

A woman with short dark hair, wearing a blue and white vertically striped button-down shirt, is looking at a tablet computer. She is smiling slightly. The background is a blurred city street at night with colorful bokeh lights in shades of blue, purple, and yellow. The overall lighting is dim, with the primary light source being the bokeh lights and the light from the tablet.

2020

DevOps Salary Report

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About the 2020 State of DevOps survey

The year 2020 was like no other in living memory.

The coronavirus pandemic came upon us like a tsunami, upending life as usual in every country where our DevOps survey participants work and live.

Despite so much disruption, 2,415 people around the world took the time to complete the 2020 State of DevOps survey. Of these, 2,243 reported their salaries. Combining this with the other data we collected allowed us to examine how salary levels correlate with factors such as geographic location, job title and department, gender, company size and industry. We also break salaries into two groups — managers and practitioners — in each area where we had enough responses to be statistically significant.

This year we also looked at how salaries vary according to a company's level of DevOps practice — its evolution, to use the term we adopted a few years ago to understand how DevOps practices within organizations develop and progress.



Many people were forced out of work by the virus and subsequent mitigation measures. So rather than offer incentives to survey participants, we instead made a \$1 donation for each completed survey to the World Health Organization's COVID-19 Solidarity Response Fund, for a total of \$2,415.

We also donated the funds we received from our sponsors — Armory, CircleCI, New Relic, ServiceNow, Splunk and Sysdig. Thanks to their generosity, we donated an additional \$45,000 to organizations providing relief to our most vulnerable communities: Doctors Without Borders, No Kid Hungry, and the WHO COVID-19 Solidarity Response Fund.

In 2020, survey respondents reported an overall rise in salary levels compared to the past couple of years, even amid widespread business slowdowns, shutdowns and cross-industry layoffs. While this may seem surprising at first, consider that our catchment for survey respondents consists solely of people working in technology, and that 2020 showed many management teams that surviving the pandemic would require pushing their technology to the next level.

Many organizations have accelerated their digital transformation initiatives by as much as three or four years during the pandemic, according to a late-2020 [survey by McKinsey & Co.](#) Hiring and retaining skilled, adaptable people is a critical component of digital transformation success. As McKinsey found, “Companies that have executed successful responses to the crisis report a range of technology capabilities that others don’t — most notably, **filling gaps for technology talent during the crisis**, the use of more advanced technologies, and speed in experimenting and innovating.” (Emphasis ours.)

Then there’s “the use of more advanced technologies, and speed in experimenting and innovating.” As our research has demonstrated over the past decade, DevOps practices enable companies to test and adopt new technologies more quickly, to experiment and innovate more effectively. To attract the people who can execute these changes, many companies actively publicize their DevOps values and cultures.

That’s why we weren’t too surprised to find that survey respondents working at companies with well-developed DevOps practices also report higher salaries. Let’s dive into that finding first.

2020 Salary Report key findings

- Companies at a high level of DevOps evolution compensate their employees at the highest level, with managers making more than practitioners.
- Salaries rose worldwide, and rose most steeply for upper-income respondents in Japan and the United Kingdom.
- Respondents working in life sciences, pharmaceuticals and healthcare were the top earners worldwide; in most years, financial services and technology lead the pack.
- Technology workers in the United States make more money than their peers anywhere else in the world.
- More women than men earn mid-range salaries, but more men than women earn top salaries.
- Companies with the highest revenue generally pay the most.
- The best-paid job title amongst IT practitioners was platform engineer.
- Engineering managers earn more than IT managers or information security managers, by a wide margin.

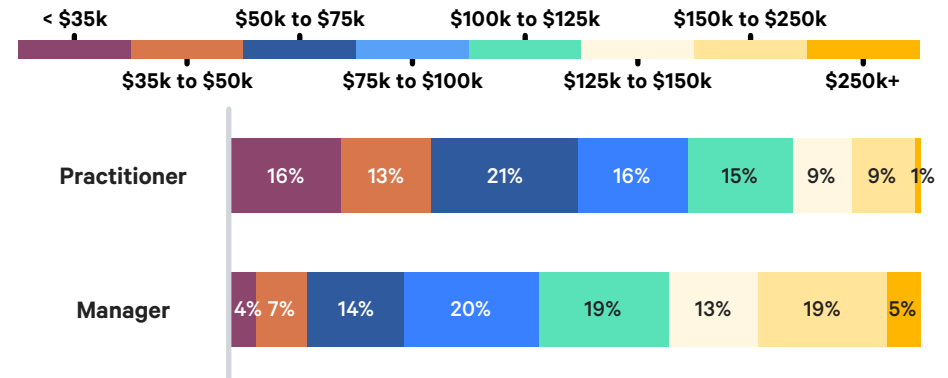
How to interpret our charts

Survey respondents did not report exact salaries; instead, they chose the range their salary fell into. Like the sample chart shown here, the charts in this report include salary-range bars to represent the percentage of respondents whose earnings fell into each range.

Some things to note when interpreting chart data:

- Some bars may not total 100 percent due to rounding of percentages within the various ranges — we have done our best to represent these percentages as accurately as possible.
- All salary ranges are reported in U.S. dollars, and no adjustments are made to account for regional differences in labor costs.
- We did not segment our respondents by years or level of experience, so two people in the same region with the same job title could be paid very differently.

Sample salary chart



As DevOps evolves, salaries rise

Key finding

Companies at a high level of DevOps evolution compensate their employees at the highest level, with managers making more than practitioners.

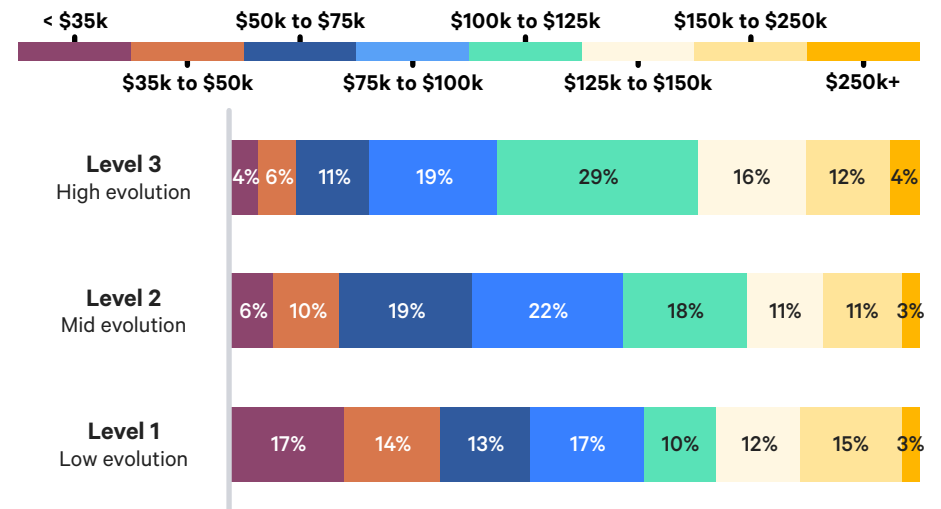




Overall, salaries are higher at organizations that have reached a higher level of DevOps evolution.¹ Among respondents working at highly evolved companies, 80 percent earn \$75,000 per year or more. Among respondents at the least evolved companies, only 57 percent earn that much.

