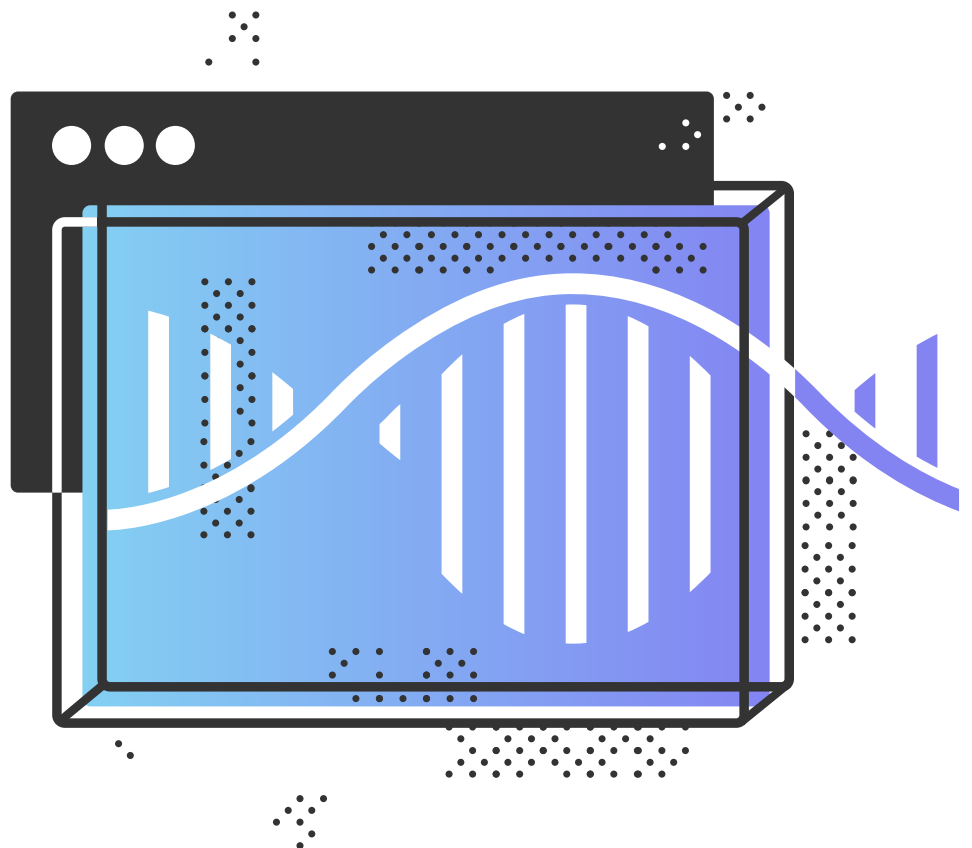


MDN

Web Developer

Needs Assessment

2019



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- Bocoup
- Google
- Microsoft
- Mozilla
- Samsung
- W3C

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# Introduction

# Introduction

The report you are now reading is the first edition of a global, annual study of designer and developer needs on the web. It is intended to shape the future of the web platform.

On single-vendor platforms, only one organization has to research developer needs and decide how to address them in the future. It's not that straightforward on the web, where multiple organizations need to be involved in feature decisions, from browser vendors to standards bodies and industry. As a result, change can be slow to come, which means that pain points may take a long time to address.

In discussions with people involved in the standardization and implementation of web platform features, one need came up repeatedly, "We need to hear more from developers."

That is what the MDN Web Developer Needs Assessment aspires to be: the voice of developers and designers working on the web.

Like the community, this assessment is not owned by a single organization. It was not tailored to fit the priorities of participating browser vendors, or to mirror other existing assessments. These findings are published under the umbrella of the MDN Product Advisory Board, and the survey used for data collection was designed with input from more than 30 stakeholders representing board member organizations including browser vendors, the W3C, and industry.

This report would not exist without the input of more than 28,000 developers and designers from 173 countries who took the twenty minutes necessary to complete the survey. That's more than 10,000 hours contributed by the community to provide an understanding of the pain points, wants, and needs of people working to build the web.

