



# Bikes without barriers

Tackling the gender gap in community bike workshops

Author: Krysia Williams







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The report is edited by Matthew Butcher, Innes Eccles & Emma Close, and designed by Chris Woodward ([www.chriswoodwarddesign.co.uk](http://www.chriswoodwarddesign.co.uk)).

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# Foreword

As a woman who has taken that first, intimidating step into a bike workshop – a domain usually dominated by men – I empathise deeply with those who are yet to take it. It's been over five years since I started my love affair with bike maintenance, learning to tinker, tighten, grease, and reassemble, and in that time I've watched many folks of varying gender identities, ages, ethnicities and abilities walk through those doors for the first time. It's encouraging when they return, and disheartening when they don't. Learning how to address the latter in order to promote the former is a crucial part in making these spaces accessible to all.

As Krysia demonstrates in this report; '*Bikes without barriers: tackling the gender gap in community bike workshops*', being able to fix your own bike isn't just about knowing when brake pads and cables need replacing; it's also about forming a connection with it, and feeling empowered to take it further afield, armed with the knowledge and confidence needed to get out of trouble should you fall into it.

That's what makes this research and resulting report so important. It opens up a new level of inquiry within a field that's underserved. It raises much-needed questions about who these spaces are really catering to, and how they can be made more accessible and welcoming to all, so that anyone who wants to learn those all-important skills and feel empowered by them, has the opportunity to do so.

I urge you to take in the findings of this report, and consider how you can apply them to your own endeavours, whether you are currently involved in a community bike project, or considering starting up a similar enterprise of your own. There's a lot to be gleaned from these pages, and there's certainly no time like the present.

## **Mildred Locke**

Director, The Bristol Bike Project



# Executive summary

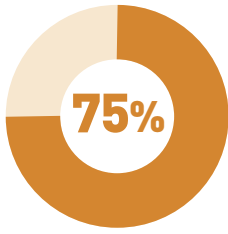
While cycling habits continue to be well researched, the world of bike maintenance has received little interest. This report shines a light on this under-researched area and begins a conversation around inequalities in access to DIY bike maintenance. It explores the gaps in access to bike maintenance, why this matters, and what we can do about it.

## The report has three aims

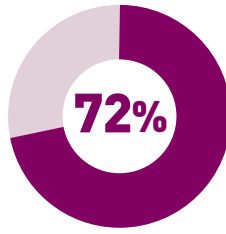
- 1 To broaden our understanding of the gender gap, and other inequalities, in accessing DIY bike maintenance opportunities;
- 2 To explore the significance of fixing your own bike in addressing health and social inequalities;
- 3 To make specific recommendations to community bike workshops and the wider sector for how to make bike fixing spaces more inclusive for all genders.

## Key findings

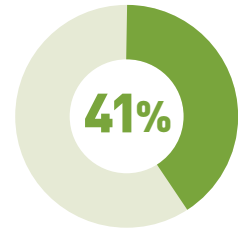
- 1 **Many women and non-binary people already fix their bikes, and want to do so more but experience barriers to doing so.** The most significant barriers are a lack of knowledge and confidence, lack of access to resources, and experiences of exclusion. Gender is an important dynamic in these barriers, and can be compounded by other factors such as ethnicity and socio-economic background.
- 2 **Fixing your own bike has wide-reaching benefits for women and non-binary people.** The activity itself is associated with positive mental health indicators including a sense of autonomy and achievement. Fixing your own bike is also shown to improve confidence riding your bike, thereby enhancing the wider benefits associated with cycling such as improved physical health and independent mobility.
- 3 **Tackling the gender gap and other inequalities in access to DIY bike maintenance could support efforts to tackle wider health and social inequalities.** Women and non-binary people in the UK are disproportionately affected by poor mental and physical health. Measures which support their access to DIY bike maintenance are crucial to addressing these inequalities.



of women and non-binary people would like to fix their bikes more regularly



of women and non-binary people associated fixing their bike with positive mental health indicators



of women and non-binary people said fixing their bike gives them confidence cycling

## Recommendations

### For community bike workshops:

- 1 Tailor and target promotion to groups under-represented in your workshop and clearly communicate what's on offer.
- 2 Adequately resource outreach and ongoing support to under-represented groups.
- 3 Support those excluded from bike fixing spaces into teaching roles.
- 4 Offer bike maintenance training exclusively for women and non-binary people.
- 5 Provide specific workshops for people who experience exclusion in bike fixing spaces.
- 6 Develop robust policies and offer training for staff and volunteers on diversity and inclusion.

### For other stakeholders / local authorities:

- 1 Carry out further research into the inequalities within, and benefits of, access to DIY bike maintenance and spaces, with regards to gender as well as other factors including ethnicity, age, disability and socio-economic background.
- 2 Provide adequate funds and resources (i.e. space) to kickstart new community bike workshops, and for existing ones to increase outreach and support for under-represented groups. Focus expected outcomes on quality not quantity.
- 3 Support young women and non-binary people into the bike mechanics industry through pathways such as government funded apprenticeship schemes.



# Introduction

The pandemic put bicycles in the spotlight. The ‘great bicycle boom’ of 2020 saw the number of people riding bikes surge across the globe.<sup>1</sup> Bike retailers struggled to keep up with demand and governments responded to the bicycle’s new found popularity with commitments to bigger budgets and better infrastructure.<sup>2</sup>

But the significance of the humble bicycle is nothing new. Bicycles have long been promoted as a key solution to some of our biggest challenges: the climate crisis, air pollution, traffic congestion, physical inactivity, and social isolation.<sup>3</sup> They are a flexible, reliable and fast mode of transport. Riding a bike is emission-free, and the physical and mental health benefits are well-evidenced.<sup>4</sup> Indeed, published over 10 years ago, the Marmot Review of health inequalities across England recommended riding a bike as a key factor in reducing health and social inequalities.<sup>5</sup>

Yet, in the UK, riding a bike remains a very exclusive activity - gender, socio-economic background, ethnicity, age and disability all continue to determine our cycling habits. According to the Sustrans Bike Life surveys in 2018 and 2019, over three quarters of women in the UK never cycle and only 9% of women cycle regularly, compared to 21% of men.<sup>6</sup> You are also less likely to cycle if you are from an ethnic minority group, aged over 65, from a lower socio-economic background, or disabled. Ethnic minority women are the least likely to cycle.<sup>7</sup>

The Bristol Bike Project (BBP) – like many other community bike projects – aims to address these inequalities and enable freedom of movement for all by providing access to free bicycles. BBP also offers an accessible space for people from all walks of life to come together to learn, fix bikes and build community. While there has been no research



into the benefits of DIY bike maintenance, BBP believes that fixing your own bike supports autonomy and independence, and creates a connection between bike and owner.

There are no statistics available to determine the inequalities within the profession or wider field of bike maintenance. However, with motor vehicle mechanics ranked the UK's number one most male-dominated profession<sup>8</sup>, and judging by a cursory glance round most bike shops or workshops, it's hard not to conclude the gender gap is significant. Even spaces like BBP which work hard to be inclusive have stark inequalities.

Women\* and non-binary people make up just 28% of BBP's volunteer base, 28% of the membership, and only 22% of the Earn a Bike<sup>†</sup> community. Furthermore, BBP's popular DIY bike workshops for young people are used almost exclusively by young men and boys, while young women and non-binary people are rarely in the workshop.<sup>‡</sup>

But when BBP provides workshops exclusively for women and non-binary people, their popularity and often over-subscription demonstrates a desire for inclusion and participation across the gender spectrum. So what is it that stops women and non-binary people from moving beyond the gender-exclusive programmes and taking up space in the workshop more generally?

