WILENCHIK & BARTNESS
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
The Wilenchik & Bartness Building
2810 North Third Street Phoenix, Arizona 85004
Telephone: 602-606-2810 Facsimile: 602-606-2811

Dennis I. Wilenchik, #005350
Karl Worthington, #018703
admin@wb-law.com

Maria Syms, Bar No. 023019
602-542-5240
Maria.Syms@azed.gov
Attorneys for Defendant Thomas C. Horne

D. John Sauer, Mo. Bar No. 58721*
Justin D. Smith, Mo. Bar No. 63253*
(314) 562-0031
John.Sauer@james-otis.com
Attorneys for Defendants Petersen and Toma

UNITED STATES DISTRICT COURT
DISTRICT OF ARIZONA

Jane Doe, by her next friends and parents Helen Doe and James Doe; and Megan Roe, by her next friends and parents, Kate Roe and Robert Roe, **Plaintiffs,** **v.** **Thomas C. Horne, in his official capacity as State Superintendent of Public Instruction, *et al.*,** **Defendants.**	**Case No. 4:23-cv-00185-JGZ** **DEFENDANTS HORNE, PETERSEN, AND TOMA'S AMENDED PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW**

Defendant Thomas C. Horne, in his official capacity as State Superintendent of Public Instruction ("Superintendent Horne"), Defendant Warren Petersen, in his official capacity as President of the Arizona State Senate ("President Petersen"), and Defendant Ben Toma, in his

official capacity as Speaker of the Arizona House of Representatives ("Speaker Toma") (jointly, "Defendants"), respectfully submit their Amended Proposed Findings of Fact and Conclusions of Law in connection with Plaintiffs' request for a Preliminary Injunction. A redlined version showing the amendments is attached.

FINDINGS OF FACT

1. The Court has reviewed the expert declarations submitted by all parties. For purposes of this Preliminary Injunction hearing, the Court finds that the expert reports submitted by Gregory Brown, Ph.D., James M. Cantor, Ph.D., Chad Thomas Carlson, M.D., Emma Hilton, Ph.D., and Linda Blade, Ph.D. satisfy the requirements of Fed. Rs. Evid. 702 and 703. [*Defendants will first present proposed findings of fact relating to the male physical advantages over females in competition, and then present proposed findings of fact demonstrating that puberty blockers given at the onset of puberty and after do not eliminate these physical advantages*]

Facts Regarding Male Physical Advantages in Sports Competition

Sex is an Objective Feature

2. Sex is an objective feature that is determined at the moment of conception. (Cantor Decl. ¶¶ 105-107; Brown Decl. ¶ 1, Hilton Decl. ¶ 1.8.)

3. In science, only objective factors matter to a valid definition. (Cantor Decl. ¶ 105; Hilton Decl. ¶ 3.5.)

4. Infants are born male or female, which can be ascertained by chromosomal analysis or visual inspection. (*Id.* ¶¶ 105, 107; Hilton Decl. ¶ 3.1-3.2.)

5. More than 6,500 protein-coding genes have significant Sex Differential Expression in at least one gene. (Brown Decl. ¶ 5.) *See also* Blade Decl. at 6:4-15.

Biological Males Have Physical Performance Advantages Over Females

6. Males have physiological differences from females that cause males to "substantially outperform comparably aged, gifted, and trained" females in athletic competition. (Brown Decl. ¶ 9.)

7. Men are stronger. Men have 60%-100% greater arm strength than women, 57% greater grip strength, and 25%-60% greater leg strength. (*Id.* ¶¶ 15-16, 20.) As an example of this

difference, an under 20-year-old female who ranks in the 95th percentile for upper body strength can bench press 0.88 kg for every kg of body mass; an under 20-year-old male with the same bench press would be between the 15th and 20th percentile for males. (*Id.* ¶ 19.)

8. Men and boys run faster. Men have a speed advantage of 10%-13% over women for both short sprints and longer distances. (*Id.* ¶ 25.) In just 2017, thousands of boys and men ran faster 400-meter times than three female Olympic champions' personal bests at that distance. (*Id.* ¶ 26.) Boys 15 years old and under have beaten adult female world records in running, jumping, and throwing events. (*Id.* ¶ 28.)

9. Plaintiff Doe wants to try out for the girls' cross-country team. (J. Doe Decl. ¶ 9.) Last year in Arizona 6th grade track and field races, the first-place boy was faster than the first-place girl in all races except one, and the average performance of the top 10 boys was consistently faster than the average performance of the top 10 girls. (Brown Decl. ¶ 110 including chart.)

10. Men and boys jump higher and farther. High school male high jumpers jumped an average of 18% higher than females. (*Id.* ¶ 33.) High school male long jumpers jumped an average of 24% farther than females. (*Id.*)

11. Plaintiff Roe wants to try out for the girls' volleyball team. (M. Roe Decl. ¶ 7.) Research on elite volleyball players found that males jumped an average 50% higher than females during an "attack" at the net and spiked volleyballs 29%-34% harder. (Brown Decl. ¶ 32) (citing Thibeult 2020 at 217, Tonnenssen 2015, Handelsman 2017, Hilton 2021, and Sattler 2015).

12. Men and boys throw, hit, and kick faster and farther. By 12 years old, boys' throwing velocity is between 3.5 and 4 standard deviations higher than girls' throwing velocity. (*Id.* ¶ 36.) The average 17- year-old male can throw a ball farther than 99% of 17-year-old females. (*Id.*)

13. Plaintiff Doe wants to try out for the girls' soccer team. (J. Doe Decl. ¶ 9.) College males kick soccer balls with an average 20% greater velocity than females. (Brown Decl. ¶ 41) (citing Sakamoto 2014).

14. Research shows that at the level of (a) elite, (b) collegiate, (c) scholastic, and (d) recreational competition, men, adolescent boys, or male children, have an advantage over equally

gifted, aged and trained women, adolescent girls, or female children in almost all athletic events. (*Id.* ¶ p. 67.)

15. As noted above, the competitive physical advantages boys experience exists prior to puberty. Large cohort studies of fitness data in typical schoolchildren reveals differences evident from as young as 6 years old, and males can run faster, jump further, complete more push ups and shuttle runs, and have higher grip strength. Young males of 6-7 years old have higher absolute and relative VO2max than female peers. (Hilton Decl. ¶ 7.2) (citing Catley and Tompkinson, 2013, *Normative health-related fitness values for children: analysis of 85,347 test results on 9-17 year-old Australians since 1985,* British Journal of Sports Medicine 47(2): 98-108; Tambalis et al., 2016, *Physical fitness normative values for 6-18 year-old Greek boys and girls, using the empirical distribution and the lambda, mu, and sigma statistical method,* European Journal of Sport Science 16(6): 736-746; Eiberg et al., *Maximum oxygen uptake and objectively measured physical activity in Danish children 6-7 years of age: the Copenhagen school child intervention study,* British Journal of Sports Medicine 39(10): 725-730).

16. Prepubertal male physical competitive advantage is apparent in international records in multiple track and field event from both males and females from the ages of 5-16 years old. (*Id.* ¶¶ 7.5-7.8, 7.13-7.14) (citing international age records http://age-records.125mb.com).

17. Prepubertal male physical competitive advantage is also apparent in junior records from 8-16 years old from USA Track and Field and the US Amateur Athletics Union. These datasets confirm the results obtained from international records: 1. Male advantage over female peers is evident across track and field events from 8 years old onwards; 2. Males systematically outperform their female peers from 8 years old at a frequency that is extremely unlikely to result from chance. (*Id.* ¶ 7.15) (citing https://aautrackand field.org/Results).

18. Records from the *President's Council on Physical Fitness and Sports* (1985) demonstrate the same advantage for pre-pubertal boys. Comparing that data for 6, 7, and 8-year old boys against girls of the same ages shows very significant advantages in upper-body performance measures for boys. (Blade Decl. at 6:22-7:14) (citing https://eric.ed.gov/?id=ED291714 (Appendix A, pages 56-57).

19. The same records also demonstrate the same advantage for pre-pubertal boys in the mile run, long jump, 50-yard dash, shuttle run, and (excluding 6-year olds) sit-ups. (*Id.*, at 7:15-9:12.)

20. Records from the 2022 AAU National Championship Jr. Olympics show similar results. Those records show 8-year-old boys beating 8-year-old girls in 100-meter dash, 200-meter dash, 1500 meter run, long jump, and shot put. (*Id.* at 9:13-9:26) (citing http://image2.aausports.org/sports/athletics/results/2022/jogames/jogamescompleteresults.htm).

21. Records from the local Arizona middle-school competitions demonstrate the same advantage for prepubertal boys. Kyrene School District Track and Field Championship, held in April 2023 demonstrated this advantage in every event. The probability that the male "win" frequency would occur by chance are extremely low. (Hilton Decl., ¶ 7.17) (citing https://www.athletic.net/TrackAndField/meet/486419/results/all).

22. Records from the Kyrene Aprende Middle School Track and Field meet held July 2022, support the same conclusion regarding male physical competitive advantage. Boys won every event with the exception of the shot put. Again, the probability that the male "win" frequency would occur by chance is very low. (*Id.* ¶ 7.20) (citing https://www.kyrence.org/Page/55102).

23. Collectively, these international, national and state analyses of track and field performances in male and female schoolchildren demonstrate that sex differences in athletic performance exist even before puberty.

24. Dr. Shumer admitted that "the data Dr. Hilton relies on shows that there is a small difference in performance between prepubertal non-transgender boys and prepubertal non-transgender girls." *See* Second Rebuttal Decl. of Daniel Shumer, M.D., in Further Support of Mot. for Prelim. Inj., Doc. 113, ¶ 21. Dr. Shumer continues by arguing, "[t]here is no reliable basis for Dr. Hilton to attribute those small differences to physiology or anatomy instead of other factors, such as greater societal encouragement of athleticism in boys, greater opportunities for boys to play sports, or different preferences of the boys and girls surveyed." *Id.*; *see also id.* at ¶ 24 (same).

25. While Dr. Shumer describes such differences as negligible, small differences in performance often determine who wins and loses in sports competition. Dr. Shumer has never studied sports performance in transgender people, as either a primary researcher or as an expert reviewer of the subject. Dr. Shumer's observations are limited to his medical office and are not informative of the competitive advantage evident on the playing field.

26. Dr. Shumer has admitted multiple times that small physiological differences exist between boys and girls. *Id.* at ¶¶ 21, 24, 47 ("small average difference in lung capacity"), 51 ("some of the studies show small physiological differences between prepubertal boys and girls"); 53 ("the small differences found by these studies"); *see also* Rebuttal Decl. of Daniel Shumer, M.D., in Further Support of Mot. for Prelim. Inj., Doc. 65-2, ¶¶ 10 ("While some studies have found small differences between the performance of boys and girls with respect to some discrete activities, ..."); 13 ("Dr. Brown relies primarily on demographic data from physical fitness tests or athletics in which there is a small difference in performance between prepubertal non-transgender boys and prepubertal non-transgender girls.").

27. Dr. Shumer notes that "Two of the [prepubertal] studies cited by Dr. Hilton are also cited in paragraph 6 of the legislative findings of Arizona's statute." Second Rebuttal Decl. of Daniel Shumer, M.D., in Further Support of Mot. for Prelim. Inj., Doc. 113, ¶ 21 n.1 (citing S.B. 1165, 55th Leg., 2d Reg. Sess. (Ariz. 2022), § 6). Plaintiffs' experts do not contest or even mention these two studies, by Konstantinos Tambalis et al. and by Mark J Catley & Grant R Tomkinson, which the Arizona legislative findings describe in the following manner: "In studies of large cohorts of children from six years old, '[b]oys typically scored higher than girls on cardiovascular endurance, muscular strength, muscular endurance, and speed/agility, but lower on flexibility." S.B. 1165, 55th Leg., 2d Reg. Sess. (Ariz. 2022), § 6.

28. Prepubertal males' physical competitive advantage is further evidenced by the observational study of Dr. Linda Blade, Ph.D in Kinesiology, a coach and teacher with more than 30 years experience teaching and observing prepubertal boys and girls on the playing field. Plaintiffs did not present similarly-credentialed expert evidence to address, let alone refute, Dr. Blade's professional conclusions based on her decades of observations on the playing field.

Biological Males Have Large Physiological Differences From Females Both Before and After Puberty

29. Scientists have identified and measured a number of physiological differences between biological males and females. (Brown Decl. ¶ 46.) These physiological differences lead to athletic performance differences. (*Id.*)

30. Men are taller. Based on data from 20 countries, the 50th percentile for body height for women is five inches shorter than the 50th percentile for body height for men. (*Id.* ¶ 47.). Viewed another way, a woman in the 95th percentile for body height would be less than a quarter-inch taller than a man in the 50th percentile. (*Id.*); (Hilton Decl., ¶ 4.4) (citing Gilsanz et al., 1997, *Differential Effect of Gender on the Sizes of the bones in the Axial and Appendicular Skeletons,* Journal of Clinical Endocrinology and Metabolism 82(5): 1603-1607).

31. Men have larger, longer, and stronger bones. Men are 7% to 8% taller than women, with an average of 10% more bone. (Brown Decl. ¶¶ 51, 53) (citing Handelsman 2018 at 818; Knox 2019 at 397). Research has found that men have "distinctively greater bone size, strength, and density than do women of the same age." (*Id.* ¶ 50.)

32. Men have much larger muscle mass. In the arms, women have 50%-60% of men's upper arm muscle cross-sectional area and 50%-60% of men's upper limb strength. (*Id.* ¶ 58.) In the legs, women have 65%-70% of men's thigh muscle cross-sectional area and 60%-80% of men's leg strength. (*Id.*) Young men average a skeletal muscle mass that is >12kg greater than age-matched women at any given body weight. (*Id.*)

33. Men also have other physiological advantages that manifest in sports. Men have a larger lung capacity and a greater cross-sectional area of the trachea. (*Id.* ¶ 68.) Men also can absorb more oxygen in the blood and have a 10% greater average maximal oxygen transfer. (*Id.* ¶¶ 69-70.)

34. The average female heart size is 85% that of a male, resulting in men pumping 30% more blood through their circulatory system. (*Id.* ¶ 71.)

35. This research shows that biological male physiology is the basis for the performance advantage that men, adolescent boys, or male children have over women, adolescent girls, or female children in almost all athletic events. (*Id.* p. 84.)

36. Before puberty even begins, boys have physiological advantages over girls. These advantages begin at birth: infant boys at birth and at five months have larger total body mass, body length, and fat-free mass and lower-percent body fat than infant girls. (Brown Decl. ¶ 79.)

