

2022 Tech Hiring Trends

How top Engineering and Talent Leaders are winning the race for tech talent



Introduction

If you’re reading this, chances are you’re responsible for tackling one of the most important issues facing companies today: hiring top technical talent. And as if the multi-decade global shortage of software engineers hasn’t been challenging enough, recent market volatility is likely impacting your ability to plan, to interview, and to hire candidates more than ever.

For the past two years, abundant capital and flexible work served as hypergrowth rocket fuel for tech startups. The strongest software engineers flocked to high-valuation, high-growth companies. But now, economic uncertainty, high inflation, and rising interest rates are slowing the rush to hypergrowth companies that had previously dominated tech hiring.

Today, the companies that are able to demonstrate stability and profitability are attracting more of the best candidates. In fact, our most recent hiring data reveals that large enterprise companies have eclipsed the hypergrowth segment as the primary destination for software engineers for the first time in two years.

We’ve been fortunate to have a bird’s eye view of the changes in the market over the past few years, both because we conduct technical interviews on behalf of leading companies around the world, and because we undertook surveys of software engineering and talent leaders at key moments: the first just before the pandemic, another just after it started, and now this one just prior to the market downturn. Through all of the volatility, we discovered that there are several defining actions that the top companies are taking to win the race for tech talent.

It is clear that candidates value a fast, efficient, and inclusive hiring process from companies whose values reflect their own. While the organizations who are in the driver’s seat to hire may be changing, the principles about what works in hiring top tech talent are not.

Our latest report shows that over the past two years, everything that was already working became even more pronounced: companies had to interview more candidates to make a hire, they had to pay more to close talent, they had to move at lightning speed, and they had to invest in making their hiring processes – and companies overall – more inclusive than ever.

You can learn more about the steps the top hiring companies are taking in the following report, which is intended to provide a framework for what you can do, right now, to help your organization maximize its opportunity to hire top tech talent.



Jeffrey Spector
karat[^]
 Co-Founder & President



Executive Summary



Software engineers are increasingly critical for business success

The value of software engineers is growing as digital transformations and the pace of innovation accelerate. More Engineering Leaders value software engineers at 2x, 3x their compensation.



These macro trends are driving three significant shifts happening in how companies hire:

1. Sourcing is getting easier as market shifts, including remote work, are allowing companies to access/source more engineering candidates.

- Just 27% of Engineering Leaders find it challenging to identify potential candidates (at least somewhat difficult), which is down from 38% of Engineering Leaders in 2020.

2. The top performing companies are investing more time and resources into interviewing, building robust hiring processes, and compensation.

- While sourcing may be improving, hiring candidates is getting harder and more expensive. Compensation is up 15% since 2020, and organizations are interviewing significantly more candidates per open role.
- Engineering Leaders are now interviewing 63% MORE candidates per open role compared to 2020. Moreover, Top Performing Engineering Leaders are interviewing 68.5% more candidates than Lower Performing Engineering Leaders.
- Top Performing Engineering Leaders spend 48% more time preparing for interviews while Top Performing Talent Leaders spend 60% more time preparing for interviews than their lower-performing peers.
- More than half of Top Performing Engineering Leaders say that using an interviewing partner is a very effective strategy, vs less than a third of Lower Performing Engineering Leaders.

3. Inclusion has become a competitive differentiator

- Top Performing Engineering Leaders are twice as likely to emphasize diversity, equity, and inclusion (DEI) as a priority compared to lower performers. They are also over three times more likely to strongly agree they have the resources needed to make increasing diversity a reality on their teams.
- Yet despite this differentiation, only 48% of leaders consider DEI a strategic priority, creating a massive opportunity for the leaders who get it right.

