



Terminal

Engineer 2020: Solving the tech talent shortage

North American engineers weigh in on the state of the tech industry, remote work, and the appeal of Silicon Valley.

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INTRODUCTION

The tech talent shortage has far-reaching effects: slowing innovation, rocketing engineering costs and putting strain on employees both remote and at HQ. In our Engineer 2020 Report, we surveyed the top engineering talent bordering the U.S. to get an outside-in perspective on the shortage, as well as their priorities, motivations, and overall market outlook. It offers a unique glimpse into why relocating engineers may not be the solve companies are looking for – to build the best teams, companies need to think globally and mature their approach to remote work.

By understanding shifts in the engineering landscape and championing the Future of Work, business leaders can start to overcome the talent gap and recruit the best possible engineering teams – ensuring success as we enter a new decade of innovation.

Key results.

These findings compile insights from software engineers across North America, with a focus on developers from Terminal's operating hubs in Canada and Mexico.

1

Many engineers do not want to move to Silicon Valley, citing the high cost of living, preference for their current community or immigration concerns.

For 57% of those against moving to the United States, it would take a salary boost of \$100K or more - with another 13% saying no amount could make them consider moving.

2

Engineers value the opportunity to share working hours with engineers at HQ and favor a quieter work environment.

To be most productive, 88% of engineers want to work in a similar time zone across their team and 60% prefer a quiet work environment.

3

Companies are embracing the Future of Work and going remote but it comes with another set of challenges including feelings of loneliness, isolation and a lack of visibility for remote workers.

Engineers reported serious shortfalls working in a different physical location from HQ; 45% lack day-to-day interactions, 35% cite difficulty collaborating or not feeling part of a team, 30% worry about visibility for career development.

Key results.

4

The inability to hire enough software developers due to the tech talent shortage puts the ones currently on staff at risk.

Nearly half of engineers surveyed said that the shortage overworks them and more than 45% reported it limits their ability to grow.

5

It's practically unanimous: the job interview process is broken.

90% of engineers had at least one issue with the general interview process, with top gripes including disorganization (70%), being interviewed by people who don't understand the role (66%), long delays (66%), and too many rounds (58%).

6

Engineers felt companies need to look beyond degrees when considering candidates.

Three in four engineers said they were self-taught while only 29% cited a degree.

7

Late-stage startups (pre-IPO) are the most preferred for engineers as they balance the need for job stability versus excitement.

87% of engineers see better opportunity at big tech companies for stability (and 60% for strong salary). But smaller companies (Series A-C) rank higher for the opportunity to create something new and make an impact.

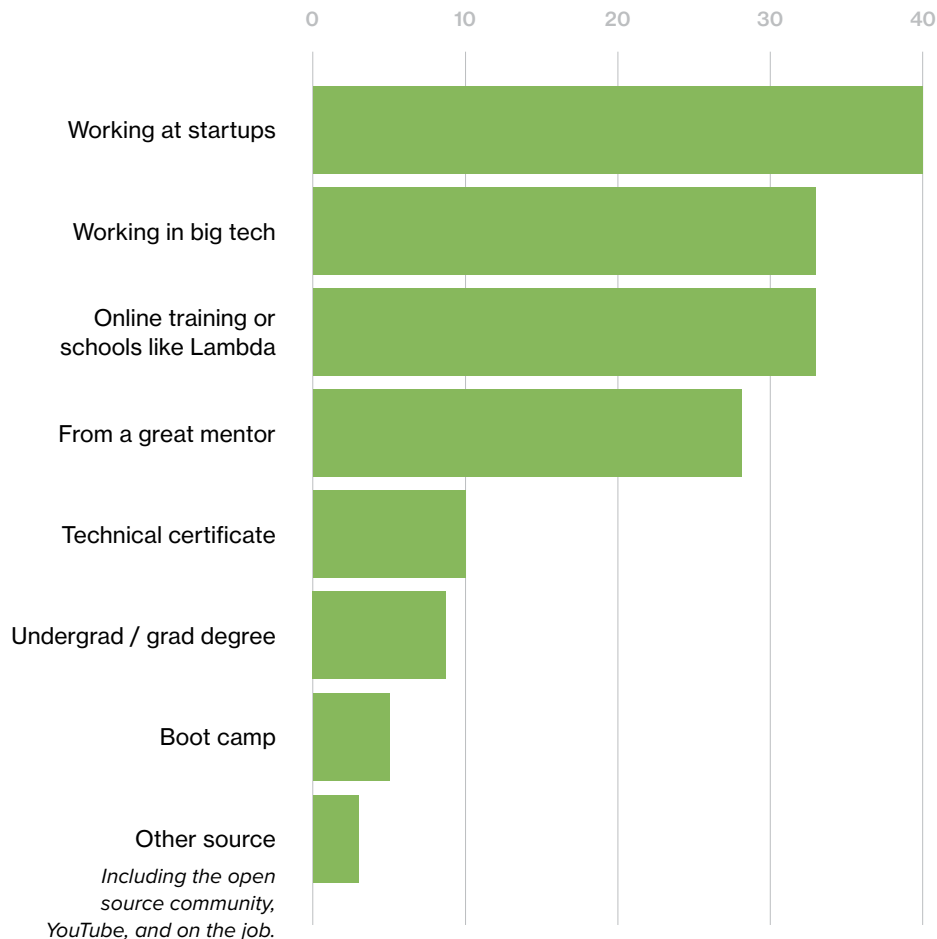
Most engineers are multilingual, but skills aren't acquired from university educations

About 87% of engineers are multilingual when it comes to coding, with on average, about three languages under their belts. But these skills didn't necessarily come from prestigious engineering schools.

While Silicon Valley has shown a strong preference towards hiring from legacy schools¹, only a few respondents noted that they learned on-the-job skills in undergrad. Three in four engineers said they were self-taught while only 29% cited a degree.

