Job Market Trends: Five Hiring Disruptions to Watch in 2019

Andrew Chamberlain, Ph.D., Chief Economist, Glassdoor
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Introduction

After nine years of steady growth, the nation’s economy charged ahead in 2018.

Employers in the United States added 2.27 million new jobs as of November, riding a wave of federal tax cuts that pushed the nation’s unemployment rate down to 3.7 percent — the lowest since 1969. Unemployment hit 2 percent in many cities, fueling a decade-long war for talent in tech, healthcare, e-commerce, and professional services. Employers spent much of 2018 scrambling for innovative ways to recruit, facing a record 7 million unfilled jobs throughout America.

It wasn’t all good times in 2018. New economic clouds appeared on the horizon. Tariffs stoked fears of slowing trade that may cripple U.S. exporters and raise prices for consumers. The Federal Reserve raised interest rates three times, causing a slowdown in the nation’s housing market in a period when mortgages grew more expensive. Meanwhile, the stock market slowed, leaving the S&P 500 index mostly flat.

One bright spot in 2018 has been workers’ paychecks. After years of stagnant wage growth, pay grew at the fastest pace in nine years in October — a sign that today’s healthy job market is finally translating into better pay for American workers. Unfortunately, the spoils of today’s booming economy aren’t being equally shared. Tech workers saw bigger paychecks and faster pay growth than many blue-collar counterparts, feeding existing fears about rising artificial intelligence (AI) and automation.

What are the next big workplace disruptions on the horizon? At Glassdoor, we have a unique vantage point on the future of work and hiring, with access to millions of real-time job listings, salaries, and company reviews from around the world. That allows us to keep a pulse on what’s happening in jobs, recruiting, and pay, and offers clues about what’s coming next for workers and employers.

Our workforce experts have selected the top five trends they’ve observed in the past year and the five big hiring disruptions they see ahead in 2019 and beyond. In this report, we share our predictions about what’s coming next for today’s fast-changing world of work and hiring.

With that prelude, let’s get started.
5 Hiring Trends that Defined 2018
Trend #1: Artificial Intelligence is a Worker’s Ally, Not a Replacement

Growing fears about job losses from artificial intelligence (AI) in the workplace continued to make headlines this year. It’s not a new concern for the labor market. Historically, we’ve been wary of some form of workplace automation since the Industrial Revolution.1 Thankfully, a growing consensus among experts offers a rosier view of AI and the future of work. Instead of AI taking our jobs, we’re seeing AI help us do our jobs better. More roles today involve teaming up with automation — handing over routine tasks to AI tools while workers focus on the more “human,” and potentially more valuable, aspects of their jobs.

In today’s job market there’s a rising army of “knowledge workers” — those using data, software, and intellectual skills — employed in service industries like healthcare, tech, consulting and finance. These roles are more likely to use automation as a complement, not as a substitute. AI is best suited for routine tasks and the reality is that most jobs are a complicated mix of tasks, with certain components easier for automation to tackle. Roles in management, sales, consulting, healthcare and others require human flexibility and judgment, which are difficult to automate. Most AI used in 2018 supports these knowledge workers, freeing them from low-value routine tasks and allowing them to focus on the most creative and productive aspects of their jobs.

Some of the most common uses of AI in the workplace today include:

- AI chatbots that handle routine customer service requests on bank websites;
- AI algorithms to automatically tag uploaded photos with labels and faces;
- AI recommendation engines that make automated fashion suggestions for online shoppers;
- AI tools that suggest target audiences for online advertising; and
- AI bots that schedule meetings via email;

All of these scenarios involve AI teaming up with knowledge workers, not fully replacing every facet of an existing job.
Who’s Investing in AI Today?
To see how AI is used today, look at where companies are investing in AI talent. Two recent Glassdoor studies examined hiring trends for AI and “deep learning” jobs in the United States and the United Kingdom using Glassdoor’s powerful global database of online job listings.

One surprise: Not all AI-related jobs hiring today are for software engineers and data scientists. Many employers are hiring non-technical AI roles, including product managers helping transform AI into useful products, business development managers turning AI into viable business models, strategy consultants advising companies on how to deploy AI tools, and recruiters helping hire hard-to-find AI talent. We even found open jobs for copywriters crafting the personalities of AI customer service chatbots. Not only are workers today partnering with AI, but AI is creating unexpected new roles in the workforce. While most of the debate about AI focuses on job losses, our research shows it’s opening up new opportunities — mostly for today’s knowledge workers who can team up with automation in new ways.

Among employers hiring AI talent today, it’s no surprise that major tech companies like Microsoft, Amazon, and NVIDIA are making big investments. But the data show a diverse set of industries hiring AI workers, including healthcare companies like Babylon Health, media institutions like the BBC, consulting firms likeAccenture, financial giants like Wells Fargo, marketing innovators like Rakuten, and more.

All of these employers rely heavily on knowledge workers. And these companies are more likely to have workers team up with AI in the near future.

An AI Talent Shortage
One headwind that slowed the pace of AI adoption this year was a shortage of talent. In a recent survey from Forrester, two-thirds of employers hiring AI talent said they’re struggling to find and hire workers with the right skills and 83 percent said they’re struggling to retain the few AI-related employees they’ve hired. This scarcity of AI talent may turn out to be good news for many workers. The slower pace of adoption buys them time to upskill and prepare for the changing jobs of the future.