KEY GROUPS

ENGINEERING LEADERS

Age 18+; employed full-time; title of manager or above; work for companies with revenue of \$50 million+; involved in their company's decisions about hiring software engineers; main functional role at the company is in Accounting, Engineering, Finance, Innovation/Artificial Intelligence, Management, Operations/production, Technology/IT, Software Development, or Security

TALENT LEADERS

Age 18+; employed full-time; title of manager or above; work for companies with revenue of \$50 million+; involved in their company's decisions about hiring software engineers; main functional role at the company is in Human Resources, Talent, Recruiting, or Sourcing

TECH HIRING LEADERS

Combined Engineering Leaders and Talent Leaders

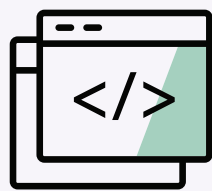
TOP PERFORMING

Very satisfied with the job performance of their company's software engineering hires AND very confident their company will meet their US software engineer hiring target for 2022

LOW PERFORMING

Less than very satisfied with the job performance of their company's software engineering hires AND/OR less than very confident their company will meet their US software engineer hiring target for 2022

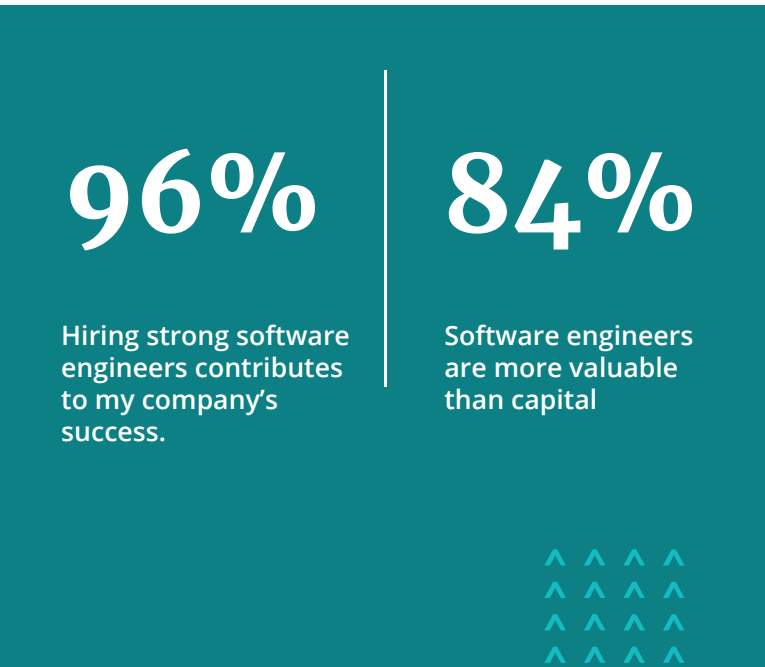
Overall Industry Perspective



Engineering and Talent Leaders are clear: software engineers are vital to the success of a business, and a shortage is a barrier to growth

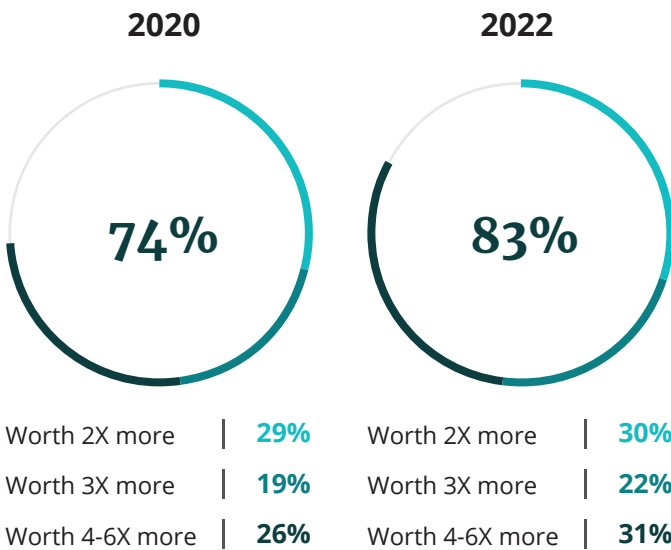
After two years of intense focus on digital business, the value and support associated with finding and hiring a talented software engineer is resounding. Overwhelmingly, Engineering and Talent Leaders agree that having a strong person in this role contributes to their company's success – and, in many cases, is even more valuable than capital.

FIGURE 1
% of Tech Hiring Leaders agree
(somewhat/strongly agree)



In fact, there is near consensus that a strong software engineer is worth at least twice their total compensation; and over half of Engineering Leaders would estimate at least 3x their total compensation.

