

Levelling the playing field

Why women and girls matter in amateur sport

Lottie Moore

Foreword by Sharron Davies MBE



Levelling the playing field

Why women and girls matter in amateur sport

Lottie Moore

Foreword by Sharron Davies MBE



Policy Exchange is the UK's leading think tank. We are an independent, non-partisan educational charity whose mission is to develop and promote new policy ideas that will deliver better public services, a stronger society and a more dynamic economy.

Policy Exchange is committed to an evidence-based approach to policy development and retains copyright and full editorial control over all its written research. We work in partnership with academics and other experts and commission major studies involving thorough empirical research of alternative policy outcomes. We believe that the policy experience of other countries offers important lessons for government in the UK. We also believe that government has much to learn from business and the voluntary sector.

Registered charity no: 1096300.

Trustees

Karan Bilimoria, Alexander Downer, Pamela Dow, Andrew Feldman, David Harding, Patricia Hodgson, Greta Jones, Andrew Law, Charlotte Metcalf, David Ord, Daniel Posen, Andrew Roberts, Robert Rosenkranz, William Salomon, Simon Wolfson, Nigel Wright.

About the Author

Lottie is Head of Biology Matters and Equality and Identity at Policy Exchange. Previously, she worked as Policy Manager at Public Policy Projects, as well as holding research positions on equality at SOAS and on health equity at University College London. She has a master's degree in Society and Belief from Oxford University, and a bachelor's in Political Theology from Bristol.

About Sharron Davies MBE

Sharron Davies MBE is a British Olympic Medallist. She was the UK's top female swimmer throughout the 80s and competing in three Olympic Games spanning three decades, as well as competing in the international community for over 20 years. She has since become a leading BBC sports pundit and is the author of 'Unfair Play' (2023).

Acknowledgements

With considerable thanks to those who gave their time and expertise to early drafts of this paper. I am particularly grateful to the women and men (some of whom have to remain anonymous) who gave testimonies and eye-witness accounts of the unfairness they have experienced within grassroots female sport. Any mistakes henceforth remain my own.

© Policy Exchange 2023

Published by
Policy Exchange, 1 Old Queen Street, Westminster, London SW1H 9JA

www.policyexchange.org.uk

ISBN: 978-1-910812

Contents

About the Author	2
Acknowledgements	3
Endorsements	5
Foreword	6
Executive Summary	8
Introduction	12
Participation, fairness and safety within female sport	14
The role of sporting bodies in developing policies	19
Approaches to female eligibility in women and girls' sport	23
Assessment of the four approaches against biological reality	26
Respecting biology in sport	33
The current state of play	34
Athletics	35
Swimming	45
Football	51
Tennis	54
Conclusion	57
Annex A – A note on Sport England data	58
Annex B	59
Annex C	63

Endorsements

This paper from Policy Exchange demonstrates the scale of male advantage in sport from elite to grassroots level. Female sport must be protected otherwise we risk not only alienating a generation of women, but also taking away dreams and possibilities of fairness and winning for girls and women. It is time for ALL National Governing Bodies, International Federations and the International Olympic Committee to protect women's sport from grassroots upwards.

Martina Navratilova, former World No 1 female tennis player, 18-time Grand Slam Champion

We risk alienating a generation of young female athletes if we cannot promise them fair and safe play from the grassroots level to the top. Categories exist to allow everyone the chance to participate, and the willingness to compromise this by policymakers within sport is a scandal. The new county data revealed within this Policy Exchange report make it clear that males should never be in the female category - at any level. It is vital that sports policy recognises that participation, as well as fairness and safety, is vital to encouraging female sport in this country.

Daley Thompson CBE, 2-time Olympic Gold Medallist, 4-time World Champion, Decathlete

Foreword

At the 1980 Olympics, aged 17, I was the only female individual medallist in the entirety of the GB Olympic team. I was cheated out of my Olympic gold in swimming, because of the German Democratic Republic's doping scandal, in which female athletes were pumped full of artificial testosterone in order to win as many events as possible. I know first-hand how hard women in sport have had to fight not to be considered second class athletes. Four decades on, women's sport is under threat again. Except this time, mediocre male athletes are self-identifying their way onto women's podiums, stealing their medals and opportunities. In this report, Policy Exchange articulates why this problem is a threat to the integrity of sport.

There is a sense within sports policy that while we should protect the female category within elite sports, women and girls participating and competing at amateur levels should budge over. They must 'be kind' and 'inclusive' while having to pretend that it is not grossly unfair, demotivating and possibly unsafe to accommodate biological males within their races, teams and sports days. It is the participation, fairness and safety of these women and girls that Policy Exchange focuses on within this paper.

For too long, those responsible for setting policy within sports have prioritised transgender inclusion over the rights of female athletes. While it is positive that some sports – including my own – swimming, have gone some way to redressing this balance, Policy Exchange sets out clearly here that there is much more to be done. As I document in my book *Unfair Play: The Battle for Women's Sport*, we risk alienating a generation of future female athletes if we pretend that biology does not matter within sport.

The new data compiled by Policy Exchange in this report shows that in all but one county, the slowest winning male would beat the winning female within three county swimming races analysed this year. It finds that men are at least 11 per cent faster than women in three county athletics races. In the London Marathon this year, the 231st male would beat the winning female. As Policy Exchange's unit has documented over the past year, biology matters.

When photographs surface from around the world of biological males towering over females on podiums, or we hear stories of grown men parading naked around female changing rooms, there is public outrage. These injustices are happening all over sport, but within grassroots, primarily volunteer-led sport, the issue is rife.

However, this outrage is clearly not shared by senior policymakers within many National Governing Bodies, the International Olympic Committee and many within Government, who have the ability to make the right choice but continue to wilfully ignore the problem. These images and stories are the most obvious manifestation of gender identity beliefs compromising truth and reality – if the general public can see this, why can't they?

Sport in this country is still heavily male-dominated. While there are noble efforts to rectify this, women are still only getting a tiny slice of the pie. It is ironic that so many National Governing Bodies have targets to increase female participation within their sport, while at the same time failing to recognise that giving women and girls their own categories and spaces is crucial to getting them involved in the first place. I hear from concerned parents, women and girls all the time about how their sport is being eroded by gender ideology, and they are self-excluding as a result.

Of course, everybody should be encouraged to participate in sport, within the category that applies to them. That's why categories exist: to allow everyone equality of opportunity. I am pleased to endorse this report from Policy Exchange, which is a significant contribution to a growing body of literature demonstrating that biological sex matters within public policy, and nowhere more so than within sport. Every sport, at every level, from grassroots to elite, must ensure that the female category is ringfenced for biological females. I have dedicated my life to challenging the injustice I experienced as a young athlete and will continue to do so until facts once again trump feelings.

Sharron Davies MBE, British Swimming Olympic Medallist spanning three decades

Executive Summary

Sport is the most visible manifestation of why biological sex matters in public policy. While the debate on sex and gender continues at pace, sport is the issue on which most people can immediately recognise that biology matters, because it is unremarkable scientific fact that men are physically stronger than women. It is well understood that this fact matters considerably within sport, where performance based on physicality is definitive. Sex categories exist precisely for this reason and have existed without problem for centuries.

This report welcomes the fact that many responsible for setting policy within sport have recognised that a person's self-declared identity must not compromise categories based on physicality when what is at stake is an intrinsically physical activity.

However, there is a sense that protecting the female category only matters within elite or professional sport – for female athletes participating at the highest levels. 14 million women and girls are regularly active in England – and 99.99 per cent of them are not professional athletes.¹ If you are reading this paper, this is much more likely to be you – or your sister, mother or daughter. This report begins from the premise that these women and girls deserve safe and fair play too.

Supplemented by eye-witness accounts, Policy Exchange has carried out a comprehensive analysis of sporting records at club, county and other amateur and grassroots levels, to systematically document the physical advantage in sports that biological males possess. Alongside a detailed review of existing evidence, the report demonstrates the fundamental incompatibility of fair and safe competition between men and women within both grassroots, amateur and elite sport.

Key findings include:

- **The winning female from the London Marathon 2023 would be beaten by the 231st ranking male.**
- **In county athletics, the winning male from the slowest county running the 1500m in 2023 would beat the winning female in 27 out of 33 counties.**
- **In university athletics, the 64th fastest male running in the 100m at university championships in 2023 would beat the winning female.**
- **At least three parkrun female records are held by males.**

1. Active Lives Data Tables (November 2021-22), *Sport England* – [link](#), cross referenced with estimation by the British Elite Athlete Association. Source available on request.

- **The top male serve at Wimbledon Tennis Championships 2023 is at least 18 miles per hour faster than the top female serve.**
- **Every British long course swimming record broken by an elite female swimmer has been beaten by a teenage boy.**
- **In all but one county swimming championship across three races, the slowest winning male would beat the winning female.**

While many National Governing Bodies have set policies that protect the female category at competitive level, the evidence within this report demonstrates the problem of allowing transgender women (biological males) persists, especially within amateur-level competitive sports, such as club or county, and within grassroots sports programmes that exist for the sake of increasing participation. Some National Governing Bodies have even gone as far as to stress the importance of allowing transgender women (biological males) in the female category at participation level, such as within British Cycling's Breeze programme.

The fact that a sex gap exists matters considerably when discussing the female category. The smaller the pool of women and girls, the greater the difference a male with their physical advantages will make within that category – regardless of competitive level. Although the Census 2021 data regarding gender identity is problematic, when cross-referenced with Sport England data, Policy Exchange estimates the possible percentage of biological males participating in ten popular sports within England.

There has rightly been a focus on the fairness and safety of females within policy discussions on whether transgender women (biological males) should be allowed to compete in the female category, but less so on why single sex categories are important for participation.

If women and girls cannot be guaranteed safe and fair competition, they will feel less inclined to participate in sport at all. Grassroots sport is primarily recreational and community driven, with the primary goal of participation. The problem of males competing in the female category is rife within this sector, and sports policymakers have failed to recognise the impact this is having on women and girls in sport.

Female participation in sport and physical activity is underdeveloped compared to men's in the UK, despite admirable efforts over decades by a number of stakeholders to develop women's sport and encourage more women and girls to be physically active. It is paradoxical that at the same time as both the Government and National Governing Bodies make efforts to close the sex gap within sports, there is a willingness to disregard it when it comes to accommodating a set of highly contested beliefs surrounding gender identity.

National Governing Bodies get considerable funding from the Government. They have the authority to make the right choice for women and girls within their sport. The legislation set out in the Equality Act allows it. The Government's Get Active Strategy, published in 2023,

2. Trans and Non-Binary Competition Eligibility Policy and Procedures, *British Rowing*. [Link](#).
3. [Ibid.](#)
4. World Rowing adopts tighter rules for transgender women athletes, *World Rowing*. [Link](#).
5. England and Wales Cricket Board Policy on Trans People Playing Cricket, *English Cricket Board*. [Link](#).
6. [Ibid.](#)
7. S.Shemilt et al, Transgender women banned from playing international women's cricket by ICC, *BBC Sport*, 21st November 2023. [Link](#).
8. The Football Association Policy on Trans People in Football, *Football Association*. [Link](#).
9. [Ibid.](#)
10. S.Evans, FIFA, World Athletics review transgender rules after swimming's change, *Reuters*, 20th June 2022. [Link](#).
11. England Golf, Guidance – The Equality Act 2010 and Golf, *England Golf*. [Link](#).
12. [Ibid.](#)
13. My child is in a team with a transgender player, is that allowed? *England Hockey*. [Link](#).
14. [Ibid.](#)
15. Gender Equality Policy, *International Hockey Federation*. [Link](#).
16. Swim England Transgender and Non-binary Competition policy, *Swim England*. [Link](#).
17. [Ibid.](#)
18. World Aquatics Debuts Open Category at Berlin Swimming World Cup 2023, *World Aquatics*. [Link](#).
19. Policy and guidance on trans people playing tennis, *Lawn Tennis Association*. [Link](#).
20. [Ibid.](#)
21. ITF Transgender Policy, *International Tennis Federation*. [Link](#).
22. Update: Transgender and Non-Binary Participation Policies, *British Cycling*. [Link](#).
23. [Ibid.](#)
24. The UCI adapts its rules on the participation of transgender athletes in international competitions, *Union Cycliste Internationale*. [Link](#).
25. UK Athletics publishes principle statement on transgender eligibility in Athletics, *UK Athletics*, 31st March 2023. [Link](#).
26. [Ibid.](#)
27. World Athletics Council decides on Russia, Belarus and female eligibility, *World Athletics*, 23rd March 2023. [Link](#).
28. The RFU rules that transmen (biological women) are able to play in the men's team if a) the player has provided their written consent to the club b) an appropriate risk assessment has been carried out c) the RFU is noted prior to play and d) the player has obtained a therapeutic use exemption. [Link](#)
29. Gender Participation Policy Application Guidance – September 2023, *England Rugby*. [Link](#).
30. [Ibid.](#)
31. Transgender Guidelines, *World Rugby*. [Link](#).

recognises that transgender inclusion cannot be reconciled with female competition, yet continues to fund National Governing Bodies to ignore the problem. Sport England, the Government's non-departmental body in charge of community sport continues to collect data based on gender identity, not sex – which means available data on the sex gap within sport is inaccurate.

Of course, transgender people belong in sport, just as sport should be open and inclusive to every person. Transgender people should be able to compete in the category that matches their biological sex – or, where appropriate, in an 'open' category. Categories exist to make sport more inclusive.

The integrity of women's sport at every level is threatened by the erosion of the female category – which must be reserved for biological females only. This paper offers a number of recommendations, addressed to National Governing Bodies, the International Olympic Committee, and the Government on what it needs to do to fix the problem.

The current state of play

Sport	Sex Gap		NGB Policy for Recreational Sport	NGB Policy for Competitive Sport	International Federation Policy		
	Male Numbers	Female Numbers				M	F
Rowing	315,200	183,200	63%	37%	Gender Self-ID ²	Protected Female Category ³	Medical Model ⁴
Cricket	296,100	56,300	84%	16%	Gender Self-ID ⁵	Case-by-Case Basis ⁶	Protected Female Category ⁷
Football	1,759,900	244,900	88%	12%	Under 16: Gender Self-ID. Over 16: Medical Model ⁸	Under 16: Gender Self-ID. Over 16: Medical Model ⁹	Case-by-Case Basis ¹⁰
Golf	886,900	147,700	86%	14%	Medical Model ¹¹	Medical Model ¹²	Unspecified
Hockey	76,400	80,400	49%	51%	Gender Self-ID ¹³	Gender Self-ID ¹⁴	Case-by-Case Basis ¹⁵
Swimming	1,659,800	2,120,700	44%	56%	Gender Self-ID ¹⁶	Protected Female Category ¹⁷	Protected Female Category ¹⁸
Tennis	540,100	372,200	59%	41%	Gender Self-ID ¹⁹	Gender Self-ID ²⁰	Medical Model ²¹
Cycling	4,018,300	2,297,900	64%	36%	Gender Self-ID ²²	Protected Female Category. ²³	Protected Female Category. ²⁴
Athletics (Track & Field)	107,600	67,500	61%	39%	Protected female category aside from males with DSDs ²⁵	Protected female category aside from males with DSDs ²⁶	Protected Female Category aside from males with DSDs ²⁷
Rugby Union ²⁸	157,200	36,700	81%	19%	Protected female category ²⁹	Protected female category ³⁰	Protected Female Category ³¹

Unless specified by the NGB, this table considers the policies for recreational sport as the same as the NGB's policy for competitive sport. While some NGBs and IFs have protected the female category at elite level, for the majority of recreational sports, NGBs operate policies of gender self-ID, which can seriously impact fairness and safety for women and girls' sports, and the pathways they may take to reach elite level. This table only relates to policies set by International Federations and National Governing Bodies. Parkrun for example, which operates a gender self-ID policy, is not a National Governing Body but still heavily involved in grassroots running. This table is correct as of December 2023. Sex gap data taken from Sport England Active Lives Survey (latest annual data: Nov 2021-2022)³²

Recommendations

- The International Olympic Committee must replace its current guidelines regarding female eligibility to restrict the female category to biological females within the Olympic Movement.
- Within every sex-affected sport, women and girls must have a protected single-sex category restricted to biological females. This must be the case at every level of sport, from amateur to elite level.
- The Department for Culture Media and Sport (DCMS) must require all National Governing Bodies, within 12 months, to update their policies to ensure there is a protected female single-sex category. This should be made a condition of funding, with taxpayers' funding withdrawn from those that do not protect female same-sex sport.
- Sport England must collect data on biological sex, not gender identity. Until it starts to do this, it must not claim to adhere to the UK Code of Practice for Official Statistics.
- Sport England must inform parkrun that it is to collect participant data based on biological sex, not gender identity. Parkrun must update all relevant course records to reflect this. If this does not happen within 12 months, taxpayers' funding should be withdrawn.
- Where designated mixed sex sports categories exist, such as mixed tennis, categories should be based on biological sex rather than gender identity.
- All major marathons in the UK, including the London Marathon, must ensure participant records are based on biological sex, not gender identity.
- British Universities & Colleges Sport must update its current guidelines to ensure that females competing within university sex-affected sports have a protected single-sex category restricted to biological females. This should be made a condition of funding, with taxpayers' funding withdrawn if this is not done.
- Initiatives intended to encourage female participation in sport must admit participants on the basis of biological sex. Compliance with this must be made a condition of any government funding at both local and national level.

32. Active Lives Data Tables (November 2021-22), Sport England. [Link](#).

Introduction

It has long been acknowledged that categories within sport are essential for promoting and maintaining fairness. Sex, age, weight and disability are common categories and understood as vital for fairness and inclusion within sport. Until recently, it was unremarkable scientific fact that males and females are physiologically different, and that men possess substantial physical advantages over women. This has consequences within sport, where performance based on physicality is assessed.

While sex categories in sport have existed without problems for decades, the rise of gender identity beliefs have caused some to feel that these categories exclude transgender people, who do not identify with their biological sex. Instead, transgender people identify with a gender that is different to their biological sex. Understanding of gender is contested, but typically refers to the cultural and social attributes associated with the sexes. Ultimately, this causes issues within sport, which is physical by nature. Particularly problematic is whether transgender women (biological males) should be eligible to compete in the female category, despite possessing some or all of their male physiological strength.

Over the past several years, there have been a number of high-profile incidences of transgender women (biological males) competing and naturally, succeeding, in the female category. While some celebrate this as inclusive and progressive, there has been widespread outrage at the fact that female fairness, participation (and in some cases, safety) have been severely compromised as a result.

There is a misconception that such occurrences are uncommon, or only 'matter' within elite or professional sport. This report demonstrates that the problem of biological males competing in the female category is a threat to the entirety of female sport. One biological male competing in a designated female category – regardless of competitive level – is too many. This is not only due to the physical advantages enjoyed by males, but also the fact that women are underrepresented in most sports. As outlined later, single sex categories are important in encouraging women and girls to engage in sport and physical activity in the first instance.