To address that question, this funded project set out to explore the barriers women and non-binary people experience to accessing community bike workshops, and the benefits for those that do. The project undertook two simultaneous strands of research. Wide-reaching online research sought to gain an overview of the experiences of women and non-binary people with regards to DIY bike maintenance and community bike workshops. Alongside this, we delved deep into the experiences of, and feedback from, a small focus group of young women who took part in a pilot community programme at BBP. By bringing young women into the space, we were able to explore with them how to better curate the space and programmes to make them more inclusive.

The onset of the pandemic in early 2020 was a disruption for this project - it halted the pilot programme half way through and necessitated a complete redesign of the wider research, which relied on the physical presence of groups in the workshop. As a result, the design, scope and timeline of the research has changed since its first initiation. Nonetheless, the overall framework, themes and questions are very similar.

The report has three aims:

- 1 To broaden our understanding of the gender gap, and other inequalities, in accessing DIY bike maintenance opportunities;
- 2 To explore the significance of fixing your own bike in addressing health and social inequalities;
- 3 To make specific recommendations to community bike workshops and the wider sector as to how to make bike fixing spaces more inclusive for all genders.

\* This includes trans women and any other self-identifying women.

† Earn a Bike is BBP's core community programme. It offers anyone experiencing involuntary long-term employment the opportunity to refurbish and take home a bike for free: [thebristolbikeproject.org/community/earn-a-bike](https://thebristolbikeproject.org/community/earn-a-bike)

‡ There are no comparable statistics available at BBP with regards to ethnicity, age, disability or socio-economic background.

# The research

The research aimed to gain a better understanding of the barriers women and non-binary people face to fixing their bikes, as well as the benefits for those that do. It also sought specific recommendations for how spaces like BBP can be more inclusive of all genders. While the research focussed on gender, we also considered other aspects which may impact experiences of bike maintenance, including: ethnicity, socio-economic background, disability and age.

After completing a literature review and soliciting opinion online through a Reddit post aimed at female bike mechanics (which received 86 responses), we conducted an online survey for women and non-binary people (210 responses). Results from all three are combined in the first section of this report.

A case study then looks at the experiences of four young women who took part in a pilot programme at BBP to learn bike maintenance and refurbish a bike to take home.\*\*

## Limitations of the research

- The online research represents majority active bike users (84% of the survey respondents ride their bikes once a week or more) and is not representative of those who use bikes rarely or never.
- The online research has limited representation from people of Black, Asian or minority ethnic (BAME) backgrounds, lower socio-economic background and disabled people. It also has limited representation from people aged under 25 or over 55. (See Appendix 1: Breakdown of respondents.) As such, it is not possible to offer a strong analysis of trends based on other demographics. These factors are nonetheless important and the experiences of these respondents will be highlighted where possible.
- Further research is needed in order to reach non-active bike users, as well as to gain a broader and deeper understanding of how ethnicity, socio-economic background, disability and age impact access to and experiences of DIY bike maintenance.

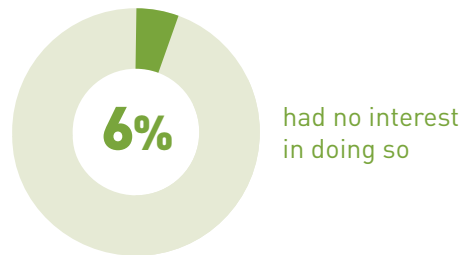
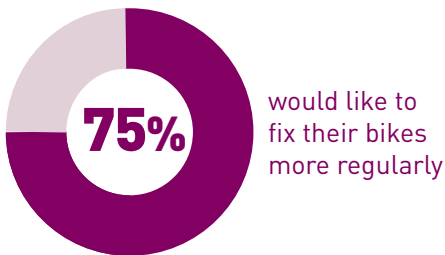
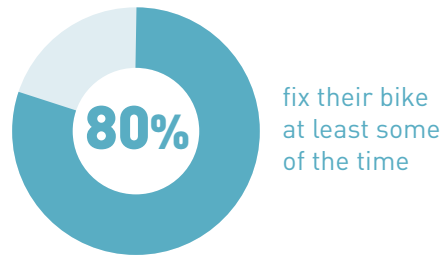
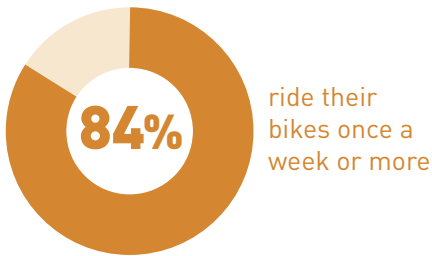
\*\* The programme was aimed at young women and non-binary people. All participants identified as young women, and we did not have representation from young non-binary people. We therefore refer to young women for this part of the research moving forward.

# The results

**Most women and non-binary people who ride bikes fix their bikes at least some of the time.  
Many would like to do so more**

What did our online research tell us about the experiences of women and non-binary people when it comes to bike fixing? Firstly, of those who already ride a bike, the large majority are also fixing their bikes at least some of the time, and many would like to do so more.

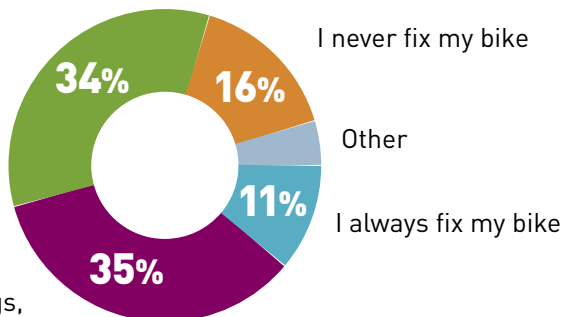
**From our survey:**



## Do you fix your own bike?

I occasionally fix things on my bike, but not much

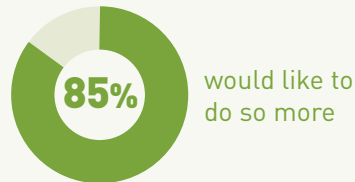
I fix some/most things, but go to the professionals for more challenging stuff



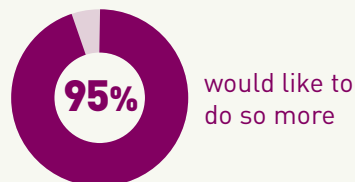
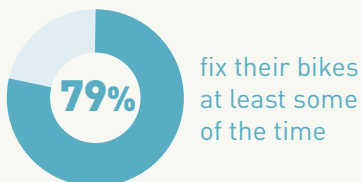


BAME respondents were least likely to fix their own bikes, while those from a lower socio-economic background were most likely to.

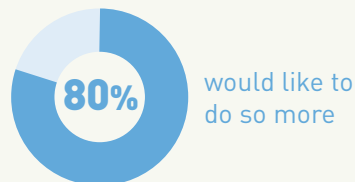
**From a lower socio-economic background**



**Disabled respondents**



**BAME respondents**



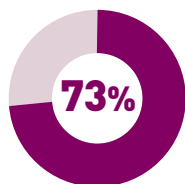
In our sample of 210, at least 7 (3%) are professional bike mechanics and 44 (21%) said they would consider fixing bikes as a profession.

When people are not fixing their own bike, the vast majority of people take their bikes to either bike shops (78%) or a man in their life (45%). Only 10% take their bikes to a woman or non-binary person in their life to be fixed.

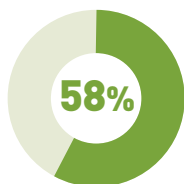
## The main barrier women and non-binary people experience to fixing their bikes is a lack of knowledge or confidence

If three in four women and non-binary people want to fix their bikes more regularly, what stops them? The main barrier is a lack of knowledge or confidence.