¹ Silicon Valley Business Journal, Silicon Valley hires the most alumni from these 10 universities

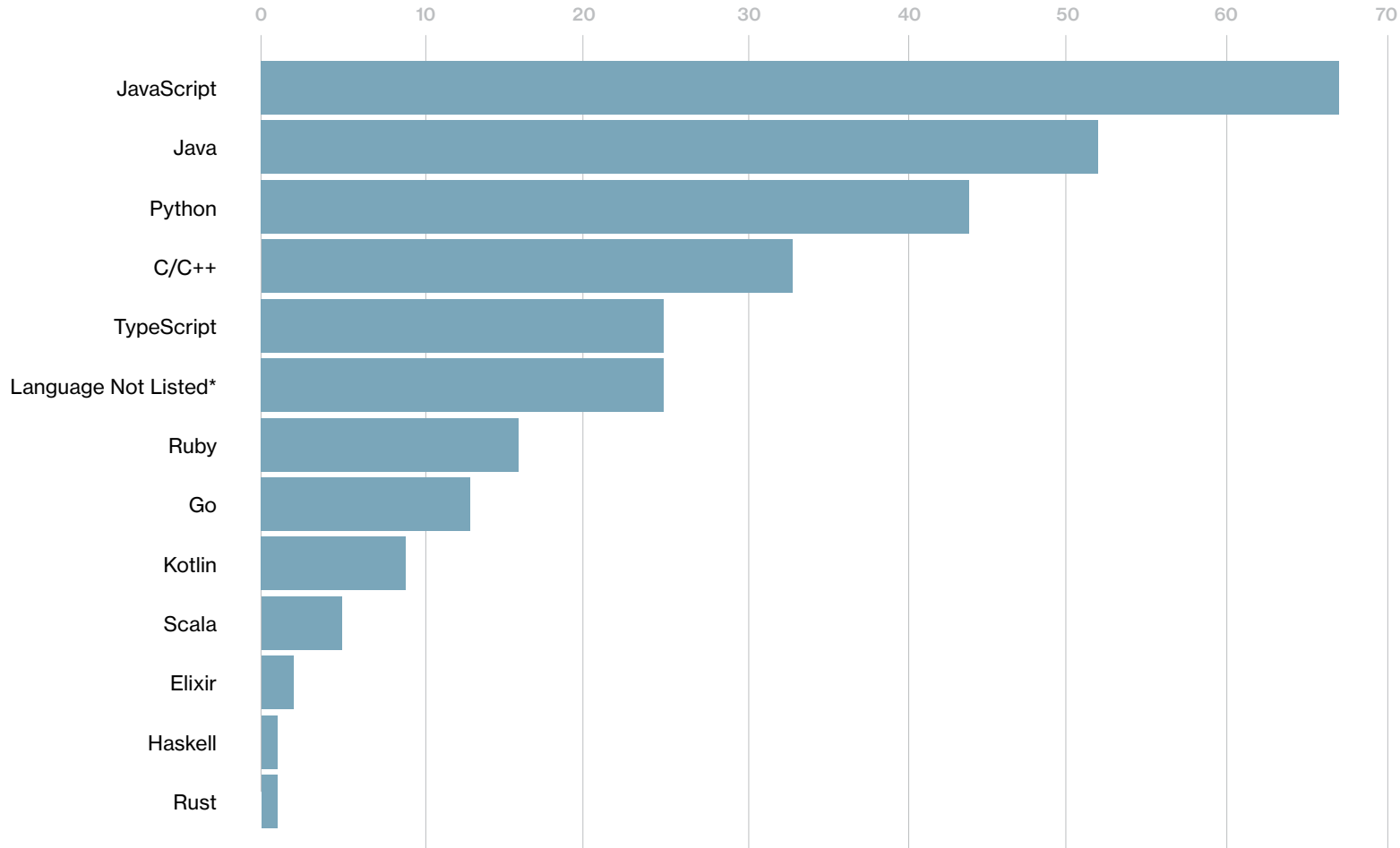
WHERE SKILLS WERE LEARNED



CURRENT CODING SKILLSETS

While the report shows emphasis on Javascript, Java and Python, several respondents noted that the language itself doesn't matter, logic or style is the most important thing.

Those working for large firms with 2,500+ employees are significantly more likely to be skilled in C/C++ (53%) relative to smaller firms (usually around 20-30%).



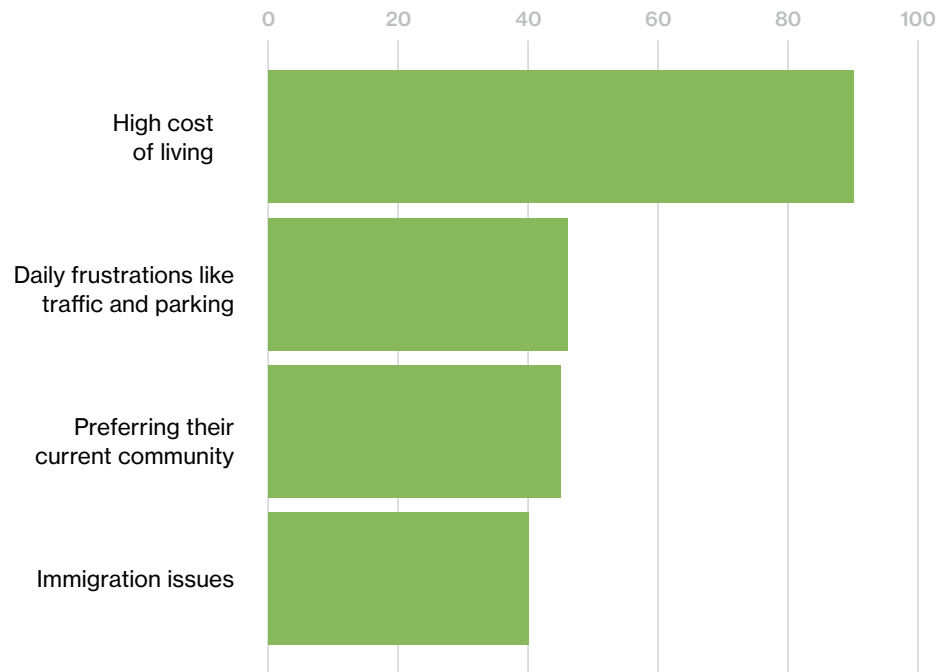
RELOCATION

U.S. tech hubs no longer a magnet for engineering talent

■ Companies have the deck stacked against them when it comes to talent re-location. Canadian and Mexican engineers alike expressed disinterest in re-locating across the border – nearly 40% of them reported they'd rather not move while some took it a step further to say they 'absolutely don't want to work in the U.S.' Quality of life considerations were reported as the major blocker to re-location for international tech talent.