Despite predictions of job losses from automation, the actual uses of AI at work in 2018 suggests a more optimistic future. For most knowledge workers, growing AI probably means teaming up with technology to do more at work, not being displaced outright.
## Top US and UK Employers Hiring AI Talent

<table>
<thead>
<tr>
<th>US EMPLOYER</th>
<th>OPEN US AI JOBS ON GLASSDOOR</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amazon</td>
<td>64</td>
<td>13%</td>
</tr>
<tr>
<td>NVIDIA</td>
<td>31</td>
<td>6%</td>
</tr>
<tr>
<td>Microsoft</td>
<td>18</td>
<td>4%</td>
</tr>
<tr>
<td>IBM</td>
<td>17</td>
<td>3%</td>
</tr>
<tr>
<td>Accenture</td>
<td>14</td>
<td>3%</td>
</tr>
<tr>
<td>Facebook</td>
<td>12</td>
<td>2%</td>
</tr>
<tr>
<td>Intel</td>
<td>10</td>
<td>2%</td>
</tr>
<tr>
<td>Samsung</td>
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<td>2%</td>
</tr>
<tr>
<td>Lenovo</td>
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<td>2%</td>
</tr>
<tr>
<td>Adobe</td>
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<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UK EMPLOYER</th>
<th>OPEN UK AI JOBS ON GLASSDOOR</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babylon Health</td>
<td>11</td>
<td>9%</td>
</tr>
<tr>
<td>BBC</td>
<td>5</td>
<td>4%</td>
</tr>
<tr>
<td>IQVIA</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>Imagination Technologies</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>Tractable</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Microsoft</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Amazon</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>University of Cambridge</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Splash Damage</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>NVIDIA</td>
<td>2</td>
<td>2%</td>
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Trend #2: Women Executives Make Waves... But There’s Room for More

It’s been a milestone year for women, especially those in positions of power and leadership. Consider the November midterm elections. A surge in women running for office resulted in a record-smashing 118 women elected to serve in the U.S. House of Representatives (as of the latest election results). That shattered the previous record of 84 women serving in the U.S. House out of 435 total seats, and led many to label 2018 as the “Year of the Woman.”

However, this wave extended beyond politics in 2018. Diversity in the C-Suite has a long way to go, but the tide is changing. For instance, California became the first state to require female representation on corporate boards this year, opening up opportunities for more women in top leadership roles.

A number of women in high-profile executive leadership roles made news in corporate America this year, including:

- Stacey Cunningham, who was named CEO of the New York Stock Exchange and is the first woman leader in the group’s 226-year history;
- IBM CEO Ginny Rometty landed the company’s largest-ever acquisition of Red Hat this year, shaking up the cloud computing industry;
- Longtime tech executive Robyn Denholm became Tesla’s first female chairwoman, replacing the company’s iconoclastic founder Elon Musk;
- Female venture capital pioneer Arlan Hamilton launched her Backstage Capital venture firm along with a $36 million fund aimed at investing in black female founders; and
- ABC Entertainment Group’s president Channing Dungey — the first black woman to head a major U.S. network — acted decisively and canceled the hit show “Roseanne” following controversial remarks by the show’s star.
There are many other examples, but each illustrates a powerful workplace trend that unfolded this year. More women are taking the reins in positions of executive power — whether in politics, the boardroom or the C-Suite. As they do, we are seeing their bold leadership push forward initiatives that reflect changing priorities and values in corporate America, from finance to renewable energy and even greater social tolerance.

In many ways, 2018 was a demonstration of the real-world impact of gender diversity on corporate performance. By shaking away old corporate barriers and introducing new perspectives in the C-suite, many innovative business ideas can break through and come to life — ideas that would not likely have surfaced under male-dominated corporate power structures.

**ROOM TO GROW**

Although it has been another year of progress for women in corporate leadership, there’s still work to do. According to the Pew Research Center, women only hold about 10 percent of the top executive positions at U.S. companies, with women making up just 5 percent of chief executives of S&P 1500 companies. A separate analysis by the New York Times found the number of female CEOs overall fell by 25 percent among Fortune 500 companies in 2018. And although women have been earning college degrees at higher rates than men for decades, they are still underrepresented in many leadership pipelines that funnel talent into executive roles.

In politics and in business, the pendulum of power dynamics swings over time. In 2018, we saw dramatic gains by women in Congress as well as in the C-suite — one of the most important workplace trends our analysts watched unfold in 2018.
Trend #3: Growing Concerns About Employee Data Privacy and Protection

Data breaches are not a new phenomenon. Yet companies are still vulnerable and under increasing attack. Facebook, Under Armour, Saks Fifth Avenue, and Orbitz are only a few examples of this year’s high-profile data breaches that could have potentially exposed millions of Americans’ sensitive personal data, from credit card information and billing addresses to passwords. These latest breaches renewed privacy fears for many online shoppers, causing them to rethink how they’re sharing their data online.

But consumers aren’t the only ones at risk of potentially harmful data breaches. Employers today are collecting more detailed data than ever on employees. Just as online retailers collect shoppers’ financial and personal data, many employers collect sensitive data on workers — data from payrolls, productivity monitoring systems, employee sentiment surveys, health and fitness trackers and more.