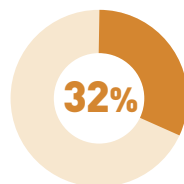
From our survey:



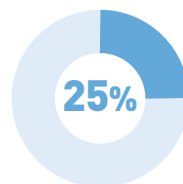
don't fix their bike  
more often because  
they don't know how



are not confident  
fixing their bike



feel stressed  
fixing their bike



feel self  
conscious fixing  
their bike

While a lack of knowledge and confidence are significant barriers, they do not necessarily come hand in hand. 39 people in our survey specifically cited feeling held back by the *fear* of getting it wrong. A common theme on Reddit was the pressure professional female bike mechanics experience to get things right, while men were seen to be freer to make mistakes.

### “Being regarded as a novelty makes me self-conscious”

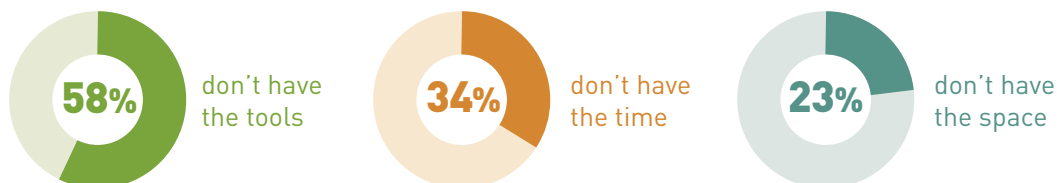
Feeling out of place was a common theme in our online research and strongly correlated to a lack of confidence. In the Reddit post, the most common experience described by female bike mechanics was being looked upon as a ‘novelty’ in the workshop because of their gender. Whether the intention is to complement or criticise, it creates a feeling of ‘imposter syndrome’ whereby they feel unskilled or unconfident in the skills they do possess, or a pressure to perform.

“There will universally be some sort of comment related to the fact that I’m a woman who owns and uses tools. It’s usually not a negative comment, but being regarded as a novelty makes me self-conscious. I am also self-conscious about the possibility of making mistakes, as if that will reinforce the idea that I’m an outlier and I don’t belong in this world.”

## Not having access to resources is the second most significant barrier women and non-binary people experience to fixing their bikes

Many women and non-binary people don't have the tools, time or space to fix their bikes.

From our survey:



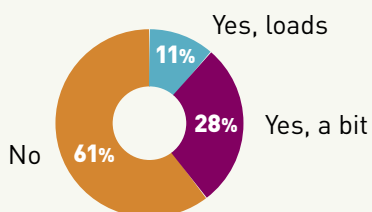
While a lack of tools was reported equally across all demographics, a lack of space was particularly significant for women and non-binary people from a lower socio-economic background: 42% don't have the space to fix their bike.

One of the reasons community bike workshops exist is to provide people with access to the space and tools to fix their own bike at a low cost or free of charge. Yet, in our sample, 61% have never used a community bike workshop, while 28% use them 'a bit' and 11% use them regularly.

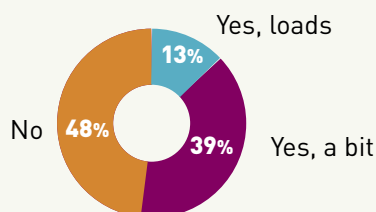
Women and non-binary people who identified as disabled, from a lower socio-economic background or BAME all use community bike workshops more than survey respondents in general.

### Have you ever used a community bike workshop?

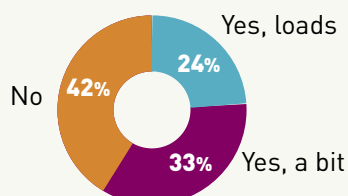
All respondents



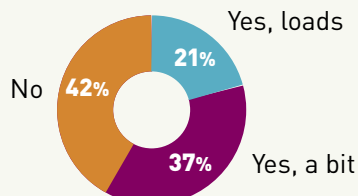
BAME respondents



From lower socio-economic background



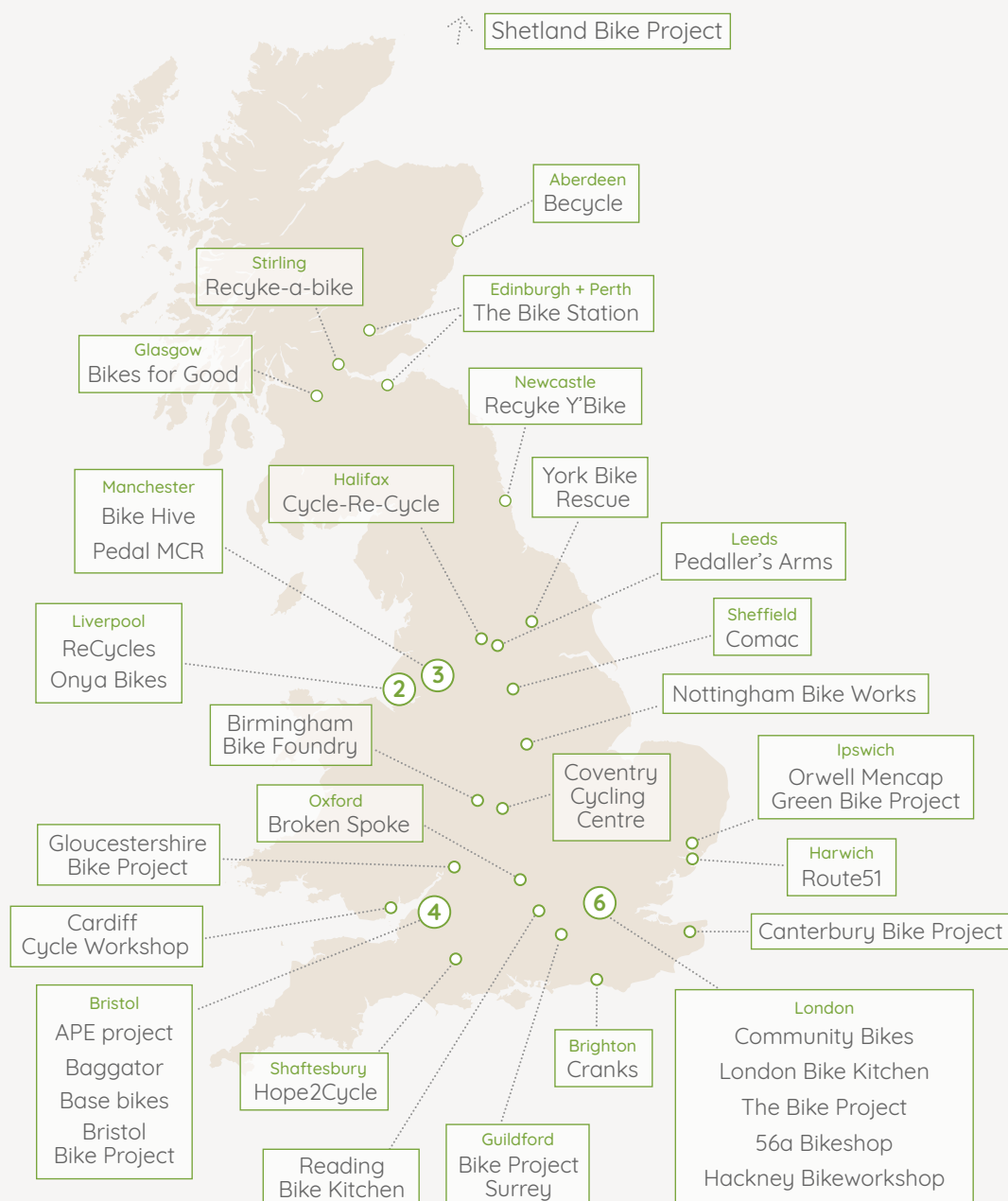
Disabled respondents





# Community bike projects in the UK

Many of the people who took part in our survey didn't know about community bike workshops or know of one near them. We've compiled a map of community bike workshops across the UK to help raise awareness of where these resources can be accessed - click on the map to access their websites. If you know of one we've missed, please let us know! If you're interested in setting up your own community bike workshop, check out BBP's [website](#) and [handbook](#) for useful resources - or [get in touch!](#)



## Women and non-binary people who use community bike workshops generally have positive experiences, though some also experience exclusion

Many women and non-binary people do not use community bike workshops because they don't have access to one.

