2021 ANNUAL SURVEY

CODE FIRST GIRLS

www.codefirstgirls.org.uk

TABLE OF CONTENTS

WELCOME TO COMMUNITY INSIGHTS

Each year, we undertake our community survey to help gain insights, opinions, and feedback on Code First Girls and the wider tech world. This feedback helps us to shape our future across product launches, events, communities, and partners. Our focus is to put **insights into action** and listening to our community last year, we have since:

- Created new MOOCs with a wider range of topics, with quick and short learning topics;
- Launched our Nanodegree with more intensive and in-depth learning;
- Are partnering with more companies across sectors and industries our community were most interested in with and with real job opportunities and career paths;
- Provided more hackathons with companies like Vodafone, Rolls-Royce, and the FCA;
- Launched Code Fest 2020 with a range of webinars and events to help showcase tech topics our community wanted to know more about, with Code Fest 2021 coming soon;
- Launched Career Nav with the opportunity to develop skills for job interviews, assessments, and for our community to explore tech career pathways.

This year, our 2021 survey was sent out to our community at the beginning of May and we received just under 1,000 responses from our members. Like we did last year, we plan on using the survey data to help us steer the direction of Code First Girls, and as a result, expand our offering in line with what our community would like to see next.

As part of the survey, we also collect insights from the community around what tech topics are of interest, global concerns, and what tech challenges will face us in 2021 and beyond. This year, we have worked with Flair to help understand some race-related challenges that our community has faced inside or outside of work. This will be presented as a research paper and be launched at Code Fest 2021 as one of our sessions.

We hope you enjoy learning about our community as much as we do and we look forward to sharing our 'insights into action' plans for next year in the near future!
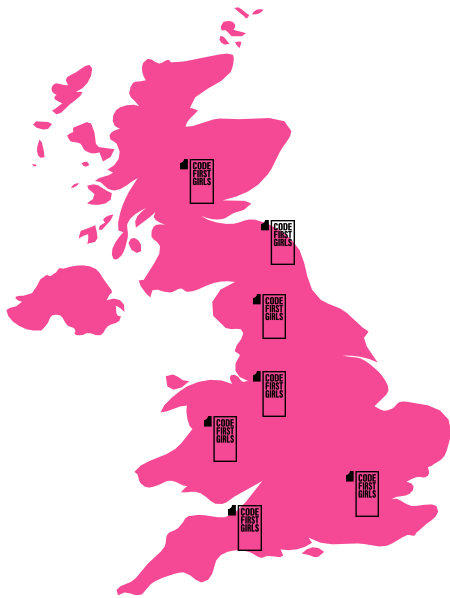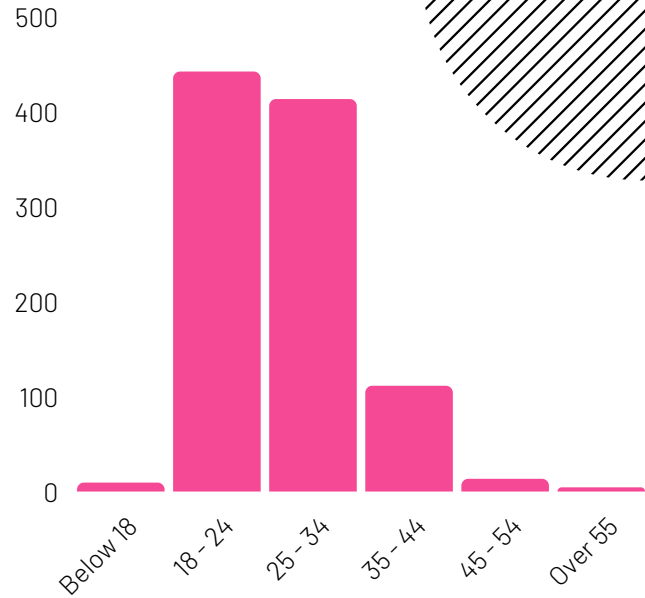
Anna

Anna Brailsford
CEO @ Code First Girls

COMMUNITY SNAPSHOT

Learning Has No Age

During the pandemic, it was a strategic priority to develop a robust offering for women who are looking for a new career in technology, and we have seen growth in demand across our courses for both learners and clients, this year seeing 124% growth in the Career Switcher experience bracket.

