FOLLOW-UP NOTES
WEBINAR #4
“The Transgender Athlete in Girls’ and Women’s Sport: Science, Law, and Social Justice Explained”

The Drake Group Webinar Series – Critical Issues in College Athletics
Hosted by LRT Sports

Thanks for registering for our November 4 webinar. A regular feature of our webinar series is “Follow-Up Notes” which provides a link to the recorded webinar, Drake answers to questions from the audience which panelists did not have the time to address, and information on our next webinar.

1. RECORDING

In case you missed any part of The Transgender Athlete in Girls’ and Women’s Sport: Science, Law, and Social Justice Explained webinar

ACCESS THE RECORDED NOVEMBER 4 WEBINAR HERE

Note that the recording was edited to remove Joanna Harper’s slides and narrative regarding the results of preliminary data related to three ongoing Loughborough research studies on transgender athletes because, while these data are typically shared at scientific conferences, they are not published until the completion of the research study. Audience questions related to that portion of the presentation are answered below.

2. UNADDRESSED QUESTIONS FROM THE AUDIENCE – NOVEMBER 4, 2021

Every question is important, but the panelists are never able to get to all of them given webinar time constraints. So, following each webinar, we respond to each of the unanswered questions.

POLICY

Q: Do you have a sample inclusivity policy that you would like to see used going forward.
A: The reason we don’t offer general policy answers governing the participation of all transgender athletes in women’s sports is because “one size does not fit all.” Good policy will vary by sport and event based on (a) the nature of the sport or event and (b) whether the transgender athlete’s post-puberty male advantage has been sufficiently mitigated to enable fair
competition and player safety in that event or sport. However, such policy should not exclude any transgender girl or woman, intersex athlete, or transgender boy or man who chooses not to change his body and, if competition with or against a cis girl or woman is likely to be either unfair or unsafe, all of these athletes should be accommodated under the girls’ and women’s sport umbrella by either a sport rules or scoring change or addition to the competition structure for an appropriate competitive class. We believe the successful development of sport/event policy would most likely result from the following process:

1. All stakeholders (ciswomen, transwomen, intersex women, etc.) should be at the table in good faith, agreeing to a process that seeks a common solution – as opposed to their respective preferred solutions.
2. Because there are significant differences among the stakeholders and the nature of different sports and events, these policy conversations should occur among those who are experts in those specific sports and events.
3. Decision-makers should share data for the purpose of agreeing on science-supported facts about meaningful competition differences and potential harm to all stakeholders. Just as important, decision-makers should acknowledge political mantras that facts don’t support so that all stakeholders can support the rejection of such positions.
4. Before talking about specific policy all stakeholders should agree on general principles such as fair competition, player safety, the social justice responsibility to include all girls and women under the women’s sports umbrella, that solutions involve the construction of competition rather than the reconstruction of bodies, etc.

As Martina Navratilova so eloquently stated, these policy makers must do the hard work which includes imagining new sport rule or competition constructs. We believe that looking at the ways intramurals and other social sport constructs have enabled co-ed teams and competition as well how sports have developed separate and equally valued opportunities for athletes with physical differences such as disabilities is helpful.

Q: I am from the UK and yes, unfortunately, as grass roots (but also recreational-competitive level) boys and girls are split to continue playing football [soccer] at aged 10. I was told to leave the team, and there was no girls' team, so I had to stop playing football at the level I was previously playing. Segregated sports are all well and good, only if women's sports opportunities actually exist!

A: This has also been true in the USA with regard to “contact sports” for which Title IX allows schools (Title IX only applies to educational programs that receive federal funds) to exclude females from male teams and only requires the school to offer the sport for females if sufficient females demonstrate “interest and ability.” In contact sports like lacrosse, because the USA had separate national sport governing bodies (NGBs) and different rules of competition for the men’s and women’s games, grassroots opportunities were not affected. However, in other contact sports like wrestling, American football, ice hockey, etc., in which there was only one NGB, the addition of local club, high school, and college teams has been slow or, in the case of American football, non-existent. Unfortunately, despite Title IX’s mandate that school-based interscholastic and intercollegiate (competitive) sports programs meet the different respective “interests and abilities” of males and females and these interests and abilities be assessed prior to
the selection of new sports, the first women’s sports added were those that were less expensive and which conformed to more feminine stereotypes.

**Q:** What about previously not sex-segregated sports, like a particular shooting event, that became a male-only event after a ciswoman won the Olympic gold medal?

**A:** Shooting was one of the nine events at the inaugural 1898 Athens Games and with the exception of 1904 and 1928, has been included ever since. Events marked as “men’s events” were nominally “open” events from 1968 until 1980 except for shotgun which became separate sex in 1992. Currently, there are six identical events for men and women (air pistol, air rifle, rapid fire pistol, rifle three positions, skeet, and trap). When the events were “open,” few women competed. For instance, only five women competed in 1980. Women-only events were introduced in 1984 and there were 77 female competitors. With regard to medalists in “open” events: Margaret Murdock won silver in rifle three positions 1976 which became a women’s event in 1984 and Zhang Shan won gold in skeet in 1992 which became a women’s event in 2000. In 2020, mixed team events were introduced in three events (team air pistol, team air rifle and team trap) (see shooting event history). The International Shooting Sport Federation (ISSF) added mixed team events in 2017 which is an example in which an IP added a co-ed to is world championship program. This is an example of a sport construction that could easily accommodate ciswomen and transwomen competing together and against each other while separate events or scoring could also recognize individual champions for ciswomen and transwomen athletes respectively. We believe the ISSF has the obligation to determine whether men and some post-puberty intersex and transgender women have a physiological advantage in shooting and to construct their events to permit meaningful competition.

**Q:** A lot of this conversation is focused around the notion that sport is based first and foremost on winning and obtaining college scholarships as opposed to all of the physical, social and emotional benefits simply from participating in sports. What would you say to those who believe that high school sports should be about inclusion at all costs, even above the desires to compete? Are you saying that trans people are welcome as long as they don’t win?