¹ To understand what it means for an organization to be highly evolved or less evolved on its DevOps journey, see pages 26-32 in the [2018 State of DevOps Report](#)

Salaries by level of DevOps evolution, worldwide



Most of the pay difference between highly evolved and less-evolved companies benefits managers. Among managers working at Level 3 companies — the most evolved — 89 percent earn \$75,000 or more, compared to 59 percent at Level 1 companies.²

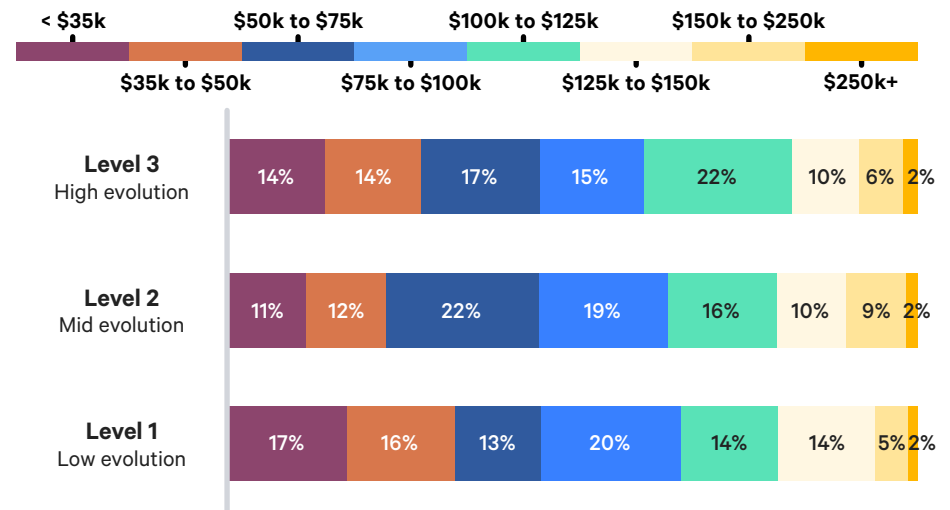
We were surprised to find that for practitioners, the chance of earning at least \$75,000 per year changes very little from one level of DevOps evolution to the next. At both Level 1 and Level 3, 55 percent of practitioners earn that much, while 56 percent of those at Level 2 do.

Practitioners gain some salary advantage in more-evolved DevOps organizations when you look to the higher compensation levels. Among those working at Level 3 companies, 22 percent earn between \$100,000 and \$125,000 per year, compared to 16 percent at Level 2 companies and 14 percent at Level 1 companies. Interestingly, for salaries above \$150,000, practitioners in Level 2 companies had the advantage — 11 percent of them earn this much, versus 8 percent working at Level 3 companies and 7 percent at Level 1 organizations.

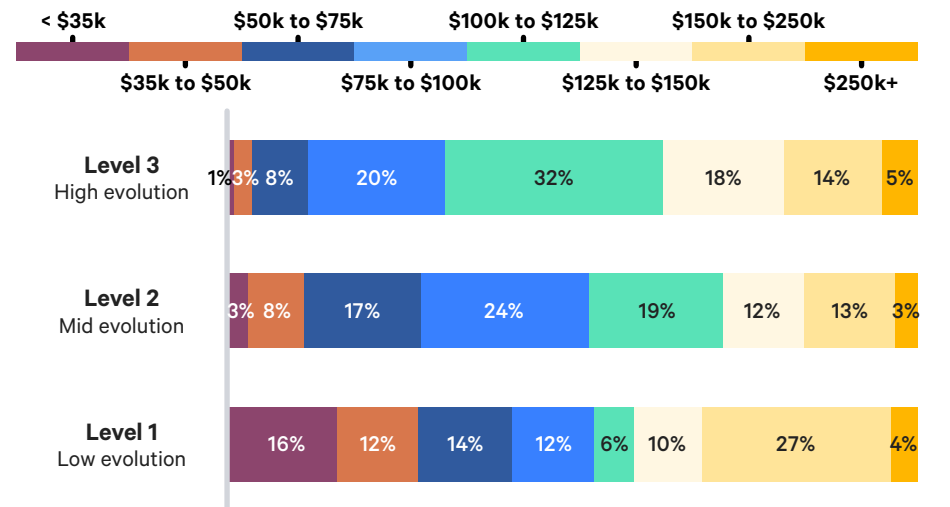
We found another interesting and even larger anomaly for managers. Looking at manager salaries over \$150,000, those working at Level 1 (least evolved) companies had a decided advantage: 31 percent of them earned this much, versus 16 percent at Level 2 companies and 19 percent at Level 3 companies. We are at a loss to explain this, though we note that the chances of achieving the very highest salary band — more than \$250,000 — are slightly better for managers working at the most evolved companies.

² We had a low number of respondents from managers working at Level 1 companies, so this group may not be representative of all managers working at organizations with highly evolved DevOps practices.

Practitioner salaries by level of DevOps evolution, worldwide



Manager salaries by level of DevOps evolution, worldwide



Where in the world are people paid most?

Key findings

- Technology workers in the United States make more money than their peers anywhere else in the world.
- Salaries rose worldwide, and rose most steeply for upper-income respondents in Japan and the United Kingdom.



No surprises here: U.S. tech workers make more money overall than those living in other countries — 84 percent of U.S. respondents make \$100,000 or more, and half of these (42 percent) make \$150,000 per year or more.

In the next closest country, Singapore, the proportion of respondents making \$150,000 or more is just 14 percent. Among Canadian respondents, 11 percent earn at this level, with the United Kingdom, Australia and New Zealand close behind. Only a few from Japan, Germany and France reported earning over \$150,000 per year — 5 percent or less of each group.