From our survey:



For those women and non-binary people who have access to community bike workshops, their experiences are largely positive, but are accompanied with experiences of exclusion or discrimination:



**“I go into a community bike workshop knowing that I am likely to be one of the only women (unless it is a dedicated night) and feel automatically in ‘battle mode’.”**

While there were many shared experiences of exclusion for women and non-binary people in bike fixing spaces, some respondents also experienced a compounded sense of exclusion as a result of their ethnicity, age or size.

One in four BAME respondents who use community bike workshops feel out of place.<sup>†</sup>

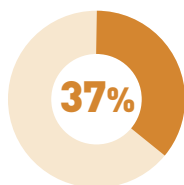
**“I am a very visibly queer but gender non-conforming Afab<sup>‡</sup> person of colour. My heritage is south Asian. Bike workshops do not feel like a place for me”**

<sup>†</sup> Only 16 BAME respondents had experience using community bikeshops. This sample is therefore not representative, but is a useful indicator for further research.

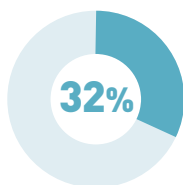
<sup>‡</sup> Afab = Assigned female at birth.

Many women and non-binary people don't mind who they are with in community bike workshops. However, a more significant proportion prefer being in the company of other women and non-binary people, and to be taught by women and non-binary mechanics

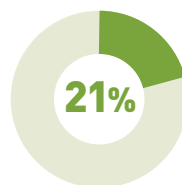
From our survey:



prefer being in the company of other women or non-binary people in community bike workshops

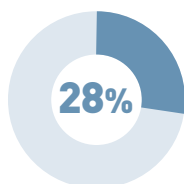


prefer to be taught by women or non-binary mechanics

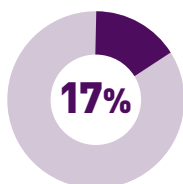


don't mind who they're with in community bike workshops

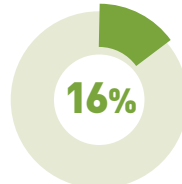
Not knowing what to expect, together with a lack of confidence, also deters women and non-binary people from using community bike workshops. However, these barriers are less obstructive than they are to women and non-binary people fixing bikes in general.. When asked, 'What stops you from using community bike workshops?':



worry they won't know what to do



lack confidence using tools



worry they won't be shown or taught how

This suggests that community bike workshops create a more inclusive and supportive environment than the world of bike fixing in general. However, more could be done to support women and non-binary people to feel comfortable and confident in those spaces.

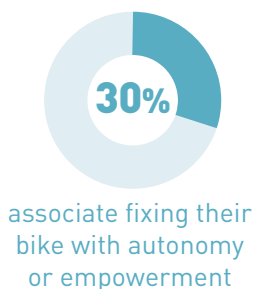


## Women and non-binary people who fix their own bikes experience improved mental wellbeing, increased confidence riding a bike, and save money and time

So far, our research suggests women and non-binary people would like to fix their bikes more regularly and experience barriers to doing so. But what about the benefits when they do? According to our research, women and non-binary people who fix their own bikes experience improvements in mental wellbeing, save money and time, and increase their confidence riding a bike.

**Mental wellbeing.** 72% of women and non-binary people in our survey associated fixing their bike with positive mental health indicators, including: a sense of achievement; autonomy; increased confidence; learning a new skill; helping others, and; being part of a community.<sup>9</sup>

From our survey:



35% expressed that fixing their own bike made them self-sufficient and made them feel independent. For some, this was a way of countering gendered expectations as well as having the choice to avoid spaces where they fear the presence of toxic masculinity.

**Saving money & time.** 31% of respondents cited saving money as a benefit of fixing their own bike. Saving time was a benefit for 10% of respondents; particularly the time saved not waiting for an appointment at a bike repair shop.

**Improved confidence riding a bike.** Knowing how to fix your bike improves confidence riding for two in five women and non-binary people. In our survey, a third of respondents talked about the benefits of feeling more connected to their bike and understanding better how it works. Knowing how to fix your bike if something went wrong gives people the confidence to cycle more regularly, further and to new places.

From our survey:



“If I had more confidence in knowing what I was doing and I was doing it correctly I wouldn’t have the fear of ‘what if?’ when I’m out riding”

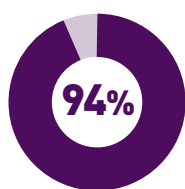
## Supporting people to fix their bikes could enhance the benefits gained from riding a bike, including physical and mental wellbeing, improved mobility & convenience of travel

As well as the benefits from the activity itself, by improving confidence riding a bike, fixing your own bike has knock-on benefits.

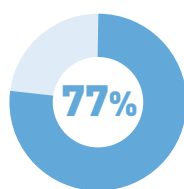
**Physical and mental wellbeing.** The link between riding a bike and physical and mental wellbeing is well established. Riding a bike has been demonstrated to have a positive impact on stress, depression and anxiety, reduce loneliness and social isolation,<sup>10</sup> and even tackle more acute mental health challenges such as schizophrenia.<sup>11</sup> It has also been demonstrated to support people to meet recommended physical activity guidelines, while reducing the risk of premature death and ill-health.<sup>12</sup>

Our research supports these findings. Women and non-binary people on the whole reported significant positive associations with riding their bike, including improved mental health, fitness and quality of life.

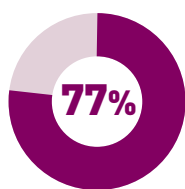
### From our survey:



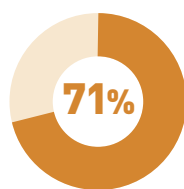
enjoy riding  
their bike



ride their bike  
to keep fit



riding their bike  
improves their  
quality of life



riding their bike  
supports their  
mental health

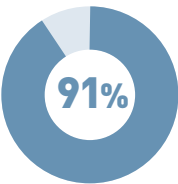
“Any anxiety or stress from life just melts away when I am on my bike.”

The most common reason given for improved mental health was the freedom of movement bicycles afford, and the associated feelings of autonomy and empowerment. 28% of survey respondents cited freedom, independence or safety as a benefit they experience from riding a bike.

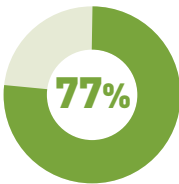
“I can ride home late at night and feel safe as a lone woman”

**Mobility.** Riding a bike enables people to access basic, everyday needs that support a good quality of life. This includes access to employment or education, green spaces, and healthcare, as well as visiting friends or family and participating in community. All of these benefits in turn have a further positive impact on mental health and life prospects. Access to green spaces, for example, has been demonstrated to increase life chances as well as build a sense of community.<sup>13</sup>

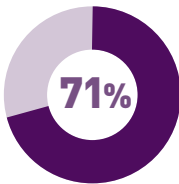
From our survey:



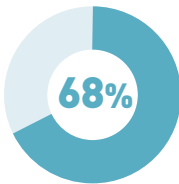
use their bike  
for leisure



use their bike for  
exploring or going  
to new places



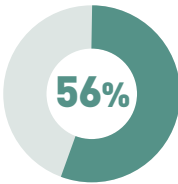
use their bike  
for accessing  
amenities



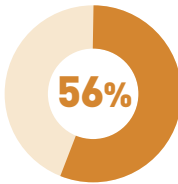
use their bike  
to commute  
to work



use their bike  
for seeing friends  
and family



use their bike  
for accessing  
green spaces



use their bike  
for holidays

“I love the freedom a bike gives me as transport:  
I can quickly go to the shops, visit friends or explore nature.”