The input provided by survey participants is already influencing

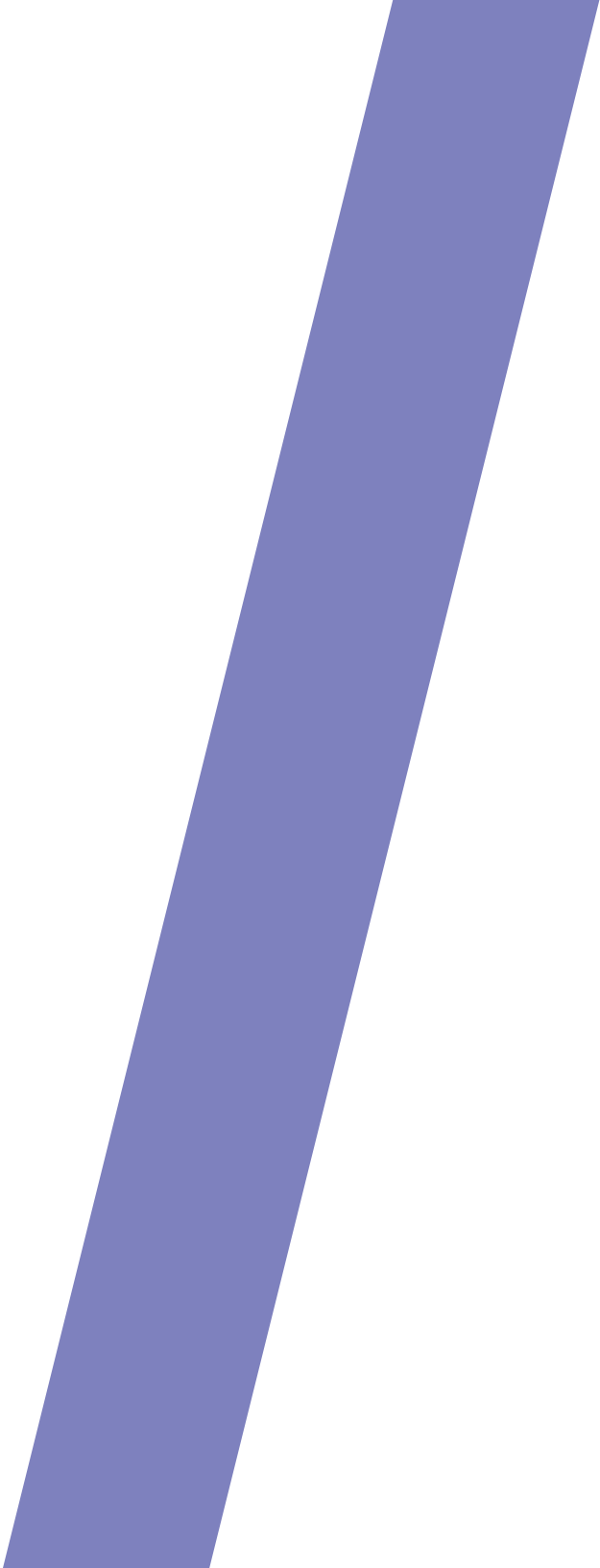
how browser vendors prioritize feature development to address the needs of designers and developers, both on and off the web. By producing this report annually, it will be possible to track changing needs and pain points over time, enabling all stakeholders to see the impact of their efforts on the future of the web.

# Study Participants



## Target

For the first iteration of the Developer Needs Assessment, our focus was people who spend at least some of their time writing code for the Web. This includes developers and designers. Inherent in this target audience is a selection bias of those who are working on the Web today. The voice of those who have abandoned the platform, whether because of dissatisfaction or other reasons, is left to future iterations of this study. Similarly, those who cannot or do not choose the Web platform are not a part of this study.



## Recruited

When the survey launched, it was announced on MDN as well as through tweets and other social network posts of the MDN community. The initial responses are the most diverse as participants were drawn in through the various social network promotions. As time progressed, the banner on MDN remained and was the prominent recruiting vehicle. The active publicity on MDN created another selection bias towards those who use MDN. However, MDN serves a large percentage of the developer and designer community.