Our survey respondents are evenly divided into our @ uni kickstarter and Career Switcher age groupings. From the data on our courses, this usually sits around 70-30, so it is encouraging to see more women invested in helping to shape CFG and taking part in our CS courses.

(Bar chart — Age groupings)
Y-axis: 0, 100, 200, 300, 400, 500
X-axis: Below 18, 18 - 24, 25 - 34, 35 - 44, 45 - 54, Over 55

Regionally Speaking...

London represents the largest region for Code First Girls, with 36% of respondents hailing from the capital.

Candidates are otherwise evenly distributed across the other regions, with 7% or more in the North East, the Midlands, Scotland, or the South West. There are also CFG alumni globally, with significant groups in the USA and France.

This year we will be increasing our efforts in Wales, Northern Ireland, and the Republic of Ireland to increase awareness of CFG.

Ms. Worldwide

We are proud to have a broad range of ethnic backgrounds and nationalities represented in our community.

57% of our community identify as an underrepresented ethnicity, with this increasing to 70% among our first Nanodegree cohort, and 92 nationalities from around the world are represented in the CFG community, up from 58 in last year's survey!

92
Nationalities

COMMUNITY SNAPSHOT CONT.

Diversity Has Many Dimensions

We see the huge value in having a diverse mix of candidates and are pleased to see more companies actively pursuing representation in neurodiversity.

As 26% of our community identify as neurodiverse, we will be bringing recognition of neurodiversity to the forefront this year, discussing and showcasing how different individuals can bring a different or new perspective to tech and tech challenges.

Do you identify as neurodiverse?

Not sure 11.5%

Prefer not to say <3%

Yes 25.8%

No 60.4%
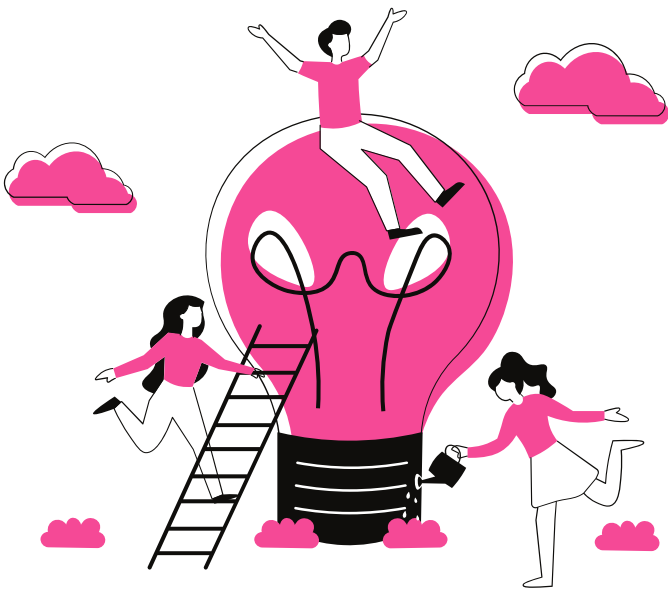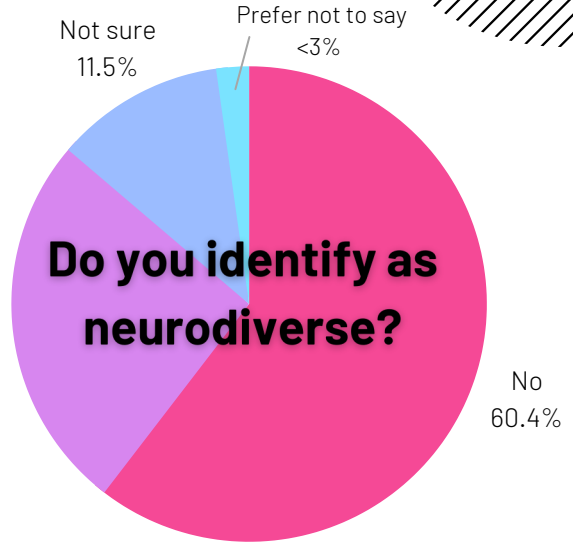
Social Mobility

It is vital that the tech sector provides opportunities for women across a broad range of social backgrounds.