Based on Athlete Performance Awards allocated by UK Sport, The British Elite Athlete Association estimates that 1000 women in the UK receive an income as sportswomen.³³ Sport England's Active Lives Survey shows that around 14mn women and girls are regularly active in sport or physical activity, which means that non-professional and non-elite sport makes up 99.99 per cent of sport.³⁴ The issue within wider sport therefore affects much greater numbers of women and girls. This report challenges

33. Estimation by the British Elite Athlete Association. Source available on request.

34. Active Lives Data Tables (November 2021-22), *Sport England* – [link](#), cross referenced with estimation by the British Elite Athlete Association. Source available on request.

the idea that the female category should be compromised simply because the women and girls are not competing at the highest level.

The UK law recognises some sports to be ‘gender-affected’ activities. Section 195 of the Equality Act 2010 is clear that sex discrimination (the exclusion of males from female categories) is covered as an exception under the Act, in order to uphold fairness and safety.³⁵ A female may be indirectly discriminated against on these grounds if one or both of these criteria are not upheld. Despite the exceptions within the law, National Governing Bodies responsible for individual sports policies have been reluctant to set policies regarding female eligibility. Exceptions are not duties, which means they do not have to be relied upon. Nonetheless, it should be clear that if a National Governing Body wants to protect female sport, the law allows them to do so.

While the integrity of women’s sport at all levels is threatened by the embrace of gender self-ID, National Governing Bodies in many different sports continue to implement policies and mandates aimed at increasing female participation. Sport England launched their This Girl Can campaign in 2015, aimed at increasing female participation in sport and physical activity.³⁶ Both the International Federations and National Governing Bodies of many of the UK’s most popular sports have similar policies. For example, both the International Cricket Council (ICC) and the English Cricket Board (ECB), International Association Football Federation (FIFA) and the Football Association (FA), and World Rugby (WR) and the Rugby Football Union (RFU), all have specific targets and strategies to increase female participation in their sport.³⁷ While it is positive that increasing female participation in sport is being embraced, at the same time many sports are willing to compromise the very category they are working hard to increase participation within.

This report will firstly examine why all women and girls deserve fair and safe competition, before examining the different approaches deployed by sports councils and National Governing Bodies in dealing with transgender inclusion in female sport. This includes a table of ten sports popular within the UK, and the policy approach taken by at international and national level within these sports. Part two provides an analytical assessment of the scale of male advantage within four sports: athletics, swimming, football and tennis. These deep dives demonstrate the scale of male advantage within each sport, while assessing the policy approach taken by that sport at both national and international level.

Of course, sport at every level should be inclusive and open to everyone. It is for this reason precisely that categories within sport exist. Categories acknowledge that in order for people to participate in an intrinsically physical activity, the differences in human physicality must be respected. Abolishing a category as fundamental as sex in order to accommodate a category based on self-declared identity, is therefore illogical. As stated by Fiona McAnena of consultancy Fair Play for Women, ‘sport is not played by identities, it’s played by bodies.’³⁸ The integrity of sport at all levels depends on this vital recognition.

35. Equality Act 2010, Section 195, Sport. [Link](#).

36. This Girl Can, *Sport England*. [Link](#). Note: Sport England’s This Girl Can campaign includes trans-identified males, so does not exclusively promote the interests of women and girls in sport.

37. Cricket: [Link](#) and [Link](#). Football: [Link](#) and [Link](#). Rugby: [Link](#) and [Link](#).

38. LBC, *Twitter*, 13 May 2023. [Link](#).

Participation, fairness and safety within female sport

It is well documented that female physical activity and sport is underdeveloped in comparison to men's. According to Sport England, the non-departmental public body under the Department for Digital, Culture, Media and Sport (DCMS), men are more likely to be physically active than women.³⁹ Sport England committed to increasing activity levels for women aged 16–60 by 250,000 between 2016 and 2020, and lower socio-economic groups in targeted communities by 100,000. A House of Commons Committee report, *Grassroots participation in sport and physical activity* (2023), found that immediately prior to the pandemic, it was on track to deliver against its target for lower socio-economic groups, but significantly off track on its women's target.⁴⁰ There was a drop in activity levels for both men and women during the pandemic, but women's activity levels have not returned to pre-pandemic levels whereas men's have. A Government Equalities Office report (GEO) *Seven is heaven for girls and sports*, found that until year three (aged seven), girls and boys' participation in sport is broadly the same. After this age, girls' participation in sport drops off significantly.⁴¹ In 2022, a study by Women in Sport found that 43 per cent of 4000 teenage girls who considered themselves 'sporty' at primary school had disengaged with exercise as teenagers.⁴² 22 per cent fewer girls than boys take part in team sport in England.⁴³

Similarly, there are stark sex differences at the top of the sports industry. In 2022, only 13 per cent of sports coverage hours across key sports channels was for women's sport,⁴⁴ with only 0.5 per cent of sports sponsorship money spent on women's sport.⁴⁵ Consequently, the differences in earnings between male and female athletes is substantial. The graph below demonstrates the steadily increasing number of female elite athletes participating in Olympic games.⁴⁶ With the addition of women's boxing, London 2012 was the first games in which women participated in every sport.

39. Active Lives Adult Survey November 2021-22 Report, *Sport England*, 2023. [Link](#).

40. Grassroots participation in sport and physical activity, *UK Parliament*, 8 January 2023. [Link](#).

41. New research shows seven is heaven for girls and sports, *Gov.UK*, 27 March 2015. [Link](#).

42. Reframing Sport for Teenage Girls: Tackling Teenage Disengagement, *Women in Sport*, 7 March 2022. [Link](#).

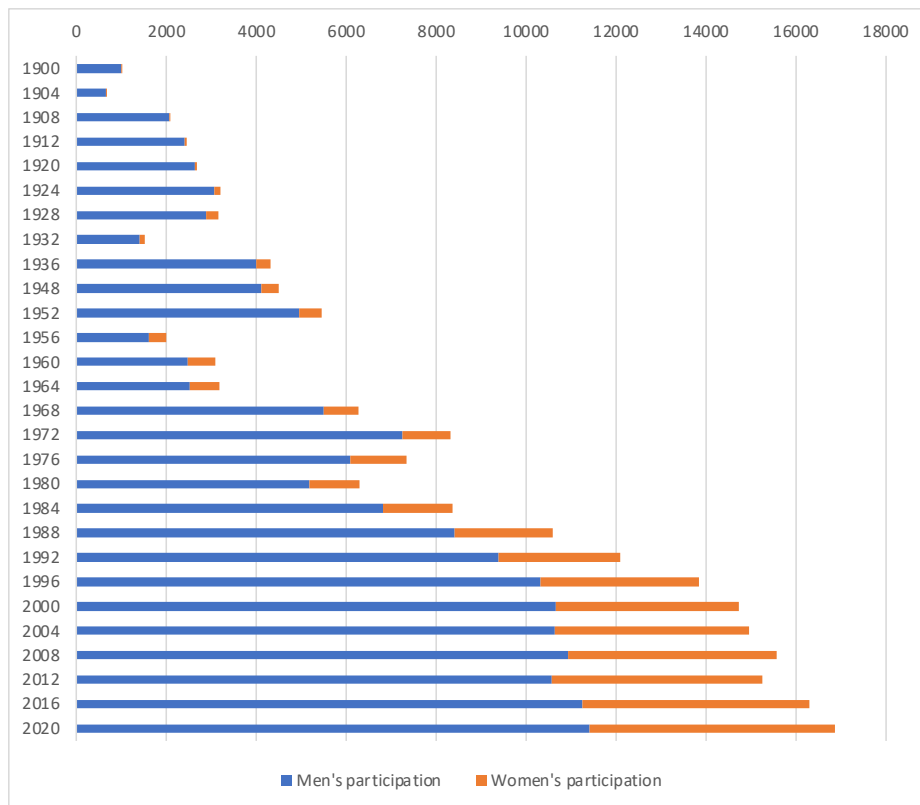
43. Girls' Sporting Lives Stagnant Despite the Glory of the Lionesses – Action is Needed to Close the Gender Gap, *Women in Sport*, 15 December 2022. [Link](#).

44. Record-breaking figures for women's sport viewership in 2022, *Women's Sports Trust*, 6 February 2023. [Link](#).

45. Empowering Women Through Sport, *The UK Sponsorship Awards 2024*. [Link](#).

46. FACTSHEET: Women in the Olympic Movement, *International Olympic Committee*, 14 April 2023. [Link](#).

Sex Gap within the Olympic Games



Source: International Olympic Committee, 'Factsheet: Women in the Olympic Movement'

The fact that a substantial sex gap exists within most sports matters when discussing female eligibility. The smaller the pool of women and girls, the greater the difference a male with their physical advantages will make within that category – at every level of competition. At entry level, most National Governing Body (NGB) talent pathway programmes are restricted to several hundred athletes, where the physical advantages enjoyed by one transgender woman (biological male) could impact hundreds of female rankings and selections. Allowing males to compete within female sport at the grassroots level risks removing the female entry level into sport – and in time – the elite female athletes of the future.

The table below demonstrates that female categories are disproportionately affected when eligibility is based on gender, not biological sex. Given the sex gap that exists in most sports, the female category will be disproportionately affected by transgender women (biological males) competing in the female category.

This table is based on sports policy consultant Cathy Devine’s method, published in 2020.⁴⁷ The table below updates Devine’s findings using the 2021 census data, which provides the first official data on the size of the transgender population in England and Wales.

47. Written evidence submitted by Cathy Devine [GRA1160], [Link](#).

Sport	Male numbers	Female numbers	Transwomen	Transmen	% of transwomen in female category	% of transmen in male category	Estimated numbers of males in female category
Rowing	315,200	183,200	1056	302	0.6%	0.1%	1 in 173
Cricket	296,100	56,300	992	93	1.8%	0.0%	1 in 56
Football	1,759,900	244,900	5896	404	2.4%	0.0%	1 in 41
Golf	886,900	147,700	2971	244	2.0%	0.0%	1 in 50
Hockey	76,400	80,400	256	133	0.3%	0.2%	1 in 314
Swimming	1,659,800	2,120,700	5560	3499	0.3%	0.2%	1 in 381
Tennis	540,100	372,200	1809	614	0.5%	0.1%	1 in 206
Cycling	4,018,300	2,297,900	13461	3792	0.6%	0.1%	1 in 171
Athletics (Track & Field)	107,600	67,500	360	111	0.5%	0.1%	1 in 188
Rugby Union	157,200	36,700	527	61	1.4%	0.0%	1 in 70

This estimate uses the Census 2021 0.5 per cent transgender estimate,⁴⁸ and a distribution of 67/33 transwomen/transmen split, based on a Collin et al study, which finds transgender identity in biological males to be significantly higher than transgender identity in biological females⁴⁹. The sports estimates use Sport England sex participation data for November 21/22.⁵⁰ The census data should be taken with scepticism, as outlined by Professor Alice Sullivan who argues that the nature of the question may have confused participants who do not have English as a first language.⁵¹

While these figures may seem insignificant, the impact of even one biological male in the female category can be large. For example, in athletics, the estimate is that up to 1 in 188 competitors in the female category could be biologically male. However, as we demonstrate later, in the London Marathon, the 231st faster man was faster than the winning female – demonstrating that even a relatively small proportion of biological males can have a major impact on who wins or places in competitions. For team sports, this can be even larger. Consider a football league of ten teams, each of which will have 11 members – or 110 individuals, plus reserves and substitutes. Given that up to 1 in 41 competitors in the female category in football could be biologically male, the likelihood that an amateur league will contain at least one transwoman (biological male) is considerable – exposing every biological female in that league to unsafe and unfair competition.

As former Olympic swimmer and women’s rights advocate Sharron Davies makes clear, alongside co-author Craig Lord in their landmark publication *Unfair Play: The Battle for Women’s Sport* (2023), the pathways young athletes take to get to elite level can be useful even if the athlete does not end up as an elite athlete – which most do not.⁵² For example, being able to represent a sport at national or county level may be influential when applying for universities known for their sports. A good amateur

48. Gender identity, England and Wales: Census 2021, Office for National Statistics. [Link](#).

49. L.Collin et al, Prevalence of Transgender Depends on the “Case” Definition: A Systematic Review, *J Sex Med.* 2016 Apr; 13(4): 613–626, [Link](#).

50. Active Lives Data Tables (November 2021-22), *Sport England*. [Link](#).

51. Alice Sullivan, What the Census reveals about trans people in Britain, *The Spectator*, 29th January 2023. [Link](#).

52. Sharron Davies & Craig Lord, *Unfair Play: The Battle for Women’s Sport* (2023), p.220.

sportswoman competing at club level is likely to be training in their chosen sport several times a week, and many sports also come with a considerable financial commitment to compete within. For girls and young women to be denied the opportunity and experience to represent their sport at school, club, county or beyond because an NGB is unwilling to protect the female category from grassroots level is not only unfair but demotivating for prospective female athletes.

In addition to the unfairness denied to women in these circumstances, there are other legitimate reasons, such as privacy, dignity and safety, as to why women and girls may wish to participate in single sex sports and physical activities. Reports by This Girl Can and ukactive found that 23 per cent of women avoid areas within the gym with more men, and 22 per cent fear being judged by men in fitness settings.⁵³ 40 per cent feel female only changing rooms and toilets are important, with 23 per cent wanting female only gym and swimming sessions.⁵⁴ The Scottish Parliament's Health, Social Care and Sport Committee's recent review into female participation in sport and physical activity found that many girls feel 'actively marginalised in PE class by boys and many described not being able to get involved in games or even getting to use equipment.'⁵⁵ Women with religious convictions may be unable to participate in mixed-sex sports. According to Sport England's latest data, activity levels are lowest among women who practise Islam.⁵⁶ Women/girls-only sports sessions are fundamentally important for females because they encourage participation. As highlighted by public health researcher Martha Brady, facilitating girls in single-sex sports environments can act as a way 'of bringing girls into the public sphere.'⁵⁷ Single-sex sport is therefore fundamental both to fairness and safety, but also to participation.

'I coached a sports taster session in an inner-city area including indoor rowing. We had to be able to guarantee that we would not have males in the room so that we could offer sessions to Muslim women.'

Community sports coach, North of England

Sport and physical activity is one of the largest sectors for volunteering. According to Sport England's latest data, 19 per cent of adults (8.8mn adults) gave up time to volunteering within the sector between November 2021 and November 2022.⁵⁸ Volunteers deserve clarity, and should not be pressurised by activists and lobbying groups to deny reality when it comes to managing categories within sport. From the perspective of a volunteer, knowing the sport exceptions allowed for within the Equality Act 2010 is not easy. It should not be for volunteers to have to understand the complexities of the law. NGBs can set policies which give volunteers running local sport assurance that they can protect the female category.

53. This Girl Can and ukactive join forces on guidance for gyms and leisure centres to support safer spaces for women, *ukactive*, 16th May 2023. [Link](#).

54. Engaging the 51%: Guidance and Resources, *This Girl Can and ukactive*, [Link](#).

55. Inquiry into female participation in sport and physical activity, *The Scottish Parliament*. [Link](#).

56. Active Lives Adult Survey November 2021-22 Report, *Sport England*, 2023. [Link](#).

57. Martha Brady, 'Creating Safe Spaces and Building Social Assets for Young Women in the Developing World: A New Role for Sports', Vol. 33, No. 1/2, *Women and Sports* (Spring - Summer, 2005), *Women's Studies Quarterly*, page 36. [Link](#).

58. What 'recover and reinvent' means for volunteering, *Sport England*, 2nd June 2023. [Link](#).

My perception is that while some national governing bodies have acknowledged that it would be disastrous and dangerous to have men competing in elite women's sports, amateur competitive and recreational sports (the sports in which the vast majority of girls and women participate, keenly) are being severely impacted by the inclusion of even a handful of males (such as what we are seeing with the Sheffield women's and girls' football league and at schools).

The purpose of women and girls' sport, so vital for our health, sense of inclusion and wellbeing, is being re-centred on males by the very organisations that should be recognising our needs and wants. The result: women and girls are now self-excluding and our achievements are denied a public record (see for example what is happening at parkrun).

We have lacked access to sports for decades, are still hugely under-represented; and now we are going backwards. The Government cannot even gather accurate data on women's participation because many sports bodies no longer gather data on sex but solely on gender identity. In so doing, these orgs use data gathering to compel speech – one cannot register for events with these orgs and charities (for example, Cycling UK, Audax UK) unless one 'identifies' as female or male, or opts not to declare. So, we must deny the significance of our own bodies in sport and repeat a belief that many of us do not share; or opt to be excluded from records if we want to participate.

This strategy distorts data, member consultations and ultimately, the effective allocation of resources; we are losing our visibility and the chance of participation unless we - literally - play along with males. I have self-excluded from grassroots cycling events in protest at what is an abuse of position by these orgs and a misuse of data gathering.

Cyclist and cycling club volunteer, West Midlands

The role of sporting bodies in developing policies

National Governing Bodies (NGBs) are responsible for the governance and administration of a given sport on a national basis, including setting policies, running competitions and implementing strategic visions for their sport in a particular country. International Sports Federations (IFs) are responsible for the governance and regulation of a given sport internationally, and issue policies for the events they run, such as world championships at all ages and Olympic events. The International Olympic Committee (IOC) has a list of recognised international federations. The IOC sets out the obligations and rights of IFs. Since 2021, policies regarding female eligibility have come under the remit of NGBs and IFs.

Within the UK, there are four arm's length bodies sponsored by the Department for Culture, Media and Sport (DCMS). These are Sport England, UK Sport, UK Anti-Doping (UKAD) and Sports Grounds Safety Authority (SGSA).

The International Olympic Committee (IOC)

- Responsible for recognising IFs as administering olympic sport at global level.
- Responsible for ensuring IFs conform to the Olympic Charter.
- Since 2021, have left IFs to decide female eligibility policies.

International Federations (IFs)

- Responsible for governing a given sport on an international basis, (recognised by the IOC if sport is olympic).
- Since IOC's 2021 decision, set their own policies regarding female eligibility in their given sport.

Example: Union Cycliste Internationale

National Governing Bodies (NGBs)

- Responsible for governing a given sport on national basis, affiliated to their IF.
- Set their own policies regarding female eligibility in their given sport (though most generally follow their IF).
- Receive funding from Home Country Sports Councils and UK Sport.

Example: British Cycling

UK Sport

- Government agency responsible for investing in Olympic and Paralympic sport in the UK.
- Sponsored by the Department for Culture, Media and Sport.
- Provide funding from Government and National Lottery to NGBs and professional athletes.

Sport England

- Government agency responsible for investing in community and grassroots sport.
- Sponsored by the Department for Culture, Media and Sport
- Provide funding from Government and National Lottery to NGBs to grow number of people and nurture talent in sport.



