



# State of Developer Satisfaction

## 2020

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## Executive Summary

*As the global pandemic unsettles the technology industry, developers are driving business and gaining even more satisfaction from their roles.*

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As our world is increasingly defined by advances in technology, developer teams represent a core global competency. Business success, macroeconomic growth and improvements to daily life depend in part on the growth and performance of the developer workforce, but the skills developers provide are hard to find and easy to lose. Critically, there is a large body of research to support the fact that employee satisfaction significantly affects performance and productivity.

Developer happiness would be influenced by a wide range of factors at any time, but 2020 and the global COVID-19 pandemic have introduced extraordinary circumstances. Most teams moved abruptly to working remotely from home, layoffs and other cuts hit many organizations, and the population as a whole is experiencing widespread anxiety, financial insecurity and feelings of isolation. The purpose of this study of 500 U.S. developers is to understand not only the factors affecting developer satisfaction, but also the ways in which the current crisis has impacted it.

The promising results were that despite anxiety, **more than half of developers are even happier in their roles than they were before the crisis began and are unlikely to try to switch jobs, and most are at least as happy at work as they were pre-COVID.** Most are satisfied with the support and investment from employers and ongoing flexibility for remote work, but compensation is a critical factor in developer satisfaction.

Our study found that more than half (51%) of developers are actually happier in their roles since the COVID-19 crisis began, and few (13%) are less happy. While developer teams have been impacted by layoffs and salary and hours cuts, they've been more insulated from these measures than their larger organizations, and development progress has not slowed down — in fact 43% of developers reported that their team's deployment velocity has actually increased since COVID-19 began.

Developers are overwhelmingly (79%) satisfied or very satisfied with their employer's investment in employee growth and development, and **two-thirds value their companies even more than they did before the crisis.** More than half (52%) are unlikely to change jobs within the next year, and the most common emotion around the idea of doing so is anxiety.

The most notable differences in developer satisfaction are among different age groups, where 57% of millennials are happier now than they were before the pandemic compared to 30% of boomers, as well as salary — 44% of those making \$75,000 or less are happier with their roles, compared to 64% of those making \$150,000 or more, although 70% of those in the lowest pay bracket still feel they are being fairly compensated next to their peers.



## Key Findings

- More than half (51%) of developers are happier in their roles since COVID-19 began. This is particularly true for millennials, 57% of whom are now happier in their roles. Despite economic instability and rapid changes across businesses, only 13% of developers are less happy in their roles as a result of COVID-19.
- Dev teams have seen fewer negative impacts from COVID-19 (workload/hours cuts, layoffs, salary cuts) than their larger organizations - 32%/22%/21% vs. 36%/28%/26%. But 60% anticipate that further salary cuts or layoffs on their dev teams are at least somewhat likely.
- 43% of developers say their team's deployment velocity has actually increased since COVID-19 began.
- 74% say their organizations plan to maintain a remote or distributed developer workforce even after COVID-19 resolves.
- 66% of developers value their company more because of COVID-19, while only 5% value it less (29% reported no change in how much they value their company).
- 79% are satisfied or very satisfied with their employers' investment in employee growth and development.
- 52% are not very likely or not likely at all to switch jobs within the next year; 45% feel anxious at the prospect of switching jobs (higher than any other emotion, including hopeful, confident, excited, uncomfortable, frightened or indifferent).



Percentage of developers happier in their roles since COVID-19 began.



Percentage of developers value their company more because of COVID-19.



Percentage of developers say their team's deployment velocity has increased since COVID-19 began.



Percentage of developers who say their organizations plan to maintain a remote or distributed team.



## Key Findings (continued)

- 56% of developers making less than \$75,000 are at least somewhat likely to change jobs over the next year, compared to 46% of developers at all other salary levels (\$75,000-\$99,999, \$100,000-\$149,999, and \$150,000 or more, respectively).
- 44% of developers making less than \$75,000 are happier in their roles since COVID-19 began, compared to 48% of those making \$75,000-\$99,999, 47% of those making \$100,000-\$149,999, and 64% of those making \$150,000 or more.
- Among the 454 people who answered a question about fair compensation, 78% of developers making less than \$75,000 feel fairly compensated next to their peers, compared to 73% of those making \$75,000-\$99,999, 82% of those making \$100,000-\$149,999, and 92% of those making \$150,000 or more.
- Among the 454 people who answered a question about fair compensation, 83% of Gen Z developers feel fairly compensated next to their peers, compared to 81% of Millennials, 81% of Gen X, and 90% Boomers or older.
- Among the 454 people who answered a question about fair compensation, men and women feel almost equally that they are fairly compensated, at 81% and 82%, respectively.