37. Boys ages 3-8 years old have significantly less fat, lower percentage body fat, and higher bone-free lean tissue. (*Id.*)

38. Pre-pubertal boys in one study had more muscle mass, less fat mass, and performed better than girls on tests of countermovement jump, handgrip strength, and 20 m shuttle run. (Brown Rebuttal Decl. ¶ 25.b) (citing Manano-Carrasco et al. 2022).

39. Boys aged 6-11 years old in another study performed better than girls on tests of Cardiorespiratory fitness, muscular endurance, and speed. (*Id.* ¶ 25.d.)

40. From ages 7 to 17, boys have a higher aerobic power output based on heart rate, allowing boys to run, bike, or swim faster than similarly aged girls. (Brown Decl. ¶ 80.)

41. These physiological differences result in competitive advantages before, during, and after puberty.

42. In a study of children ages 3 to 5, boys at each age level consistently performed better than girls in tests of catching, standing long jump, tennis ball throw, and speed run. (Brown Rebuttal Decl. ¶ 25.e.)

43. In a study of children ages 2.8 to 6.4, boys outperformed girls in the 20 m shuttle run, handgrip strength, standing long jump, and 4 x 10 m shuttle run. (*Id.* ¶ 25.c.)

44. Boys ages 8 and under have faster record times than girls at all track and field distances according to records of the USA Track & Field organization. (Brown Decl. ¶ 107.)

45. According to nationwide results from Athletic.net over the years 2017-2021, the top 10 boys ages 7-8 and 9-10 ran faster than girls of the same ages and jumped higher and farther than the girls in 100m, 200m, 400m, 800m, 600m, high jump and long jump by 3-10% in every event every year. (Brown Rebuttal Decl. ¶ 31.)

46. According to another study, a nine-year-old boy in the 50th percentile will run faster in the final stage of a 20-meter shuttle run than the average of a 9 through 17-year-old girl in the 50th percentile. (Brown Decl. ¶ 95.)

47. Boys aged 11 to 15 in the 50th percentile also ran the mile 14.7% and 24.2% faster, respectively, than girls of the same age in the 50th percentile. (*Id.* ¶ 89.)

48. Boys throw harder than girls by 1.5 standard deviations as young as ages four to seven, meaning the average four- to seven-year-old boy can out-throw 87% of girls his age. (*Id.* ¶ 106.)

49. Boys also jump higher and farther than girls their age and girls older than their age. (*Id.* ¶¶ 99, 103-104.)

50. Boys under 10 years old consistently swim faster than girls under 10 years old, according to The Motivational Times from USA Swimming. (Brown Rebuttal Decl. ¶ 32.)

51. The differences in physical fitness between males and females before and after puberty predispose males to a winning performance if they were to compete against females of the same age who have the same training and sports background. (*Id.* ¶ 34.)

52. Because of this research, many sports organizations have revised their policies on transgender athletes or are in the process of doing so. (Brown Decl. p. 84)

Facts Regarding Puberty Blockers and Testosterone Suppression

53. Sex differentiation is initiated in utero by the presence or absence of a gene called SRY, typically carried on the Y chromosome, and triggering bipotential gonad development into testes or ovaries in males or females, respectively. The developing gonads, in conjunction with other tissues, establish sex-specific hormonal milieu that, in concert with hormones produced elsewhere, are involved in ongoing male or female physical development. (Hilton Decl. ¶ 5.1.)

54. Analysis of sex-specific genetic architecture in adults reveals some 6,500 differences in gene expression, likely to influence development and function outside of hormone effects. Indeed, that "every cell has a sex" dependent on genetics and independent of hormones is recognised and increasingly of scientific interest. (*Id.* at ¶ 5.2.)

55. A key hormone generating physical differences between males and females is testosterone. Males are exposed to testosterone at three stages of development: 1. in utero; 2. in the post-natal 'minipuberty' period; and, 3. during classic puberty. Thus, there is an ongoing

pattern of differential exposure to testosterone during the development of males and females. (*Id.* at ¶ 5.3.)

56. In utero, testosterone and derived dihydrotestosterone (DHT) are involved in the development of male reproductive anatomy. Testosterone is primarily produced by the male testes. Testosterone promotes the formation of the vas deferens and other male internal genital structures, while DHT is necessary for the development of the penis and prostate gland. The effect of testosterone on somatic development in utero does not appear to be meaningful, and sex differences in fetal size appear unrelated to hormones but related rather to the sex-specific genetics of maternal-placental interactions with a male fetus, which affect, for example, nutrient exchange. (*Id.* at ¶ 5.4)

57. In the post-natal minipuberty period between 1 week to 6 months of age, transient activation of the hypothalamic-pituitary-gonadal axis means males are exposed to a corresponding burst of testosterone. This burst of testosterone supports male penis and testes growth, and is associated with higher growth velocity in the first six months of life, higher weight gain, lower acquisition of body fat and lower body mass index. The transient exposure to testosterone in minipuberty is an excellent candidate to explain the well-established structural differences between males and females in childhood. (*Id.* at ¶ 5.5.)

58. At puberty, males experience levels of testosterone up to 20 times greater than in females, driving development during the ensuing teenage years of male secondary sex characteristics. The effects of testosterone on male somatic growth during puberty are well-established. (*Id.* At 5.6.)

Puberty Suppression in Prepubertal and Early Pubertal Males

59. Biological boys may take social, pharmaceutical and/or surgical steps to be perceived and treated as if they were female. Early pharmaceutical interventions in transgender girls may involve blocking male puberty via GnRH agonists ("puberty blockers"), administered after the onset of puberty (at least Tanner stage 2; in male children, the appearance of pubic hair, increase in testicular volume and reddening of scrotum skin). This is typically followed by a regime of cross-sex hormones from 16 years old. (*Id.* at ¶ 9.2.)

60. When prescribed as above, puberty blockers do not, by definition, block the entirety of male puberty. They do not block any hormone-derived pre-puberty effects on male development. They are unlikely to interfere with genetic effects on male development. (*Id.* at ¶ 9.5.)

61. Plaintiffs have presented no clinical studies or research papers of any kind demonstrating that medical interventions to suppress male puberty eliminate the pre-existing physiological and performance advantages males have over females prior to puberty.

62. Nor have Plaintiffs presented any clinical studies that transgender girls whose male puberty is suppressed at or near the onset of male puberty have no physical competitive advantages over girls in sports.

63. On the other hand, Defendants have presented clear evidence that transgender girls whose male puberty was suppressed at or near the onset of male puberty retain significant physiological advantages over girls that result in such individuals posing an increased risk of injury, and unfairness, to female athletes.

64. Transgender girls who have had their male puberty medically suppressed retain an undiminished height advantage over females. In a study of data collected over 46 years, researchers concluded that "although P[uberty] S[upression] and [cross-sex hormones] alter the growth pattern, they have little effect on adult height." In other words, natal males who followed a normal course of puberty suppression followed by cross-sex hormone therapy reach an adult height at or near their predicted height in the absence of such therapy. (Brown Decl. ¶¶ 124-125; Hilton Decl., ¶ 11.2) (citing Boogers et al. *Trans girls grow tall: adult height is unaffected by GnRH analogue and estradiol treatment* (2022) Journal of Clinical Endocrinology and Metabolism, Epub ahead of print, PMID: 35666195).

65. Height is a physiological advantage that relates to a performance advantage in many sports that involve jumping in order to reach higher than one's opponents, such as basketball and volleyball, two sports in which Plaintiffs here seek to compete against girls.

66. Height is also related to leg length, which in turn is related to running speed. Running speed is important in many sports including soccer and cross country, two additional sports in which Plaintiffs here seek to compete against girls.

67. Nor does medical suppression of male puberty eliminate the difference in lean body mass between biological male and female teenagers. Subsequent use of puberty blockers combined with cross-sex hormone use (in the same subjects) still did not eliminate the differences in lean body mass between biological male and female teenagers. By 22 years of age, the use of puberty blockers, and then puberty blockers combined with cross-sex hormones, and then cross hormone therapy alone for over 8 total years of treatment had not eliminated the difference in lean body mass between biological males and females. (Brown Decl. ¶ 118; Hilton Decl. ¶ 11.3) (citing Klaver et al., *Early Hormonal Treatment Affects Body Composition and Body Shape in Young Transgender Adolescents*, (2018) Journal of Sexual Medicine 15(2): 251-260).

68. Higher lean body mass is a physiological and performance advantage in sports. Puberty-suppressed males retain that performance advantage over females in sports.

69. Nor does medical suppression of male puberty eliminate the difference in muscle strength between boys and girls. In 21 transgender-identifying biological males, administration of antiandrogens for 5-31 months (commencing at 16.3 ± 1.21 years of age), resulted in nearly, but not completely, halting of normal age-related *increases* in muscle strength. Muscle strength did not decrease after administration of antiandrogens. Rather, despite antiandrogens, these individuals retained higher muscle mass, lower percent body fat, higher body mass, higher body height, and higher grip strength than comparable girls of the same age. (Brown Decl. ¶¶ 117, 138; Hilton Decl., ¶ 11.3) (citing Tack et al., *Proandrogenic and Antiandrogenic Progestins in Transgender Youth: Differential Effects on Body Composition and Bone Metabolism,* (2018) Journal of Clinical Endocrinology and Metabolism 103(6): 2147-2156).

70. Higher muscle mass, lower body fat, higher body mass, higher body height, and higher grip strength are competitive advantages in sports. Puberty-suppressed males retain those performance advantages over females in sports.

71. Another study found teenage natal males who identified as female (average of 13.7 ± 1.7 years) and who were on puberty blockers for an average of 11.3 ± 7 months, had numerically higher percent lean body mass and lower percent body fat than the comparison group of natal females. (Brown Decl. ¶ 119.)

72. Another study found that teenage natal males who identify as female (average of 15.4 ± 2.0 years) had 9.5 kg more lean body mass than did teenage natal females (15.2 ± 1.8 years) who identified as male. After 355.2 ± 96.7 days of puberty blockers the natal males who identified as female still had 5.7 kg more lean body mass than did the natal females who identified as male even though the natal males lost 2.57 kg lean body mass and the natal females gained 1.21 kg lean body mass. (Brown Decl. ¶ 121).

73. Puberty blockers and cross-sex hormone use did not decrease muscle strength, eliminate differences in lean body mass, or change growth rates in biological males. (Brown Decl., ¶¶ 117-125) (citing Nokoff et al. 2020).

74. The Court finds that Plaintiffs have presented no research demonstrating that transgender girls who received puberty blockers at the onset of, or during, puberty have no meaningful physical competitive advantages over girls in sports.

75. The Court finds that Defendants have presented significant research demonstrating that transgender girls who received puberty blockers at the onset of, or during, puberty retain meaningful physiological advantages over girls and that those physiological advantages are directly related to competitive advantage in sports, including height, strength, and lean-body-mass advantages.

Medical Interventions in Post-Pubertal Males

76. Transgender women may take social, pharmaceutical and/or surgical steps to be perceived and treated as if they were female. In adulthood, transgender women may opt for testosterone suppression (for example, via gonadotropin-releasing hormone [GnRH] agonists, spironolactone or cyproterone acetate) then/or surgical removal of the testes; both of these interventions have the effect of lowering testosterone levels to those of females and reducing the

functional or visual impact of male physical characteristics. Estrogen supplementation typically promotes feminisation of, for example, breast tissue. (Hilton Decl. at ¶ 9.1.)

77. In 2020, a study reviewed peer-reviewed published longitudinal changes in muscular and skeletal metrics in transgender women suppressing testosterone in adulthood for a minimum of 12 months. Having reviewed measures of bone density, lean body mass, muscle mass and strength tests, the authors identified a unified consensus in original studies covering approximately 800 transgender women that skeletal metrics like height and bone length were unaffected, bone mass was preserved, and muscle mass and strength was decreased by 4% over 12 months of testosterone suppression. Within this dataset, compared with female control cohorts, higher muscle mass/strength values—between +13-41%—were maintained for at least three years after testosterone suppression (the limit of current longitudinal studies). (*Id.* at ¶ 10.2.)

78. These observations were subsequently reinforced by a systematic review of the same dataset published by another group later in 2021, which concluded that, in transgender women, "hormone therapy decreases strength, [lean body mass] and muscle area, yet values remain above that observed in cisgender women, even after 36 months. These findings suggest that strength may be well preserved in transwomen during the first 3 years of hormone therapy." (*Id.* at ¶ 10.3.)

79. To gain an overall picture of the baseline metrics and effects on muscle mass and strength in transgender women pre- and post- at least 12 months of testosterone suppression, Dr. Emma Hilton compared pre- and post- metrics for transgender women across the dataset with data from control males and females. Original study metrics were converted to relative percentages, with pre-suppression metrics in transgender women set at 100%. The 4% reduction in muscle mass and strength in transgender women pre- and post- at least 12 months of testosterone suppression was not statistically significant. The difference between transgender women and control males was statistically significant, with transgender women pre- and post- at least 12 months of testosterone suppression deviating from control males by -7% and -11%, respectively. The difference between transgender women and females is also statistically significant; transgender women pre- and post- at least 12 months of testosterone suppression deviate from

control females by +35% and +30%, respectively. It appears that for metrics of muscle mass and strength, transgender women remain within 'male range'. (*Id.* at ¶ 10.4.)

80. There are three significant cross-sectional studies of physical metrics in transgender women suppressing testosterone. The first found that transgender women, after an average of 8 years of suppressed testosterone, had a lean body mass in the 90th percentile for females, and grip strength that remained 25% higher than the female reference value. The second, in transgender women suppressing testosterone for just over 3 years, showed that those transgender women had a mean lean body mass 18% higher than the mean in control females. The third found that transgender women suppressing testosterone for over 14 years retained higher cardiopulmonary capacity metrics and higher hand grip strength than female controls. (*Id.* at ¶ 10.5.)

81. Biological males undergoing testosterone suppression still had greater grip strength, leg strength, and faster running and swimming speed. (Brown Decl. ¶¶ 135-162.)

82. Testosterone suppression also did not reverse male physiological competitive sports advantages like longer and larger bones, lung and heart size, and muscle mass. (*Id.* ¶¶ 163-178.)

Facts Regarding Incidents of Transgender Athletes Dominating Female Athletes

83. Incidents of male-bodied transgender athletes dominating the female athletes in physical competition—including some of the best female athletes on the planet—have been widely reported in the media in recent years.

