Visier Insights™ Report: The Truth About Ageism in the Tech Industry

VISIER

In this Visier Insights™ report we explore the role of age in the Tech industry[1] and answer the overarching question: does ageism—prejudice or discrimination on the basis of a person's age—exist at a systemic level?

When the topic of workforce diversity and inclusion is raised, more often than not the issues discussed relate to ethnic and gender equity. However, in the Tech industry the issue of age is increasingly entering the spotlight.

Leveraging Visier's unique and in-depth database of anonymized, standardized workforce data, we debunk myths and share new Insights, examining the dynamics of age in Tech versus Non-Tech industry workforces, and we recommend steps organizations can take to ensure age equity in their workforce. We also highlight an important new finding specific to the Tech industry:

From age 40 onwards, non-manager workers in Tech enter the "Tech Sage Age" and are increasingly likely to receive a Top Performer rating as they age, mature, and gain experience, compared to Non-Tech.

Yet despite this, there is systemic ageism in Tech hiring practices: Tech hires a higher proportion of younger workers and a smaller proportion of older workers than Non-Tech.

This is a wake up call, then, to Tech leaders, who want to outperform their competition: uncover and root out intentional and unintentional bias in your hiring practices that might be limiting the number of Gen X and older hires in your organization.

1 The Tech companies included in this report represent Software development, Hosting, Data Processing, Telecommunications to Computer Systems Design and Scientific Services.

Ageism in Tech: Executive Summary

Many anecdotes and even lawsuits indicate ageism exists: between 2008 and 2015, the Silicon Valley's "150 biggest tech" companies faced 226 complaints of age discrimination filed with the California Department of Fair Employment and Housing, 28% more than complaints of racial bias and 9% more than those of gender bias.[2] Clearly there is situational ageism. Yet in answering the overarching question, does ageism—at a systemic level—exist in the Tech industry, we uncovered that, although there is ageism occurring in hiring practices, older workers are actually more highly valued, in terms of performance, than in Non-Tech, as they enter what we call the Tech Sage Age, from age 40 onwards.

Ageism is an important issue organizations across industries should be aware of and take steps to monitor and improve—not only for reasons of fairness, or to reduce the risk of age discrimination litigation, but also in light of the aging workforce and skills shortages expected in the coming years.[3] At the end of this report, we share a number of important steps employers can take to reduce the risk of ageism, and ensure they acquire, develop, and retain the best and brightest talent available, regardless of age.

WHAT IS AGEISM?

Ageism is defined as prejudice or discrimination on the basis of a person's age.

DOES GENDER PLAY A ROLE?

In the Visier Insights: Gender Equity report, we reported a new finding called the Manager Divide, which clearly links an underrepresentation of women in manager positions—during the key childcare years—to an enlarged gender wage gap.

As part of this ageism study, we looked at gender data for each question asked to determine if there were any disparities. Specifically, we asked: do the results differ for women and men? The answer was no.

2 It's Tough Being Over 40 in Silicon Valley: Older workers are trying lawsuits, classes, makeovers—even surgery—to keep working, Carol Hymowitz and Robert Burnson, September 8, 2016, Bloomberg Businessweek.

3 In the past 50 years, the size of the US workforce has grown an average of 1.7% annually. In the next 50 years, the US workforce size will grow by only 0.3% annually. McKinsey Global Institute, "Global Growth: Can Productivity Save the Day in an Aging World?" January 2015

Our Visier Insights Findings

THE TECH SAGE AGE

Although the average Tech worker is 5 years younger than the average Non-Tech worker, older workers are more valued in Tech: the proportion of Top Performers in Tech increases with age, while Non-Tech industries experience a decrease. Experience and maturity are more valued in Tech than in Non-Tech industries.

HIRING AGEISM IN TECH

Despite our Tech Sage Age finding, there is systemic ageism in Tech hiring practices: Tech hires a higher proportion of younger workers and a smaller proportion of older workers than Non-Tech.

DISCONNECT BETWEEN TOP PERFORMANCE AND PROMOTIONS WITH AGE

The Tech Sage Age does not translate into higher promotion rates for older non-manager workers in Tech: promotion rates in Tech decrease continuously with age, as they do in Non-Tech. This drop in promotion rates is likely at least partly due to workers having reached the peak of their chosen career path or choosing to stay on an individual contributor's career path, without promotion opportunities, versus ageism alone.

OLDER TECH WORKERS DO NOT RESIGN AT HIGHER RATES

The average resignation rates by age for Tech and Non-Tech workforces show that older Tech workers—from age 40 onwards—have the same first-year resignation rate as their Non-Tech age counterparts: approximately 10%.

OLDER TECH WORKERS DO NOT EXPERIENCE A UNIQUE DROP IN SALARY

Workers in Tech experience the same salary lifecycle as their counterparts in Non-Tech. The average salary for both Tech and Non-Tech workers grows steadily and reaches its pinnacle for workers in their early 40s. From this age onwards, the average salary for both Tech and Non-Tech workers stabilizes.

NEWLY HIRED OLDER TECH WORKERS ARE ON AVERAGE PAID EQUITABLY

Older Tech workers that are newly hired do not—on average—experience a lower wage. Rather, newly hired workers are paid the same average salary as more tenured workers, across all age groups.

Visier Insights Report: Ageism in Tech

Five Years Younger

With the Visier Insights database—an aggregation of anonymized and standardized workforce databases that for this report included 330,000 employees from 43 large US enterprises (a subset of Visier's customers)—we are able to examine the role of age in the workforce like never before.

Looking at Visier Insights data from June 1, 2015 to May 31, 2016, we began our research into ageism by looking at the breakdown of the workforce by age, comparing the Tech industry to Non-Tech industries.[4] We found that Tech workers are on average 5 years younger than Non-Tech workers (Figure 1).