**A:** The question’s reference to “inclusion at all costs” is interpreted to mean “identical treatment” and “head-to-head competition” within participatory and competitive women’s sports. Participatory sports, such as conducted in school intramural and club programs require identical treatment of male and female athletes because Title IX has no separate sex sport exception for physical education or these participatory sports. However, as Nancy Hogshead Makar mentioned, even in these participatory sports there is an obligation on the part of the school not to endanger the safety of girls or boys by mismatching bodies with regard to size and strength. Only in competitive sport – interscholastic competition at the high school level – does Title IX allow separate biological sex sports.

That being said, within women’s competitive sports, Title IX would not preclude the inclusion of all transgender girls without competitive advantage/safety issues or transgender boys who did not wish to change their bodies. These two groups of transgender athletes could fairly and safely engage in direct head-to-head competition with cis girls. Only those transgender girls or intersex athletes with meaningful advantage/safety concerns would be precluded from head-to-head...
competition or accommodated through separate scoring, handicapping, multiple leagues, events, and/or podiums in only those sports or events in which the advantage/safety concern was present. All girls would participate fully in the camaraderie and socialization associated with team membership.

Thus, the question is whether gender identity should trump “fair” and “safe” competition in the space in which we test our physical abilities. If safety were the only issue, the obligation of the educational institution is clear; safety is paramount in all educational spaces. Does providing a separate sex space for testing the physical limits of 8 million cis girls take precedence over a small subset of that population. As Tracy Sundlun explained, just two post-puberty unmitigated transgender girls competing on one Connecticut high school track team four years impacted the fair sport experience of cis girls 235 times not counting regular season competition, may hold the school record for a sport in perpetuity, may preclude individual or cis girl teams of from is most often the once-in-a-lifetime experience of winning a state championship, or setting a meet record – all of which are opportunities available to all boys, all of which result in public recognition of competence and achievement, and all of which are of high societal value in our society which so easily dismisses the abilities of females. Even the test of psychological strength prevailing under the pressure of competition is lost if the opponent has an insurmountable performance advantage based on the physical composition of the body as opposed to being derived from training. When setting policy, good for all takes precedent over good for one or some. Only when one erases the female biological category does the rights of the transgender individual take precedent in sport.

On the other hand, what Tracy tried to make clear was that when the physiological playing field is perceived to have been evened by transgender girls having mitigated their male-sex linked advantages, whoever wins is celebrated.

Q: What ideas are you proposing to ensure transgender girls are able to participate in high school sports? Would you form a separate division for transgender girls, and if so, how do you propose that would work?

A: We assume (a) the question applies to interscholastic “competitive” sport, (b) that all transgender and intersex girls are included within the girls’ sports program, and (c) the question is only applicable to insufficiently mitigated or transgender or intersex athletes rather than all transgender girls. See the answer to the first question in this section which explains why the experts in each sport and events within that sport should be making these decisions because there is no ‘one size fits all’ at the high school or college level. We believe that looking at the ways intramurals and other social sport constructs have enabled co-ed teams and competitions as well as how sports have developed separate and equally valued opportunities for athletes with physical differences (such as athletes with disabilities) is helpful. Likewise, separate scoring, handicapping, multiple leagues, and/or podiums should be explored. Team sports will always be more challenging than individual sports with the former requiring hard work because the numbers of transgender girls who need to be accommodated may not be sufficient to comprise a school team. It may be helpful to consider all-school district girls’ teams competing against other similar aggregated women’s teams from other school districts, or all-conference women’s team competing against other all-conference women’s teams, a current practice in wheelchair basketball. In some team sports, it may be feasible to have the same number of advantaged trans women athletes on the court at the same time for each team.
Q: How has societal prejudice and misunderstanding affected participation in swimming and other sports?
A: Sport is a cultural institution that has been used to explode myths and prejudices or advance them, depending on the ethics and cultural sensitivity of sport leaders. Sport often reflects the prejudice of the society in which it resides. Remember, historically, Black people weren’t allowed in the pool! Pools were set in white areas and not black areas and then it was illegal or against the rules for black bodies to pollute the water. Because they weren’t allowed in the pool they mostly didn’t learn how to swim. Black athletes were once considered biologically unfit for swimming due to more heavier and dense bones than their white counterparts (see Racialized Osteology and Athletic Aptitude, or “Black” Bones as Red Herrings) or Black people don’t like getting their hair wet. Others believe the low participation numbers of Black children represent lack of interest rather their overrepresentation in lower-socioeconomic groups who families could not afford the price tag of club swimming or the fact that there are few sport role models who look like them. Black children and parents are three times more fearful of drowning than their Caucasian counterparts (see USA Swimming Foundation studies). For years it was also widely held that Kenyans and Africans were good middle distance runners, but were not suited for the marathon distance! It wasn’t until 1987, that Ibrahim Hussein first put some chinks in that belief by winning the NYC Marathon. Myths, fear, and stereotyping constrain the aspirations of numerous subpopulations in society generally and swimming and other sports are not immune. What is important is for sport leaders to be committed to education based on facts and scientific data – a critical need in the conversation of how to include the transgender athlete in girls’ and women’s sport.

Q: It sounds like speakers are saying the Paralympic Games is a model for trans athlete inclusion? Do you suggest a separate category?
A: No. There should not be a gender identity category outside of girls’ and women’s competitive sport. All transgender girls and women should be included within the girls’ and women’s competitive sport construct. Separate heats and events or double-headers within the same women’s sport competition rather than a separate competition should be considered. With regard to the subpopulation of girls and women and intersex athletes with post-puberty unmitigated male-sex linked advantage, there should be careful construction appropriate to the nature of sports and events within girls’ and women’s sports to provide the same meaningful, fair and safe competition as is available to all other girls and women in this competition program.

Q: What is the difference between transgender and transsexual?
A: Transsexual, unlike transgender, is not an umbrella term. Transgender describes a person whose gender identity is not the same as their biological sex. The person may or may not choose to transition medically through the use of gender-affirming hormones or surgery. Transsexual is often (but not always) used to indicate that a person’s experience of gender involves medical changes such as use of gender-affirming hormones or surgery. Some transgender people find the term transsexual to be offensive and stigmatizing because historically the word was used in mental health and medicine to describe mental illness or someone who was sexually deviant (see Abrams, 2019).
Q: What is “deadnaming”?

