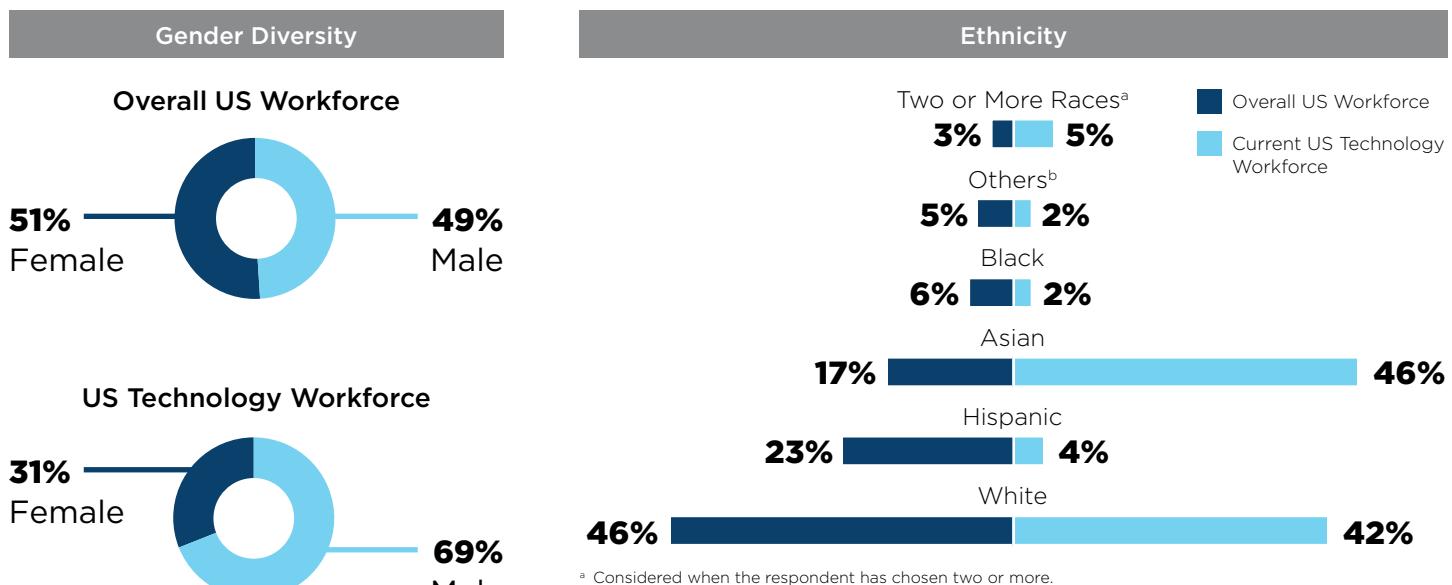
### Improved Workforce Diversity

In 2014, several of the world’s largest technology companies, including Apple, Google, and Facebook, publicized statistics on their workforce diversity, revealing and confirming the relative dearth of women and many minority groups in the technology workforce. Although women make up 51% of the total US workforce, they are only 31% of the US technology workforce. This disparity is even more pronounced for black and Hispanic minority groups. Following the release of their workforce statistics, Apple, Google, and Facebook each promised an increased commitment to diversity, joining many other organizations in making diversity a top organizational priority. Already, more than three-quarters of organizations report strong executive support for diversity initiatives, and legislation, external stakeholder demands, and changing demographics will continue to pressure organizations to build diverse and inclusive workforces.

Hiring from nontraditional sources can increase diversity and lead to great business outcomes. CEB data shows that employees who are part of organizations with high levels of diversity exert 6% more discretionary effort and report a 7% higher intent to stay than their peers in organizations with low levels of diversity. Workers in highly diverse and inclusive organizations also show a 26% increase in team collaboration and an 18% increase in team commitment. On average, students of accelerated training programs tend to be more diverse than those from traditional computer science programs. Special programs, such as LaunchCode’s CoderGirl group and New York City’s Web Development Fellowship, run by The FlatIron School, focus specifically on educating and empowering diverse populations, making these programs ideal sources of diverse candidates.

*Suggested KPIs:* Organization gender, ethnicity, and socioeconomic workforce demographics versus overall workforce

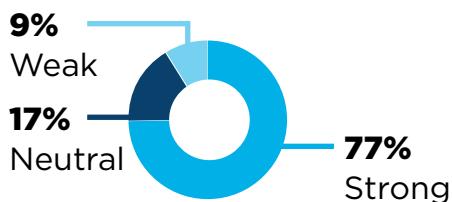
## Technology Workforce Diversity Lags Behind Overall Industry



Source: CEB analysis.

## Executive Support for Diversity Initiatives

Percentage of Organizations

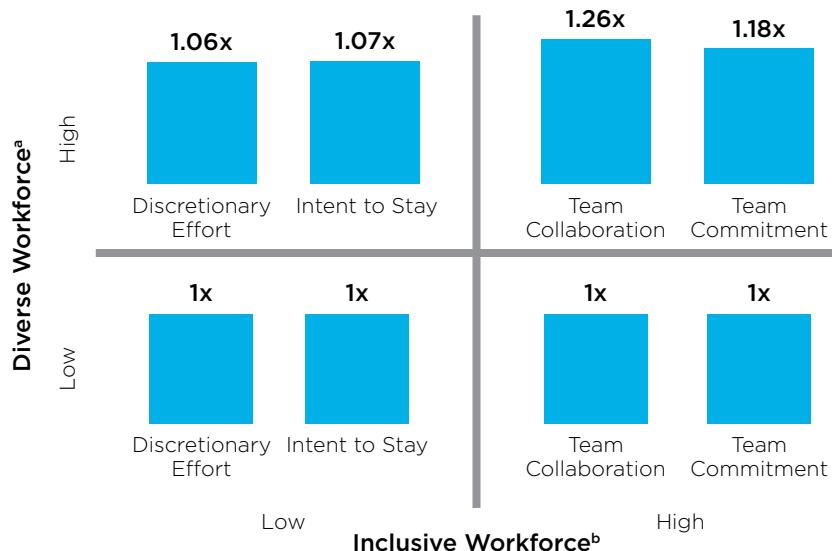


n = 79.

Source: CEB 2010 Diversity Recruiting Survey; Society for Human Resource Management, "SHRM's Diversity and Inclusion Initiative," 2008; Forbes Insights, "Global Diversity and Inclusion: Fostering Innovation Through a Diverse Workforce," July 2011; Aetna, 2005 *Diversity Annual Report*; Sodexo, 2011 *Diversity and Inclusion Annual Report*.

Note: Total does not equal 100% due to rounding.

## Diverse and Inclusive Workforces Drive Employee Productivity and Retention



Source: CEB 2012 Global Labor Market Survey.

<sup>a</sup> "Diverse workforce" is defined by the extent to which employees agree that "Diversity is well represented in my organization."

<sup>b</sup> "Inclusive workforce" is defined by the extent to which employees agree that "Divergent perspectives are valued in my organization."

# Find Talent in Unexpected Places



Before Your Competitors Do

CEB TalentNeuron uses big data analytics from over 1,000 sources globally to assess your talent in new and established markets. Pick your city, and in seconds get real-time supply-demand trends—insight you can't get anywhere else.

Visit [cebglobal.com/talent-neuron](http://cebglobal.com/talent-neuron).

For more information, contact us at 1-866-913-6447 or [TalentAnalyticsSupport@cebglobal.com](mailto:TalentAnalyticsSupport@cebglobal.com).



# What the Best Companies Do™

Partial List of Companies

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# 1 Planning

## Build Awareness and Support for Hiring from Nontraditional Sources

BETA<sup>1</sup>

### Build a Case for Hiring from Nontraditional Backgrounds Using Big Data

#### Challenge

Despite its benefits, several key challenges are preventing IT from effectively using big data-powered recruiting. First, many stakeholders in IT and HR believe that hiring job candidates from outside traditional talent pools is too risky, and they reject any practices related to doing so. For those organizations able to overcome this hurdle, challenges still arise. Employees with traditional IT credentials (e.g., advanced degrees, certifications) are often skeptical of new staff who lack them, creating onboarding and team integration challenges. The result is often a vicious cycle that leads employers to revert back to using more traditional recruiting channels and practices—and to lose out on many high-potential candidates.

#### Solution

The director of QM Automation at Beta, a Fortune 500 consumer goods manufacturing company, has been using big data-powered recruiting to build teams of developers successfully for several years and is all too familiar with the most common challenges facing his peers who are trying to do the same. In collaboration with Catalyst IT (a people analytics provider), Beta has identified several key insights that will enable others to successfully use big data for hiring in IT:

- **Highlight the Successes of Job Candidates with Diverse Educational Backgrounds from Within and Outside the Organization**—It may seem straightforward, but providing proof of concept goes a long way when trying to open up an alternative recruiting challenge. When expanding IT recruitment channels with big data, pointing out past successes within the organization can have tremendous impact. Employers trying to champion successes can also point to external testimonials. For instance, [GradsOfLife.org/success-stories](http://GradsOfLife.org/success-stories) very effectively highlights AT&T and AOL's success hiring IT candidates from nontraditional backgrounds.
- **Create an Advocacy Network to Support Candidates Who Lack Traditional IT Training**—Getting job candidates from nontraditional IT backgrounds (e.g., students from community colleges, military, online courses, accelerated training programs) through the front door is an accomplishment to be celebrated, but ensuring they have the support they need thereafter is a critical next step that is too often ignored. IT staff with traditional credentials often are concerned about their new peers' capabilities, which can create team conflict. To avoid this problem, Beta recommends selecting influential IT leaders who can advocate for the new hires before they come on board. The advocates' role should be to mentor new hires and to help existing staff understand the value their new peers bring. Accordingly, these advocates should be selected for their leadership and influence competencies, as well as their reputations within their functions.

“You’d be surprised how many people in the organization don’t realize a high performer sitting next to or reporting to them may have only graduated high school.”

Director of QM Automation  
Beta

<sup>1</sup> Pseudonym.

# 1 Planning

## Build Awareness and Support for Hiring from Nontraditional Sources

"The biggest 'aha' moment I've had while reflecting on the IT hiring challenge in the United States is how entrenched the idea of degrees has become. We've stopped looking at the quality of the people we're considering hiring and have become obsessed with an arbitrary prerequisite."

Matt Glover  
Corporate Director of Global IT  
AMX by Harman

High-performing IT staff spend a large amount of time on routine tasks that can be done by staff without four-year degrees.

- **Build Soft Skills Training into the Onboarding Plan for IT Roles by Candidates Who Lack Traditional IT Training**—Four-year degree programs typically include soft skills training—either in-classroom or via internships—focusing on competencies such as organizational awareness, business orientation, influence, and communication. Often times, job candidates with alternative credentials have not had the opportunity to flex these skills during their previous careers, and they will benefit from additional emphasis in these areas. Soft skills training also should be added to the onboarding program for these employees. Please see the appendix for descriptions of critical soft competencies and guidance on onboarding programs.



## Broaden IT Talent Pools by Adjusting Role Requirements

### Challenge

Employees struggle to move away from the four-year-degree mind-set. First, stakeholders in HR and IT often doubt that candidates who lack such degrees will possess the skills and knowledge needed to excel in IT. Even those stakeholders who buy into the idea of hiring such candidates are often uncertain about how to implement the idea in practice. For HR, concerns exist that altering hiring requirements will lead to an inundation of résumés, making it hard to identify those who are best fits for the role and company. For IT, the roles best suited for relaxed hiring requirements are unclear, and restructuring IT to accommodate them can be difficult.

### Solution

Matt Glover, corporate director of Global IT at AMX by Harman, is passionate about making IT jobs accessible to a broader range of Americans, and he was able to overcome the challenges to expanding his company's IT talent pool. Despite having multiple degrees himself—including in computer science—Matt recognized IT was missing out on critical talent by ignoring candidates that lacked such backgrounds. Realizing it would take an act of leadership to broaden his department's talent pool, Matt undertook the following actions:

- **Approach Stakeholders with a Compelling Business Case**—Matt used a two-pronged approach to convince his own team in IT and his partners in HR that it was worth it to relax AMX's IT hiring requirements. First, he described the importance of his company being a leader in creating opportunities for those who would otherwise be shut out of the IT job market, pointing to national IT job statistics and the celebrated successes of candidates with alternative educational backgrounds at other organizations. Next, Matt brought home the importance of the endeavor by outlining the amount of time his top performers were spending on routine tasks that could be executed by staff without degrees. He described the resulting negative impact on the execution of more complex IT tasks and the engagement and retention of those top staff.
- **Select a Small Set of Roles for Which to Pilot the Approach**—Some companies enforce head count caps, which can make replacing one role with multiple people challenging. Recognizing this, Matt reduced the burden of complexity by identifying a small set of roles in IT within which to pilot the relaxed hiring requirements. Next, he prepared a business case for changing the head count

# 1 Planning

## Build Awareness and Support for Hiring from Nontraditional Sources

"Her attitude [has been] very compelling for me; I believe her energy and eagerness for technology will breathe new life into the global IT organization."

Matt Glover  
Corporate Director  
of Global IT  
AMX by Harman

cap, which would ultimately go to his CFO and board. The business case described how, even accounting for overhead, there would be no additional cost to replace one role requiring an advanced degree with two that required less education. It also discussed the improved productivity among his most tenured staff that would result from the change.

- **Partner with IT Job Training Programs to Create Smaller Pools of Vetted Candidates**—Relaxing hiring requirements can sometimes broaden talent pools excessively, making it difficult to identify the best applicants from a large volume of résumés. To overcome this challenge, AMX by Harman built partnerships with local IT training programs, from which it can directly source candidates with alternative backgrounds. For example, Matt participates as a chair in the National Convergence Technology Center's (NCTC) Business and Industry Leadership Team, which involves significant partnership with local IT educational programs from which he can directly identify top candidates.

### Results

By adjusting its hiring requirements for IT roles, AMX has been able to hire a more diverse set of high-performing IT staff. One key success story is Chelsea Hall Fitzgerald, a new AMX by Harman IT technician who is working toward her associate's degree in IT after having previously been an art major. To learn more about Chelsea's story, visit [NCTC's website](#).



*Matt Glover with new AMX by Harman IT technician, Chelsea Hall Fitzgerald*

## Redistribute Staff Responsibilities to Maximize the Value of Hires from Nontraditional Sources



### Risk Manager

#### Partial List of Responsibilities

##### *Requires More Technical Experience*

- Conducts risk assessments
- Develops controls recommendations
- Works with customers to ensure understanding of risk

##### *Requires Less Substantial Technical Experience*

- Compiles and reports risk metrics
- Schedules time to discuss risks with stakeholders
- Coordinates implementation of agreed-on controls



### Cyber Incident Response Analyst

#### Partial List of Responsibilities

##### *Requires More Technical Experience*

- Finds and fixes unprotected vulnerabilities
- Responds to security incidents
- Provides guidance for handling incidents

##### *Requires Less Substantial Technical Experience*

- Provides updates to key stakeholders in incident process
- Ensures proper documentation of incidents
- Maintains response procedures and plans



Source: CEB analysis.