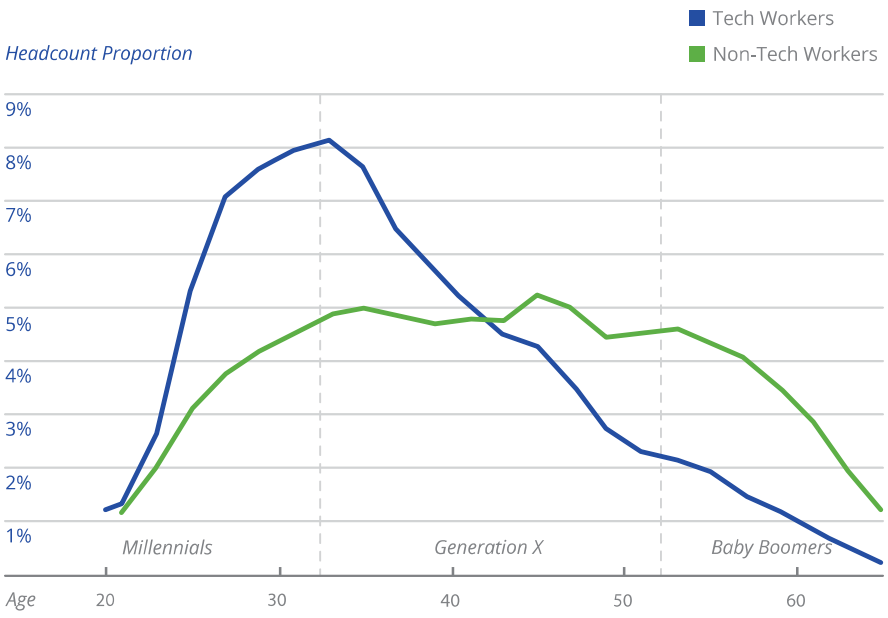


Figure 1: Workforce Composition by Age

The average Tech worker is 38 years old, compared to 43 for Non-Tech workers.

WORKFORCE GENERATIONS

In this report we focus on three generations of worker and define them as follows:

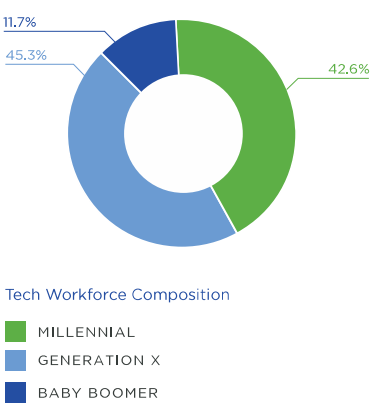
- Millennials are those born between 1982 to 1995. In June 2016 (the end of the one-year data collection period for this report), Millennials were between the ages of 20 and 33.
- Gen Xers are those born between 1965 to 1981. In June 2016, Gen Xers were between the ages of 34 and 51.
- Baby Boomers are those born between 1946 to 1964. In June 2016, Baby Boomers were between the ages of 52 and 70.

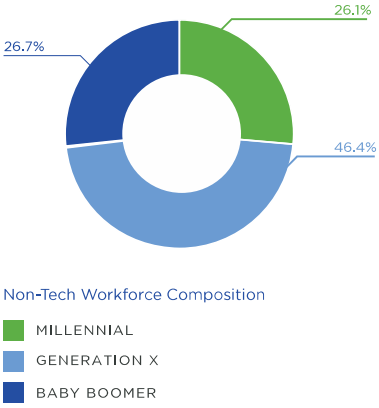
4 The Tech companies included in the data set researched for this report represent the Software Development, Hosting, Data Processing, Telecommunications, Computer Systems Design, and Scientific Services sub-segments of the Tech industry.

While Non-Tech workers from their late 20s to late 50s are largely evenly represented, the Tech workforce has a significant overrepresentation of Millennial workers.

Millennials comprise 42.6% of the Tech workforce, compared to 26.1% of the Non-tech workforce.

Gen X workers comprise 45.3% of the Tech workforce, compared to 46.4% of the Non-Tech workforce. And Baby Boomers comprise a small 11.7% of the Tech workforce, compared to 26.7% of the Non-Tech workforce. However, a younger workforce doesn't necessarily mean systemic ageism is occurring, so we dug deeper into the data.





More Younger Managers

Just as the average Tech worker is 5 years younger than the average Non-Tech worker, so is the average Tech manager compared to that of Non-Tech managers (Figure 2).

The average manager in the Tech industry is 42 years old, compared to 47 for Non-Tech industries.

The average age gap between non-managers in Tech and Non-Tech is slightly larger at 6 years: the average age of Tech non-managers is 37, compared to 43 for Non-Tech non-managers (Figure 3).

(It is also worth noting that the Tech workforce has more managers: 17% of the Tech workforce holds a manager position, compared to 12% of the Non-Tech workforce.)