FIGURE 2
Believe strong software engineers are worth more than their total compensation
(Engineering Leaders)



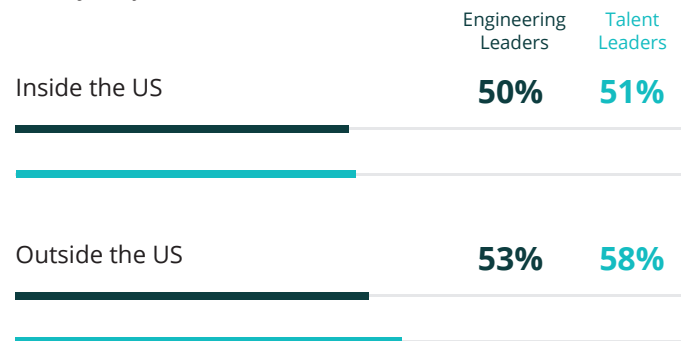
Almost all Engineering and Talent Leaders are at least somewhat confident that their companies will meet their software engineer hiring target both inside and outside the United States in 2022 – and about half are very confident. However, more than three in five Engineering and Talent Leaders (61%, 69%) emphasize that an inability to hit these hiring targets will result in one of the biggest barriers to growth for their companies.

The value of engineers is also echoed in total compensation estimates provided by Engineering Leaders, with average engineering compensation across all levels increasing 15% since 2020.

This increased confidence comes amidst intense competition for software engineers—a result of both the increased pace of digital transformation over the past two years and employee mobility trends like the remote work and the great resignation. These trends, coupled with the growing value of software engineering time, have forced many tech companies to adapt and innovate their hiring practices.

FIGURE 3

Confidence company will meet software engineer hiring target
(% very confident)



“Employers are competing with the full array of work experiences available to today’s employees—traditional and nontraditional jobs...To get in the game, companies must offer adequate compensation and benefits packages; that is the ante. But to win, they must recognize how the rules of the game have changed. While workers are demanding (and receiving) higher compensation, many of them also want more flexibility, community, and an inclusive culture.”

McKinsey & Company, Competition for Talent after the Great Resignation Report

This report will examine the investments in interviewing that the Top Performing Tech Hiring Leaders--defined as Engineering Leaders or Hiring Leaders who are both very satisfied with the performance of their engineering teams, and very confident in reaching 2022 hiring targets--are making. But before we dig into what these companies are doing, let’s look at who they are.

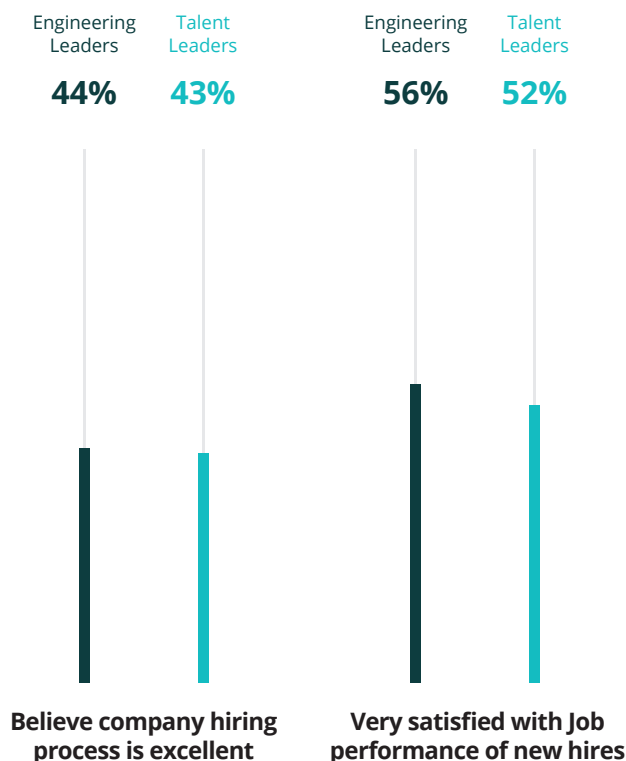
Top Performing Tech Hiring Leaders



Striking differences exist between Top Performing and Lower Performing Engineering Leaders. However, Top Performing and Lower Performing Talent Leaders are more likely to mirror each other.