There are many examples today of companies gathering and storing detailed and possibly sensitive data on their workforces. And many of these uses of employee data raise difficult ethical concerns. For example:

- **Delivery Vehicle Sensors:** Since at least 2009, UPS has deployed sensors in trucks to track the driving behavior and productivity of employees;
- **Recording In-Store Customer Interactions:** Walmart filed for a patent on a system to record and monitor audio of employee and customer interactions at retail checkstands;
- **Employee Fitness Trackers:** Major legal and financial firms in the UK are reportedly planning to use implanted microchips in employees to boost security and prevent access to unauthorized areas;
- **Monitoring Office Movements:** A growing number of office workers report employers using sensors to record data on time spent at workstations;
- **Webcam Photos and Apps to Track Online Activity:** Some employers are reportedly using webcam photos at desks to monitor work behavior, along with apps to track web browsing, keystrokes, and social media activity;
- **Tracking to Prevent Insider Trading:** Some financial employers track employee communications to ensure regulatory compliance and prevent insider trading; and
- **At-Home Sleep Monitors:** One Japanese employer collects data on employee sleep patterns at home, offering them incentives to get a full night’s sleep.
With Innovations Come Vulnerabilities
Concerns over data vulnerabilities are not new. However, a proliferation of technology and data collection has made the amount of sensitive data bigger than ever. Protecting health records in the 1990s is one of the earliest examples of protecting Americans’ sensitive data. The innovation of digitized patient data caused growing concerns about privacy and security and led to the passage of several federal laws to safeguard it including the HIPAA Privacy Rule of 2000 and the HIPAA Security Rule of 2003.

Today, the collection of sensitive information happens in nearly every industry from retail and finance to social media. Much like how stolen identities and fraudulent purchases can result from leaked consumer data, breaches of HR or performance data could potentially have serious consequences for workers. Just as concerns over protecting health records led to federal oversight in decades past, employees today are more concerned about whether HR data collected by employers is being safeguarded and used ethically.

Is Employee Data Being Protected?
Most companies today are aware that data vulnerabilities can strike at any moment. This year, we saw small steps toward better data privacy and security. The rollout of Europe’s General Data Protection Regulation (GDPR) system in 2018 was a watershed event for consumer data privacy. Because GDPR also applies to data privacy at work, it may also be a first step toward more formal rules about how companies collect and store data on workers.

There’s real promise in using more data science in HR to improve workforce productivity and retention. This year was a stark reminder that there are also privacy risks from the growing field of “people analytics.” These events highlighted the need for better transparency, data security, and ethics around the collection and use of employee data.
Trend #4: The Gig Economy is Smaller Than We Thought

The gig economy has been a hot topic for years. Gig economy platforms have touted the promise of flexible work arrangements, more efficient sharing of cars and homes, and the ability to provide extra income on the side. This led to fears that America may become a nation of gig workers — low-wage contractors, on-call day or night through mobile apps, without benefits or the worker protections of traditional employment.

This year, we got a closer look at the true reach of the gig economy. In October, the Bureau of Labor Statistics (BLS) released its first-ever survey of gig economy workers, and the early evidence shows it’s much smaller than we thought. It also proved the likelihood that gig jobs will not become the future of work, at least for the vast majority of Americans.
Counting Gig Workers

The BLS survey of gig economy workers -- or “electronically mediated employment” -- was the first attempt by the BLS to quantify the extent of gig workers in the U.S. economy using mobile apps like Uber, Lyft, TaskRabbit, Instacart for jobs. It was the first official measure of the size and scope of today’s gig economy. The bottom line: the BLS identified 1.6 million gig workers -- about 1 percent of total employment in the U.S. That includes all Americans who did any gig work using an online app or platform during a typical week, whether for their main job, a second job, or just for occasional extra cash.

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![Most Common Industries for Gig Work](image-url)

**Most Common Industries for Gig Work**

<table>
<thead>
<tr>
<th>Industry of Employment</th>
<th>Percentage of App-Based Gig Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional services</td>
<td>31%</td>
</tr>
<tr>
<td>Transportation</td>
<td>22%</td>
</tr>
<tr>
<td>Education and healthcare</td>
<td>16%</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>6%</td>
</tr>
<tr>
<td>Retail</td>
<td>6%</td>
</tr>
<tr>
<td>Information</td>
<td>4%</td>
</tr>
<tr>
<td>Finance</td>
<td>3%</td>
</tr>
<tr>
<td>All Others</td>
<td>11%</td>
</tr>
</tbody>
</table>

Without question, the gig economy has grown rapidly in recent years and has dramatically reshaped some sectors, such as room rentals or the taxi industry. But as the latest BLS data show, fears of gig work overtaking the job market simply aren’t supported. The limits of the gig economy were dramatically revealed in 2018. It’s clearer than ever that traditional, full-time employment is likely here to stay for most workers in coming decades.

**Why the Gig Economy Stays Small**

Why hasn’t gig economy work spread to more jobs? As with any work arrangement, contract or “gig” work has both benefits and costs compared to traditional employment. Flexibility — both for job seekers and companies — is the biggest benefit. When times are busy, employers can hire gig labor and job seekers can freely take up gigs as schedules allow. Although this flexibility often comes at the cost of no benefits and unstable work hours, it’s ideal for already-employed workers who may be looking for extra income.

For example, taxi rides and professional projects like graphic design are two areas where the gig economy thrives. Both are simple transactions — these jobs are easy to observe and measure, and neither require long-term trust or organizational knowledge. They’re perfect for gig-style work.

However, gig work isn’t applicable to all jobs. In a labor market dominated by growing “knowledge workers,” the economy is moving away from these types of simple, routine, and transactional jobs. The fastest growing jobs require institutional knowledge and skills, long-term reputations, and rich internal and external personal relationships. These include jobs such as health care professionals, data scientists and software engineers, sales leaders, strategy consultants, and product managers. These jobs of the future are least likely to work in the gig economy.