A: “Deadnaming” occurs when someone, intentionally or not, refers to a person who is transgender by their birth name or the given name he or she used before transitioning which may feel invalidating or disrespectful. A panelist used a birthname during his presentation, not having encountered the term before. In the spirit of this webinar, we have agreed to be generous about the unintentional misuses of the language of gender identity or science. That being said and assuming others in the audience may similarly not have been aware of this definition, we point out that transgender individuals undergoing a name change are helped by the people in their lives who acknowledge their transition by use of their correct name “as the gender they know themselves to be” (see Clements, 2018 for more detail). This is why the issue of changing a transgender person’s name on a birth certificate, license or other forms of governmental identification is so significant.

Q: How can the “social construct” be made equally inclusive for trans-athletes?

A: The first step is to welcome all transgender girls and women into girls’ and women’s sports – rejecting any policy of exclusion. The second step is to ensure that girls’ and women’s sport is a safe and respectful place. We must be sure that gender specific locker rooms allow for the privacy of all participants. We must examine policies regarding the appropriateness of team uniforms to remove any barrier to participation. We must educate coaches and athletes about human differences, addressing damaging myths, stereotypes and other forms of harm. We must educate all athletes and coaches about the language of gender identity so they use respectful and affirming terminology. We must not tolerate bullying or abuse, treating such as serious sexual harassment violations.

We must install eligibility processes that protect the privacy of transgender athletes. While the private medical information necessary to determine an athlete’s eligibility must be available to the relevant sports authority, it must be kept confidential and be strictly limited to confirmation of the athlete's biological sex and of their hormone status over the relevant period of time necessary for the relevant sports authority to determine eligibility. This information should be included on the standard pre-season physical eligibility form that is completed and signed by the athlete's physician. The form should include the following questions for the physician to answer: whether the athlete is or is not transgender; if they are, whether they are or are not on puberty blockers and/or gender affirming hormones; and if they are, the dates of treatment and testosterone levels they have maintained during the relevant period. All challenges to an athlete's eligibility shall be resolved by the relevant sports authority based on the information contained on this form. No challenge to their inclusion should be entertained in the absence of admissible evidence of fraud. Sport governance organizations should adopt and implement policies specifying that any challenge to the eligibility of an athlete shall be to a specified official of the relevant sports authority by confidential email, such query or complaint and reply thereto.

Q: What are the recommendations for including gender non-binary athletes in competition?

A: Gender non-binary athletes who try out for girls’ or women’s teams should compete under the following biological conditions as would be applied to any individual in girls’ and women’s sports:
1. If they have a female body and are not on male gender affirming hormones or are male bodied but have never experienced puberty, they may compete without restriction head-to-head against cis girls/women.

2. If they are male-bodied but have sufficiently mitigated their post-puberty male sex-linked advantage according to the eligibility rules established by sport and event based on fair competition and safety, they may compete without restriction head-to-head against cis girls/women.

3. With regard to intersex or transgender girls or women who have not sufficiently mitigated their post-puberty male sex-linked advantage, they may not participate head-to-head against cis girls/women sports or events in which the advantage/safety concern was present but must be accommodated and participate with or against cis girls/women conditioned on using separate scoring or handicapping or against other unmitigated intersex or trans girls/women in separate events or leagues.

**Q:** Why use the Caitlyn Jenner example when the rules for high school athletics are clearly different than the Olympics?

**A:** The point was intended to be a simple but stark example. Whether Caitlyn Jenner participates in the Olympics or a transgender girl or woman participates in interscholastic athletics, declaring one’s gender identity alone is insufficient to compete head-to-head with cis girls or intersex or transgender girls who have fully mitigated their post-puberty male sex-linked advantages.

**Q:** Can you provide a list of policy proposals as they are generated by sports governing agencies?

**A:** While The Drake Group has not yet made a determination of whether we will track such developments over time.

**Q:** Has any organization taken a stab at writing the “nuanced” rules of engagement for transathletes in high level sport?

All international sport federations are in the midst of examining their women’s sports eligibility policies, with such determinations to be issued in 2022 after the Beijing Winter Olympic Games.

**Q:** If we deny transgender girls and women equal participation in sport, will they be at higher risk to attempt or commit suicide.

**A:** “Excluding or treating a trans athlete differently in sport will cause or increase the risk of suicide” is a common statement used to support state legislation to require full inclusion and identical treatment in sports. It is really important to unpack this statement. There is no evidence that transgender athletes are at greater risk for suicide if they are not fully included or equally treated within girls’ and women’s sport – for instance, separately scored or otherwise accommodated within girls’ and women’s sport. That being said, it is really important to understand and address the risk factors for adolescent suicide -- but it is a step too far to maintain that limitation of sports participation is a causative factor in such a circumstance.
This is what we know and don’t know:

- Suicide is the second leading cause of death in adolescents.
- Adolescent girls generally and adolescent girls who are sports participants are almost at twice the risk for attempted suicide compared to adolescent boys.
- We have no data comparing the risk of all girls to non-transgender girls -- generally or in sports – because national adolescent datasets simply don’t yet ask the transgender identity question.
- Studies of subpopulations indicate that suicide is a problem that is worse for sexual (i.e., gay lesbian, bisexual) or gender minorities (transgender, gender fluid, non-binary) compared to individuals who are in the general population –this is true for adolescents and adults.
- But transgender adolescents, for instance, are NOT ALONE with regard to risk for attempted suicide. National data sets tell us that there are other subsets of adolescent girls who are also at increased risk for attempted suicide: for example, adolescent girls who are overweight or who experience depression, excessive alcohol consumption, social isolation, and sexual harassment or assault. There are all kinds of risk subsets among all girls regardless of gender identity.

What does this mean? Policy is NOT ENOUGH - As educators we have to create the safe and respectful education environment for all of our students – stopping the bullying, making sure we have a safe locker room space, educating our athletes about human differences and ensuring that girls’ and women’s sports is equally welcoming to cis, intersex, and trans girls and women.