When it comes to hiring software engineers at their companies, Engineering and Talent Leaders offer some lukewarm praise. Less than half of Engineering and Talent Leaders say their tech hiring process is excellent, and a little more than half are very satisfied with the performance of their software engineers. For Engineering Leaders in particular, there has even been a noticeable uptick on these measures since 2020 (33% rated the hiring process as excellent and 46% were very satisfied with the performance of their software engineers).

FIGURE 4
Hiring process and performance of company's software engineering hires



43% of Engineering Leaders and 38% of Talent Leaders we surveyed reported being both very satisfied with the performance of their software engineers and very confident their company will hit their 2022 US hiring targets (Top Performing Engineering and Talent Leaders).

With respect to Engineering Leaders, Top Performing Engineering Leaders compared to Lower Performing Engineering Leader tend to be younger by an average of four years (40 years old vs 44), and yet in higher, executive level positions, in particular CEO, CIO, and CTO (70% vs 44%). When it comes to the software engineers hiring process, Top Performing Engineering Leaders are far more likely to take on sole ownership of decision-making (88% vs 53%) and be responsible for such aspects of the hiring process as resource/talent planning, evaluating performance, managing engineers, recruiting and sourcing talent, and onboarding.

Top Performing and Lower Performing Talent Leaders look more similar to each other, but Top Performing Talent Leaders still lean more toward being in the technology services industry (30% vs 18%) and to be further along in their digital transformation (fully completed 43% vs 31% and only underway 44% vs 59%).

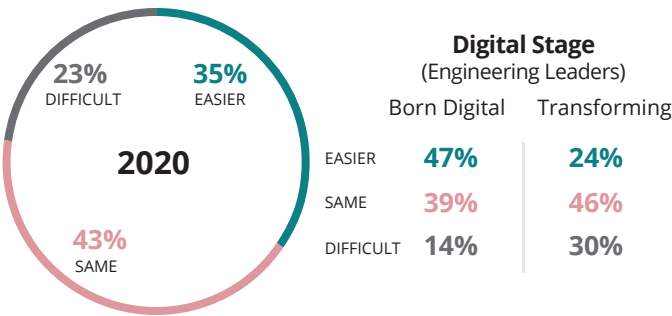
Interviewing Trends & Challenges



Interviewing is a crucial investment, but may come at a cost with possible erosion of productivity, morale, and finances.

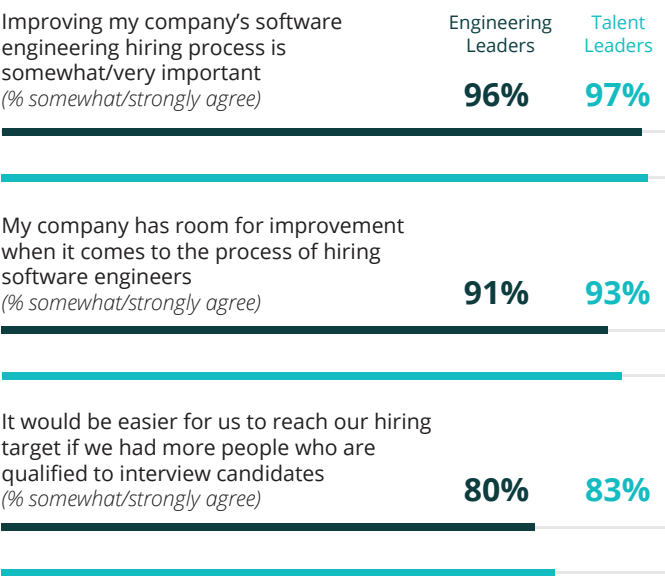
The majority of Engineering Leaders foresee the hiring process as becoming easier in the near-term future, which again is a big jump for Engineering Leaders since 2020 (only 35% expressed optimism two years ago). Companies that are undergoing digital transformation are adapting and getting closer to the optimism of their digitally-native competitors.