In August 2023, the Government released *Get Active: A strategy for the future of sport and physical activity*.⁵⁹ The strategy is aimed at encouraging the country to participate more widely in sport and physical activity. Despite the strategy's focus on 'evidence, data and metrics', to understand how people are becoming active, Sport England collects data based on self-declared gender, not sex.⁶⁰ The strategy briefly addresses the problem of gender self-ID, noting that 'when it comes to competitive sport, particularly women's sport, the government believes that fairness and safety have to be the primary considerations.'⁶¹ While it is positive that the strategy acknowledges the importance of protecting the female category at competitive level, there is no recognition of the impact of gender self-ID on women's participation in sport.

The International Olympic Committee

In 2003, the IOC ruled that transgender women (biological males) were eligible for participation in the female category provided they met certain criteria. This included the need for a participant to be legally recognised as female by appropriate authorities, to have undergone sex-reassignment surgery 'including external genitalia changes and gonadectomy', and undergone hormone therapy that had been 'administered in a verifiable manner and for a sufficient length of time to minimise gender-related advantages in sport competitions.'⁶² The guidelines were updated in 2015, to acknowledge 'growing recognition of the importance of gender identity in society' and to ensure restrictions to female eligibility were proportionate to the goal of ensuring fair competition.⁶³ These guidelines removed the need both for the participant to have undergone surgical intervention and to have legally changed their gender. Testosterone levels were still required to be below the specified level of 10nmol/L for at least 12 months prior to competition.

In November 2021, the IOC replaced guidelines and shifted the authority for decision making regarding female eligibility to International Federations themselves by releasing a framework offering 'a principled approach to develop their criteria that are applicable to their sport.'⁶⁴ The framework is heavily influenced by a transgender rights perspective and is notable for its emphasis on this over scientific reality. For example, the document states that presumption of advantage should never be assumed based on transgender status as well as stating no participant should be subjected to physical examinations to determine their sex.⁶⁵ As such, it focuses majorly on a transgender or DSD athlete's own right to participate over the right to fair and safe competition for females, reversing previous guidelines which seek to maintain the importance of fairness and safety.

After the IOC's framework was released, 38 scientists, (including two members of the IOC's Medical and Scientific Commission) signed a statement released by the International Federation of Sports Medicine (FIMS) and the European Federation of Sports Medicine Associations (EFSMA) – the world's major associations for the promotion of sports medicine.⁶⁶ The statement expressed several concerns. Firstly, it reasoned

59. *Get Active: a strategy for the future of sport and physical activity*, Department for Culture, Media and Sport, 30th August 2023. [Link](#).

60. *Ibid.*

61. *Ibid.*

62. Statement of the Stockholm consensus on sex reassignment in sports, [Link](#).

63. IOC Consensus Meeting on Sex Reassignment and Hyperandrogenism November 2015, *International Olympic Committee*, [Link](#).

64. IOC Framework on Fairness, Inclusion and Non-Discrimination on the Basis of Gender Identity and Sex Variations, *International Olympic Committee*. [Link](#).

65. *Ibid.*

66. F.Pigozzi et al, Joint position statement of the International Federation of Sports Medicine (FIMS) and European Federation of Sports Medicine Associations (EFSMA) on the IOC framework on fairness, inclusion and non-discrimination based on gender identity and sex variations, *British Medical Journal*, Volume 8 Issue 1, [Link](#).

that ‘the scientific, biological or medical aspects are not considered’ in the framework’s mandate that no athlete should be presumed to have sex-based advantage, noting that this departs from the IOC’s previous longstanding consensus that male testosterone is advantageous and must be suppressed for female eligibility.⁶⁷ Secondly, the statement contended that the IOC’s decision to place responsibility for gender classification entirely on IFs is problematic given their limited capacity, resources or expertise: ‘The burden of proof is now on the IFs to provide ‘evidence-based’ eligibility criteria within the very narrow constraints imposed by the framework.’⁶⁸ The associations concluded that the consequences of the IOC’s framework would result in either exclusion of transgender or Disorders of Sexual Development (DSD) athletes on the grounds of performance advantage, or self-identification ‘that all but equates to no eligibility rules’ which contradict the Olympic Charter.⁶⁹

The IOC’s updated approach to sex verification contrasts substantially with its anti-doping policy, which is rigorous. According to its website, the IOC ‘has established a zero-tolerance policy to combat cheating and hold accountable anyone responsible for using or providing doping products.’⁷⁰ Synthetic testosterone (an anabolic steroid) is prohibited, according to the World Anti-Doping Agency (WADA).⁷¹ Anti-doping tests can be conducted on athletes at any time and are known to be very invasive – including athletes having to urinate in the presence of an official.⁷² Considering the strict anti-doping policies in place to protect fairness, the IOC’s approach to sex verification is remarkably *laissez-faire*, involving just a once-in-a-lifetime cheek swab.

NGBs in every country are governed by national law and are not obliged to follow the policies that their International Federations set, yet most do. However, policies on female eligibility are unusual in having so much variation. NGBs must conform to IFs when it comes to selection for international events but can deviate when it comes to the eligibility criteria for their own events.

The decisions made by NGBs and IFs regarding female eligibility do not just impact elite sport. While many NGBs are willing to protect the female category at competitive or elite level, few have made statements for grassroots sport. Some have gone as far as to stress the importance of transgender inclusion at non-elite level. For example, in May 2023 British Cycling announced two policies regarding female eligibility. The first relates to competitive activity, in which the NGB ruled to protect the female category. The second relates to non-competitive activity, which includes club and coach-led activities, ability-based race programmes, community programmes, Talent Development Centres and non-competitive events such as sportives.⁷³ Gender self-ID applies to all of these policies, and therefore would affect the majority of females engaged in the sport.

One such example is Breeze cycling, which was set up as a women-only cycling programme by British Cycling to encourage more women to get into cycling for fun. It is run by women-only volunteers who organise bike rides in their local areas.⁷⁴ As described earlier, gender self-ID policies

67. *Ibid.*

68. *Ibid.*

69. *Ibid.*

70. Fight Against Doping, *International Olympic Committee*, [Link](#).

71. The Prohibited List, *World Anti-Doping Agency*, [Link](#).

72. Introduction to Testing, *UK Anti-Doping*, [Link](#).

73. Update: Transgender and Non-Binary Participation Policies, *British Cycling*, [Link](#).

74. Breeze, *British Cycling*, [Link](#).

risk compromising a sport's focus on female participation, which is the supposed aim of British Cycling's Breeze programme. In November 2023, *The Telegraph* reported that a female Breeze champion had been removed from the organisation's Facebook group after she opposed the policy.⁷⁵ After a further volunteer wrote to the Equality and Human Rights Commission complaining of the policy, they copied in British Cycling CEO Jon Dutton, who responded:

*'Whilst individuals are entitled to hold gender-critical views, that does not give them the unfettered power to voice those views without consequence. Misgendering of a trans person can constitute a form of discrimination.'*⁷⁶

Similarly, NGB policies that fail to protect the female category at grassroots level risk wiping out the entry level for females into sport. Development centres are the first stage in the British Cycling Talent Development pathway, which focuses on identifying and development young bike riders to transition into the Great Britain Cycling Team programmes.⁷⁷ The fact that British Cycling is willing to compromise both the entry level pathway for talented young female cyclists and women's participation more generally in the sport suggests the NGB is not serious about promoting the interests of female cyclists.

'In my area there was once a thriving Breeze network, a handful of volunteers would put on a variety of rides on a weekly basis. When we were made aware of the transgender rules, our Muslim ladies stopped attending the rides and many of the volunteers stopped giving their time to the project as it didn't meet their values of female participation. There are now no Breeze rides in my area, no volunteers and no provision for entry level cyclists.'

Former Breeze Volunteer

75. Oliver Brown, British Cycling urged to close policy blindspot after trans riders enter women-only events, *The Telegraph*, 16 November 2023. [Link](#).

76. [Ibid.](#)

77. Talent Development Pathway, *British Cycling*. [Link](#).

Approaches to female eligibility in women and girls' sport

There are four main approaches taken by National Governing Bodies (NGBs) regarding transgender women (biological men) in female sport. We describe them below:

- **A gender self-ID policy** refers to the practice of allowing participants to enter a sex category based on their self-declared gender identity, irrelevant of biological sex.
- **A case-by-case policy** involves a sport assessing an individual athlete on a case-by-case basis, taking into consideration factors such as a person's weight, testosterone levels and other physiological factors.
- **A medical model policy** is based on the position that transgender women (biological males) can participate in the female category so long as their testosterone levels are suppressed to a certain degree.
- **A protected female category policy** refers to position of restricting the female category to biological females in sex-affected sports.

This section compiles current evidence regarding the biological differences between men and women, before assessing the four approaches against this evidence.

The reality of biology

More than 3000 genes have been identified as being expressed differently between male and female skeletal muscle.⁷⁸ In a study of over 8,500 infants, physiological differences were observed from as early as the first trimester of pregnancy, where male foetuses had a higher crown-rump length (CRL).⁷⁹ At birth, male infants were heavier than female infants by an average of 188 grams.⁸⁰ New-born males have larger skulls, bigger and stronger bones, and by the time they are five months old, have developed more lean mass and lower percent fat mass than female infants.⁸¹ Mini puberty happens in infants between one and four months of age, and the physical sex differences caused by the production of testosterone in male infants has been calculated to be substantial enough to account for 15 per cent of the final height difference between men and women.⁸² An Australian study of over 85000 children aged nine to 17 demonstrates that nine year-old boys can run faster, jump further and have a stronger grip

78. KM Haizlip et al, Sex-Based Differences in Skeletal Muscle Kinetics and Fiber-Type Composition, *Physiology* 30: 30-39, 2015, [Link](#).

79. [Ibid.](#)

80. [Ibid.](#)

81. [Ibid.](#)

82. K.Copeland et al, Mini-Puberty and Growth, *Pediatrics* (2016) 138 (1): e20161301. [Link](#).

than nine year-old girls.⁸³ The physical advantages experienced by men happen well before puberty.

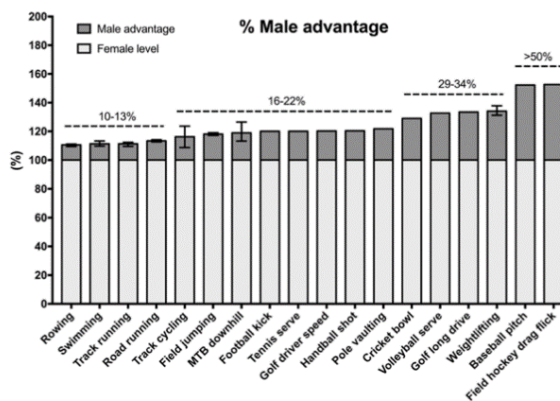
The average age for girls to start puberty is 11, while for boys it is 12.⁸⁴ The fact that girls begin puberty earlier can have a bridging effect on the physical advantages experienced by males, however there are still minimal differences in sports performance pre-puberty. The table below demonstrates the differences in under 11 girls' and boys' athletic performance at one club.

Event	Under 11 boys	Under 11 girls	Percentage difference
60m	00.08.08	00.09.05	12%
100m	00.14.02	00.14.07	3%
200m	00.30.05	00.33.30	10%
800m	02.39.08	02.47.04	3% ⁸⁵

The graph below, created by developmental biologist Dr Emma and sports scientist Dr Tommy Lundberg, demonstrates male performance advantage over females within selected sports.⁸⁶ Males have between a 10 and 50 per cent performance advantage over females.⁸⁷ In practical terms, a gender self-ID approach recognises that an elite female athlete will be beaten by a relatively middling male athlete with little competition.

The male performance advantage over females across selected sports, produced by Dr Emma Hilton and Dr Tommy Lundberg, as published in Sports Medicine.

Fig. 1 The male performance advantage over females across various selected sporting disciplines. The female level is set to 100%. In sport events with multiple disciplines, the male value has been averaged across disciplines, and the error bars represent the range of the advantage. The metrics were compiled from publicly available sports federation databases and/or tournament/competition records. MTB mountain bike



83. M.Catley et al, Normative health-related fitness values for children: analysis of 85347 test results on 9-17-year-old Australians since 1985, Br J Sports Med. 2013 Jan;47(2):98-108. [Link](#).

84. Early or delayed puberty, NHS, [Link](#).

86. E.Hilton & T.Lundberg, Transgender Women in the Female Category of Sport: Perspectives on Testosterone Suppression and Performance Advantage, Sports Med. 2021 Feb;51(2):199-214, [Link](#).
















87. [Ibid.](#)

88. Track & Field World Records - Male High School Athletes vs World's Best Female Athletes, [boysvswwomen.com](#), [Link](#).

85. As of July 2023. Compiled from publicly available data (Gloucester Athletic Club Under 11 Girls Club Records. [Link](#))

The table below reflects this data. **Every single world record in Track and Field held by a woman has been beaten by a teenage boy.**⁸⁸ This table is taken from the website [boysvswwomen.com](#)

This table demonstrates the scale of male advantage within sports.

Event	Boys (Age)	Women
100m	 10.20 (15)	10.49
200m	 20.89 (14)	21.34
400m	 46.96 (14)	47.60
800m	 1:51.23 (14)	1:53.28
1000m	 2:26.30 (15)	2:28.98
1500m	 3:48.37 (14)	3:50.07
Mile	 4:08.80 (15)	4:12.33
2000m	 5:19.33 (16)	5:23.75
3000m	 7:56.40 (17)	8:06.11
5000m	 14:10.92 (15)	14:11.15
10,000m	 28:39.04 (16)	29:17.45
Marathon	2:17:21.00 (18)	 2:14:04.00
3000m Steeplechase	 8:26.81 (18)	8:44.32
400m Hurdles	 51.14 (15)	52.16
High Jump	 2.17m (14)	2.09m
Pole Vault	 5.33m (15)	5.06m
Long Jump	 7.85m (15)	7.52m
Triple Jump	 16.63m (15)	15.50m
Shot Put	 23.86m (15)	22.63m
Discus	 77.68m (15)	76.80m
Hammer Throw	 85.17m (14)	82.98m
Javelin	 74.24m (14)	72.28m

Some cite lack of evidence into the physical differences between men and women as a reason for why gender self-identification policies should be enforced. These arguments suggest it cannot be considered conclusive that transgender women (biological males) have physical advantages over females, and that more evidence is needed. Others argue that while men do have physical advantages over women, these advantages can be removed with testosterone suppression.

The argument in favour of this is that male advantage is primarily driven by testosterone, thus removing it minimises advantage between men and women ensuring fairness. Men have at least 15 times the amount of testosterone circulating their bodies at any age compared to women.⁸⁹ Male testosterone levels range between 7.7 to 29.4 nmol/L and female testosterone levels range between 0 to 0.7 nmol/L.⁹⁰ Women with the medical condition Polycystic Ovary Syndrome (PCOS) may have testosterone levels up to 5.2nmol/L.⁹¹

When a person undergoes the process of medical transition, they take cross-sex hormones, with the aim of developing the secondary sex characteristics associated with the opposite sex. For biological males, this involves taking medication to block testosterone and includes taking oestrogen, which also lowers the levels of testosterone the body makes.⁹² As explained above, until 2015 this was the approach adopted by the IOC. The IOC's justification for adopting the medical model was based on a retrospective study by medical physicist Joanna Harper, which is highly contested.⁹³

89. D. Handelsman et al, Circulating Testosterone as the Hormonal Basis of Sex Differences in Athletic Performance, *Endocr Rev.* 2018 Oct; 39(5): 803–829, [Link](#).

90. [Ibid.](#)

91. M. Sheehan, Polycystic Ovarian Syndrome: Diagnosis and Management, *Clin Med Res.* 2004 Feb; 2(1): 13–27, [Link](#).

92. Treatment: Gender dysphoria, *NHS*. [Link](#).

93. Dr Emma Hilton reviews the science supporting the IOC decision to let male-born transgender athletes into female competition, *Fairplay for Women*, 14th July 2019. [Link](#).

Assessment of the four approaches against biological reality

There are several arguments in favour of gender self-ID policies. None of these stand up against the biological reality described above: that men are physically stronger than women and that in intrinsically physical activities, female safety and fairness is compromised if categories are mixed.

One argument in favour of gender self-ID policies is based on the principle of inclusivity, which refers to the practice of providing equal opportunities to those who may otherwise be excluded. It is felt by some that banning a transgender person from the sex category they want to compete in rather than the sex category that pertains to them is not inclusive, and that transgender inclusion should be the objective of a sports category. Proponents of this policy argue that being inclusive of transgender people in their claimed identity is more important to sport than female inclusion, fairness and safety – or that there is no conflict between them. As such, the substantial physiological advantages enjoyed by transgender women (biological males) over women are considered irrelevant to the principle aim of sport from this perspective. As this report highlights, gender self-ID approaches are common within grassroots and amateur competitive sport.

Mixed Martial Arts (MMA) is a full-contact sport involving punching, kicking, grabbing and wrestling. Fallon Fox is a transgender woman (biological male) and former MMA fighter in the professional division. Fox was deemed eligible to compete in the female category, and subsequently severely injured several women. In 2014, Fox's opponent was left with a fractured skull, concussion and needed seven head staples. Tamikka Brents, Fox's opponent told a journalist: 'I've fought a lot of women and have never felt the strength that I felt in a fight as I did that night.'⁹⁴

MMA fighter Tamikka Brents, having been beaten by biological male Fallon Fox. Brents required seven staples in her skull after this fight.

94. When transgender fighter Fallon Fox broke her opponent's skull in MMA fight, *sportskeeda*, 30th September 2021. [Link](#).



In 2020, Fox tweeted: ‘For the record, I knocked two out. One woman’s skull was fractured, the other not. And just so you know, I enjoyed it. See, I love smacking up TEFS (sic) in the cage who talk transphobic nonsense. It’s bliss!’⁹⁵

Brazilian Jujitsu is a form of martial arts based on grappling and ground fighting. In September 2023, the British Jujitsu Association (BJJA) updated its policy to continue allowing contact competition between males and females, to the concern of many. The policy is no longer available on the NGB’s website.⁹⁶ According to *The Telegraph*, BJJA has announced an ‘urgent review’ of its trans-inclusion policy.⁹⁷ In October 2023, it was reported that several female martial artists had refused to participate in a major competition after being forced to fight trans-identifying males at previous competitions.⁹⁸

Within Jiu-Jitsu, your primary path to victory is via submitting your opponent via their tapping on you to stop, usually due to joint manipulation or strangling on your opponent, until they tap for you to stop, or they pass out.

So, you can see why it would be problematic to allow men – who are physically much stronger – who identify as women to enter female categories.

As much as it is a wonderful sport for self-defence, challenging yourself, making friends and getting fit, let’s not forget that it is a violent fighting sport with dire and potentially life-changing consequences.

UK Based Black-Belt Jiu-Jitsu Artist

While concerns around fairness and safety related to a gender-self ID approach are naturally centred around transwomen (biological men) competing in the female category, consideration must also be given to the safety of transmen (biological women) who wish to compete in a male category in certain close contact sports, including combat sports. The proposed solution of switching the male category to become ‘open’ while ringfencing the female category for biological women should be seriously considered and discussed in greater depth later on, however an open category would not be workable in combat sports such as boxing

95. BBC apologises after interviewing transgender athlete who boasted of violence against women, *The Telegraph*, 16th July 2022. [Link](#).