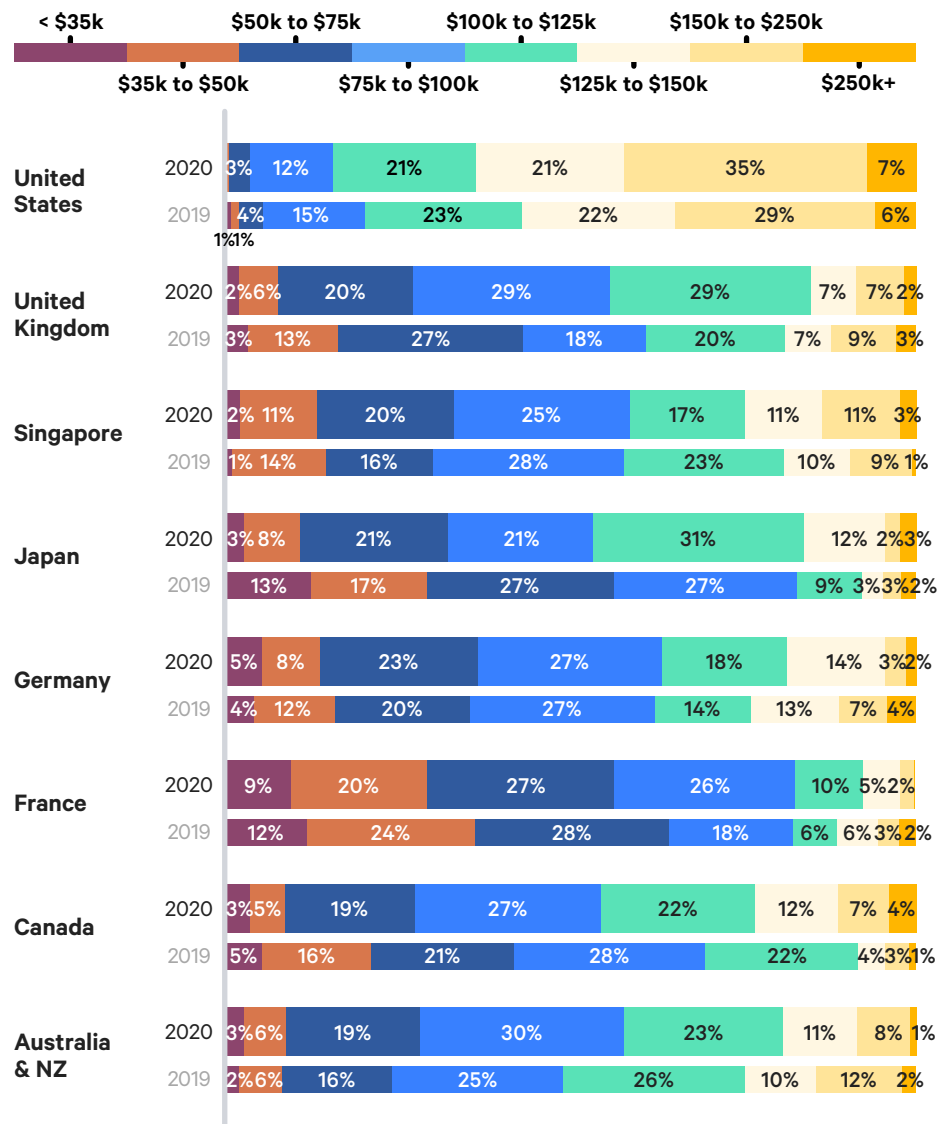
Salary levels rise in 2020

As we pointed out earlier, 2020 saw an overall rise in reported salaries around the world, compared to 2019. This is most evident when you look at the \$100,000-plus grouping for the United States and the \$75,000-plus grouping for other countries.

It's interesting to note that in many respects, these two groups are economically equivalent. For technology workers in the United States, \$75,000 isn't a particularly high salary, and \$100,000 is achievable. \$100,000 per year also represents an income that allows a family to live at a comfortably affluent level in most parts of the country.

In advanced countries other than the United States, \$75,000 is an equivalent marker of affluence. The \$25,000-per-year difference in what it takes to achieve affluence is due to a number of benefits that citizens of Western European countries, Japan and Singapore receive and that U.S. citizens do not. For example: universal healthcare, often free at point of delivery; free, high-quality education from early childhood through secondary school; free or near-free higher education; and retirement benefits that allow for a comfortable old age.

Salaries by country, 2020 vs. 2019



Where in the world are people paid most?

Japanese respondents in the \$75,000-plus range reported the greatest increase: 25 percentage points, to 69 percent earning at this level in 2020. The next-biggest increase in those earning \$75,000 or more was in the United Kingdom, where 74 percent reported being in this salary bracket, up from 57 percent in 2019. Most of the increase was for people earning \$75,000 to \$125,000; the share of respondents earning that much rose 20 percentage points, to 58 percent in 2020.

Some year-on-year salary increases were smaller. Among French respondents, for example, the proportion earning over \$75,000 went from 35 percent in 2019 to 43 percent in 2020. Among U.S. respondents, 84 percent reported salaries of \$100,000 or more in 2020, compared to 80 percent in 2019. The salary band showing the largest increase among U.S. respondents was for those earning \$150,000 to \$250,000 — 35 percent of U.S. respondents in 2020, up from 29 percent in 2019.

Salaries did not rise everywhere. In Singapore, the share of respondents earning over \$75,000 fell from 71 percent in 2019 to 67 percent in 2020. In Germany, the shift was from 65 percent to 64 percent, and in Australia and New Zealand, from 75 percent to 73 percent. It's worth pointing out these are all slight declines — much smaller than the salary increases seen in the other countries.



Practitioners vs. managers: salary differences around the world



Practitioners

Practitioners in the United States make significantly more than in our two other regional groups: Europe and the United Kingdom, and Asia Pacific.³

You see this right away when you look at the largest salary groups in each region. Among U.S. practitioners, 29 percent earn \$100,000 to \$125,000. The largest salary group for both Europe/U.K. and Asia Pacific practitioners is \$50,000 to \$75,000 per year, at 34 percent and 28 percent, respectively.

It's even more revealing to note that 18 percent of Asia Pacific practitioners earn less than \$35,000 per year; only 11 percent of the Europe/U.K. group and less than 1 one percent of U.S. practitioners share this salary level.