# 1 Planning

## Build Awareness and Support for Hiring from Nontraditional Sources

<sup>1</sup>

### Establish a Dedicated Recruitment Program

#### Challenge

Gamma Company, an IT services company, realized the growing demand for IT roles compared to available talent would cause a scarcity of IT talent. In addition, it recognized that the talent it was receiving from four-year college programs may not receive the appropriate training prior to being hired and might leave after three to six months.

#### Solution

Recognizing these challenges, Gamma Company revolutionized its approach to sourcing and training talent internally through a recruitment program that employs a vital formula to train and employ inner-city minority women—equipping them to successfully launch IT careers. Program candidates are unique in that they generally enter with some college experience but lack prior IT-related training. To implement this program and connect it to the organization's broader corporate strategy, Gamma Company has focused on the following:

- **Partnership with Client Organizations**—As an IT solutions provider, Gamma Company's recruitment program is designed to first understand the client's current and future needs as Gamma Company works with its client organizations to determine the right fit for candidates. Fit can include understanding of roles, job requirements, and company or department culture and expectations.
- **Training**—After analyzing traditional computer science programs, Gamma Company found that candidates typically arrived with about 210 hours of in-class training. It determined that internally training candidates from 8:00 a.m.–5:00 p.m. for a three-month time period would provide 720 hours of in-class training and allow them to train new employees for the job they will be hired into after completion. In addition, students are trained specifically to perform in the roles they will be placed into, allowing them to enter their positions with the necessary understanding of systems, processes, and language used at the organization.
- **Development and Future Opportunities**—Throughout the program, where approximately 90% of students successfully complete their training, students are placed with a client organization to apply the skills they have learned. About 80% of students assigned to a client are ultimately hired. Unlike other training programs, if a student is not offered a position at the end of his or her placement, Gamma Company hires the student at the associate level to help further develop their IT career.

Through this program, Gamma Company has started to address its own shortage for talent while also developing talent from alternative talent sources. This program places trained, qualified individuals into IT roles in the United States and reduces the need for outsourcing.

<sup>1</sup> Pseudonym.

# 1 Planning

## Build Awareness and Support for Hiring from Nontraditional Sources



Help hiring managers understand that rebalancing technical job requirements with nontechnical requirements does not lower the quality bar for applicants.

Demonstrate how candidates from nontraditional sources can meet hiring needs by comparing two résumés side by side.

### Influence Hiring Managers to De-Emphasize Technical Screening

Hiring managers often have unnecessarily high standards for technical expertise, causing recruiters to screen out candidates from nontraditional sources early in the hiring process.

To overcome this bias, recruiters at DuPont add a variety of nontechnical criteria to the screening process that emphasize candidates' experience and core values. They use their labor market experience and influencing skills to help hiring managers understand that rebalancing technical and nontechnical requirements does not lower the quality bar; rather, it increases the likelihood of identifying qualified candidates who simply have alternative certifications and different-in-kind job experiences.

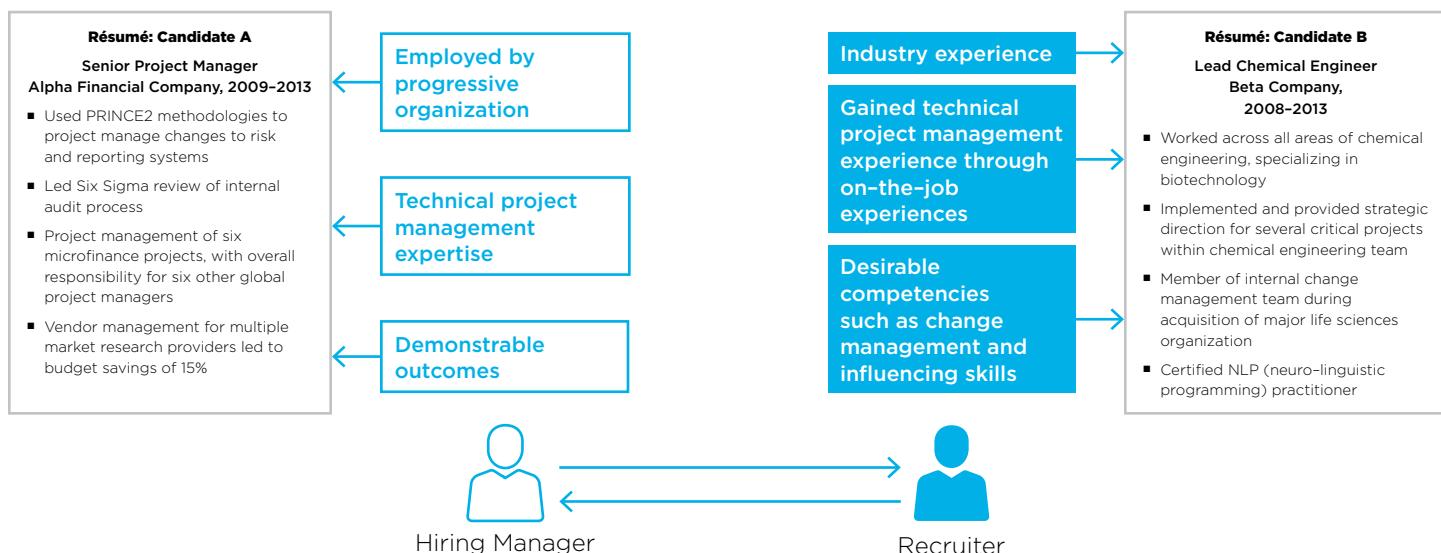
However, hiring managers often struggle to envision candidates with alternative profiles in traditional IT roles. Recruiters at DuPont show, rather than tell, how nonobvious candidates can meet hiring needs by comparing two résumés side by side. In this exercise, it is the recruiter's job to draw the hiring manager's attention to the desirable—instead of simply the recognizable—traits.

Hiring managers often make the assumption that candidates from nontraditional sources have more development needs than other employees. More often than not, their needs are just different, not greater. Effective behavioral interviews can identify development needs, which allows a manager to create an appropriate development plan early in a new hire's tenure.

### Direct Candidate Comparison *Illustrative Project Management Position*

**Hiring managers are drawn to “obvious” candidates with recognizable traits.**

**Recruiter draws hiring manager’s attention to nonobvious candidates and points out desirable traits that might otherwise be overlooked.**



Source: DuPont; CEB analysis.

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# 1 Planning

## Build Awareness and Support for Hiring from Nontraditional Sources

### Build Awareness and Support for Hiring from Nontraditional Sources

*Have You Taken the Following Steps?*

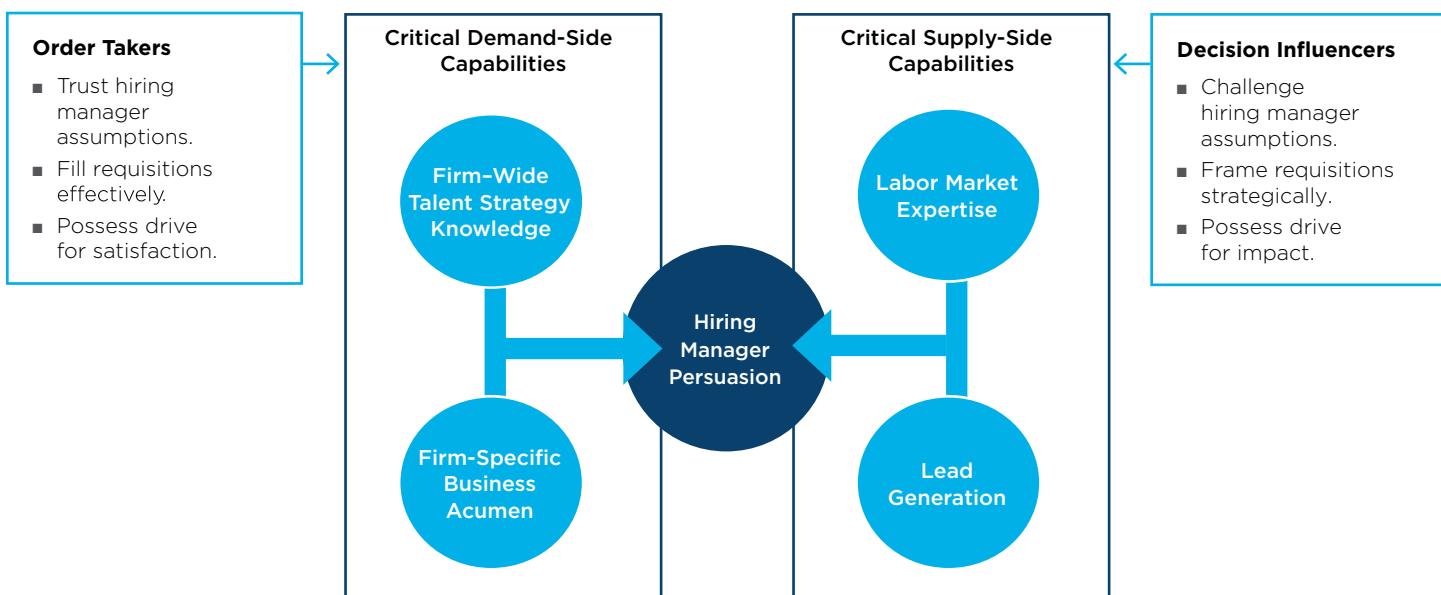
- Engage HR counterparts to create a strategic workforce plan with long-term forecasts, not just immediate needs.
- Maintain a database of high performers in IT, and capture their educational backgrounds and prior experience as part of it.
- Take advantage of people analytics to create a compelling business case for hiring from nontraditional sources.
- Select a small set of IT roles for a pilot program to demonstrate the benefits and costs of hiring from nontraditional sources.
- Use your professional network to collect feedback on accelerated training providers, such as online courses and coding academies.

# CEB Talent Advisor Leadership Academy

Develop Recruiters to Be Talent Advisors

**Empower Your Recruiting Team to Demonstrate Influence and Drive Impact:** Less than 20% of recruiters are talent advisors, causing 65% of hiring managers to find recruiters ineffective at influencing key business decisions.

## Talent Advisor Capability Model and Its Impact on Recruiter Capabilities



Source: CEB analysis.

## CEB Talent Advisor Leadership Academy

CEB offers a flexible development program that transforms your team into Talent Advisors.

Module	Critical Demand-Side Capabilities Building Business Acumen	Critical Supply-Side Capabilities Deepening Functional Expertise	Persuasion Skills Advising with Influence
Commitment	2 Days	2 Days	2 Days

CEB Talent Advisor Leadership Academy is a development program for your recruiting team and is a division of CEB HR Leadership Academy. Since 2007, CEB HR Leadership Academy has developed more than 6,900 HR professionals in 1,025 companies.

### Who Should Attend?

Participants of our public cohorts are generally in mid-management positions, with 8-15 years of experience. The participant profile is more flexible for on-site delivery, which allows us to tailor the learning experience across a variety of demographics and desired learning outcomes.



**Interested in Learning More About Developing Your Recruiting Team?**

Contact your account manager today or e-mail us at [tala@cebglobal.com](mailto:tala@cebglobal.com)

## 2 Sourcing

### Develop a Pipeline of Applicants from Nontraditional Sources

Challenge hiring managers' stated needs to create more realistic job descriptions.

Organizations recognize talent shortfall as an imminent risk to their ability to innovate and stay competitive in the long run. This requires them to turn to nontraditional sources of talent to seed interest in, and development of, STEM skills for the future. In addition, they must focus internally on reframing the mindsets of hiring managers, who are incentivized to focus on short-term objectives.



#### Reassess Hiring Needs to Look Beyond Popular Talent Sources

First National Bank of South Africa (FNB) realized that increased investments in employment branding and student hire compensation were unsustainable in a highly competitive talent market. It chose to reassess hiring managers' stated hiring needs and deconstruct them to challenge mainstream student profiles. This approach allows recruiters to identify real needs, which can more often than not be fulfilled by other types of degrees (not just computer science) or by equivalent degrees at other technical or community colleges. These nonobvious pools are typically less competitive, making it easier for FNB to identify and engage with students.

#### Surface Hiring Manager Perceptions



Source: First National Bank of South Africa; CEB analysis.

In addition, recruiters at FNB have used information sources about the student labor market (see table on next page) to compile sufficient evidence and make the case for hiring from nontraditional sources.

## 2 Sourcing

### Develop a Pipeline of Applicants from Nontraditional Sources

#### Components of Evidence-Driven Influencing Conversations

*Illustrative*

Information/Evidence Used by Recruiter	Impact on Hiring Managers	Source
<b>Hiring Forecasts</b> “IT and actuarial investments are key to our long-term strategic plan. Hiring needs in these areas are likely to increase year on year.”	Creates urgency to rethink student hiring strategy	Review of business strategy and talent plan
<b>Historical Retention Data</b> “Benchmark data shows that our student retention levels are lower than average. We invest a lot of time trying to attract certain student profiles, but they often do not stay long enough to justify that investment.”	Highlights pitfalls of current student hiring strategy and recalibrates expectations	Internal metrics compared with external benchmarks
<b>Graduate Talent Pool Size</b> “Data shows that approximately 2,000 students will be graduating with BSc in computer science degrees this year, compared to 5,000 with BTech degrees in computer science.”	Illustrates limitations caused by current talent pool size and encourages alternative staffing options	External research
<b>Job Responsibilities</b> “Your earlier description of job responsibilities actually aligns better with the core skills of BTech students. We would be over-hiring if we went with BSc students.”	Reaffirms gap between perceived and actual hiring needs	Discussion with hiring managers or current employees in the role

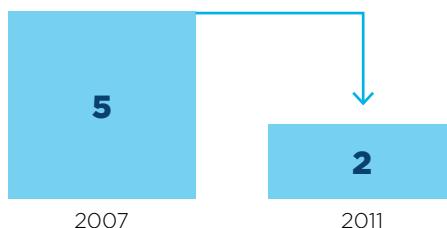
Source: First National Bank of South Africa; CEB analysis.

“Even though we have changed our student hiring approach, we are still able to fill an even greater number of entry-level roles, and with great talent too. I’m impressed that, despite their different backgrounds, they perform just as well on the job.”

IT Executive  
First National Bank  
of South Africa

FNB’s approach allows it to source from less competitive talent pools, thus improving offer-to-acceptance ratios and hiring manager satisfaction.

Average Number of Employment Offers That Students Receive  
*Typical Number of Job Offers Received by FNB’s Target Students*



Source: First National Bank of South Africa; CEB analysis.

# 2 Sourcing

## Develop a Pipeline of Applicants from Nontraditional Sources

"We nearly always find that employees are willing to help us tap into their networks. We position it as a great way to help contribute to the business, and they are flattered to be asked to help."

Jim Schnyder  
Sourcing Leader  
PepsiCo



### Generate Leads from Employee Networks

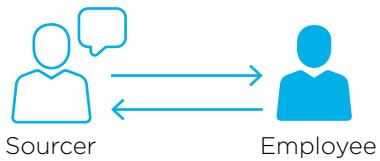
PepsiCo identifies employees whose networks are likely to contain individuals who would be a good fit for open roles. Recruiters then proactively mine these employees' online professional networks (e.g., LinkedIn) to generate a list of promising leads. Recruiters depend on employees' insights about their network contacts to prescreen potential applicants. PepsiCo uses this feedback to prioritize efforts toward certain contacts, but not to make definitive hiring decisions.