84. Incidents of male-bodied transgender athletes injuring female athletes have also been widely reported in recent years.

85. Media articles report that transgender woman Lia Thomas had previously competed as a male swimmer on the University of Pennsylvania men's swim team from 2017 to 2020. When Thomas competed in the 500-yard freestyle on the men's swim team, Thomas was 65th in the country in that event. Thomas then transitioned and competed on the University of Pennsylvania's women's swim team from 2021 to 2022. In March 2022, Thomas won the national championship in the women's 500-yard freestyle event, meaning that Thomas was faster than every female collegiate swimmer in the country. (Samarveer Singh, *What Rank Did Lia Thomas Stand at While Competing in Men's Swimming Division,* Essentially Sports (March 22, 2022).

86. Media articles report that Selina Soule was a dedicated high school track athlete in Connecticut who had devoted countless days, nights, and weekends training to shave fractions of a second off her race times. Selina trained to win and deserved a fair opportunity to prove her ability. However, after the Connecticut Interscholastic Athletic Conference allowed male-bodied transgender athletes to compete on their girls' high school track team, two transgender athletes won 15 state titles that were previously held by nine different girls in 2016. After months of training for the 55-meter dash, Selina was one spot away from qualifying for the final race and to compete for a spot in the New England regional championships, where college scouts would be in attendance to determine which athletes should be offered sports scholarships. Two male-bodied transgender girls took first place and second place in the race, depriving Selina of the opportunities that otherwise would have been available to her. (Maureen Collins, *Why Male Athletes Who Identify as Transgender Should Not Compete in Women's Sports*, adflegal.org (September 23, 2022, revised March 10, 2023).

87. Hannah Arensman, a former Cyclocross National Champion recently retired from her cycling career because she was being forced to compete against, and lose to, male-bodied transgender athletes. She stated, "At my last race at the recent UCI Cyclocross National Championships in the elite women's category in December 2022, I came in 4th place, flanked on either side by male riders awarded 3rd and 5th places . . . it is difficult for me to think about the very real possibility that I was overlooked for an international selection on the US team as Cyclocross Worlds in February 2023 because of a male competitor." (March 9, 2023 Brief of 67 Female Athletes, Coaches, Sports Officials, and Parents of Female Athletes, As *Amici Curiae* in Support of Applicants in The State of West Virginia, Lainey Armistead v. B.P.J. by Next Friend and Mother, Heather Jackson).

88. After a nine-month review and consultation, British Cycling recently banned transgender women from the female category in recognition of the unfair advantage transgender women have over natal women. (Dan Roan, *British Cycling to ban transgender women from competing in female category*, bbc.com (May 26, 2023)).

Facts Regarding Incidents of Transgender Athletes Injuring Female Athletes

89. The physiological differences between males and females are relevant to safety for female athletes. Because men are taller and heavier, they bring more force to bear in a collision. (Carlson Decl. ¶ 43.)

90. Because men are faster, they will be moving at faster speed at impact, causing a greater impact force. (*Id.* ¶ 46.)

91. Because men are stronger, they can generate larger forces with their arms and upper body in the form of ball velocity, pushing power, or punching power. (*Id.* ¶¶ 50-56.)

92. The greater force generated by males will strike female athletes with more energy than normal. For example, men spike volleyballs 29%-34% harder than females and can serve volleyballs 30% harder. (*Id.* ¶ 52.) A volleyball traveling 35% faster will deliver 82% more energy to a head upon impact. (*Id.* ¶ 53.) Because men have a 50% greater vertical jump during a volleyball "attack," female athletes will likely be exposed to higher ball velocities that are outside the range of what is typically seen in women's volleyball. (*Id.* ¶¶ 54-55.)

93. Similarly, males kick soccer balls 20% harder, which will deliver 44% more energy on head impact. (*Id.* ¶ 56.)

94. The increased force increases concussion injury risk. (*Id.* ¶¶ 58-69.) Females already are more likely than males to suffer concussions in sports: 79% higher in soccer, 31% higher in basketball, and 320% higher in softball/baseball. (*Id.* ¶¶ 58, 61.) On average, females also suffer more severe and longer lasting disability once a concussion does occur. (*Id.* ¶ 58.) Females who suffered concussions had a 170% higher frequency of cognitive impairment following the concussion than males. (*Id.* ¶ 64.) The addition of biologically male athletes into women's contact sports will inevitably increase the risk of concussive injury to girls and women. (*Id.* ¶ 69.)

95. Male participation in female sports also increases the risk to female athletes of an Anterior Cruciate Ligament (ACL) tear. (*Id.* ¶¶ 70-78.) Female athletes have a 150%-300% increased risk for ACL injury compared to male athletes. (*Id.* ¶ 72.) Contact causes 20%-36% of all female ACL injuries. (*Id.* ¶ 77.) Thus, as participation in the female category based on identity rather than biology becomes more common (entailing the introduction of athletes with

characteristics such as greater speed and lean muscle mass), and as collision forces suffered by girls and women across the knee increase accordingly, the risk for orthopedic injury and in particular ACL tears among impacted girls and women will inevitably rise. (*Id.*)

96. This research demonstrates that in contact or collision sports, sports involving projectiles, or sports where a stick is used to strike something, the physics and physiology reviewed above tell us that permitting male-bodied athletes to compete against, or on the same team as females—even when undergoing testosterone suppression—must be expected to create predictable, identifiable, substantially increased, and unequal risks of injuries to the participating women. (*Id.* p. 52.)

97. With regard to injuries in volleyball (a sport in which one of the plaintiffs in this action seeks to compete against girls), media articles have reported that high school volleyball player Payton McNabb suffered a concussion and neck injury in September 2022 when a male-bodied transgender athlete spiked the ball into her face. She testified before the North Carolina legislature that her "life has forever been changed" as she still struggles with the side effects of her injuries, including impaired vision, partial paralysis of the right side of her body, headaches, anxiety and depression. (*High School Volleyball Player Payton McNabb Urges Ban on Transgender Athletes After Serious Injury,* Marca.com (April 21, 2023).

98. Similarly, in soccer (a sport in which one of the plaintiffs in this action seeks to compete against girls), news articles have recently reported that a male-bodied transgender athlete injured a female player during a semi-professional women's league game in Australia. The transgender player's aggressive shoulder check sent the female player to the ground where she lay unmoving and was unable to train for some days. The transgender play had allegedly injured female players in the league before according to other media reports. (*WATCH: Transgender Soccer Player Injures Female Opponent*, freebeacon.com (June 1, 2023) https://freebeacon.com/latest-news/watch-transgender-soccer-player-injures-female-opponent/); (*Fed up parents erupt over trans woman football player who it the league's top goal scorer: 'Totally unfair?*' dailymail.co.uk (April 4, 2023); (Shay Woulahan, *Thousands of Complaints*

Filed After Trans YouTuber Allowed to Play on Women's Football League, Reportedly Injured Players, redux.info (April 1, 2023).

99. It has been reported that at the high school level, a male-bodied transgender rugby player injured three female players during a single match. The coach of the injured girls reportedly stated that the transgender athlete's "body size, strength . . . completely dominate any girl that I have on my team" and "I have three players that were injured in that first game against Guam High directly by that particular player." (Luke Gentile, *WATCH: Transgender rugby player slams female athletes, coach says three injured,* washingtonexaminer.com (April 14, 2022).

100. It has also been publicly reported that a male-bodied transgender hockey player recently caused serious and possibly permanent injury to a biological female player when the larger, heavily-muscled player collided with the smaller opponent. One reporter described the incident, noting "the size imbalance between the two skaters was so great that the [far smaller] Team player ended up being propelled headfirst into the boards with enough force to deliver a concussion." (Holt Hackney, *Professor Maintains that Trans Athletes Causing Serious Injuries to Girls,* sportslawexpert.com (December 12, 2022).

101. News articles also report that male-bodied transgender mixed martial artist Fallon Fox broke the skull of her opponent Tamikka Brents who later remarked "I have struggled with many women and I have never felt the strength I felt in a fight like that night…I've never felt so overpowered ever in my life. . . . I could usually move around in the clinch against… females but couldn't move at all in Fox's clinch." (Laura Meyers, *Transgender MMA Fighter Destroys Female Opponent,* thelibertarianrepublic.com.

102. In addition to the risks of physical injury, girls who are forced to compete against biological boys experience negative social and emotional impacts, including becoming intimidated and withdrawing from the competition, which deprives many such girls of the social, emotional, physical and mental health benefits of sports competition. (Blade Decl. at 11:24-12:18). *See also* sworn evidence regarding female athletes quitting when faced with unfair competition from transgender women. (March 9, 2023 Brief of 67 Female Athletes, Coaches, Sports Officials, and Parents of Female Athletes, As *Amici Curiae* in Support of Applicants in

The State of West Virginia, Lainey Armistead v. B.P.J. by Next Friend and Mother, Heather Jackson).

Facts Regarding the Save Women's Sports Act, A.R.S § 15-120.02

103. In light of growing concerns regarding fairness and safety in girls' and women's sports, the Arizona Legislature passed A.R.S. § 15-120.02, the Save Women's Sports Act (the "Act"), which was signed into law on March 30, 2022.

104. The Save Women's Sports Act applies to all public schools or private schools whose students or teams compete against a public school. A.R.S. § 15-120.02(A). The Act covers all educational age levels, applying from kindergarten through grade twelve and to all institutions of higher education. *Id*. at § 15-120.02(I).

105. In relevant part, the Save Women's Sports Act provides that athletic teams at public schools (and private schools whose teams compete against public school teams) shall designate each team or sport as a "males", "men", or "boys" team or sport, or as a "females", women", or "girls" team or sport, or as a "coed" or "mixed" team or sport. *Id.* at § 15-120.02(A) The Act provides that "[a]thletic teams or sports designated for 'females', 'women' or 'girls' may not be open to students of the male sex." *Id.* at § 15-120.02(B).

106. Arizona Senate President Warren Petersen described the purposes of the Save Women's Sports Act as protecting female student athletes: "Female athletes deserve equal opportunities in sporting events, which will not happen so long as males are allowed to compete against them." (Gloria Rebecca Gomez, *Top Arizona Republicans ask to defend trans athlete ban in court,* TucsonSentinel.com (May 2, 2023)).

107. Representative Nancy Barto, who introduced the bill, similarly described the purpose of the Save Women's Sports Act: "Women are being displaced in their own sport. The Playing field is no longer level." (Sophie Lewis, *Arizona House passes bill banning transgender student athletes from participating in girls sports,* CBSNews.com (March 4, 2020)).

108. When the Arizona Senate passed S.B. 1165 (the precursor to A.R.S. § 15-120.02), the Arizona legislature made a series of legislative findings consistent with the research presented

above: that inherent, physiological differences between biological males and females create a "sports performance gap" between males and females. S.B. 1165, § 2(1), (5), (7), and (9) (2022).

109. The legislature further found that "[h]aving separate sex-specific teams furthers efforts to promote sex equality by providing opportunities for female athletes to demonstrate their skill, strength and athletic abilities while also providing them with opportunities to obtain recognition, accolades, college scholarships and the numerous other long-term benefits that flow from success in athletic endeavors." *Id.* at § 2(14).

110. The Arizona legislature made 14 separate findings when it passed the Save Women's Sports Act. S.B. 1165, § 2 (2022). These findings relate to biological sex and physiological differences between men and women, not transgender status. *See id.*

111. The legislature found a "sports performance gap between males and females, such that the physiological advantages conferred by biological sex appear, on assessment of performance data, insurmountable." S.B. 1165, § 2(9)(2022) (internal quotation omitted).

112. The legislature also cited court decisions and studies finding that the physiological difference between males and females resulted in different athletic capabilities. *Id.* at S.B. 1165, § 2(4)-(13).

113. Based on this evidence, the legislature concluded: "Having separate sex specific teams furthers efforts to promote sex equality by providing opportunities for female athletes to demonstrate their skill, strength and athletic abilities while also providing them with opportunities to obtain recognition, accolades, college scholarships and the numerous other long-term benefits that flow from success in athletic endeavors." *Id.* at § 2(14).

114. Defendants Petersen, Toma, and Horne assert that if the Save Women's Sports Act were enjoined, the State of Arizona would be at risk of lawsuits filed by girls and women unfairly forced to compete against, and potentially be injured by, male-bodied transgender athletes.

115. Defendants Petersen, Toma, and Horne further assert that if the Save Women's Sports Act were enjoined, female athletes in Arizona Schools will be unfairly denied the opportunity to fully demonstrate and prove their prowess as female athletes (including being denied the opportunity to win or place in sports competition and being denied scholarship and

educational opportunities), being denied the privacy to be free of unclothed male bodies in the locker room, and being placed at unreasonable and unnecessary risk of physical injury from male-bodied transgender athletes.

116. Plaintiffs complain about the harm they perceive in being precluded from participating on girls' teams in school sports. But, necessarily, every time a biological boy/transgender girl joins a limited-participation girls team, they deprive a biological girl of the opportunity to compete and win. And every time a transgender girl wins or places in an individual event, a biological girl is excluded.

117. Until very recently, everyone agreed sports could be separated by sex. As the Supreme Court has recognized, "[t]he two sexes are not fungible" and there are "inherent differences" between the sexes that are "enduring." *U.S. v. Virginia*, 518 U.S. 515, 533 (1996).

118. Nowhere are these differences more evident than in the sports context where biological boys have a clear advantage over girls. That is precisely why Title IX was enacted 51 years ago, to create a level playing field where girls would have their own teams where they can compete fairly and safely and become champions.

119. Title IX has been transformative for female athletes, with many obtaining educational and career opportunities previously denied them.

120. It is only in recent years where biological boys seek to compete on girls' teams, that the separation of sex in sport was upended along with the hard-fought benefits of Title IX.

Facts Regarding Plaintiffs and Their Claims In This Lawsuit

121. Plaintiffs in this case are two students who identify as girls. Plaintiff Jane Doe is 11 years old, and Plaintiff Megan Roe is 15 years old. Dkt. 1 at ¶¶ 7-8.

122. Jane Doe will attend middle school starting in July 2023. Cmplt. ¶ 44. Jane was recently prescribed a puberty blocking implant, which her parents intend to have medically implanted as soon as possible. Dkt. 97.

123. Jane intends to try out for the girls' soccer team at her middle school—which has separate teams for boys and girls—in the winter 2023-2024 athletic season. *Id.* ¶ 49. Jane also

intends to try out for the girls' cross-country team in the summer 2023 season, and the girls' basketball team in the spring 2024 season. *Id.* ¶ 50.