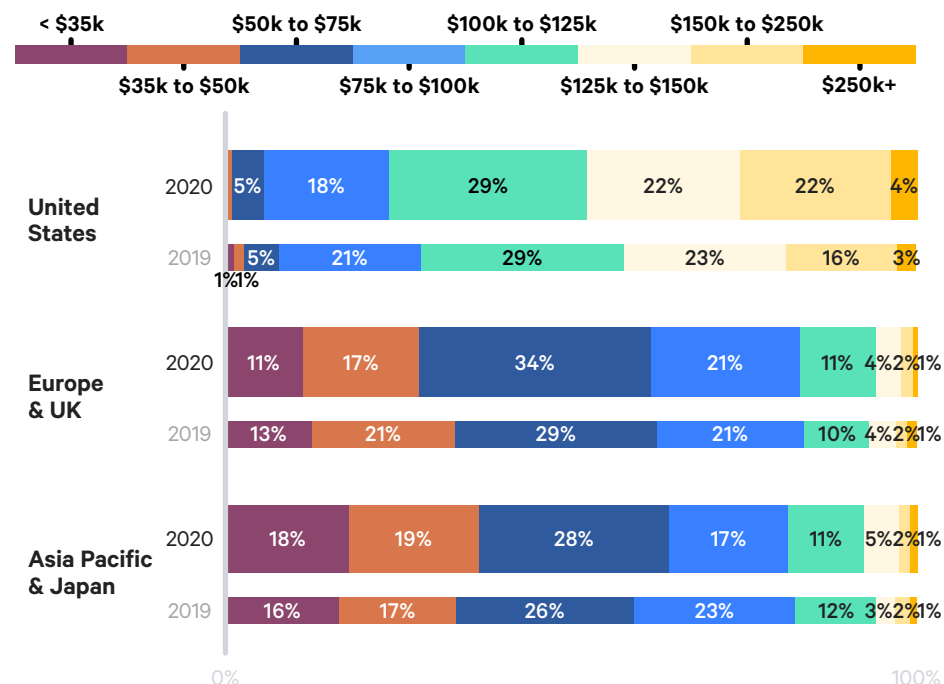
At \$150,000 or more, 26 percent of U.S. practitioners earn this much, but only 3 percent do in both the Europe/U.K. and Asia Pacific and Japan regions.

We didn't see huge changes in practitioner salaries from 2019 to 2020. In the U.S., the share of those earning \$150,000 to \$250,000 increased by 6 percentage points. The share of those earning less than \$75,000 shrank by about 2 points and by 3 points for those earning \$75,000 to \$100,000.

Among European practitioners, the proportion earning \$50,000 to \$75,000 increased by 5 points, to 34 percent, as lower salaries decreased by 6 points. There was also a 1-point increase in salaries above \$100,000, to 18 percent.

Practitioners in Asia Pacific and Japan reported lower salaries in 2020. The share earning less than \$75,000 was 65 percent, up 6 points from 2019, and the \$75,000 to \$100,000 group saw a 6-point decrease. There was a 2-point increase in practitioners earning between \$125,000 and \$150,000 and a very slight increase in those earning \$150,000 to \$250,000.

Practitioner salaries across regions, 2020 vs. 2019



³ We did not get sufficient responses to break out individual countries for the Europe/U.K. group, nor the Asia Pacific group, which includes Japan, Singapore, India and a few respondents from other Asian countries, as well as Australia and New Zealand.

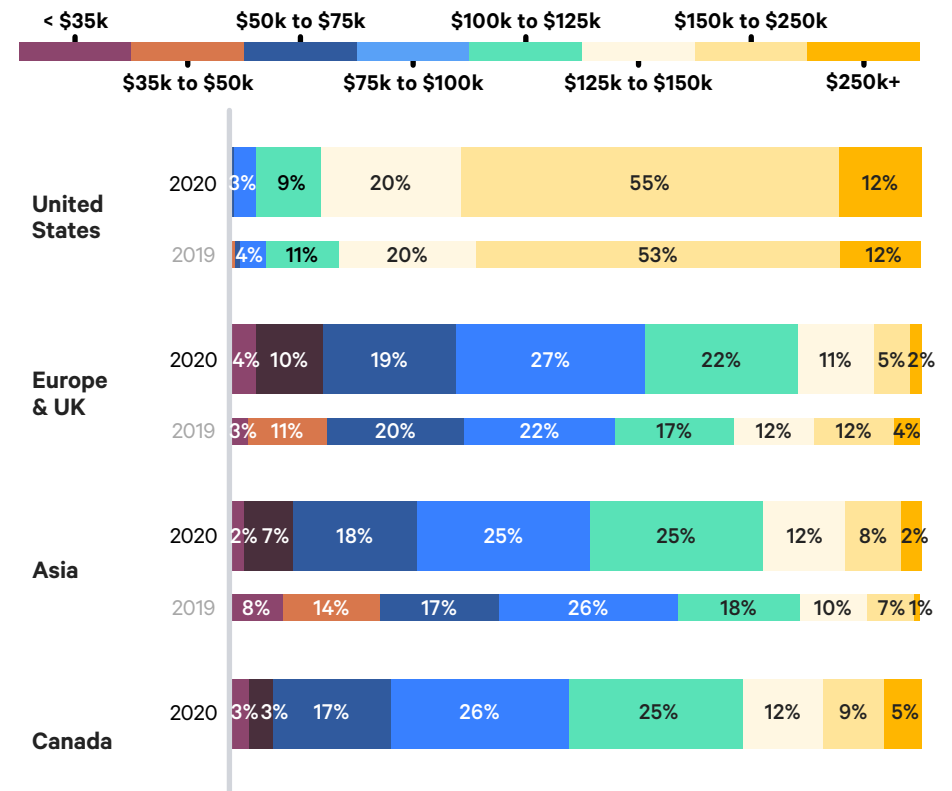
Managers

The higher salaries enjoyed by U.S. respondents become even more apparent when looking at managers as a separate group. More than half of managers in the U.S. (55 percent) make between \$150,000 and \$250,000 per year. Just 9 percent of all Canadian managers who responded to the survey earned that much, 8 percent of Asia (excluding Australia and New Zealand) managers and 5 percent of Europe/U.K. managers.

The difference is equally striking when you look at the lower end of the salary spectrum. Not a single U.S. manager reported earning less than \$75,000 per year, yet 32 percent of Europe/U.K. managers earn in that range, as do 25 percent of managers in Asia and 23 percent of Canadian managers.

Manager salaries rose in 2020. This increase was most apparent in Asia — in 2019, 62 percent of managers earned more than \$75,000 per year, compared to 72 percent earning that much in 2020. In the Europe/U.K. region, the proportion of managers earning more than \$75,000 was the same in both 2019 and 2020: 67 percent. In the United States, the percentage of managers earning \$150,000 or more increased 2 points, to 67 percent.

Manager salaries across regions, 2020 vs. 2019



Salaries by industry

Key findings

- Top-earning respondents work in life sciences, pharmaceuticals and healthcare; in most years, financial services and technology have led the pack.
- Technology companies in the United States pay far more than in any other region.