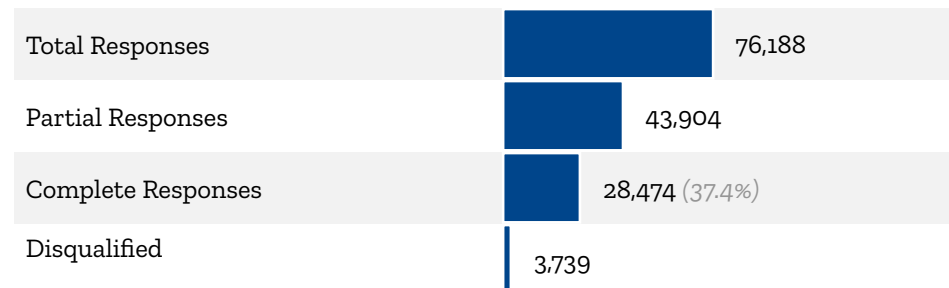


## Actual

The survey had 76,118 responses. Of those, 28,474 counted as complete responses for a completion rate of 37.4%. Partial and disqualified responses were not included in the analysis.

## Survey Responses

The completed responses are further broken down by gender, region, country, type of developer, and experience level on the following pages.

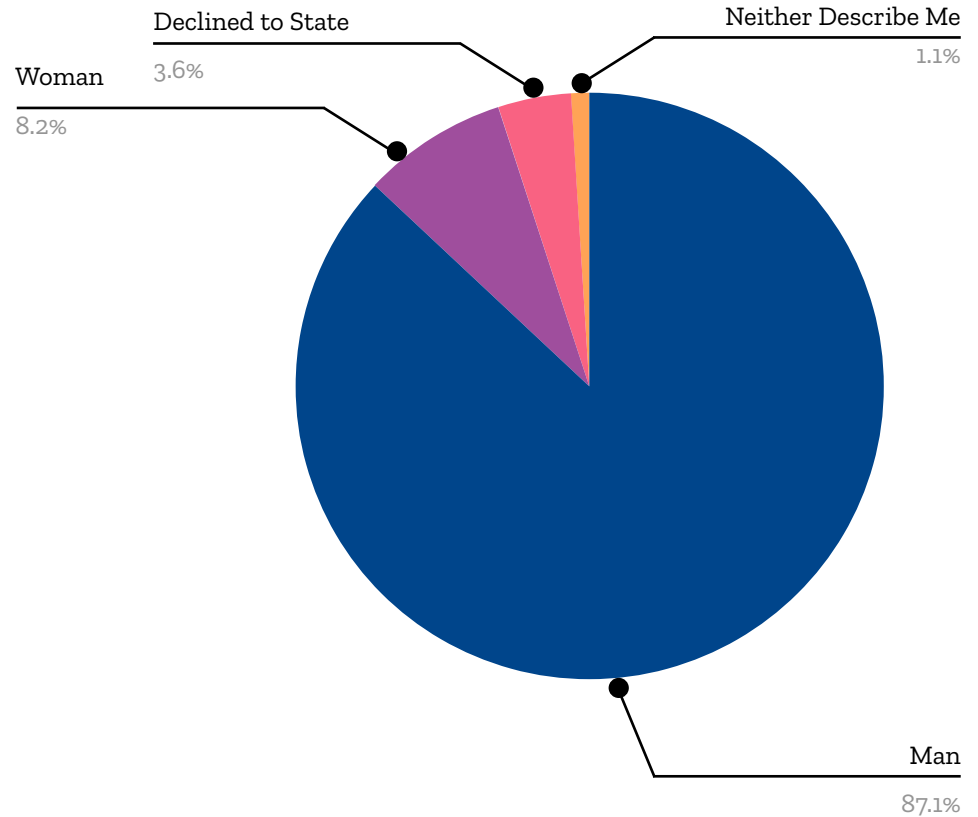


## Survey Responses By Gender

A goal from the onset of this project was to have a broad, global representation of the developer community. Despite attempts to get the survey in front of representative audiences, 87.1% of the respondents were men compared to 8.2% women and 1.1%, where neither option was suitable. To put this into perspective, the US Bureau of Labor Statistics<sup>1</sup> estimates that women's participation in the software developer workforce is more like 20%, though it's not immediately obvious what constitutes their definition of the software developer workforce compared to the audience for this study. When filtering our results by respondents from the United States who selected woman, we have a representation of 10.9%