**Back to the Future of Work**

The gig economy has ignited the imaginations of many, opening the door to creative and technology-driven ways to organize work. However, in practice, the small size of the gig economy revealed this year shows most jobs inside companies will likely remain as they have been for decades: traditional employment relationships.

Most of the low-hanging fruit for gig economy work has already been picked in recent years — jobs like car rides, room sharing, and food delivery. In the future, we’re unlikely to see the gig economy expand into new careers such as health care, consulting services, legal services, financial advice, data science or any other complex jobs.
Trend #5: Local Talent Matters in the Era of Amazon’s HQ2

One of the biggest corporate stories of the year was the much-anticipated announcement of Amazon’s HQ2 — a second headquarters rivaling their founding location in Seattle. After more than a year of anticipation by dozens of U.S. cities, the corporate relocation turned out to be more accurately characterized as an “HQ3”. The company announced not one, but two additional company locations in November: One in northern Virginia and one in New York City.

To some, this came as a surprise. Many experts expected HQ2 to land in one of the nation’s smaller, scrappier metro areas — such as Raleigh, Austin, Pittsburgh or even Detroit — all of which boast low real estate costs, generous tax incentives, and high aspirations to become the nation’s next tech hub. Amazon choosing two of the nation’s largest, wealthiest, and most well-established metros for their new headquarters locations was seen as an anticlimactic choice.

WHY LOCAL CANDIDATE POOLS MATTER

However, anyone familiar with the research on how companies hire in local markets would not be surprised by Amazon’s choice. Glassdoor research shows that a city’s local labor force is crucial to finding the right talent. The reason: most workers don’t want to move to a new city for a job.

New York City and the Washington, D.C. area already boast large, educated, diverse and tech-savvy workforces. Amazon’s decision to make a second (and third) HQ is a more practical choice for their business and for the company’s recruiters.

In our "metro movers” study published this year, we found that geography matters for hiring. More than 70 percent of job applications are to jobs in the same metro area. Since most job seekers stay close to home, where a company chooses to locate has a huge impact on their ability to hire and the types of skilled workers available. Employers can’t assume they’ll be able to lure most workers to move for jobs. Instead, they need to choose areas with local labor markets that have the people and skills they need.
### Top Employers Who Attract “Metro Movers” in Amazon’s New HQ2 Locations

#### DESTINATION METRO: NEW YORK CITY, NY

<table>
<thead>
<tr>
<th>TOP 10 EMPLOYERS ATTRACTION TALENT</th>
<th>NUMBER OF JOB APPLICATIONS FROM “MOVERS”</th>
</tr>
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<tbody>
<tr>
<td>JPMorgan Chase &amp; Co.</td>
<td>157</td>
</tr>
<tr>
<td>Spotify Ltd.</td>
<td>150</td>
</tr>
<tr>
<td>The Goldman Sachs Group, Inc</td>
<td>122</td>
</tr>
<tr>
<td>Justworks, Inc</td>
<td>117</td>
</tr>
<tr>
<td>Home Box Office, Inc</td>
<td>110</td>
</tr>
<tr>
<td>International Business</td>
<td>109</td>
</tr>
<tr>
<td>NBC Universal, Inc</td>
<td>107</td>
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<tr>
<td>McKinsey &amp; Company, Inc</td>
<td>103</td>
</tr>
<tr>
<td>Google, Inc</td>
<td>95</td>
</tr>
<tr>
<td>Oscar Insurance Corporation</td>
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#### DESTINATION METRO: WASHINGTON, D.C.

<table>
<thead>
<tr>
<th>TOP 10 EMPLOYERS ATTRACTION TALENT</th>
<th>NUMBER OF JOB APPLICATIONS FROM “MOVERS”</th>
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</thead>
<tbody>
<tr>
<td>Booz Allen Hamilton Inc.</td>
<td>139</td>
</tr>
<tr>
<td>International Business Machines Corporation</td>
<td>130</td>
</tr>
<tr>
<td>Latitude Inc.</td>
<td>72</td>
</tr>
<tr>
<td>Ecoysystems</td>
<td>70</td>
</tr>
<tr>
<td>John Hopkins University</td>
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<tr>
<td>Vibrent Health</td>
<td>61</td>
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<tr>
<td>Leidos Holdings, Inc.</td>
<td>58</td>
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<tr>
<td>CACI International Inc</td>
<td>54</td>
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<tr>
<td>Deloitte</td>
<td>54</td>
</tr>
<tr>
<td>The University of Maryland</td>
<td>53</td>
</tr>
</tbody>
</table>

Source: Glassdoor Economic Research (Glassdoor.com/research)
What Makes Workers Move?
Although most workers apply to jobs close to home, our research shows it is possible to lure some workers to move for jobs. What factors entice workers to move cross-country for a job?

Our study found both higher pay and better company culture make job applicants more willing to move to new cities for jobs. However, good company culture matters a lot more than pay — having a 1-star higher overall rating on Glassdoor attracts talent at about six times the rate of paying a $10,000 per year higher salary. While pay matters for talent attraction, it’s much less important than having a strong employer brand.

Local Workers Are Companies’ Future DNA
The key lesson of the Amazon HQ2 campaign is that local labor markets are critical when considering company locales. Data show that most job candidates won’t move for jobs and enticing them to do so can be a pricey undertaking. Whatever culture, skills, and diversity exist in local areas will in large part become the DNA of a company’s workforce over time through the process of local hiring. This year was a reminder to workforce planners to look beyond factors like taxes and real estate costs when deciding where to expand.