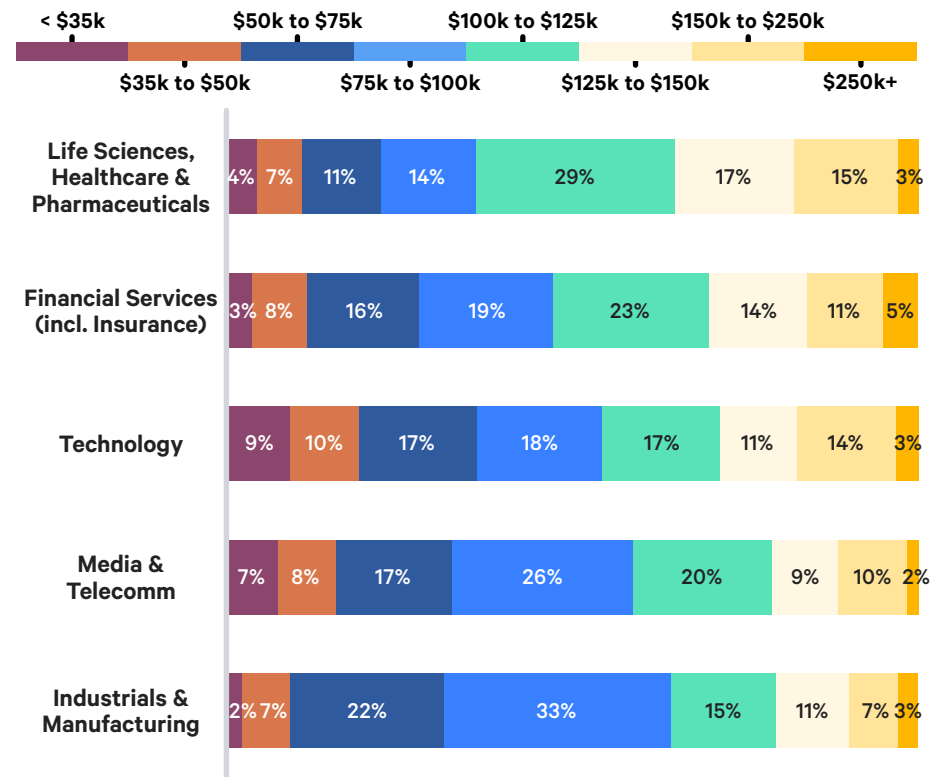


While our respondents in general have reported higher salaries over the past few years, some industries pay more than others.⁴ Financial services and technology normally lead the pack, but in 2020 the “life science, healthcare and pharmaceuticals” (LSHP) category bumped financial services from the No. 1 spot by a noticeable margin. We wonder if the rush to supply coronavirus vaccines, treatments and personal protective equipment prompted a sudden industry-wide boost in salaries, bonuses and hiring bonuses.

The advantage of working in LSHP is most evident in the higher salary bands: 64 percent of respondents in this group earn more than \$100,000. The next-best industry is financial services, with 53 percent of respondents earning over \$100,000, and then technology at 45 percent.

⁴ In the “Salaries by industry” section, we’ve combined managers and practitioners, and we report only on industries that had at least 150 respondents.

Salaries by industry, worldwide

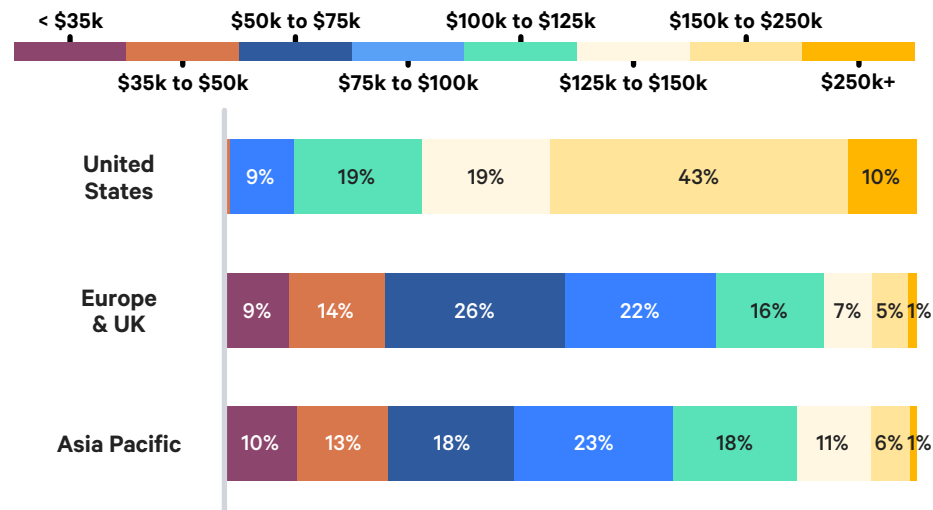


Technology industry: regional differences

Comparing regions, it's remarkable just how much more U.S. respondents make. More than half — 53 percent — earn \$150,000 per year or more, far beyond most respondents in the rest of the world. Just 7 percent of Asia Pacific respondents and 6 percent of those in Europe/U.K. earn that much.

At the lower end, almost no U.S. respondents working in technology earn less than \$75,000 per year, where in Asia Pacific, 41 percent do. In Europe/U.K., almost half — 49 percent — earn less than \$75,000.

Technology industry salaries by region

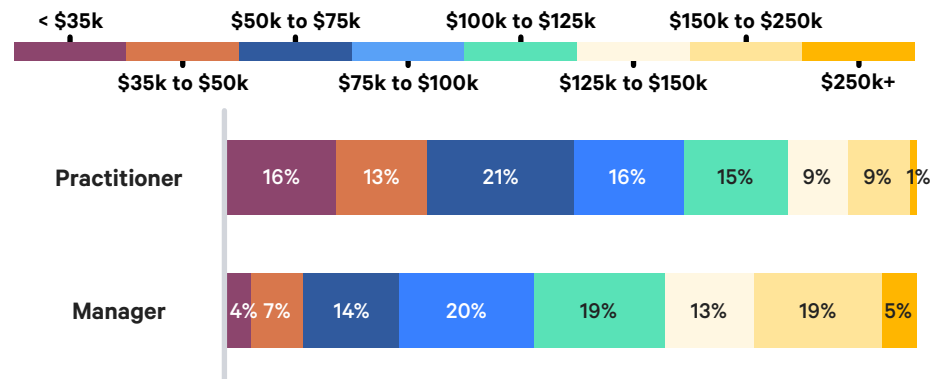


Technology industry: practitioners and managers

As you might expect, managers make far more than practitioners do:

- Two-thirds of practitioners make less than \$100,000 per year; 45 percent of managers earn at this level.
- Half of practitioners reported salaries below \$75,000, where just 25 percent of managers did.
- At the high end, 24 percent of managers make \$150,000 or more, while just 10 percent of practitioners do.

Technology industry salaries, practitioners and managers



Salaries by gender

Key findings

More women than men earn mid-range salaries,
but more men than women earn top salaries.