Since 45% of our survey respondents are among the first in their family to attend university and 39% have been eligible for free school meals, we are so pleased to see so many pursuing a career in tech, hopefully giving them a new career pathway with life-changing outcomes.

I've Graduated... Now What?

42% of our survey respondents are within 2 years of graduating from university.

This means that they are ideally placed to begin exploring their career opportunities, and many are using Code First Girls to supplement their skills to prepare for a new and exciting career in technology; 54% are currently seeking or considering a new job in tech.

54%
looking for a new career
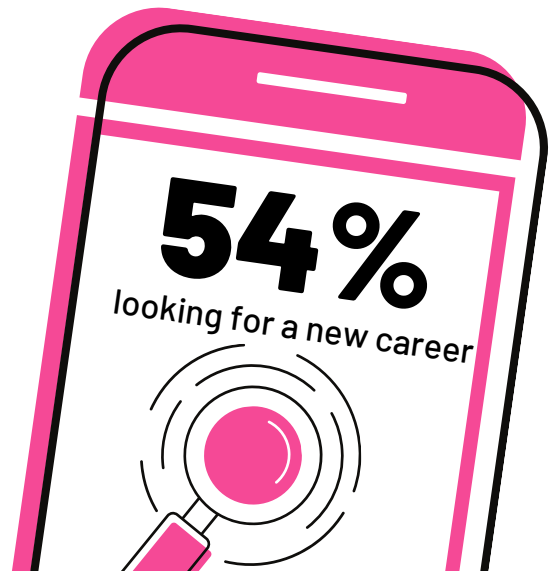
SKILLS & TALENT DEVELOPMENT
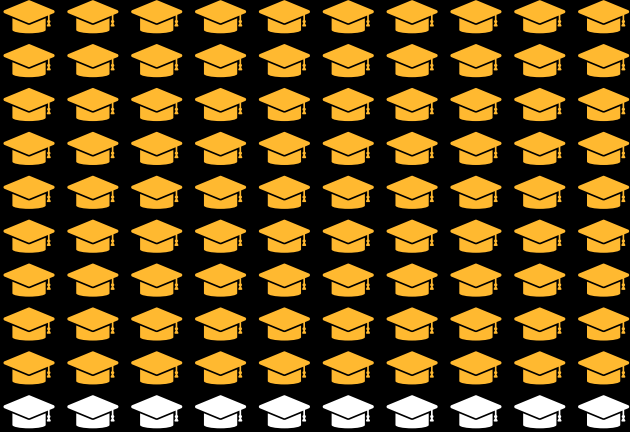
An Educated Bunch

90% of the women who responded to the survey have attended university, and a quarter of the survey respondents have graduated with a postgraduate qualification including professional degrees in medicine, pharmacy, or law.

Growing From The STEM

Many respondents are coming to Code First Girls to build on a strong background in technical subjects. 44% have degrees in STEM subjects, and 1 in 4 have a degree in Computer Science or Engineering. This is consistent across demographics.

Furthermore, 7% have degrees in languages or linguistics, a field of study which is increasingly relevant to artificial intelligence applications like natural language processing.

Beyond STEM

What's encouraging is that we are seeing more members of community (49% from our survey) studying something outside of a STEM / languages and have started to explore a career in tech through Code First Girls. With growing areas such as CreaTech, EdTech and LegalTech to name a few, uni students and grads (as well as companies) are seeing the benefits of a combination university degree and a CFG course.