FIGURE 5
Ease of process for hiring software engineers in the next five years (Engineering Leaders)



Despite performing well, Engineering and Talent Leaders universally recognize that there remains room for improvement in the process and feel this should be an important priority for their company going forward. More than 9 in 10 Tech Hiring Leaders think companies need to get smarter about finding ways to identify and engage the right engineering talent. And most identify distinct obstacles with the interviewing process specifically. At least four in five say it would be easier to reach their hiring target if they had more qualified people available to interview candidates and if they didn't have to simultaneously deliver product features.

FIGURE 6
Hiring process improvements and targets



One reason for the optimism about hiring is that candidate sourcing is improving. Only 27% of Engineering Leaders find it challenging to identify potential candidates (at least somewhat difficult), which is down from 38% of Engineering Leaders in 2020.

The improved access to candidates, however, is creating more tension in balancing the time needed for the interviewing process and the burden it places on employees and their other assigned work. Currently, for each open position, Engineering Leaders estimate conducting an average of 26 first-round interviews (up substantially from 16 in 2020) – and Talent Leaders’ estimates are even higher at 29.

The most successful Tech Hiring Leaders are the ones considering the highest volume of candidates. Top Performing Engineering Leaders and Talent Leaders average 34 and 32 candidates per hire, respectively.



One possible reason for the YOY uptick could be the rise in virtual interviewing and hiring that occurred during the COVID-19 pandemic, which has made it possible to interview significantly more candidates across geographies.

FIGURE 7
Average number of first round interviews



“It’s really important to give all candidates an opportunity to show off their strengths because even the best resume doesn’t really tell you the potential of a person. When we have limited capacity internally, when we only have so many interviews we can give and really need to hit a certain number of hires, it’s really easy to fall back into screening exactly the people you know you’ve hired before. Having increased capacity lets us bring in more types of folks that we might not have been able to interview before and increase diversity across a lot of angles.”

Cat Miller, CTO at Flatiron Health

The majority of Engineering and Hiring Leaders lament that hiring software engineers is time-consuming and that there is not enough time to interview as many candidates as needed to find the right talent. What's interesting is that despite the sharp increase in the number of interviews being conducted, the attitude that it is time-consuming is roughly flat compared to 2020 for Engineering Leaders. And according to most Engineering and Talent Leaders, the burden of interviewing has other costs. It takes away from productive coding time, is a drain on their team's morale, and is a financial drain on their company. Not surprisingly, Talent Leaders are significantly more likely to feel that interviewing candidates is both a morale drain and a financial drain.

Top Performing Engineering Leaders are three times more likely to strongly agree that interviews are a drain on morale and a financial drain compared to the leaders who are less inclined to invest their team's time in hiring.

FIGURE 8

Impact of interviewing on company resources

(% somewhat/strongly agree)

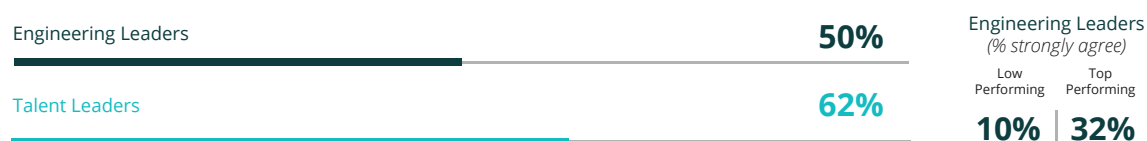
Time spent interviewing software engineering candidates takes away from productive coding time



Interviewing software engineering candidates is a financial drain on my company



Conducting software engineer interviews is a drain on my team's morale





Despite the time investment, companies still aren't very good at interviewing and don't have the internal bandwidth

Engineering and Talent Leaders almost universally agree that technical interviewing is critical to hiring success and that companies must be able to properly assess a candidate's problem-solving skills.

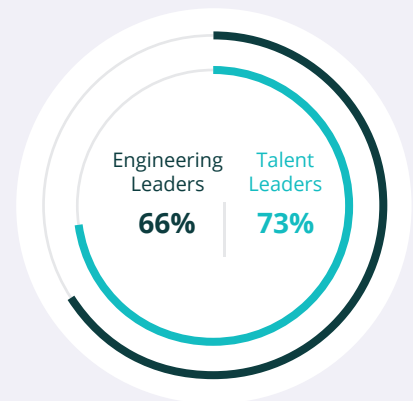
That said, there is an overwhelming consensus among Tech Hiring Leaders that they can (and should) improve their company's process, and this is especially true for those Top Performing Engineering Leaders, with 68% strongly agreeing compared to 26% of Lower Performing Engineering Leaders.