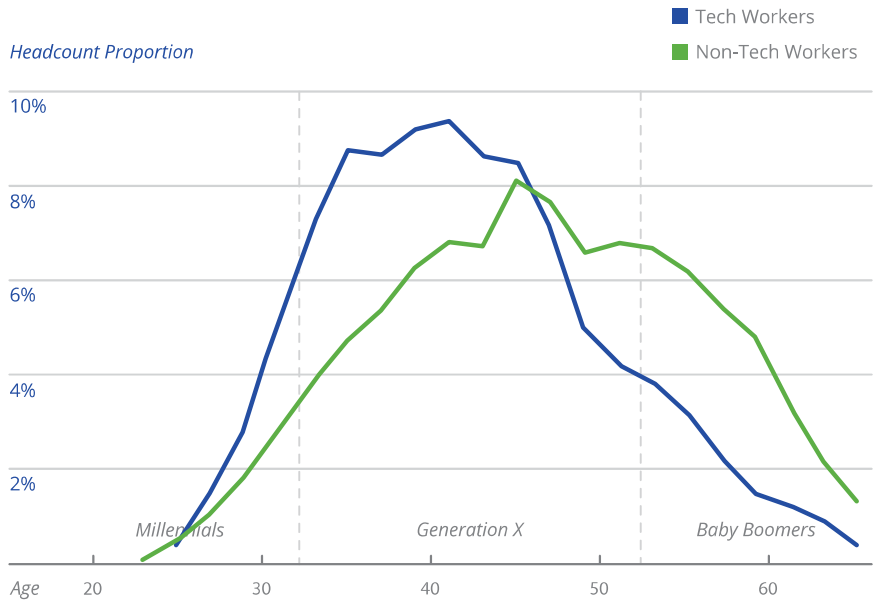


Figure 2: Manager Workforce Composition by Age

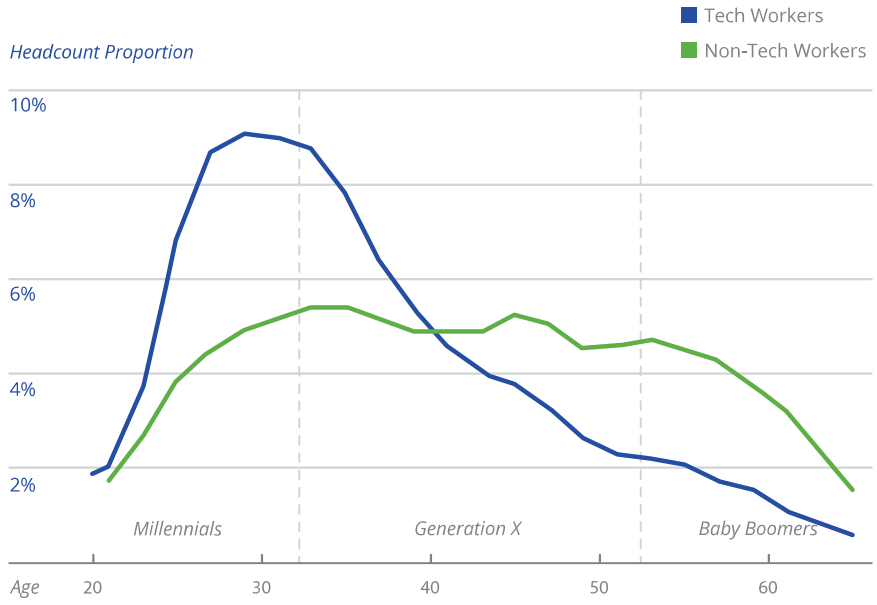


Figure 3: Non-Manager Workforce Composition by Age

WHAT IS A MANAGER?

While some definitions of a manager extend to include individuals in charge of a certain set of tasks, but no people, in this Visier Insights report we consider a manager to be someone responsible for overseeing or directing the work of others. Uniquely, Visier has the ability to automatically identify managers based on organizational hierarchy: if a worker has one or more direct reports, she or he is classified as a manager. As a result, Visier is able to achieve a more accurate view of a manager population than other methods allow, such as "manager by title" guesswork.

The Tech Sage Age

Tech has a higher proportion of younger workers than Non-Tech, but how do they perform compared to their older counterparts? To answer this question, we looked at the performance ratings of workers in Tech and Non-Tech, and uncovered a new finding we call the Tech Sage Age.

The Tech Sage Age—a finding unique to the Tech industry—occurs from age 40 onwards, with non-manager workers increasingly likely to receive a Top Performer rating as they age, mature, and gain experience, compared to Non-Tech.

But how did we come to this conclusion?

First, using the Visier Insights data, we compared performance ratings for Tech and Non-Tech workforces, and discovered that the Tech industry gives out Top Performer ratings more often than Non-Tech industries do (Figure 4). To determine if there is a bias by age, we needed to compare the relative rates of Top Performer ratings as age changes. To do this, we subtracted the percent of workers in Non-Tech who are Top Performers from the percent of workers in Tech who are Top Performers, looking for differences by age (Figure 5).

As Figure 5 shows clearly, younger Tech non-managers are in the Top Performer group more often than their Non-Tech counterparts; however, strikingly, older Tech non-managers are rated significantly higher than their Non-Tech counterparts, even though both Tech and Non-Tech results indicate that performance increases with age until around age 35.

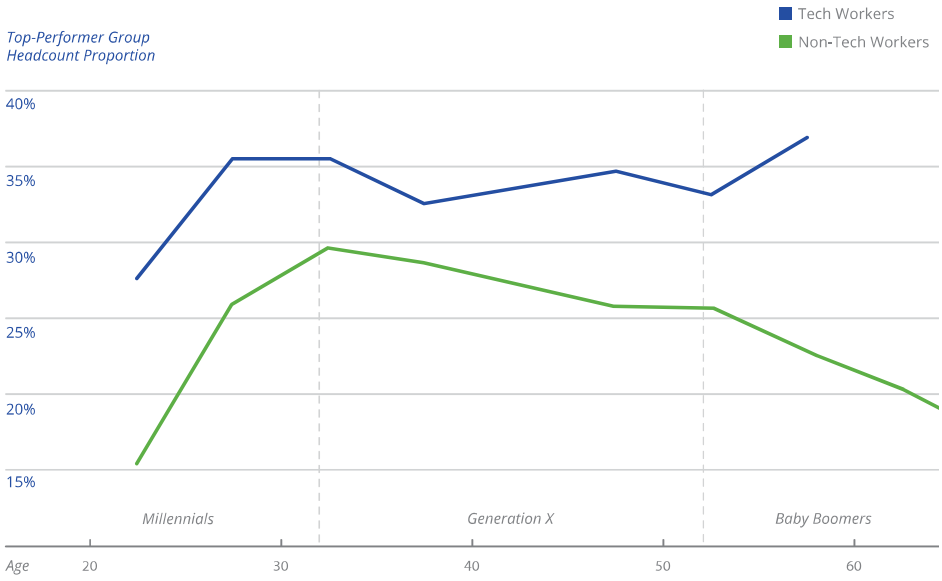


Figure 4: Breakdown by Age of Percent of Non-Managers in Top Performer Group

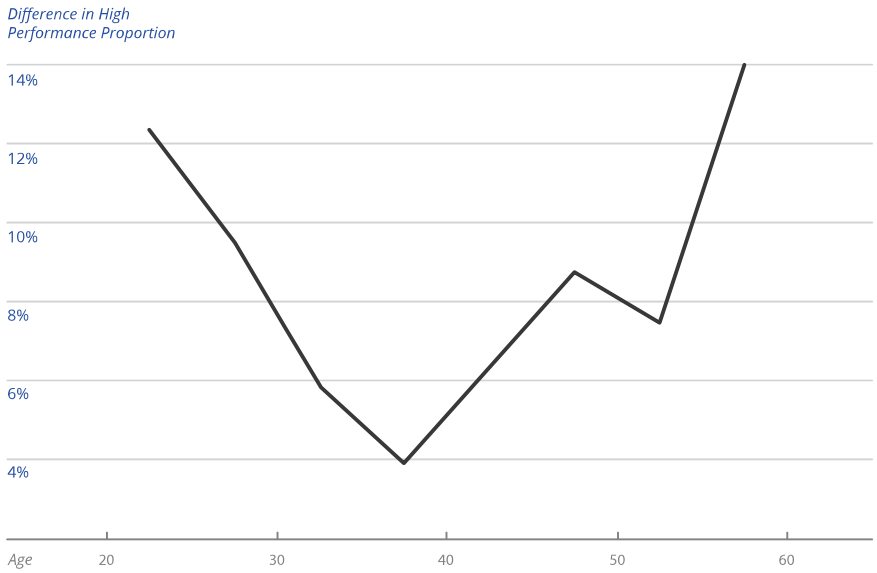


Figure 5: Difference in Percent of Non-Manager Top Performers in Tech versus Non-Tech by Age

Non-managers in Tech aged 40 and older outperform their Non-Tech counterparts more and more as they age.