**Convenience.** Riding a bike is considered a convenient way to travel. It is often cheaper, faster, more flexible and more reliable than public transport. From our survey 41% of respondents enjoyed the convenience bikes afforded them.

# Analysis

So far, the research has demonstrated that:

- 1 Many women and non-binary people already fix their bikes, and want to do so more but experience barriers to doing so.** The most significant barriers are a lack of knowledge and confidence, lack of access to resources, and experiences of exclusion. Gender is an important dynamic in these barriers, which can be compounded by other factors such as ethnicity and socio-economic background.
- 2 Fixing your own bike has wide-reaching benefits for women and non-binary people.** The activity itself is associated with positive mental health indicators including a sense of autonomy and achievement. Fixing your own bike has also been shown to improve confidence riding your bike, thereby enhancing the wider benefits associated with cycling, such as improved physical health and independent mobility.



## Why does this matter?

That women and non-binary people in the UK face gender-related barriers to fixing their own bikes is unsurprising; it is symptomatic of systemic oppressions which continue to plague our society. This matters not simply as an exclusion in itself, but because it reinforces the inequalities women and non-binary people experience in other areas of life.

For example, women in the UK are disproportionately affected by health risks and are less likely than men to meet recommended physical activity levels, contributing to ill-health and early death.<sup>14</sup> While men face greater health risks in most countries across the globe, the UK has the largest female health gap in the G20 and the 12th largest globally.<sup>15</sup>

Women in the UK are also more likely to experience common mental health conditions than men. Women are twice as likely to be diagnosed with anxiety than men<sup>16</sup> and report feeling lonely more often than men.<sup>17</sup> Young women (aged between 16 and 24) in particular have been identified as a high-risk group with over a quarter (26%) experiencing a common mental disorder – such as anxiety or depression – compared to 9.1% of young men.<sup>18</sup> Research has also demonstrated that the LGBTQI+ community, including non-binary people, gender-fluid people and trans women, are more likely to suffer from mental health issues, including anxiety and depression.<sup>19</sup>

Other factors such as ethnicity, disability and socio-economic background are all determinants of mental and physical health outcomes, and interact in complex ways to shape inequalities.<sup>20</sup> Black, Asian and Minority Ethnic women, for example, experience poorer health outcomes than their white counterparts.<sup>21</sup>

Reducing the gender gap and other inequalities in activities which support mental and physical health – such as DIY bike maintenance and riding a bike – could therefore support efforts to reduce wider health and social inequalities. Furthermore, closing the gap is not solely of benefit to women and non-binary people, but could support a healthier, happier society as a whole.<sup>22</sup>



## Case study

# ‘Build a bike’ pilot programme for young women

To further explore the gender-related barriers to, and benefits of, accessing community bike workshops, we ran an integrated research and pilot programme aimed at young women and non-binary people. We were motivated by the particular gender disparity in attendance at BBP’s youth programmes which are used almost exclusively by boys and young men. Furthermore, with recent studies showing that young women<sup>23</sup> and non-binary people<sup>24</sup> face disproportionately negative mental health outcomes, we wanted to invest in a course for their exclusive benefit – and to bring them on board as co-creators of a new programme at BBP.

### The pilot programme had 3 distinct aims

- 1 to better understand the barriers young women and non-binary people face to accessing BBP’s workshops;
- 2 to explore the benefits for young women and non-binary people of being involved in a collaboratively designed programme intended to enhance skills in bike maintenance;
- 3 to offer training to a group of young women and non-binary people and enable access to BBP workshops going forward.

We hoped that the programme would have direct benefits for those who took part – and that pioneering this at BBP could support other community bike workshops to do something similar.

During the course, a researcher conducted ethnographic research, participant observation and facilitated conversations with the participants about their relationships with riding and maintaining bikes, their community and wellbeing. The participants were actively engaged in the design of the course through continuous feedback in the sessions.

### The participants

The programme was offered to young women and non-binary people who were experiencing or at risk of poor mental health. Four participants took part in the pilot programme: two from the Bristol Hospital Education Service, one self-referral who heard about the programme through her sister who was already attending, and one referred by the NHS mental health services. All participants identified as young women.

# Barriers

The young women experienced a number of barriers to participation.

## 1 Travel to the workshop

This was one of the biggest barriers the participants faced to attendance. None of the participants had the means or confidence to travel independently to the workshop and BBP did not have the capacity to organise lifts. We relied on third parties for this provision. On occasions when a lift fell through, it resulted in a no show despite the participant expressing a desire to be there. The support worker from BHES stated that support to travel to the workshops was the single biggest determinant of attendance.

## 2 Outreach and engagement

Active and persistent outreach was required to engage the young women in the course. As an under-represented group in the workshop, recruiting the participants took significantly more time and care than usually accounted for at BBP. The process was four months long, and involved extensive meetings, planning sessions and a taster session before the first workshop took place.

Despite high interest from BBP's existing network of referral organisations and community groups, the initial outreach elicited no actual sign-ups. It was through working with a new partner - BHES - that we recruited our first participants. Our contact at BHES was personally invested in the cause and dedicated to working closely with the participants to support their engagement. Even then, of the six young women she originally referred, only two went on to do the course.

## 3 Creating a safe space

The participants had varying and complex support needs including anxiety, PTSD and language barriers. In addition, the bike workshop was an unfamiliar, somewhat intimidating space, which did not represent a place of belonging for the young women. The course teachers needed patience, empathy and attention to detail to create a safe and supportive space. Strong partnership with support workers and referral organisations was important for understanding the individual needs of the participants in the space and building their trust. And buy-in from the wider staff and volunteer team at BBP was needed to respect the boundaries we put in place for the programme.

A ratio of two teachers to six participants was initially planned and due to drop outs became two to four. This was initially perceived as a recruitment failure by the course curators, but in the end allowed sufficient attention for the support needs in the space. For example, when one participant felt anxious upon entering the workshop, one teacher was able to spend time with them and support them to enter in their own time, while the other teacher held the space for the remaining participants.

## The creaky door...

The workshop's infamous 'creaky door' was symbolic of the focus needed to maintain a safe space for the participants. The door, which participants had requested remain shut to ensure they felt safe in the space, had a tricky habit of creaking loudly and opening of its own accord. Unexpected loud noises had already been identified as a potential trigger for one participant, and the attention of the others too was often drawn to that door at the first sign of a creak. The focus needed to keep the creak at bay was almost equal to that needed to teach bike maintenance!

### 4 Course structure

The formal nature of many bike maintenance courses was a barrier to the young women, who, encouraged by the teachers to adapt the course to suit their needs, pushed back at more rigid lesson structures. Knowing broadly what to expect each week was an important factor in quelling nerves in the participants, but they were less interested in a strict timetable or list of topics to cover. Instead, the young women on the whole wanted a flexible structure and the freedom to follow their intuition to decide which part of the bikes they would work on in any given lesson. While the course teachers had a framework for the syllabus, ensuring the young women were in the driving seat was important for their continued engagement.

### 5 Ongoing options for involvement

During the course the teachers ran through the options for continued involvement. None of the participants saw an option that suited them in the current community offer at BBP. The youth programme was unappealing because it is heavily male-dominated. All participants clearly stated that they would not participate because of the dominance – indeed the presence – of boys and young men. In addition the women and non-binary drop-in evening session seemed too busy and therefore intimidating.