SKILLS & TALENT DEVELOPMENT CONT.
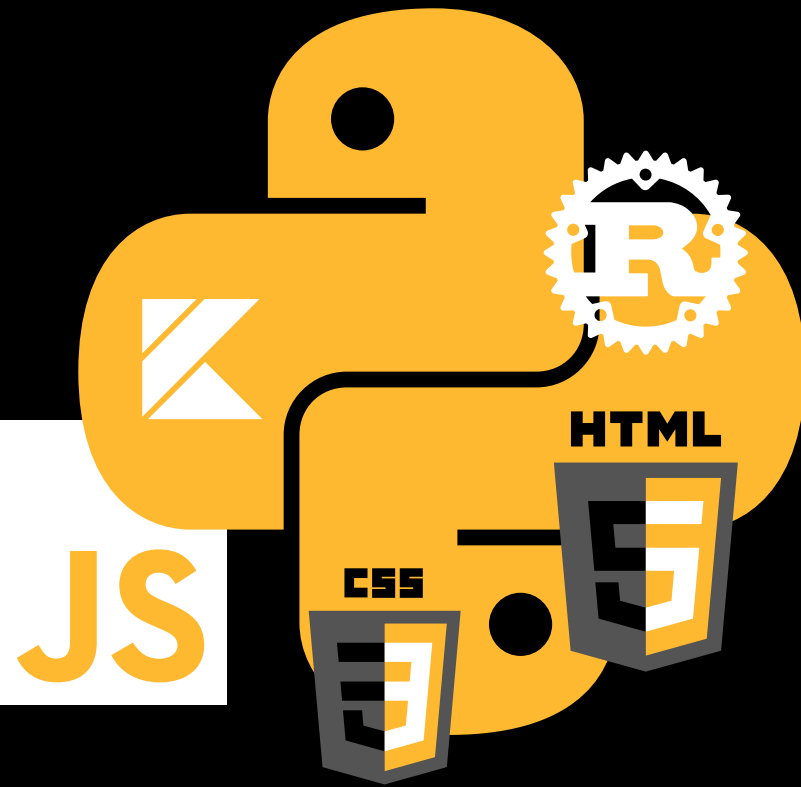
Coding Kweens

Code First Girls courses are leading women to develop meaningful applied skills in dozens of in-demand coding languages.

A huge 93% of our respondants have used a programming language/s, with 50% of respondents having used Python to build a project, 34% have used HTML, and a quarter have used JavaScript and CSS.

Respondents reported experience with 42 different coding languages, including C#, Kotlin, Rust, and Lua, showing the broad experience and passion for learning among the Code First Girls community.

Building On A Solid Framework

The community members who responded to the survey are increasingly experienced with the leading web frameworks.

46% have experience working with web app frameworks including React.js, ASP.NET Core, Vue.js, Express and others.

Our community have indicated that this is an area they would like to build on, so we will be looking at learning opportunities across languages, platforms and deployment in the coming year.

SKILLS & TALENT DEVELOPMENT CONT.

Dynamic Data Divas

Since the launch of our data & SQL course last year, in addition to our recent Nanodegree specialisation, we have seen a huge surge in the popularity of data engineering and analysis skills and languages, with an accompanying interest in careers in data science.

66% of respondents have experience with database tools including MySQL, Microsoft SQL, MongoDB, Oracle, and dozens of other tools.

Applications of data analysis including machine learning and AI are also the most cited topic of interest among the respondents; 52% rate these as the most interesting topics in tech.
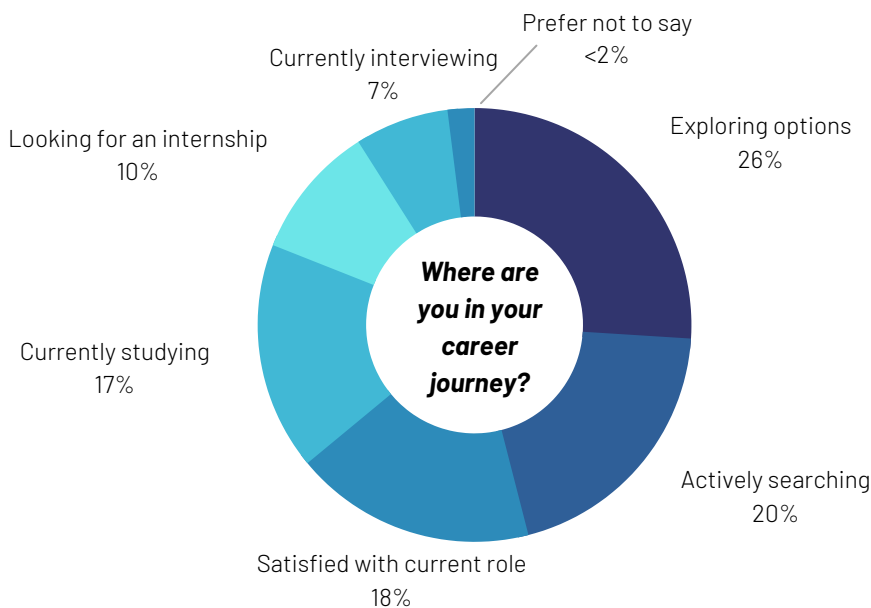
CAREERS IN TECH