While the performance ratings of Non-Tech workers decreases with age, the opposite is true in Tech: from age 40 onwards, non-managers in Tech are increasingly likely to be considered Top Performers, reflecting their higher value. In contrast, in Non-Tech non-managers decrease in value with age, based on their performance ratings. This suggests that maturity and experience are more important drivers of high performance in Tech than in Non-Tech industries.

MANAGERS IN TECH ALSO OUTPERFORM, BUT LESS SO

As with Tech non-managers, younger Tech managers are in the Top Performer group more often than their Non-Tech counterparts. However, the difference in manager ratings between Tech and Non-Tech decreases with age, apart from a small bump up for managers in their early to mid-50s. (Figure 6.)

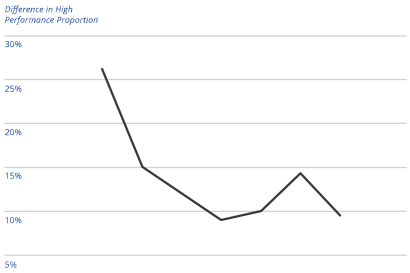


Figure 6: Difference in Percent of Non-Manager Top Performers in Tech versus Non-Tech by Age

The Disconnect Between Top Performance and Promotions with Age

Notably, the Tech Sage Age does not translate into higher promotion rates for older non-manager workers in Tech. Rather, promotion rates for Tech workers decrease continuously with age.

The maximum promotion rate in Tech is achieved by workers between the ages of 26 and 28, and is slightly higher than the maximum promotion rate achieved in Non-Tech, which peaks during the same age range. For workers in Tech and Non-Tech in their mid-30s onwards, the promotion rates decrease with age and are mostly the same. (Figure 7.)

This drop in promotion rates is likely at least partly due to workers having reached the peak of their chosen career path or choosing to stay on an individual contributor's career path, without promotion opportunities, versus ageism alone.

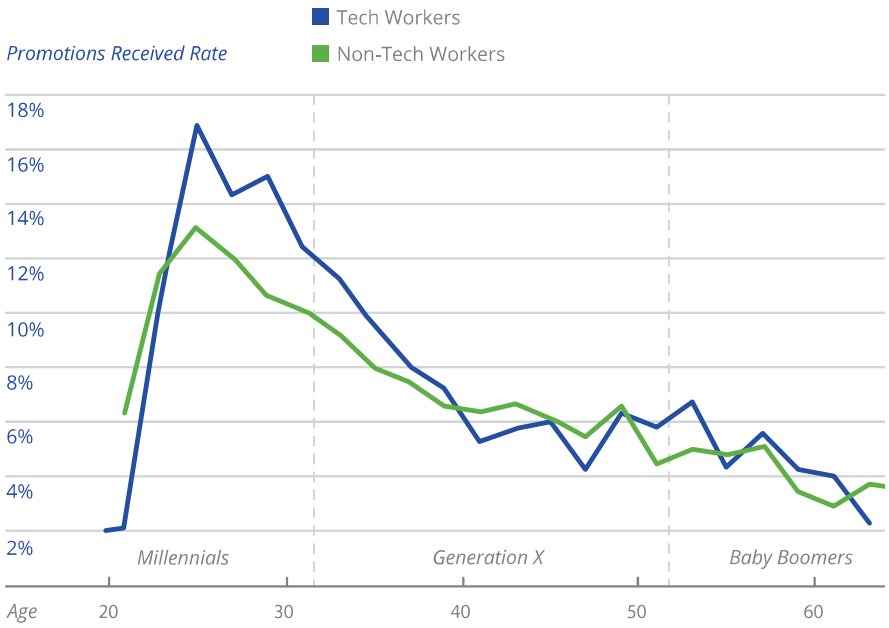


Figure 7: Promotion Rate of Non-Managers by Age[6]

GETTING BETTER WITH AGE

A study performed by researchers from the North Carolina State University computer science department found that programming knowledge does seem to improve with age.[5] Using Stack Overflow user data, they found a correlation between age and reputation. They found that: "...programmer reputation scores increase relative to age well into the 50s, that programmers in their 30s tend to focus on fewer areas relative to those younger or older in age, and that there is not a strong correlation between age and scores in specific knowledge areas."

5 Is Programming Knowledge Related To Age?, Patrick Morrison and Emerson Murphy-Hill, Computer Science North Carolina State University Raleigh, NC

6 Only employees with 0-3 years of tenure are considered which limits the impact of tenure differences between the age groups

Debunking the Salary Myth

While individual cases of ageism in pay exist (as indicated by litigation), workers in the Tech industry do not experience a salary lifecycle that is different than that in Non-Tech industries. (Figures 7 and 8.)