WHY ENGINEERS DON'T WANT TO MOVE

■ Of those who said they don't want to move to the US, 70% would need a salary boost of \$100K or more to move.

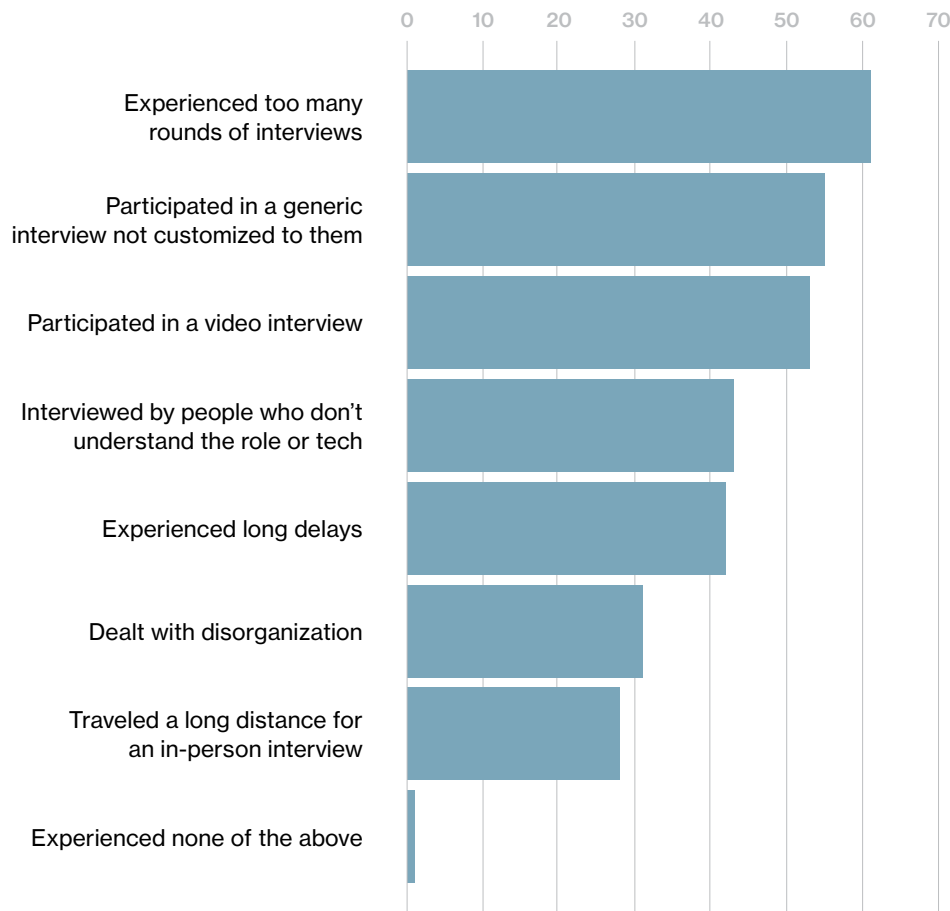


39% of Canadian and Mexican engineers surveyed reported they'd rather not move to the US.

The interview process is broken

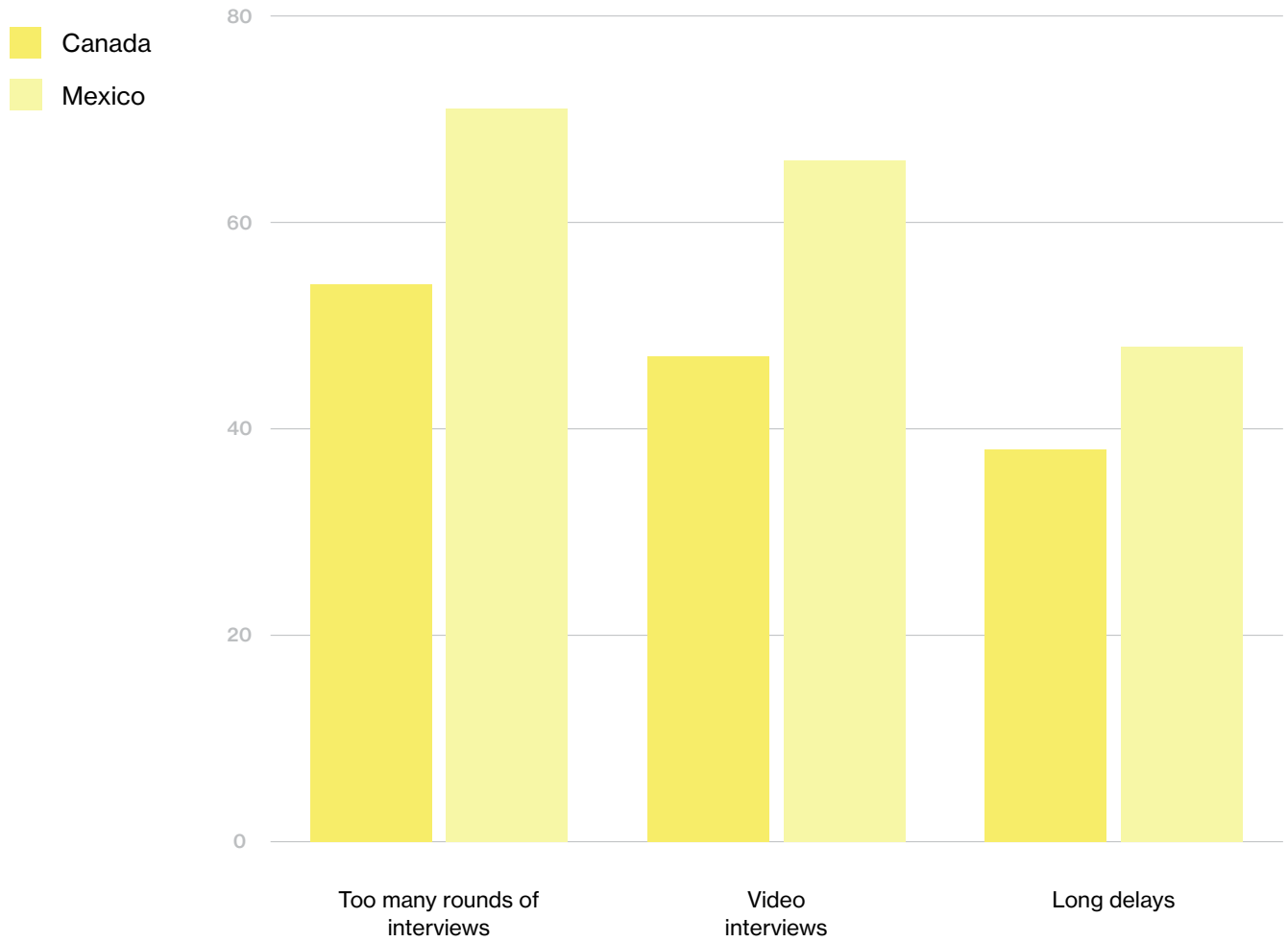
From too many rounds of interviews to long delays and disorganization, engineers widely reported frustration with their recruiting experience. Even more concerning, they say these issues can put a damper on their interest in joining the company. Nearly 35% of engineers reported that too many rounds of interviewing would turn them off from a job.