For policymakers, this year’s announcement by Amazon offers a lesson on how to attract the next big tech giant. Tax credits and subsidies can only go so far. The key to attracting tech jobs in the long-run is to cultivate a diverse, educated, and tech-ready population with the skills today’s employers need to thrive. That usually starts with investments in higher education and continues with good local housing and transportation policies.

The HQ2 locations show the importance of local infrastructure like light rail, bike and pedestrian friendly neighborhoods, and dense urban housing that makes it affordable to live near work without long commutes. All of these urban amenities appeal to tech workers and are things New York City and northern Virginia made investments in decades before the search for Amazon’s HQ2 began.
What’s next for jobs and hiring? In this section, we’ll highlight five big trends in the labor market we think are likely to unfold in 2019 and beyond. Some of them are already visible today — disrupting the way companies attract, hire, and retain talent.

Here’s our list of the top five workplace trends to watch in 2019 and beyond.
Prediction #1: Data-Driven Matching Will Be the New Paradigm for Hiring

The old paradigm for hiring is job search and application. In the pre-Internet era, the job search was limited to a local network of open positions found in places like newspaper classified ads. A typical job search began by scanning local or national classified pages, applying to a handful of jobs that seemed like a reasonable fit by phone or a mailed resume, and waiting to hear back from employers.

In the mid-1990s, online job boards led to optimism that technology could make the job search more efficient. For the first time, online sites pulled together all job postings and made them keyword searchable to anyone with an internet connection. It was revolutionary, but it was still the same old paradigm for hiring: Job seekers searched through online job ads, sent email applications to a few that seemed to fit and waited to hear back from employers.

Today, there is a new paradigm that promises to make a fundamental change to hiring in coming years: Machine-learning assisted matching. Today’s online job sites are more than just aggregators of job postings. They are employer review sites, career networking sites, and job marketplaces that collect detailed data on all sides of the job market – data on people, companies, skills, and jobs.

The new paradigm for job search uses big data and machine learning to cut through the clutter of online job postings and candidates. The philosophy is simple: Use data to curate a smaller, smarter set of job recommendations that better fit a candidate. This is possible by leveraging the vast amount of information on not only jobs and companies, but also job seekers’ past learnings (such as personalized skills, education, and other professional experiences) and future aspirations (including job and company preferences, work locations, and more).

It’s a shift that promises to be a win-win for both candidates and employers in 2019 and beyond: Candidates get matched faster with jobs and companies that best fit their skills and preferences, and hiring managers get smaller pools of better quality applicants.
Big Data Opportunity
We believe this new approach will upend online hiring in the coming years. There are many ways in which more data-driven job matching promises to improve job search. For one, it has the potential to make corporate recruiters much more productive, using machine learning models to surface great-fitting candidates at scale. Next, it can provide a much-improved candidate experience for job seekers, relieving them of the burden of endless searching through online job ads, surfacing a more manageable set of the most relevant jobs. Finally, it offers great promise for improving the quality of hires for employers, potentially improving engagement and retention.

Risks Ahead
While data-driven job matching has great potential to improve job search, there are risks as well. First is what computer scientists refer to as “garbage in, garbage out”: If predictive models used for matching candidates to jobs are trained on data littered with hiring biases of the past, there's a risk they will propagate those biases forward in their recommendations. Eliminating these forms of bias in algorithms will be a key challenge for job sites making personalized job recommendations in coming decades.

Second is the issue of ethical guidelines for models used to make job and candidate recommendations. What factors about people and companies are appropriate to use when making job recommendations? What is the responsibility of job sites who offer machine learning-powered job matching to be transparent about how those models work? These are challenging and currently unresolved ethical questions today.

Finally, there is the issue of data privacy and protection in the era of “big data” in hiring. Companies compiling rich data on candidates, employers, and jobs have a greater responsibility than ever to assure these data are collected ethically and stored securely.

Despite these risks, we see data-driven matching of candidates to jobs as a powerful force for good in the labor market in coming decades. It’s a trend we believe will revolutionize the way Americans look for jobs and how companies hire in 2019 and beyond.
Prediction #2: The New Era of Tech Hiring Will Be for Non-Tech Jobs

The tech industry has been a jobs-creation engine in recent decades.\(^7\) In the early days of tech, most jobs at growing technology startups were strictly technical — software engineers, developers, and data scientists — aimed at building the infrastructure behind a company’s software and products. But as the tech industry has matured, so has its workforce.

As tech companies grow, they inevitably need to hire robust sales and marketing teams to transform technology into revenue. Operations teams expand as tech companies open new office locations. Even software engineers need HR teams to manage benefits and personnel issues. As the tech industry matures in coming decades, we expect to see an evolution in tech hiring — with more tech giants hiring for traditional, non-tech jobs as their businesses expand.

Research from Glassdoor shows this trend is well underway. In 2018, nearly half (43 percent) of all open jobs at tech employers on Glassdoor were for non-technical roles.\(^8\) These include sales account executives, project managers, operations managers, financial analysts, marketing managers and more. As the tech industry matures, we expect to see much more hiring for these non-tech jobs that help drive revenue and scale up operations at America’s big tech companies. This trend is even apparent among one of the most high-profile tech hiring plans of 2018: Roughly half of Amazon’s planned hires for the two new headquarters in New York City and Virginia will reportedly be for non-tech positions.

Source: Glassdoor Economic Research (Glassdoor.com/research).
What’s causing this shift toward non-tech jobs? One reason is scalability. The critical early hires at tech startups are usually jobs like software developers, who write code that’s highly scalable. Once a company’s core technology is built, it can usually support growth in users without requiring an equal ratio of engineers. However, most non-tech jobs like sales associates are not as scalable. Direct sales — which is the main way most tech gets transformed into revenue at companies today — is mostly done on a person-to-person basis. That means non-tech hiring tends to rise with revenue, while tech roles often grow more slowly.