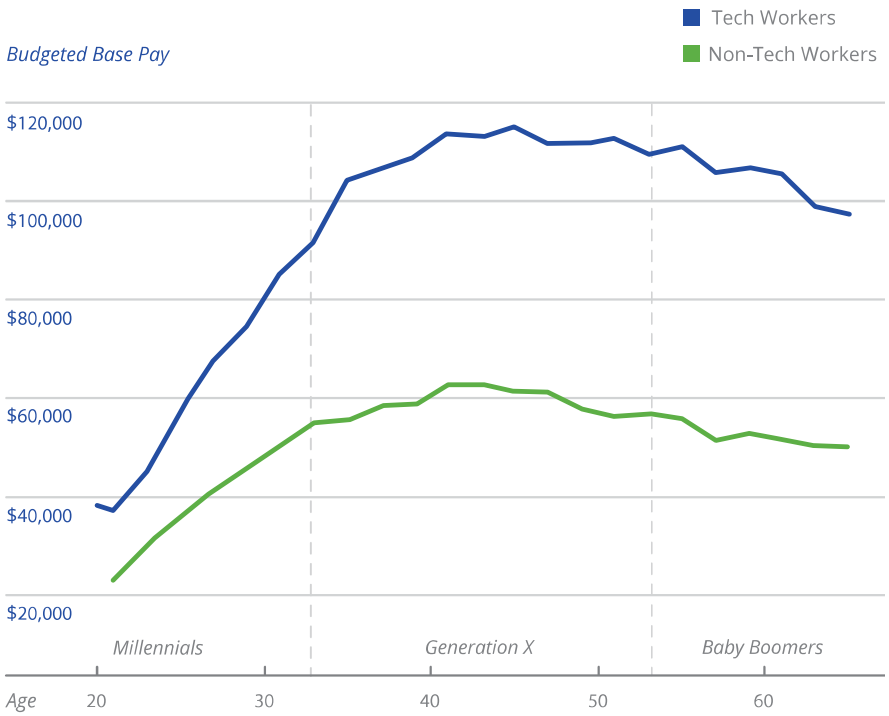


Figure 8: Median Salary by Age - Non-Managers

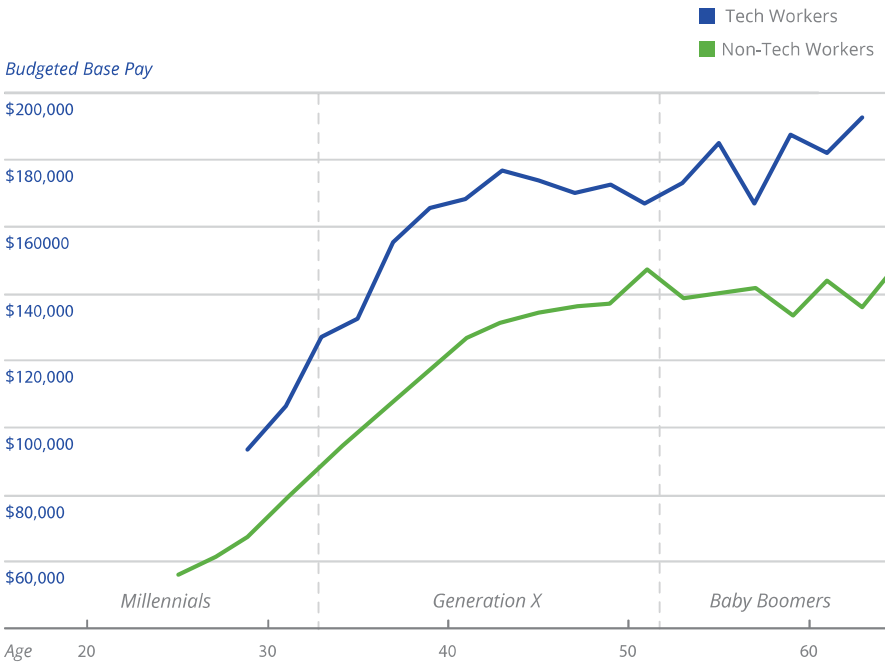


Figure 9: Median Salary by Age - Managers

Hiring Ageism in Tech

As discussed earlier, the average Tech worker is 5 years younger than the average Non-Tech worker. This difference is partly due to hiring: Tech hires a higher proportion of younger workers and a smaller proportion of older workers than Non-Tech (see Figures 10 and 11).

Is this disparity in hiring due to ageism in Tech? To investigate this, we first strove to determine if the disparity is related to the availability of talent versus to an intentional bias towards hiring younger workers. We found that hiring decisions in Tech do indeed favor younger candidates, hiring Millennials over Gen X candidates at a higher rate than in Non-Tech industries.

The existing workforce in Tech and Non-Tech can be considered representative of the pool of available talent from which companies can recruit and hire. Since the Tech industry employs a lower percentage of older workers in comparison to the total workforce, there are fewer older candidates available in Tech with the appropriate skills. However, the Tech industry is hiring a disproportionately higher ratio of workers than Non-Tech up until the age of 48—indicating bias does exist that favors younger candidates.