Two participants in particular were very motivated to stay involved and keep progressing their skills. They wanted access to a calm, DIY environment, exclusively for young women where they had the opportunity to learn as well as teach others.

## Benefits

The young women experienced a number of benefits as a result of attending the pilot programme. These were identified by the young women themselves, and through observation by the researcher, teacher and support workers.

Three of the four participants reported having **developed their skills and knowledge in bike maintenance**, as well as feeling **more confident cycling**.



“We were cycling around the playground today (first time on a bike in years for B and second time cycling unaided for Shu) and B identified that her back brake wasn’t working correctly. She then sourced the correct tool and both girls worked together to fix the brake successfully and entirely independently. The girls are part of a six week Build a Bike programme at The Bristol Bike Project and they were beaming with pride at being able to apply their skills.”

Holly, Bristol Hospital Education School

All of the participants **grew in confidence** over the course of the workshops, not just in cycle maintenance, but **in their social skills** as well. As the course developed, and the participants were given ownership over the syllabus, they became increasingly **confident navigating their way around the space and treating it like a place of belonging**.

“I was a really quiet person, but since meeting new people and having communication I’m much more sociable. We were all together, helping each other, talking to each other, asking each other questions, team work. It made me feel comfortable.”

Shu is a 16 year-old muslim woman from Egypt. She has lived in Bristol for 3 years and was referred to our pilot programme by BHES.

Two of the participants experienced **better access to green spaces** as a result of the programme. Being new to riding a bike, taking part in the workshops was a key factor in improving their confidence and since the end of the course they now go to their local park to ride together. This is also an indicator of **increased autonomy and independent mobility**.

## Summary and recommendations

The young women who took part in the pilot programme at BBP all experienced direct benefits of being involved in a bike maintenance programme – particularly with regards to their mental health, social and bike maintenance skills, and community participation.

The barriers were multiple and were overcome through meaningful investment of organisational resources - including staff time, money and the commitment of the project team. Providing spaces exclusively for young women was crucial to their engagement and is necessary to take forward if BBP is serious about addressing the gender gap in its youth programmes. Creating flexible course structures which enable programme participants to lead their own learning is an important element of engagement and maximises the benefits experienced through the course.

Offering targeted training to young women does assist in addressing confidence-related barriers to accessing the workshops. However, it is also crucial to establish clear pathways for young women to stay involved that do not rely on immediate participation in mixed-gender workshops. Offering supported drop-in spaces specifically for young women and other young people of marginalised genders to keep fixing their bikes, continue learning, and teach others, is one way of doing this.

Further to this, ensuring sufficient resources to cover everything from staff time needed for initial outreach, travel arrangements and high staff/student ratios is crucial. This extends beyond BBP's responsibility and would need to be something funders consider when setting expectations for the delivery of low cost and high take up programmes.

**“We learnt new skills and it’s given me an opportunity to learn about the bike and ride my bike. The workshops have given me more excitement to ride the bike. If I know how to build the bike, you’re going to like riding it a lot more.”**



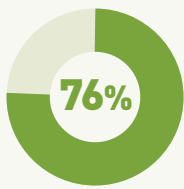


# Recommendations

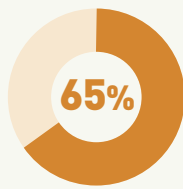
This research has shown that women and non-binary people want to fix their bikes more and experience barriers to doing so. Furthermore, reducing the gender gap and other inequalities in access to DIY bike maintenance could support efforts to tackle wider health and social inequalities. So what can we do about it?

All those who took part in this research – the survey respondents, those who engaged in the Reddit post, and the pilot programme participants – had clear ideas about what is important to them in bike fixing spaces. We've analysed their ideas to create a series of recommendations for community bike workshops and the wider sector.

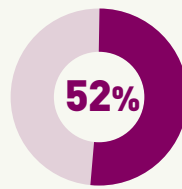
We asked our survey respondents, “What do you think is important at community bike workshops?”:



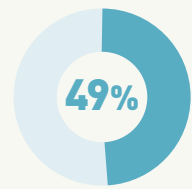
Clear understanding of what to expect from the space



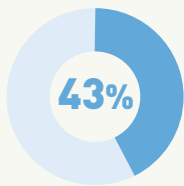
Women and non-binary led spaces



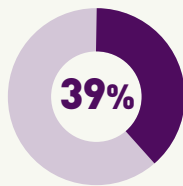
Targeted promotion of services to women and non-binary people



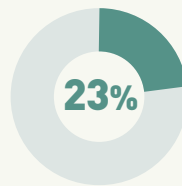
Formal bike mechanics training



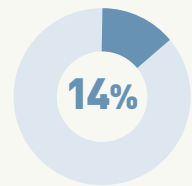
Explicit policies and/or training on sexism in bike workshops



Women and non-binary only spaces or services



Ability to influence decision-making



Ability to input into the look/feel of a place

**Drawing on the findings of this report, we make the following recommendations:**

## For community bike workshops\*:

### **1 Tailor and target promotion to groups under-represented in your workshop and clearly communicate what's on offer**

Clearly communicating what someone can expect when coming to a workshop is a significant factor in encouraging initial and ongoing engagement in a space. Many people who took part in our research cited concerns about not knowing what to expect, whether they would be shown what to do, or that they might not be taught how to fix their bike. Being explicit about what support is on offer is a crucial factor in countering the lack of confidence marginalised genders can feel operating in male-dominated spaces.

Furthermore, for people who have experienced exclusion it can be important to know whether there are policies and practises in place to protect them in your space.

#### “What would make you feel more welcome in community bike workshops?”

- “If I could feel confident that everyone would use my correct pronouns.”
- “Visual aids to show that the place is LGBTQ+ supportive / safe for women / POC.”
- “A sign which says ‘people in this area / slot are happy to figure it out themselves’. Sometimes help is welcome, other times I really want to figure it out myself.”
- “Explicit trans inclusive messaging, policy, and practice.”

\* As a previous employee in one of the UK's most established community bike workshops, the author recognises the resource challenges that community bike workshops face – most of which have significantly less resource than BBP. These recommendations are therefore not intended to criticise or overwhelm, but rather offer a framework of guidance for organisations seeking to address these issues. Many of the examples drawn upon in the recommendations come from community bike workshops who are already implementing significant measures to address the gender gap in their spaces. The recommendations are kept minimal within the report, but further resources and advice is available. Contact the author for further advice and consultation at [krysia.williams@gmail.com](mailto:krysia.williams@gmail.com)

## 2 Adequately resource outreach and continued support to under-represented groups.

Properly resourcing outreach to under-represented groups is crucial to addressing inequalities in access. As well as taking measures to encourage initial engagement in workshops, this also means paying attention to the experience of under-represented groups once they are in a space.

Giving a warm welcome, attention to detail on making a space look and feel comfortable to be in, and checking in with people – are all as, if not more, important than teaching bike maintenance. One way in which community bike workshops could do this is to offer people a ‘buddy’ for their first workshop(s) to support their initial experiences of the space.

Supporting travel to the workshop, whether organising a cycling ‘buddy’, lifts, or paying for bus/taxi fares, is also an important way of increasing the diversity of people attending workshops by enabling those who are more isolated, less independently mobile, on lower incomes, or less confident to attend.

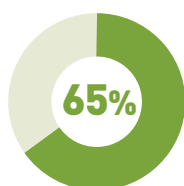
## 3 Support those excluded from bike fixing spaces into teaching roles.

Addressing leadership and representation is an important factor in closing the gender gap and other inequalities in community bike workshops.