96. [Link](#) to unavailable policy.

97. Jeremy Wilson, British Ju Jitsu conducting ‘urgent review’ of transgender policy after Navratilova brands them ‘jerks’, *The Telegraph*, 16th October 2023. [Link](#).

98. Isabelle Stanley, Female martial artists drop out of jiu-jitsu tournament after ‘fearing for their safety’ and being forced to fight against transgender women at competitions, *Mail Online*, 30th October 2023. [Link](#).

and MMA, given the safety risk to biological females, regardless of how they identify.

LGBT lobbying groups such as Stonewall advocate for gender self-ID policies within sports. Stonewall's Rainbow Laces campaign (in which athletes wear rainbow-coloured laces sold by Stonewall every year in November and December) aims to make 'LGBTQ+' athletes feel more included within sports.⁹⁹ Many NGBs take part in the campaign. While it is important that everyone feels able to take part within sport, Stonewall has been explicit that gender self-ID and the inclusion of transgender people in their chosen identity is more important than female fairness and safety.¹⁰⁰ For example, in response to the 2021 UK's *Sports Councils Guidance for Transgender Inclusion in Domestic Sport*, which stated that transgender women (biological males) retain strength advantages even after lowering their testosterone levels, Stonewall tweeted that the new guidance: 'assumes that there is an inherent conflict between inclusion, fairness and safety. In reality, the three go hand in hand.'¹⁰¹ As the evidence within this report demonstrates, this is not the case. However, Stonewall continues to push an agenda in which females should be expected to compromise their safety, fairness and participation in order to accommodate biological males. Starting at £950, Stonewall offer 'Sports inclusion workshops' aimed at making organisations who wish to make their sport more 'LGBTQ+' inclusive.¹⁰²

The case-by-case approach is also problematic. These arguments are based on the idea that each sport could assess each individual athlete on a case-by-case basis, taking into consideration various factors including an individual's weight, testosterone levels and other physiological factors. This is somewhat different from the medical model, in that there is no baseline which all participants must qualify for in order to be eligible for the female category.

The case-by-case model is flawed primarily because it relies on individual decision-making which could be discriminatory, and also fails to address the central issue, which is that the creation and maintenance of the female category is a legitimate aim in and of itself. A case-by-case basis relies on sports councils differentiating between transgender women (biological males) to decide who gets to compete in the female category. Allowing some transgender people to compete but not others could be direct discrimination under the Equality Act 2010, which prohibits discrimination against people on the basis of nine protected characteristics, including 'sex' and 'gender reassignment'.¹⁰³ This could also create pressure for transgender women (biological males) to undergo surgery or seek medical intervention in order to qualify for the female category. It also creates a hierarchy within the protected characteristic of gender reassignment – in which those who have undergone sex reassignment surgery are at the top.

As of yet, no sport has found a credible way to assess transgender individuals for their suitability to compete in the female category. In 2018, the Rugby Football Union (RFU) adopted a case-by-case policy but replaced it in 2022 with a policy which protects the female category.

99. Rainbow Laces, Stonewall. [Link.](#)

100. Everyone should feel welcome in sport – and that includes trans people, Stonewall, 1st September 2020. [Link.](#)

101. Stonewall, Twitter, 30th September 2021. [Link.](#)

102. LGBTQ+ Sport Workshops, Stonewall. [Link.](#)

103. Equality Act 2010, Chapter 1, Protected Characteristics. [Link.](#)

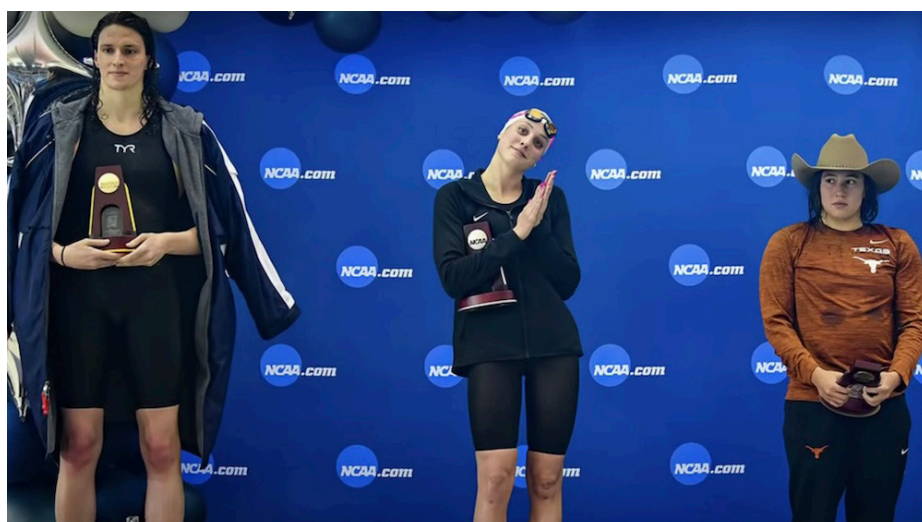
The RFU stated: ‘at present, there are no credible tests that can assess physiological variables (e.g. mass, strength, and power) for the purposes of measuring fair competition or safety when comparing players.’¹⁰⁴ The RFU also recognised further problems in the nature of the case-by-case approach towards trans women (biological males). In order to meet the threshold to compete in the female category, trans women (biological males) could be disincentivised from avoiding gaining strength, fitness or speed to avoid exclusion, ‘which means their motivation would be to limit improvement, contrary to the spirit of rugby.’¹⁰⁵

Furthermore, failing to restrict the female category to biological sex could also amount to indirect discrimination on the basis of sex. If an NGB chooses not to rely on the exception as set out in Section 195, a woman may experience discrimination (through her safety or fairness being compromised) because of the NGB’s failure not to rely on the exception.

The argument in support of the medical model relies on the thesis that male advantage can be removed by testosterone suppression. As outlined above, the reality of biology means this is not possible.

An example within US student athletics at university level illustrates this. Lia Thomas is an American transgender woman (biological male) distance swimmer, specialising in 1500 yards. When competing in the male sex category in 2018-19, the National Collegiate Athletics Association (NCAA) ranked Thomas as the 554th male in the 200m freestyle.¹⁰⁶ The NCAA follows a medical model policy. Having taken cross-sex hormones since 2019, in 2021-22, Thomas competed in the equivalent female category and ranked fifth, climbing 549 places.¹⁰⁷

Lia Thomas wins the US NCAA Division I 500-yard freestyle in Atlanta in March 2022.



‘Meaningful competition’ is a phrase used by Harper and others to argue that transwomen (biological males) should be eligible to compete in the female category if they meet certain criteria.¹⁰⁸ The argument is that sex advantage is just one type of advantage, and that if minimised,

104.RFU Gender Participation Policy – Frequently Asked Questions, *England Rugby*. [Link](#).

105.Ibid.

106.A Look at the Numbers and Times: No Denying the Advantages of Lia Thomas, *Swimming World*, 5 April 2022. [Link](#).

107.Ibid.

108.J.Harper et al, Implications of a Third Gender for Elite Sports. *Curr Sports Med Rep*. 2018 Feb;17(2):42-44, [Link](#).

transgender inclusion in the female category is justifiable. This argument is based on the premise that there can be other advantages that may be greater, such as having the best coach (for example). Sports philosophers Jim Parry and Irena Martínková distinguish between category advantage and competition advantage. Category advantage is shared by all within a category, such as sex, age and disability.¹⁰⁹ Being male confers a category advantage in most sports, in the same way that being under 65 confers a category advantage over someone over 65. Competition advantages relate to individual qualities or abilities, such as being tall, having a good coach or being more flexible. Athletic performance is influenced by a number of competition advantages and disadvantages. Sex as a category advantage exists in order to remove it as a competition advantage. While many factors may contribute to competition, they cannot compete against categorical factors, such as sex.

As stated by Philosopher Dr Jon Pike: 'It is true that sex advantage is only one part of the unique make-up of male athletes. But the sex advantage that all male athletes have is the advantage that excludes all male athletes from female sport.'¹¹⁰ If there were no material differences between the sexes within sport, there would be no need for sex categories or exceptions within the law allowing for single-sex provision.

109.I.Martínková et al, Transgender Athletes and Principles of Sport Categorization: Why Genealogy and the Gendered Body Will Not Help, *Sport, Ethics and Philosophy* 17 (1):21-33 (2021), [Link](#).

110.J.Pike, Why 'Meaningful Competition is not fair competition, *JOURNAL OF THE PHILOSOPHY OF SPORT*, 2023, VOL. 50, NO. 1, 1-17, [Link](#).

Athletes with Disorders of Sexual Development (DSDs)

Disorders of Sexual Development (DSDs) are group of rare conditions in which the development of chromosomal, gonadal or anatomical sex is atypical.¹¹¹ Around 0.018 per cent of people have DSDs.¹¹² People with DSDs are often used in attempts to prove that biological sex is not binary, or that there is a ‘third sex’. However, people with these conditions still have either XY or XX chromosomes, meaning they are still male or female.¹¹³ An example of one male DSD is 5-ARD. Those with 5-ARD have levels of testosterone congruent with the male sex but an enzyme deficiency that affects the development of their external genitalia. It is testosterone, not the appearance of genitalia, that is relevant to the issue of sport.

Caster Semanya is a biologically male South African middle-distance runner with the DSD 5-ARD. In total, Semanya has won 14 gold medals competing in the female category, including two Olympic titles.

In the 2016 Rio Olympic women’s 800m final, every medal was won by a male with a DSD, including Semanya, who set a new national female record. Scottish athlete Lyndsey Sharp, who finished sixth, was widely criticised for crying, having previously stated that competing in this cohort is like ‘two separate races being run.’¹¹⁴



Three males with DSDs win the 800m female final at Rio 2016¹¹⁵

In 2019, World Athletics implemented a new policy for DSD athletes.¹¹⁶ In order to compete, athletes would have to suppress their testosterone levels to less than 5nmol/L if they wanted to compete in the female category – it has since been further reduced to 2.5nmol/L.¹¹⁷ Semanya challenged the 2019 policy, eventually appealing to the European Court of Human Rights (ECHR). In July 2023, the ECHR ruled that Semanya’s human rights had been violated.¹¹⁸ In response, World Athletics defended their DSD regulations as ‘a necessary, reasonable and proportionate means of protecting fair competition in the female category.’¹¹⁹

While testosterone suppression does not remove male advantage, the existence of DSDs should bolster, not confuse, the importance of binary sex categories in sport.

What does the law say?

Section 195 of the Equality Act 2010 allows policymakers to enforce single-sex categories in sex-affected sports.

- 111. Differences in sex development, *NHS*. [Link](#).
- 112. Stats for Gender.org, *Genspect*. [Link](#).
- 113. I A Hughes et al, Consensus statement on management of intersex disorders, *Arch Dis Child*. 2006 Jul; 91(7): 554–563. [Link](#).
- 114. In-form Lynsey Sharp fears 800m Rio gold could still be beyond reach, *The Guardian*, 5th June 2016. [Link](#).
- 115. Semanya wins gold in Women’s 800m Final, Olympics, *Youtube*. [Link](#).
- 116. IAAF publishes briefing notes and Q&A on Female Eligibility Regulations, *World Athletics*, 7th May 2019. [Link](#).
- 117. World Athletics Council decides on Russia, Belarus and female eligibility, *World Athletics*, 23rd March 2023. [Link](#).
- 118. Judgement concerning Switzerland, *European Court of Human Rights*, 11th July 2023. [Link](#).
- 119. World Athletics Council decides on Russia, Belarus and female eligibility, *World Athletics*, 23rd March 2023. [Link](#).

Section 195 of the Equality Act 2010

(1) A person does not contravene this Act, so far as relating to sex, only by doing anything in relation to the participation of another as a competitor in a gender-affected activity.

(2) A person does not contravene section 29, 33, 34 or 35, so far as relating to gender reassignment, only by doing anything in relation to the participation of a transsexual person as a competitor in a gender-affected activity if it is necessary to do so to secure in relation to the activity—

(a) fair competition, or

(b) the safety of competitors.

(3) A gender-affected activity is a sport, game or other activity of a competitive nature in circumstances in which the physical strength, stamina or physique of average persons of one sex would put them at a disadvantage compared to average persons of the other sex as competitors in events involving the activity.¹²⁰

As stated, the law is clear that discrimination is justified in order to uphold fairness and safety in sport. However, the exception within the law is not a duty, therefore NGBs do not have to rely on it. As this report demonstrates, many do not. However, failure of an NGB to uphold fairness and safety may constitute indirect discrimination if a female finds her fairness or safety compromised as a result of a male competing in her category. As this report shows, this is very likely to be the case when an NGB adopts a gender-self ID approach within women's sport.

There is a risk profile attached to the discipline of sport, and those who engage – particularly in contact sports – must be able to understand the risk profile in order to take the risk associated. A further important point regarding the provisions of the Equality Act 2010 therefore concerns how sports are advertised. It may be indirectly discriminate for service providers to be offering female-only categories within their sport if that is not actually what the category offered constitutes. A female competitor could be subjected to indirect discrimination as a result of her presumption that the activity she was to engage in was safe and fair (the necessary criteria under the Act).¹²¹ Even if the inclusion of transgender women (biological males) does not meet the criteria required for the exception, a failure to clearly advertise that a sporting event includes biological males when advertised otherwise may constitute unlawful discrimination.

121. Ibid.

120. Equality Act 2010, Section 195: Sport, [Link](#).

Respecting biology in sport

Transgender inclusion is specifically only a threat to female sport – there is no similar threat to the integrity of male sport. Protecting the female category while expanding the male category to ‘other’ and including transgender people is a suitable option in most sports, but not in all. In close contact sports such as rugby and boxing, it would be unsafe for transgender men (biological females) to compete against biological males. Nonetheless, this is a risk that biological females may wish to take. For example, one of the conditions in which World Rugby permits transgender men (biological women) to participate in men’s rugby is:

Written acknowledgement and acceptance by the player of the associated risks of playing contact rugby with males who are statistically likely to be stronger, faster and heavier than them, given the predictions this combination of variables makes for injury risk, as described.¹²²

Even with permission given by females to compete in close combat sports with males, there are legitimate considerations from a spectator’s perspective as to whether there is appetite for spectators to watch women being hit by men, or whether this simply glorifies male violence against women.¹²³ This policy also fails to consider the concerns of male competitors, who may be apprehensive about the risk that they will seriously injure a female opponent.

As highlighted above in the case of Lia Thomas, the impact of a biological male competing in the female category is huge. A parallel example is that of the Lance Armstrong doping case. Professional cyclist Lance Armstrong was banned for life from competitive cycling in 2012 when it was found he had taken performance enhancing drugs. Before he was caught, Armstrong won the Tour de France a record seven consecutive times, which demonstrates how much a competition can be impacted when an athlete has an unfair advantage. After years of investigation, Armstrong was rightly caught and stripped of his titles.¹²⁴ The evidence above demonstrates that men have significant advantages over women, similar to the advantages that a doping athlete has over a non-doping athlete. Protecting the female category is the only way to ensure fair competition for all. What is more, given many sports are heavily male dominated, one man competing in a female competition is likely to make a huge difference, in the same way that Armstrong did with his unfair advantage.

As outlined by Hilton and Lundberg, male puberty ‘underpins sporting advantages that are so large no female could reasonably hope to succeed without sex segregation in most sporting competitions.’¹²⁵

Protecting the female category is the only option if policymakers wish to preserve the integrity of female sport, and respect the fairness and safety of women and girls participating.

122. Transgender Men Guidelines, *World Rugby*, [Link](#).

123. Julie Bindel, Boxing is right to stop men fighting women, *The Spectator*, 1 January 2023. [Link](#).

124. Lance Armstrong Receives Lifetime Ban And Disqualification Of Competitive Results For Doping Violations Stemming From His Involvement In The United States Postal Service Pro-Cycling Team Doping Conspiracy, *U.S. Anti-Doping Agency*, 24th August 2012. [Link](#).

125. E. Hilton & T. Lundberg, Transgender Women in the Female Category of Sport: Perspectives on Testosterone Suppression and Performance Advantage, *Sports Med.* 2021 Feb;51(2):199-214, [Link](#).

The current state of play

- 126.Active Lives Data Tables (November 2021-22), *Sport England*. [Link](#).
- 127.Trans and Non-Binary Competition Eligibility Policy and Procedures, *British Rowing*. [Link](#).
- 128.[Ibid.](#)
- 129.World Rowing adopts tighter rules for transgender women athletes, *World Rowing*. [Link](#).
- 130.England and Wales Cricket Board Policy on Trans People Playing Cricket, *English Cricket Board*. [Link](#).
- 131.[Ibid.](#)
- 132.S.Shemilt et al, Transgender women banned from playing international women's cricket by ICC, *BBC Sport*, 21st November 2023. [Link](#).
- 133.The Football Association Policy on Trans People in Football, *Football Association*. [Link](#).
- 134.[Ibid.](#)
- 135.S.Evans, FIFA, World Athletics review transgender rules after swimming's change, *Reuters*, 20th June 2022. [Link](#).
- 136.England Golf, Guidance – The Equality Act 2010 and Golf, *England Golf*. [Link](#).
- 137.[Ibid.](#)
- 138.My child is in a team with a transgender player, is that allowed? *England Hockey*. [Link](#).
- 139.[Ibid.](#)
- 140.Gender Equality Policy, *International Hockey Federation*. [Link](#).
- 141.Swim England Transgender and Non-binary Competition policy, *Swim England*. [Link](#).
- 142.[Ibid.](#)
- 143.World Aquatics Debuts Open Category at Berlin Swimming World Cup 2023, *World Aquatics*. [Link](#).
- 144.Policy and guidance on trans people playing tennis, *Lawn Tennis Association*. [Link](#).
- 145.[Ibid.](#)
- 146.ITF Transgender Policy, *International Tennis Federation*. [Link](#).
- 147.Update: Transgender and Non-Binary Participation Policies, *British Cycling*. [Link](#).
- 148.[Ibid.](#)
- 149.The UCI adapts its rules on the participation of transgender athletes in international competitions, *Union Cycliste Internationale*. [Link](#).
- 150.UK Athletics publishes principle statement on transgender eligibility in Athletics, UK Athletics, 31st March 2023. [Link](#).
- 151.[Ibid.](#)
- 152.World Athletics Council decides on Russia, Belarus and female eligibility, *World Athletics*, 23rd March 2023. [Link](#).
- 153.The RFU rules that transmen (biological women) are able to play in the men's team if a) the player has provided their written consent to the club b) an appropriate risk assessment has been carried out c) the RFU is noted prior to play and d) the player has obtained a therapeutic use exemption. [Link](#)
- 154.Gender Participation Policy Application Guidance – September 2023, *England Rugby*. [Link](#).
- 155.[Ibid.](#)
- 156.Transgender Guidelines, *World Rugby*. [Link](#).