What Attracts You To A Job?

More than ever, companies are competing with each other to attract and retain top technical talent. In this environment, it is vital that corporate talent teams are building their organisations with the demands and expectations of the next generation of technical leaders.

Our respondents highly value investment in their skills and consider opportunities to develop and learn paramount. Furthermore, the flexibility to work from home and work-life balance also rank highly - something that has become more important to our community vs. previous surveys - a reflection of the impact on Covid on workplaces and priorities.

1. Learning Opportunities
2. Culture & Office Environment
3. Work-life Balance
4. Professional Development
5. Flexible & Remote Working
6. Salary
7. Diverse Organisation
8. Challenging Work
9. Social Impact
10. Personal Impact of Work

Where are you in your career journey?

- Prefer not to say <2%
- Currently interviewing 7%
- Looking for an internship 10%
- Currently studying 17%
- Satisfied with current role 18%
- Actively searching 20%
- Exploring options 26%

Looking For New Jobs?

53.7% of community members surveyed are actively looking for their next role or exploring their options in tech.

Only 18% of the candidates surveyed are currently satisfied with their current role, which corroborates industry insight that predict an increase in employee turnover in the summer and autumn of 2021 as workers upskill and find more rewarding roles, such as those in technology.

CAREERS IN TECH CONT.

Networking

Mentoring

Profile building

Career Support & Networking

When asked about what kind of career support they would like, the top five responses were profile building, mentoring / coaching, networking, application and interview training, and being able to see what career pathways were available.

Additionally, we found that support shouldn't stop once candidates land the role. Helping women navigate male-dominated environments, imposter syndrome and other challenges they may face was also key for the community.

"I think I would like to see some guidance on how to stand out and land a tech job for someone who doesn't have a tech related degree."

"I didn't see many examples of career paths from a completely non STEM background, I also think more promotion of less technical roles that are important and open the door without thinking you need to be great at coding"

"Tech career pathways are difficult to navigate. I am making a career switch from a very different area, and whilst I find there are are plenty of resources and tips on building a career, I'm also finding there is equal or more discouragement from people in the industry."

"It will be helpful to have a forum of mentors because I am personally trying to find clarity about where to pivot my career and it would be appreciated if someone working within product could give me a helping hand in this process"

"I would like there to be some focus on development tools e.g GitHub – how it is used and why it is important to be active on there"

CAREERS IN TECH CONT.

Which Sector Is On Top?

Understandably, our respondents are most interested in a career in technology, however, they also are interested in ways that tech can be synthesised with other sectors like creative, consulting, banking, and healthcare.