124. Megan Roe attends The Gregory School. *Id.* ¶ 56. Megan has been receiving puberty-blocking medication since she was 11 years old, after clinical documentation of the initial signs of puberty. Megan then started to receive hormone therapy when she was 12 years old.

125. Megan intends to try out for the girls' volleyball team at The Gregory School this fall. *Id.* ¶ 63.

126. Separate teams are available to both sexes in the sports in which Plaintiffs want to participate. Plaintiff Doe's school has soccer, basketball, and cross-country teams for both boys and girls. (Decl. of J. Doe, Dkt. 6, ¶ 9.) Plaintiff Roe's school has volleyball teams for both boys and girls. (Decl. of M. Roe, Dkt. 8, ¶¶ 7, 9).

127. Plaintiffs filed suit against Defendants alleging three counts, but seek a preliminary injunction under only two of those counts: Count I – Deprivation of Equal Protection, U.S. Constitution, Amendment XIV, and Count II – Violation of Title IX, 20 U.S.C. § 1681 *et seq.*

CONCLUSIONS OF LAW

I. LEGAL STANDARD

1. "A plaintiff seeking a preliminary injunction must establish [1] that he is likely to succeed on the merits, [2] that he is likely to suffer irreparable harm in the absence of preliminary relief, [3] that the balance of equities tips in his favor, and [4] that an injunction is in the public interest." *Norbert v. City & Cnty. of San Francisco*, 10 F.4th 918, 927 (9th Cir. 2021) (citing *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008)).

2. "[W]here the party seeking a preliminary injunction fails to satisfy any one of the *Winter* factors, the preliminary injunction must be denied." *Video Gaming Techs., Inc. v. Bureau of Gambling Control*, 356 F. App'x 89, 92 (9th Cir. 2009) (internal citation omitted).

3. A preliminary injunction is "an extraordinary and drastic remedy, one that should not be granted unless the movant, *by a clear showing,* carries the burden of persuasion." *Lopez v. Brewer*, 680 F.3d 1068, 1072 (9th Cir. 2012) (quoting *Mazurek v. Armstrong,* 520 U.S. 968, 972 (1997) (per curiam)) (emphasis original).

4. None of the factors support Plaintiffs' request for injunctive relief. Accordingly, Plaintiffs' motion for a preliminary injunction is denied.

II. LIKELIHOOD OF SUCCESS ON THE MERITS

5. "Likelihood of success on the merits is the most important factor; if a movant fails to meet this threshold inquiry, [the court] need not consider the other factors." *California v. Azar*, 911 F.3d 558, 575 (9th Cir. 2018) (internal quotations omitted).

6. Because Plaintiffs have failed to show that they are likely to succeed on either their Equal Protection Clause or Title IX claims, no other factor needs to be considered.

A. Plaintiffs' Equal Protection Claim (Count I)

7. The Act does not mention transgender status. Instead, the Act classifies athletes based on biological sex, a distinction that acknowledges "inherent differences between men and women." *United States v. Virginia*, 518 U.S. 515, 533 (1996); *see also Frontiero v. Richardson*, 411 U.S. 677, 686 (1973) ("sex, like race and national origin, is an immutable characteristic determined solely by the accident of birth").

8. The Act constitutionally classifies on the basis of biological sex.

9. The Act satisfies rational basis review.

10. Even if it applied, the Act satisfies intermediate scrutiny.

11. Plaintiffs are not likely to succeed on the merits of their Equal Protection claim.

1. The Save Women's Sports Act designates sports teams based on biological sex, not gender identity.

12. The Equal Protection Clause is "implicated only when a classification treats persons similarly situated in different ways." *Clark, By & Through Clark v. Arizona Interscholastic Ass'n*, 695 F.2d 1126, 1128 (9th Cir. 1982) ("*Clark I*").

13. "The first step in equal protection analysis is to identify the state's classification of groups." *Country Classic Dairies, Inc. v. State of Mont., Dep't of Com. Milk Control Bureau*, 847 F.2d 593, 596 (9th Cir. 1988).

14. The Save Women's Sports Act classifies based on biological sex, not gender identity, by providing that school athletic teams "shall be expressly designated . . . based on the

biological sex of the students who participate on the team or in the sport . . . ." A.R.S. § 15-120.02(A). "Athletic teams or sports designated for 'females', 'women' or 'girls' may not be open to students of the male sex." *Id.* at § 15-120.02(B). Transgender status is not mentioned. *See id.* The Act thus classifies students by biological sex, not gender identity.

15. This is consistent with the Act's legislative findings. The Arizona legislature made 14 separate findings when it passed the Save Women's Sports Act. *See* S.B. 1165, § 2 (2022). These findings relate to biological sex and physiological differences between men and women, not transgender status. *See id.*

16. States have the ability to classify without violating the Equal Protection Clause. *Pers. Adm'r of Massachusetts v. Feeney*, 442 U.S. 256, 271 (1979). "Most laws classify, and many affect certain groups unevenly, even though the law itself treats them no differently from all other members of the class described by the law." *Id.* at 271-72.

17. Sex is not a "proscribed classification." *United States v. Virginia*, 518 U.S. 515, 533 (1996).

18. "[A] policy can lawfully classify on the basis of biological sex without unlawfully discriminating on the basis of transgender status." *Adams by & through Kasper v. Sch. Bd. of St. Johns Cnty.*, 57 F.4th 791, 809 (11th Cir. 2022) (rejecting equal protection and Title IX claims to school policy requiring students to use bathroom based on biological sex).

19. Numerous courts have rejected equal protection challenges brought by male student athletes who were excluded from female sports teams. *See Clark I*, 695 F.2d at 1131 (affirming dismissal of lawsuit that sought to force state high school athletics association to allow a male to participate on a female high school volleyball team); *Clark By & Through Clark v. Arizona Interscholastic Ass'n*, 886 F.2d 1191, 1193 (9th Cir. 1989) ("*Clark II*") (affirming summary judgment in favor of state high school athletics association that refused to allow a male to participate on a female high school volleyball team); *Kleczek v. Rhode Island Interscholastic League, Inc.*, 768 F. Supp. 951, 956 (D.R.I. 1991) (denying motion for preliminary injunction that sought to force state high school athletics association and school officials to allow a male to participate on a female high school field hockey team); *Petrie v. Illinois High Sch. Ass'n*, 394

N.E.2d 855, 862 (Ill. App. Ct. 1979) (affirming dismissal of lawsuit that sought to force a state high school athletics association and a school district to allow a male to participate on a female high school volleyball team); *B.C. v. Board of Educ., Cumberland Regional Sch. Dist.*, 531 A.2d 1059, 1066 (N.J. Super. Ct. App. Div. 1987) (affirming decision in favor of school district that excluded a male from participating on a female high school field hockey team); *Mularadelis v. Haldane Cent. Sch. Bd.*, 427 N.Y.S.2d 458, 463-64 (N.Y. App. Div. 1980) (reversing decision in favor of male who sought to force a school district to allow him to participate on a female high school tennis team).

20. Plaintiffs concede that "they do not challenge the existence of sex-segregated sports at all." Doc. 65, at 12. Thus, they concede that, as a general matter, Arizona may classify on the basis of sex and exclude boys from girls' sports teams. *See id.*; *Clark I*, 695 F.2d at 1127; *Clark II*, 886 F.2d at 1193.

21. The Save Women's Sports Act does not facially discriminate on the basis of transgender status.

22. Because the Act classifies athletes on the basis of biological sex, both of which can inherently contain transgender students, "there is a 'lack of identity' between the policy and transgender status," since sports options are "equivalent to those provided to all students of the same biological sex." *Adams by & through Kasper*, 57 F.4th at 809 (internal quotation and citations omitted).

23. Classifying by biological sex to protect girls playing school sports is constitutional.

2. The Ninth Circuit has rejected equal protection challenges to Arizona policies preventing boys from playing in girls' sports.

24. In a similar challenge, the Ninth Circuit held an Arizona policy that excluded boys from playing on girls' volleyball teams did not violate the Equal Protection Clause. *See Clark I*, 695 F.2d at 1131-32.

25. The Ninth Circuit found "[t]here is no question" that "redressing past discrimination against women in athletics and promoting equality of athletic opportunity between the sexes . . . is a legitimate and important governmental interest." *Id.* at 1131.

26. The Ninth Circuit then found that excluding boys from girls' sports was substantially related to this interest because "[t]he record makes clear that due to average physiological differences, males would displace females to a substantial extent if they were allowed to compete for positions on the volleyball team." *Id.*

27. The state policy excluding boys from girls' volleyball "is simply recognizing the physiological fact that males would have an undue advantage competing against women for positions on the volleyball team." *Id.*

28. The Ninth Circuit reaffirmed this decision a few years later in a case involving the *Clark I* plaintiff's brother. *Clark II*, 886 F.2d at 1193-94.

29. The *Clark II* plaintiff also brought an equal protection challenge to the Arizona policy prohibiting boys from participating on girls' volleyball teams because his school did not have a boys' volleyball team. *Id.* at 1192. The Ninth Circuit rejected this challenge as well, reasoning that "[i]f males are permitted to displace females on the school volleyball team even to the extent of one player like Clark, the goal of equal participation by females in interscholastic athletics is set back, not advanced." *Id.* at 1193.

30. The *Clark I* and *II* decisions control here.

31. Similar to the Arizona policy challenged in the *Clark* cases preventing boys from playing girls' volleyball, A.R.S. § 15-120.02 prohibits biological boys from playing on teams or sports designated for biological girls.

3. The Act is subject to rational-basis scrutiny.

32. After determining the classification, the next step in equal protection analysis is to determine the level of scrutiny. *Country Classic Dairies, Inc. v. State of Mont., Dep't of Com. Milk Control Bureau*, 847 F.2d 593, 596 (9th Cir. 1988).

33. Plaintiffs contend that Arizona's protected class—biological females—should be *redefined* to include "transgender girls," *i.e.*, biological males who identify as female. Doc. 65, at 1.

34. By not challenging the classification on sex, but instead challenging how Arizona defines sex, Plaintiffs are actually bringing an underinclusiveness challenge. Such a challenge is

subject to rational basis scrutiny. *See, e.g.*, *Jana-Rock Constr., Inc. v. New York Dep't of Econ. Dev.*, 438 F.3d 195 (2d Cir. 2006); *Vazquez v. Walters*, 555 F. Supp. 3d 1034, 1040 (D. Or. 2021), *aff'd*, No. 21-35759, 2023 WL 3073101 (9th Cir. Apr. 25, 2023); *Orion Ins. Grp. v. Washington State Off. of Minority & Women's Bus. Enterprises*, No. 16-5582 RJB, 2017 WL 3387344, at *13 (W.D. Wash. Aug. 7, 2017), *aff'd sub nom. Orion Ins. Grp. v. Washington's Off. of Minority & Women's Bus. Enterprises*, 754 F. App'x 556 (9th Cir. 2018); *Hoohuli v. Ariyoshi*, 631 F. Supp. 1153 (D. Haw. 1986).

35. In *Jana-Rock Construction*, the plaintiffs, Spanish-born contractors, challenged their exclusion from a racial preference program that included only Latin American Hispanics. *Jana-Rock*, 438 F.3d at 205. The contractors conceded that the preference program was valid but argued that it was "fatally underinclusive" in excluding Spanish-born Hispanics. *Id.* Like Plaintiffs here, the contractors accepted the state's classification in general, but sought to redefine it to include an additional subclass. *See id.* Citing *Katzenbach v. Morgan*, 384 U.S. 641 (1966), the Second Circuit rejected this argument, holding that New York's choice of an allegedly "underinclusive" definition of its protected class was subject to rational-basis scrutiny. *Jana-Rock*, 438 F.3d at 212-14.

36. In *Hoohuli*, the plaintiffs, Hawaiian taxpayers, challenged their exclusion from a racial preference program for "Hawaiians." *Hoohuli*, 631 F. Supp. at 1154. The taxpayers acknowledged the preference program was valid but argued "the line the legislature has drawn is incorrect." *Id.* at 1159. The court found Hawaii had a rational basis for its definition of "Hawaiian" and rejected the taxpayers' equal protection claim. *Id.* at 1160-61.

37. Plaintiffs admit that Arizona can classify on the basis of sex in sports teams, but contend that the definition of the protected class Arizona has adopted—*i.e.*, biological girls and women—is underinclusive and must be broadened to include "transgender girls." Doc. 65, at 1. This claim fails unless Arizona's "definition lacks a rational basis." *Jana-Rock*, 438 F.3d at 200.

38. Rational-basis scrutiny also applies because biological girls and biological boys are not similarly situated with respect to athletic performance.

39. As the Arizona Legislature found, "Courts have recognized that the inherent, physiological differences between males and females result in different athletic capabilities." S.B. 1165 (2022), § 2(12) (citing *Kleczek v. Rhode Island Interscholastic League, Inc*., 612 A.2d 734, 738 (R.I. 1992) ("Because of innate physiological differences, boys and girls are not similarly situated as they enter athletic competition.")).

40. "[T]ransgender girls are biologically male," and "biological males are not similarly situated to biological females for purposes of athletics." *B.P.J. v. W. Virginia State Bd. of Educ.*, -- F. Supp. 3d --, No. 2:21-CV-00316, 2023 WL 111875, at *9 (S.D.W. Va. Jan. 5, 2023).

41. For this reason as well, the Act is subject to rational-basis scrutiny at most. *See also L.W. et al. v. Skrmetti et al.,* at 12 (No. 23-5600 (6th Cir. July 8, 2023) ("rational basis review applies to transgender-based classifications," noting that "[i]n the context of a preliminary injunction . . . that should be nearly dispositive" in denying the injunction request).

4. The Act satisfies rational-basis review.

42. Under rational-basis review, the Act "is not subject to courtroom factfinding and may be based on rational speculation unsupported by evidence or empirical data," and Plaintiffs "have the burden to negative every conceivable basis which might support it," *F.C.C. v. Beach Commc'ns, Inc*., 508 U.S. 307, 315 (1993).

43. The Act serves the obvious rational bases of promoting fairness, safety, and opportunity for women and girls in sports.

44. The Act's legislative findings make its purpose clear—to protect women's equality and the integrity of women's sports: "Having separate sex-specific teams furthers efforts to promote sex equality by providing opportunities for female athletes to demonstrate their skill, strength and athletic abilities while also providing them with opportunities to obtain recognition, accolades, college scholarships and the numerous other long-term benefits that flow from success in athletic endeavors." S.B. 1165 (2022), § 2(14).