FRUSTRATIONS WITH THE INTERVIEW PROCESS



66% of those at large firms (2,500+) have experienced too many rounds of interviews compared to 52% of those at startups with only 1-25 employees.

PAIN POINTS STRONGER IN MEXICO

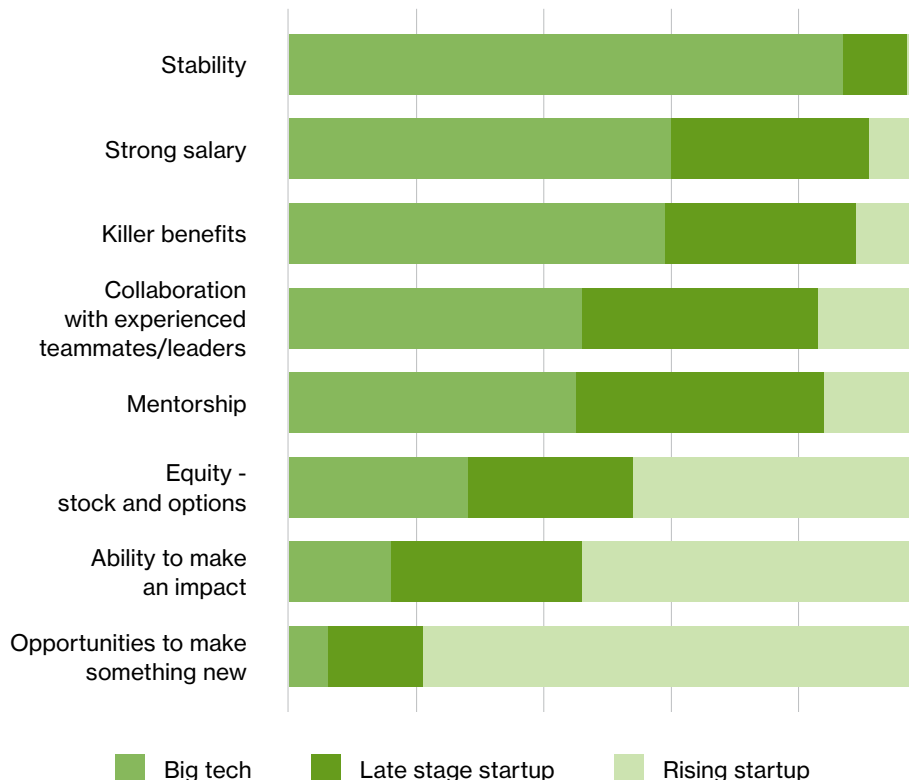


Salary and stability top list of job ‘wants’

Engineers appreciate the opportunity for personal growth and company potential at start-ups. But at the end of the day, competitive salaries and stability are what matters most. Late-stage startups, followed by public companies, were seen as offering the best opportunities for strong pay and benefits.

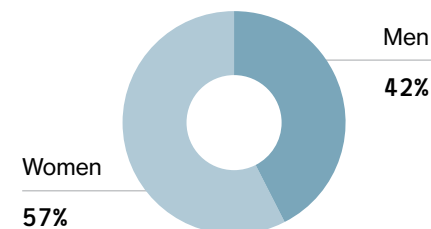
There’s also regional variation when it comes to company choice. Mexican engineers showed greater interest in working for a rising startup compared to their Canadian counterparts, who believe more opportunities for mentorship lie within bigger companies. Lastly, though stock and equity may be seen as an important factor by U.S.-based engineers, a majority of respondents viewed that as the least important benefit when choosing jobs.