**SCIENCE**

**Q: With regard to examining the performance changes resulting from hormone replacement therapy, what if we also looked at age/grade for both male and female and female comparisons?**

**A:** The age grade scores (AG) that were recorded for the trans women prior to Gender Affirming Hormone Therapy (GAHT) was done using the men’s table and after GAHT the AG were done using the women’s table. If one were to take a race time and an age and record the AG for both men and women there is approximately 10% difference between the two scores. For instance, a 35:00 time for a 10-kilometer race and a forty-year-old runner scores 79% for men and 89% for women.

**Q: How important is hand grip strength to performance for any athlete?**

**A:** Hand grip strength is taken because it is a general strength measure that is easy to capture. The kit is minimal, and anyone can run the test. For many sports, soccer for instance, hand grip strength is of little importance. Hand grip strength is of some value for cyclists, and probably even more value for wrestlers.
Q: With regard to an ongoing Loughborough study, is the bench press something that the cyclist trained for before and is not training for now? That is, can some of the changes in strength be attributed to changes in training?

A: Some of the difference in the bench press result of the cyclist is undoubtedly the result of differences in training. The cyclist lives in two locations at different parts of the year. In one location, she frequently trains for bench press and in another location, she seldom trains for bench press. We will get a better idea of how much of the difference can be attributed to training verses GAHT over the next year as we continue to test her.

Q: With regard to an ongoing Loughborough study, is this data for transwomen who have undergone puberty prior to introduction of affirmative care? Are there differences between when people had access to gender affirmative care (early in life vs. later)? Is it significant or just creating more barriers to participation?

A: All trans women that we have measured to date have undergone puberty and then initiated GAHT. If one were to take pre-GAHT measurements on a trans woman who started GAHT early (at the onset of puberty) this person would be approximately 12 years old at the time. Post-GAHT tests would be taken at age 16 or greater. It would be more challenging to make meaningful pre- and post-GAHT comparisons on such a trans woman. On the other hand, it might be interesting to do cross-sectional comparisons between such a trans woman and a cis woman. Presumably, because the trans woman would have never experienced male-type puberty, she would have little or no advantage over cis women.

Q: Why is there so little data about the number of transwomen in National Collegiate Athletics Association (NCAA) sports?

A: We have asked the NCAA if it tracks the number of trans women in collegiate sports or competing in its national championships. We have not received an answer as of November 11, 2021. Of course, some trans athletes don’t tell anyone, including their coaches or athletic directors, that they are transgender.

Q: I’m wondering what your perspective is on regulations limiting women's participation in sports if their natural testosterone levels are too high, such as in the case of South African track and fielder Caster Semenya? Caster was assigned female at birth and identifies as a woman, but was not allowed to compete internationally because her natural T levels exceeded the approved levels. There were other comments made pointing out that intersex is not the same as transgender and concern for the rights of intersex individuals.

A: “Intersex” has the same meaning in the glossary of terms at the end of this document, as “differences of sexual development (DSD).” There are many different types of DSDs: some involve differences from chromosomal norms (e.g., not the typical XX/XY pattern), some involve genetic mutations (e.g., involving specific hormonal deficiencies), and some developmental mutations (e.g., underdeveloped external genitalia in utero).

Those that are relevant for sport all involve biological males — individuals with an XY karyotype, testes, and testosterone levels in the male range — whose sex development was atypical in some
respect in utero. For example, their external genitalia might not be fully formed or their androgen receptors may be less than typically sensitive. Athletes with such conditions may be raised as male or female, but either way, as Caster Semenya did, they go through normal male puberty and so develop the secondary sex-characteristics that the female category was designed to exclude.

People who are transgender do not generally consider themselves to be intersex. As the following table shows, the two are related in sport to the extent that they may both involve biological males with full or partial male advantage who seek eligibility to compete in girls'/women's sport. The table is from an exhibit in the Semenya case at the Court of Arbitration for Sport (CAS). In 2019, CAS upheld the eligibility rules for the women's category, on the basis that the inclusion of biological males with DSD in female events is “category defeating” unless they somehow reduce their male-sex linked performance advantages. We agree.

**COMPARING BIOLOGICAL SEX TRAITS FOR PURPOSES OF GIRLS’ AND WOMEN’S SPORT**
*(from IAAF Exhibit in Semenya and ASA v. IAAF)*

<table>
<thead>
<tr>
<th></th>
<th>Typical Male</th>
<th>Person with 5-ARD (not on hormones)</th>
<th>Person who is Transgender MTF (not on hormones)</th>
<th>Typical Female</th>
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<tbody>
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<td>46 XY</td>
<td>46 XY</td>
<td>46 XX</td>
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<tr>
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<td>Testes &amp; Sperm</td>
<td>Testes &amp; Sperm</td>
<td>Testes &amp; Sperm</td>
<td>Ovaries &amp; Eggs</td>
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<td>Androgenic</td>
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<td>Androgenic</td>
<td>Estrogenic</td>
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<td>Sex hormones</td>
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<td>Testosterone levels in male range</td>
<td>Testosterone levels in female range</td>
</tr>
<tr>
<td>Primary sex characteristics (develop in utero)</td>
<td>Testes, epididymis &amp; vas deferens, prostate</td>
<td>Testes, epididymis &amp; vas deferens, vestigial prostate</td>
<td>Testes, epididymis &amp; vas deferens, prostate</td>
<td>Ovaries, fallopian tubes, uterus, vagina</td>
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<td>Virilisation on puberty</td>
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<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Secondary sex characteristics (develop at puberty)</td>
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<td>Male</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>External genitalia</td>
<td>Penis, scrotum</td>
<td>Varies</td>
<td>Penis, scrotum</td>
<td>Clitoris, labia</td>
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<tr>
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<td>Varies</td>
<td>Varies</td>
<td>Female</td>
</tr>
<tr>
<td>Gender Identity</td>
<td>Male</td>
<td>Varies</td>
<td>Female</td>
<td>Female</td>
</tr>
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</table>
Q: What about the girls who lost places to Juniper Eastwood and Andraya Yearwood, who displaced so many girls by running without any mitigation of male legacy advantage?