The table below outlines ten popular UK sports, the sex gap within them and female eligibility policies set at both national and international level. Unless specified by the National Governing Body (NGB), the policies for recreational sport are considered the same as the NGB's policy for competitive sport. This table only relates to policies set by International Federations (IFs) and NGBs. Parkrun for example, which operates a gender self-ID policy, is not an NGB but still heavily involved in grassroots running. While some NGBs and IFs have protected the female category at elite level, for the majority of recreational sports, NGBs operate policies of gender self-ID, which can seriously impact fairness and safety for women and girls' sports, and the pathways they may take to reach elite level.

As of December 2023. Sex gap data taken from Sport England Active Lives Survey (latest annual data: Nov 2021-2022)¹²⁶

Sport	Male Numbers	Female Numbers	Sex Gap		NGB Policy for Recreational Sport	NGB Policy For Competitive Sport	International Federation Policy
			M	F			
Rowing	315,200	183,200	63%	37%	Gender Self-ID ¹²⁷	Protected Female Category ¹²⁸	Medical Model ¹²⁹
Cricket	296,100	56,300	84%	16%	Gender Self-ID ¹³⁰	Case-by-Case Basis ¹³¹	Protected Female Category ¹³²
Football	1,759,900	244,900	88%	12%	Under 16: Gender Self-ID. Over 16: Medical Model ¹³³	Under 16: Gender Self-ID. Over 16: Medical Model ¹³⁴	Case-by-Case Basis ¹³⁵
Golf	886,900	147,700	86%	14%	Medical Model ¹³⁶	Medical Model ¹³⁷	Unspecified
Hockey	76,400	80,400	49%	51%	Gender Self-ID ¹³⁸	Gender Self-ID ¹³⁹	Case-by-Case Basis ¹⁴⁰
Swimming	1,659,800	2,120,700	44%	56%	Gender Self-ID ¹⁴¹	Protected Female Category ¹⁴²	Protected Female Category ¹⁴³
Tennis	540,100	372,200	59%	41%	Gender Self-ID ¹⁴⁴	Gender Self-ID ¹⁴⁵	Medical Model ¹⁴⁶
Cycling	4,018,300	2,297,900	64%	36%	Gender Self-ID ¹⁴⁷	Protected Female Category ¹⁴⁸	Protected Female Category ¹⁴⁹
Athletics (Track & Field)	107,600	67,500	61%	39%	Protected female category aside from males with DSDs ¹⁵⁰	Protected female category aside from males with DSDs ¹⁵¹	Protected Female Category aside from males with DSDs ¹⁵²
Rugby Union ¹⁵³	157,200	36,700	81%	19%	Protected female category ¹⁵⁴	Protected female category ¹⁵⁵	Protected Female Category ¹⁵⁶

Athletics

Athletics is a group of sports that involves competitive running, jumping and throwing. Along with walking and cycling, running is one of the most popular forms of physical activity in England.¹⁵⁷ According to England Athletics, the National Governing Body (NGB) for athletics in England, over half of competitive track and field athletes under 17 are female.¹⁵⁸

In March 2023, the International Federation (IF) World Athletics announced a new transgender eligibility policy, in which no biologically male athlete without a DSD is able to take part in the female category if they have experienced any part of puberty.¹⁵⁹ Males with DSDs are still permitted to take part in the female category, if they continuously maintain testosterone suppression of 2.5nmol or below for 24 months prior to competition. The NGB UK Athletics confirmed it would be supporting the position adopted by World Athletics.¹⁶⁰

It is therefore not inconceivable that a situation equivalent to what took place in the Rio 2016 Olympic Games could happen again, in which every medal in the female 800m final was won by a male with a DSD.

Popular marathon races

The table below demonstrates the most recent results from five of the most popular annual long-distance races in England. It outlines which male position beat the winning female in that particular race.

Event	Male winning time	Female winning time	Male position that beat winning female
London Marathon 2023 ¹⁶¹	02:13:18 (masses)	02:33:40 (masses)	231 st
Brighton Marathon 2023 ¹⁶²	02:24:05	02:55:11	106 th
Manchester Marathon 2023 ¹⁶³	02:16:27	02:31:97	28 th
London Landmarks Half Marathon 2023 ¹⁶⁴	01:08:03	01:21:33	72 nd
The Big Half 2022 ¹⁶⁵	01:07:12	01:14:59	121 st

County athletics

The table and graphs below demonstrates the sex gap in competitive running at county level. Policy Exchange compared available results for three under 20s races in 2023 across the 39 county athletics clubs affiliated with England Athletics. This data was taken from the most recent county championships results available.¹⁶⁶ Not all of the county clubs had available

157.Active Lives Survey, November 2021-22 (Types of Activity), *Sport England*, [Link](#).

158.England Athletics Strategy for Athletics and Running: 2021-2032, *England Athletics*, [Link](#).

159.World Athletics Council decides on Russia, Belarus and female eligibility, *World Athletics*, 23rd March 2023. [Link](#).

160.UK Athletics publishes principle statement on transgender eligibility in Athletics, UK Athletics, 31st March 2023. [Link](#).

166.As of August 2023.

161.Results: Mass, *TCS London Marathon*, [Link](#).

162.Brighton Marathon Weekend, *racetecresults*, [Link](#).

163.2023 Results, *Manchester Marathon*, [Link](#).

164.London Landmarks Half Marathon 2023, *raceahead*. [Link](#).

165.Results: The Big Half, *The Big Half*, [Link](#).

data. The full breakdown of data for each race is available in Annex B.

Race (U20)	Average male winning time	Average female winning time	Percentage difference	Standard deviation ¹⁶⁷
100m	11.28 seconds	12.65 seconds	11%	Men are 1.6 standard deviations faster than women on average.
400m	51.9 seconds	60.3 seconds	15%	Men are 1.6 standard deviations faster than women on average.
1500m	4 minutes 13 seconds	4 minutes 56 seconds	17%	Men are 1.6 standard deviations faster than women on average.

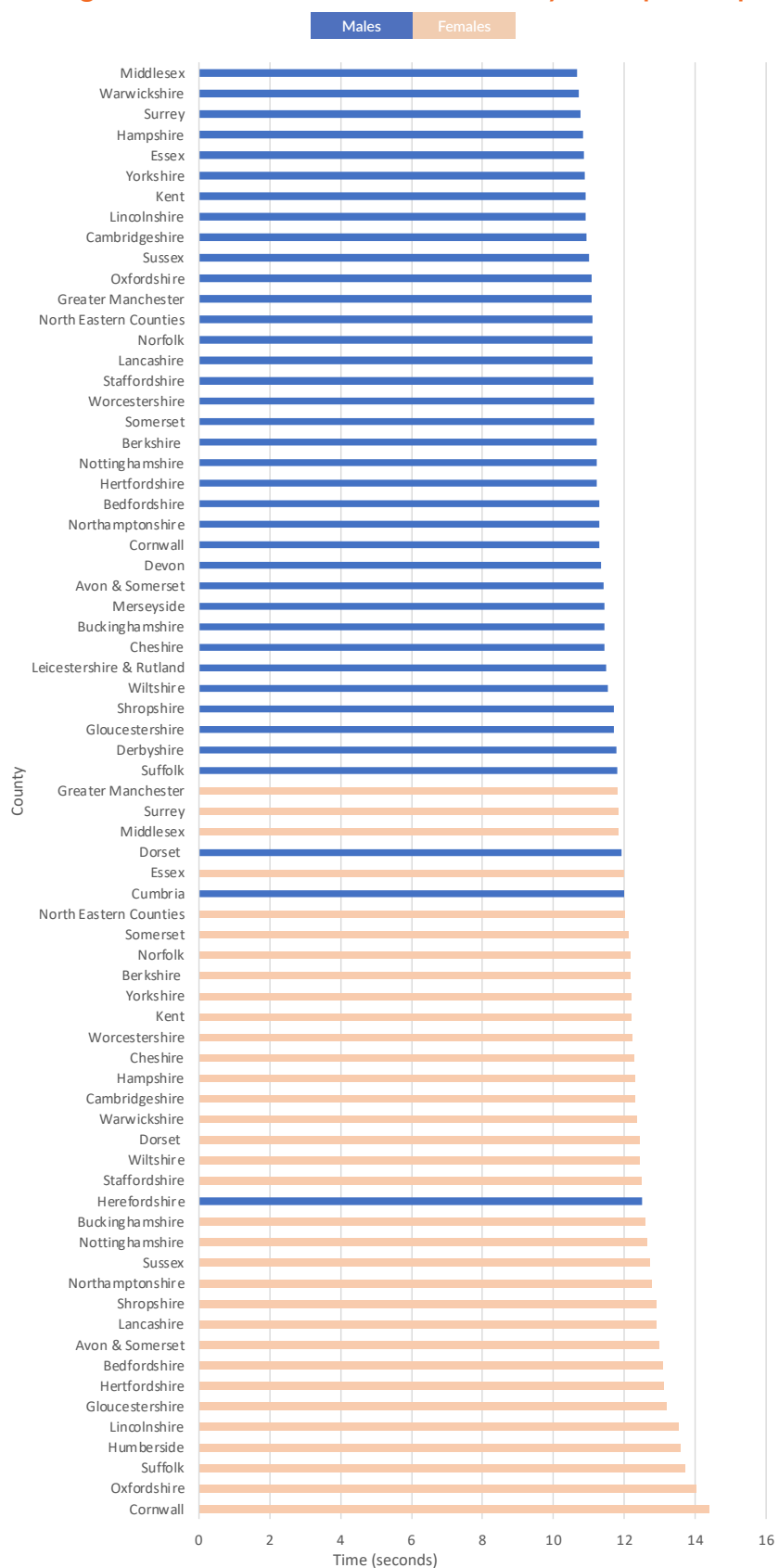
The winning male from the slowest county running the 100m would beat the winning female from 17 out of 33 different counties.

The winning male from the slowest county running the 400m would beat the winning female from 18 out of 36 different counties.

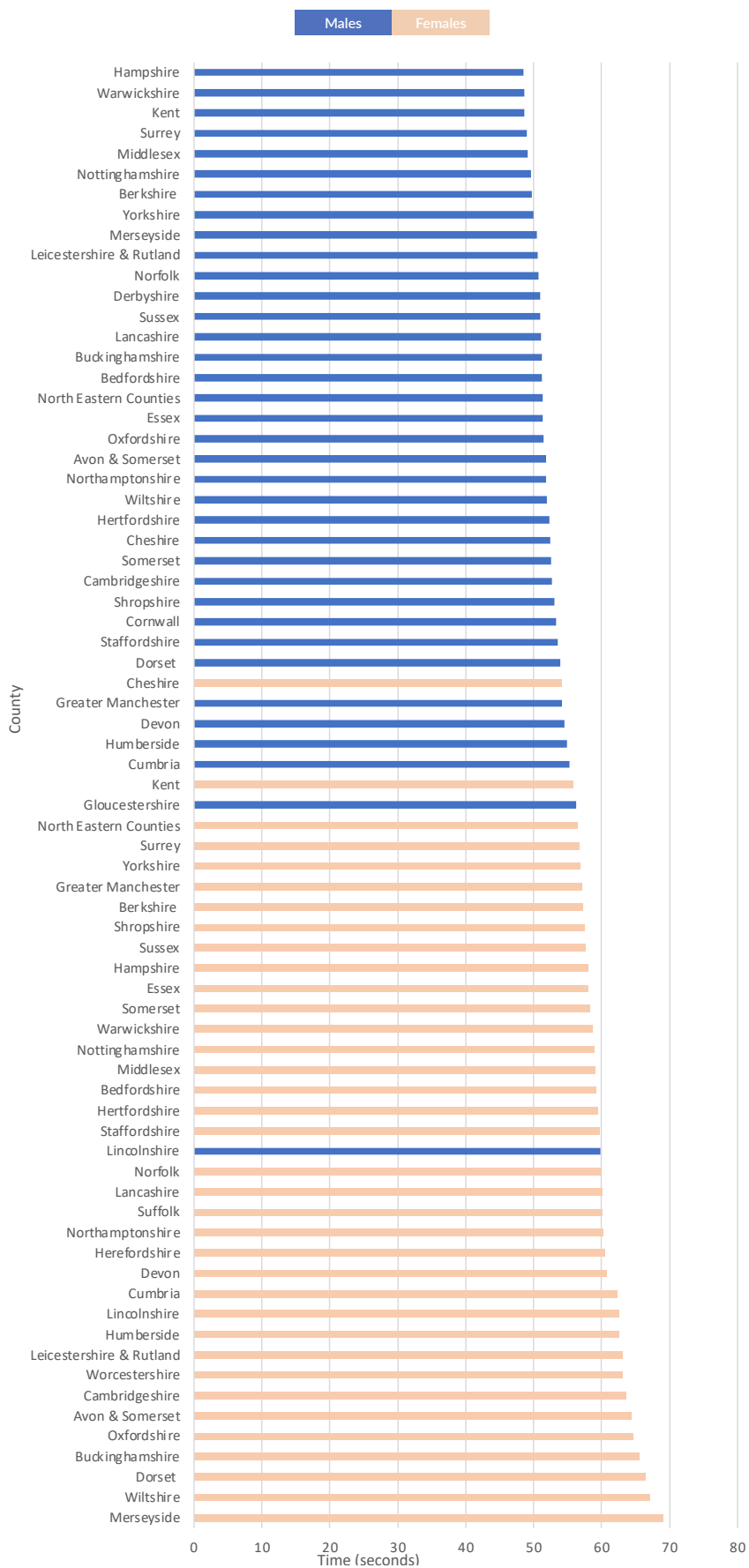
The winning male from the slowest county running the 1500m would beat the winning female from 27 out of 33 different counties.

¹⁶⁷.For each race the standard deviation has been found across the whole dataset (for both sexes).

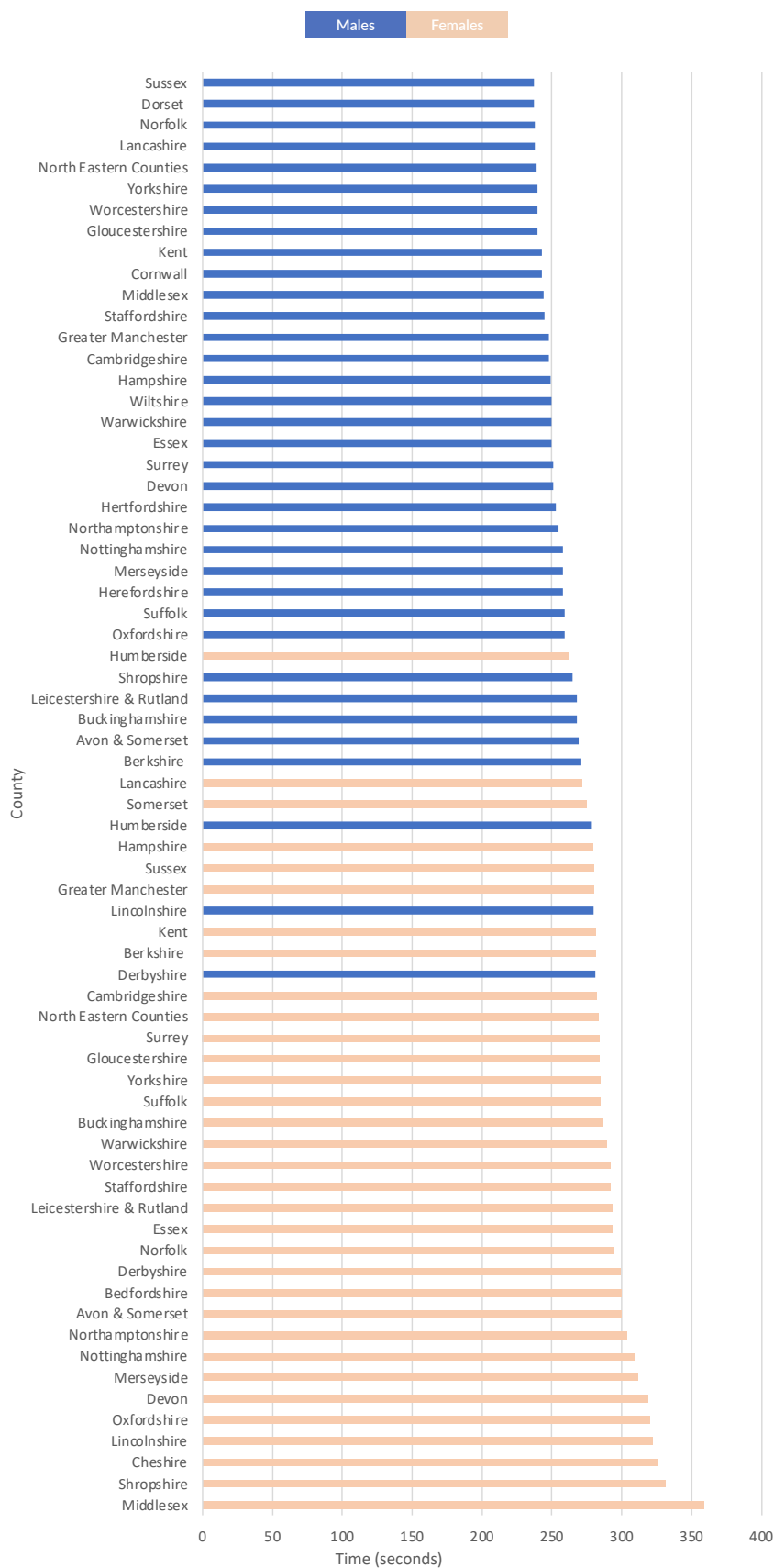
Winning Males and Females in 100M County Championships 2023



Winning Males and Females in 400M County Championships 2023



Winning Males and Females in 1500M County Championships 2023



I started running – mostly trail running – at the age of 57, and began entering events. I'm dismayed and upset so many sporting bodies seem to think older women don't matter; that my results – however modest – are not important to me; that fairness does not apply to more mature women because we should accept it's just the 'taking part' that counts.

They are wrong and, furthermore, I suspect they would not expect men to accept unfairness in the male category (a cyclist identifying as a runner - why not, it's less preposterous!) For example, I came 38th out of 47 (finishers) in a trail, hilly marathon. I actually finished 4th in my category by age and sex (FV50).

If I was pushed down one place because of a man identifying into the female category I would be justifiably aggrieved. Men should not be able to 'identify' into the female category - It's unfair and (most) men would NOT accept an equivalent unfairness in their category no matter how 'grassroots' they were.

Delyth Rennie, Club Runner, North Yorkshire

As a grassroots runner, I strongly disagree with males being able to self ID into the women's category at any level of sport, not just elite. I have had to compete against males in licensed races, women's only races and unlicensed events like parkrun, for the last 8 years.

It is humiliating and demoralising trying to compete against the huge advantage from male puberty, which no amount of extra training or sacrifice can overcome. NGBs and race organisers have ignored, belittled and gaslit me and my concerns, which has taken its toll on my health.