<table>
<thead>
<tr>
<th>JOB TITLE</th>
<th>OPEN JOBS ON GLASSDOOR AT TECH COMPANIES</th>
<th>PERCENTAGE OF TOTAL NON-TECH ROLES AT TECH COMPANIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Executive</td>
<td>1,713</td>
<td>3.2%</td>
</tr>
<tr>
<td>Project Manager</td>
<td>1,192</td>
<td>2.3%</td>
</tr>
<tr>
<td>Sales Representative</td>
<td>1,073</td>
<td>2.0%</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>930</td>
<td>1.8%</td>
</tr>
<tr>
<td>Account Manager</td>
<td>914</td>
<td>1.7%</td>
</tr>
<tr>
<td>Product Marketing Manager</td>
<td>909</td>
<td>1.7%</td>
</tr>
<tr>
<td>Marketing Manager</td>
<td>894</td>
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<tr>
<td>Financial Analyst</td>
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<tr>
<td>Sales Manager</td>
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<td>1.4%</td>
</tr>
<tr>
<td>Outside Sales</td>
<td>711</td>
<td>1.3%</td>
</tr>
</tbody>
</table>
The Great Talent Convergence
As today’s tech giants expand their revenues, we believe they will need to ramp up critical hiring in non-tech roles to balance out their workforces in the coming decade. This shift in the tech workforce will likely impact company culture, pay, and benefits in the tech industry in the coming decades, including employers in non-tech industries such as professional services where tech competes for talent. Tech and non-tech workplaces are likely to become more similar, with competition for non-tech talent putting pressure on traditional industries to adopt the workplace perks, pay and cultural themes that tech employees have long enjoyed.

The sentiment that “every company today is a tech company” isn’t new. Technology has changed the way all businesses approach data and use software to boost productivity. However, that definition is no longer limited to how traditional companies use tech tools. It’s also about hiring, as more traditional industries — in banking, retail, healthcare and more — have increasingly positioned themselves as “tech” companies to attract tech talent.

For years, tech employers have enjoyed a competitive advantage thanks to greater use of data-driven, scientifically-minded management. Today, that approach is becoming the norm as more traditional industries hire software engineers and data scientists to help them use data, technology, and scientific experimentation to drive innovation. For example, pizza giant Domino’s has attempted to rebrand itself as a “tech company that sells pizza”.

We believe these two trends — more non-tech hiring in tech, and more tech hiring in traditional industries — is leading to a “workforce convergence” on the horizon. The composition of talent in tech and non-tech industries will be further blurred in 2019 and beyond. Every successful company, whether in retail, manufacturing, consulting or healthcare, will likely begin positioning themselves as a “tech” employer in the coming decade.
Prediction #3: More Companies Will Try to Get Diversity, Inclusion and Belonging Right

Many employers understand the importance of diversity and inclusion. However, for many years employers focused on strictly addressing diversity. That quickly led to a numbers game that emphasized better corporate reporting of women and underrepresented groups on payrolls as a way to improve the number of diverse candidates coming through the door. Although this was a healthy first step, it also led to a lot of corporate box-checking. It failed to address the underlying corporate cultural problems that made workplaces unappealing to women and underrepresented minority groups in the first place.

In 2019, we are entering a new era that focuses on the concepts of inclusion and belonging. If diversity means having a more diverse workforce, inclusion means having a culture that ensures they’re plugged into the organization — included in networking opportunities, on track for promotions, represented among company leadership, and so on. Belonging means feeling safe in the workplace to show your differences without being marginalized for it.

Without inclusion, workforce diversity is a hollow statistical goal that’s unlikely to have a lasting impact. Similarly, without belonging, companies will find it hard to retain more diverse candidates and benefit from allowing them to show their creative perspectives at work. More employers today are seeing that diversity programs cannot succeed long-term without both inclusion and belonging and we expect to see much wider adoption of these programs in 2019 and beyond.
Creating Self-Sustaining Diversity

The trend toward workforce belonging is a natural complement to existing diversity and inclusion efforts at many employers. By building a culture of belonging, underrepresented employees can feel more at home in the workplace — emotionally and culturally — so that they’re more likely to stay, be engaged and creative at work. Plus, they help further recruit diverse candidates from their own personal and professional networks. All of these things can help diversity programs become more self-sustaining and grow organically over time.

What does creating a sense of workplace belonging look like in practice? Here are a few employers who’ve invested in world-class diversity and inclusion programs in recent years, and are leaders in this growing trend. In their own words:

- **3M:** “An inclusive culture is one that supports and appreciates differences, and provides fair and equal opportunities for everyone. It’s a place where people realize they are respected for their whole and unique selves, and that they belong.” 10

- **Airbnb:** “There’s no belonging without diversity and inclusion. To create a world where people can belong anywhere we must take real steps to build a workplace where everyone feels welcome and all voices are heard.” 11

- **Anthem:** “Our culture is essential to attracting talent that understands and connects with our consumers. It creates spaces where different perspectives and experiences are valued, lets us develop innovative thinking, and unifies our employees behind our shared purpose.” 12
A Business Case for Belonging

One reason we expect more employers to invest in belonging in 2019 is that research shows it helps build better performing teams. One of the main benefits of improved diversity in the workforce is the innovation and creativity that’s inspired by a rich marketplace of ideas and perspectives.