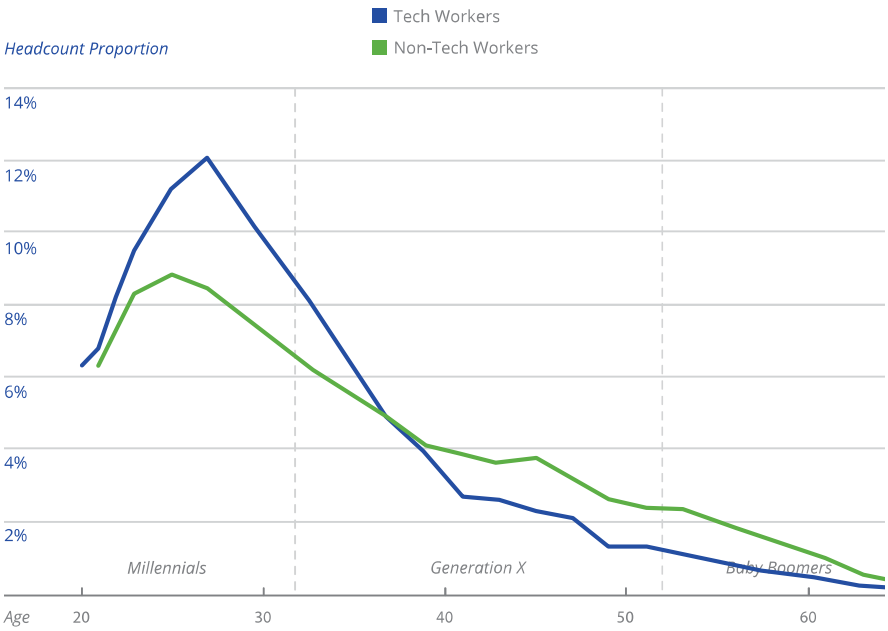


Figure 10: Recently Hired Workforce Composition by Age—Non-Managers

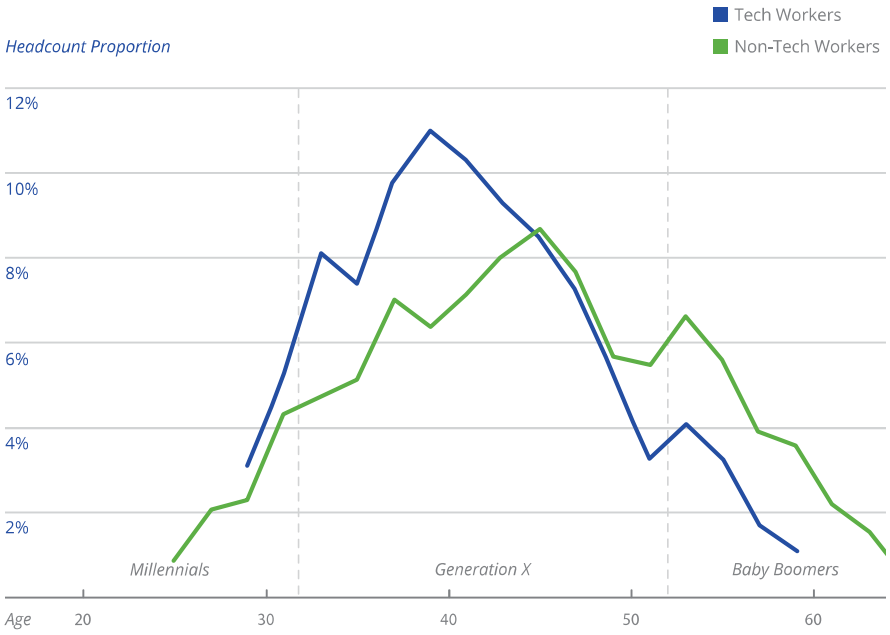


Figure 11: Recently Hired Workforce Composition by Age—Managers

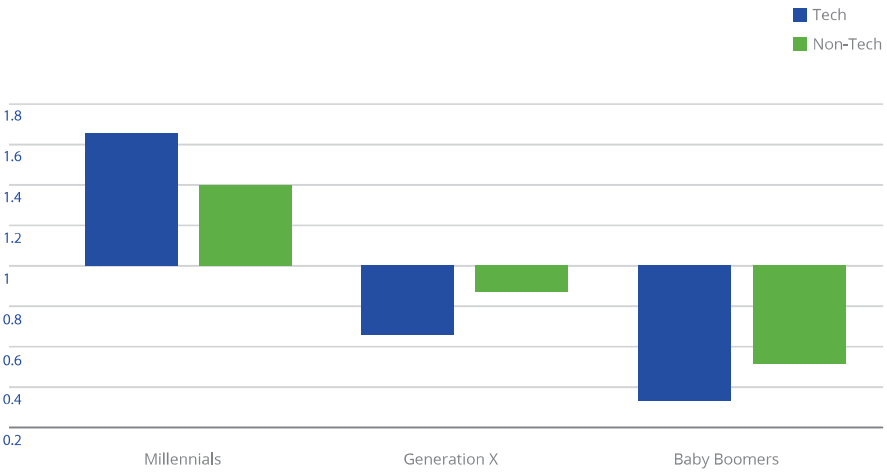


Figure 12: Ratio of Hires to Candidates by Generation

HIRE TO CANDIDATE RATIO

Candidate survey data from the Talent Board, which analyzes a set of over 20,000 candidate surveys from almost 500 global companies, supports our finding that indicates ageism exists in Tech hiring practices.[7] Baby Boomers and Gen Xs have a lower percentage of hires than the percentage in the candidate pool, both for Tech and Non-Tech industries. However, the disparity is stronger in the Tech industry. (Figure 12.)

Assuming that the candidate data is a valid representation of available talent for Tech and Non-Tech, this lack of representation of older generations in Tech hires indicates that ageism exists.

7 The candidate survey data, provided by the Talent Board, includes over 20,000 candidate surveys from almost 500 global companies, and analyzes the ratio of hires to candidates for three generations -- Millennials, Generation X, and Baby Boomers. Candidates included applied to a position in the US and reached at least the interview stage in the hiring process, indicating they have the required skills for the job. Candidates who were screened out before reaching the interview stage are not included. www.thetalentboard.org/about-us/

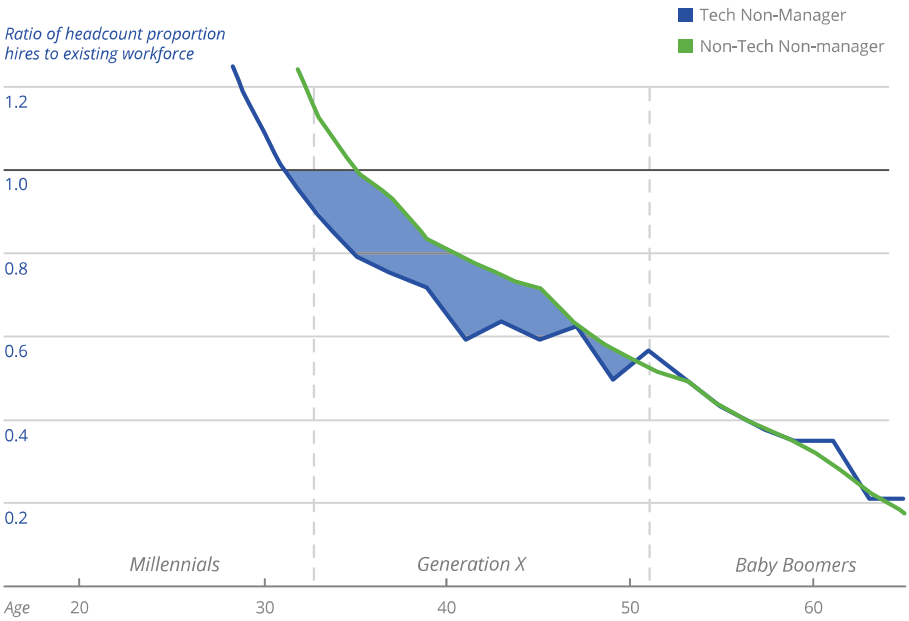


Figure 13: Ratio of New Hires to Available Non-Manager Workforce Composition by Age

Figure 13 shows by age the ratio of new hires to all workers for Tech and Non-Tech respectively. A ratio of 1.0 means there is the same proportion of new hires and workers available[8] at that age. A ratio below 1.0 means there is a lower proportion of new hires than workers available at the same age. Specifically, in the age range of 34 to 48, the proportion of new hires in Tech is below that for Non-Tech, even when taking into account the differences in the existing workforce. The resulting finding:

In Tech, hiring decisions favor younger candidates, hiring Millennials over Gen X candidates at a higher rate than in Non-Tech industries.