A: To be clear and repeating Joanna Harper’s presentation, Juniper Eastwood met the NCAA standard of 12 months of hormone replacement therapy and achieving testosterone levels within the female range. Thus, she was eligible to compete against cis women in college. Her performance decline as a woman middle distance runner was 13%. She was equally successful as a male middle distance runner in college in relation to these peers as she was as a woman middle distance runner in college in relation to her peers.

The two Connecticut high school girls who displaced cis girl competitors were Andraya Yearwood and Terry Miller, both of whom had undergone all or part of male puberty running track for 4 years. They impacted the results, records, and experience of their cis girl competitors a total of 235 identified times in just the conference, class, state, and New England Championships as well as 3 invitationals in such varied ways as taking a Connecticut State Open Team Championship away from 23 females, 11 females lost meet records, 39 were denied places in the finals, 52 were denied places in a championship meet, 93 lost an individual or relay championship, and 17 missed out on making the All-New England Team.

Andraya Yearwood came out publicly as transgender in the 9th grade. Her hormone status for each season is derived from publicly available information and we do not have data on her testosterone levels. The table below shows her rankings for the 55 meters indoors first, followed by the 100 meters outdoors. The boys' rankings listed on the table are those she would have achieved based on her times run in girls' events. There were no rankings for the 100 meters outdoors her 12th grade year (2020), because the season was cancelled due to COVID.

**A YEARWOOD – SPRINTS -- 55 meters indoors and 100 meters outdoors**

<table>
<thead>
<tr>
<th>GRADE</th>
<th>Hormone Status*</th>
<th>Event</th>
<th>Connecticut Boys' State Rankings</th>
<th>Connecticut Girls' State Rankings</th>
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<tr>
<td>9th</td>
<td>not on gender affirming hormones</td>
<td>Indoor-55m</td>
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<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outdoor-100m</td>
<td>422nd</td>
<td>4th</td>
</tr>
<tr>
<td>10th</td>
<td>on gender affirming hormones</td>
<td>Indoor-55m</td>
<td>392nd</td>
<td>5th</td>
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<td></td>
<td></td>
<td>Outdoor-100m</td>
<td>470th</td>
<td>3rd</td>
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<td>11th</td>
<td>on gender affirming hormones</td>
<td>Indoor-55m</td>
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<td></td>
<td></td>
<td>Outdoor-100m</td>
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<td>5th</td>
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<td>12th</td>
<td>on gender affirming hormones</td>
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<td>1st</td>
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<tr>
<td></td>
<td></td>
<td>Outdoor-100m</td>
<td>- / -</td>
<td>- / -</td>
</tr>
</tbody>
</table>
Terri Miller competed on the boys' track team her freshman year and through the winter of her sophomore year. She came out publicly as transgender in the middle of 10th grade, and then switched to the girls' team for her remaining two-and-a-half years of eligibility.

Her hormone status for each season is also derived from publicly available information. Because that information indicates she went on hormones for the first time only at the end of the 2019 outdoor season, i.e., sometime in May, and because her best time that year was run before then, she is listed here as "not on hormones" for the year.

The table below shows rankings for the 55 meters indoors first, followed by the 100 meters outdoors. The rankings in blue font show the division she actually competed in, and the point at which she switched from the boys' to the girls' division. Simply by walking off of the track in the boys' events and walking onto the track in the girls' events, she went from barely being in the top 400 in the state to being #1 in the state.

The girls' rankings for her 9th grade year are those she would have achieved based on her times as run in boys' events. The boys' rankings for her sophomore, junior, and senior years are those she would have achieved based on her times as run in girls' events. There were no rankings for the 100 meters outdoors her 12th grade year (2020) because the season was cancelled due to COVID.

### T MILLER – SPRINTS – 55 meters indoors and 100 meters outdoors

<table>
<thead>
<tr>
<th>GRADE</th>
<th>Hormone Status*</th>
<th>Event</th>
<th>Connecticut Boys' State Rankings</th>
<th>Connecticut Girls' State Rankings</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th</td>
<td>not on gender affirming hormones</td>
<td>Indoor-55m</td>
<td>662nd</td>
<td>32nd</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outdoor-100m</td>
<td>326th</td>
<td>2nd</td>
</tr>
<tr>
<td>10th</td>
<td>not on gender affirming hormones</td>
<td>Indoor-55m</td>
<td>377th</td>
<td>5th</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outdoor-100m</td>
<td>181st</td>
<td>1st</td>
</tr>
<tr>
<td>11th</td>
<td>not on gender affirming hormones</td>
<td>Indoor-55m</td>
<td>118th</td>
<td>1st</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outdoor-100m</td>
<td>165th</td>
<td>1st</td>
</tr>
<tr>
<td>12th</td>
<td>on gender affirming hormones</td>
<td>Indoor-55m</td>
<td>335th</td>
<td>3rd</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outdoor-100m</td>
<td>- / -</td>
<td>- / -</td>
</tr>
</tbody>
</table>

Q: Just being stronger and faster doesn’t mean you will win… we see this with biological biases surrounding Black men, Black athletes vs. White athletes also. If trans people, trans women have 'overwhelming' advantage, couldn't they win everything, all the time, no question? e.g. Laurel Hubbard did not win @ the Tokyo Olympics, Cece Telfer doesn't win all races... isn't this idea of biological advantage just stem from patriarchy?
A: No. First, we should not mix stereotyping with comparative data. Also, when it comes to examining whether intersex or transgender females who are insufficiently mitigated have an advantage over ciswomen, the conclusion is based on a comparison of athlete success proportional to their participation. It’s not about winning all the time. For instance, if we know that the percentage of intersex individuals in the population or unmitigated transgender individuals in the population is incredibly smaller than the number of cis women in the event population, and the top three Olympic medalists in the 800meters in any given year are all intersex (as occurred in Brazil), we can rationally and mathematically deduce a competitive advantage due to something other than training or other factors if both populations have equal access to training and other factors.