I just want the same fairness in competition and results as males enjoy. Despite the UKA rule change, the problem still persists, with males continuing to enter as female in races. The amount of time and energy expended to try and restore fairness for females in all levels of running is exhausting.

Helen Smith, Club Runner, North West England

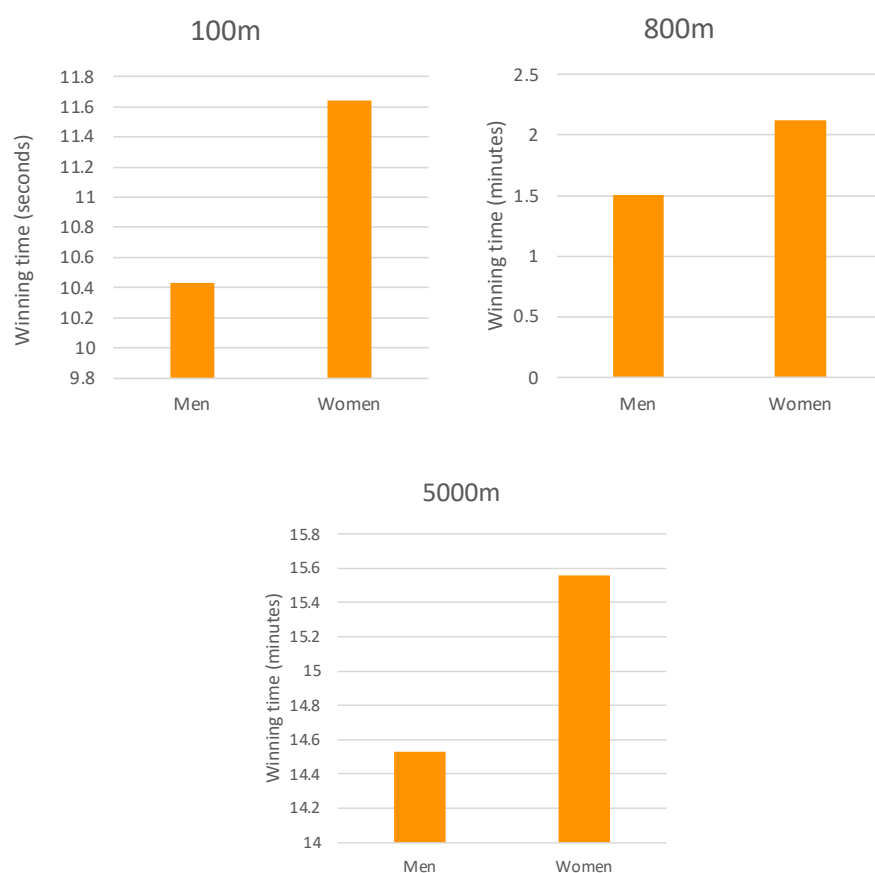
University Athletics

British Universities and Colleges Sport (BUCS) is the governing body for sport in higher education in England. BUCS offers competitions across a range of sports at all levels within university and receives funding from Sport England. BUCS regulations stipulate that a sport will follow the rules regarding female eligibility set by its IF or NGB. However, if no rules regarding transgender eligibility have been set, BUCS follows a medical model, whereby a male athlete is able to compete in the female category following one year of testosterone suppression.¹⁶⁸ The results table below is taken from the BUCS Outdoor Athletics Championships, held in Manchester in April-May 2023.¹⁶⁹

168.Reg 4 Individual Eligibility, *British Universities and Colleges Sport*, [Link](#).

169.Athletics: Outdoor Championships 2022-23, *British Universities and Colleges Sport*, [Link](#).

Event	Male winning time	Female winning time	Male position that would beat winning female	Female participants	Male participants
100m	10.43 seconds	11.64 seconds	64th	56	90
800m	1.51 minutes	2.12 minutes	64th	48	67
5000m	14.53 minutes	15.56 minutes	40th	22	42



parkrun

parkrun is a series of free, volunteer run, weekly five-kilometre walking and running events that take place across the world. There are more than 1000 parkrun events across the UK, with more than 350,000 people taking part each week.¹⁷⁰ parkrun claims that it is not a race, but each runner is timed, and every parkrun course has a permanent results page which provides details of record holders.

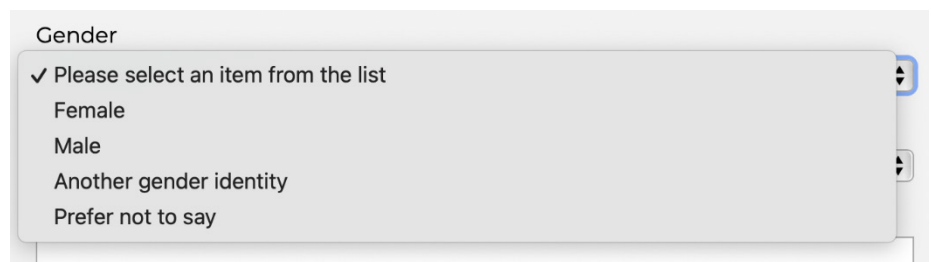
According to its website, 'parkrun is positive, welcoming and inclusive, there is no time limit and no one finishes last. Everyone is welcome to come along.'¹⁷¹ However, it is a measured and timed course with a start and finish line, complete with categories and records – constituting all

170. Historical Chart of Number of parkrun Events, parkrunners and Volunteers, *parkrun*, [Link](#).

171. What is parkrun?, *parkrun*, [Link](#).

the components of a competitive race. In providing these components, for many, parkrun is a competitive event. parkrun receives funding from Sport England. In May 2022, parkrun announced they would be receiving funding for up to five years.¹⁷²

Every week, parkrun releases a variety of performance data, including ‘first finishers’, sub-17-minute finishers, age and gender category records, as well as all-time statistics. parkrun operates a gender self-ID policy.¹⁷³ When registering, runners are asked their gender, rather than sex, and are able to choose ‘prefer not to say’ and ‘another gender identity’ aside from male/female, as below. Any male or female is able to enter into any category, therefore they are all mixed sex. According to parkrun, as of July 2022, more than 16,000 people had registered with these options.¹⁷⁴



The image shows a screenshot of a web form's gender selection dropdown menu. The title of the dropdown is "Gender". The menu is open, showing a list of options: "Please select an item from the list" (with a checkmark), "Female", "Male", "Another gender identity", and "Prefer not to say". The dropdown has a blue arrow on the right side.

parkrun also run age grading, which takes a runner's time and uses the world record time for their sex and age to produce a score, which allows comparison between other runner's performances regardless of age.¹⁷⁵ Resultantly, transgender women (biological males) who self-identify into the female category have hugely overinflated percentage scores, because their male performances are compared to the female sex world records in their age category. The age grade league is a mixed dataset, which means males as well as females are pushed into worse positions.¹⁷⁶

Every parkrun has ‘Fastest 500’ list which lists the fastest 500 runners of all time for that parkrun. Both this and the sub-17 list (those across all parkruns who run each week in under 17 minutes) are mixed gender lists. Consequently, they are almost entirely the celebrations of men and boys. In order to get on these lists, female runners have to be world class, but for males, only decent club level. For example, Cheltenham parkrun's ‘Fastest 500’ has only 11 women and 489 men.¹⁷⁷ One of these women is Adele Tracey, world class middle-distance runner.¹⁷⁸ Given the mixed sex start line, the experience of leading the race and crossing the line also goes almost entirely to men and boys. Practically speaking, having a mixed sex start is the simplest and most logical way for parkrun to operate, but this means the only mitigation from discrimination and unfairness against females is a protected female category – which parkrun have chosen to compromise.

Due to parkrun's gender self-ID policy, there have been at least three verified instances of transgender women (biological males) competing in the female category and setting new women's records and distorting female rankings.

172. Parkrun continues partnership with Sport England, *parkrun*, [Link](#).

173. This week's first finishers, *parkrun*, [Link](#).

174. Living as myself, *parkrun*, 27th July 2022. [Link](#).

175. What is age grading? *parkrun support*, [Link](#).

176. *Ibid*.

177. Cheltenham parkrun Fastest 500, *parkrun*, [Link](#).

178. Adelle TRACEY, *parkrun*, [Link](#).

In 2018, runner Deb Roberts set Porthcawl's parkrun record in the female 45-49 category at a time of 20.06 minutes. Roberts held this record until May 2023, when Siân Longthorpe, a transgender woman (biological male) beat this record by one minute 13 seconds, at a time of 18.53 minutes.¹⁷⁹ Given the fact that men generally have a performance advantage over women of at least 13 per cent, it is unlikely a biological female will beat Longthorpe's time in the future.¹⁸⁰ As tweeted by former Olympic long distance runner Mara Yamauchi, this record is 'probably now out of female hands forever.'¹⁸¹ Longthorpe also holds the age 40-44 female record, as well as the outright female record in Parke, Devon, and the female record for ages 40-44 in Torbay Velopark.¹⁸²

Longthorpe is currently ranked **30th** on Porthcawl's age-grading leader board with an age grade of 84.11 per cent due to self-identifying into the female category.¹⁸³ parkrun's age-grading calculator is broadly based on the World Master Athletics calculator.¹⁸⁴ According to sex, Longthorpe's age grade should be around 74.59 per cent.¹⁸⁵ The runner with this age-grade ranks **556th**.¹⁸⁶ **Resultantly, 526 runners have been moved down a ranking in Porthcawl because of parkrun's gender self-ID policy.**

Similarly, trans-identifying runner and attempted murderer Lauren Jeska has held both Aberystwyth's ages 35-39 record and the outright female record since 2012, with a time of 17.38 minutes.¹⁸⁷ Since 2012, three women have lost out on holding the outright title due to parkrun's gender self-ID policy.¹⁸⁸ In 2017, Jeska was imprisoned for 18 years for repeatedly stabbing Ralph Knibbs, Head of Human Resources for UK Athletics, in 2016. Jeska stabbed Knibbs after being told he would have to undergo blood tests to demonstrate his testosterone levels were low enough to compete in the female category, according to UK Athletics female eligibility policy at the time.¹⁸⁹ Jeska also holds the ages 35-39 record in Cardiff and Bryan Bach.¹⁹⁰

Jeska is serving his sentence for attempted murder in the female prison estate.¹⁹¹ parkrun still lists Jeska as Aberystwyth's female record holder, as the screenshot below demonstrates.

Aberystwyth parkrun event statistics

Problem with results? please contact aberystwyth@parkrun.com

Events: 500	Finishers: 6,489
Finishes: 42,097	Average finishers per week: 84.2
Volunteers: 603	PBs: 6,638
Average finish time: 00:28:45	Average finishes per participant: 6.5
Groups: 783	
Female record: Lauren JESKA – 17:38 – Event 4 (22 Sep 2012)	
Male record: Janos VRANEK – 15:08 – Event 455 (24 Sep 2022)	
Age graded record: Anita WORTHING - 91.73% 22:47 – Event 411 (30 Oct 2021)	
Stats last updated: Thu 17 Aug 2023 01:04:02 UTC	

In July 2023, parkrun reiterated its stance on self-ID.¹⁹² Russ Jeffreys,

179. Age Category Records for Porthcawl parkrun, [parkrun](#), [Link](#).

180. E. Hilton & T. Lundberg, Transgender Women in the Female Category of Sport: Perspectives on Testosterone Suppression and Performance Advantage, *Sports Med.* 2021 Feb;51(2):199-214, [Link](#).

181. Mara Yamauchi, *Twitter*, 22 May 2023, [Link](#).

182. Parke Devon: [Link](#), Torbay Velopark: [Link](#).

183. Siân LONGTHORPE, *parkrun*, [Link](#).

184. Age Grading – all you ever wanted to know, *parkrun*, [Link](#).

185. Methodology: Using this [age-grade calculator](#) based on the WMA 2006/10 method. This calculator does not group together ages as parkrun does, but the average percentage between ages 45-49 using Longthorpe's sex and time is 74.3 per cent.

186. Porthcawl parkrun Age Graded League Rank 1 – 1000, *parkrun*, [Link](#).

187. Aberystwyth parkrun event statistics, *parkrun*, [Link](#).

188. Suzanne Phillips (age 20-24) set the [record](#) at 18:49 (15/09/2012 - 05/04/2014) Heidi Davies (age 15-17) then set the [record](#) at 18:22 (05/04/2014-24/06/2017)

Charlotte Morgan (age 40-44) should be the current [record](#) holder at 17:55 (24/06/2017 - present)

189. Lauren Jeska jailed for Alexander Stadium stabbings, *BBC News*, 14th March 2017, [Link](#).

190. Cardiff: [Link](#), Bryn Bach: [Link](#).

191. Lauren Jeska jailed for Alexander Stadium stabbings, *BBC News*, 14th March 2017, [Link](#).

192. Gender policy at parkrun, *parkrun*, 20th July 2023, [Link](#).

parkrun's Chief Executive said that he was 'totally comfortable' with parkrun's current position, with 'absolute confidence' in the current policy.¹⁹³

As a run director and passionate parkrunner, I feel very disappointed that parkrun cannot see how their current policy is so unfair to women. They accept funding from Sport England, parkrun results are published every week on the Power of 10 website and yet when challenged the response is that parkrun is not a sporting event. They can't have it both ways and are alienating women. I am aware that there have been discussions over stopping publishing weekly results and statistics as a way of avoiding addressing the problem but this again will disadvantage women and the reality is that part of the appeal of parkrun to many regulars is the data.

Maria Waite, parkrun co-event director and run director

Having turned 65 in 2022, I became a parkrun W65 record holder shortly after. I recently found out that my record has been beaten by a trans athlete. Despite my efforts to regain the record, I missed out by two seconds. I had many messages from friends saying how disappointed they were. From other parkrunners I know, it seems this is a pattern, where this person is targeting parkruns where there is more chance of gaining the age group record.

Female parkrunner, age category 65-69

I strongly disagree with parkrun's self-ID policy because it's outrageously unfair to females. Males like myself have many physiological advantages over females that allow us to run faster than the equivalent female athlete who is at the same standard. For example, my course record is 17:09, the female record on the same course is 19:20, and that advantage is why!

James Davis, Church Mead parkrun Male Record Holder

I am now more concerned about the effect of trans women on age grade records. Although I'm slow, I'm usually the only 70+ in the parkruns I do, so it's not an achievement to be first! However, I do regularly achieve quite high age grades, and would feel aggrieved if I was regularly second to a trans runner. This affects younger women, and men too. Additionally, someone who holds the age grade record at a particular parkrun may feel it's unfair to see a trans woman take the event record. To me, my age grade score has become more important than my actual time.

Female parkrunner, age category 75-79

193. Parkrun stands by its gender policy after criticism, *civilsociety*, 25 July 2023, [Link](#).

Swimming

According to Sport England, swimming is the fifth most popular activity in the country, with 3.8 million people swimming twice or more a month.¹⁹⁴ In June 2022, the International Federation (IF) World Aquatics updated their female eligibility policy, stating that any male who has been through any part of puberty beyond Tanner Stage 2¹⁹⁵ or before the age of 12 (whichever is later) is not eligible to participate in the female category.¹⁹⁶ World Aquatics stated:

‘Classifying athletes on the basis of sex is necessary to meet World Aquatics’ goals for female Aquatics athletes and the women’s competition category. World Aquatics’ eligibility standards for the women’s category are narrowly tailored so that they can achieve those goals without unnecessarily limiting participation by gender-diverse athletes.’¹⁹⁷

In August 2023, World Aquatics announced there would be ‘open’ as well as ‘male’ and ‘female’ categories at the Berlin World Cup, taking place in October 2023.¹⁹⁸ The open category is designed for athletes to compete ‘without regard to their sex, their legal gender, or their gender identity’ in order to be inclusive to those who do not identify with their biological sex.¹⁹⁹ Ahead of the championships, World Aquatics confirmed that no entries had been received for Open category events.²⁰⁰

In April 2023, the National Governing Body (NGB) Swim England partially adopted World Aquatics’ approach: for swimming, artistic swimming, diving and water polo competitions.²⁰¹ This updated its 2015 policy, which had adopted a case-by-case approach to allowing transgender women (biological men) to compete in the female category.²⁰²

Nonetheless, Swim England still allows a gender self-ID policy for unlicensed competitions, and self-ID in water polo up to the age of 16, when, as demonstrated above, the majority of boys will be well-beyond Stage Two of puberty. An unlicensed competition is any competition not licenced with Swim England.²⁰³

County swimming

The table of results below demonstrates the difference between males and females in competitive swimming at county level. Policy Exchange compared available results for three age 18 races in 2023 across 33 county athletics clubs affiliated with Swim England. This data was taken from the most recent results available. Not all of the county clubs had available data. The full data set is available in Annex C.

194.Active Lives Adult Survey November 2021-22 Report, *Sport England*, [Link](#).

195.The Tanner Scale is a scale of physical development from childhood through adolescence into adulthood. Tanner Stage 2 is the second of five stages on the scale.

196.Policy on Eligibility for the Men’s and Women’s Competition Categories, *World Aquatics*, March 2023. [Link](#).

197.[Ibid.](#)

198.World Aquatics Debuts Open Category at Berlin Swimming World Cup 2023, *World Aquatics*, 16th August 2023. [Link](#).

199.Policy on Eligibility for the Men’s and Women’s Competition Categories, *World Aquatics*, March 2023. [Link](#).

200.Update on the Open Category competitions at the World Aquatics Swimming World Cup – Berlin 2023, *World Aquatics*, 3rd October 2023. [Link](#).

201.Swim England updates transgender and non-binary competition policy, *Swim England*, 3rd April 2023. [Link](#).

202. [Ibid.](#)

203.World Aquatics Debuts Open Category at Berlin Swimming World Cup 2023, *World Aquatics*, 16th August 2023. [Link](#).

Race (aged 18)	Average male winning time	Average female winning time	Percentage difference	Standard deviation ²⁰⁴
50m Freestyle	24.7 seconds	27.5 seconds	11%	Men are 1.6 standard deviations faster than women on average.
100m Butterfly	59.4 seconds	66.95 seconds	12%	Men are 1.3 standard deviations faster than women on average.
400m Individual Medley	4.78.42 minutes	5.30.41 minutes	10%	Men are 1.3 standard deviations faster than women on average.