That said, both Tech and Non-Tech focus their hiring on younger workers compared to the existing workforce, while a smaller proportion of older workers is hired, compared to the proportion in the existing workforce—indicating bias is occurring at some level across all industries (Figure 13).[9]

The action for Tech leaders to take: adjust your hiring practices to access the pool of Top Performer candidates, aged 40 and higher.

8 The age distribution for available workers is approximated as the age distribution of workers of all tenures.
9 Younger workers resign at higher rates than older workers. This may also contribute to the higher hiring rates for younger workers.

Newly Hired Older Tech Workers Earn the Same

Although our research uncovered that there is systemic ageism in Tech hiring practices (favoring Millennials over older candidates more than in Non-Tech), older workers in Tech are not systemically hired at lower salaries. Rather, older Tech hires are hired at an average salary that is similar to their tenured age peers (i.e. workers who have been at their company for more than one year). (Figure 14.)

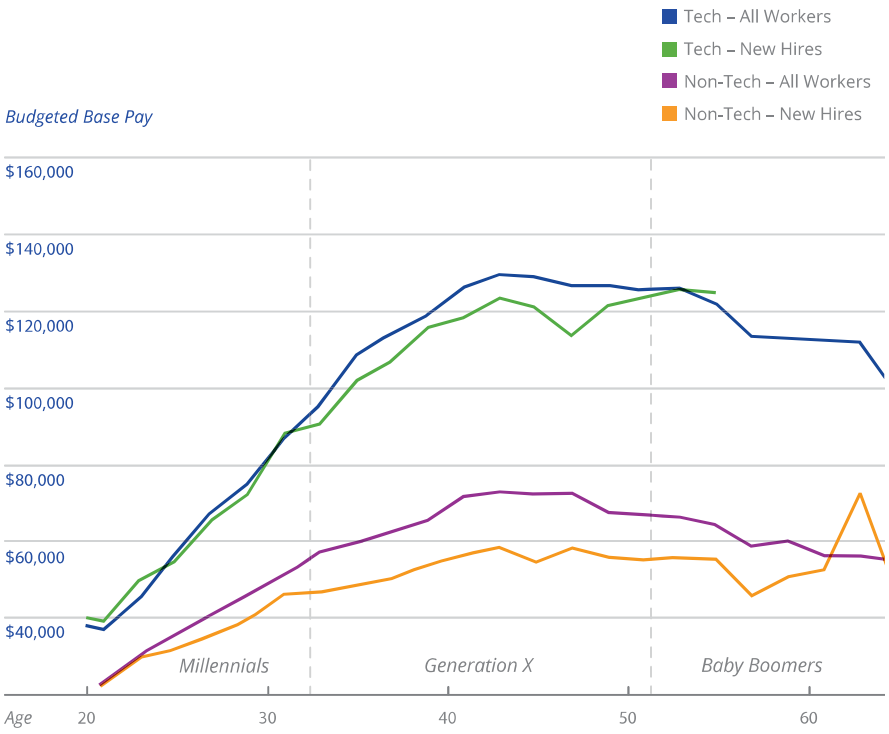


Figure 14: Median Base Pay for New Hires Compared to All Workers by Age

Older Tech Workers Do Not Resign at Higher Rates

According to our Visier Insights research, from age 40 onwards workers in Tech and Non-Tech resign at the same rate (see Figure 15), with resignation rates decreasing as age increases. However, from age 40 onwards, the resignation rate for Tech and Non-Tech workers is the same.

Tech and Non-Tech workers from age 40 onwards have the same resignation rate: approximately 10%.

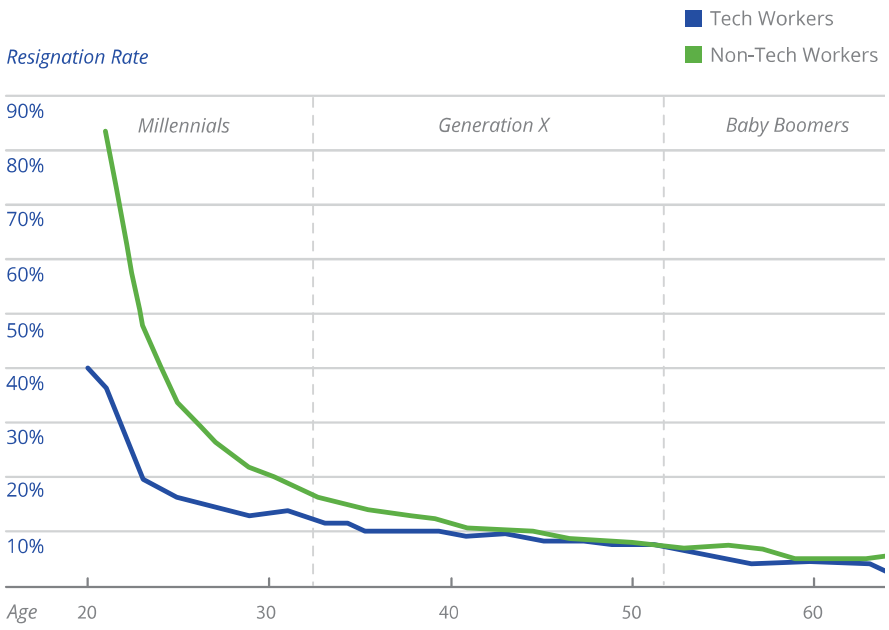


Figure 15: Resignation Rate By Age

Ensuring Age Equity: Steps to Take to Avoid Ageism in your Organization

As discovered by Visier Insights, systemic ageism in Tech is not as rampant an issue as popular opinion has suggested; however, systemic ageism does occur in hiring practices. As made clear by our Tech Sage Age finding, organizations that root out and address the intentional and unintentional ageism in their hiring practices have a significant opportunity to outperform their competition by bringing in more Top Performer talent.