For example, a 2017 study of more than 1,000 companies covering 10 countries from McKinsey & Company found that company profitability and long-term company valuations were higher for employers with more gender and ethnic diversity on teams. Other research shows teams with more gender diversity have better collective intelligence in decision making. Finally, there is also well-known research showing more gender diversity on teams can lead to significantly more innovation. Building a greater sense of workplace belonging for diverse candidates can help employers put this research into practice.

Today, most companies have a long way to go in terms of building a sense of belonging to support diversity efforts. According to a recent survey from consultancy EY, only about one-third of U.S. workers today say they feel a sense of belonging at work. More than 40 percent of employees reported that social exclusion in the workplace — the very phenomenon workplace belonging efforts aim to correct — makes them feel physically and emotionally stressed and unhappy.

For all of these reasons, we expect to see more employers building programs that promote diversity, inclusion, and belonging in 2019 and beyond.

“Diversity doesn’t work without inclusion. We can bring lots of disparate parts together, but if we can’t put them together and find a way for them to operate inclusively for the value to be found between the difference, it won’t matter.”

- Tracy Edmonds, Chief Diversity Officer, Anthem
Prediction #4: A Tidal Wave of Aging Workers Could Mean Labor Shortages for Decades

Many employers today are facing labor shortages. There are more than 7 million job openings in the U.S. and not enough workers to fill them. This is likely more than just a fair weather blip. One of the biggest trends we see coming in 2019 and beyond is a wave of demographic slowing in America that could mean tight labor markets will become the “new normal” for decades to come.

Several current demographic trends point to an aging, more slowly growing, and less work-focused American population. Like a slowly rising tide, these demographic changes will have wide-ranging impacts on jobs, pay and hiring in the future.

Fewer Workers to Hire
In coming decades, employers will struggle to expand workforces for three big reasons. First is an aging population. The first wave of Baby Boomers reached retirement age (65) in 2011 and millions more will continue to do so in the next few decades. That’s both shrinking the nation’s pool of experienced workers and changing the age profile of American consumers. For the first time in U.S. history, there will likely be more retirees in America than children under age 18 by 2035.

A falling birth rate, which hit a 30-year low in 2018, is another cause of a shrinking labor pool that employers must face in the future. That means fewer young workers to replace retiring Baby Boomers and a slower-growing labor force to hire from. For a population to be stable, the “fertility rate” — the average number of children per woman over a lifetime — needs to be around 2.1. In 2017, that rate was 1.76 children per woman in the U.S., a 3 percent dip from 2016. America isn’t alone; most developed countries today are experiencing similar birth rates below replacement levels.

Taken together, this means the labor force will grow more slowly in the years ahead. For perspective, the figure below shows that the pool of hireable workers grew at 2.6 percent annually in the 1970s. During those years, employers had a rich supply of talent to hire that fueled fast productivity growth and a healthy economy in the 1980s and 1990s. By 2020, the labor force will grow 0.4 percent annually, where it will level off for decades — limiting the ability of employers to meet growing hiring demands.
EVERYONE IS WORKING LESS

Compounding these demographic trends is a third factor: shrinking workweeks for Americans of all ages. In the 1950s, the average workweek was around 39 hours. Today, that’s down to 34.2 hours. It’s an average that has been falling since the 1850s — when the average workweek was around 66 hours — and will likely continue falling as more Americans opt for shorter work hours and greater leisure time. For employers, that means not only will they face an aging workforce that’s growing more slowly, but also one that’s spending less time on the job.


Source: OECD statistics.
A Perfect Storm for Talent Shortages
Unfortunately, these demographic trends point to a tough road ahead for employers. The supply of talent in many fields will be growing slowly, despite rising consumption and spending from retiring Baby Boomers as they buy housing, healthcare, travel, personal care and more. That combination of rising consumer demand, along with a slower-growing labor force, is the main reason we expect to see tight labor markets for the next few decades in America.

A Solution: Automation and Workforce Learning
How can employers brace for these demographic changes? Part of the solution is something we’ve mentioned already: More and better workforce automation. As we’ve explained above, automation doesn’t typically replace workers. It teams up with them to automate their most routine tasks and allows each employee to accomplish more in a day. Persistently tight labor markets in coming decades may be a driving force pushing more employers toward AI and automation that helps shrinking labor pools go further.

For employers to successfully use more automation to address labor shortages, better employee training and skill-building will be a critical need the in coming decades. Today’s employees will need to be trained to work alongside automation. To prepare workforces for that transition, we expect to see a rising need for broader, more job-relevant workplace education and training to help workers adapt to the new reality of working side-by-side with tech.

Some tech platforms are already helping fill this training gap. Workplace learning platforms like Udemy and Coursera help employers deliver relevant micro-learnings to employees in a cheap and scalable way. Investing in employee education is already a critical way employers are addressing technology’s impact on the world of work. As the workforce ages and grows more slowly in the coming decades, it will become even more vital for employers to invest in every employee.

A more slowly growing U.S. labor force means each worker counts. In 2019 and beyond, we expect to see many more employers ramping up on-the-job training and skill building to prepare for coming demographic challenges, using technology to make workforces more productive — despite fewer people available to hire.
Prediction #5: More Job Seekers and Employers Will Brace for an Economic Recession

The economy has been marching forward for nine years. As of December, U.S. employers have added jobs for 99 consecutive months, the longest expansion on record since the 1930s. Riding a wave of low interest rates, a booming tech sector, and historically low unemployment, many young Millennials today have never experienced an economic slowdown let alone a full-blown recession during their careers.