JOB BENEFITS VS. COMPANY STAGE



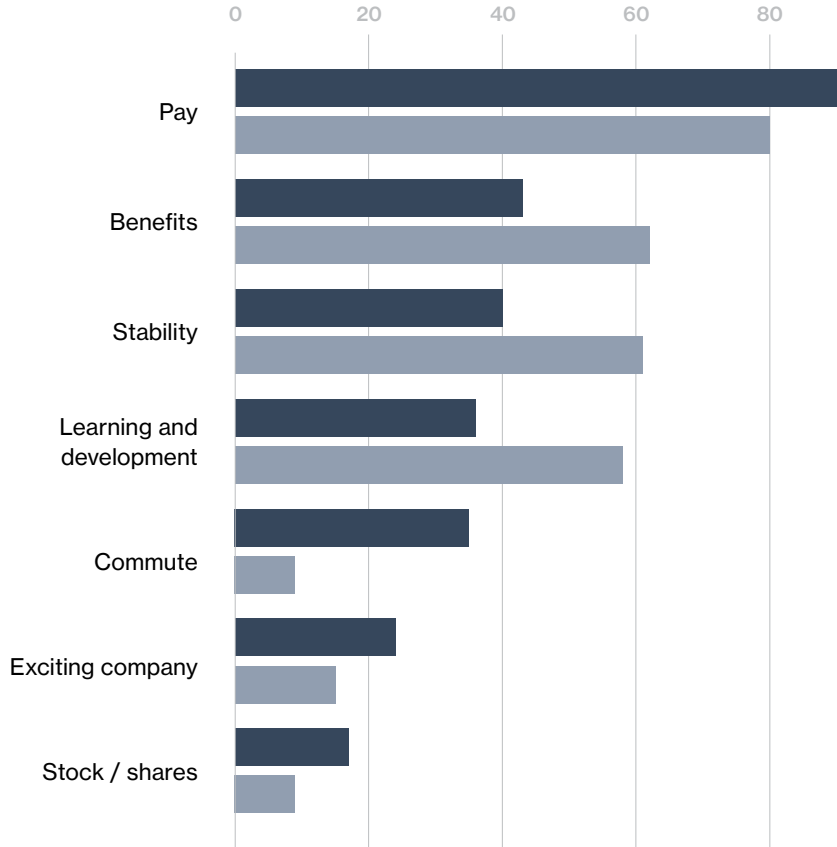
STARTUP PREFERENCE

Women are more interested in working for a late stage startup than men.



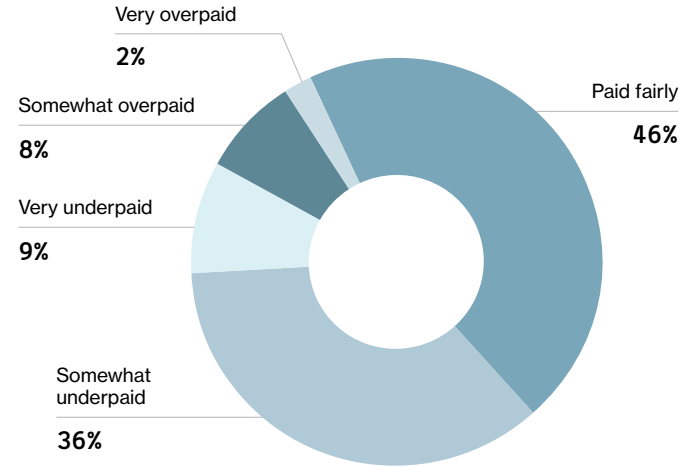
TOP 7 MOST IMPORTANT THINGS

Canada Mexico

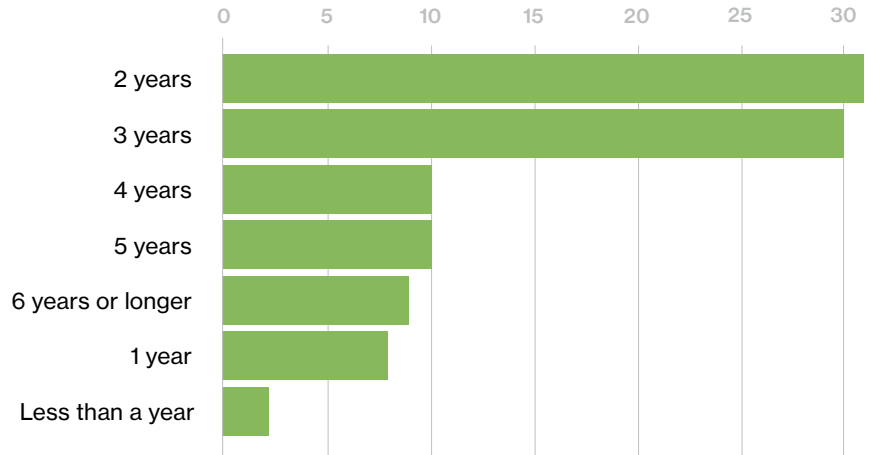


Pay and benefits continue to be most critical to engineers. Learning & development programs that support professional growth also ranked highly.

PAY FAIRNESS



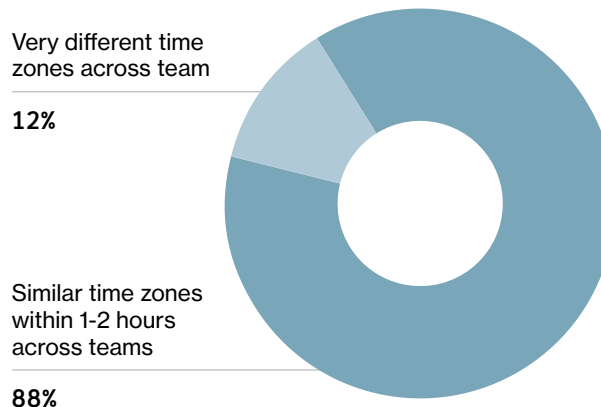
JOB TENURE



Aligned working hours + quiet space increase job satisfaction

■ Engineers report they value a quiet environment to get work done. Cultural differences also come into play here: Most Mexicans prefer coworking spaces with an open layout, in contrast to their Canadian counterparts, who prefer traditional offices and private space. When looking at collaboration between remote locations, working in a similar time zone proves to be critical.