45. This conclusion is supported by a series of specific findings that cite published studies, including (among others) that (1) "there are inherent differences between men and women," *id.* § 2(5); that "[i]n studies of large cohorts of children from six years old, boys typically

scored higher than girls on cardiovascular endurance, muscular strength, muscular endurance, and speed/agility," *id.* § 2(6); that "there is a sports performance gap between males and females," *id.* § 2(9); and that "[t]he benefits that natural testosterone provides to male athletes is not diminished through the use of testosterone suppression," *id.* § 2(13) (cleaned up).

46. Plaintiffs have not negatived every conceivable basis that might support the Act. *F.C.C. v. Beach Commc'ns, Inc.*, 508 U.S. 307, 315 (1993)

47. Nor have Plaintiffs provided factual evidence that the Act is the result of a "bare desire to harm." *See B.P.J. v. W. Virginia State Bd. of Educ.*, -- F. Supp. 3d --, No. 2:21-CV-00316, 2023 WL 111875, at *4 (S.D.W. Va. Jan. 5, 2023) (rejecting the claim that a similar West Virginia statute was based on a "bare desire to harm" because the record "does not contain evidence of that type of animus more broadly throughout the state legislature").

5. Intermediate scrutiny does not apply to the Act.

48. Intermediate or "heightened" scrutiny does not apply to the Act because it does not discriminate on the basis of transgender status.

49. The Act's exclusion of biological males from women's sports is "transgender-neutral"—it applies equally to *all* biological males, regardless of their transgender status. *See* A.R.S. § 15-120.02(B).

50. As *Clark I* and *Clark II* demonstrate, Arizona has a history of non-transgender boys seeking access to girls' sports teams, and the Act excludes them from doing so.

51. Moreover, all of the Act's recited justifications apply to biological males who are not transgender, just as they do to biological males who are transgender. *See* S.B. 1165, § 2(1)-(14).

52. The policies at issue in the cases cited by Plaintiffs had no conceivable application to non-transgender males. Instead, the laws at issue in those cases are distinguishable because they were specifically applicable *only* to transgender individuals—they were not laws that excluded all biological males and happened to include transgender individuals among them. *See Karnoski v. Trump*, 926 F.3d 1180, 1186 (9th Cir. 2019) (addressing a policy "that transgender individuals would not be allowed to serve in the military"); *D.T. v. Christ*, 552 F. Supp. 3d 888,

894 (D. Ariz. 2021) (challenging a law that allows only "a person who has undergone a sex change operation" to change their sex on their birth certificate).

53. The Act also does not discriminate between "cisgender athletes" and "transgender women athletes."

54. "Cisgender athletes" and "transgender athletes" are treated equally by the Act—both are allowed to compete on teams consistent with their biological sex, and both are excluded from teams inconsistent with their biological sex.

55. The "purpose" of SB 1165, as reflected both in the plain text of the statute and its legislative findings, was to exclude *biological males* from girls' sports teams. *See Oncale v. Sundowner Offshore Servs., Inc.*, 523 U.S. 75, 79 (1998) ("[I]t is ultimately the provisions of our laws rather than the principal concerns of our legislators by which we are governed.").

56. The statute's text excludes "students of the male sex," A.R.S. § 15-120.02(B), regardless of transgender status.

57. The statute's findings uniformly address the competitive advantages of *biological males*, regardless of transgender status. S.B. 1165, § 2(1)-(13).

58. Further, the statements of two individual legislators cited by Plaintiffs, Doc. 65, at 6, do not reflect animus at all, and they fall far short of showing "evidence of … animus more broadly throughout the state legislature." *B.P.J.*, 2023 WL 111875, at *4.

59. In any event, because the Act does not involve a traditionally suspect class, Plaintiffs' animus claim cannot succeed if the Act serves a legitimate government interest, which the Act does. *Boardman v. Inslee*, 978 F.3d 1092, 1119 (9th Cir. 2020); *Animal Legal Def. Fund v. Wasden*, 878 F.3d 1184, 1201 (9th Cir. 2018).

60. Holding that the Act satisfies equal protection does not disrupt litigation involving transgender individuals. Lawsuits challenging policies that actually single out transgender individuals for disfavored treatment—such as, arguably, *Karnoski* and *D.T.*—continue to trigger heightened scrutiny in the Ninth Circuit. Laws that treat transgender individuals equally, like S.B. 1165, do not.

6. The Act withstands intermediate scrutiny, even if it applies.

61. Under intermediate scrutiny, the state need only show that the *classification as a whole* serves important governmental interests and is substantially related to the achievement of those interests. *Mississippi Univ. for Women v. Hogan*, 458 U.S. 718, 724 (1982).

62. This scrutiny is "intermediate" precisely because, unlike strict scrutiny, it does *not* require exact precision.

63. Although Plaintiffs have brought an as-applied challenge, the "facial or as-applied" label "does not speak at all to the substantive rule of law." *Bucklew v. Precythe*, 139 S. Ct. 1112, 1127 (2019).

64. A statute's validity always turns on how it relates "to the overall problem the government seeks to correct, not on the extent to which it furthers the government's interests in an individual case." *Ward v. Rock Against Racism*, 491 U.S. 781, 801 (1989); *see also United States v. Edge Broad. Co.*, 509 U.S. 418, 427 (1993).

65. "Sex-based classifications fall under intermediate scrutiny and therefore do not have a 'narrowly-tailored' requirement." *B.P.J.*, 2023 WL 111875, at *8.

66. It thus is not relevant under intermediate scrutiny if most studies address individuals who have undergone male puberty.

67. In any event, the Arizona legislature cited specific pre-puberty studies. *See* S.B. 1165, § 2(6) (citing studies of "large cohorts of children from six years old" that demonstrate that "boys typically scored higher than girls on cardiovascular endurance, muscular strength, muscular endurance, and speed/agility").

68. The Arizona legislature's finding is supported by extensive empirical evidence presented to the Court. *See* Doc. 38-3, at 33-53 (Brown Decl. ¶¶ 77-125) (citing numerous studies to establish that "significant physiological differences, and significant male athletic performance advantages in certain areas, exist before significant developmental changes associated with male puberty have occurred"); Doc. 38-5, at 37 (Carlson Decl. ¶ 83) ("[T]he available evidence strongly indicates that no amount of testosterone suppression can eliminate male physiological advantages relevant to performance and safety.") (Hilton Decl. ¶¶ 7.1-7.22) (analyzing athletic

performance records from international, national, and local sources demonstrating prepubertal physical performance advantages for males).

69. These studies demonstrate that Arizona's *policy as a whole* advances important governmental objectives and is substantially related to those objectives. *Hogan*, 458 U.S. at 724 (requiring a "close relationship" between means and ends, not exact precision).

70. "The legislature's definition of 'girl' as being based on 'biological sex' is substantially related to the important government interest of providing equal athletic opportunities for females." *B.P.J.*, 2023 WL 111875, at *8.

71. Here, "the governmental interest claimed is redressing past discrimination against women in athletics and promoting equality of athletic opportunity between the sexes. There is no question that this is a legitimate and important governmental interest." *Clark I*, 695 F.2d at 1131.

72. Plaintiffs' expert, Dr. Shumer, provided testimony of the athletic disadvantages that girls still face. *See* Second Rebuttal Decl. of Daniel Shumer, M.D., in Further Support of Mot. for Prelim. Inj., Doc. 113, ¶¶ 57, 60. For example, Dr. Shumer stated: "Across the board, girls have far fewer opportunities to play sports and therefore far less coaching and skill training than boys in every age group. For example, during the 2019-2019 year, fifty-seven percent of high school athletics participation opportunities went to boys, with only forty-three percent going to girls, translating into over one million more opportunities for boys than girls." *Id.* at ¶ 60 (internal citations omitted).

73. The Save Women's Sports Act sought to address important government interests such as those identified by Dr. Shumer. S.B. 1165, § 2(14).

74. And "there is clearly a substantial relationship between the exclusion of males from the team and the goal of redressing past discrimination and providing equal opportunities for women." *Clark I*, 695 F.2d at 1131.

75. Further, "the existence of … alternatives … does not mean that the required substantial relationship does not exist." *Id.*

76. "[A]bsolute necessity is not required before a gender-based classification can be sustained." *Id.*

77. "[E]ven the existence of wiser alternatives than the one chosen does not serve to invalidate the policy here since it is substantially related to the goal." *Id.* at 1132.

78. Plaintiffs have failed to show that they are likely to succeed on their Equal Protection claim.

B. Plaintiffs' Title IX Claim (Count II)

79. "Title IX levels the playing fields for female athletes." *Ollier v. Sweetwater Union High Sch. Dist.*, 768 F.3d 843, 871 (9th Cir. 2014).

80. Title IX provides that "[n]o person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." 20 U.S.C. § 1681(a).

81. Title IX's regulations require schools to "provide equal athletic opportunity for members of both sexes." 34 C.F.R. § 106.41(c).

82. "[A] central aspect of Title IX's purpose was to *encourage* women to participate in sports." *Neal v. Bd. of Trustees of California State Universities*, 198 F.3d 763, 768 (9th Cir. 1999) (emphasis original).

83. Although Title IX "applies equally to boys as well as girls, it would require blinders to ignore that the motivation for the promulgation of the regulation was to increase opportunities for women and girls in athletics." *B.P.J.*, 2023 WL 111875, at *9 .

84. "Title IX has enhanced, and will continue to enhance, women's opportunities to enjoy the thrill of victory, the agony of defeat, and the many tangible benefits that flow from just being given a chance to participate in intercollegiate athletics." *Neal*, 198 F.3d at 773.

85. The Act does not discriminate against Plaintiffs based on sex.

1. Title IX addresses biological sex, not gender identity.

86. Title IX prohibits discrimination in school activities like sports "on the basis of sex." 20 U.S.C. § 1681(a).

87. Since Title IX does not define "sex," courts interpret statutory terms "in accord with the ordinary public meaning . . . at the time of its enactment." *Bostock v. Clayton Cnty., Georgia*, 140 S. Ct. 1731, 1738 (2020). "To determine the plain meaning of a statute, we traditionally refer

to dictionaries in use at the time of the statute's enactment." *Gollehon v. Mahoney*, 626 F.3d 1019, 1023 (9th Cir. 2010) (citation omitted).

88. Dictionary definitions demonstrate that Congress' use of "sex" meant "biological sex." "Reputable dictionary definitions of 'sex' from the time of Title IX's enactment show that when Congress prohibited discrimination on the basis of 'sex' in education, it meant biological sex, *i.e.*, discrimination between males and females." *Adams by & through Kasper v. Sch. Bd. of St. Johns Cnty.*, 57 F.4th 791, 812 (11th Cir. 2022) (quoting contemporaneous dictionary definitions).

89. The Supreme Court confirmed this understanding contemporaneously just one year after Congress passed Title IX: "sex, like race and national origin, is an immutable characteristic determined solely by the accident of birth . . ." *Frontiero v. Richardson*, 411 U.S. 677, 686 (1973).

90. Interpreting "sex" as used in Title IX to mean something other than biological sex would be contrary to the Supreme Court's contemporaneous interpretation in *Frontiero*.

91. A statute "should be construed so that effect is given to all its provisions, so that no part will be inoperative or superfluous, void or insignificant." *Stand Up for California! v. U.S. Dep't of the Interior*, 959 F.3d 1154, 1159 (9th Cir. 2020) (internal quotation omitted).

92. Title IX repeatedly discusses sex as a binary concept. *See, e.g.*, 20 U.S.C. § 1681(a)(5) ("only students of one sex"); 20 U.S.C. § 1681(a)(6) ("limited to persons of one sex"); 20 U.S.C. § 1686 ("living facilities for the different sexes"); 34 C.F.R. § 106.34(a)(1) ("separation of students by sex within physical education classes").

93. Title IX's sports regulations also contemplate two sexes: Title IX acknowledges the validity of "separate teams for members of each sex" and exists to "provide equal athletic opportunity for . . . both sexes" to "effectively accommodate the interests and abilities of members of both sexes." 34 C.F.R. § 106.41(b), (c).

94. Title IX's provisions and these regulations regarding "both sexes" only make sense if sex means biological sex, i.e., males and females.

95. *Bostock v. Clayton County*, 140 S. Ct. 1731, 1741 (2020), addressed Title VII, not Title IX. *See id.* at 1737. And *Bostock* addressed discrimination specifically targeted at

individuals on the basis of their transgender status—*i.e.*, "[a]n employer who fires an individual for being . . . transgender." *Id.* Here, the statute classifies solely on the basis of biological sex and is transgender-neutral, distinguishing this case from *Bostock*.

96. *Bostock* stated that "it is impossible to discriminate against a person for being homosexual or transgender without discriminating against that individual based on sex." *Id.* at 1741. But *Bostock* stated this because "[a]n individual's homosexuality or transgender status is not relevant to employment decisions." *Id.* Here, by contrast, one's status as a biological male *is* relevant to athletic performance. *See B.P.J.*, 2023 WL 111875, at *7 ("[O]ne's sex … dictates physical characteristics that are relevant to athletics."). This fundamental factual difference—employment opportunity versus athletic competition—further distinguishes *Bostock* from the instant case.

97. Further, *Bostock* itself emphasized that it was not considering "other federal or state laws that prohibit sex discrimination," and that it was not addressing "sex-segregated bathrooms, locker rooms, and dress codes." *Id.* at 1753. *Bostock* thus did not address Title IX or "sex-segregated" sports teams. *Id.*

98. Title IX is radically different from Title VII in this context, because sports teams segregated by biological sex advance the fundamental purpose of Title IX, *see Williams*, 998 F.2d at 175, while employment discrimination against transgender individuals violates the purpose of Title VII.

99. Title IX, unlike Title VII, has an implementing regulation that explicitly authorizes sports teams segregated by biological sex. 34 C.F.R. § 106.41(b).

100. "If males are permitted to displace females on the school volleyball team even to the extent of one player like Clark, the goal of equal participation by females in interscholastic athletics is set back, not advanced." *Clark II*, 886 F.2d at 1193.

101. The Ninth Circuit's decision in *Doe v. Snyder* also does not require a finding in favor of Plaintiffs.

102. First, *Doe* discussed *Bostock* only in dicta. *Doe v. Snyder*, 28 F.4th 103, 113 (9th Cir. 2022). Dicta is not binding precedent. *See Exp. Grp. v. Reef Indus., Inc.*, 54 F.3d 1466, 1472

(9th Cir. 1995) ("[T]hese statements were not necessary to the decision and thus have no binding or precedential impact in the present case").