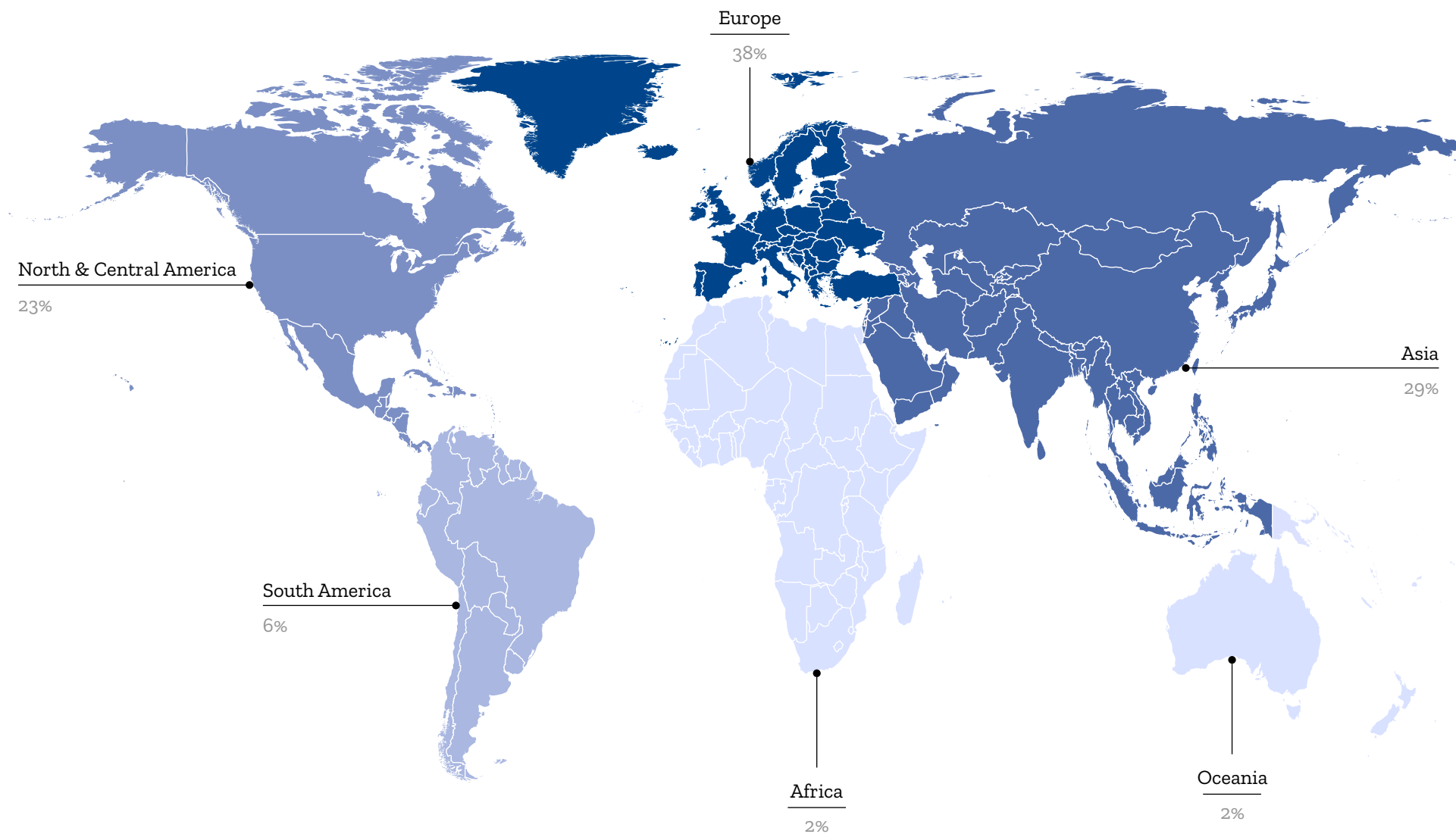
This discrepancy in genders is another bias in the first version of the MDN Web DNA, and unfortunately, is a common problem with many developer surveys. The difference in representation could be a result of how we fielded the survey. Our methods may have contributed to a less representative audience by utilizing outlets that unintentionally exclude or dissuade women and other minority groups from participation. We did attempt to gather more diversity by sending it to specific women-groups. In future iterations, we will continue to aim for fair representation and ways to mitigate or account for the bias.