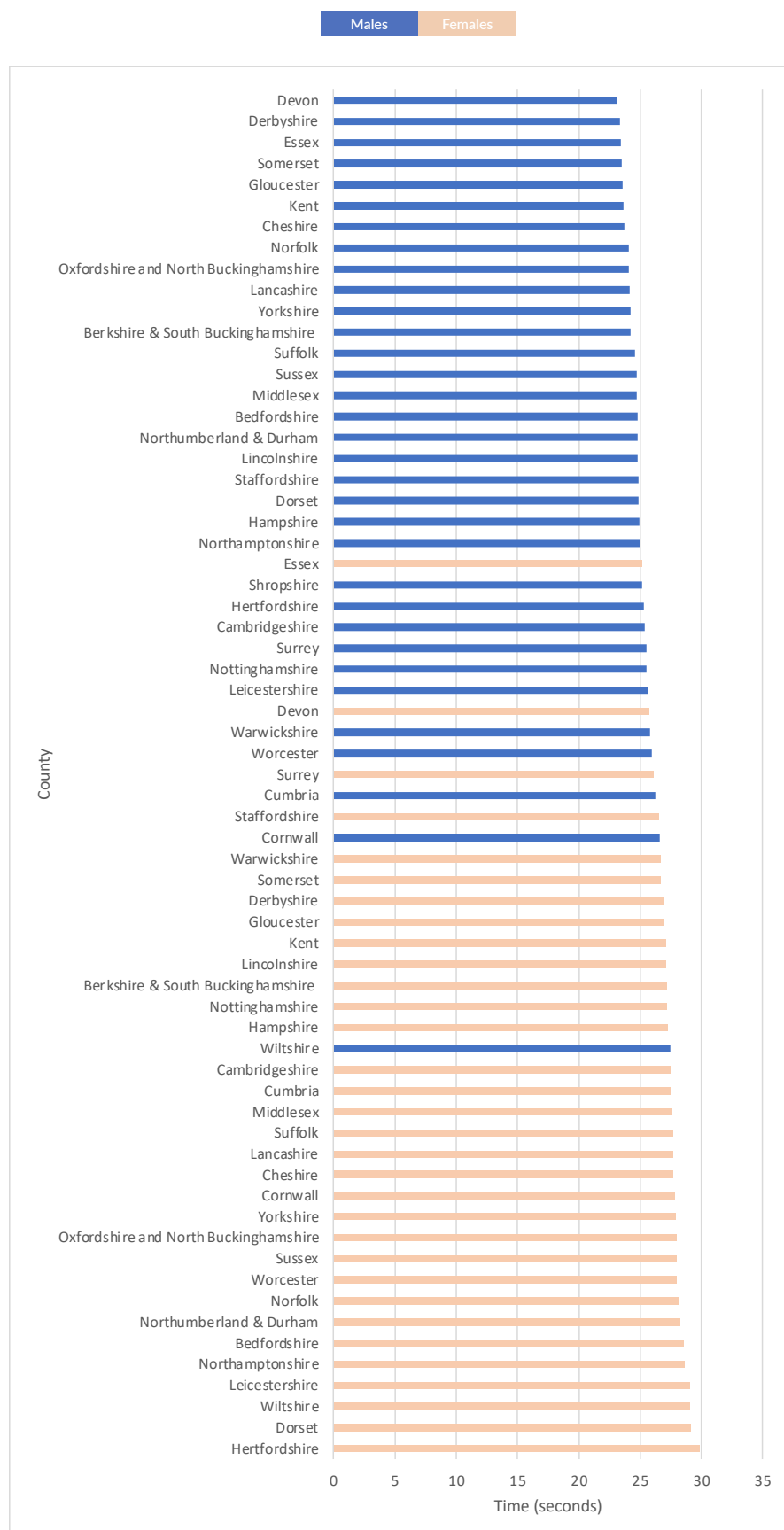
In all but one county, across the three races, the slowest winning male would beat the winning female.

The slowest winning male across all counties competing in the 50m Freestyle would beat the winning female from 26 out of 32 different counties.

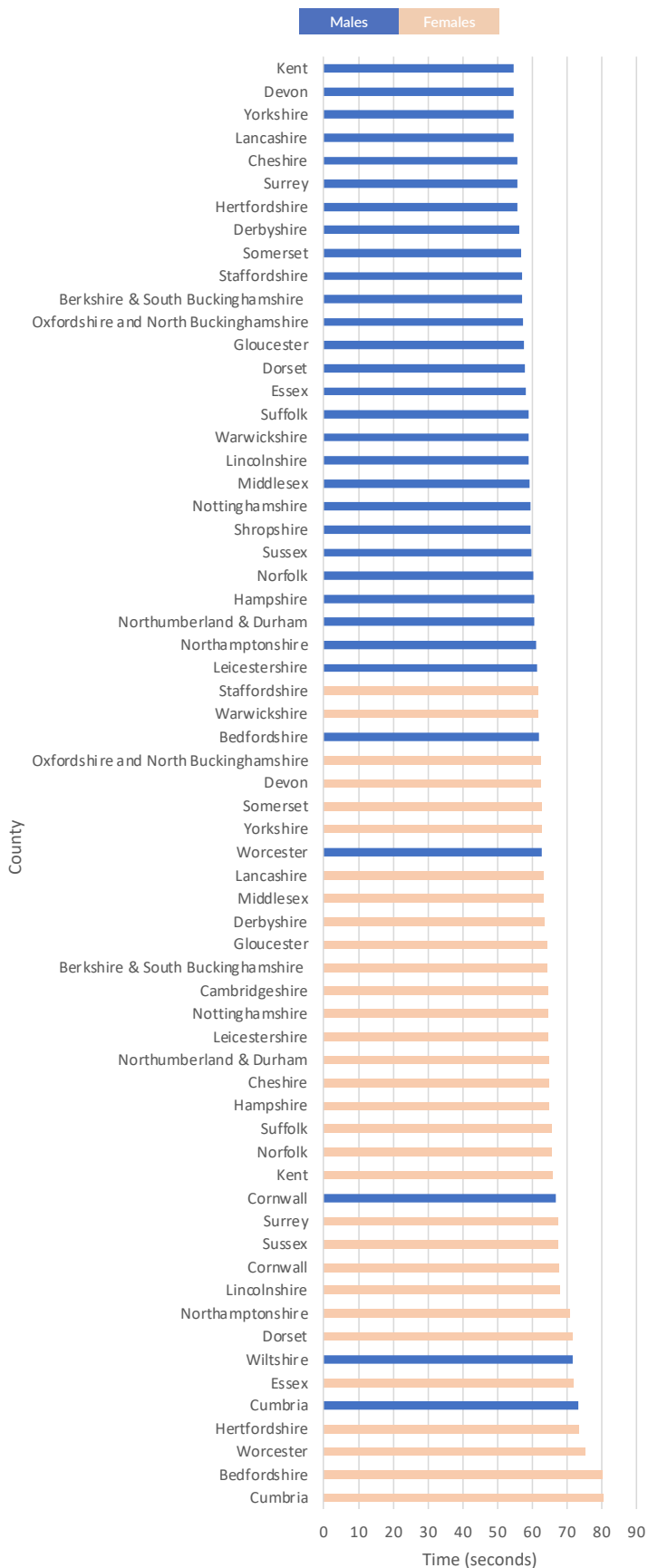
The slowest winning male across all counties competing in the 100m Butterfly would beat the winning female from 26 out of 31 different counties.

204. For each race the standard deviation has been found across the whole dataset (for both sexes).

Winning Males and Females in 50M Freestyle Swimming County Championships 2023



Winning Males and Females in 100M Butterfly Swimming County Championships 2023



Winning Males and Females in 400M Individual Medley Swimming County Championships 2023



University swimming

As above in the athletics section, these results have been taken from BUCS Swimming Championships, held in Sheffield in February 2023.²⁰⁵

Event	Men (seconds)	Women (seconds)	Difference between sexes	Percentage difference
100m Breaststroke	60.63	66.53	Male is faster by 5.9 seconds	9%
50m Butterfly	23.82	27.2	Male is faster by 3.38 seconds	13%
200m Individual Medley	122.37	131.63	Male is faster by 9.26 seconds	7%

National swimming

The data below is compiled from the British Swimming database and further illustrates the scale of male advantage. Every Long Course British swimming record broken by a senior female swimmer has been beaten by a 14-year-old boy.

Event	Teenage male record (aged 14/15)	Senior female record
50m Freestyle	00.23.11	00.23.96
100m Freestyle	00.49.87	00.52.75
200m Freestyle	01.51.29	01.55.54
400m Freestyle	03.59.84	04.00.60
800m Freestyle	08.10.15	08.14.10
1500m Freestyle	15.36.11	15.47.26
50m Breaststroke	00.29.70	00.30.02
100m Breaststroke	1.05.06	01.06.21
200m Breaststroke	02.20.11	02.20.89
50m Butterfly	00.24.83	00.25.20
100m Butterfly	00.55.82	00.57.25
200m Butterfly	02.02.67	02.04.83
50m Backstroke	00.26.80	00.27.19
100m Backstroke	00.57.86	00.58.08
200m Backstroke	02.03.77	02.06.66
200m Individual medley	02.04.86	02.06.88
400m Individual medley	04.23.51	04.31.33 ²⁰⁶

205.BUCS Long Course Championships 2023, *British Universities and Colleges Sport*, [Link](#).

206.As of July 2023. Compiled from publicly available British Swimming database. [Link](#).

Football

Football is one of the most participated and watched sports in England, with a rich heritage. England's National Governing Body (NGB), the Football Association (FA), did not permit women to play the game until 1971. Since then, concerted efforts have been made to increase female participation in the sport. According to the FA, 67 per cent of schools now offer equal access to girls' football in PE lessons, and 94 per cent of county FAs have specific strategies for the female game.²⁰⁷

Women's participation in football has risen over the past several years, often attributed to the success of the 'Lionesses', England women's national football team.²⁰⁸ The Lionesses won the UEFA's Women's Championship in 2022 (the 'Euros'), marking the first time since 1966 that any senior England football team had won a major world tournament. They also reached the final of the 2023 FIFA Women's World Cup.²⁰⁹ The increased visibility of women's football as a result of these successes has brought positive social and economic gains for women and girls' football, including over 400,000 new opportunities created at grassroots level to engage women and girls in football, and a 289 per cent increase in media rights since the previous Women's EURO in 2017.²¹⁰ By the end of the 2023-24 season, the number of young female players engaged in FA talent programmes in England will rise from 1,722 to more than 4,200.²¹¹

I was so glad to see a girl's football league in our area since from experience, mixed leagues do not favour nor serve girls well. My own 8-year-old daughter cowers playing football with boys yet shines in her girls' only team. It was with much anguish I've learnt there are boys within the ranks. All parents have received an email stating there are no boys in the league and if any parent wants to question the 'identity' of the children, they will not be welcome to matches. It is devastating that tiny representation of girls' football has already been infiltrated by boys.

What about the safety and fairness of our girls? Why can these boys not play within the mixed teams?

Parent, Greater Manchester

While it is unclear what the International Federation (IF), FIFA's, current policy is, in July 2022, it announced that it would review its female eligibility policy after the World Aquatics decision.²¹² A spokesperson told Reuters that a consultation process was underway, stating:

207. Women's and Girls' Game Sees Growth After a Memorable Year, *The FA*, 8th November 2022. [Link](#).

208. According to Sport England data, between Nov 21 and Nov 22 there was a 'significant increase' in regular female football playing – up by 0.3% compared to either 'no change' or decreases (accounted for by the Covid-19 pandemic) for the several years before this point. Source: Active Lives Adult Survey November 2021-22 Report, *Sport England*, 2023. [Link](#).

209. [Women's European Championship Final and England lose Women's World Cup final: Lionesses miss opportunity to cement legend status](#).

210. A Game-Changer – UEFA European Women's Championship 2022, *UEFA Champions League*, [Link](#).

211. Revamped women and girls' player pathway aims to discover a new generation, *England Football*, 9 February 2023. [Link](#).

212. Simon Evans, FIFA, World Athletics review transgender rules after swimming's change, *Reuters*, 20th June 2022. [Link](#).

‘Should FIFA be asked to verify the eligibility of a player before the new regulations will be in place, any such case will be dealt with on a case-by-case basis, taking into account FIFA’s clear commitment to respect human rights.’²¹³

Well over a year on from this announcement, no public decision has been made. The FA have a medical model, which was introduced in 2014 and amended in 2015. The Policy on Trans People in Football states that for male-to-female players over 16, ‘The FA will make a presumption that an individual’s application will be approved if he or she is able to satisfy the hormone-based requirements and provide the evidence set out below.’²¹⁴ The player is required to have undergone ‘hormone therapy’ or a gonadectomy (removal of testes) and provide the following evidence:

- individual case-by-case review;
- medical information/records demonstrate hormone therapy administered in a verifiable manner;
- blood testosterone within natal female range for an appropriate length of time so as to minimise any potential advantage;
- hormone treatment to be verified annually; and
- proof of ID required is identical to that required of all players i.e. passport or driving license.²¹⁵

The policy does not stipulate as to what an ‘appropriate length of time is’ to ensure blood testosterone is in the female range, nor the specifics of what ‘hormone therapy’ consists of. Regardless, despite the policy’s aim to protect both female safety and fairness, a case-by-case basis/medical model approach cannot do either, for the reasons given above. Despite sex differences existing both before, and greatly exacerbated by, puberty, the policy states that mixed sex football teams are permissible until the age of 16. This is problematic; the player pathway for an aspirant elite footballer begins in early youth, when future chances of professional success are universally determined. Even if a young female footballer does not reach elite or professional level, any academy female space taken up by a biological male child is one that is taken away from a girl.

There have been several studies into the physical differences between men and women’s football, and there is both a physical and technical sex gap within football. The largest study on the physical differences between men and women was published in 2021 and uses a data set analysing 736 male players and 546 female players.²¹⁶ The study found that men perform more passes per match with a higher accuracy, have higher average values on ball speed, foot speed and ball-to-foot ratio, perform longer passes and shoot from a longer distance than women and the typical performance quality of male teams is higher than women’s teams. The study notes that ‘although women’s football is progressively shifting to professionalism and technical level is increasing rapidly, there is still a technical gap between the two sports.’²¹⁷

A further study concludes that the main difference between men and

213. [Ibid.](#)

214. Policies: LGBT Football, *The FA*, [Link](#).

215. [Ibid.](#)

216. L. Pappalardo et al, Explaining the difference between men’s and women’s football, *PLoS One*. 2021; 16(8) [Link](#).

217. [Ibid.](#)

women's football is explained by women having to adapt to style of play and rules suited to male physical attributes, hence the game is more demanding for women.²¹⁸ For example, in both games, the goal height is eight feet high and 24 feet wide. The average male stands at around 75 per cent of goal height, whereas for a female this is around 69 per cent.²¹⁹

Where elite female football teams have been beaten by adolescent male teams

Boys' Team	Women's Team	Score
Arsenal U15 Boys	Arsenal Women	5-0 ²²⁰
Salford Academy Boys	Manchester United Women	9-0 ²²¹
FC Dallas Academy U15 Boys	USA Women's National Team	5-2 ²²²
AIK Boys Team (professional club in Stockholm)	Sweden Women's National Team	3-0 ²²³
Newcastle Jets U16 (Australian professional club)	The Matildas (Australia's National Team)	7-0 ²²⁴

In November 2023, *The Telegraph* reported that at least four female teams in a Sheffield women's football league were boycotting matches after a transgender woman (biological male) had caused 'a season-ending injury' – a broken knee – to a female opponent in October.²²⁵ There are reportedly 50 transgender players registered with women's leagues across England.

Rossington Ladies is a grassroots football team local in Sheffield and Hallamshire. Francesca Needham, a transgender woman (biological male), is considering pursuing a discrimination case, having stepped back from the sport as a result of the boycott. One of the teams refusing to play Needham has four female players under 16.

In response, the FA told BBC Sport:

'This issue is complex and constantly evolving, and like many other national governing bodies in sport, we are currently reviewing our transgender policy for English football to ensure it is inclusive, fair and safe for all.'²²⁶

As stated above, the FA has been reviewing this guidance for 18 months. There are twelve football teams in Sheffield and Hallamshire's open Women and Girls League.²²⁷ If there are around 12 players in each team (a conservative estimate)²²⁸, there are currently 150 female football players being disrupted by the presence of one transgender woman (biological male) on one team in one league. If we apply the same methodology to the other 49 transgender women (biological males) playing in women's leagues across the country, there are at least **7500 female football players at risk of unfair play and risk to safety.**

'Women and girls are underrepresented within football and associations should be willing to take a safety-first approach. Especially when it is not made clear to women or girls they may be up against a biological male who is physically much stronger than them.'

U16 and U11 Girls Football Coach, London

218.A. Pederson et al, Scaling Demands of Soccer According to Anthropometric and Physiological Sex Differences: A Fairer Comparison of Men's and Women's Soccer, *Front. Psychol.*, 09 April 2019, [Link](#).

219. [Link](#).

225. Oliver Brown, Women's football teams refuse to play after transgender player injures opponent, *The Telegraph*, 20 November 2023. [Link](#).

226. FA trying to resolve 'complex issue' after rival teams refuse to play against trans player, *BBC Sport*, 21st November 2023. [Link](#).

227. Sheffield & Hallamshire Women & Girls League, *The FA*, [Link](#).

228. Law 3: The Players, *The FA*, [Link](#). Note: a minimum of 11 players on each team, but most squads will be larger.

220. Kishan Vaghela, Arsenal Women suffer an embarrassing 5-0 defeat by their boys' U15 side in behind closed doors friendly... but WSL champions Chelsea have no such issues with 4-3 victory against a men's U18s to begin pre-season, *Mail Online*, 30th August 2022. [Link](#).

221. Ian Tuckey, PAN UTD: Manchester United women beaten 9-0 by Salford youth team triggers vile sexist abuse on Twitter, *The Sun*, 27th July 2018. [Link](#).

222. Will Griffee, From world champions to humbling defeat against Under 15s side... World Cup-winning USA women's team suffer 5-2 loss against Dallas academy boys, *Mail Online*, 7th April 2017. [Link](#).

223. Swedish football ladies beaten by teen boys, *The Local Sweden*, 16th January 2023. [Link](#).

224. James Benge, Australia women's national team lose 7-0 to team of 15-year-old boys, *The Standard*, 26th May 2016. [Link](#).

Tennis

Tennis is a popular racquet sport, governed by the National Governing Body (NGB) the Lawn Tennis Association (LTA) in Great Britain. LTA data found there to be 4.7 million people playing tennis in Great Britain 2022, a 43 per cent increase on the previous year.²²⁹ Tennis is one of the most sex-balanced sports in the country, with female players making up 41 per cent of tennis players.²³⁰

The LTA currently operates a policy of gender self-ID at all levels of tennis that it governs. *Policy and guidance on trans people playing tennis* was last reviewed in September 2019.²³¹ ‘This document is currently under review in light of proposed Sport England guidance and Equalities advice’ is stated on the document’s cover. It is not clear when this statement was added to the document.

In relation to trans women (biological males) competing with females, the document states:

‘Our policy assumes that trans women (male-to-female trans person) wishing to compete in mixed or female sanctioned tennis competitions do so with the best of intentions and with no intent to deceive about their status to gain any competitive advantage.’²³²

It is not clear how a participant’s intentions or feelings towards their opponent has any relevance or bearing to the physical advantages enjoyed by their biological sex on the court. As outlined by sports policy consultant Cathy Devine in written evidence to the Government’s Women and Equalities Select Committee (WESC) inquiry into transgender equality, the LTA’s current policy is problematic when understood within the context of the Equality Act 2010.²³³ As outlined earlier, if a sport is deemed to be a ‘gender affected activity’ under Section 195 of the Act, transwomen (biological males) should be ineligible to participate within the female category, on the grounds of fairness (in the case of tennis). As demonstrated below, males experience unfair advantage on the basis of sex if competing with females in tennis, who may experience indirect discrimination as a result. Similarly, Devine points out that permitting some but not all transwomen (biological males) to compete in female categories may constitute direct discrimination, especially given many transgender people do not undergo medical transition.²³⁴

With regard to changing facilities, the LTA states that clubs should ensure transgender members are able to change in accordance with their acquired gender, rather than sex. If other members feel uncomfortable with a member of the opposite sex changing with them, they should be

229. British tennis sees big surge in both adult and children’s participation during 2022, *The Lawn Tennis Association*, 2nd February 2023. [Link](#).