Mathematically related, if a transgender athlete has the same relative success competing while she was on the men’s track team (e.g., ranked 50 among all male athletes as a freshmen) prior to transition as she does after 12 or more months of hormone therapy when competing against females (e.g., ranked 50 among all female junior athletes), it fair to conclude she has sufficiently mitigated her male sex-linked advantage. A similar example of how such data can be used is with the chart on Andraya Yearwood in the previous question. Granted, we need more research, especially on legacy advantage in sports, but we know the huge impact of testosterone on sport performance and that women have incredibly less of this powerful hormone than men. It is not a stretch to assume that transgender girls and women who have not mitigated their advantage will be stronger and faster than ciswomen in sports or events which measure the strongest or fastest, or where being stronger (weight lifting) or faster (track) makes a significant performance difference.

Q: Does the research suggest that all women athletes ought to be screened for hormones and other factors to rule out competitive advantage? How should this be handled in men's sports? Is the assumption that men's sports aren't at the same risk?

A: No. The female category in competitive sport was designed to include all females regardless of their hormone levels and comparative advantages. It should be noted, however, that females – including athletic females – have very little testosterone in comparison with males, and that their testosterone range is very narrow. This is why a little bit of exogenous testosterone – doping – can make a really big difference in competition, and why anti-doping efforts that ensure the exclusion of athletes with higher than normal female androgen levels are so important. Sports governing bodies don’t test for natural variations in testosterone levels among male competitors in the men’s category because the men’s category is not similarly protected—it does not exist, like the women’s category does, to exclude male androgens. Of course, just as in the women’s category, we do care about doping and so there is monitoring for exogenous use of testosterone and other androgens there too.

Q: We haven’t pitted women against men in all sports, especially non-contact ones, so do we really know if mixed-competitive sports won’t be equitable?

A: This is exactly why sport policy needs to be made by sport and by event by experts in the respective sports and events. In most sports we have comparative data: men’s performances in
men’s sports and women’s performances in women’s sports and we can extrapolate the post-puberty male sex-linked advantage. For example:

Experts estimate the male advantage is normally between 8 and 20% depending on the sport and event, and up to 50% in sports and events featuring explosive power. For example: Team USA’s best female high jumper is Vashti Cunningham, NFL star Randall Cunningham’s daughter. She is regularly ranked among the top ten best female high jumpers in the world. Her best jump as a professional (6’ 6 ½”) is regularly surpassed by dozens of U.S. high school boys.

As the chart immediately below — comparing California high school performances based on data from Athletics.net, California High Jump Results, accessed on September 25, 2019. — shows, this isn’t a phenomenon exclusive to professionals. Because the performance gap emerges at the onset of male puberty, as a group, high school girls have no chance against high school boys as a group.

**2019 CALIFORNIA REGIONAL HIGH JUMP RESULTS**

<table>
<thead>
<tr>
<th>REGION</th>
<th>BEST HIGH SCHOOL BOY</th>
<th>BEST HIGH SCHOOL GIRL</th>
<th>% DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>6'10&quot;</td>
<td>5'10&quot;</td>
<td>14.63%</td>
</tr>
<tr>
<td>Central Coast</td>
<td>6'6&quot;</td>
<td>5'6&quot;</td>
<td>15.38%</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>6'2&quot;</td>
<td>5'2&quot;</td>
<td>16.22%</td>
</tr>
<tr>
<td>North Coast</td>
<td>6'10&quot;</td>
<td>5'5&quot;</td>
<td>20.73%</td>
</tr>
<tr>
<td>Northern</td>
<td>6'5&quot;</td>
<td>5'6&quot;</td>
<td>14.29%</td>
</tr>
<tr>
<td>Oakland</td>
<td>5'11&quot;</td>
<td>4'10&quot;</td>
<td>18.31%</td>
</tr>
<tr>
<td>Sac-Joaquin</td>
<td>6'8&quot;</td>
<td>5'8 1/4&quot;</td>
<td>14.69%</td>
</tr>
<tr>
<td>San Diego</td>
<td>6'8&quot;</td>
<td>5'10 1/2&quot;</td>
<td>11.88%</td>
</tr>
<tr>
<td>San Francisco</td>
<td>6'0&quot;</td>
<td>4'10&quot;</td>
<td>19.44%</td>
</tr>
<tr>
<td>Southern</td>
<td>7'0&quot;</td>
<td>5'8 1/2&quot;</td>
<td>18.45%</td>
</tr>
</tbody>
</table>
LAW

Q: At the junior high, high school, and college level, is the practice still to have cheerleaders for the male teams but not for the female teams?

A: Yes. While this is currently common practice, it would violate Title IX’s requirement that male and female athletes equally benefit from a school’s promotional efforts. Sideline cheerleaders’ have the purpose of promoting student body/fan support of performing athletic teams. Thus, an equal proportion of male and female participants (not teams) must be provided with this benefit. Currently, this inequity is unlikely to be addressed because, while the United States Department of Education Office for Civil Rights has a Title IX enforcement responsibility, it is primarily concerned with responding to formal Title IX complaints and does not have the resources to do more than a handful of random audits each year. Some civil lawsuits address this issue. There are 2,000 institutions sponsoring intercollegiate athletics programs and 24,000 public high schools sponsoring interscholastic athletic programs. Title IX does not apply to private high schools because they do not receive federal funds, but does apply to private colleges and universities whose students benefit from federal higher education grants and loan programs).

3. OUR NEXT WEBINAR – TITLE IX AND THE NIL MARKETPLACE: Subterfuge or Opportunity to Remedy Historical Inequities

SAVE THE DATE! Wednesday, November 17 from 2:00-3:15pm.

REGISTER HERE

Panelists will discuss how the new NIL marketplace relates to the Title IX promotion, publicity, recruiting, and NIL education obligations of educational institutions. Also addressed will be whether the entities controlled by the institution can be used as subterfuge to evade the educational institution’s Title IX legal obligations and why past and continuing less favorable treatment of female athletes in areas that significantly affect individual brand building will have a profound impact on NIL opportunities for female athletes if they remain unaddressed.