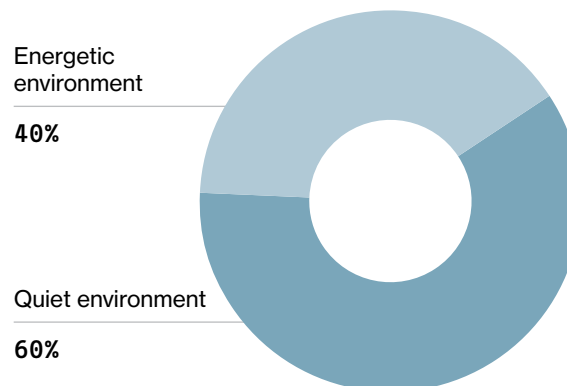
PREFERENCE FOR REMOTE PROXIMITY



88%

of engineers prefer working in similar time zones to teammates

PREFERENCE FOR WORK ENVIRONMENT



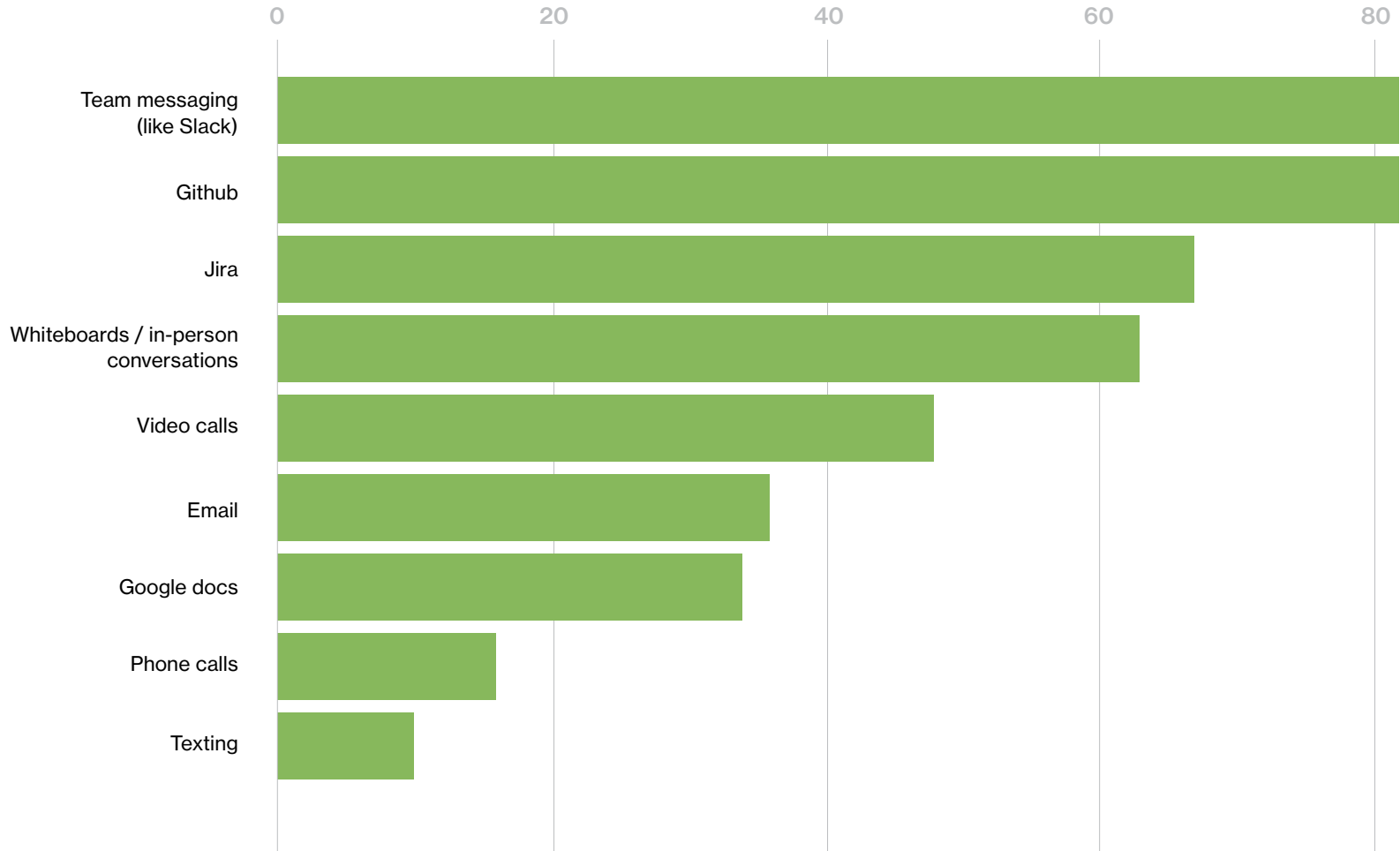
74%

of women favor a quiet environment compared to 59% of men

66%

of Canadians prefer a quiet environment compared to just 53% of Mexicans

MOST VALUED COLLABORATION TOOLS



Talent shortage has real effects on innovation

Two out of three engineers think there is a talent shortage, with repercussions impacting all aspects of their experience, from career growth to company success to broader innovation.

Those concerned about the tech talent shortage say it may stifle technical development, stunt innovation, overwork software engineers and limit their ability to grow.

IS THERE A TALENT SHORTAGE?