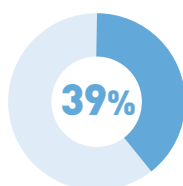
At BBP, while the women and non-binary only workshops (taught by women and non-binary people) are often oversubscribed, the mixed gender workshops are all taught by men and remain heavily male-dominated. Yet, those who took part in our survey were more interested in women and non-binary *led* spaces, than women and non-binary *only* spaces. This suggests that having more women and non-binary people in teaching roles at the mixed gender workshops could make those spaces feel more inclusive of all genders.

**“When most mechanics are cis-men, there is a kind of hierarchy of knowledge, where the men fix the bikes and teach others. This ... can often discourage other folk from participating, as well as bar them from the full range of opportunities available.”**

Team Beryl, Broken Spoke



think women and non-binary *led* spaces are important



think women and non-binary *only* spaces are important

## 4 Offer bike maintenance training exclusively for women and non-binary people.

Whether it stems from a lack of confidence or competence, it is clear that women and non-binary people would benefit from better access to training and support in bike maintenance. When asked '*what would encourage you to fix your bike more?*' 60% of our survey respondents cited access to formal training (courses, classes, workshops, tutorials) or the support to DIY (practice space, guidance). Offering training to women and non-binary people could tackle the gap in competence *and* confidence in bike maintenance.

There is no one size fits all approach to training, and the varying needs of women and other marginalised genders should be respected. Thus, offering a range of formal and informal trainings and pathways for DIY bike maintenance will ensure a more inclusive approach.

**Broken Spoke Bicycle Co-op in Oxford secured funding** from the Emergency Active Travel fund to **train a group of five women, trans\* and non-binary folk** up to Cytech level two, with ongoing support following the training.

## 5 Provide specific workshops for people who experience exclusion in bike fixing spaces - particularly young people.

Exclusive spaces for women and other marginalised genders offer a safer alternative for people who experience oppression due to their gender and encourage more women and non-binary people into bike workshops. The potential for being treated like a novelty or feeling out of place are less likely to occur in these spaces. Some community bike workshops already offer these very popular workshops – Women's Night at BBP, Beryl's Night at Broken Spoke, WAG night at London Bike Kitchen.

There are very few – if any – examples of services in community bike workshops exclusively for young women and non-binary people. Offering these spaces for young people would therefore address a very specific lack in provision, and could also be useful in countering the impact of early experience in entrenching gender stereotypes.

Focussing solely on gender runs the risk of limiting the scope of inclusion. Many women and non-binary people also feel excluded due to their ethnicity, age or disability, for example. First analyse and acknowledge who isn't represented in your space. Then create the openness, resources and support to enable people with experiences of exclusion to set up and lead their own groups.

The **Women of Colour Cycling Group** is a collective for all self-defining women of colour, offering a safe and welcoming space to discuss experiences of riding a bike. It was set up in response to the invisibility of women of colour in the world of cycling, and grew quickly to gain over 100 members in its first 3 years.

[www.womenofcolourcycling.org](http://www.womenofcolourcycling.org)

## 6 Develop robust policies and offer training for staff and volunteers on diversity and inclusion.

Training staff and volunteers in community bike workshops in issues around discrimination is key to creating an environment which feels safe and welcoming to oppressed and under-represented groups. Alongside sexism, tackling discrimination also means looking at homophobia, transphobia, racism and ableism, and all of the intersections in between.

Training should be backed up by robust policies and practices which address inequalities within the workshop space. Effective diversity and inclusion work requires a genuine time and money commitment from organisations and individuals to look closely at their practices which perpetuate inequality.

### Further resources for addressing inequality

- NEON's guide to power and privilege (includes extensive list of useful articles, blogs, and videos for discussing power and privilege): [www.neweconomyorganisers.org/wp-content/uploads/2016/02/NEON-Power-and-Privilege-Guide.pdf](http://www.neweconomyorganisers.org/wp-content/uploads/2016/02/NEON-Power-and-Privilege-Guide.pdf)

Some examples of organisations that offer training related to inequality:

- Resist Renew (on anti-racism, power and privilege): [www.resistrenew.com](http://www.resistrenew.com)
- The Class Work Project (on class): [www.theclassworkproject.com](http://www.theclassworkproject.com)

### For other stakeholders / local authorities:

While this report is principally designed as a resource to support community bike workshops, there is clearly a need for the wider sector to consider these issues. In part because doing so could support wider efforts to tackle social and health inequalities in our society, but also because community bike workshops often lack the resources they need to carry out the work. As such, this report offers the following recommendations to other stakeholders:

- 1 Conduct further research on the inequalities within, and benefits of, access to DIY bike maintenance and spaces, with regards to gender as well as other factors including ethnicity, age, disability and socio-economic background.
- 2 Provide adequate funds and resources (i.e. space) to kickstart new community bike workshops, and for existing ones to increase outreach and support for under-represented groups. Focus expected outcomes on quality not quantity.
- 3 Support young women and non-binary people into the bike mechanics industry through pathways such as government funded apprenticeship schemes.<sup>25</sup>



# Methods & Terminology

## Terminology

**Women and non-binary people.** Throughout the research and report, this terminology is used to refer to all self-identifying women, including trans women, and non-binary people. This terminology was chosen as an imperfect representation of people who have been excluded from bike fixing spaces as a result of their gender. The author recognises the limitations of the choice and the ways in which it may exclude some people. On reflection, making explicit the inclusion of trans women as well as other gender non-confirming people may have yielded a more inclusive and representative study.

**Black, Asian and minority ethnic (BAME)** is used in this report to refer to people who identified in the survey as from a Black, Asian, mixed or other minority ethnic background. The author recognises the limitations of this terminology, particularly in accounting for the diversity of experience of those categorised under this umbrella term. With limited representation from different ethnic backgrounds, in depth data or trends on experiences with regards to ethnicity could not be obtained. Further research is therefore needed to obtain a more representative sample yielding better analysis.

## Methods

### **Pilot programme and associated research**

The pilot programme and associated research were conducted between March 2020 and August 2021. After three weeks of workshops, the onset of the pandemic caused the postponement of the rest of the programme. We kept in touch with all the participants throughout the pandemic, carried out two refresher workshops in October 2020 and eventually were able to invite all participants back to complete the final three weeks of the course in August 2021. Two participants were unable to complete the programme as their circumstances had changed by the time the course restarted. A fourth was recruited for the second half.

The researcher facilitated conversations at the start and end of each workshop about the young womens' relationships with cycling and mechanics, their community and wellbeing. The researcher also prompted questions throughout the workshops to aid discussion about their experience of the workshops and to gather feedback on the design of the course. A detailed diary was kept of these conversations alongside

researcher observations. Input into the observations was also sought from the other teacher and support worker present at the workshops. Two of the four participants completed an optional survey at the start of the course, and two took part in an optional feedback session at the end of the course.

## Research programme

The initial research programme had been designed as a series of ongoing observation, informal interviews and focus groups to take place at BBP's various community workshops over a three month period. This design became untenable due to the impact of the pandemic. Instead, the researchers remodelled their plan to encompass a wide-reaching literature review, a Reddit post and an online survey.

The blog posed the question 'Women Mechanics of the World: What barriers did you face entering this traditionally male-dominated profession/hobby?' and is available online at: [www.reddit.com/r/bikewrench/comments/elaqfa/women\\_mechanics\\_of\\_the\\_world\\_what\\_barriers\\_did](https://www.reddit.com/r/bikewrench/comments/elaqfa/women_mechanics_of_the_world_what_barriers_did)

The survey was conducted in September 2021 and was completed by 210 respondents (see Appendix 1). Figures used in the report have been attained by a combination of statistical and thematic analysis. Rounding has been used throughout the report.