Recent hires from accelerated tech training programs or other nontraditional training sources likely have a strong network of other similarly trained IT professionals. Use these networks and current employees' insights to generate leads of highly qualified applicants from nontraditional training sources.

Coach employees to avoid bias for profiles similar to themselves, and instead to look for candidates with diverse backgrounds.

### Use Employees to Prescreen Targeted Leads in Their Networks

#### Sourcer-Employee Catch-Up Session



#### Network Lead Prescreening Ideas



Red



#### Performance:

- Underperformer?
- Lacks critical qualifications or experiences?

#### Engagement:

- Happy in current job and appears unlikely to want to switch?
- History of frequent job hopping?

#### Other factors:

- Personal circumstances (e.g., location, work-life balance) that might make it difficult to switch employers?

Yellow



Individuals fall into the Yellow category if they exhibit a mixture of Red and Green signals

Green



#### Performance:

- Strong performer?

#### Engagement:

- Keen to explore new employment opportunities?
- Dissatisfied with some aspects of current employment situation (e.g., pay, level of responsibility)?

- Has displayed previous interest in your role or organization?

#### Other factors:

- Few strong ties (e.g., personal connections, financial commitments)?

Source: PepsiCo; CEB analysis.

## 2 Sourcing

### Develop a Pipeline of Applicants from Nontraditional Sources

#### Tap into Emerging Talent Pools: A Spotlight on Accelerated Training Programs

Accelerated training programs (e.g., coding academies) are a rich source of highly qualified talent and often are the first place companies look when hiring applicants from nontraditional sources. Through immersive 6- to 18-week training programs, these schools prepare candidates for careers in a diverse set of technology roles. Academies are also making it easier for employers to find fresh talent.

#### Guidelines for Employers Seeking to Partner with Accelerated Training Academies

To maximize the value of a partnership, employers should take into account the following considerations and ask the following questions:

Priming the Organization to Hire from an Accelerated Tech Training Academy	Evaluating an Accelerated Tech Training Academy for Partnership: Key Questions to Ask
<b>Are key stakeholders supportive of the initiative?</b>  IT or HR stakeholders may be concerned about hiring IT job candidates with alternative education and training. Prior to engaging an academy, ensure internal support exists for the initiative. The academies listed on the following pages offer numerous success stories on their websites, which can be used to secure buy-in.	<b>Where is the academy located?</b>  It is certainly not necessary for an academy to be near your business for the relationship to work, but if face-to-face partnership and discussion are central to your organization's culture, it may be beneficial to choose an academy in close proximity. If the partnership will be remote, ensure you discuss communication styles and expected cadence of discussions.
<b>Who will champion the initiative?</b>  Partnering with an academy to hire job candidates can require some time and flexibility. Identify at least one stakeholder who is willing to lead conversations and to broker agreements with the academy to ensure that communication is consistent and that both parties' needs are met.	<b>Who are the program's graduates?</b>  Discuss with the academy the specific skill sets its graduates will possess to ensure they match your organizations' requirements. Also ask for specific success stories, and request to be connected with employers who have previously hired program graduates to get their feedback.
<b>What are the goals for the partnership?</b>  Academies' missions and curricula vary, making it important to know what kind of job candidate you are looking for and what you hope to gain from the relationship before you set out to find a partner. Sit down with key internal stakeholders and create and agree on a list of your organization's "must-haves" and "nice-to-haves" for the partnership (e.g., hire junior web developers, increase gender diversity in IT). You may also consider partnering with an intermediary—such as Grads of Life or Year Up (see pp. 25–26)—that can help you identify talent from coding academies best suited to your organization.	<b>What kind of soft skills training does the program provide?</b>  Soft skills are increasingly critical in tech careers, and academies include varying amounts of this training. Discuss with programs you are evaluating whether they cover this area and how thoroughly. If soft skills are not part of the academy's curriculum, screen their candidates closely for these skills. If required, embed soft skills training into new hires' onboarding plans.

Source: CEB analysis.

## 2 Sourcing

### Develop a Pipeline of Applicants from Nontraditional Sources

Partial List of Accelerated Tech Training Academies

Name	Location(s)	What They Do	You Should Partner If....	Contact
	New York, NY Chicago, IL	Dev Bootcamp prepares students without prior experience in tech for careers as web developers through a 19-week program (9 weeks remote, 9 weeks in person, 1 week career prep) focused on Ruby, JavaScript, Ruby on Rails, SQL, HTML, CSS, and pair programming. The program also emphasizes soft skills development.	You need to hire junior web developers.	<ul style="list-style-type: none"><li>▪ <a href="http://www.devbootcamp.com">www.devbootcamp.com</a></li><li>▪ <a href="mailto:hello@devbootcamp.com">hello@devbootcamp.com</a></li></ul>
	San Francisco, CA	The Flatiron School prepares students without prior experience in tech for careers as software developers through 12-week immersive courses in iOS and Web.	<ul style="list-style-type: none"><li>▪ You need to hire web developer or software engineers.</li><li>▪ You are focused on increasing diverse representation in your IT department.</li></ul>	<ul style="list-style-type: none"><li>▪ <a href="http://www.flatironschool.com">www.flatironschool.com</a></li><li>▪ +1-347-729-7111</li><li>▪ <a href="mailto:info@flatironschool.com">info@flatironschool.com</a></li></ul>
	San Francisco, CA Los Angeles, CA (coming soon)	Hack Reactor prepares students with minimal coding and programming experience for careers in tech through a 12-week immersive program.	You need to hire software engineers and JavaScript programmers.	<ul style="list-style-type: none"><li>▪ <a href="http://www.hackreactor.com">www.hackreactor.com</a></li><li>▪ +1-415-547-0254</li></ul>
	San Francisco, CA	Hackbright Academy is an engineering school for women with a mission to increase female representation in tech through education, mentorship, and community.	<ul style="list-style-type: none"><li>▪ You need to hire software engineers.</li><li>▪ You are focused on increasing female representation in your IT department.</li></ul>	<a href="http://www.hackbrightacademy.com">www.hackbrightacademy.com</a>
	Mountain View, CA	Udacity is an online learning platform that prepares students with some tech background for new jobs in tech through 6- to 12- week "nanodegree" programs. The curricula for these programs are created and adapted in conjunction with tech companies such as Google, Salesforce, Autodesk, and AT&T.	You need to hire front-end web developers, data analysts, iOS developers, or full-stack developers.	<ul style="list-style-type: none"><li>▪ <a href="http://www.udacity.com">www.udacity.com</a></li><li>▪ <a href="mailto:teach@udacity.com">teach@udacity.com</a></li></ul>

Source: CEB analysis.

Note: Hack Reactor has offered, as part of TechHire, to partner with municipalities in bringing its immersive program to areas traditionally passed over by the tech industry, an initiative called the Workforce Kickstart Initiative (WKI). E-mail [WKI@hackreactor.com](mailto:WKI@hackreactor.com) for more information.

## 2 Sourcing

### Develop a Pipeline of Applicants from Nontraditional Sources

Partial List of Accelerated Tech Training Academies (Continued)

Name	Location(s)	What They Do <small>Source: CEB analysis.</small>	You Should Partner If....	Contact
	Denver, CO	Turing is a nonprofit organization that prepares students with no prior experience in tech through a seven-month web development program.	You need to hire web developers.	<ul style="list-style-type: none"><li>▪ <a href="http://www.turing.io">www.turing.io</a></li><li>▪ <a href="mailto:contact@turing.io">contact@turing.io</a></li></ul>
	Nashville, TN	Nashville Software School prepares students for careers in software development through full-time, part-time, and professional development programs.	You need to hire web developers.	<ul style="list-style-type: none"><li>▪ <a href="http://www.nashvillesoftwareschool.com/contact">www.nashvillesoftwareschool.com/contact</a></li></ul>

Source: CEB analysis.

Note: Hack Reactor has offered, as part of TechHire, to partner with municipalities in bringing its immersive program to areas traditionally passed over by the tech industry, an initiative called the Workforce Kickstart Initiative (WKI). E-mail [WKI@hackreactor.com](mailto:WKI@hackreactor.com) for more information.

**85% of Year Up program participants** are employed or attending college full time within four months of completing their internship.

**90% of corporate partners** would recommend the Year Up program to a colleague.



#### Corporate Internship Partner Program

Many organizations have recruiting requirements that make it difficult to hire from nontraditional pipelines. These processes, such as a blanket requirement for a four-year college degree, are established to filter out unqualified candidates and decrease the risk of any individual hire.

Year Up is a nonprofit organization that serves as a pipeline for ready-to-work IT talent from diverse backgrounds. Year Up matches program participants with corporate partners to allow employers to gain access to a pipeline of entry-level talent. By using an internship program approach, Year Up helps “derisk” the hiring process by allowing organizations and potential hires to determine whether a mutual fit exists. The year-long training program (six-month training program and six-month internship placement) provides students with the technical and professional skills necessary to be successful in the corporate environment. In addition to providing talent for entry-level positions through six-month internships, Year Up also provides ongoing support and mentorship to students placed in organizations and partners within the organization. To learn more about Year Up’s corporate internship partner program, visit [www.yearup.org](http://www.yearup.org).

## 2 Sourcing

### Develop a Pipeline of Applicants from Nontraditional Sources

"It's a win for the urban communities, it's a win for the students, and [it's] a win for our company. We would not be doing this unless these students were active contributors as employees. They more than pull their weight."

Kenneth Chenault  
CEO and Chairman  
American Express

#### Most Popular EdX Courses to Date

- **HarvardX:** CS50x—Introduction to Computer Science: 420,000+ enrolled
- **LinuxFoundationX:** LFS101x—Intro to Linux: 375,000+ enrolled
- **MITx:** 6.002x—Circuits & Electronics: 275,000+ enrolled

## GRADS of LIFE

### Helping Employers Expand Talent Pipelines

Grads of Life is a national public service announcement, TV, radio, and print ad campaign designed to transform employers' perceptions of opportunity youth—the 5.8 million young adults who are out of school and work—and call on businesses to act. Through its website, employers can search for and connect with local direct service providers who can provide a steady source of entry-level talent. In addition, Grads of Life provides employers with guidebooks, tools, and templates to help them build employment pathways for high-potential young adults. To access the Grads of Life toolkit of mentorship, internship, school-to-work, and hiring guides, among other resources, visit [www.grads of life.org](http://www.grads of life.org).



### Online Courses Sourced from Global Universities

EdX is a nonprofit enterprise offering more than 450 online courses sourced from 65 member institutions, including leading global universities and a diverse group of prominent organizations from around the world. Founded by Harvard University and Massachusetts Institute of Technology, edX aims to increase access to education for students worldwide while using online learning to improve on-campus education (both quality and outcomes) and research to gain greater insights on how students learn most effectively. It is the only major provider of MOOCs (Massive Open Online Courses) that is nonprofit and open source. Topics include computer science, math, engineering, science, statistics, and many more. EdX also collaborates with leading IT companies, such as Microsoft, to offer courses that help its learning community acquire the core development skills needed to be successful in a cloud-heavy and mobile-first technology environment. To learn more about edX they builds ready-to-work skills in and certifies individuals, visit [www.edx.org](http://www.edx.org).



### Partnering With IT Job Placement Programs to Build a High-Performing IT Workforce

#### Challenge

With the broad array of coding academies, programming boot camps, and other job training programs vying for recruiters' and IT leaders' attention, it's often unclear where to focus energy and resources. When companies ultimately do

## 2 Sourcing

### Develop a Pipeline of Applicants from Nontraditional Sources

“We have very high standards for ourselves, so it was critical that the program was framed as a pilot and that HR and IT understood there were different expectations, including nontraditional skill expectations, associated with the effort than what we’d normally have with a traditional recruitment program.”

Mark Dryer  
VP/HR Business Partner  
MasterCard

choose partnerships, they find the relationships require a great deal of time and effort to cultivate, and they may still fail when held to traditional recruitment standards. Moreover, new hires often struggle to adjust to organizations and assimilate in company cultures that are unaccustomed to employees with alternative educational and professional backgrounds.

#### Solution

MasterCard successfully created an apprenticeship program at its IT headquarters in St. Louis through a partnership with St. Louis-based LaunchCode, a nonprofit IT job placement program. Through creative and innovative thinking, the company was able to benefit from working with the program and overcome most of the traditional challenges to making such partnerships successful.

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- **Evaluate Programs against Key Parameters to Select the Best Fit:**

MasterCard focused on choosing a program that shared its vision and goals for creating a more diverse IT workforce, specifically focusing on women in technology. Recognizing that alternative recruitment channels require personal relationships, time investment, and flexibility to get started, MasterCard decided the program would need to be close to the company location where new hires would begin their apprenticeships. By partnering with an organization similar in both thought and location, MasterCard ensured a strong foundation for the program’s launch.

- **Build a Community of Passionate Advocates for the Program:** Do not rely on a few people in IT or HR to get an alternative recruitment channel off the ground. MasterCard’s champion for the apprenticeship program—VP/HR Business Partner Mark Dryer—spent time building a community of advocates within the company who were selected not by their role or seniority, but rather on their genuine excitement about increasing diversity in IT. By having an internal community dedicated to program success, MasterCard ensured no one party was overburdened and that organizational inertia would not hamper the launch of the program.

## 2 Sourcing

### Develop a Pipeline of Applicants from Nontraditional Sources

- **Ease Traditional Recruitment Channel Constraints and Manage Expectations:** The process of building an alternative recruitment channel often comes with obstacles and lessons learned. When building its apprenticeship program, MasterCard recognized this and understood it would be critical to allow the program to incubate before launching it fully. As the lead, Mark focused on managing organizational expectations through selective language and close collaboration with key partners in HR and IT.
- **Create an Alternate Onboarding Program:** Even when equipped with the right skills and competencies to be successful in IT from a technical perspective, nontraditional IT job candidates may lack some of the knowledge and background that would help them transition to their new roles more effectively. Recognizing this challenge, MasterCard modified its traditional onboarding program to ensure apprentices were equipped with everything they need to make a strong start. Key pillars for onboarding apprentices are described below.



**All about your job:** What procedures do you need to learn to get started? Who can you go to for questions? Who is your mentor? Are you involved with project work? Is there additional skills training you got that you weren't anticipating? (...)

**All about you:** What is your career development pathway? Who should you network with internally? What employee resource groups are available for you to join? What soft skills training is available to you?



## Results

MasterCard is enjoying strong success with its apprenticeship program and is planning to apply this hiring model to more roles and cities. Multiple apprentices have started in full-time IT roles at MasterCard. In addition, both MasterCard and apprenticeship program graduate LaShana Lewis, now a systems engineer at the company, were recently recognized by President Obama for her success with the LaunchCode program.

### Develop a Pipeline of Applicants from Nontraditional Sources

#### Have You Taken the Following Steps?

- Reassess hiring criteria by reflecting on the behaviors of the organization's current high-performing IT employees.
- Highlight the current hiring strategy's pitfalls to recalibrate hiring manager expectations (e.g., comparing historical retention metrics with external benchmarks).
- Help high-value employees build impressive social media profiles that can influence potential applicants in their networks while applying clear guardrails for social media use.
- Create apprenticeships to tap into emerging talent pools in accelerated training programs, and pre-place program graduates.
- Engage a senior leader to provide executive sponsorship, advocacy, and support for partnerships with coding academies and universities.