The options provided as answers to choose from were carefully considered and vetted by Mozilla's legal team. The four choices offered were intentional. We launched the survey globally and had optional questions that asked for personally identifiable information. The degree of legal recognition provided to people who do not identify with a gender consistent with the gender assigned at birth varies widely throughout the world. We did not want to have data on gender that could put people in harm's way. Of completed responses, 55.2% answered the optional questions, which asked for personally identifiable information.



<sup>1</sup> <https://www.bls.gov/opub/reports/womens-databook/2017/home.htm>

## Survey Responses By Region



## Survey Responses By Country

The survey was localized from English into eight languages listed alphabetically:

- Arabic
- Chinese (simplified)
- French
- Japanese
- Korean
- Portuguese (Brazil)
- Russian
- Spanish

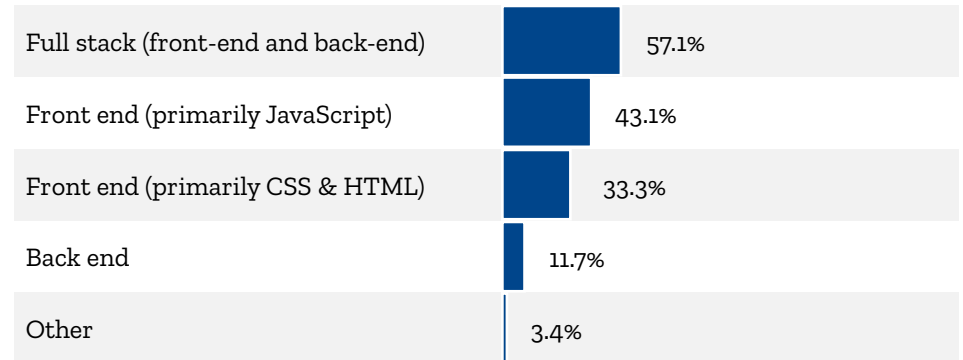
These languages are a combination of stakeholder input as well as what is most accessed on MDN. The translations offered likely influenced who participated in the study and might be an explanation for why there are not more respondents from India.

Though some countries' response rate seems low compared to expectations, the survey includes responses from 173 countries. Nine countries represent 61.7% of the answers. The other 164 countries had 3% or less of total responses. The nine countries with the most significant participation were:

- United States - 17.9%
- China - 8.2%
- Russia - 7.7%
- India - 6.2%
- Germany - 5.7%
- France - 4.9%
- United Kingdom - 4.4%
- Ukraine - 3.6%
- Canada - 3.1%

## Survey Responses By Type of Developer

Participants were asked, “Which best describes the type of web developer you are?” and were allowed to select multiple options. Most respondents identified as Full Stack or Front-end. The latter had two variations to pick: primarily JavaScript or primarily CSS and HTML. Full stack had the most representation at 57.1%. Back end had the least representation at 11.7%.



## Survey Responses By Experience Level

The experience level, measured by the number of years spent as a developer, was fairly even across recent (two years or less) to experienced developers (over ten years), 32.8%, and 23.4%, respectively. The lowest participation was from those with mid-level experience (6-9 years) at 15.6%. Additionally, more than half of all participants, 60.9%, had less than six years of experience.