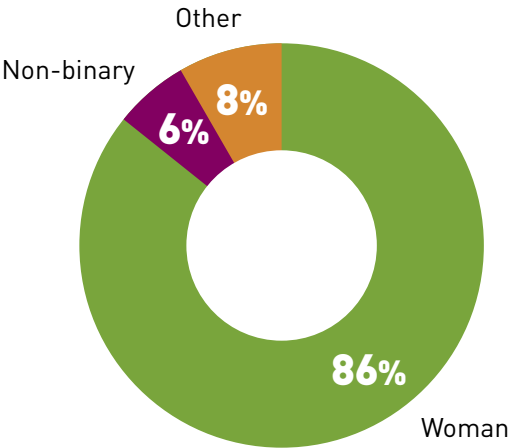
Full survey data is available at: [bit.ly/BBP\\_survey\\_data](https://bit.ly/BBP_survey_data) (data has been deleted where requested by respondents).



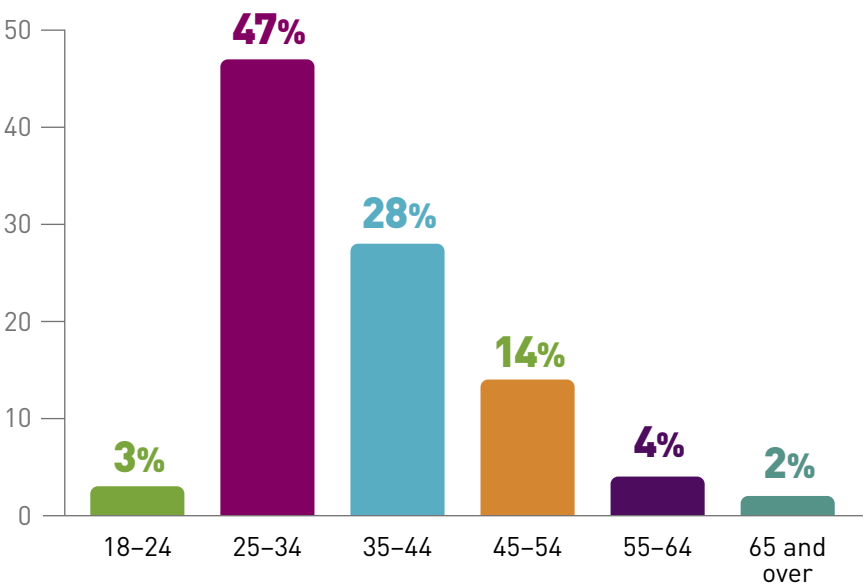
Appendix 1

# Breakdown of survey respondents

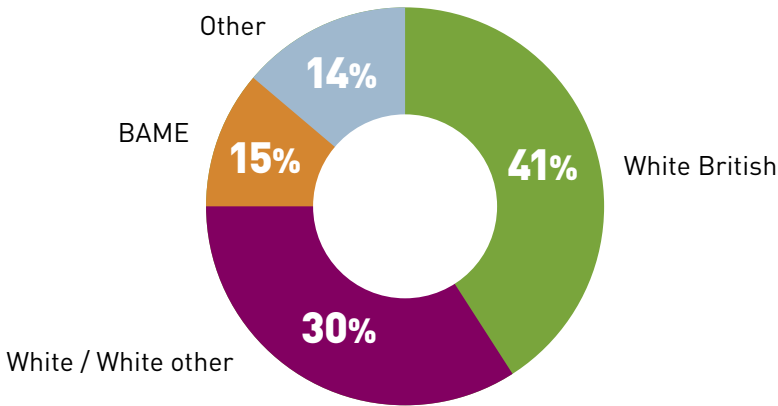
How would you describe your gender?



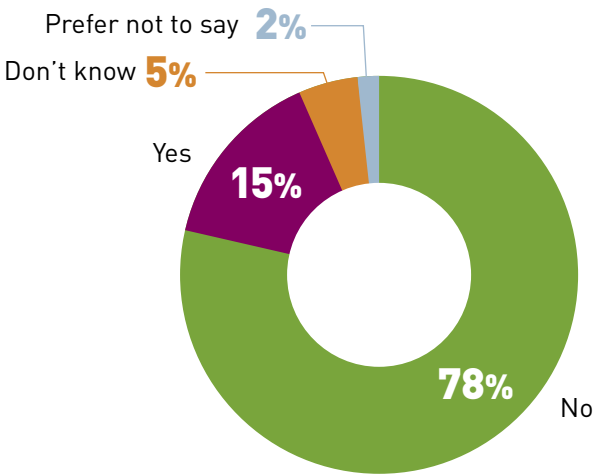
How old are you?



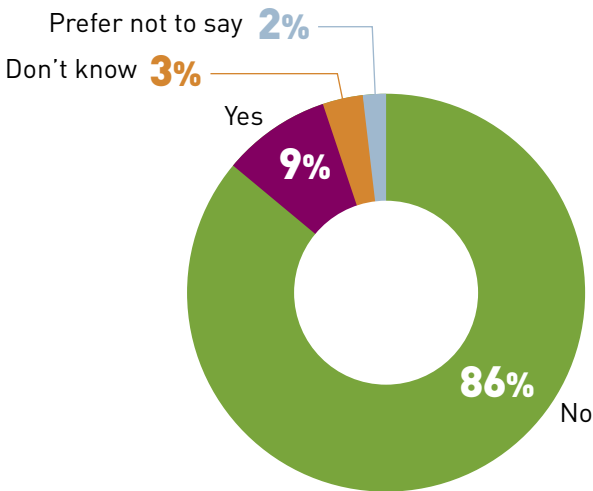
How would you describe your ethnicity?



Compared to other people in general, would you describe yourself as coming from a lower socio-economic background?



Would you consider yourself to be a disabled person?



## Appendix 2

# Author reference

I first met Krysia Williams when she took up the mantle of Community & Communications Coordinator at The Bristol Bike Project (BBP) back in February 2017. At the time I was a fairly new member of the co-op, having only started volunteering there the previous summer. We met up at Roll For the Soul, Bristol's then cycling cafe, to talk through her aims for the role and toss ideas around for ways to engage the membership and public through social media and various other channels. It was immediately apparent to me why Krysia had been chosen for the role: she had a very clear grounding in the Project, its purpose, and its needs. She had a lot of excellent ideas, a keen interest in learning the ins and outs of the co-op, and a solid understanding of how we could best serve our community and make the space as open and welcoming as possible. Thanks to her previous voluntary work with refugees and asylum seekers, and the Masters Degree in Ethnicity and Multiculturalism that she was midway through, she was clearly a superb addition to BBP.

During her four years with us, Krysia oversaw a multitude of important projects that helped our co-op to develop into a well-oiled machine that could grow sustainably and serve its local community. She joined us during a difficult period when our future was uncertain, due to the forthcoming redevelopment of the building we occupied, and was part of the core team that sought alternative premises, successfully applied for funding and — thanks to her resourcefulness, determination and commitment — ultimately enabled us to secure our very own premises which we now own outright. For a community bike project, to own a property and have such security and future-proofing is an extremely rare privilege.

On top of this, Krysia was an active part of a very small team within the project to propose a Young Women's Build-a-Bike programme, with a view to creating a welcoming and inclusive space for young people away from the male-dominated After School Bikes session, while also conducting some qualitative research around what would be needed to make the entire workshop inviting to underserved groups. She not only made it happen, but she did so while the world experienced the turbulence of a global pandemic, and had to think on her feet in order to bring the research to completion while navigating the many restrictions in place. It may have taken longer than planned, but she did indeed see it through to fruition.

I am extremely grateful to the expertise and devotion that Krysia brought to BBP. She's left us much better than she found us, and I know she's bringing that same level of devotion to her current commitments elsewhere.

**Mildred Locke,**

Director, The Bristol Bike Project



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