# 3 Attracting

## Attract Qualified Applicants from Nontraditional Sources

Most employers spend an enormous amount of time and money on their branding efforts, but CEB research shows these efforts account for only 20% of a candidate's decision to apply. This problem is even more pronounced when companies are recruiting from nontraditional talent pools, as their brand campaigns typically weren't designed to target these applicants.

To attract talent from nontraditional sources, companies must customize their employment branding for individual talent segments. However, promoting an organization as a "great place to work" is not a sufficient differentiator in today's information-rich labor market. Successful branding campaigns include more consultative messaging that gives potential applicants the trusted guidance they need to decide whether to apply. They also use more messenger-driven outreach strategies (e.g., senior leaders, current employees) rather than channel-based outreach (e.g., career websites, LinkedIn) to connect with talent from nontraditional sources. The following pages showcase a few tactics leading organizations have applied to create successful employment brands.



### Craft Messages That Enable Applicants from Nontraditional Sources to Connect Emotionally with Your Brand

Johnson & Johnson's (J&J's) employment brand clearly communicates an achievable purpose, thereby fostering a stronger emotional connection with potential applicants. Its Credo is a simple statement written in clear language, devoid of vague or bland buzzwords. J&J makes the achievability of its purpose believable by personalizing it for candidates and demonstrating how employees achieve it in their day-to-day professional lives.

Here is an excerpt from the Credo that outlines J&J's mission and social responsibility in simple language, as well as the four actions that demonstrate achievability of purpose more clearly:

#### Our Credo

1. **We believe our first responsibility is to the doctors, nurses and patients, to mothers and fathers and all others who use our products and services.**

In meeting their needs everything we do must be of high quality. We must constantly strive to reduce our costs in order to maintain reasonable prices. Customers' orders must be serviced promptly and accurately. Our suppliers and distributors must have an opportunity to make a fair profit.

We are responsible to our employees, the men and women who work with us throughout the world. Everyone must be considered as an individual. We must respect their dignity and recognize their merit. They must have a sense of security in their jobs. Compensation must be fair and adequate, and working conditions clean, orderly and safe.

2. **Employees must feel free to make suggestions**

and complaints. There must be equal opportunity for employment, development and advancement for those qualified. We must provide competent management, and their actions must be just and ethical.

3. We are responsible to the communities in which we live and work and to the world community as well. **We must** good citizens—support good works and charities and bear our fair share of taxes. We must encourage civic improvements and better health and education. We must maintain in good order the property we are privileged to use, protecting the environment and natural resources.

Our final responsibility is to our stakeholders. Business must make a sound profit. **We must experiment with new ideas.** Research must be innovative programs developed. New equipment must be purchased, new facilities provided and new products launched. Reserves must be created to provide for adverse times. When we operate according to these principles, the stockholders should realize a fair return.

Source: Johnson & Johnson; CEB analysis.

#### Four Actions to More Clearly Demonstrate the Achievability of Your Purpose

1. **Clarify whom you aim to serve.**

2. **Outline precise guidelines that potential applicants can apply in everyday work life.**

3. **Use imperatives to demonstrate your organization's commitment to the purpose.**

4. **State specific goals your organization aims to accomplish.**

## 3 Attracting

### Attract Qualified Applicants from Nontraditional Sources

A variety of methods can be used to personalize the messages to appeal to candidates from nontraditional sources, such as online testimonials from current employees, social media channels, and day-in-the-life videos.



Lou Palma @LourPalmaRecruit-Mar 19

#JNJ Pharma Recruiting team will be participating in a community service event tomorrow! Excited to live our #Credo [bit.ly/WTUpwF](http://bit.ly/WTUpwF)

Expand Reply Retweet Favorite More

Source: Johnson & Johnson.



"Every day I make decisions on how to ship products to our customers. The Credo drives all those decisions."

#### Top Seven Tips to Maintain Your Emotional Connection

- 1. Do tagline translation where it is easy.**  
Keep the English tagline where it's not.
- 2. Work with small employment branding agencies.**  
Find experts who will understand your essence, not just your selling points.
- 3. Extend the employment brand internally with a new hire orientation website.**  
Maximize the impact of your employment brand internally by briefing new hires early on.
- 4. Dedicate a section of your YouTube channel to up-to-date stories about your employment brand.**  
Keep the emotional connection fresh by continually replenishing your library.
- 5. Check in with Marketing monthly to discuss the communications about your organization's corporate brand.**  
Follow the evolution of your corporate brand to avoid disconnection.
- 6. Continuously tweet about your organization's purpose to reflect its dynamic nature.**  
Ensure your employment brand remains relevant.
- 7. Issue social media challenges to get candidates interested.**  
Reward candidates' commitment to the purpose.

# 3 Attracting

## Attract Qualified Applicants from Nontraditional Sources



### Leverage Employees as Brand Influencers

Suncor provides a group of employees with action-oriented training and with greater visibility to potential applicants so they can act as brand influencers. This progressive practice includes four components.

#### How Suncor Enables Brand Influencers

Action-Oriented Training		Greater Visibility to Applicants
<b>1. Verify</b> <b>Fit Verification Model</b>  Provide actionable information about talent needs so influencers can verify preliminary fit, even for roles with which they are not familiar.	<b>2. Consult</b> <b>Consultative Conversation Framework</b>  Teach brand influencers a sales-inspired conversation framework so they can deliver tailored information based on applicant need.	<b>3. Navigate</b> <b>Consultation Role Playing</b>  Ask brand influencers to practice interacting with applicants in different situations to gain confidence navigating difficult conversation scenarios.

#### ROI for Brand Influencers

By devoting one full day to training and limiting their time commitments, Suncor's brand influencers:

- Feel more engaged in the organization through the opportunity to help Suncor achieve its goals,
- Are recognized informally for their participation by managers and leaders of their business units, and
- Expand their networks by interacting with potential applicants within their industry.

Source: Suncor Energy, Inc.; CEB analysis.

Suncor provides a group of employees with action-oriented training and greater visibility to potential applicants so they can act as brand influencers. There are four components this progressive practice:

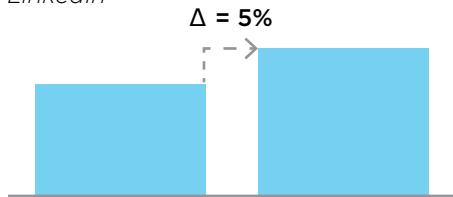
- **Fit Verification Model**—When first meeting a potential applicant, Suncor asks influencers to do a preliminarily assessment of the individual's fit on two dimensions: 1) whether the applicant shares Suncor's cultural values, and 2) whether the applicant meets basic requirements (e.g., locational flexibility, experience working in a team, completion of a post-secondary education). It is important to train influencers not to screen for traditional degrees or conventional IT experience. Influencer trainings are delivered as needed, typically last one day, and are facilitated either in person or through webinars by a recruiting professional.
- **Consultative Conversation Framework**—Influencing potential applicants to apply to appropriate career options requires three steps—diagnosing applicant needs, delivering customized messages by addressing preferences and concerns, and enacting a plan for further engagement. Besides the training, Suncor also provides information to support influencers in their conversations. For instance, it provides guidelines on how to ask probing questions instead of closed

## 3 Attracting

### Attract Qualified Applicants from Nontraditional Sources

#### Influencers Attract More High-Quality Hires

*Increase in Suncor Hires Attributed to Contact with Brand Influencers and LinkedIn*



Source: Suncor Energy; CEB analysis.

Note: Based on a four-month pilot of online brand influencers.

ones. An inventory of pre-crafted messages that match different applicant preferences is available, as are detailed next steps for good-fit applicants and an alternate opportunities list for suboptimal fits.

- **Consultation Role Playing**—Once influencers learn the necessary skills, they role-play in different scenarios with potential applicants. Influencers learn by seeing peers demonstrate how they approach similar situations, and in-the-moment feedback from the facilitator helps them absorb the teachings. Practicing ensures influencers are confident using their skills and deliver a positive brand experience, even in difficult conversation scenarios.
- **Online Applicant Engagement**—Suncor is conducting a pilot program enabling influencers to use their skills in online channels such as LinkedIn. Recruiting will prepare influencers for online interactions by upgrading their profiles and setting clear boundaries on social media use. Members of the recruiting team are also available to help influencers manage high contact volume, if necessary.

Training employees to be effective communicators through this comprehensive approach enables them to bring the Suncor brand experience to life when interacting with applicants and attract critical, high-quality talent to the organization.



### Customize Brand to Explicitly Target Applicants from Nontraditional Talent Sources

Surface-level branding customization is insufficient to help applicants make good decisions about where to apply. This is especially true of those candidates who have not yet considered that they may be a good fit with the organization. Potential applicants need to experience deeply customized employment branding that is clearly linked to their background, skills, and values. For example, Microsoft deliberately brands the technology industry to focus on one of its critical talent segments: women. Senior Microsoft employees share stories with the National Center for Women and Information Technology's Sit with Me campaign to make the IT industry an attractive proposition for female candidates.

#### Microsoft's Female-Focused Technology Careers Messages

The screenshot shows a landing page for "Sit With Us". It features a large image of a woman sitting in a red chair, with the text "Sometimes you have to sit to take a stand." Below the image are two testimonial cards:

- AJ Brush, Senior Researcher, Microsoft Corporation**  
"I sit because I have the coolest job in the world inventing technology for homes and families. Whatever your dream, technology can help enable it. Come invent with me!"
- Rane Johnson, Education and Scholarly Communication Principal Research Director, Microsoft Corporation**  
"I sit because I like to make the impossible possible through computer science and I believe the world's greatest challenges can be solved with computer science! We need more women solving these problems."

Source: Microsoft Corporation; CEB analysis.

## 3 Attracting

### Attract Qualified Applicants from Nontraditional Sources

Similarly, you can deliberately reach out to military veterans by having senior leaders address veterans directly. Below, see how Ameren did this.



The careers page on Ameren's website prominently features a letter from Warner Baxter, president and CEO of Ameren, to veteran applicants. By addressing potential veteran hires directly, Ameren's CEO reinforces branding messages as trustworthy and enforced from the top. Senior leaders can also speak with veterans and other target talent demographics through a blog, live events, or as part of larger events (e.g., news interviews).

#### Letter from Warner Baxter

President & CEO, Ameren

Ameren is proud of its long history of hiring military veterans, who are interested in working for one of the largest utilities in the Midwest. Service members bring valuable experience to our company and have the skills for specific positions needed in the industry, including nuclear and technical knowledge.

Ameren's military recruiting strategy includes conducting or attending nationwide events, from base visits to career fairs. Ameren also uses multiple online resources to reach out to veterans. In addition, we provide security and support to our employed reservists and their families, through continued benefits when they are called to active duty.

Because of our offerings, we are ranked as a Top 100 military-friendly employer by G.I. Jobs, a nationally-recognized magazine that helps provide training and career opportunities for veterans.

More than 400 of Ameren's 8,500 employees have served in the military, and we've pledged to hire 200 more through the White House's Joining Forces initiative. I would like to acknowledge the strength and bravery of all veterans throughout our company. All of us at Ameren thank them for their dedicated service not only to our country, but to our customers as well.

Warner L. Baxter, President and CEO, Ameren Corporation

Source: Ameren, <https://www.ameren.com/Careers/Pages/MilitaryVeteran.aspx>; CEB analysis.

## ThoughtWorks®

### Rewrite Job Descriptions to Appeal to Nontraditional Applicants

#### ThoughtWorks Job Description for Entry-Level Developer

Excerpt

You'll bring a:

- Great attitude and hunger for learning
- Willingness to live in Dallas for your first year; afterwards, you can either stay in Dallas or move to Atlanta or NYC.
- Computer science degree (But if you like to write code and love technology, we're not going to rule you out for not having one.)
- No more than one year professional experience working with an Object-Oriented Language
- Understanding of analysis, design, coding, and OO concepts
- Curiosity of software development practices, in particular Agile development practices
- Collaborative and unhierarchical work style (Not sure if that's you? Think back to your last project—how would the team describe working with you?)
- Drive to do what it takes to get the job done (That might mean returning to the drawing board with a problem or simply taking on different roles and responsibilities. It might even mean you thrive at adapting to changing environments.)

Emphasize the cultural and behavioral traits that the organization values highly and that are key to building successful careers at your organization.

Make it clear through the job description that nontraditional applicants are more than welcome to apply to entry-level IT roles if they are interested in building a career in technology.

Source: Thoughtworks; CEB analysis.

Note: For more example job descriptions see appendix.

## 3 Attracting

### Attract Qualified Applicants from Nontraditional Sources

#### Attract Qualified Applicants from Nontraditional Sources

*Have You Taken the Following Steps?*

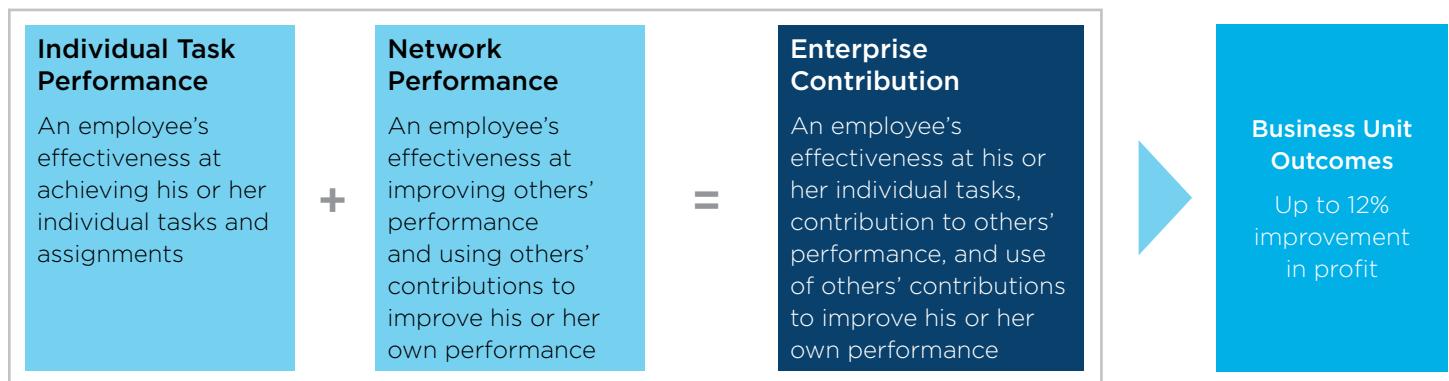
- Create employment branding messages that foster an emotional connection, explicitly targeted at nontraditional talent segments.
- Work with internal or external employment branding experts who will understand what your organization stands for, not just your selling points.
- Partner with your corporate social responsibility team to align IT hiring goals with company-level goals for hiring applicants from diverse and nontraditional sources.
- Set up a cadence with recruiters to regularly review and rewrite all IT job descriptions to balance technical with nontechnical hiring requirements.