103. Second, the *Doe* dicta narrowly disagreed with the district court that *Bostock* did not need to be considered in a Title IX claim simply by noting that *Bostock* only involved Title VII. *Doe*, 28 F.4th at 114; *see also L.W., et al. v. Skrmetti, et al.*, no. 23-5600 at 13 (6th Cir. July 8, 2023).

104. Third, the *Doe* dicta did not resolve whether a law precluding coverage for gender reassignment surgeries discriminated based on sex because the district court had not yet addressed it. *Id.* at 114. Thus, the Ninth Circuit has not ruled that discrimination based on transgender status also constitutes impermissible discrimination under Title IX.

105. Title IX prohibits discrimination based on biological sex. Arizona's law does not discriminate against Plaintiffs based on sex. Plaintiffs' Title IX claim thus fails.

2. Title IX allows for sex-based distinctions for sports teams.

106. Unlike the Supreme Court in *Bostock*, which only decided under Title VII "whether discrimination based on transgender status necessarily equates to discrimination on the basis of sex," Title IX "includes express statutory and regulatory carve-outs for differentiating between the sexes . . . ." *Adams by & through Kasper v. Sch. Bd. of St. Johns Cnty.*, 57 F.4th 791, 811 (11th Cir. 2022).

107. For example, Title IX allows schools to "operate or sponsor separate teams for members of each sex where selection for such teams is based upon competitive skill or the activity involved is a contact sport." 34 C.F.R. § 106.41(b).

108. Title IX expressly allows schools to take sex into account in creating sports teams.

109. Title IX does not prohibit consideration of sex, but instead prohibits "exclusion from participation," "denial of benefits," or "discrimination" "on the basis of sex." 20 U.S.C. § 1681(a). To "exclude" meant "to shut out," "hinder the entrance of," or "bar from participation, enjoyment, consideration, or inclusion." Webster's Third New International Dictionary 793 (1966). To "deny" meant "to turn down or give a negative answer to." *Id.* at 603.

110. Through these provisions, Congress sought to prevent female students from being shut out, barred, or turned down from educational benefits, including activities such as sports. Arizona's law fulfills Congress' goal.

111. "Title IX permits sex-separate athletic teams 'where selection for such teams is based upon competitive skill or the activity involved is a contact sport.'" *B.P.J.*, 2023 WL 111875, at *9 (quoting 34 C.F.R. § 106.41(b)). That is exactly what Arizona requires.

112. Arizona "does not violate Title IX because it does not exclude" Plaintiffs "from school athletics." *Id.* "Title IX authorizes sex separate sports in the same manner as" the Act, "so long as overall athletic opportunities for each sex are equal." *Id.*

113. "[I]t would require blinders to ignore that the motivation for the promulgation of the regulation was to increase opportunities for women and girls in athletics." *Id.* (quoting *Williams v. Sch. Dist. of Bethlehem, Pa.*, 998 F.2d 168, 175 (3d Cir. 1993)).

114. The Act promotes the core purpose of Title IX: "Having separate sex-specific teams furthers efforts to promote sex equality by providing opportunities for female athletes to demonstrate their skill, strength and athletic abilities while also providing them with opportunities to obtain recognition, accolades, college scholarships and the numerous other long-term benefits that flow from success in athletic endeavors." S.B. 1165, § 2(14).

115. S.B. 1165, "which largely mirrors Title IX," does not violate Title IX. *B.P.J.*, 2023 WL 111875, at *10.

116. Separate teams are available to both sexes in the sports in which Plaintiffs want to participate. Plaintiff Doe's school has soccer, basketball, and cross-country teams for both boys and girls. (Decl. of J. Doe, Doc. 6, ¶ 9.) Plaintiff Roe's school has volleyball teams for both boys and girls. (Decl. of M. Roe, Doc. 8, ¶¶ 7, 9). Plaintiffs thus are not being excluded from participation, denied benefits, or discriminated "on the basis of sex."

117. Title IX does not require states or schools to eliminate sex-separated teams or change the criteria for participating in sex-separated teams, to allow students to compete on a team that is different from their biological sex.

118. The Ninth Circuit recognized the converse of this point by holding that Title IX authorizes, but does not require, sex-segregated facilities that exclude transgender students. *Parents for Priv. v. Barr*, 949 F.3d 1210, 1227 (9th Cir. 2020). The Ninth Circuit did not say, however, that Title IX *requires* a state or school to ignore biological sex in favor of a transgender student. *See id.*

119. Forcing girls to compete against boys is antithetical to Title IX's purpose and threatens to reverse years of progress for girls and women under Title IX. *See, e.g., Neal v. Bd. of Trustees of California State Universities*, 198 F.3d 763, 769 (9th Cir. 1999) ("Title IX has altered women's preferences, making them more interested in sports, and more likely to become student athletes. Adopting Appellees' interest-based test for Title IX compliance would hinder, and quite possibly reverse, the steady increases in women's participation and interest in sports that have followed Title IX's enactment.") (internal citation omitted).

120. For these reasons, Plaintiffs are not likely to succeed on their Title IX claim.

III. IRREPARABLE HARM

121. Because Plaintiffs failed to show a likelihood of success on the merits, the Court does not need to consider the irreparable harm factor. *California v. Azar*, 911 F.3d 558, 575 (9th Cir. 2018) (internal quotations omitted). Nevertheless, Plaintiffs have failed to satisfy this factor as well.

122. To satisfy the irreparable harm factor, "plaintiffs seeking preliminary relief [are required] to demonstrate that irreparable injury is *likely* in the absence of an injunction." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 22 (2008) (emphasis original).

123. As previously set forth, the Arizona law does not violate the law or deprive Plaintiffs of their rights. This refutes the central pillar of Plaintiffs' irreparable harm argument.

124. The Act is not likely to cause plaintiffs irreparable harm because it allows them to participate in sports with others of their biological sex. *See* A.R.S. § 15-120.02(C).

125. Plaintiffs also can participate on co-ed teams. *Id.*

126. "[M]ost courts seem to lean toward the harm being irreparable only when the person cannot participate in the sport at all." *Gregor v. W. Va. Secondary Sch. Activities Comm'n*, No. 2:20-CV-00654, 2020 WL 6292813, at *4 (S.D. W. Va. Oct. 27, 2020) (citing cases).

127. Courts have found no irreparable harm existed, and denied preliminary injunction motions, when high school athletes claimed harm from not being allowed to compete on a school sports team. *Id.*; *A.M. by & through McKalip v. Pennsylvania Interscholastic Athletic Ass'n, Inc.*, No. 1:20-CV-290-SPB, 2020 WL 5877617, at *4 (W.D. Pa. Oct. 1, 2020) (citing cases); *Dziewa v. Pennsylvania Interscholastic Athletic Ass'n, Inc.*, No. CIV.A. 08-5792, 2009 WL 113419, at *7 (E.D. Pa. Jan. 16, 2009).

128. If Plaintiffs do not compete in school sports this year, it will be due to their voluntary choice since they have the option of participating on teams that match their biological sex or on co-ed teams.

129. "Self-inflicted wounds are not irreparable injury." *Al Otro Lado v. Wolf*, 952 F.3d 999, 1008 (9th Cir. 2020) (internal quotation and citations omitted); *see also Epic Games, Inc. v. Apple Inc.*, 493 F. Supp. 3d 817, 847-48 (N.D. Cal. 2020) (same); *Volga Dnepr UK Ltd. v. Boeing Co.*, 464 F. Supp. 3d 1238, 1247 (W.D. Wash. 2020) ("In circumstances where parties seeking injunctive relief inflicted the harm upon themselves, courts have declined to find irreparable harm.").

130. In Arizona, "[a]n act with no specified effective date takes effect on the ninety-first day after the day on which the session of the legislature enacting it adjourns sine die." *True v. Stewart*, 18 P.3d 707, 708 n.1 (2001).

131. The Act does not have a specified effective date. *See* S.B. 1165 (2022).

132. The Act went into effect on September 24, 2022. *See* Arizona State Legislature, *General Effective Dates*, https://www.azleg.gov/general-effective-dates/.

133. Plaintiffs did not bring suit to compete in school sports during the 2022-23 academic year.

134. "Plaintiff's long delay before seeking a preliminary injunction implies a lack of urgency and irreparable harm." *Oakland Trib., Inc. v. Chron. Pub. Co.*, 762 F.2d 1374, 1377 (9th Cir. 1985).

135. Plaintiffs have failed to demonstrate that irreparable injury is likely in the absence of an injunction.

IV. BALANCE OF EQUITIES AND PUBLIC INTEREST

136. Because Plaintiffs failed to show a likelihood of success on the merits, the Court does not need to consider the balance of equities and public interest factors. *California v. Azar*, 911 F.3d 558, 575 (9th Cir. 2018) (internal quotations omitted). But Plaintiffs have also failed to establish those elements.

137. The balance of equities factor compares the burdens or hardships on the plaintiff with the burden on the defendant if an injunction is ordered. *Porretti v. Dzurenda*, 11 F.4th 1037, 1050 (9th Cir. 2021).

138. The public interest factor evaluates the injunction's "impact on nonparties rather than parties." *Id.*

139. When the government is a party, the balance of equities and public interest factors merge. *Drakes Bay Oyster Co. v. Jewell*, 747 F.3d 1073, 1092 (9th Cir. 2014) (citing *Nken v. Holder*, 556 U.S. 418, 435 (2009)).

140. The State of Arizona will suffer irreparable injury if an injunction is ordered.

141. "[A]ny time a State is enjoined by a court from effectuating statutes enacted by representatives of its people, it suffers a form of irreparable injury." *Maryland v. King*, 567 U.S. 1301, 1303 (2012) (Roberts, C.J., in chambers) (internal quotation omitted); *see also Coal. for Econ. Equity v. Wilson*, 122 F.3d 718, 719 (9th Cir. 1997) ("it is clear that a state suffers irreparable injury whenever an enactment of its people or their representatives is enjoined"); *L.W., et al. v. Skrmetti, et al.*, No. 23-5600 at 14 (6th Cir. July 8, 2023) (state faces irreparable harm if law enjoined including the inability "to enforce the will of its legislature" and other public-policy considerations).

142. The people of Arizona have an interest in the effectiveness of laws passed by their elected officials.

143. Women in Arizona also have an interest in not competing against, being injured by, or being displaced by, men in women's sports.

144. Plaintiffs have the ability to participate in sports on either teams of their biological sex or co-ed teams.

145. Accordingly, the public interest and balance of equities do not favor a preliminary injunction.

146. Finally, the Court notes that other courts have recognized issues regarding transgender individuals are "more complex" when they are "about sports," an arena that poses "vexing line-drawing dilemmas for legislatures" for which the Constitution does not offer a "principled way to judge." *L.W. et al. v. Skrmetti, et al.*, No. 23-5600 at 12 (6th Cir. July 8, 2023).

147. By permitting the "vigorous, sometimes frustrating arena of public debate and legislative action across the country," rather than "remov[ing] these trying policy choices from fifty state legislatures" the judiciary would allow our "constitutional democracy" to function. *Id.* at 12-13 (internal quotations omitted).

148. Courts should therefore "be wary of removing a vexing and novel topic" from the "ebbs and flows of democracy" by "construing a largely unamendable federal constitution to occupy the field." *Id.* at 6.

RESPECTFULLY SUBMITTED on July 13, 2023.

WILENCHIK & BARTNESS, P.C.

/s/ Dennis Wilenchik

Dennis I. Wilenchik, Esq.
Karl Worthington, Esq.
The Wilenchik & Bartness Building
2810 North Third Street
Phoenix, Arizona 85004
admin@wb-law.com
Attorneys for Defendant Thomas C. Horne

/s/ Maria Syms
Maria Syms, Esq.
Director of Legal Services
Arizona Department of Education
1535 W Jefferson, BIN #50
Phoenix, Arizona 85007
Maria.Syms@azed.gov
Attorneys for Defendant Thomas C. Horne

JAMES OTIS LAW GROUP, LLC

/s/ Justin D. Smith
D. John Sauer, Mo. Bar No. 58721*
Justin D. Smith, Mo. Bar No. 63253*
13321 North Outer Forty Road, Suite 300
St. Louis Missouri 63017
(816) 678-2103
Justin.Smith@james-otis.com
** pro hac vice*

Attorneys for Intervenor Defendants

CERTIFICATE OF SERVICE

I hereby certify that on July 13, 2023, I electronically transmitted the attached document to the Clerk's Office using the CM/ECF System for filing and transmittal of a Notice of Electronic Filing to the CM/ECF registrants.

By:/s/ Hilary Myers

ATTACHMENT

WILENCHIK & BARTNESS
A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW
The Wilenchik & Bartness Building
2810 North Third Street Phoenix, Arizona 85004

Telephone: 602-606-2810 Facsimile: 602-606-2811

Dennis I. Wilenchik, #005350
Karl Worthington, #018703
admin@wb-law.com

Maria Syms, Bar No. 023019
602-542-5240
Maria.Syms@azed.gov
Attorneys for Defendant Thomas C. Horne

D. John Sauer, Mo. Bar No. 58721*
Justin D. Smith, Mo. Bar No. 63253*
(314) 562-0031
John.Sauer@james-otis.com
Attorneys for Defendants Petersen and Toma

UNITED STATES DISTRICT COURT

DISTRICT OF ARIZONA

Jane Doe, by her next friends and parents Helen Doe and James Doe; and Megan Roe, by her next friends and parents, Kate Roe and Robert Roe, **Plaintiffs,** **v.** **Thomas C. Horne, in his official capacity as State Superintendent of Public Instruction, *et al.*,** **Defendants.**	**Case No. 4:23-cv-00185-JGZ** **DEFENDANTS HORNE, PETERSEN, AND TOMA'S AMENDED PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW**

Defendant Thomas C. Horne, in his official capacity as State Superintendent of Public Instruction ("Superintendent Horne"), Defendant Warren Petersen, in his official capacity as President of the Arizona State Senate ("President Petersen"), and Defendant Ben Toma, in his

official capacity as Speaker of the Arizona House of Representatives ("Speaker Toma") (jointly, "Defendants"), respectfully submit their amended proposed findings of fact and conclusions of law in connection with Plaintiffs' request for a preliminary injunction.