Panelists are:

JAYMA MEYER (Facilitator and Panelist), Counsel, Simpson Thacher & Bartlett; Visiting Clinical Professor, Sports Law, Indiana University.

GLORIA NEVAREZ, Commissioner, West Coast Conference, Member of the NCAA Men’s Basketball Committee and Transfer Working Group and the Knight Commission on Intercollegiate Athletics.

JULIE SOMMER, Attorney, former four-time NCAA All-American swimmer at the University of Texas at Austin and USA Swimming National Team member, and member of The Drake Group Board of Directors.

DONNA LOPIANO, President, The Drake Group, gender equity consultant, and former UT-Austin Women’s Athletics Director and CEO of the Women’s Sports Foundation.
4. LINKS TO RECORDINGS OF PREVIOUS WEBINARS

WEBINAR #1
"Wild West or Brave New World – National Experts Share Their Thoughts on College Athlete Compensation"
ACCESS AUGUST 19 RECORDING HERE
Featuring Val Ackerman, Commissioner, Big East Conference; Len Elmore, Co-Chair, Knight Commission on Intercollegiate Athletics; Blake Lawrence, Co-Founder and CEO of Opendorse; Andrew Zimbalist, Robert A. Woods of Economics, Smith College and President-Elect -- The Drake Group

WEBINAR #2
"Millionaires or Minimum Wage? Current and Former College Athletes Speak on Athletes' Compensation"
ACCESS AUGUST 26 RECORDING HERE
Featuring Julie Sommer, four-time NCAA All-Americans swimmer; Maurice Clarett, former Ohio State football running back, acclaimed author; Brianna Ellis, sophomore basketball point guard at Univ. of New Orleans; Julian Ross, fifth year senior running back at Ohio Univ.

WEBINAR #3
"Experts Speak Out on College Athletes’ Mental Health"
ACCESS SEPTEMBER 30 RECORDING HERE
Featuring Emmett Gill, Chief Visionary Officer for Athletes and Advocates for Social Justice in Sports; Shamaree Brown, Director/Student-Athlete Programs and Compliance, Atlantic Coast Conference; Daniel Chung, Sports Psychologist, Rutgers University Athletics; Brad Hambric, Clinician and Licensed Professional Counselor, University of Georgia Athletics; Abigail Eiler, Assistant Athletic Director, Director of Athletic Counseling, Chief Diversity Equity and Inclusion Officer, University of Michigan Athletics; Nicki Moore, Vice President and Athletic Director, Psychologist, Colgate University; Charles Small, Senior Associate Athletic Director for Student Services, Iowa State University

5. WAYS YOU CAN HELP

If you believe The Drake Group is doing good work, please also consider making a small donation to support our work. You can donate, see our six-point plan for Congress, and learn what we do HERE.
THANKS TO OUR NOVEMBER 4 PANELISTS

MODERATOR - DONNA A. LOPIANO, Ph.D. Adjunct Professor of Sports Management, Southern Connecticut State University, former CEO of the Women’s Sports Foundation (1992-2007), Director of Women’s Athletics, University of Texas at Austin (1975-1992). President of The Drake Group.

DONNA deVARONA, OLY. Two-time Olympian and double gold medalist in swimming, first President and Chair of the Board of the Women’s Sports Foundation, member of the International Olympic Committee Communications Commission and U.S. Olympic and Paralympic Committee Board of Directors.

JUNIPER EASTWOOD, M.A. candidate, Univ. of Montana, trail runner, former track & cross country runner, first NCAA Division I athlete to compete on a women’s team while openly identifying as transgender.

JOANNA HARPER, Ph.D. candidate, Loughborough University (U.K), medical physicist, former elite marathoner, transgender athlete.
NANCY HOGSHEAD MAKAR, J.D., OLY, CEO Champion Women, civil rights lawyer, two-time Olympian, three-time gold medalist and one silver in swimming, U.S. National Team for eight years, 12 Halls of Fame, including the International Women’s Sports Hall of Fame and the International Swimming Hall, 20 years of teaching Sports Law and Administration, former President, Legal Advisor and Advocacy Director of the Women’s Sports Foundation.

MARTINA NAVRATILOVA, OLY. Former professional tennis player and coach considered one of the best female tennis players of all time. Over her career, she won 18 Grand Slam singles titles, 31 Grand Slam women’s doubles titles (an all-time record), and 10 Grand Slam mixed doubles titles, for a combined total of 59 major titles, marking the Open Era record for the most Grand Slam titles won by one player, male or female. Long active in LGBTQ rights work.

DEFINITION OF TERMS

ACCOMMODATION — The process of adapting or adjusting to someone or something without changing the underlying goal or design, e.g., in a workplace or educational program. In the context of sport, accommodation means adjusting an aspect of girls'/women’s event to include trans girls with male sex-linked advantages in a way that does not diminish participation and competitive opportunities for females. Examples of accommodations already in use in sport include handicapping, separate heats, separate scoring and/or separate and equal teams. This list is not exhaustive.

ANTI-DOPING — The effort against doping in sport. Doping is the use of prohibited substances and methods. Prohibited Substances Lists in the United States are maintained by the United States Anti-Doping Agency (USADA) and the National Collegiate Athletic Association (NCAA). Testosterone is a steroid on both Prohibited Substances Lists. Its exogenous use by athletes is banned. The testosterone levels of international-caliber athletes are monitored by regular urine and blood tests to ensure they do not fluctuate beyond both their own naturally-occurring levels, and the normal group ranges for their sex.

CISGENDER (CIS) — An adjective that describes a person who is neither transgender nor gender fluid. It is also used to describe a person whose gender identity is consistent with their natal sex.

CIS MALE — A person whose biological sex is male who is neither transgender nor gender fluid.

CIS FEMALE — A person whose biological sex is female who is neither transgender nor gender fluid.