### Fair Compensation by Generation

- Gen Z: Born between 1995 & 2015
- Millennials: Born between 1980 & 1994
- Gen X: Born between 1965 & 1980
- Boomers: Born between 1946 & 1964



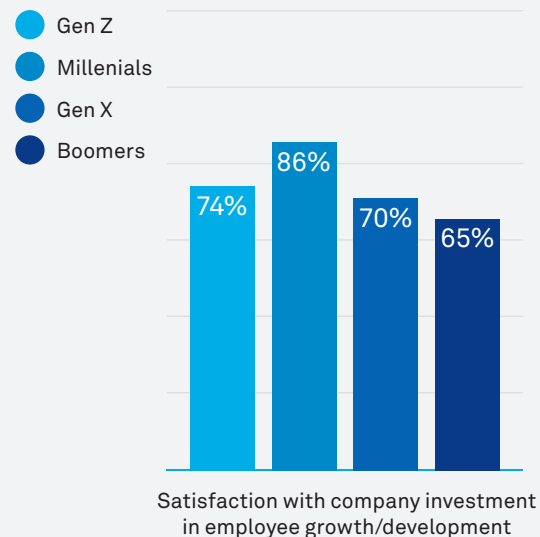
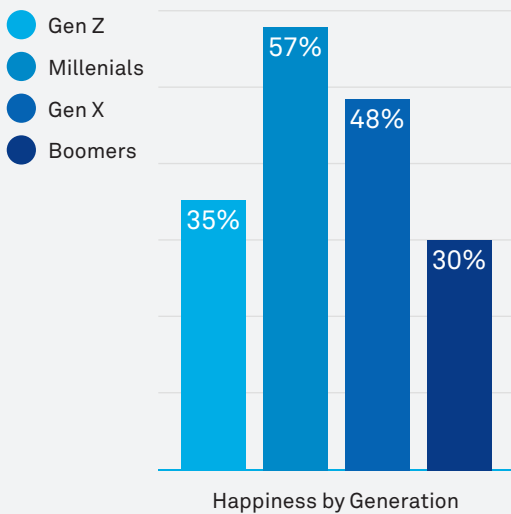
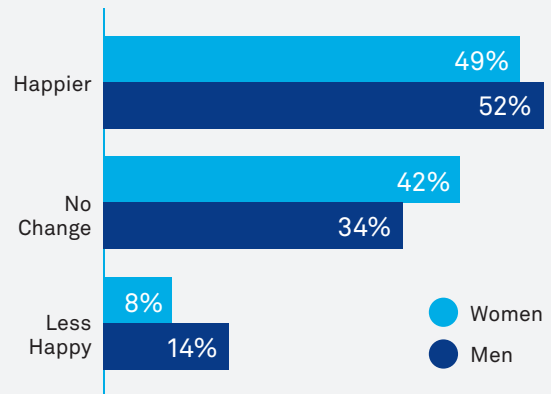
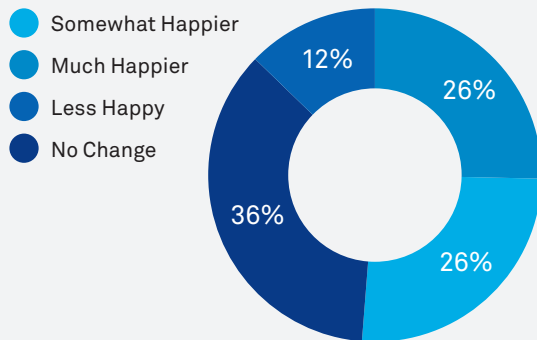
Percentage of developers (by generation) who feel fairly compensated next to their peers.



## Detailed Findings

- In a world with increased overall stress, anxiety, and uncertainty, more than half of developers are actually happier in their roles since the beginning of COVID-19.
  - 26% of developers are much happier within their roles than they were before the crisis, and 26% are somewhat happier.
  - Only 13% are less happy as a result of COVID-19, and 36% are no more or less happy.
  - 57% of millennials are happier in their roles now than they were before COVID-19 hit, and they are by far the most satisfied generation (86%) with their company's investment in employee growth and development, including attending industry events, professional development stipends, guided mentorship, hackathons, tuition reimbursement, and lunch and learns.
  - Small (100-249 employees) and very large organizations (>1000 employees) saw less change in the level of happiness with their roles; developers at companies with 250-1000 employees had much bigger professional happiness gains since the beginning of the crisis.