Most Engineering Leaders, but particularly Talent Leaders, agree that there is limited expertise in conducting technical interviews at their own companies – and very few people actually know how to conduct a technical interview. Some companies also face other roadblocks in technical interviewing including: a lack of dedicated software engineers who can conduct technical interviews (23%, 27%), a lack of technical interviewing questions (20%, 27%), and a lack of interviewer expertise (18%, 28%). Currently, Engineering and Talent Leaders, especially Talent Leaders, say that the typical technical interview at their company fails to predict the performance of software engineers. The good news, however, is that this is improving, down from 64% of Engineering Leaders who shared this sentiment in 2020.

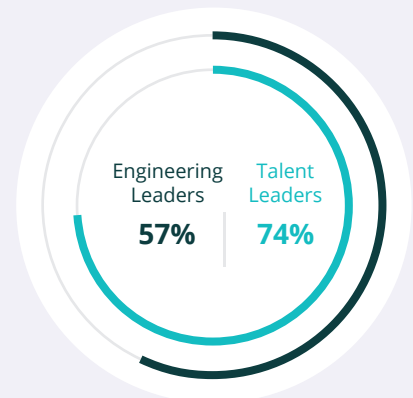


FIGURE 9
(somewhat/strongly agree)

Very few people at my company know how to conduct a technical interview



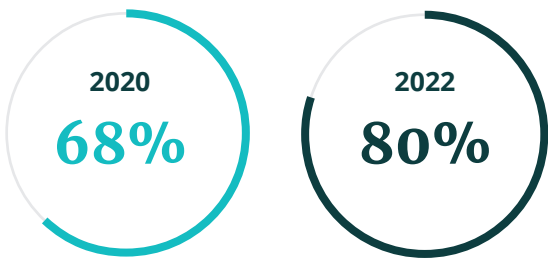
The typical technical interview fails to predict the performance of software engineers



A big reason for this improvement is how interviews are being structured and how interviewers are selected. A large majority choose to utilize a structured process for interviewing software engineers. Interviewing expertise is the most common – and a growing – factor that determines who will conduct the interviews, especially according to Engineering Leaders.

FIGURE 10
Importance of technical interviewing expertise
 (Engineering Leaders)

Expertise in interviewing is how my company determines who will conduct interviews with software engineering candidates

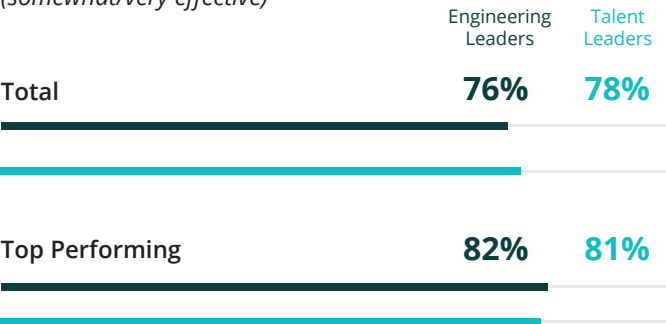


“The biggest advantage a cloud interviewing partner offers is the opportunity to interview across US and India. It allows us to schedule interviews at a time convenient to our candidates, and preserve great candidate experience in that initial interaction, and it allows us to process the pipeline a lot faster.”

Joseph Sirosh, CTO at Compass

Given the time pressure placed on employees (and lack of internal expertise), taking advantage of an interviewing partner is often part of the hiring toolbox for many Tech Hiring Leaders. Over three-quarters of Engineering and Talent Leaders find it at least somewhat effective to rely on an interviewing partner to help their company. This number is even higher for Top Performing Engineering and Talent Leaders. Over one-third of Top Performing Engineering Leaders and Top Performing Talent Leaders say that having a reliable technical interviewing partner would give their company a competitive edge in acquiring software engineers in the future. In 2022, using a partner also emerged as one of the top focus areas to improve in their hiring process going forward.