COMPETITIVE FAIRNESS — The state of play when the rules reflect — and events are conducted — consistent with the design of the sport. For example:

- Weight categories are fair when groups of comparably sized athletes are matched against one another. For example, a wrestling match is considered fair when the competitors compete in their narrowly defined weight classes and referees ensure that competitors’ actions are authorized from within a range of permissible maneuvers.
- Age categories are fair when they recognize and mitigate competitive differences conferred on the body due to the age of the competitor.
- Similarly, sex segregated sport classifies athletes by their biological sex because of the significant performance gap between male athletes and female athletes, and to ensure that female athletes have the same competitive opportunities as their male counterparts. In this context, competitive fairness requires rules that safeguard the female category and the female athletes who reasonably rely on its integrity.

CONFIDENTIAL MEDICAL INFORMATION — Information, including protected health information (PHI), that is normally treated confidentially but is relevant for the determination of eligibility for sports participation and therefore shared in a limited way for this limited purpose.

DIFFERENCES IN SEXUAL DEVELOPMENT — Congenital conditions affecting the reproductive system, in which development of chromosomal, gonadal, or anatomical sex is atypical. Also known as disorders of sex development (DSDs), diverse sex development and variations in sex characteristics (VSC).

FEMALE — An individual whose biological sex is female. Biological sex is sometimes referred to as natal sex. In contrast with males, females have ovaries, not testes; they make eggs, not sperm; and their endocrine system is estrogenic, not androgenic.

GENDER — Sometimes used as a synonym for sex; or to connote the complex relationship between physical sex-linked traits and one’s internal sense of self as male, female, both, or neither; or one’s sex-related expression.

GENDER AFFIRMING HORMONES — Medication taken by some trans people to counter their biological sex and affirm their gender identity. For example, trans girls/women may take estrogen to counter their male secondary
sex traits and to feminize their bodies. Similarly, trans boys/men may take testosterone to counter their female secondary sex traits and to masculinize their bodies.

**GENDER AFFIRMING SURGERY** — Procedures undertaken by some trans people to construct or remove secondary sex traits to better reflect their gender identity, e.g., surgery to remove or construct breasts, and/or surgery to remove testes or ovaries and/or construct gender-conforming genitals.

**GENDER FLUID** — A person whose gender identity (the gender they identify with most) is not fixed. It can change over time or from day-to-day. Fluid is a form of gender identity or gender expression, rather than a sexual orientation.

**GENDER IDENTITY** — A person's deeply held inner sense of themselves as male, female, fluid, or neither. A person’s gender identity may be different from their biological sex.

**LEGACY ADVANTAGE** — The permanent or long-lived physical effects of experiencing puberty in the male body. The term refers to the considerable size and strength advantages that remain even after hormone treatments or surgical procedures.

**MALE** — An individual whose biological sex is male. Biological sex is sometimes referred to as natal sex. In contrast with females, males have testes, not ovaries; they make sperm, not eggs; and their endocrine system is androgenic not estrogenic.

**NON-BINARY** — Non-binary or genderqueer is an umbrella term for gender identities that are neither male nor female - identities that are outside the gender binary.

**PERFORMANCE GAP** — The percentage difference between male athletic performances and female athletic performances that result from biological sex-linked differences. Some individual females surpass some individual males, but depending on the sport and event, the gap between elite male performances and elite female performances overall generally ranges from 8-20%, and up to 50% in sports and events featuring explosive power. The very best elite female performances are regularly surpassed by non-elite male performances. Together with the commitment to sex equality, the substantial performance gap justifies separate sex teams and events.

**PLAYING-SAFETY** — The physical safety of athletes on the field of play.

**PUBERTY** — The period of sexual maturation and the development of fertility. Sexual maturation includes the development of secondary sex characteristics—the physical features associated with a male phenotype on the one hand, and a female phenotype on the other. In girls, the onset of puberty is generally between ages 8 and 13. In boys, it is generally between ages 9 and 14.

**SEX ASSIGNED / RECORDED AT BIRTH** — The designation of a newborn child’s sex on their official birth record based on inspection of their external genitalia. This designation may be incorrect in the case of an infant with a difference of sex development (DSD) that affected the development of their genitals. Sex recorded on birth certificates, passports, or drivers’ licenses may or may not reflect biological sex and should not be determinative of eligibility for competition.

**SEX / BIOLOGICAL SEX** — Male or female, one of two classifications by which most organisms are grouped on the basis of their reproductive organs and functions. A person’s sex also refers to the cluster of sex-linked characteristics or traits—i.e., chromosomal, gonadal, endocrinological (hormonal), and phenotypic characteristics, commonly used to distinguish males from females.

**SEX-LINKED DIFFERENCES** — Physical and physiological differences that are tied to being biologically male or biologically female. For purposes of sport, the main sex-linked differences are tied to the endogenous (natural) production in biological males of much higher levels of testosterone beginning from the onset of male puberty and continuously throughout the competitive athletic career.
SEX SEGREGATION — Refers to separating people by sex or by particular sex-linked traits such as testosterone. Formal sex segregation in competitive sports is constitutional because it is empowering not subordinating, and because it is the only way to ensure that females as a group have the same sports opportunities, experiences and successes as males as a group.

TESTOSTERONE / TESTOSTERONE RANGES — A hormone classified as an anabolic, androgenic steroid that builds tissue. In childhood, males and females produce about the same, small amount of testosterone. At the onset of puberty, the male testes begin to produce much more than the female ovaries. From that point forward, the normal female range\(^1\) remains low and narrow, from 0.06 to 1.68 nmol/L, and the normal male range is relatively high and wide, from 7.7 to 29.4 nmol/L.

TRANSGENDER (TRANS) — An adjective describing a person whose gender identity is not the same as their biological sex. The person may or may not choose to transition medically through the use of gender-affirming hormones or surgery.

TRANS BOY/MAN — A person whose biological sex is female, while their gender identity is male; one who transitions from female to male.

TRANS GIRL/WOMAN — A person whose biological sex is male, while their gender identity is female; one who transitions from male to female.

UNCONDITIONAL INCLUSION — Inclusion in a category, classification, or group without preconditions, such as including a trans girl/woman in girls’/women’s sport without first requiring her to reduce her male sex-linked advantages.

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1 Use of the word "normal" is consistent with its standard scientific meaning, i.e., the normal range is the range within which almost all readings or levels occur. In medicine, the normal range is sometimes also referred to as the reference range.