FINDINGS OF FACT

1. The Court has reviewed the expert declarations submitted by all parties. For purposes of this Preliminary Injunction hearing, the Court finds that the expert reports submitted by Gregory Brown, Ph.D., James M. Cantor, Ph.D., Chad Thomas Carlson, M.D., Emma Hilton, Ph.D., and Linda Blades, Ph.D. satisfy the requirements of Fed. Rs. Evid. 702 and 703. [*Defendants will first present proposed findings of fact relating to the male physical advantages over females in competition, and then present proposed findings of fact demonstrating that puberty blockers given at the onset of puberty and after do not eliminate these physical advantages*]

Facts regarding male physical advantages in sports competition

Sex is an objective feature.

2. Sex is an objective feature that is determined at the moment of conception. (Cantor Decl. ¶¶ 105-107; Brown Decl. ¶ 1, Hilton Decl. ¶ 1.8.)

3. In science, only objective factors matter to a valid definition. (Cantor Decl. ¶ 105; Hilton Decl. ¶ 3.5.)

4. Infants are born male or female, which can be ascertained by chromosomal analysis or visual inspection. (*Id.* ¶¶ 105, 107; Hilton Decl. ¶ 3.1-3.2.)

5. More than 6,500 protein-coding genes have significant Sex Differential Expression in at least one gene. (Brown Decl. ¶ 5.) *See also* Blade Decl. at 6:4-15.

Biological males have physical performance advantages over females.

6. Males have physiological differences from females that cause males to "substantially outperform comparably aged, gifted, and trained" females in athletic competition. (Brown Decl. ¶ 9.)

7. Men are stronger. Men have 60%-100% greater arm strength than women, 57% greater grip strength, and 25%-60% greater leg strength. (*Id.* ¶¶ 15-16, 20.) As an example of this

difference, an under 20-year-old female who ranks in the 95th percentile for upper body strength can bench press 0.88 kg for every kg of body mass; an under 20-year-old male with the same bench press would be between the 15th and 20th percentile for males. (*Id.* ¶ 19.)

8. Men and boys run faster. Men have a speed advantage of 10%-13% over women for both short sprints and longer distances. (*Id.* ¶ 25.) In just 2017, thousands of boys and men ran faster 400-meter times than three female Olympic champions' personal bests at that distance. (*Id.* ¶ 26.) Boys 15 years old and under have beaten adult female world records in running, jumping, and throwing events. (*Id.* ¶ 28.)

9. Plaintiff Doe wants to try out for the girls' cross-country team. (J. Doe Decl. ¶ 9.) Last year in Arizona 6th grade track and field races, the first-place boy was faster than the first-place girl in all races except one, and the average performance of the top 10 boys was consistently faster than the average performance of the top 10 girls. (Brown Decl. ¶ 110 including chart.)

10. Men and boys jump higher and farther. High school male high jumpers jumped an average of 18% higher than females. (*Id.* ¶ 33.) High school male long jumpers jumped an average of 24% farther than females. (*Id.*)

11. Plaintiff Roe wants to try out for the girls' volleyball team. (M. Roe Decl. ¶ 7.) Research on elite volleyball players found that males jumped an average 50% higher than females during an "attack" at the net and spiked volleyballs 29%-34% harder. (Brown Decl. ¶ 32) (citing Thibeult 2020 at 217, Tonnenssen 2015, Handelsman 2017, Hilton 2021, and Sattler 2015).

12. Men and boys throw, hit, and kick faster and farther. By 12 years old, boys' throwing velocity is between 3.5 and 4 standard deviations higher than girls' throwing velocity. (*Id.* ¶ 36.) The average 17- year-old male can throw a ball farther than 99% of 17-year-old females. (*Id.*)

13. Plaintiff Doe wants to try out for the girls' soccer team. (J. Doe Decl. ¶ 9.) College males kick soccer balls with an average 20% greater velocity than females. (Brown Decl. ¶ 41) (citing Sakamoto 2014).

14. Research shows that at the level of (a) elite, (b) collegiate, (c) scholastic, and (d) recreational competition, men, adolescent boys, or male children, have an advantage over equally

gifted, aged and trained women, adolescent girls, or female children in almost all athletic events. (*Id.* ¶ p. 67.)

15. As noted above, the competitive physical advantages boys experience exists prior to puberty. Large cohort studies of fitness data in typical schoolchildren reveals differences evident from as young as 6 years old, and males can run faster, jump further, complete more push ups and shuttle runs, and have higher grip strength. Young males of 6-7 years old have higher absolute and relative VO2max than female peers. (Hilton Decl. ¶ 7.2) (citing Catley and Tompkinson, 2013, *Normative health-related fitness values for children: analysis of 85,347 test results on 9-17 year-old Australians since 1985,* British Journal of Sports Medicine 47(2): 98-108; Tambalis et al., 2016, *Physical fitness normative values for 6-18 year-old Greek boys and girls, using the empirical distribution and the lambda, mu, and sigma statistical method*, European Journal of Sport Science 16(6): 736-746; Eiberg et al., *Maximum oxygen uptake and objectively measured physical activity in Danish children 6-7 years of age: the Copenhagen school child intervention study*, British Journal of Sports Medicine 39(10): 725-730).

16. Prepubertal male physical competitive advantage is apparent in international records in multiple track and field event from both males and females from the ages of 5-16 years old. (*Id.* ¶¶ 7.5-7.8, 7.13-7.14) (citing international age records http://age-records.125mb.com).

17. Prepubertal male physical competitive advantage is also apparent in junior records from 8-16 years old from USA Track and Field and the US Amateur Athletics Union. These datasets confirm the results obtained from international records: 1. Male advantage over female peers is evident across track and field events from 8 years old onwards; 2. Males systematically outperform their female peers from 8 years old at a frequency that is extremely unlikely to result from chance. (*Id.* ¶ 7.15) (citing https://aautrackand field.org/Results).

18. Records from the *President's Council on Physical Fitness and Sports* (1985) demonstrate the same advantage for pre-pubertal boys. Comparing that data for 6, 7, and 8-year old boys against girls of the same ages shows very significant advantages in upper-body performance measures for boys. (Blade Decl. at 6:22-7:14) (citing https://eric.ed.gov/?id=ED291714 (Appendix A, pages 56-57).

19. The same records also demonstrate the same advantage for pre-pubertal boys in the mile run, long jump, 50 yard dash, shuttle run, and (excluding 6-year olds) sit-ups. (*Id.*, at 7:15-9:12.)

20. Records from the 2022 AAU National Championship Jr. Olympics show similar results. Those records show 8-year-old boys beating 8-year-old girls in 100 meter dash, 200 meter dash, 1500 meter run, long jump, and shot put. (*Id.* at 9:13-9:26) (citing http://image2.aausports.org/sports/athletics/results/2022/jogames/jogamescompleteresults.htm).

21. Records from the local Arizona middle-school competitions demonstrate the same advantage for prepubertal boys. Kyrene School District Track and Field Championship, held in April 2023 demonstrated this advantage in every event. The probability that the male "win" frequency would occur by chance are extremely low. (Hilton Decl., ¶ 7.17) (citing https://www.athletic.net/TrackAndField/meet/486419/results/all).

22. Records from the Kyrene Aprende Middle School Track and Field meet held July 2022, support the same conclusion regarding male physical competitive advantage. Boys won every event with the exception of the shot put. Again, the probability that the male "win" frequency would occur by chance is very low. (*Id.* ¶ 7.20) (citing https://www.kyrence.org/Page/55102).

23. Collectively, these international, national and state analyses of track and field performances in male and female schoolchildren demonstrate that sex differences in athletic performance exist even before puberty.

24. Dr. Shumer admitted that "the data Dr. Hilton relies on shows that there is a small difference in performance between prepubertal non-transgender boys and prepubertal non-transgender girls." *See* Second Rebuttal Decl. of Daniel Shumer, M.D., in Further Support of Mot. for Prelim. Inj., Doc. 113, ¶ 21. Dr. Shumer continues by arguing, "[t]here is no reliable basis for Dr. Hilton to attribute those small differences to physiology or anatomy instead of other factors, such as greater societal encouragement of athleticism in boys, greater opportunities for boys to play sports, or different preferences of the boys and girls surveyed." *Id.*; *see also id.* at ¶ 24 (same).

25. While Dr. Shumer describes such differences as negligible, small differences in performance often determine who wins and loses in sports competition. Dr. Shumer has never studied sports performance in transgender people, as either a primary researcher or as an expert reviewer of the subject. Dr. Shumer's observations are limited to his medical office and are not informative of the competitive advantage evident on the playing field.

26. Dr. Shumer has admitted multiple times that small physiological differences exist between boys and girls. *Id.* at ¶¶ 21, 24, 47 ("small average difference in lung capacity"), 51 ("some of the studies show small physiological differences between prepubertal boys and girls"); 53 ("the small differences found by these studies"); *see also* Rebuttal Decl. of Daniel Shumer, M.D., in Further Support of Mot. for Prelim. Inj., Doc. 65-2, ¶¶ 10 ("While some studies have found small differences between the performance of boys and girls with respect to some discrete activities, ..."); 13 ("Dr. Brown relies primarily on demographic data from physical fitness tests or athletics in which there is a small difference in performance between prepubertal non-transgender boys and prepubertal non-transgender girls.").

27. Dr. Shumer notes that "Two of the [prepubertal] studies cited by Dr. Hilton are also cited in paragraph 6 of the legislative findings of Arizona's statute." Second Rebuttal Decl. of Daniel Shumer, M.D., in Further Support of Mot. for Prelim. Inj., Doc. 113, ¶ 21 n.1 (citing S.B. 1165, 55th Leg., 2d Reg. Sess. (Ariz. 2022), § 6). Plaintiffs' experts do not contest or even mention these two studies, by Konstantinos Tambalis et al. and by Mark J Catley & Grant R Tomkinson, which the Arizona legislative findings describe in the following manner: "In studies of large cohorts of children from six years old, '[b]oys typically scored higher than girls on cardiovascular endurance, muscular strength, muscular endurance, and speed/agility, but lower on flexibility." S.B. 1165, 55th Leg., 2d Reg. Sess. (Ariz. 2022), § 6.

28. Prepubertal males' physical competitive advantage is further evidenced by the observational study of Dr. Linda Blade, Ph.D in Kinesiology, a coach and teacher with more than 30 years experience teaching and observing prepubertal boys and girls on the playing field. Plaintiffs did not present similarly-credentialed expert evidence to address, let alone refute, Dr. Blade's professional conclusions based on her decades of observations on the playing field.

Biological Males Have Large Physiological Differences From Females Both Before and After Puberty.

29. Scientists have identified and measured a number of physiological differences between biological males and females. (Brown Decl. ¶ 46.) These physiological differences lead to athletic performance differences. (*Id.*)

30. Men are taller. Based on data from 20 countries, the 50th percentile for body height for women is five inches shorter than the 50th percentile for body height for men. (*Id.* ¶ 47.). Viewed another way, a woman in the 95th percentile for body height would be less than a quarter-inch taller than a man in the 50th percentile. (*Id.*); (Hilton Decl., ¶ 4.4) (citing Gilsanz et al., 1997, *Differential Effect of Gender on the Sizes of the bones in the Axial and Appendicular Skeletons,* Journal of Clinical Endocrinology and Metabolism 82(5): 1603-1607).

31. Men have larger, longer, and stronger bones. Men are 7% to 8% taller than women, with an average of 10% more bone. (Brown Decl. ¶¶ 51, 53) (citing Handelsman 2018 at 818; Knox 2019 at 397). Research has found that men have "distinctively greater bone size, strength, and density than do women of the same age." (*Id.* ¶ 50.)

32. Men have much larger muscle mass. In the arms, women have 50%-60% of men's upper arm muscle cross-sectional area and 50%-60% of men's upper limb strength. (*Id.* ¶ 58.) In the legs, women have 65%-70% of men's thigh muscle cross-sectional area and 60%-80% of men's leg strength. (*Id.*) Young men average a skeletal muscle mass that is >12kg greater than age-matched women at any given body weight. (*Id.*)

33. Men also have other physiological advantages that manifest in sports. Men have a larger lung capacity and a greater cross-sectional area of the trachea. (*Id.* ¶ 68.) Men also can absorb more oxygen in the blood and have a 10% greater average maximal oxygen transfer. (*Id.* ¶¶ 69-70.)

34. The average female heart size is 85% that of a male, resulting in men pumping 30% more blood through their circulatory system. (*Id.* ¶ 71.)

35. This research shows that biological male physiology is the basis for the performance advantage that men, adolescent boys, or male children have over women, adolescent girls, or female children in almost all athletic events. (*Id.* p. 84.)

36. Before puberty even begins, boys have physiological advantages over girls. These advantages begin at birth: infant boys at birth and at five months have larger total body mass, body length, and fat-free mass and lower-percent body fat than infant girls. (Brown Decl. ¶ 79.)

37. Boys ages 3-8 years old have significantly less fat, lower percentage body fat, and higher bone-free lean tissue. (*Id.*)

38. Pre-pubertal boys in one study had more muscle mass, less fat mass, and performed better than girls on tests of countermovement jump, handgrip strength, and 20 m shuttle run. (Brown Rebuttal Decl. ¶ 25.b) (citing Manano-Carrasco et al. 2022).

39. Boys ages 6-11 years old in another study performed better than girls on tests of Cardiorespiratory fitness, muscular endurance, and speed. (*Id.* ¶ 25.d.)

40. From ages 7 to 17, boys have a higher aerobic power output based on heart rate, allowing boys to run, bike, or swim faster than similarly aged girls. (Brown Decl. ¶ 80.)

41. These physiological differences result in competitive advantages before, during, and after puberty.

42. In a study of children ages 3 to 5, boys at each age level consistently performed better than girls in tests of catching, standing long jump, tennis ball throw, and speed run. (Brown Rebuttal Decl. ¶ 25.e.)

43. In a study of children ages 2.8 to 6.4, boys outperformed girls in the 20 m shuttle run, handgrip strength, standing long jump, and 4 x 10 m shuttle run. (*Id.* ¶ 25.c.)

44. Boys ages 8 and under have faster record times than girls at all track and field distances according to records of the USA Track & Field organization. (Brown Decl. ¶ 107.)

45. According to nationwide results from Athletic.net over the years 2017-2021, the top 10 boys ages 7-8 and 9-10 ran faster than girls of the same ages and jumped higher and farther than the girls in 100m, 200m, 400m, 800m, 600m, high jump and long jump by 3-10% in every event every year. (Brown Rebuttal Decl. ¶ 31.)

46. According to another study, a nine-year-old boy in the 50th percentile will run faster in the final stage of a 20 meter shuttle run than the average of a 9 through 17-year-old girl in the 50th percentile. (Brown Decl. ¶ 95.)