But cracks in the economy today are starting to show. The Federal Reserve is steadily raising interest rates, increasing the cost of mortgages. The housing market is slowing. Tariffs are threatening the 10 to 15 percent of the economy driven by trade. The riskiness of corporate debt is rising, with a record $3 trillion in low-grade corporate bonds today. The “yield curve” — the relationship between Treasury bond yields and maturity dates — is close to reversing its usual upward slope, a phenomenon that has historically been a good predictor of recession around the corner.

In 2019, we expect more employers and job seekers will brace for an economic slowdown. As they do, what are the odds of a recession in 2019? What are the big risks we should be watching out for today?

The Odds Are Low

Although there are many economic risks on the horizon, by most measures today the odds of a recession in 2019 remain low. According to a November survey of economists by Reuters, the median odds of a recession in the next 12 months has held steady at about 15 percent for the past year. Even over the next two years, the odds of recession according to that survey are about 35 percent — still very low.

Another measure of recession risk comes from academic studies. Often we don’t know the economy is in recession until long after it begins. Some researchers use “recession probability” models to try to predict the odds that we’re actually in a recession right now. According to one widely used measure, the odds the economy is in recession as of October are about 2.4 percent — a small chance. For context, a reliable signal of recession is a figure above 80 percent for three consecutive months.

The bottom line: Despite growing uncertainty, most economic indicators today still suggest a recession is unlikely over the next 6 to 12 months. However, while the economy may not falter anytime soon, history shows we will eventually dip into the next recession. Since World War II, the average length of time between recessions has been
about 58 months. The end of November marked 113 months, or nearly 9 and a half years, since the last recession ended. By that measure, the economy today is overdue for a pullback — and thus we should plan for it today.

Although today’s economic expansion is old, that doesn’t necessarily mean it will die simply because of old age. Australia’s economy, for example, has managed to grow without a single recession for 27 years. Recessions usually start with an economic surprise of some kind: a big swing in oil prices, an asset bubble collapsing, a severe tightening of interest rates by the Fed, or some other large disruption in the economy.

WHAT IT MEANS FOR EMPLOYERS

Today’s labor market is very tight, with low unemployment and a record number of open jobs. That’s pushing up costs in many industries, as more employers struggle to fill open jobs. A key indicator we’re watching closely at Glassdoor is pay growth. Although average pay has been rising slowly for years, in 2018 average wages grew at the fastest pace in nine years in October — a sign that labor costs are on the rise for American businesses.

How will a recession change that picture? During a slowdown, the balance of job openings compared to job seekers rapidly rebalances, as hiring slows and unemployment rises in affected industries. Attracting candidates to open roles becomes easier. However, the problem of sifting through applicants for great talent will remain a challenge during recessions. Bigger applicant pools during recessions can make for more challenging work. Investing today in interview processes that work, technology that helps screen great candidates and having a clear employer brand that attracts the right talent can help prepare employers to hire effectively during a recession.
**Signs to Watch Out For**

While a recession is unlikely today, there are several risks worth watching out for in 2019. First is the “yield curve,” or the link between Treasury bond yields and time to maturity. When long-term Treasury yields fall below short-term yields, the yield curve “inverts.” That has historically been a good predictor that a recession is on the way. It’s a signal that markets think the long-term outlook is poor and yields on long-term bonds will keep falling.

As shown in the figure below, the yield curve today is flat compared to 2013, and investors are watching closely for it to turn upside down.

A second risk to watch is the slowing housing market. The Federal Reserve has raised interest rates three times this year. That has translated into higher mortgage rates, putting the cost of housing out of reach for more Americans. That has started to slow the housing market — a key risk to watch, as housing is a huge industry and the main source of wealth for most Americans.

Although there are economic risks on the horizon, the economy overall is strong and healthy today. However, it’s never too early to prepare for an economic rainy day. Even during the best of times, now is an opportunity for employers to focus on hiring quality talent who will be retained both in good times and bad. Meanwhile, job seekers should shore up savings, polish up resumes and look for a job and company that fits their life in 2019 and beyond.

**America’s Flattening Yield Curve**

Source: U.S. Treasury
Conclusion

Today’s labor market is healthy and growing. But it’s also changing fast. It’s becoming more flexible, more transparent, and more focused on skills — rather than job titles — than ever. While these changes have sparked anxiety among some job seekers and employers, they also present opportunities in the coming decade.

The choice of where we work is one of the most important decisions in most Americans’ lives. Thanks to technology, the job market today is doing a better job of matching people up with their best possible career opportunities. However, the same technology that’s making job markets work better is also changing the future of work for many jobs themselves — with growing AI and automation impacting more workers than ever.

As we enter 2019, the U.S. labor market is booming. That makes it an opportune time for job seekers and employers to position themselves to make the most of the hiring trends we’ve highlighted in this report, and to invest in the skills and technology of the future while economic times are good.
References


8. Among a sample of U.S. tech employers with at least 100 job postings on Glassdoor as of June 2018.


About Glassdoor

Glassdoor is the second largest job site in the U.S. today. Set apart by the tens of millions of reviews and insights provided by employees and candidates, Glassdoor combines all the jobs with this valuable data to make it easy for people to find a job that is uniquely right for them. As a result, Glassdoor helps employers hire truly informed candidates at scale through effective recruiting solutions like job advertising and employer branding products. Launched in 2008, Glassdoor now has reviews and insights for approximately 830,000 companies in more than 190 countries. To stay up to date on employer-related news, industry trends and hiring tips, visit the Glassdoor for Employers Blog.