As the quotes below show, our respondents are passionate about using technology to impact the world for the better.
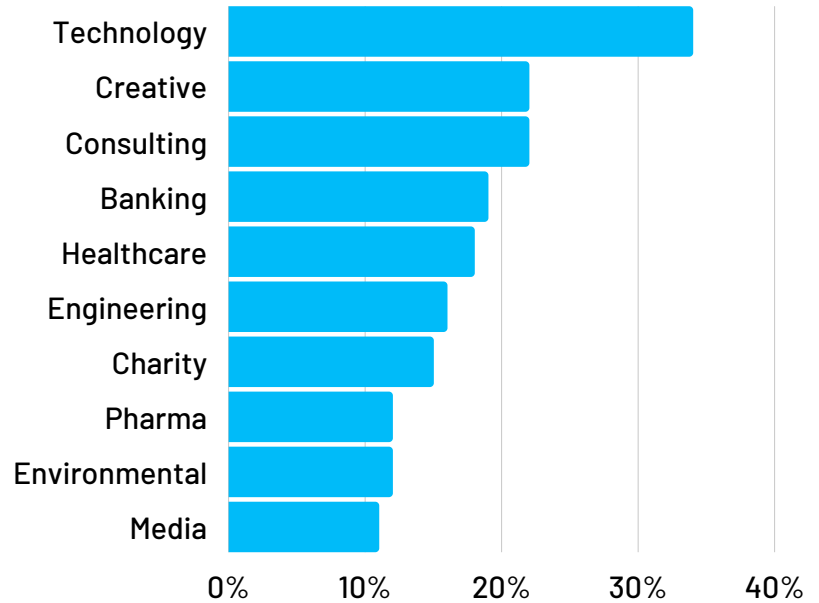
"As a woman of colour, I strive to see social change for the socially marginalised. My experience in finance and business has allowed me to utilise tools within the field as a vehicle for social change. I am interested in law and legal compliance as these are the frameworks that allow me to utilise said vehicles to fully implement change."

"I am interested in developing data science programming skills which I can utilise in environmental policy, developing net zero pathways for businesses and government usage."

"I love working at the intersection of creativity and tech, doing something meaningful to benefit society"

"Aligns with personal interest, want to help people health wise through digital means"

"I am interested in drug discovery and how the body works. I am also interested in how to use technology to accelerate medicines to market and find better treatments"

CAREERS IN TECH CONT.

Top 20 Employers

The top 20 companies that survey respondents want to work for are a who's-who of big tech, disruptive innovators, and government institutions. Code First Girls is even on the list!

Code First Girls partner organisations like Bank of America, Goldman Sachs, NatWest, GCHQ, and Deloitte rank highly, as do the big-tech FAANG companies, Monzo, and Spotify. Unsurprisingly, Britain's favourite brand and pandemic saviour, the NHS, also is among the top employers on the list.

Why Do You Want To Work There?

"I think Monzo has a really progressive approach to integrating front end services within banking with a real focus on the experience of the user"

"I'm really interested in CyberSecurity and would love the challenge and intensity of working at GCHQ."

"Bank of America awarded me a scholarship. They are passionate about upskilling women and from speaking to those at the company, it sounds like a wonderful place to work!"

"Anything regarding innovation, AI, machine learning and/or dealing with big meaningful data makes me excited for a career at Rolls-Royce"

"The NHS as I have a strong interest in healthcare and helping others "

GLOBAL ISSUES & CHALLENGES

What Are Your Work Worries?

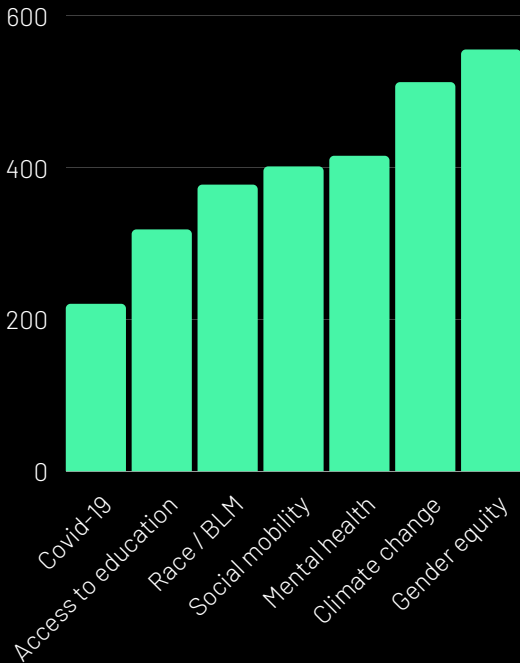Despite the economic impact of Covid-19 and the pandemic lockdowns, the main career concerns of our respondents focus on data security, AI bias, ethics, and diversity.