# 4 Assessing

## Assess for Fit and Competencies, Not Credentials

### Network Fit

Work environment evolution over the past decade has changed how individual employees contribute to the productivity and profitability of their organizations and business units. Previously, employees contributed primarily through individual task completion, and organizations disproportionately valued this kind of individual contribution. However, since the early 2000s, the ways in which employees act and interact have changed, offering new ways for employees to add value. Today, employees must work with and through others to achieve business results—results that can only be achieved through collaborative work. To meet their business goals, organizations have implemented a new metric for performance management, that accounts for this need for collaboration: enterprise contribution. Business units that have employees who are both individual task performers and network performers can realize up to 12% improvement in profit.



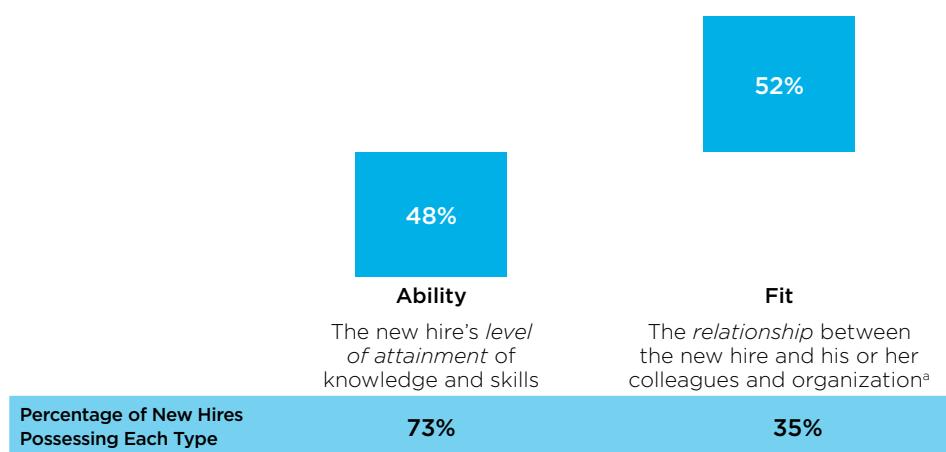
Source: CEB 2012 High Performance Survey.

To address the need for enterprise contributors, organizations must shift hiring approaches away from focusing just on individual performance and instead assess for network fit—how well the new hire fits with the way colleagues work. From 2002 to 2012, the relative importance of network performance on overall employee performance to business unit profit increased from 22% to 49%. This trend has been particularly apparent in IT, as IT employees have increasingly been required to work with various internal and external stakeholders to meet their objectives. The best organizations have adapted their recruiting practices to address individual ability as well as fit.

# 4 Assessing

## Assess for Fit and Competencies, Not Credentials

### The Two Types of New Hire Qualification *Relative Impact on Quality of Hire*

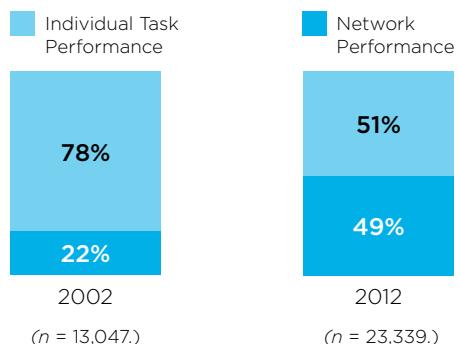


*n* = 4,112.

Source: CEB 2013 Selection Effectiveness Diagnostic Survey.

<sup>a</sup> Fit, as we measure, it can be both "conforming" (the same characteristics are fit) or "complementary" (different characteristics are fit), and so it does not inhibit organizational diversity.

### Relative Importance of Employee Performance Component to Business Unit Profit<sup>a</sup>



Source: CEB 2002 Performance Management Survey; CEB 2012 High Performance Survey.  
(*n* = 13,047.)

<sup>a</sup> Relative importance in business unit profitability is determined by conducting a MANOVA analysis.

## IT Competency Model

Due to the realities of the new work environment, IT employees must now engage more closely, more frequently, and with a broader group of stakeholders. No IT roles are individual contributors, as every business analyst, software developer, and network administrator must engage with a set of cross-functional colleagues, business partners, vendors, and customers.

To better understand the drivers of high-performance in the new work environment, CEB conducted a study of over 20,000 IT employees across a range of industries, geographies, roles, and levels of seniority. The result of this study was CEB's IT Competency Model, which shows the 12 competencies that are most strongly correlated with high performance. Baseline proficiency in each of these competencies is essential for IT employees in every role at every level of the organization.

# 4 Assessing

## Assess for Fit and Competencies, Not Credentials

### CEB's IT Competency Model

Competency	Definition
1. Analytic Ability	Combines and organizes information into meaningful patterns; differentiates key elements from the irrelevant; identifies underlying relationships, causes, and effects; combines pieces of information to form conclusions or general rules; provides practical solutions to problems without delay; can systematically and analytically challenge data and use judgment to counterbalance against his or her own intuition
2. Business Results Orientation	Seeks to understand business needs and deliver prompt, efficient, high-quality service to the business; works to anticipate, identify, and meet end-user needs; drives toward results; ensures high-quality standards are met
3. Communication	Can convey complex and technical issues to diverse audiences, orally and in writing, in a manner that is easily understood, authoritative, and actionable for the business; actively listens to peers' input
4. Creativity	Applies original, innovative thinking to produce new ideas and create innovative products; questions assumptions and imagines future possibilities
5. Decision Making	Considers the relative costs and benefits of potential actions to choose the most appropriate one; acts decisively and swiftly; identifies problems and drives toward solutions; takes on responsible roles and accountability for outcomes even when things go wrong; is comfortable making difficult decisions
6. Influence	Applies different strategies to convince others to change their opinion or plan, and wins support from others for ideas; is able to build support with peers without direct lines of reporting across a matrixed organization
7. Learning Agility	Rapidly acquires new knowledge and learns new skills; can work productively in uncertain environments where roles and work are not clearly defined; finds opportunities in ambiguity; can identify opportunities for change; embraces and can adapt to change; remains calm during periods of uncertainty; leans on credible sources from teams outside his or her own group to anticipate, act against, reflect on, and learn from past experiences within the organization
8. Organizational Awareness	Understands and works in line with the organization's mission, operations, structure, and goals; understands organization's informal structures and processes; understands organization-level implications of his or her day-to-day decisions
9. Prioritization	Breaks down work into manageable parts, assessing the priority and time required to complete each part; takes initiative to prioritize tasks related to organizational goals and peers' workstreams; develops detailed plans; completes tasks in logical order; delivers work products on time; monitors progress against deadlines; is able to work on several tasks simultaneously and pay attention to sources of information from inside and outside of his or her own network within the organization
10. Process Orientation	Is able to follow directions; identifies problems and initiates necessary changes; designs practices, processes, procedures, and systems to manage work simply; uses resources efficiently
11. Relationship Management	Creates relationships with new acquaintances quickly and confidently; works to build trust and partner with stakeholders; successfully manages internal and external relationships (e.g., vendor relationships); is comfortable in a Challenger™ role that, at times, requires building constructive tension in interactions to push others out of their comfort zone
12. Teamwork	Promotes and facilitates coordination and cooperation among peers; possesses knowledge of peers' work; understands when to step into a team leadership role; encourages teams to drive for results and meet goals; creates new value for the enterprise by encouraging others' contributions, regardless of location

Source: CEB analysis.

# 4 Assessing

## Assess for Fit and Competencies, Not Credentials

The following assessment options can help properly assess potential employees for network fit and proficiency in the competencies that drive high performance in IT.

### Partial List of Talent Assessment Services

Covers All IT Roles

Integrates with Applicant Tracking System

Name	Match with Key Attributes	What They Do	You Should Partner If....	Contact
<b>CEB</b>		CEB provides a comprehensive catalog of assessments on a broad range of IT behaviors, skills, and knowledge. Employers have the ability to build customized behavior, skill, and competency assessments from a library of validated questions.	<ul style="list-style-type: none"> <li>▪ You are looking for both modular and holistic candidate evaluation tools.</li> <li>▪ You highly value the flexibility to customize your IT skills assessments.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <a href="http://www.ceb.shl.com/us/solutions/talent-acquisition/">www.ceb.shl.com/us/solutions/talent-acquisition/</a></li> <li>▪ +1-800-899-7451</li> </ul>
<b>eSkill</b> Online Skills Assessment		eSkill offers a library of subject matter expert-validated test questions covering more than 450 IT-related subjects, allowing users to create highly customized modular assessments.	<ul style="list-style-type: none"> <li>▪ You highly value the flexibility to customize your IT skills assessments.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <a href="http://www.eskill.com/pre-employment-skills-testing/">www.eskill.com/pre-employment-skills-testing/</a></li> <li>▪ +1-866-537-5455</li> </ul>
<b>gild</b> ®	Appropriate for developers and other coding-focused roles	Gild analyzes job candidates' publicly available code (e.g., through open source communities, Q&A sites, academic history) and experience to evaluate a developer's expertise and market demand.	<ul style="list-style-type: none"> <li>▪ You are interested in seeing and gauging the quality of a candidate's past work.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <a href="http://www.gild.com/company/contact-us/">www.gild.com/company/contact-us/</a></li> <li>▪ +1-800-664-2366</li> </ul>
<b>HackerRank</b>	Appropriate for developers and other coding-focused roles	HackerRank provides a stack-ranking of candidates based on their performance against coding challenges. Organizations can invite specific candidates to be assessed and also access the public leaderboard of top-performing talent. HackerRank's code evaluation methodology examines and rates actual candidate code to identify talent directly based on work output	<ul style="list-style-type: none"> <li>▪ You are interested in seeing and gauging the quality of a candidate's past work.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <a href="http://www.hackerrank.com/work">www.hackerrank.com/work</a></li> </ul>

Source: CEB analysis.

# 4 Assessing

## Assess for Fit and Competencies, Not Credentials

Partial List of Talent Assessment Services (Continued)  Covers All IT Roles  Integrates with Applicant Tracking System

Name	Match with Key Attributes	What They Do	You Should Partner If....	Contact
	 	Infor offers cloud-based assessments measuring a candidate's behavioral, cognitive, and cultural attributes against those of a company's top performers. The solution offers the ability to customize behavioral assessments for specific industries.	<ul style="list-style-type: none"> <li>▪ You feel other IT assessments you've used haven't been up to date with changes in the field.</li> <li>▪ You are sourcing talent for bleeding-edge IT roles.</li> <li>▪ You are concerned longer talent assessments will deter job candidates.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <a href="http://www.infor.com/product_summary/hcm/talent-science/">www.infor.com/product_summary/hcm/talent-science/</a></li> <li>▪ +1-800-260-2640</li> </ul>
	 	IBM Kenexa offers a variety of assessments on specific IT skill sets, allowing employers to build customized behavioral, skill, and competency assessments from a library of validated questions.	<ul style="list-style-type: none"> <li>▪ You're focused on ensuring industry and organizational cultural "fit" for IT job candidates.</li> <li>▪ You want to know how IT job candidates compare to your organization's existing top performers.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <a href="http://www-03.ibm.com/software/products/en/ibm-kenexa-skills-assessments-on-cloud">www-03.ibm.com/software/products/en/ibm-kenexa-skills-assessments-on-cloud</a></li> <li>▪ +1-877-971-9171</li> </ul>
	 	Pegged Software uses unique algorithms based on specific jobs and organizations to assess candidates—providing a single score of predicted success in role for each candidate, with no need for interpretation. Pegged has particular expertise in the health care field.	<ul style="list-style-type: none"> <li>▪ You prefer a single-score assessment to one that requires more review and interpretation.</li> <li>▪ You are hiring for IT roles in the health care field.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <a href="http://www.peggedsoftware.com/solutions">www.peggedsoftware.com/solutions</a></li> <li>▪ +1-888-444-0693</li> </ul>
		Smarterer offers a library of IT-specific assessments built and updated by end users, hiring managers, and subject matter experts, which means their tests are updated rapidly as language and IT environments evolve. Smarterer is able to effectively assess candidates with just 10 questions in as little as two minutes.	<ul style="list-style-type: none"> <li>▪ You feel other IT assessments you've used haven't been up to date with changes in the field.</li> <li>▪ You are sourcing talent for bleeding-edge IT roles.</li> <li>▪ You are concerned longer talent assessments will deter job candidates.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <a href="http://www.smarterer.com/sign_up">www.smarterer.com/sign_up</a></li> </ul>

Source: CEB analysis.

## 4 Assessing

**Assess for Fit and Competencies, Not Credentials**



### Replace Technical Credential Requirements with a Technical Challenge

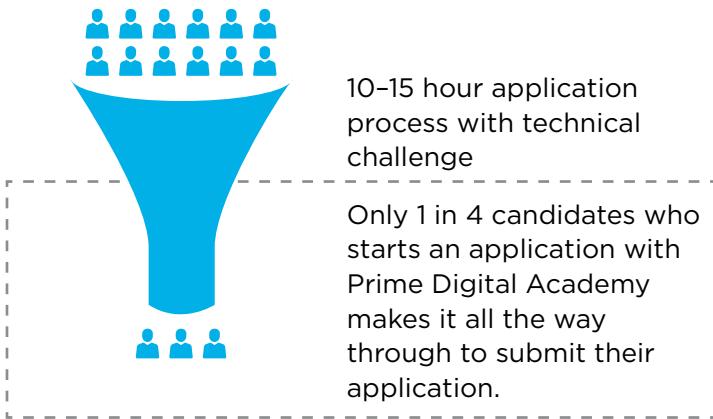
One of the main problems recruiters face is efficiently sifting through the overwhelming number of applications for each job opening. Traditional approaches, such as filtering using educational credentials (e.g., four-year computer science degree), effectively reduce the number of applications but can often prove too crude a filter. Candidates who could be successful in the role but do not have this specific credential are needlessly eliminated.

Prime Digital Academy has developed a progressive approach in the application process for its coding bootcamp. Instead of requiring a specific degree, applicants must complete a technical challenge to submit their application. Crucially, Prime Digital Academy provides instructions for completing the challenge, so no prerequisite knowledge other than basic computer literacy is necessary. This method ensures that the only candidates who complete the application process are either ones who are already equipped with technical skills or, alternatively, ones who have the capacity and drive to self-teach using the provided instructions. For entry-level IT roles, the latter is often more important to success than any specific technical skill.

Using this application process, Prime Digital Academy drastically reduces the number of applications while increasing the average application's quality. Importantly, this process ensures that Prime Digital Academy is not confined to select from the homogenous pool of applicants that often results when screening for educational credentials. Instead, it is able to select from a diverse applicant pool, one of the reasons Prime Digital Academy has been able to enroll a class that is 50% women.

Prime Digital Academy's application process effectively screens applicants...

...but retains applicant pool diversity.



**42%** Have less education than a bachelor's degree

**50%** Are women

Source: Prime Digital Academy; CEB analysis.