[Many studies still find](#) that for equivalent jobs, women are paid less than men; sometimes the difference is significant, sometimes less so.⁵

Our State of DevOps survey shows a similar picture. Up to \$75,000 per year, our male and female respondents earn at similar levels. At \$100,000 and above, we begin to see some divergence. For example, 25 percent of female respondents earn between \$100,000 and \$125,000, while 18 percent of male respondents are in this band.

This would seem to indicate that women are at the advantage, but that's not the case. Fewer men earn between \$100,000 and \$125,000 because more men earn over \$125,000 per year. Among our respondents, 28 percent of men earn more than \$125,000 per year, but only 17 percent of women do.

Here's how it breaks down above \$125,000:

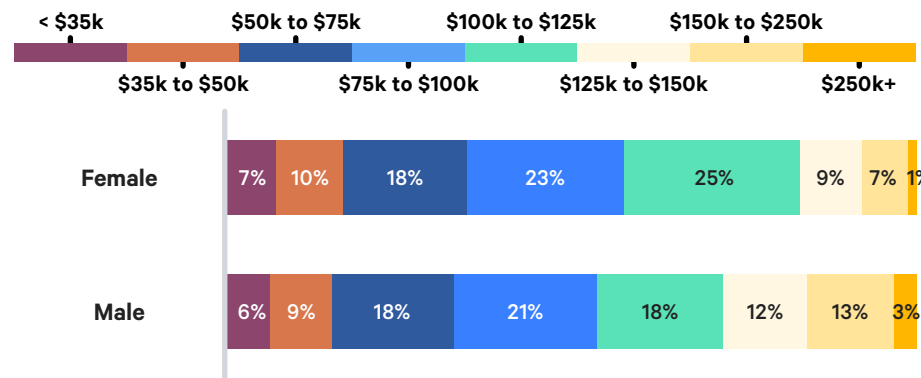
- Twelve percent of men who answered the survey earn \$125,000 to \$150,000 per year, while 9 percent of women earn this much.
- At \$150,000 to \$250,000 per year, the gap widens: 13 percent of men earn at this level, and 7 percent of women.
- In the highest band — more than \$250,000 per year — we find 3 percent of our male respondents and just 1 percent of our female respondents.

We had enough responses in Asia Pacific to compare men's and women's salaries in this region. A greater share of men than women reported earning at the lowest salary levels, and at the same time, a greater share of men earn at the highest salary levels.

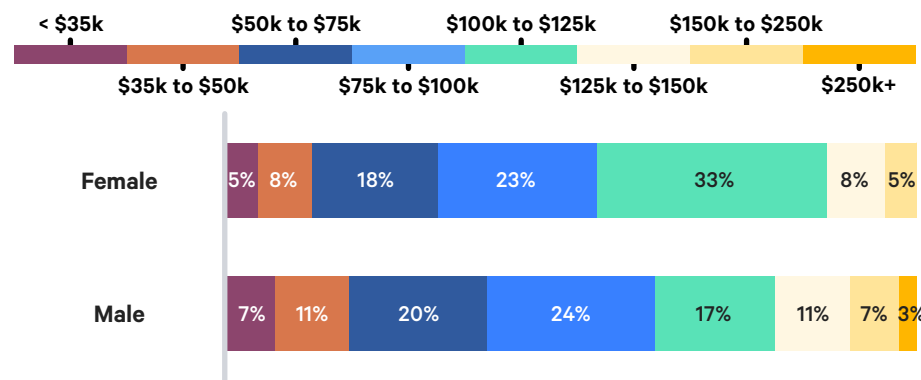
The two middle salary bands are interesting. At \$75,000 to \$100,000, men and women are almost identical, with 23 percent of women and 24 percent of men earning this much. At \$100,000 to \$125,000 per year, we see 33 percent of the female respondents and 17 percent of the males. Then above \$125,000, the trend reverses: 21 percent of men and 13 percent of women earn this much.

⁵ We did not receive enough responses from people who identify neither as male nor female to draw any conclusions about salary patterns for this group. We also did not receive enough responses from women to break down female earnings by practitioners versus managers, or to look at regional differences.

Salaries by gender worldwide



Salaries by gender, Asia Pacific



Salaries by company revenue

Key findings

Companies with the highest revenue tend to pay the most.



Generally speaking, companies with higher revenue pay their employees more. Respondents working at companies with revenue over \$1 billion had the highest percentage of those earning \$150,000 to \$250,000 — 22 percent. No other company-revenue group came close.

This is one reason why U.S. salaries are generally higher throughout our report. Of the U.S. respondents, 42 percent work in companies over the \$1 billion mark. That’s almost double the percentage of the next country grouping, Singapore. The chart at the bottom of this page, “Company revenue, country by country,” shows just how big the discrepancy is between the United States and other countries when it comes to company revenue.

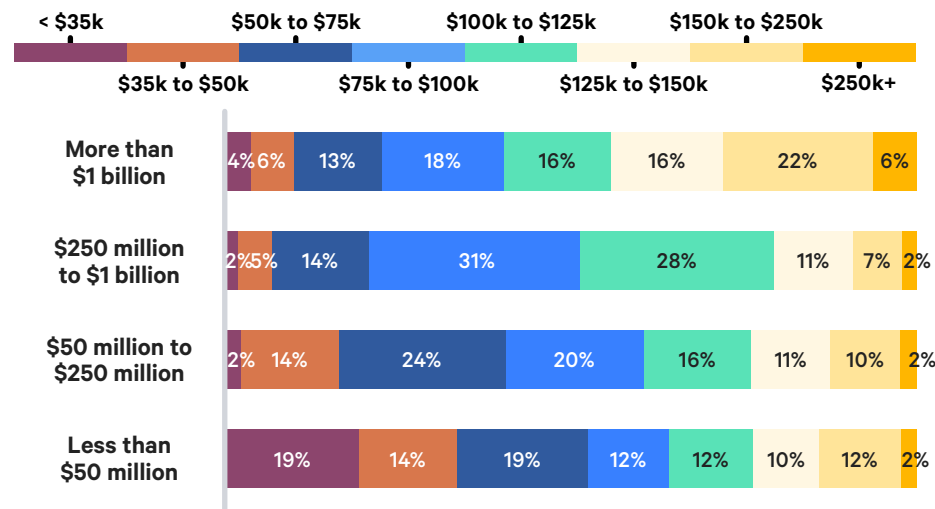
The lowest percentage of people making \$150,000 to \$250,000 was not at the smallest companies, as you might expect, but at companies with \$250 million to \$1 billion in annual revenue. Just 7 percent of these respondents earn \$150,000 to \$250,000. Among respondents at companies under \$50 million in revenue, 12 percent earn at this level, and 10 percent of those working at companies with \$50 million to \$250 million earn that much.