35% say there's probably a shortage

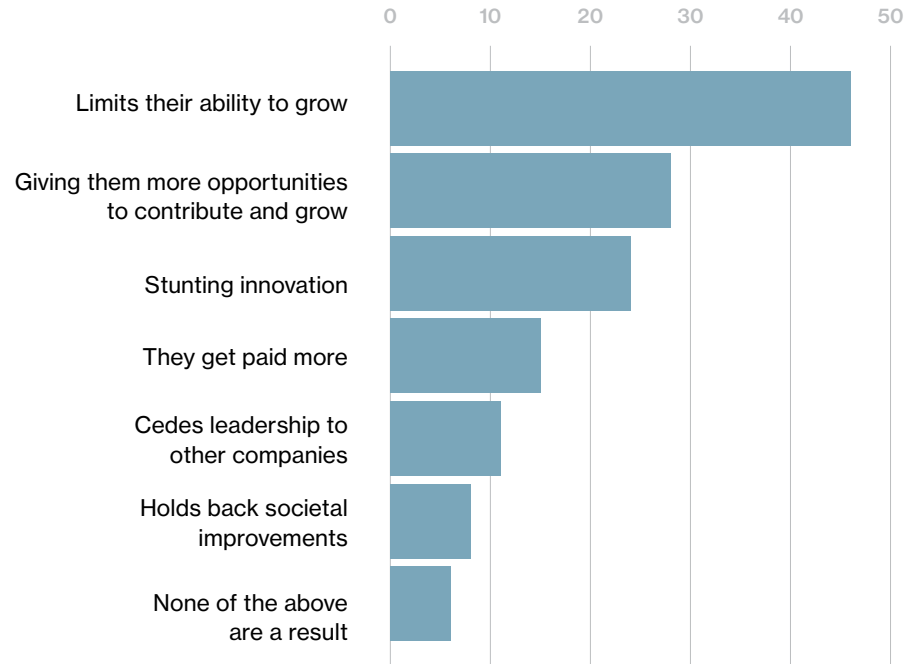
29% say they think there's definitely a shortage of software engineers in their current company

21% say no not real

13% indicate they don't know

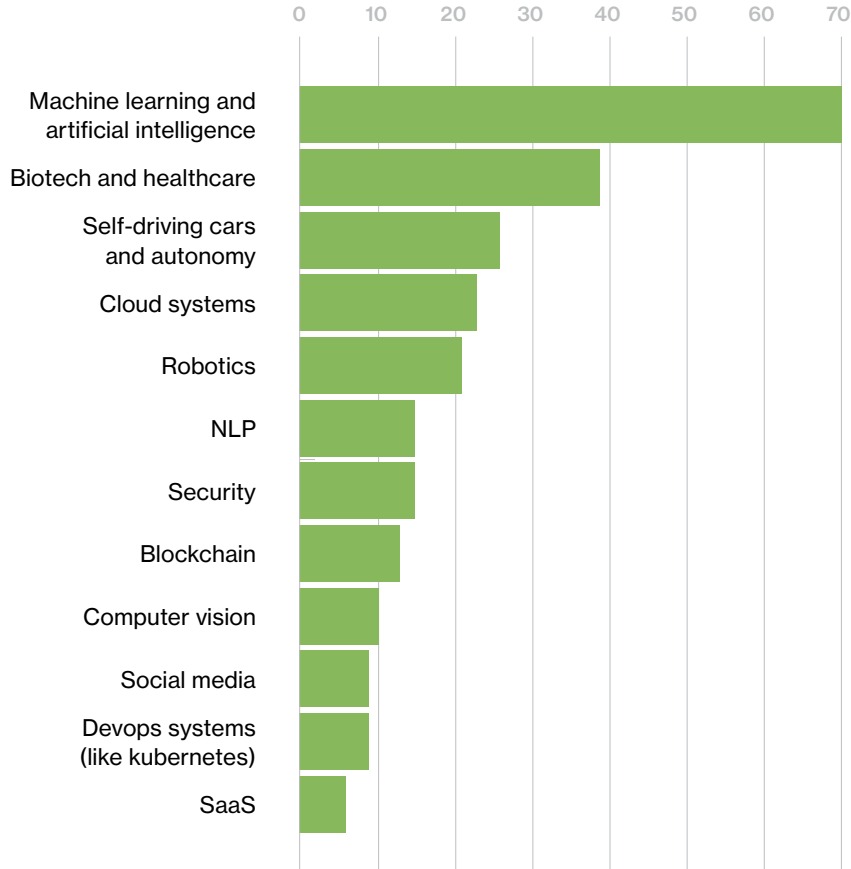
3% say no not at all

PERCEIVED EFFECTS OF THE SHORTAGE

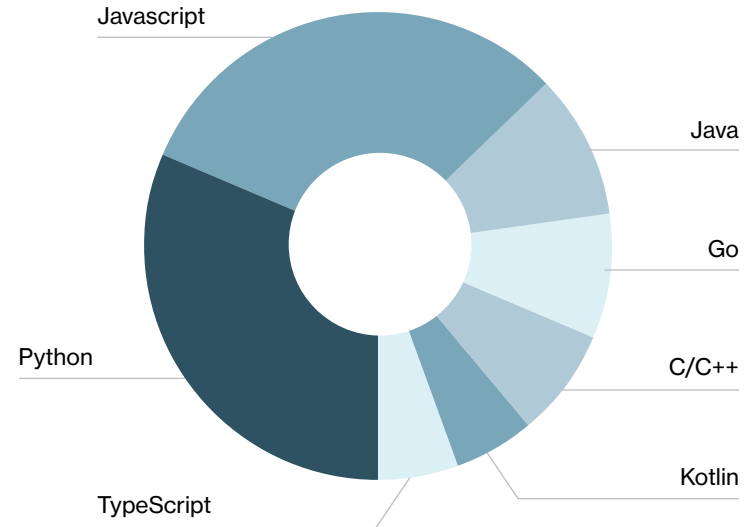


FUTURE OF TECH

What does the future landscape of engineering look like? Engineers identified several key areas that have the most potential to reshape society and business.



FUTURE LANGUAGES





Terminal

Interested in building out your remote strategy?
Terminal gives you everything you need to win the
fight for talent and find high-performing remote
engineering teams.