Happiness in Roles Since COVID-19

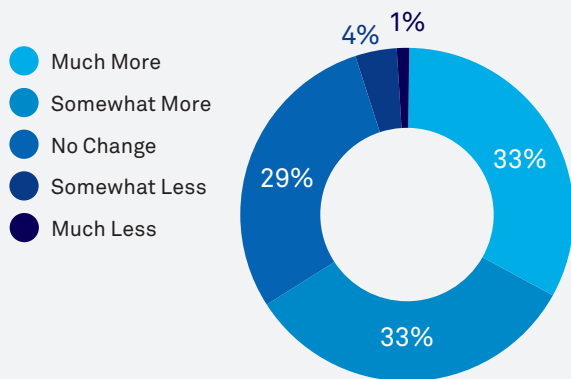




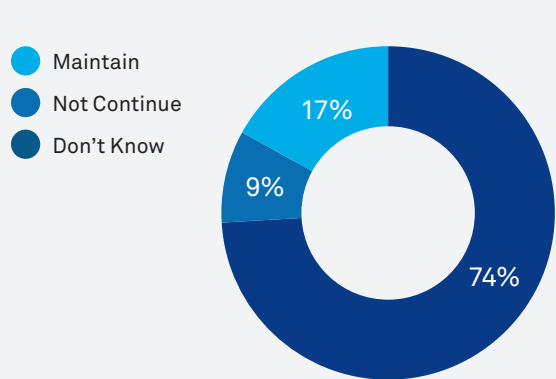
## Detailed Findings

- Many companies have passed employee litmus tests around how they handle a global crisis.
  - 66% value their employer somewhat more or much more as a result of COVID-19.
    - In the pandemic’s unprecedented health and economic crisis, companies have had to rapidly change operations and priorities, along with offering extra support and flexibility to employees for a wide range of personal, medical, and family situations. Even as the crisis has turned many areas of work and business upside down, two-thirds of developers have gained a greater appreciation for their employers as a result of the pandemic, while only 5% value their employer less.
    - This is true despite 28% of developers reporting layoffs at their organizations and 22% reporting layoffs on their teams. How companies handle layoffs and support impacted workers can play a big role in the morale of remaining employees.
  - Some changes are here to stay.
    - 74% of developers say their companies plan to continue remote or distributed work opportunities even after they become unnecessary for public health reasons, and many cited increased work from home and remote work as significant ways that their organizations have been impacted by COVID-19.
    - The crisis has proven that organizations can maintain flexible working situations without an overall loss of productivity, and this may actually increase employee happiness.

**Developers Valuing Employers**  
 % of developers who say they value their employer either more or less than they did before COVID-19.



**Remote Work is Here to Stay**  
 % of developers saying their companies will maintain remote or distributed developer workforce.

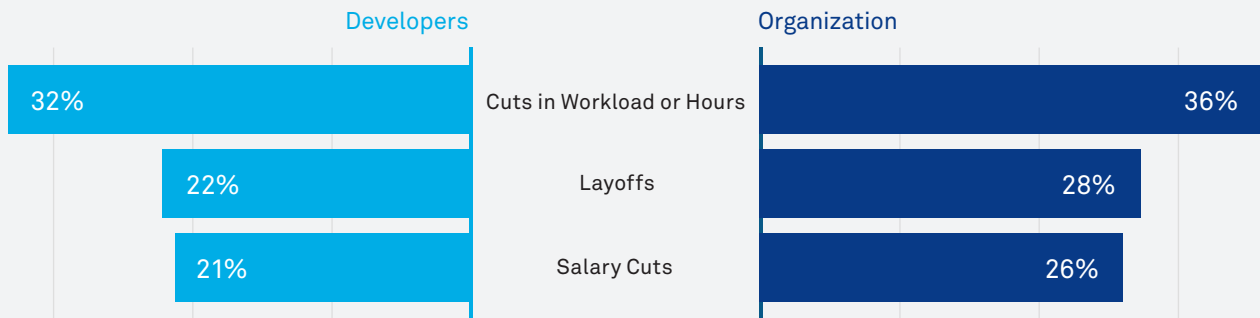




## Detailed Findings

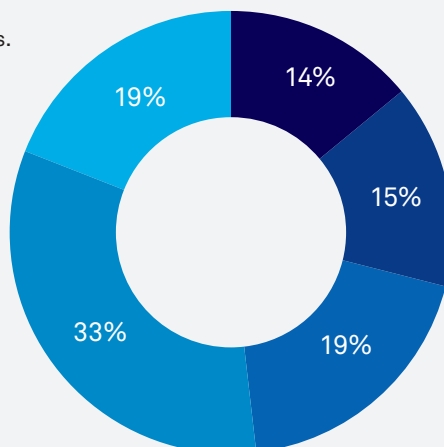
- Layoffs and salary cuts have impacted developers less overall than their larger organizations.
  - Even as software companies have activated business contingency plans for an economic slowdown, there's still a strong need for engineers to keep the mission-critical business on track.
  - 43% of developers say their team's deployment velocity has increased since COVID-19 began, and only 26% say it has decreased.
  - Dev teams have seen fewer negative impacts from COVID-19 (workload/hours cuts, layoffs, salary cuts) than their larger organizations. But 60% anticipate that further salary cuts or layoffs on their dev teams are at least somewhat likely.
  - Despite the fear of layoffs, more than half of developers (52%) say they're unlikely to switch jobs over the next year, and the idea of doing so leads to more anxiety than any other emotion.