We see another break in expected pattern when looking at the two middle salary bands — the range from \$75,000 to \$125,000 per year. Starting with the smallest companies, the portion of respondents in this range are:

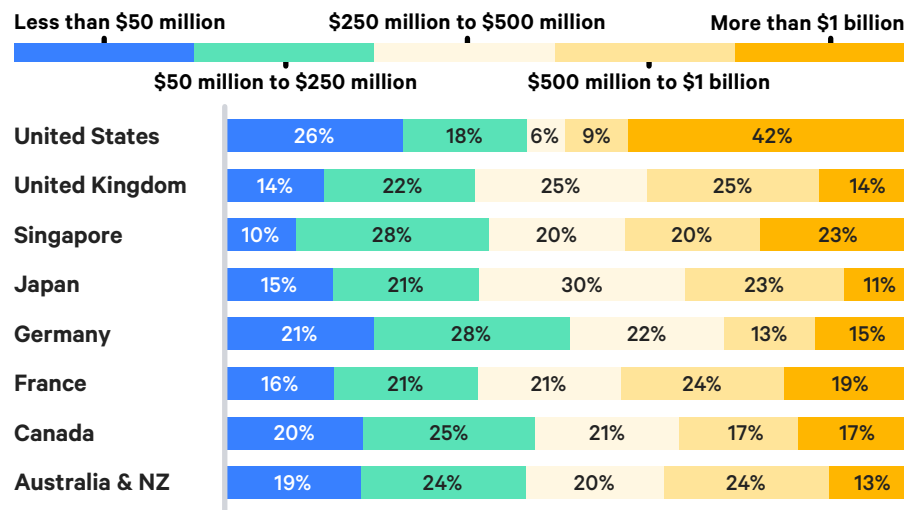
- 24 percent of those at companies with revenue below \$50 million
- 36 percent of those at companies with revenue of \$50 million to \$250 million
- 59 percent of those at companies with revenue of \$250 million to \$1 billion

But the pattern shifts at the top. Just 34 percent of those working at companies with revenue over \$1 billion earn in the middle range of \$75,000 to \$125,000. In part, that’s because a greater share of employees earn in the next band up — \$125,000 to \$150,000. And as already noted, these large companies have far more employees earning \$150,000 to \$250,000.

Salaries by company revenue



Company revenue, country by country



Comparing managers and practitioners by company revenue

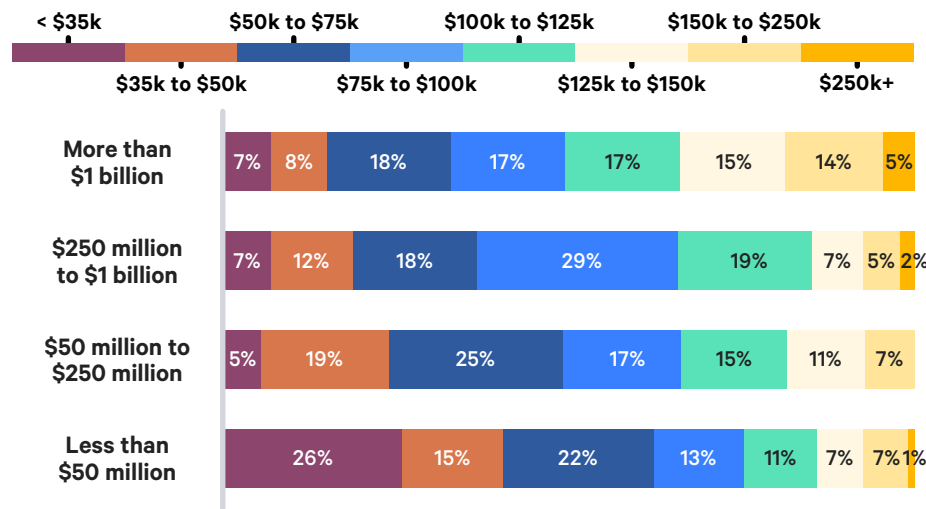
Whether you're a practitioner or a manager, you'll likely earn more money at a company that has more money coming in. (Note that we did not ask about profitability.) But the tendency to higher pay at bigger companies is more true for managers than for practitioners.

Practitioners are more likely to earn above \$150,000 at the largest companies. Nineteen percent of practitioners at \$1-billion-plus companies earn this much, compared to 8 percent or less at sub-\$1-billion companies.

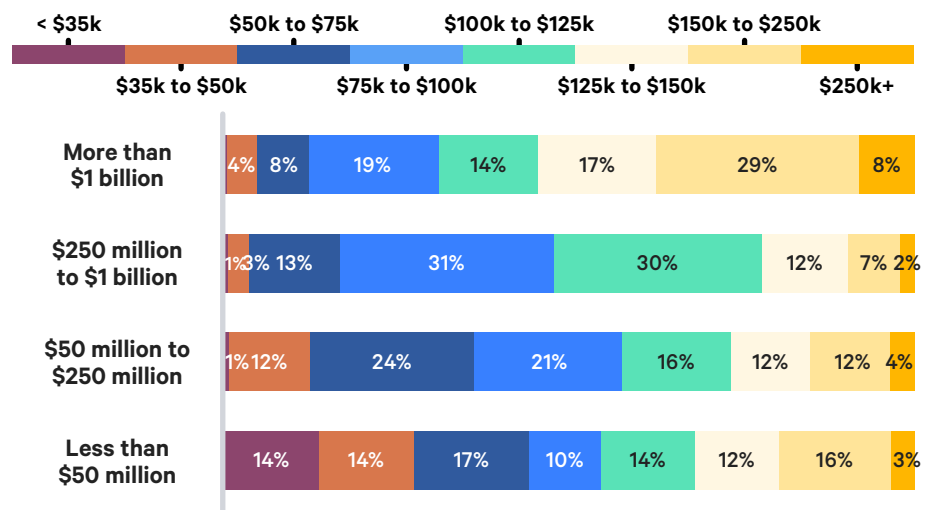
At the lower end, 63 percent of practitioners in the smallest companies (sub-\$50 million) earn less than \$75,000 per year, while just 33 percent at the companies with revenue over \$1 billion earn below the \$75,000 threshold.

At companies with revenue over \$1 billion, 37 percent of managers make more than \$150,000 and just 12 percent of managers at the largest companies make less than \$75,000 per year, compared to 45 percent of managers at the smallest companies.

Practitioner salaries by company revenue



Manager salaries by company revenue



Salaries by job title and department

Key findings

Engineering managers earn more than IT managers or information security managers, by a wide margin.



Salaries by job title

Our survey respondents had a wide range of job titles. Excepting “DevOps engineer,” the number of responses for any particular job title was low, so we grouped most together in the category “Other.” For this same reason, we grouped managers and practitioners together in our analysis for this section.