Always-on
recruitment



Community +
Operations



All-inclusive HR,
benefits + payroll



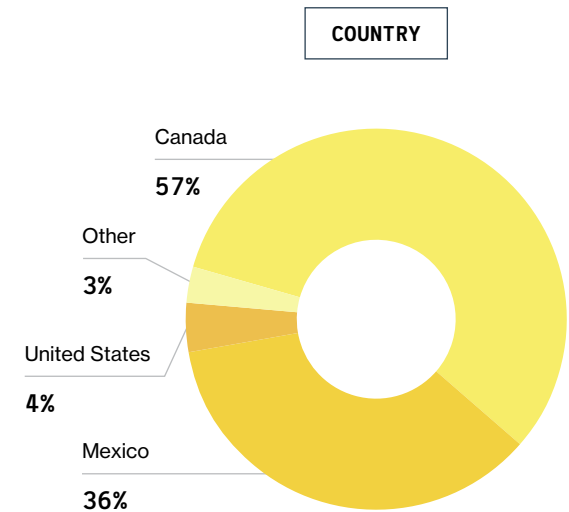
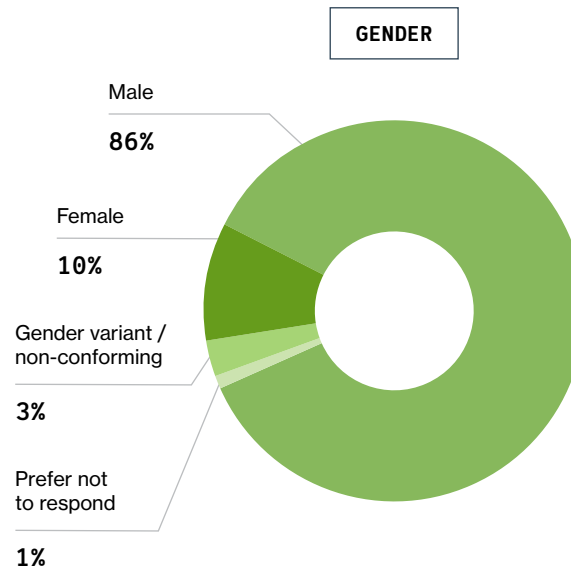
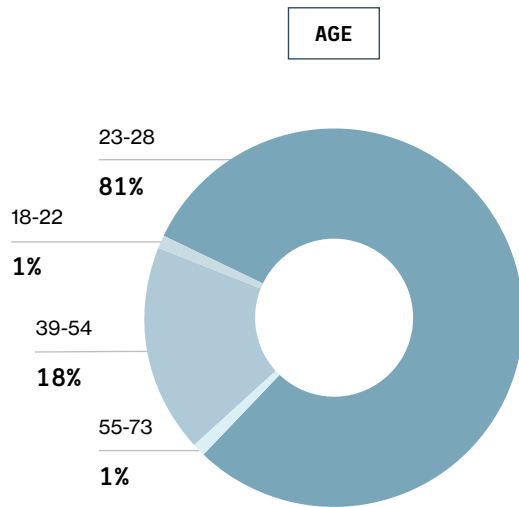
Premium
workspaces

Explore more resources for success
and get started at terminal.io

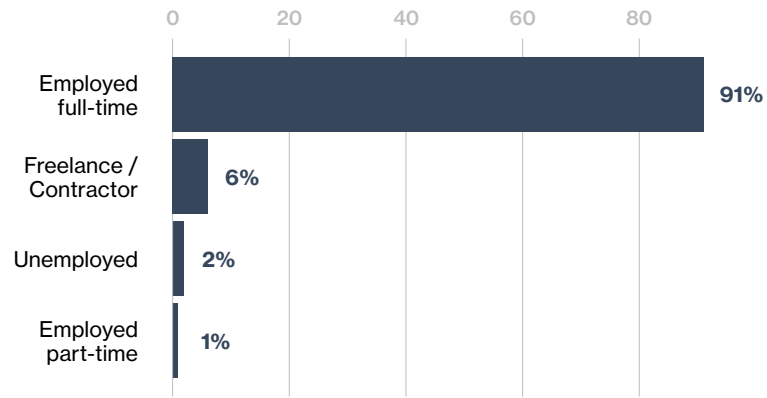
Profile of respondants.

METHODOLOGY

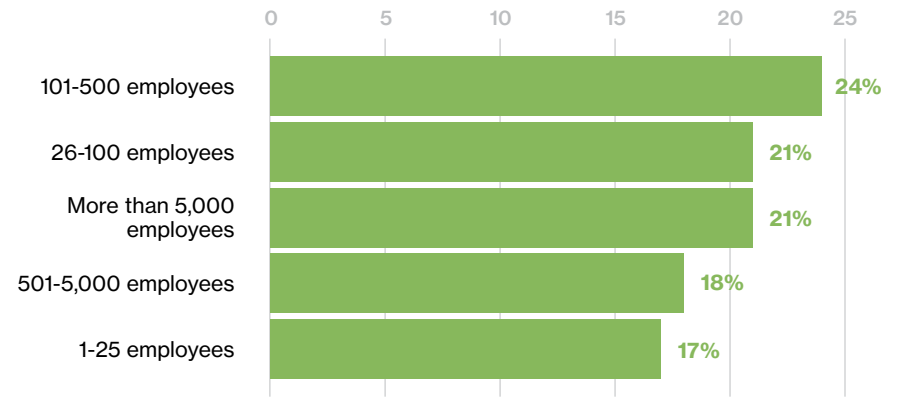
This report is based on a survey of software engineers across North America, primarily based where Terminal operates in Canada and Mexico.



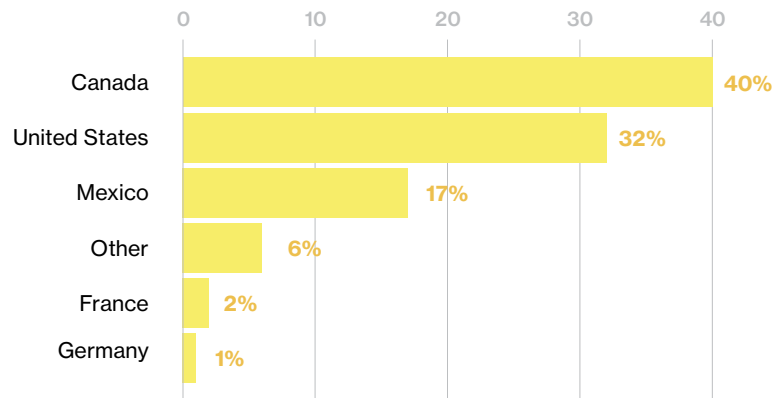
EMPLOYMENT STATUS



COMPANY SIZE



COMPANY HQ



JOB TITLE