230. [Ibid.](#)

231. *Policy and guidance on trans people playing tennis*, *The Lawn Tennis Association*, September 2019. [Link](#).

232. [Ibid.](#)

233. Written evidence submitted by Cathy Devine [GRA1160]. [Link](#).

234. [Ibid.](#)

advised to arrive already changed, and not use the changing room.²³⁵

The LTA position is in conflict with the International Tennis Federation's (ITF) transgender policy, which endorses a medical model.²³⁶ In order to compete in the female category, transgender women (biological male) players must demonstrate a testosterone level of less than 5 nmol/L and provide written declaration of their gender identity as female.²³⁷ The LTA must conform to ITF regulations when it comes to selection for international events. As such, a biologically male player competing for selection at an international event could win the selection at national level over a female player, then be deemed ineligible to compete in it.

The table below demonstrates the differences between male and female tennis players at a variety of levels when participating in a number of different tennis-specific tests.

Test	Cohort evaluated	Males	Females
Hand Grip Strength	University level (average age 21)	47.6 (±7.8)kg	28.4(±5.4)kg ²³⁸
Serve Speed	Club level juniors (aged 11-14)	118.80 (±16.05) km/h	125.40 (±13.07) km/h ²³⁹
Forehand Medicine Ball Throw	Regional level juniors (U13)	7.25(±1.17)m	7.12(±0.95)m ²⁴⁰
Backhand Medicine Ball Throw	Regional level juniors (U15)	9.25(±1.88)m	8.16(±1.13)m ²⁴¹
Overhead Medicine Ball Throw	Regional level juniors (U15)	7.79 (±1.35)m	6.65 (±0.74)m ²⁴²
Forehand Shuttle Sprint	National level Juniors (U18)	2.72(±0.14)s	2.88(±0.13)s ²⁴³
Backhand Shuttle Sprint	National level Juniors (U18)	2.86(±0.15)s	3.05(±0.14)s ²⁴⁴

Compiled from a number of studies referenced below

In every test, males enjoy a noticeable physical advantage.

Further physical advantages experienced by male tennis players can be seen in the table below, which compiles the top serve speeds for male and female players at the most recent Wimbledon Championships, and the percentage difference between these speeds. On average, the fastest male serve speeds were **16.7 per cent** faster than the top female serve speeds.²⁴⁵

'It is entirely unfair for women to have to play men if they have signed up to play in the female category. The advantage within tennis is very clear at every level. As a male county player, it would be grossly unfair of me to compete against a female in the same age category as me – to be honest within tennis men and women are simply playing a completely different game.'

Male County Level Tennis Player, Gloucestershire

235. Policy and guidance on trans people playing tennis, *The Lawn Tennis Association*, September 2019. [Link](#).

236. ITF Transgender Policy, International Tennis Federation, [Link](#).

237. *Ibid.*

245. Gentlemen's and Ladies' Singles Statistics, *Wimbledon Championships*, [Link](#).

238. R.Sanlav et al, An examination of grip strength and arm angles of elite level of tennis players with relation to their sports, *International Journal of Development Research*, Vol 7, Issue 11, November 2017, [Link](#).

239. M.Sögüt, A Comparison of Serve Speed and Motor Coordination between Elite and Club Level Tennis Players, *J Hum Kinet*. 2017 Jan 1; 55: 171–176, [Link](#).

240. J.Fernandez-Fernandez, Age and sex-related upper body performance differences in competitive young tennis players, *PLoS ONE* 14(9): e0221761. [Link](#).

241. *Ibid.*

242. *Ibid.*

243. J.Fernandez-Fernandez et al, Fitness testing of tennis players: How valuable is it? *Br J Sports Med* 2014;48:i22–i31. [Link](#).

244. *Ibid.*

Wimbledon 2023 top male and female serve speeds²⁴⁶

Male (mph)	Female (mph)	Percentage difference (%)
141	121	16.6
140	120	16.7
139	120	15.9
138	118	17
137	117	17.1
136	117	16.3
136	117	16.3
136	117	16.3
136	117	16.3
135	117	15.4
135	116	16.4
135	116	16.4
135	115	17.4
135	115	17.4
134	115	16.6
134	114	17.6
134	114	17.6
134	114	17.6
133	114	16.7
133	113	17.7

‘Given the amount of training and competition I engage in as part of my time at university in the 2nd tennis team, I would be devastated to find I had to compete against a male opponent in my category. I train for several hours early morning multiple times a week and travel up and down the country to compete. There would be no point in me playing. I wouldn’t bother.’

Captain of the Female 2nd Tennis Team, University in South West England

²⁴⁶.[Ibid.](#)

Conclusion

This report has repeatedly demonstrated a very basic truth: that male and female bodies are different, and that this difference matters within sport. In order to encourage more women and girls to participate in sport, we must be guaranteed safe and fair play. There is enough sexism against women in sport as it is, and the admirable efforts to close the sex gap that exists within many sports are undermined if sports policymakers refuse to restrict the female category to biological females.

It is scandalous that so many in positions of power have chosen to ignore the problem of biological males in female sport. Despite the tireless efforts of women's rights campaigners – who have been highlighting this issue for years – the problem persists. This report has demonstrated that it persists particularly within amateur and grassroots sport.

Sport is not affected by a person's declared identity, but it is affected by biological sex. Unlike many policy areas, the solution to this particular policy problem is simple: within every sex-affected sport, and at every level, the female category must be restricted to biological females. The International Olympic Committee, International Federations, National Governing Bodies and the Government must do what is right and implement this solution. The integrity and spirit of all sport depends on it.

Annex A – A note on Sport England data

This report uses Sport England’s Active Lives survey data. Sport England is the non-departmental public body under the Department for Digital, Culture, Media and Sport (DCMS). Since 2015, Sport England has produced the annual Active Lives Survey, which produces data on how children and adults engage with sport and physical activity in England. The survey’s methodology involved sending a survey to 175,000 randomly selected households across England.²⁴⁷ According to its website, the survey is an Official Statistic, ‘which means that statistics are produced impartially, and free from political influence’ and adheres to the UK Code of Practice for Official Statistics.²⁴⁸

Despite this, the survey **does not** collect data based on sex, but gender identity. It therefore cannot be guaranteed that data around participation in sports contained within this report is based on biological sex.

However, the Active Lives Survey is the largest and most comprehensive data collection source on sport and physical activity in England, hence why it is used within this report.

Active Lives survey 2021-2022 Technical note²⁴⁹

Key demographics variables

Age and gender

The report contains breakdowns by *age and gender*. The gender question used in the Active Lives survey asks people to describe how they think of themselves, and allows them to provide the answer ‘in another way’.

Active Lives survey question on gender.²⁵⁰

Q10 Which of the following describes how you think of yourself? Please ✓ one box only

Male Female In another way

247. Adult Survey, Scope and Background, *Sport England*. [Link](#).

248. What is the Active Lives Survey? *Sport England*, [Link](#).

249. April 2023, Active Lives Survey 2021-2022 Year 7 Technical note, *Sport England*. [Link](#).

250. This is under ‘paper questionnaire’ from the year November 2019-20. Active Lives data tables, *Sport England*, [Link](#).

Annex B

The table of results below collates the male and female winning times within three races at county level across the 39 county athletics clubs affiliated with England Athletics. This data was taken from the most recent county championships results available.²⁵¹ Not all of the county clubs had available data as shown.

²⁵¹.As of August 2023.

100m			
County	Winning Male Time (s)	Winning Female Time (s)	Link
Avon & Somerset	11.42	12.98	Link
Bedfordshire	11.29	13.1	Link
Berkshire	11.22	12.2	Link
Buckinghamshire	11.44	12.61	Link
Cambridgeshire	10.94	12.3	Link
Cheshire	11.45	12.28	Link
Cornwall	11.3	14.4	Link
Cumbria	12	No data available	Link
Derbyshire	11.77	No data available	Link
Devon	11.35	No data available	Link
Dorset	11.93	12.42	Link
Essex	10.85	12	Link
Gloucestershire	11.7	13.2	Link
Greater Manchester	11.07	11.81	Link
Hampshire	10.83	12.3	Link
Hertfordshire	11.23	13.12	Link
Herefordshire	12.5	No data available	Link
Humberside	No data available	13.59	Link
Kent	10.9	12.21	Link
Lancashire	11.1	12.9	Link
Leicestershire & Rutland	11.49	No data available	Link
Lincolnshire	10.92	13.55	Link
Merseyside	11.44	No data available	Link
Middlesex	10.68	11.83	Link
Norfolk	11.1	12.2	Link
North Eastern Counties	11.1	12.02	Link
Northamptonshire	11.3	12.77	Link
Nottinghamshire	11.23	12.64	Link
Oxfordshire	11.07	14.05	Link
Shropshire	11.7	12.9	Link
Somerset	11.16	12.12	Link
Staffordshire	11.12	12.5	Link
Suffolk	11.8	13.7	Link
Surrey	10.76	11.82	Link
Sussex	11.01	12.71	Link
Warwickshire	10.72	12.36	Link
Wiltshire	11.53	12.43	Link
Worcestershire	11.16	12.24	Link
Yorkshire	10.89	12.21	Link
Total (s)	428.47	417.47	
Average (s)	11.27552632	12.65060606	

400m			
County	Winning Male Time (s)	Winning Female Time (s)	Link
Avon & Somerset	51.77	64.4	Link
Bedfordshire	51.19	59.18	Link
Berkshire	49.68	57.23	Link
Buckinghamshire	51.19	65.45	Link
Cambridgeshire	52.68	63.6	Link
Cheshire	52.39	54.08	Link
Cornwall	53.3	No data available	Link
Cumbria	55.3	62.3	Link
Derbyshire	50.94	No data available	Link
Devon	54.57	60.75	Link
Dorset	53.92	66.42	Link
Essex	51.32	58.03	Link
Gloucestershire	56.3	No data available	Link
Greater Manchester	54.14	57.18	Link
Hampshire	48.56	58.03	Link
Hertfordshire	52.31	59.45	Link
Herefordshire	No data available	60.5	Link
Humberside	54.92	62.53	Link
Kent	48.69	55.83	Link
Lancashire	51.1	60.05	Link
Leicestershire & Rutland	50.65	63.03	Link
Lincolnshire	59.77	62.53	Link
Merseyside	50.49	69.12	Link
Middlesex	49.11	59.07	Link
Norfolk	50.7	59.9	Link
North Eastern Counties	51.31	56.33	Link
Northamptonshire	51.87	60.18	Link
Nottinghamshire	49.65	58.94	Link
Oxfordshire	51.43	64.63	Link
Shropshire	53	57.5	Link
Somerset	52.56	58.28	Link
Staffordshire	53.6	59.7	Link
Suffolk	No data available	60.1	Link
Surrey	49.03	56.7	Link
Sussex	50.95	57.67	Link
Warwickshire	48.62	58.61	Link
Wiltshire	51.95	67.14	Link
Worcestershire	No data available	63.06	Link
Yorkshire	49.98	56.87	Link
Total (s)	1868.94	2174.37	
Average (s)	51.915	60.39916667	

1500m			
County	Winning Male Time (s)	Winning Female Time (s)	Link
Avon & Somerset	269	300	Link
Bedfordshire	No data available	300	Link
Berkshire	271	281	Link
Buckinghamshire	268	287	Link
Cambridgeshire	248	282	Link
Cheshire	No data available	325	Link
Cornwall	243	No data available	Link
Cumbria	No data available	No data available	Link
Derbyshire	281	299	Link
Devon	251	319	Link
Dorset	237		Link
Essex	250	293	Link
Gloucestershire	240	284	Link
Greater Manchester	248	280	Link
Hampshire	249	279	Link
Hertfordshire	253	No data available	Link
Herefordshire	258	No data available	Link
Humberside	278	262	Link
Kent	243	281	Link
Lancashire	238	272	Link
Leicestershire & Rutland	268	293	Link
Lincolnshire	280	322	Link
Merseyside	258	311	Link
Middlesex	244	359	Link
Norfolk	238	294	Link
North Eastern Counties	239	283	Link
Northamptonshire	255	304	Link
Nottinghamshire	258	309	Link
Oxfordshire	259	320	Link
Shropshire	265	331	Link
Somerset	No data available	275	Link
Staffordshire	245	292	Link
Suffolk	259	285	Link
Surrey	251	284	Link
Sussex	237	280	Link
Warwickshire	250	289	Link
Wiltshire	250	No data available	Link
Worcestershire	240	292	Link
Yorkshire	240	285	Link
Total (s)	8861	9752	
Average (s)	253.17	295.52	

Annex C

The table of results below collates the male and female winning times within three races at county level across the 33 county athletics clubs affiliated with Swim England. This data was taken from the most recent county championships results available.²⁵² Not all of the county clubs had available data as shown.

²⁵².As of August 2023.

50m Freestyle				
County	Male Winning Time (s)	Female Winning Time (s)	Link (Male Record)	Link (Female Record)
Bedfordshire	24.77	28.55	Link	Link
Berkshire & South Buckinghamshire	24.21	27.18	Link	Link
Cambridgeshire	25.34	27.47	Link	Link
Cheshire	23.69	27.68	Link	Link
Cornwall	26.58	27.8	Link	Link
Cumbria	26.24	27.56	Link	Link
Derbyshire	23.37	26.86	Link	Link
Devon	23.1	25.73	Link	Link
Dorset	24.89	29.12	Link	Link
Essex	23.41	25.15	Link	Link
Gloucester	23.53	26.96	Link	Link
Hampshire	24.92	27.27	Link	Link
Hertfordshire	25.32	29.87	Link	Link
Kent	23.6	27.08	Link	Link
Lancashire	24.12	27.68	Link	Link
Leicestershire	25.66	29.03	Link	Link
Lincolnshire	24.81	27.12	Link	Link
Middlesex	24.74	27.62	Link	Link
Norfolk	24.05	28.15	Link	Link
Northamptonshire	25.04	28.65	Link	Link
Northumberland & Durham	24.79	28.22	Link	Link
Nottinghamshire	25.51	27.19	Link	Link
Oxfordshire and North Buckinghamshire	24.1	27.95	Link	Link
Shropshire	25.18	No data available	Link	N/A
Somerset	23.48	26.7	Link	Link
Staffordshire	24.83	26.51	Link	Link
Suffolk	24.56	27.67	Link	Link
Surrey	25.51	26.07	Link	Link
Sussex	24.72	27.96	Link	Link
Warwickshire	25.83	26.67	Link	Link
Wiltshire	27.44	29.06	Link	Link
Worcester	25.98	27.99	Link	Link
Yorkshire	24.18	27.88	Link	Link
Total (s)	817.5	882.4		
Average (s)	24.7727273	27.575		

100m Butterfly				
County	Male Winning Time (s)	Female Winning Time (s)	Link (Male Record)	Link (Female Record)
Bedfordshire	61.91	80.45	Link	Link
Berkshire & South Buckinghamshire	57.08	64.54	Link	Link
Cambridgeshire	No data available	64.63	N/A	Link
Cheshire	55.76	65.04	Link	Link
Cornwall	66.76	67.59	Link	Link
Cumbria	73.38	80.6	Link	Link
Derbyshire	56.36	63.68	Link	Link
Devon	54.76	62.57	Link	Link
Dorset	57.97	71.75	Link	Link
Essex	58.08	71.96	Link	Link
Gloucester	57.74	64.51	Link	Link
Hampshire	60.65	65.09	Link	Link
Hertfordshire	55.85	73.65	Link	Link
Kent	54.57	66.11	Link	Link
Lancashire	54.8	63.24	Link	Link
Leicestershire	61.5	64.71	Link	Link
Lincolnshire	59.13	67.95	Link	Link
Middlesex	59.18	63.47	Link	Link
Norfolk	60.38	65.9	Link	Link
Northamptonshire	61.09	70.91	Link	Link
Northumberland & Durham	60.74	65.04	Link	Link
Nottinghamshire	59.59	64.67	Link	Link
Oxfordshire and North Buckinghamshire	57.34	62.52	Link	Link
Shropshire	59.62	No data available	Link	N/A
Somerset	56.76	62.71	Link	Link
Staffordshire	57.07	61.74	Link	N/A
Suffolk	59	65.68	Link	Link
Surrey	55.84	67.38	Link	Link
Sussex	59.75	67.51	Link	Link
Warwickshire	59.07	61.77	Link	Link
Wiltshire	71.82	No data available	Link	N/A
Worcester	62.91	75.31	Link	Link
Yorkshire	54.78	62.77	Link	Link
Total (s)	1901.24	2075.45		
Average (s)	59.41375	66.95		

400m Medley				
County	Male Winning Time (s)	Female Winning Time (s)	Link (Male Record)	Link (Female Record)
Bedfordshire	296	337	Link	Link
Berkshire & South Buckinghamshire	294	308	Link	Link
Cambridgeshire	296		Link	N/A
Cheshire	265	317	Link	Link
Cornwall	No data available	No data available	N/A	N/A
Cumbria	No data available	No data available	N/A	N/A
Derbyshire	340	293	Link	Link
Devon	265	303	Link	Link
Dorset	278	335	Link	Link
Essex	302	342	Link	Link
Gloucester	288	331	Link	Link
Hampshire	286	308	Link	Link
Hertfordshire	304	No data available	Link	N/A
Kent	273	324	Link	Link
Lancashire	270	307	Link	Link
Leicestershire	No data available	300	N/A	Link
Lincolnshire	284	376	Link	Link
Middlesex	283	314	Link	Link
Norfolk	296	343	Link	Link
Northamptonshire	No data available	No data available	N/A	N/A
Northumberland & Durham	283	305	Link	Link
Nottinghamshire	282	301	Link	Link
Oxfordshire and North Buckinghamshire	288	318	Link	Link
Shropshire	No data available	No data available	N/A	N/A
Somerset	268	308	Link	Link
Staffordshire	272	No data available	Link	N/A
Suffolk	No data available	316	N/A	Link
Surrey	296	319	Link	Link
Sussex	292	323	Link	Link
Warwickshire	276	299	Link	Link
Wiltshire	301	No data available	Link	N/A
Worcester	305	341	Link	Link
Yorkshire	275	286	Link	Link
Total	7758	7954		
Average	287.333333	611.846154		



£10.00
ISBN: 978-1-910812

Policy Exchange
1 Old Queen Street
Westminster
London SW1H 9JA

www.policyexchange.org.uk