- Older workers are more valued in Tech: the Tech Sage Age occurs from age 40 onwards, with non-manager workers increasingly counted as Top Performers, compared to Non-Tech
- Systemic ageism is occurring in Tech hiring practices: Tech hires a higher proportion of younger workers and a smaller proportion of older workers than Non-Tech, although our Tech Sage Age insight shows that older workers in Tech outperform their younger colleagues
- Older workers do not experience a unique drop in salary with age and newly hired older Tech workers are on average paid equitably
- From age 40 onwards, Tech and Non-Tech workers have largely the same resignation rate

There are a number of important steps employers can take to ensure they root out risk of ageism in their workforce, and acquire the best and brightest talent available, regardless of age:

1

Review your workforce data to understand the current state of age equity within your organizations to find any signs of potential bias in hiring, promotions, salary levels, turnover, and performance ratings.

2

Set objectives and develop a plan with manageable steps (and a way to monitor your progress) that will help your organization achieve an inclusive work environment.

3

Keep in mind that, as with ethnic and gender equity, age equity is a cultural issue—if pockets of ageism exist within your organization, you will need to devise plans to address them not only via better HR practice and policy rollouts, but through culture change.

4

Consider the age composition of specific teams, departments, and business units and how managers can build diversity—studies have found that diverse teams perform better.

5

Consider implementing a version of the Rooney Rule for age, specifically for teams or roles where the workforce is less diverse in age: for every position you have open to fill, consider one or more older

6

Develop hiring practices that reduce the potential for intentional or unintentional bias in the screening out of older applicants.

7

Develop hiring practices that specifically do not screen out candidates based on the length of their unemployment—while this report focused on systemic ageism, many individual stories suggest older unemployed workers struggle to get hired, and studies indicate recruiters screen out candidates that have been unemployed for longer periods of time.[10]

10 The longer you're unemployed, the less likely you are to find a job. Why?, Gregor Jarosch and Laura Pilossoph, Liberty Street Economics, August 2016.

Do you have more ideas?
Share them with @visier
or use #VisierInsights

Methodology

A cloud solution for workforce intelligence, Visier provides workforce insights to many of America's best brands—and does so by hosting their workforce data (collected from each company's many disparate HR and business systems) in Visier's virtual Big Data warehouse. This allows Visier to analyze this data in aggregate, creating an unmatched opportunity to uncover new insights not possible in the market before, and to establish uniquely relevant and specific benchmarks.

At the core of this and future Visier Insights reports is Visier's unique database of anonymized, standardized workforce data.
For this Ageism in Tech report we targeted large US-based employers, leveraging a subset of Visier's customer database, which included:

- **330,000 US-based employees**
- **63,000 of which are in the Tech Industry**
- **267,000 of which are in Non-Tech industries**
- **43 Blue Chip companies**
- **13 of which are in the Tech industry**
- **30 of which are in Non-Tech industries**

The Tech companies included in this report represent the diverse fields within the Tech industry from Software Development, Hosting, Data Processing, and Telecommunications to Computer Systems Design and Scientific Services. The Non-Tech companies included in this report represent a wide range of industries, including Healthcare, Financial Services and Insurance, Energy, and Manufacturing.

DATA SECURITY AND PRIVACY

- Data security and privacy is Visier's top priority—learn more at trust.visier.com.
- Visier customers have agreed to have their data aggregated and used anonymously for this purpose.
- When using customer data, Visier aggregates employee data across customers, restricting the data collected in such as way that the data is anonymous.
- At no time is personal identifying information for employees in the databases included—Visier's security technology prevents this data from being queried.

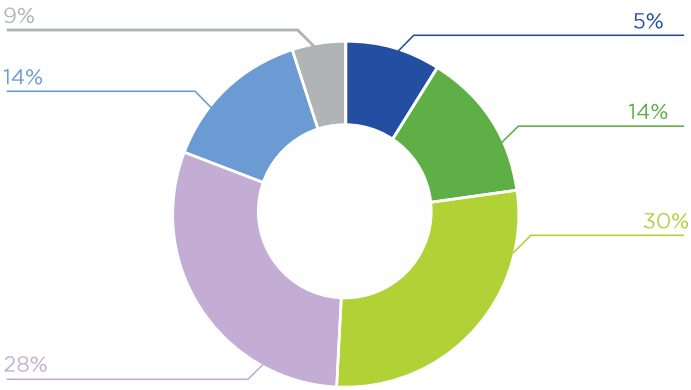
For each of the included companies, Visier ensured a high degree of confidence in both data availability and quality for the topics and time period being covered by the report.

In performing our data analysis, for each question we asked, the answers came from an anonymized and aggregated view across all customers. We then ensured that, for each of the presented data points, no single company was overrepresented and could skew the final value. As well, we validated the confidence in our data results by analyzing results from our dataset compared to publicly available measures, such as those from the US Bureau of Labor Statistics (BLS).

For this report, we analyzed data from June 1, 2015 to May 31, 2016.

Breakdown of Employee Counts for Companies included in Ageism in Tech report

- <999 EMPLOYEES
- 1,000-1,999 EMPLOYEES
- 2,000-4,999 EMPLOYEES
- 5,000-9,999 EMPLOYEES
- 10,000-14,999 EMPLOYEES
- 15,000-50,000 EMPLOYEES



About Visier

Our curiosity, the desire to understand, is inseparable from what it means to be human. But, in the hype of big data analytics, we've forgotten that data does not equal knowledge.

Visier was founded to focus on what matters: answering the right business questions, even the ones a person might not know to ask. Questions that shape business strategy, provide the impetus for taking action, and drive better business results.

Visier is dedicated to transforming business analytics, to providing leaders with clear answers to critical business questions—out-of-the-box, without the hassle and cost of data management, statements of work, and long and risky development projects.

Visier lets companies say goodbye to data quality problems, to complexity, to costly tools, to endless service fees, and to guesswork. A people strategy platform designed by domain experts for leaders, Visier lets leaders say hello to clarity, to confidence, to meaningful answers—and to better business performance. Say hello to Visier. Outsmart, outperform.

For more information, visit www.visier.com.

© Visier, Inc. All rights reserved. Visier and Visier logo are trademarks of Visier, Inc. All other brand and product names and logos are the trademarks of their respective holders.