**Negative Impacts on Developers**  
% of developers who said there were cuts in their teams vs. their organization's overall cuts.



**Negative Impacts on Retention**  
Developers' likelihood of changing jobs.

- Very Likely
- Likely
- Somewhat Likely
- Not Very Likely
- Not Likely At All





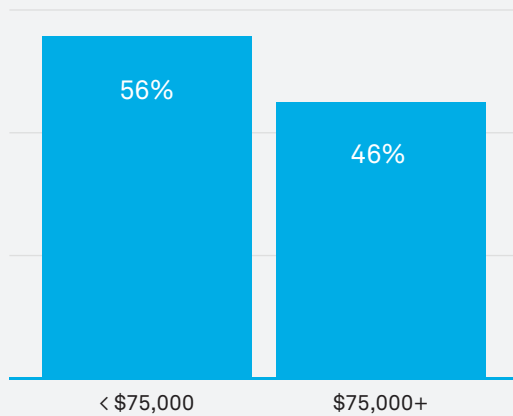
## Detailed Findings

- **Compensation matters.**

- While most developers are hesitant to leave the jobs they have, 56% of developers making less than \$75,000 are at least somewhat likely to change jobs over the next year, compared to 46% of developers at all other salary levels (\$75,000-\$99,999, \$100,000-\$149,999, and \$150,000 or more, respectively).
- 44% of developers making less than \$75,000 are happier in their roles since COVID-19 began, compared to 48% of those making \$75,000-\$99,999, 47% of those making \$100,000-\$149,999, and 64% of those making \$150,000 or more.
- Compensation was the most-cited priority for switching jobs: 35% say that if they were to look for a new employer their top priority would be better pay, compared to 27% who would prioritize more opportunities for career and professional growth, 20% who would switch for the ability to work remotely, 13% who would leave for better benefits, and 5% who want shorter hours.

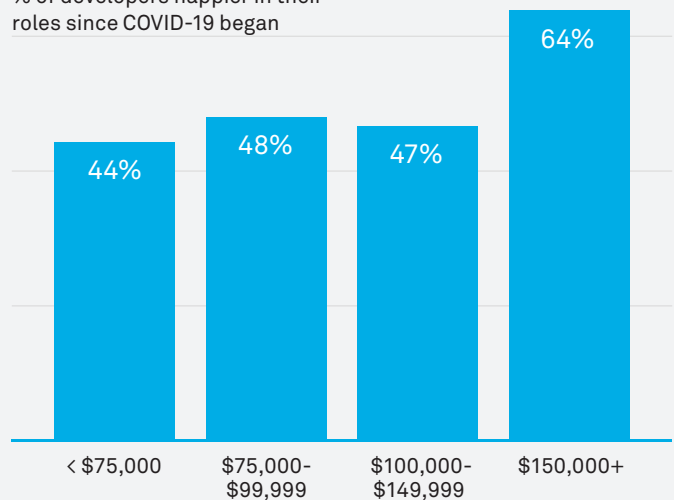
### Compensation Matters

% of the likelihood to switch jobs over the next year by salary level.



### Happiness by Salary Level

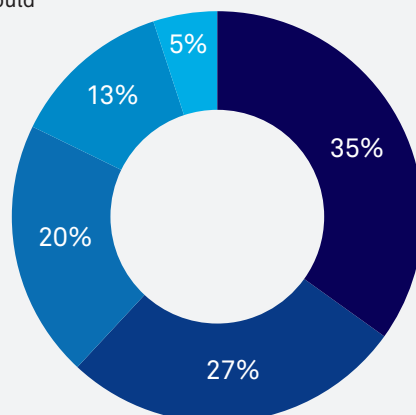
% of developers happier in their roles since COVID-19 began



### New Role Priorities

If you were to switch jobs, what would be your top priority in a new role?

- Shorter Hours
- Better Benefits
- Remote Work Post COVID
- More Opportunities
- Better Pay







## Final Thoughts

The findings of this study are meant to help organizations empower their developers and deliver better software. Developers are working in a challenging new world, but their work is critical to sustaining and advancing the industry. The ability of companies to support flexible work environments, invest in employee growth, and recognize developer contributions with competitive salaries is critical to satisfaction and retention, and goes a long way, especially, in times of personal and economic stress and uncertainty.

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## Appendix

The Harness 2020 State of Developer Satisfaction Report features insights from over 500 US-based IT and engineering professionals across software and finance industries, and represents a variety of company sizes. The survey was conducted in May 2020. The sample was provided by Market Cube, a research panel company. Panel respondents were invited to take the survey via email invitation and were incentivized to participate via the panel's established points program.