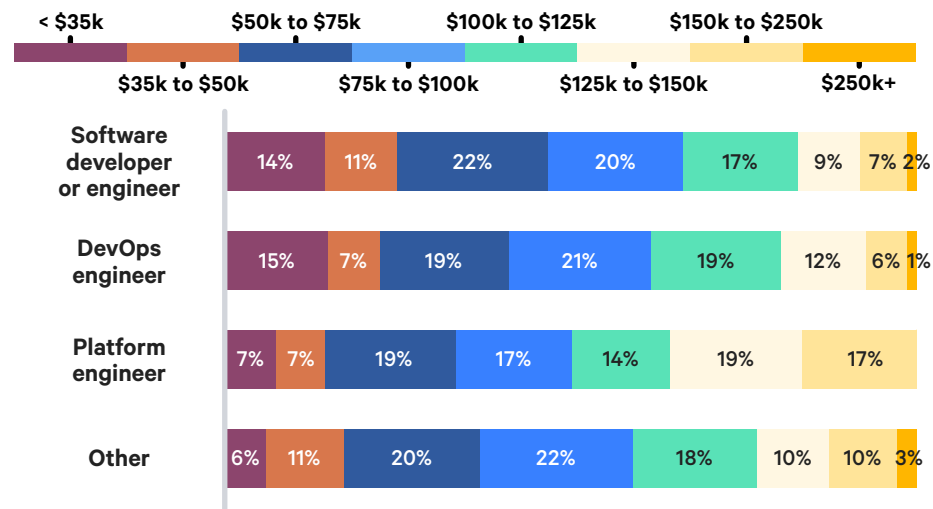
The two exceptions are “software developer/engineer” and “platform engineer.” We had a reasonable number of responses from software developers/engineers; nevertheless, we present this group’s data with the caution that it may not accurately represent a larger aggregation of software developers and engineers.

The number of platform engineers who responded was also low, but we included data for them because our 2020 State of DevOps Report delved deeply into the platform approach for software engineering.

The best-paid job title amongst our respondents was platform engineer. These professionals are the most likely to earn more than \$150,000 per year, and are also the most likely to earn over \$100,000 and over \$75,000. However, as we note above, the number of respondents for this job title was low.

Despite the fact that we found higher salaries at companies with more evolved DevOps practices, we did not find a big difference between earnings among DevOps engineers and software developers/engineers. Looking at the \$100,000-and-over levels, 38 percent of DevOps engineers reported their salaries in this region, and 35 percent of software developers/engineers did. The Other group — a mix of many different job titles — had a higher share earning more than \$100,000: 41 percent.

Salaries by job title



Salaries by department

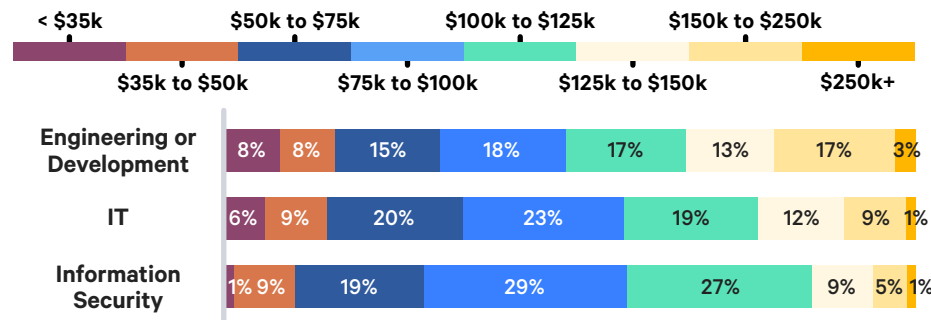
Looking at departments in which our respondents work, you'll see that the highest salaries are in engineering (which also goes by the term "development"). This is especially noticeable in the upper reaches: A third of respondents in engineering or development report salaries over \$125,000 per year, compared to 22 percent in IT and 15 percent in information security.

When you look at the chart for practitioners you can see the advantage enjoyed by those in engineering or development. Forty-one percent of these employees make more than \$100,000 per year, while 33 percent of practitioners in IT do.⁶ At the other end, more than half of IT practitioners make less than \$75,000 per year, while just 41 percent of engineering or development practitioners are below the \$75,000 threshold.

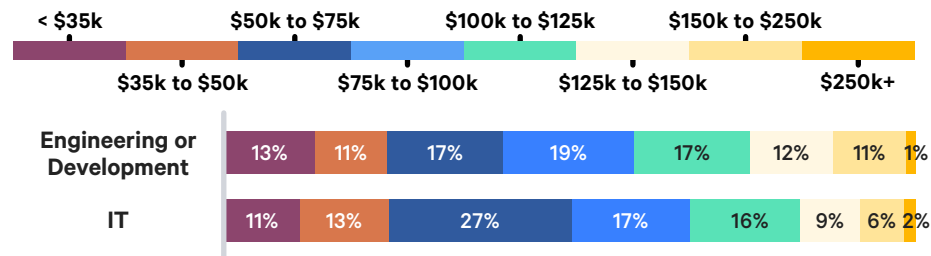
The differences are more exaggerated when we look at manager salaries. Almost one-third of engineering or development managers make more than \$150,000 per year, compared to 12 percent of IT managers and 6 percent of information security managers.

⁶ Graphs show only departments with at least 150 respondents. We did not have enough salary responses from practitioners in information security to include these in our analysis.

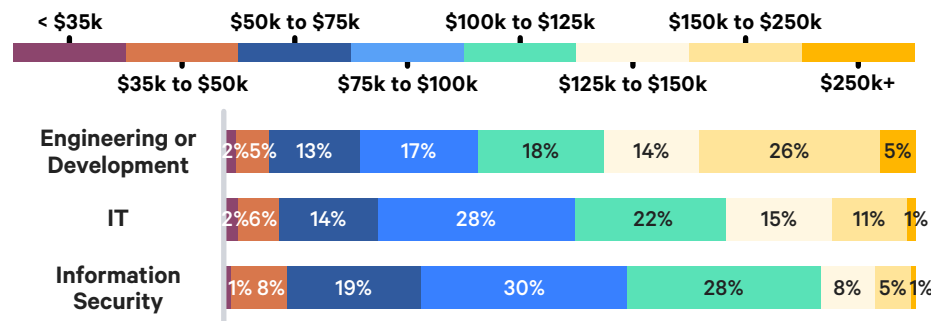
Salaries by department



Practitioner salaries by department



Manager salaries by department





Thanks for reading our 2020 DevOps Salary Report

You made it all the way through the charts, graphs and analysis!
Thanks so much for sticking with us. We hope you found the information helpful.

We're always interested in your feedback.

Please send your questions and comments to devopssurvey@puppet.com.