# 4 Assessing

## Assess for Fit and Competencies, Not Credentials

The screenshot shows a top navigation bar with tabs: START, GENERAL, PERSONAL, LOGIC, TECHNICAL (which is highlighted in blue), and REVIEW. Below the navigation is a section titled "HTML Resume Challenge". A descriptive text explains the challenge: creating an HTML version of your resume, with a note that it will require learning new skills and take 5-10 hours. It encourages users to show off their new skills to friends and family if they already have experience. A sub-section titled "WHAT WE'RE LOOKING FOR" lists requirements: an HTML resume document and a CSS file. A note says there's room for creativity. Another section, "EXTRA CREDIT", discusses earning bonus points by adding visually appealing styling. A "STEP-BY-STEP GUIDE" section provides resources and lists items needed to complete the challenge. Below that, steps are outlined: watching videos on interacting with CodeAcademy.com, taking a 'Make a Website' course, and using Sublime Text 2. A note at the bottom states that Prime has had reports of longer than expected lag times for first posting to GitHub pages. A "Show Us Your Work" section includes a "Resume link" input field with an example URL and a "SAVE YOUR APPLICATION AND CONTINUE" button.

Source: Prime Digital Academy.

## Assess for Fit and Competencies, Not Credentials

### Have You Taken the Following Steps?

- Flip the order of assessments to test for competencies such as learning agility, collaboration, and business engagement first, and education and experience second.
- Create or customize competency-based behavioral assessments to be used consistently when hiring new employees and managing the performance of existing employees.
- Equip interviewers with tools, training, and peer support to customize screening criteria for applicants with diverse educational backgrounds.

# Screen Job Applicants Quickly and Fairly

Powered by Data You Already Hold

Sunstone Analytics technology from CEB helps organizations quickly identify the best candidates from high volumes of résumés. Provided online as software as a service (SaaS), these machine learning-based analytics tools identify the features and phrases most associated with high performers, and screen and score applications against them. This innovative technology is fully customizable, helps companies attain faster and higher-quality hires, and reduces applicant burden.

**Visit [cebglobal.com/shl/us](http://cebglobal.com/shl/us).**

For more information, contact us at 1-800-899-7451 or [us@cebglobal.com](mailto:us@cebglobal.com).



## 5 Developing

### Set Up Hires Trained in Varied Pathways for Success

## ThoughtWorks®

### Equipping Diverse and Nontraditional Hires for Productive Careers in IT

#### Challenge

Many companies have started hiring non-computer science degree holders to staff IT roles but struggle to set them up for successful and long-term careers with the organization. These challenges arise for three key reasons: a) failure to screen for the right fit at the hiring stage, b) failure to emphasize the right skills and behaviors during onboarding and development, and c) failure to provide an engaging work climate conducive to the success of these individuals.

#### Solution

ThoughtWorks aims to hire applicants from nontraditional backgrounds (e.g., economics, biology, liberal arts degree holders) for 50% of its new entry-level developer positions each year. In addition, it is committed to supporting workforce diversity and building a community based on attitude, aptitude, and integrity. But they also recognize that attracting good talent is only half the battle. To ensure the success of these candidates, ThoughtWorks follows a four-pronged approach that spans the entire talent life cycle, from hiring to onboarding to employee engagement:

- **Screen for Cultural Fit and Learning Agility, Not Education and Experience**—ThoughtWorks screens all candidates very early on in the hiring process for cultural fit. Specifically, it highly values passion for technology, creativity, and intellectual curiosity in employees. Recruiters are trained to look past the degree type and find evidence of these traits on the résumé. For example, participation in different extracurricular activities is an indicator that the candidate pursues a wide range of interests. In addition, applicants undergo a technical interview with two ThoughtWorks developers, which is less a test of their coding skills and more a test of their ability to quickly learn and apply new concepts after being coached by the interviewers. For example, the candidate may not know how to write unit tests, so the interviewers show them how to do so and then evaluate the candidate's ability to repeat the exercise.
- **Tailor Onboarding to Nontraditional Hire Needs, While Simulating Real Life Work Conditions**—All new hires undergo a five-week onboarding program in India called the ThoughtWorks University (TWU) before joining active projects. The training covers the technical and soft skills needed to be successful at the entry level. Individualized and small-group training sessions are offered, tailored to individual needs—particularly those of nontraditional hires. What personalizes TWU further is how it is run by employees in lieu of external trainers. Trainers use their own experiences to steep new hires in the culture and values of ThoughtWorks, explain business practices, and help them visualize a “day in the life” on the job. In addition, they use code bases from active or past projects as training materials, simulating project work conditions as close to real life as possible. For campus hires, the program often begins right after an offer is extended, which is typically nine months before they join. During this time, they are assigned a ThoughtWorks mentor and provided with tools to enable “distance coaching” such as reading lists to inspire their passion for technology.

## 5 Developing Set Up Hires Trained in Varied Pathways for Success

- **Measure Nontraditional Hires' Performance at Specific Milestones Compared to Traditional Hires**—Although traditional candidates (with a computer science degree) have an initial advantage, ThoughtWorks has observed the contribution of nontraditional hires rapidly increase over time, provided the right development support is made available. The talent management team monitors progress during their first two to three years in employment, diligently collecting feedback from clients and teammates to assess their pace of development. The company employs a standard set of milestones, such as time it takes for a nontraditional hire to independently own a “story” (a functional requirement) or to become adept with a software application. A comparison of nontraditional hires with each other as well as with their traditional counterparts helps identify high performers, high potentials, and cases where additional training or coaching is required.
- **Emphasize Diversity of Thought, and Reward Teamwork Over Individual Heroics**—ThoughtWorks is committed to building a diverse and inclusive work environment because it firmly believes that a wide range of experiences and backgrounds contribute positively to the quality of its products and services. The company is consciously reinforcing this message through its corporate mission statement, values, and actions. For instance, company recognitions are geared toward rewarding high-performing teams over heroic individual efforts. Such top-down signals encourage employees to collaborate with each other and experience first-hand how access to diverse thoughts and perspectives can be valuable to everyone. In addition, ThoughtWorks endeavors to change the predominantly male nature of the IT industry by hiring more women at the entry level (not just at the senior level) and setting them up for long-term success. It invests in creating a professional and supportive work environment that makes women technologists feel welcome at ThoughtWorks and in the IT industry overall.

### Our mission

Our mission is to better humanity through software and help drive the creation of a socially and economically just world. We bring together the most capable, driven and passionate people - we call them 'ThoughtWorkers' - to:



Run a sustainable business



Champion software excellence and revolutionize the IT industry



Advocate passionately for social and economic justice.

Source: ThoughtWorks.

Through its purposeful attention to onboarding nontraditional hires for success, ThoughtWorks has fulfilled its talent needs quickly and productively for the past five years. Nontraditional hires see the investment the company makes in them

## 5 Developing Set Up Hires Trained in Varied Pathways for Success

and therefore display higher engagement and loyalty than their counterparts. In addition, 30% of developers at ThoughtWorks are now women. This is a uniquely high diversity ratio for any industry and particularly so for IT.



"There are a lot of positives that come with bringing different experiences and backgrounds into our company. We are better off because of the diversity of perspectives. Having people with physics, math, and liberal arts backgrounds enriches us."

Joanna Parke  
Managing Director, North America  
Thoughtworks



### Reverse Mentoring Program

Mentoring programs can act as an engagement tactic, allowing new employees to learn more information about career opportunities and develop more personal connections with senior staff while providing insight on the organization's vision and strategy. Although many organizations have formal mentoring programs, most are designed to develop mentees, not to provide upward feedback and idea sharing to mentors. Today, with the increased interconnection of employees, the complexity of work, and managers' increasing span of control, it is highly likely that many managers and executives do not understand their employees' work.

Recognizing that senior leaders need to gain insight on new and emerging technologies, The Hartford developed a reverse mentoring program where millennial employees connect and share information with executives about new approaches to social media, cloud computing, and other new technologies. This program instills fresh ideas into business problems, improves diversity of thought, and increases the value of diverse experiences.

Applying this model to new hires trained in nontraditional pathways not only enables them to network with senior leaders but also creates opportunities for them to influence strategic direction and start contributing to the organization early on.



### Connect New Hires to their Network

The relative importance of network performance (improving others' performance and using others' contributions to improve one's own performance) has increased by 27% in the past 10 years. Effective onboarding can increase new hires' fit with their role and the

# 5 Developing

## Set Up Hires Trained in Varied Pathways for Success

organization by 19% and 13%, respectively. This approach can also affect overall network fit—how well the new hire fits with the way colleagues work—resulting in a higher-quality hire. Organizations can increase job responsibilities and enhance the onboarding experience by developing a new hire network-building program.

Amgen decreases new hire time to productivity by mapping the full network of individuals the new hire will work with and structuring onboarding activities around productive relationship building within that network:

- **New Hire Network Mapping**—Amgen helps hiring managers foster the right connections for new hires by providing them with the guidelines to intentionally “map” the new hire network.
- **Productive New Hire Networking**—Hiring managers define new hire networking goals that are productively focused on work-related outcomes, rather than relationship building for the sake of it.
- **“Soft” Pre-Hire Introduction**—By “softly” introducing new hires to their projects and stakeholders before their start date, Amgen helps new hires plan in advance how they might work with others to maximize their productivity and effectiveness.

### Characteristics of the New Work Environment

#### Growth of Nonobvious Networks

To be successful, employees rely more and more on individuals who are not easy for managers to identify in advance.

#### Complex Working Relationships

With an increasingly complex matrix of individuals in their new network, new hires need more time to understand how to best work with stakeholders.

### Amgen’s Solutions

#### New Hire Network Mapping

Hiring managers intentionally “map” the new hire network.

#### Productive New Hire Networking

Hiring managers define productive, work-related networking goals.

#### “Soft” Pre-Hire Introduction

Amgen facilitates “soft” introductions to the network that boost new hire productivity.

Source: Amgen Europe; CEB analysis.

## Set Up Hires Trained in Varied Pathways for Success

### Have You Taken the Following Steps?

- Build onboarding and training programs around code base excerpts from old or live IT projects to simulate real-life challenges and work conditions.
- Create flexibility in your performance management approach for hires with nontraditional backgrounds to support their specific development needs.
- Invest in high-performing IT staff by providing them access to cross-functional mentoring and rotations throughout the business.
- Explain how diversity of thought contributes to product and service quality to build an inclusive work climate.
- Create conditions that support network performance. For example, build online peer networks that employees can use to collaborate across business units or geographies.

## Key Takeaways

### 1 Planning

#### Build Awareness and Support for Hiring from Nontraditional Sources

1. Create a strategic workforce plan with long-term forecasts.
2. Use people analytics to create a compelling business case.
3. Select a small set of roles for a pilot hiring program.
4. Explore partnerships with vetted IT job training programs.

### 2 Sourcing

#### Develop a Pipeline of Applicants from Nontraditional Sources

5. Reassess hiring needs to look beyond overused talent sources.
6. Generate leads from within employee networks.
7. Tap into emerging talent pools through accelerated training programs.
8. Use apprenticeships to pre-place accelerated training program graduates.

### 3 Attracting

#### Attract Qualified Applicants from Nontraditional Sources

9. Create branding messages that foster an emotional connection.
10. Train and equip employees to act as brand influencers.
11. Customize brand to explicitly target specific talent segments.
12. Revise job descriptions to appeal to candidates trained in many pathways.

### 4 Assessing

#### Assess for Fit and Competencies, Not Credentials

13. Hire for engagement competencies first, technical skills second.
14. Use competency-based behavioral assessments to gauge fit.
15. Prioritize cultural fit, learning agility, and collaboration skills.
16. Prioritize screening for technical ability over screening by résumé.

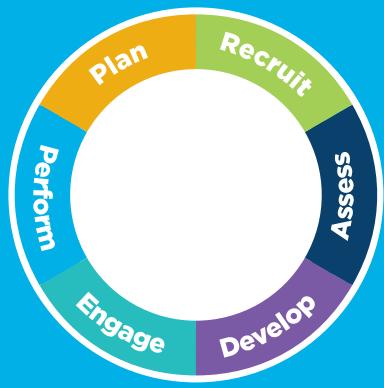
### 5 Developing

#### Set Up Hires Trained in Varied Pathways for Success

17. Tailor onboarding programs to nontraditional hire needs.
18. Measure performance and support with development as needed.
19. Emphasize diversity of thought to build an inclusive work climate.
20. Connect new hires to cross-functional mentors and networks.

# Talent Management

CEB enables more precise talent management by delivering insights and solutions to drive your business performance.



## Plan | Recruit | Assess | Develop | Engage | Perform

### Metrics That Matter™

Metrics, external benchmarking, and insights enabled through cloud-based talent analytics software to improve the business impact of talent development programs

### CEB TalentNeuron

Talent supply-demand and cost data, predictive analytics, and decision support to improve talent investments and deployment decisions

### SHL Talent Measurement™

Selection and employee development assessments pre-hire and post-hire to measure competencies and improve performance in the areas of:

- Predicting hiring success
- Predicting potential
- Predicting leader impact
- Predicting functional effectiveness

### Leadership Academies

Dynamic learning experiences that build the key competencies required for mid-management professionals to shift from functional operators to truly strategic business contributors

### Workforce Surveys

Survey offerings based on CEB's best practice research that generate workforce insights that align employees with corporate strategy and drive business performance

### CEB's Performance Impact Solutions

Strategy audit, redesign, and change management for performance management and development to improve efficiency, line satisfaction, and outcomes

### Leadership Councils

CEB offers more than 50 Leadership Council memberships aligned to functional and key industry leadership roles. Leadership Councils deliver insights, tools, and advice from the best companies to help you and your organization save time and make better decisions.

### HR Consulting

CEB's HR Consulting services offer roadmaps and strategic and implementation support for all critical HR activities.

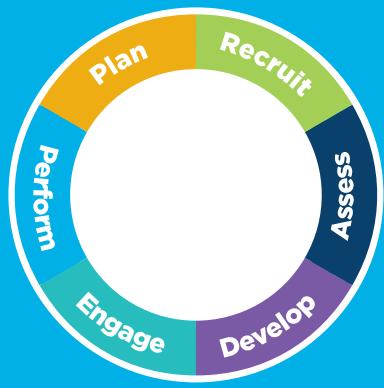
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# Talent Management

CEB enables more precise talent management by delivering insights and solutions to drive your business performance.



## Plan | Recruit | Assess | Develop | Engage | Perform

### Metrics That Matter™

#### Products Available

- Metrics That Matter Learning Edition
- Metrics That Matter Onboarding Edition
- Metrics That Matter Leadership Edition
- Analytics Advisory Services

### SHL Talent Measurement™

#### Products Available

- Predict Hiring Success
- Maximize Leadership Impact
- Unlock Talent Potential
- Harness Team Effectiveness
- Sunstone Analytics

### Leadership Academies

#### Products Available

- CEB's Enterprise Leadership Development Program
- CEB Finance Leadership Academy
- CEB HR Leadership Academy
- CEB HR Analytics Leadership Academy
- CEB IT Leadership Academy
- CEB Talent Advisor Leadership Academy
- CEB R&D Leadership Academy
- CEB Sales Management Leadership Academy
- CEB Legal Leadership Academy

### Workforce Surveys

#### Products Available

- ClearAdvantage Employee Engagement Survey (Including Design, Administration, Reporting, and Analysis)
- CEB Total Rewards Optimization
- CEB Employee Value Proposition Diagnostic
- Action Planning Services

### CEB's Performance Impact Solutions

#### Products Available

- Performance Strategy Roadmaps
- Performance Impact Training, Powered by DevelopmentCoach

### CEB TalentNeuron

#### Modules Available

- LocationNeuron
- RecruiterNeuron
- DiversityNeuron
- CompetitorNeuron
- ForecastNeuron

### CEB's HR Consulting

#### Products Available

- Strategy Roadmaps e.g.,
  - EVP Strategy Roadmap
  - HR Functional Maturity Strategy Roadmap

- Bundle Offers e.g.,
  - L&D Strategy Framework Bundle Offer
  - HR Transformation Bundle Offer

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# Appendix

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# Appendix

1. Best Practices in Onboarding
2. Best Practices in Retention
3. Best-in-Class Job Descriptions
4. Best-in-Class Interview Guides

Effective onboarding increases an employee's discretionary effort by **more than 20%** and their performance by **up to 15%**.