FIGURE 11
Effectiveness of using an external interviewing partner to help conduct interviews
(somewhat/very effective)



Best Practices



Not surprisingly, Top Performing Engineering and Talent Leaders do not operate homogeneously and often take a different approach to their interviewing practices. They are more inclined to recognize the value of the hiring process, seeing strong engineers as more worthwhile than capital and key to their corporate success. They generally find the process of identifying, interviewing, and assessing potential hires to be much easier – and expect it will become even easier going forward in the near future. However, they are also more critical of the current process, believing that it is quite time-consuming, and they seek more solutions to the problems they identify; Top Performing Engineering Leaders in particular see real room for improvement (68% strongly agree vs 26% among Top Performing Talent Leaders). In order to glean greater insight into best practices for the industry as a whole, it may be useful to highlight the priorities and procedures of Top Performing Engineering and Talent Leaders.



Measurement:

Top Performing Talent Leaders are more likely to track time spent in the hiring process, and Top Performing Engineering Leaders are more likely to look closely at overall hiring funnel metrics as well as the interviewer's performance and the technical interview passthrough rate. Top Performing Engineering Leaders also are more inclined to examine the onsite interview to offer ratio than their Lower Performing colleagues are.

FIGURE 12

Specific metrics used to evaluate the hiring process for software engineers

	Engineering Leaders		Talent Leaders	
	Top Performing	Lower Performing	Top Performing	Lower Performing
Interviewer's performance	62%	43%	52%	45%
Overall progress towards hiring goals	58%	47%	45%	49%
Technical interview passthrough rate	52%	39%	40%	39%
Time in the hiring process	45%	44%	59%	49%
Candidate's feedback	42%	37%	42%	41%
Onsite interview to offer ratio	42%	26%	32%	28%
Offer acceptance rate	39%	39%	38%	36%



Interviewer Selection:

In terms of the selection of interviewers, more Engineering Leaders in 2022 are using expertise in interviewing to determine who will conduct interviews than in 2020. Top Performing Engineering Leaders are much more likely to choose based on an interviewer's expertise and their interest in interviewing compared to their Lower Performing counterparts. Likewise, Top Performing Talent Leaders put a greater focus on expertise than Lower Performing Talent Leaders but are also more inclined to pick just based on time availability than their Top Performing Engineering peers.

FIGURE 13

Factors in determining who will conduct interviews with software engineering candidates

	Engineering Leaders		Talent Leaders	
	Top Performing	Lower Performing	Top Performing	Lower Performing
Expertise in interviewing	88%	74%	78%	66%
Interest in interviewing	67%	45%	56%	48%
Similar job function	62%	64%	60%	66%
Time availability	47%	47%	62%	56%
Seniority	48%	40%	51%	35%



Inclusive Hiring Means Better Hiring

In thinking about goals, Top Performing Engineering Leaders are twice as likely to emphasize DEI as a priority compared to Lower Performing Engineering Leaders. They are also over three times more likely to strongly agree they have the resources needed to make increasing diversity a reality on their teams. Top Performing Talent Leaders also express more confidence than their Lower Performing peers, though by a smaller margin than Engineering Leaders.

FIGURE 14

Top future priorities for hiring (% strongly agree)

	Engineering Leaders		Talent Leaders	
	Top Performing	Lower Performing	Top Performing	Lower Performing
Hiring strong software engineers contributes to my our success	72%	44%	63%	47%
DEI (diversity, equity, and inclusion) is a priority	67%	33%	59%	44%
Companies need to be smarter about finding the right talent	67%	32%	45%	46%
Our hiring process has room for improvement	68%	26%	32%	38%
We have what we need internally to increase our team's diversity	64%	19%	46%	27%
It would be easier to reach our hiring target if we had more qualified interviewers	58%	26%	44%	34%
Software engineers are more valuable than capital	57%	26%	53%	23%

Conclusion: Looking To The Future



It's clear that the technical hiring process is getting better. Nearly all Tech Hiring Leaders now rate their company's overall process as either excellent or good, and most see the process as continuing to become easier in the upcoming five years. There has also been a significant positive shift in strong satisfaction with the job performance of actual hires for Engineering Leaders who express growing recognition of the worth of software engineers and greater confidence in hitting their hiring targets.