The most frequently reported challenge that our respondents expect the tech sector to be dealing with in 2021 and beyond is data security, with 45% of respondents sharing this concern.
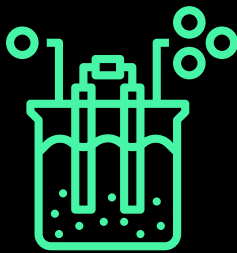
Ongoing Challenges of Covid

After a year defined by the disastrous impacts of the covid-19 pandemic, our respondents are still concerned about the ongoing and future impacts of the pandemic. 36% of respondents are concerned about the mental health impacts of lockdowns, and an equal proportion are also worried about their job security.

This shows an opportunity for employers to show leadership through providing mental health support for their teams who are in the office and those who are remote.
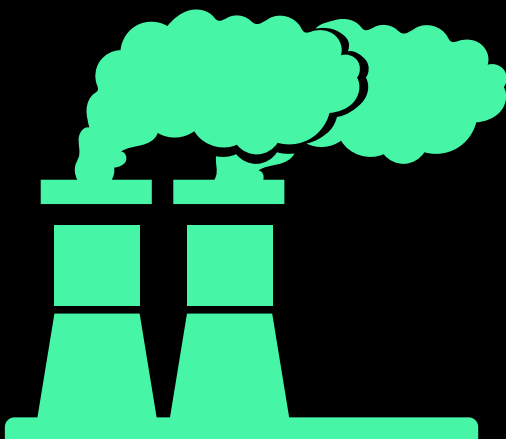
GLOBAL ISSUES & CHALLENGES

Global Issues On The Horizon

Research shows that Generation Z is more driven by social issues than any before. They are globally networked through social media, and are driving for change in a variety of ways.

The most frequently cited global issue that respondents are passionate about is gender equality, with 60% saying that is what they are most passionate about it. Climate change, mental health, social mobility, and race relations are also all very important to the Code First Girls survey respondents.
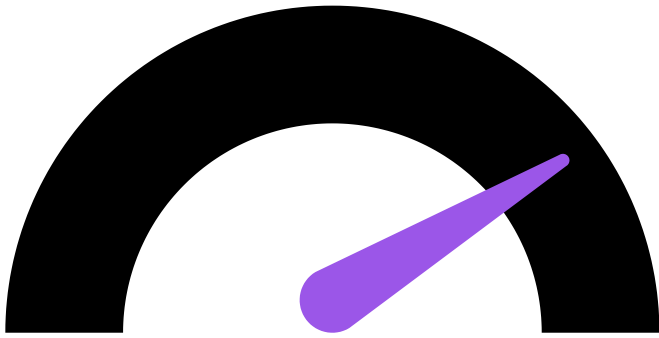
"I want women to be paid equally to men in the software industry. Women are just as good at coding."

"How can tech help prevent climate change?"

"I think teaching young women to tackle common misconceptions that tech companies have about gender equality and diversity could be beneficial. Learning to dismantle these types of fallacies is key in keeping women psychologically safe and sound in tech."

RACE & GENDER IN THE WORKPLACE

Attracting And Retaining Talent

The 2021 Code First Girls Community Survey was developed in partnership with the data-driven anti-racist culture consultancy, Flair.

The experts at Flair have partnered with us to explore the experiences of racism in the Code First Girls community in professional settings to provide us with unique insights into best practices around building a culture to attract and retain talent through the fostering of anti-racist cultures in the workplace.

The report will be launched with a seminar at Code Fest 2021 in September. For more information and to learn more, visit our website.

80%

of women in our survey who identify as a member of a minority group have experienced racism at work

"I resigned from my job in 2019 due to micro aggressions and bullying. I was being picked on for being a woman, a black woman, a black woman who is neurodiverse. I became depressed and after being threatened by my manager and trying to go down the appropriate avenues, I was told by a white woman in HR that she didn't believe me."

"I'm not ready to share my stories. It hurts my feelings even just think about what happened to me and around me."

"I was horribly discriminated against in a previous workplace on the grounds of race - bullying, micro aggressions and racial harassment. What made it worse is, I was then treated indifferently by the white leadership team, who didn't even try to understand."

Thank you for taking the time to read our 2021 Annual Survey Report.

www.codefirstgirls.org.uk

CODE
FIRST
GIRLS