## 1. Best Practices in Onboarding

Effective onboarding increases employees' discretionary effort by more than 20% and their performance by up to 15%. New hires' early experiences with a new employer have a substantial impact on long-term performance and retention. Many organizations are effective at the hygienic aspects of onboarding—introducing new hires to other new employees, explaining the company's vision, and having initial assignments for new hires—most organizations are ineffective at addressing the most influential aspects of onboarding, such as explaining performance objectives and job responsibilities. To avoid these common missteps, ensure that stakeholders have clearly defined roles and the necessary tools, and that they hold people accountable for new hire's success.

To effectively onboard new employees:

- Clearly define onboarding ownership,
- Make new hire success a team goal, and
- Build growth plans using assessment data.



### Clearly Define Onboarding Ownership

General Motors (GM) creates a New Hire Accountability Checklist that clearly assigns tasks and activities to the recruiter, hiring manager, and employee. By assigning tasks to stakeholders and including employees, organizations can have a system of accountability and empower employees to have a stake in their own development and success.

GM assigns owners for various onboarding activities to ensure effective hand-offs across stakeholders.

#### GM's First-Week to First-Month Tasks

Owner	Task
Hiring Manager	Review individual development plan with employee.
Talent Acquisition	Survey new hires on their onboarding experience.

#### GM's First-Month to First-Year Tasks

Owner	Task
Hiring Manager	Student Programs Coop/ Intern Mid-Assignment Discussion Forum
Hiring Manager	Schedule three-month performance evaluation with employee.

Source: General Motors; CEB analysis.



## Make New Hire Success a Team Goal

- 1** Assimilate new hire into the team.
- 2** Provide new hire with job support.
- 3** Help new hire contribute to the organization's future.

Recognizing the importance of new hires' success and satisfaction with the organization, senior leaders at JetBlue Airways encourage teams to consider the new hire's success as a team goal. To better assimilate the new hire into the team, JetBlue involves the team as much as possible in the hiring process and elicits suggestions on what would help new hires in their early days. In an effort to connect new hires effectively to the organization's future, JetBlue encourages two-way feedback and involves the new hire in current team projects.

“When I hire someone, I start by making the new employee’s success an explicit personal goal. This might sound something like, ‘by the end of 90 days...’

- I want the team to wonder how they got along before Mary joined.
- I want Mary to say, “I never thought I’d enjoy a job so much.”
- I want to be excited about Mary’s contribution to the organization’s future.”<sup>1</sup>

Joel Peterson  
Chairman  
JetBlue Airways



## Build Growth Plans Using Assessment Data

Skill and competency assessments have become increasingly more common in many organizations' recruiting processes. Although these assessments help organizations screen out many unqualified candidates, these should not be the only factor determining a candidate's outcome. In today's IT talent market, many organizations are seeking candidates who exhibit both technical and soft skills, as IT roles depend on not only the ability to complete tasks but also the capability to work with stakeholders.

To accelerate new hire development, Alpha Company guides new hires to build growth plans prior to their start date. Alpha provides new hires with information on how they performed during the interview process against the competencies required for their role and then guides new hires through building development plans, in addition to providing guidelines on shaping and owning their personal development plan. Alpha asks new hires and hiring managers to review and refine the development plan actions that the employee needs to own and accomplish for the first three months.

Alpha Company helps new hires build growth plans based on strengths and development areas uncovered during the selection process.

- 1** Get candidate data from assessment and selection.
- 2** Share assessment and selection data with new hires prior to start date.
- 3** Prepare new hire growth plan prior to start date.

<sup>1</sup> Pseudonym.

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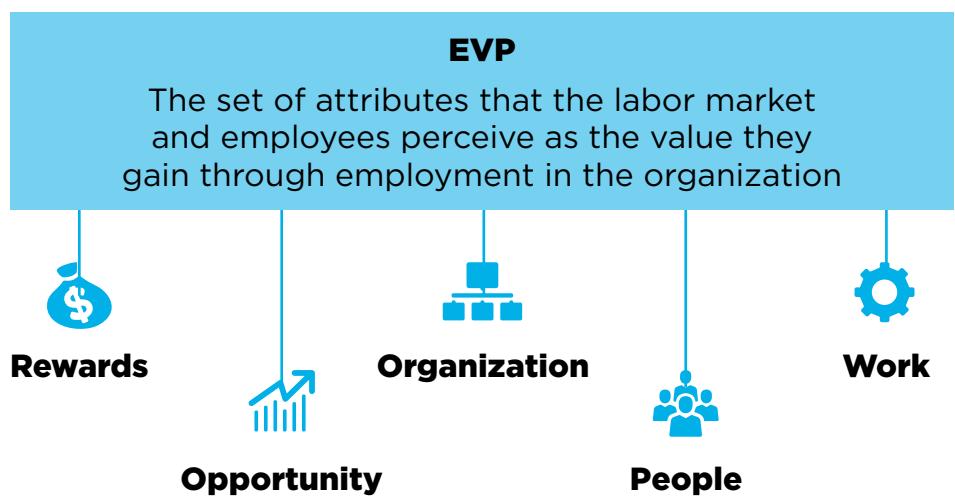
**STEM talent value career development** more than any other talent segment.

**24%** of STEM employees rate development opportunities among the top five attributes of an EVP.

## 2. Best Practices in Retention

Retaining highly qualified talent in science, technology, engineering, and mathematics (STEM) fields has remained a challenge, as turnover risks associated with STEM talent are higher than for other employees. In fact, attrition rates of new hires is nearly 50% higher than the general employee pool, often a result of suboptimal onboarding and retention practices. STEM employees are generally less engaged at work than their non-STEM colleagues, as they display lower discretionary effort and intent to stay at their current organizations.

To address these challenges, focus on the key employment value proposition (EVP) attributes that resonate with your target talent segment to enhance retention. The EVP drives attraction and commitment in the workforce. CEB's EVP model (below) consists of 38 attributes validated to most significantly drive candidate attraction and employment retention.



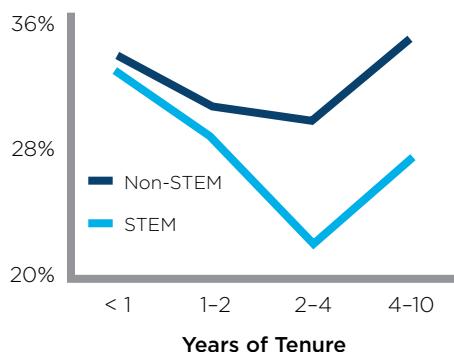
### Attraction Benefits:

- Reduces the compensation premium needed to hire by 50%
- Enables organizations to reach deeper into the labor market to attract passive candidates

### Retention Benefits:

- Decreases annual employee turnover by 69%
- Increases new hire commitment by 29%

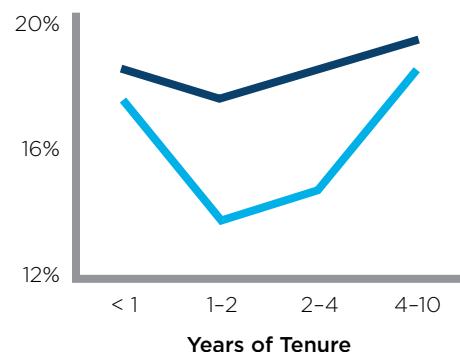
Percentage of Employees Reporting High Levels of Intent to Stay



n = 17,971.

Source: CEB 2014 Q1 Global Labor Market Survey.

Percentage of Employees Reporting High Levels of Discretionary Effort



n = 17,971.

Source: CEB 2014 Q1 Global Labor Market Survey.

The attributes are grouped into five categories (rewards, opportunity, organization, people, and work). Research shows that STEM talent value career development more than any other talent segment. Organizations should set themselves apart during the recruitment process by focusing their EVP on development opportunities for STEM talent.

The majority of STEM employees cite **coworker quality, manager quality, people management, recognition, and meritocracy** as particularly important attributes.

When employees view an organization's EVP as attractive, they are more likely to display higher discretionary effort and intent to stay with the organization. The majority of STEM employees cite coworker quality, manager quality, people management, recognition, and meritocracy as particularly important attributes.

### Develop Compelling Career Paths

While training and development creates more productive employees, it also makes employees more marketable to other organizations. Some organizations attempt to retain younger workers by promising fast career progression. However, opportunity for diverse experiences is a better driver of millennials' retention than is fast career progression. In addition, only 35% of STEM talent is satisfied with EVP attributes related to career opportunities.

### Dual Career Ladders

To address this need for development and create flexibility in technical career paths, STEM functions often create two types of career paths for their talent: the managerial path (for individuals with leadership potential) and the technical path (for everyone else). These dual career ladders help address the concerns of managers, line leaders, and HR executives that most STEM talent are not capable of, or interested, in leadership responsibilities.

**Millennials value diverse career experiences** far more than they value fast career progression.

Diverse Organizational Experiences Drive Millennial Retention More Than Fast Career Paths  
*Maximum Impact on Intent to Stay*

Opportunity for Lateral Career Moves

**23%**

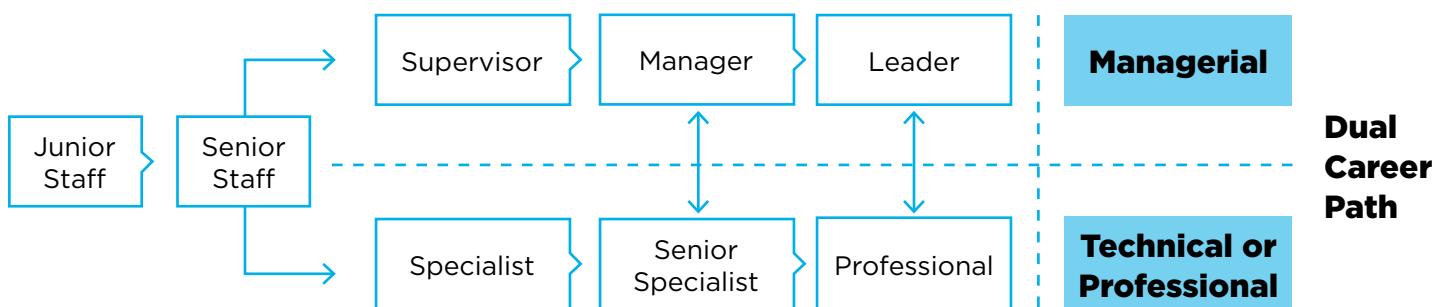
Accelerated Promotion Path

**< 1%**

n = 3,409.

Source: CEB 2013 Succession Management Survey.

Career Ladder  
Illustrative



Source: CEB analysis.

### 3. Best-in-Class Job Descriptions

Many organizations fail to appropriately brand their opportunities to hire nontraditional talent. Listed below are a few examples of job descriptions that de-emphasize traditional experience (e.g., four-year college degrees) and emphasize job requirements (e.g., code ability, collaboration, problem solving).

## KICKSTARTER

### Software Engineer

We're looking for an engineer who will contribute directly to our platform for creators and makers. We're seeking someone who loves building new products and solving problems. The core of our platform is Ruby on Rails, but we're interested in engineers with a wide variety of skills and interests including:

- DevOps and infrastructure automation, monitoring, and deployment with Amazon Web Services
- Ruby on Rails
- JavaScript, SCSS and HTML5
- Android and iOS
- Or, data stores like MySQL, Redis, Elasticsearch, DynamoDB, and Redshift

Our engineering team is a friendly, collaborative, and supportive bunch who values personal growth and positive feedback. We work closely with designers and product managers in small teams to build fun project discovery modes, elegant project management tools, and top-tier payments processing. We use ad-hoc QA clusters to test and demo new features, GitHub pull requests for peer review, and continuous deployment with feature flags for smooth rollouts.

Source: Kickstarter, [https://www.kickstarter.com/jobs/software\\_engineer](https://www.kickstarter.com/jobs/software_engineer).

## change.org

Change.org is the world's largest petition platform, empowering more than 85 million users to win incredible and inspiring victories on the issues they care about.

We're an innovative business – a certified "B Corp" – combining the structure of a business with a powerful sense of mission that drives our work. Over 25 million users have signed winning petitions, including strengthening hate crimes legislation in South Africa; fighting corruption in Indonesia, Italy, and Brazil; ending the ban on gay Boy Scouts in the United States, and big wins for women's rights in India. And we're just getting started.

We love serving our incredible users, and we love our staff too. We show it with very competitive salaries, five weeks of vacation, robust maternity and parental leave, an amazing culture, free language training (if you want it), and a high impact, low-ego team that can't wait to learn from you and teach you what they know.

**Here's what you'll do as part of our team:**

• Be part of a small, close knit team

Source: Change.org, <https://www.change.org/careers/c4927b17-d20c-4ba1-855e-6992b94873af>.

## NERDERY

### About the Position

As a JVM Software Engineer at The Nerdery, you'll have the opportunity to work on projects for a wide range of clients. We have opportunities to solve customer projects with a wide variety of frameworks and platforms such as Spring MVC, Play, and Scala. The position provides opportunities to expand your horizons to reach your personal development goals.

Most of our engineers contribute to a multitude of projects each year. You'll never feel like you're stuck working on a single project for the rest of your career.

### About You

You are passionate, flexible, and ready to collaborate with talented engineers to craft brilliant applications from even bigger ideas. You're a good citizen of the web who believes in choosing the right tool for the job, values including all users, and understands the power of testing.

### Job Responsibilities



## WORKING AT CATALYST

Catalyst is looking for brilliant people who want to do amazing things in software.

Heard that before?

What makes Catalyst IT Services different is the "how" -- how we identify those brilliant resume won't really tell us much. We're looking for people who can blow us out of the water ... not with what they say they've done in the past.

### A DIFFERENT WAY OF FINDING DEVELOPERS AND ANALYSTS

For developer and analyst positions, Catalyst uses a unique model that collects non-traditional applicants (think "Moneyball meets IT recruiting"), and then compares that info to rock stars. It's like Catalyst's insistence on doing Agile development onshore – uncompromising. Only a very small percentage of applicants are accepted. But for those who make the cut, the results are successful. Only a very small percentage of applicants are accepted. But for those who make the cut, the results are successful. Catalyst provides an opportunity to work on the most exciting, interesting software efforts and a career trajectory that can move as fast as you can. Our turnover rate is low. That means those who make the cut love it and stick around. Catalyst does not care if you've worked at big-name companies. Or if you look like a rock star. Catalyst just cares that you are or have the potential of becoming a rock star. Interested? Does your inner rock star stack up? To learn more, [click here](#).