However, there remains more work to be done when it comes to the hiring process of software engineers. Engineering and Talent Leaders overwhelmingly agree on the need for improvement, and there is an almost universal consensus for making it a top priority. This is especially true for the most successful Top Performing Tech Engineering Leaders compared to Top Performing Talent Leaders who rate it very important (82%, 63%).

FIGURE 15

Improving our software engineer hiring process is important
(somewhat/very important)

Engineering Leaders **95%**
Talent Leaders **97%**

My company has room for improvement when it comes to the process of hiring software engineers
(somewhat/strongly agree)

Engineering Leaders **91%**
Talent Leaders **93%**

According to Engineering and Talent Leaders, improving technical interviewer training is the most popular top area of focus, especially prevalent among Top Performing Engineering Leaders. Talent Leaders vary more in their opinions about what deserves the most attention – with Lower Performing Talent Leaders also highlighting training as a top area for improvement, while Top Performing Talent Leaders most wish to minimize the number of hours engineers spend interviewing (42%, compared to just 29% of Lower Performing Talent Leaders).

The organizations that adopt these practices will be the ones who are best positioned in the current business cycle and beyond.

Will yours be one of them?

FIGURE 16

Areas of focus for improving the software engineering hiring process

	Engineering Leaders		Talent Leaders	
	Top Performing	Lower Performing	Top Performing	Lower Performing
Improving training for those who conduct technical interviews	61%	44%	41%	46%
Establishing standard metrics to measure efficiency	55%	35%	35%	41%
Better working relationship with internal recruiting	47%	32%	36%	36%
Investing in DEI (diversity, equity, and inclusion)	40%	39%	39%	40%
Identifying early indicators of long-term top performers	40%	36%	36%	47%
Establishing a consistent hiring bar across multiple sites	30%	27%	36%	36%
Offering second chance / redo interviews	29%	29%	33%	23%
Minimizing the number of interviewing hours for engineers	28%	33%	42%	29%

Research Method

The Hiring Survey was conducted online within the United States by The Harris Poll on behalf of Karat from February 9 to February 23, 2022 among 556 mid-to-high level decision makers for hiring software engineers:

- 301 mid-to-high level decision makers for hiring software engineers whose main functional role at the company is in Accounting, Engineering, Finance, Innovation/Artificial Intelligence, Management, Operations/production, Technology/IT, Software Development, Security (Engineering Leaders); and
- 255 mid-to-high level decision makers for hiring software engineers whose main functional role at the company is in Human Resources, Talent, Recruiting, or Sourcing (Talent Leaders).

Raw data were not weighted and are therefore only representative of the individuals who completed the survey.

Respondents for this survey were selected from among those who have agreed to participate in our surveys. The sampling precision of Harris online polls is measured by using a Bayesian credible interval. For this study, the sample data is accurate to within + 5.6 percentage points for Engineering Leaders and + 6.1 percentage points for Talent Leaders using a 95% confidence level. This credible interval will be wider among subsets of the surveyed population of interest.

All sample surveys and polls, whether or not they use probability sampling, are subject to other multiple sources of error which are most often not possible to quantify or estimate, including, but not limited to coverage error, error associated with nonresponse, error associated with question wording and response options, and post-survey weighting and adjustments.

Screening Requirements

- Age 18+
- Employed full-time
- Title of manager or above
- Work for companies with revenue of \$50 million+
- Be involved in their company's decisions about hiring software engineers

About The Harris Poll

The Harris Poll is one of the longest running surveys in the U.S. tracking public opinion, motivations and social sentiment since 1963. It is now part of Harris Insights & Analytics, a global consulting and market research firm that strives to reveal the authentic values of modern society to inspire leaders to create a better tomorrow. We work with clients in three primary areas; building twenty-first-century corporate reputation, crafting brand strategy and performance tracking, and earning organic media through public relations research. Our mission is to provide insights and advisory to help leaders make the best decisions possible. To learn more, please visit www.theharrispoll.com.