Source: Nerdery, <http://hire.jobvite.com/CompanyJobs/Careers.aspx?k=Job&c=qUJ9Vfw&j=ogJzFw1>.

Source: Catalyst IT, <http://www.catalystitservices.com/careers/working-catalyst>.

#### 4. Best-in-Class Interview Guides

This guide helps you conduct an interview to assess candidates for individual ability and network fit.

Network fit is how well a new hire fits with the way his or her colleagues work. Hiring for network fit is increasingly important as the work environment becomes more interdependent and working with others more significantly affects performance. Network fit can improve quality of hire by up to 30%.

You can assess candidates for network fit as well as individual ability in several ways:

<b>Option 1 (Preferred): Case Interview</b>	Candidates are presented with a challenge and environment similar to ones they would face in the role. Candidates describe how they would act in the given scenario, and the interviewer evaluates whether that approach would be successful in their work environment. This option places candidates in the context that is most reflective of your actual work environment.
<b>Option 2: Behavioral Interview with Probing Questions for Network Fit</b>	Candidates describe how they responded to situations in the past while the interviewer probes them on the environment in which they were acting. The goal is to evaluate whether the candidate's approach was successful given his or her work environment, and whether the candidate's skills would translate well to the work environment of the open role. This option is appropriate when concerns about sensitive information and/or complexity of roles make a case interview unsuitable.
<b>Option 3: Assessment and Simulations</b>	Candidates are asked to demonstrate their technical ability, react to situations that they will face in the work environment, or answer questions that indicate their personality.
<b>Option 4: Panel Interview</b>	The interview is conducted with several people from the organization at once (e.g., hiring manager, recruiter, supervisors, colleagues). These interviews are focused on network fit and allow internal stakeholders to weigh in regarding new hires.
<b>Option 5: Realistic Job Previews</b>	Candidates are asked to complete tasks similar to ones they will be required to complete once on the job. This option allows hiring managers to observe the candidate's work while allowing candidates to determine whether the role is correct for them.

*Best Practice:* These options are most effective in assessing for network fit when they are reflective of the work environment, provide candidates with an experience similar to what they would see on the job, and give candidates and the hiring manager the opportunity to determine mutual fit through shared reflection.

#### Option 1 (Preferred): Case Interview

*Case Interview Introduction:* In a case exercise, the candidate is presented with a hypothetical problem and supporting information related to the problem. The candidate must analyze the problem and make recommendations in a brief written or verbal report with the assessor. Typically, solving a case exercise does not require prior experience, but rather emphasizes the candidate's ability to assess a large amount of information, think logically, and identify a solution.

*Best Practice:*

1. Base the case scenario on a situation the hire will likely encounter, where the solution must include working with colleagues mentioned in the case exercise.
2. Structure feedback in the case exercise in the same way the hire will receive feedback from his or her colleagues and manager.
3. Dedicate 10 minutes during or after the case exercise to discuss the case exercise activities with the candidate. Clarify how the case exercise differs from the actual situations in the role, and let candidates discuss how their actions in the case exercise reflect their work preferences. This helps ensure that perceptions of mutual fit are based on complete information.
4. Incorporate some typical challenges created by the work environment of the role (e.g., teams changing unexpectedly, ambiguous directions from the manager) into the case exercise.
5. Require the candidate to complete the case exercise with the typical technologies and data used by people in the role.
6. Conduct the case exercise in a physical environment similar to the one for the role (e.g., office cubicles, remotely).
7. Require the candidate to refer to or create a sample of a deliverable that would be expected of a hire in the role.
8. Invite candidates to respond to questions related to real business problems that they would need to solve in their roles at your organization instead of just asking them about their past response in a previous workplace. For example, ask job candidates to respond to videos of employees struggling with dilemmas that new hires will likely encounter in their role. Ensure the role plays built into the scenarios are close to the team members the new hire will work with.
9. For creative roles, immerse candidates in creative experiences similar to the ones employees use to find inspiration.

**Sample Case Interview Guide**

- Build rapport with the candidate.
  - Greet the candidate and explain your role.
  - Ask whether there is any reason the candidate might not perform at his or her best today (e.g., illness, fatigue, stress).
  - Put the candidate at ease. Engage the candidate in conversation, commenting on common areas of interest, workload, etc.
  - Transition to the interview by explaining the dual purpose of the interview: gathering information and providing information.
  - Point out that note taking will be part of the process.
  - Tell the candidate to ask about any questions that are unclear or confusing.
- Information about the work environment for the role

Information to Give the Candidate	Notes on the Candidate Response
<p>Make sure the candidate understands not only the tasks required of the job but also the environment he or she will work in.</p> <ul style="list-style-type: none"> <li>▪ What they will work on (e.g., defined processes, technology and tools)</li> <li>▪ Who they will work with (e.g., customers, peers, direct reports, administrative staff)</li> <li>▪ How they will work (e.g., team-based, face-to-face, written)</li> <li>▪ Where they will work (e.g., remotely, office, client premises)</li> <li>▪ When they will work (e.g., business hours, flexible hours, overtime)</li> <li>▪ Why they should join (e.g., organizational culture, total rewards, development and future career opportunities)</li> </ul>	

**Case Scenario:** Describe the challenge(s) the candidate will need to solve within a specific work environment. Effective case scenarios are reflective of the role the candidate is interviewing for; provide extensive information on colleagues, norms, and common barriers in the work environment; could produce multiple types of answers; and do not reveal confidential or sensitive information about the organization.

**Example:** Your manager tasks you with launching a mentoring program for our sales team.

- The deadline for a pilot launch is four months, to be in place immediately after the performance review cycle.
- You will need to work closely with our HR business partner. She is new to sales but has many years of HR experience in mentoring programs. In her past projects, colleagues have noted she is very data-driven and has creative ideas, and she often prioritizes more tactical activities over strategic planning.
- Our sales managers, to be the mentors in the program, are often doing sales rep activities themselves, because they're filling in for sales reps who have left and because many of them simply like these activities more than managerial ones.
- Our sales reps, to be the mentees in the program, are very inexperienced and turn over at high rates. Their communication style is very informal, compared to how we typically communicate here through formal e-mails and policies.

Please walk me through the first few steps you would take to launch this mentoring program.

<p><b>Evaluation Criteria:</b> Before the interview, list up to four competencies or other qualities to evaluate the candidate against, based on those you identified during job scoping. If it is helpful as reference in evaluating network fit, explain whether this competency is one that the candidate must have to conform with or complement their colleagues.</p>	<p><b>Notes on Candidate Response:</b> Note observations about whether and how the candidate's response meets evaluation criteria. Pay particular attention to whether the candidate will be successful in your work environment.</p>
<p><b>Example: Critical Thinking</b>—Challenges the parameters and business case for the mentoring program to complement tendencies here to execute on assigned tasks that have little chance of success</p>	
<p><b>Example: Influence</b>—Customizes how to influence others based on their role to conform with how the most effective employees have driven change in the organization</p>	

## **Option 2: Behavioral Interview with Probing Questions for Network Fit**

Behavioral interviews assess candidates' behaviors in prior experiences, using the premise that past performance is the best indicator of future behavior.

The interviewer identifies competencies and then structures open-ended questions about candidates' past experiences to elicit detailed responses about how the candidate demonstrated each competency. Professional hires are expected to draw from their past work experiences, whereas university candidates are expected to draw from past experiences at undergraduate or graduate school, campus activities, volunteer work, membership in an organization, etc.

*Best Practice:*

1. Instead of just assessing whether a candidate has a competency, also ask them about the work environment they were operating in. This helps determine whether how they apply their competency fits with the way immediate or future peers work. Peruse the interview guide for network fit to design such behavioral interviews.
2. Dedicate 10 minutes during the behavioral interview to reflect with candidates on the questions in the behavioral interview. Clarify how the behavioral interview differs from the actual situations in the role, and let candidates discuss how their responses in the interview demonstrate their work preferences. This helps ensure that perceptions of mutual fit are based on complete information.
3. Conduct the behavioral interview in a physical environment similar to the one for the role (e.g., office cubicles, remotely).

Use this option when concerns about sensitive information and/or role complexity make a case interview unsuitable. Select interview questions from table on the next page.

## Sample Interview Questions for Common Competencies

<b>Evaluation Criteria:</b> Before the interview, list up to four competencies or other qualities to evaluate the candidate against, based on those you identified during job scoping. If it is helpful as a reference in evaluating network fit, explain whether this competency is one that the candidate must have to conform with or complement their colleagues.	<b>Interview Questions:</b> Before the interview, select one interview question for each competency or other evaluation criterion, using the questions at the end of this document as a guide.	<b>Probing Questions for Network Fit:</b> Ask the following questions after each interview question. These questions help you put the candidate's demonstration of each competency in context of their work environment.	<b>Notes on Candidate Response:</b> Note observations about whether and how the candidate's response meets evaluation criteria. Pay particular attention to whether the candidate will be successful in your work environment.	
<p><b>Example: Critical Thinking—</b> Challenges the parameters and business case for assigned tasks to complement tendencies here to execute on assigned tasks that have little chance of success</p>	<p><b>Example:</b> Tell me about an assignment where you decided the approach being used was ineffective and you needed to speak up. How did you come to the conclusion that the approach was ineffective? What led you to create your alternative? How did you present and defend your position?</p>	<ul style="list-style-type: none"> <li>▪ What was your role in relation to others?</li> <li>▪ How did other people respond to you?</li> <li>▪ What about your environment made you act the way you did?</li> <li>▪ How would you have acted if the environment was different [in X way that is similar to our work environment]?</li> <li>▪ How did you feel when this [obstacle or success] occurred?</li> <li>▪ What was the result?</li> <li>▪ What did you learn from the experience?</li> </ul>		
<p><b>Example: Influence—</b> Customizes how to influence others based on their role to conform with how the most effective employees have driven change in the organization</p>	<p><b>Example:</b> Describe a project or idea that was implemented or carried out successfully primarily because of your efforts.</p>			
<b>Summarize your observations, conclusions, and remaining questions about the candidate's network fit.</b>				
<b>Example</b>				
<b>Candidate's Network Fit:</b>		High	Medium	Low

## **Option 3: Assessment and Simulations**

### **Assessment and simulations include the following types of activities:**

*Programming interviews*—A programming interview is a technical job interview in the software industry or in IT departments of major corporations to test candidates' technical knowledge, coding ability, problem-solving skills, and creativity about computers. Candidates usually have degrees in computer science, computer engineering, or electrical engineering, and they are asked to solve programming problems, algorithms, puzzles, and/or computer-related technical questions.

*Virtual simulations*—Virtual simulations determine performance in a more automated manner. These type of assessments are relatively more effective in replicating a variety of work environments and offering candidates detailed glimpses into the organization's working environment. Simulations are used to assess data entry and customer service skills in call centers, as well as computer and logic skills in the manufacturing industry, which usually process a high volume of candidates.

*Online technical tests*—Online technical tests measure skills for professional, technical, and IT jobs; management and executive jobs; sales and customer service; administrative and clerical roles; skilled and semi-skilled trades; and entry-level production, operations, and manufacturing positions.

*Psychometric tests*—Psychometric tests measure candidates' personality characteristics and cognitive abilities to determine suitability for a role. Organizations prefer psychometric tests to traditional interviews when they need to identify cognitive aspects that are more difficult to uncover through interviews.

#### *Best Practice:*

1. Conduct assessment tests and simulations using equipment the new hire would be expected to work with in project scenarios.
2. Design online technical tests so that the technical problems are similar to what the prospective new hire will encounter in the role.
3. Structure feedback on assessment tests and simulations in the way new hires will receive performance feedback in their role.
4. Dedicate 10 minutes during or after the assessment or simulation to discuss the activities in the assessment or simulation with the candidate. Clarify how the assessment or simulation differs from the actual situations in the role, and let candidates discuss how their actions in the assessment or simulation reflect their work preferences. This helps ensure that perceptions of mutual fit are based on complete information.
5. Focus psychometric tests on virtual scenarios that require situational judgment where candidates need to respond to situations that require decision making.
6. Design virtual simulations to include scenarios prevalent in the work environment that a new hire is likely to encounter so candidates can get a preview of organization's work environment and situations they will be working in.
7. For programming roles, create a variety of programming challenges a new hire will be expected solve. Build programming problems using programming languages the new hire is expected to work with.

## **Option 4: Panel Interview**

In a panel interview, two to five interviewers are present to interview a candidate. Various people in an organization participate, including HR, the hiring manager, and supervisors and colleagues of the prospective new hire.

*Best Practice:*

1. Conduct panel interviews in a format similar to the team meetings the new hire will be expected to attend, so the candidate gets a good sense of how team meetings are conducted in the organization.
2. Include peers and senior stakeholders who are part of the current team the prospective new hire will work with.
3. Include members from broad teams, levels, functions, roles, or geographies that the hire will likely work with in the future.
4. Dedicate 10 minutes during the panel interview to debrief candidates on the questions in the panel interview. Clarify how the panel interview differs from actual situations in the role, and let candidates discuss how their responses in the panel interview reflect their work preferences. This helps ensure that perceptions of mutual fit are based on complete information.
5. Conduct the panel interview in a physical environment similar to the one for the role (e.g., office cubicles, remotely).

## **Option 5: Realistic Job Previews**

Realistic job previews (RJPs) require candidates to perform work-related tasks that would be required of them on the job. RJPs provide more detailed insights to candidates, compared to other assessment processes, on the work they would be expected to perform on the job. They are ideal for candidates with relatively less work experience and for jobs that are often misperceived (e.g., jobs with high expectations or ambiguous roles).

RJPs may be conducted as part of applicant screening or as part of the interview process to further evaluate applicants, or they may be offered in conjunction with a job offer. In either case, a job preview gives applicants an opportunity to get a real sense of what the job is like, prior to accepting an offer and coming on board.

*Best Practice:*

1. Create a series of RJP activities based on some of the tasks a new hire is expected to perform on the job. Build into the activities some typical challenges faced by new hires in the role, and invite candidates to respond by making decisions. Conduct these tests in a variety of formal and informal situations that candidates might actually encounter in their role.
2. Dedicate 10 minutes during or after the RJP to reflect with candidates on the activities they completed. Clarify how the RJP differs from actual situations in the role, and let candidates discuss how their actions in the RJP reflect their work preferences. This helps ensure that perceptions of mutual fit are based on complete information.
3. Create scenarios that introduce new challenges throughout the RJP, forcing candidates to adapt quickly to changing priorities.
4. Limit planning time between various activities to create time pressure consistent with the work environment.
5. Ensure that any role play built into the RJP closely mirrors how team members perform activities at work.
6. Arrange for the candidate to meet with tenured employees and an HR facilitator between different activities to discuss job realities (e.g., working hours, working conditions).
7. Build in opportunities for the candidate to work alongside or shadow a future colleague on a project for part of day.
8. Conduct the assessment in a physical environment similar to the one for the role (e.g., office cubicles, remotely).



## About CEB

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