47. Boys aged 11 to 15 in the 50th percentile also ran the mile 14.7% and 24.2% faster, respectively, than girls of the same age in the 50th percentile. (*Id.* ¶ 89.)

48. Boys throw harder than girls by 1.5 standard deviations as young as ages four to seven, meaning the average four- to seven-year-old boy can out-throw 87% of girls his age. (*Id.* ¶ 106.)

49. Boys also jump higher and farther than girls their age and girls older than their age. (*Id.* ¶¶ 99, 103-104.)

50. Boys under 10 years old consistently swim faster than girls under 10 years old, according to The Motivational Times from USA Swimming. (Brown Rebuttal Decl. ¶ 32.)

51. The differences in physical fitness between males and females before and after puberty predispose males to a winning performance if they were to compete against females of the same age who have the same training and sports background. (*Id.* ¶ 34.)

52. Because of this research, many sports organizations have revised their policies on transgender athletes or are in the process of doing so. (Brown Decl. p. 84)

Facts Regarding Puberty Blockers and Testosterone Suppression

53. Sex differentiation is initiated in utero by the presence or absence of a gene called SRY, typically carried on the Y chromosome, and triggering bipotential gonad development into testes or ovaries in males or females, respectively. The developing gonads, in conjunction with other tissues, establish sex-specific hormonal milieu that, in concert with hormones produced elsewhere, are involved in ongoing male or female physical development. (Hilton Decl. ¶ 5.1.)

54. Analysis of sex-specific genetic architecture in adults reveals some 6,500 differences in gene expression, likely to influence development and function outside of hormone effects. Indeed, that "every cell has a sex" dependent on genetics and independent of hormones is recognised and increasingly of scientific interest. (*Id.* at ¶ 5.2.)

55. A key hormone generating physical differences between males and females is testosterone. Males are exposed to testosterone at three stages of development: 1. in utero; 2. in the post-natal 'minipuberty' period; and, 3. during classic puberty. Thus, there is an ongoing

pattern of differential exposure to testosterone during the development of males and females. (*Id.* at ¶ 5.3.)

56. In utero, testosterone and derived dihydrotestosterone (DHT) are involved in the development of male reproductive anatomy. Testosterone is primarily produced by the male testes. Testosterone promotes the formation of the vas deferens and other male internal genital structures, while DHT is necessary for the development of the penis and prostate gland. The effect of testosterone on somatic development in utero does not appear to be meaningful, and sex differences in fetal size appear unrelated to hormones but related rather to the sex-specific genetics of maternal-placental interactions with a male fetus, which affect, for example, nutrient exchange. (*Id.* at ¶ 5.4)

57. In the post-natal minipuberty period between 1 week to 6 months of age, transient activation of the hypothalamic-pituitary-gonadal axis means males are exposed to a corresponding burst of testosterone. This burst of testosterone supports male penis and testes growth, and is associated with higher growth velocity in the first six months of life, higher weight gain, lower acquisition of body fat and lower body mass index. The transient exposure to testosterone in minipuberty is an excellent candidate to explain the well-established structural differences between males and females in childhood. (*Id*. at ¶ 5.5.)

58. At puberty, males experience levels of testosterone up to 20 times greater than in females, driving development during the ensuing teenage years of male secondary sex characteristics. The effects of testosterone on male somatic growth during puberty are well-established. (*Id.* At 5.6.)

Puberty Suppression in Prepubertal and Early Pubertal Males

59. Biological boys may take social, pharmaceutical and/or surgical steps to be perceived and treated as if they were female. Early pharmaceutical interventions in transgender girls may involve blocking male puberty via GnRH agonists ("puberty blockers"), administered after the onset of puberty (at least Tanner stage 2; in male children, the appearance of pubic hair, increase in testicular volume and reddening of scrotum skin). This is typically followed by a regime of cross-sex hormones from 16 years old. (*Id.* at ¶ 9.2.)

60. When prescribed as above, puberty blockers do not, by definition, block the entirety of male puberty. They do not block any hormone-derived pre-puberty effects on male development. They are unlikely to interfere with genetic effects on male development. (*Id.* at ¶ 9.5.)

61. Plaintiffs have presented no clinical studies or research papers of any kind demonstrating that medical interventions to suppress male puberty eliminate the pre-existing physiological and performance advantages males have over females prior to puberty.

62. Nor have Plaintiffs presented any clinical studies that transgender girls whose male puberty is suppressed at or near the onset of male puberty have no physical competitive advantages over girls in sports.

63. On the other hand, Defendants have presented clear evidence that transgender girls whose male puberty was suppressed at or near the onset of male puberty retain significant physiological advantages over girls that result in such individuals posing an increased risk of injury, and unfairness, to female athletes.

64. Transgender girls who have had their male puberty medically suppressed retain an undiminished height advantage over females. In a study of data collected over 46 years, researchers concluded that "although P[uberty] S[upression] and [cross-sex hormones] alter the growth pattern, they have little effect on adult height." In other words, natal males who followed a normal course of puberty suppression followed by cross-sex hormone therapy reach an adult height at or near their predicted height in the absence of such therapy. (Brown Decl. ¶¶ 124-125; Hilton Decl., ¶ 11.2) (citing Boogers et al. *Trans girls grow tall: adult height is unaffected by GnRH analogue and estradiol treatment* (2022) Journal of Clinical Endocrinology and Metabolism, Epub ahead of print, PMID: 35666195).

65. Height is a physiological advantage that relates to a performance advantage in many sports that involve jumping in order to reach higher than one's opponents, such as basketball and volleyball, two sports in which Plaintiffs here seek to compete against girls.

66. Height is also related to leg length, which in turn is related to running speed. Running speed is important in many sports including soccer and cross country, two additional sports in which Plaintiffs here seek to compete against girls.

67. Nor does medical suppression of male puberty eliminate the difference in lean body mass between biological male and female teenagers. Subsequent use of puberty blockers combined with cross-sex hormone use (in the same subjects) still did not eliminate the differences in lean body mass between biological male and female teenagers. By 22 years of age, the use of puberty blockers, and then puberty blockers combined with cross-sex hormones, and then cross hormone therapy alone for over 8 total years of treatment had not eliminated the difference in lean body mass between biological males and females. (Brown Decl. ¶ 118; Hilton Decl. ¶ 11.3) (citing Klaver et al., *Early Hormonal Treatment Affects Body Composition and Body Shape in Young Transgender Adolescents,* (2018) Journal of Sexual Medicine 15(2): 251-260).

68. Higher lean body mass is a physiological and performance advantage in sports. Puberty-suppressed males retain that performance advantage over females in sports.

69. Nor does medical suppression of male puberty eliminate the difference in muscle strength between boys and girls. In 21 transgender-identifying biological males, administration of antiandrogens for 5-31 months (commencing at 16.3 ± 1.21 years of age), resulted in nearly, but not completely, halting of normal age-related *increases* in muscle strength. Muscle strength did not decrease after administration of antiandrogens. Rather, despite antiandrogens, these individuals retained higher muscle mass, lower percent body fat, higher body mass, higher body height, and higher grip strength than comparable girls of the same age. (Brown Decl. ¶¶ 117, 138; Hilton Decl., ¶ 11.3) (citing Tack et al., *Proandrogenic and Antiandrogenic Progestins in Transgender Youth: Differential Effects on Body Composition and Bone Metabolism,* (2018) Journal of Clinical Endocrinology and Metabolism 103(6): 2147-2156).

70. Higher muscle mass, lower body fat, higher body mass, higher body height, and higher grip strength are competitive advantages in sports. Puberty-suppressed males retain those performance advantages over females in sports.

71. Another study found teenage natal males who identified as female (average of 13.7 ± 1.7 years) and who were on puberty blockers for an average of 11.3 ± 7 months, had numerically higher percent lean body mass and lower percent body fat than the comparison group of natal females. (Brown Decl. ¶ 119.)

72. Another study found that teenage natal males who identify as female (average of 15.4 ± 2.0 years) had 9.5 kg more lean body mass than did teenage natal females (15.2 ± 1.8 years) who identified as male. After 355.2 ± 96.7 days of puberty blockers the natal males who identified as female still had 5.7 kg more lean body mass than did the natal females who identified as male even though the natal males lost 2.57 kg lean body mass and the natal females gained 1.21 kg lean body mass. (Brown Decl. ¶ 121).

73. Puberty blockers and cross-sex hormone use did not decrease muscle strength, eliminate differences in lean body mass, or change growth rates in biological males. (Brown Decl., ¶¶ 117-125) (citing Nokoff et al. 2020).

74. The Court finds that Plaintiffs have presented no research demonstrating that transgender girls who received puberty blockers at the onset of, or during, puberty have no meaningful physical competitive advantages over girls in sports.

75. The Court finds that Defendants have presented significant research demonstrating that transgender girls who received puberty blockers at the onset of, or during, puberty retain meaningful physiological advantages over girls and that those physiological advantages are directly related to competitive advantage in sports, including height, strength, and lean-body-mass advantages.

Medical Interventions in Post-Pubertal Males

76. Transgender women may take social, pharmaceutical and/or surgical steps to be perceived and treated as if they were female. In adulthood, transgender women may opt for testosterone suppression (for example, via gonadotropin-releasing hormone [GnRH] agonists, spironolactone or cyproterone acetate) then/or surgical removal of the testes; both of these interventions have the effect of lowering testosterone levels to those of females and reducing the

functional or visual impact of male physical characteristics. Estrogen supplementation typically promotes feminisation of, for example, breast tissue. (Hilton Decl. at ¶ 9.1.)

77. In 2020, a study reviewed peer-reviewed published longitudinal changes in muscular and skeletal metrics in transgender women suppressing testosterone in adulthood for a minimum of 12 months. Having reviewed measures of bone density, lean body mass, muscle mass and strength tests, the authors identified a unified consensus in original studies covering approximately 800 transgender women that skeletal metrics like height and bone length were unaffected, bone mass was preserved, and muscle mass and strength was decreased by 4% over 12 months of testosterone suppression. Within this dataset, compared with female control cohorts, higher muscle mass/strength values—between +13-41%—were maintained for at least three years after testosterone suppression (the limit of current longitudinal studies). (*Id.* at ¶ 10.2.)

78. These observations were subsequently reinforced by a systematic review of the same dataset published by another group later in 2021, which concluded that, in transgender women, "hormone therapy decreases strength, [lean body mass] and muscle area, yet values remain above that observed in cisgender women, even after 36 months. These findings suggest that strength may be well preserved in transwomen during the first 3 years of hormone therapy." (*Id.* at ¶ 10.3.)

79. To gain an overall picture of the baseline metrics and effects on muscle mass and strength in transgender women pre- and post- at least 12 months of testosterone suppression, Dr. Emma Hilton compared pre- and post- metrics for transgender women across the dataset with data from control males and females. Original study metrics were converted to relative percentages, with pre-suppression metrics in transgender women set at 100%. The 4% reduction in muscle mass and strength in transgender women pre- and post- at least 12 months of testosterone suppression was not statistically significant. The difference between transgender women and control males was statistically significant, with transgender women pre- and post- at least 12 months of testosterone suppression deviating from control males by -7% and -11%, respectively. The difference between transgender women and females is also statistically significant; transgender women pre- and post- at least 12 months of testosterone suppression deviate from

control females by +35% and +30%, respectively. It appears that for metrics of muscle mass and strength, transgender women remain within 'male range'. (*Id.* at ¶ 10.4.)

80. There are three significant cross-sectional studies of physical metrics in transgender women suppressing testosterone. The first found that transgender women, after an average of 8 years of suppressed testosterone, had a lean body mass in the 90th percentile for females, and grip strength that remained 25% higher than the female reference value. The second, in transgender women suppressing testosterone for just over 3 years, showed that those transgender women had a mean lean body mass 18% higher than the mean in control females. The third found that transgender women suppressing testosterone for over 14 years retained higher cardiopulmonary capacity metrics and higher hand grip strength than female controls. (*Id.* at ¶ 10.5.)

81. Biological males undergoing testosterone suppression still had greater grip strength, leg strength, and faster running and swimming speed. (Brown Decl. ¶¶ 135-162.)

82. Testosterone suppression also did not reverse male physiological competitive sports advantages like longer and larger bones, lung and heart size, and muscle mass. (*Id.* ¶¶ 163-178.)

Facts Regarding Incidents of Transgender Athletes Dominating Female Athletes

83. Incidents of male-bodied transgender athletes dominating the female athletes in physical competition—including some of the best female athletes on the planet—have been widely reported in the media in recent years.

84. Incidents of male-bodied transgender athletes injuring female athletes have also been widely reported in recent years.

85. Media articles report that transgender woman Lia Thomas had previously competed as a male swimmer on the University of Pennsylvania men's swim team from 2017 to 2020. When Thomas competed in the 500-yard freestyle on the men's swim team, Thomas was 65th in the country in that event. Thomas then transitioned and competed on the University of Pennsylvania's women's swim team from 2021 to 2022. In March 2022, Thomas won the national championship in the women's 500-yard freestyle event, meaning that Thomas was faster than every female collegiate swimmer in the country. (Samarveer Singh, *What Rank Did Lia Thomas Stand at While Competing in Men's Swimming Division,* Essentially Sports (March 22, 2022).

86. Media articles report that Selina Soule was a dedicated high school track athlete in Connecticut who had devoted countless days, nights, and weekends training to shave fractions of a second off her race times. Selina trained to win and deserved a fair opportunity to prove her ability. However, after the Connecticut Interscholastic Athletic Conference allowed male-bodied transgender athletes to compete on their girls' high school track team, two transgender athletes won 15 state titles that were previously held by nine different girls in 2016. After months of training for the 55-meter dash, Selina was one spot away from qualifying for the final race and to compete for a spot in the New England regional championships, where college scouts would be in attendance to determine which athletes should be offered sports scholarships. Two male-bodied transgender girls took first place and second place in the race, depriving Selina of the opportunities that otherwise would have been available to her. (Maureen Collins, *Why Male Athletes Who Identify as Transgender Should Not Compete in Women's Sports*, adflegal.org (September 23, 2022, revised March 10, 2023).

87. Hannah Arensman, a former Cyclocross National Champion recently retired from her cycling career because she was being forced to compete against, and lose to, male-bodied transgender athletes. She stated, "At my last race at the recent UCI Cyclocross National Championships in the elite women's category in December 2022, I came in 4th place, flanked on either side by male riders awarded 3rd and 5th places . . . it is difficult for me to think about the very real possibility that I was overlooked for an international selection on the US team as Cyclocross Worlds in February 2023 because of a male competitor." (March 9, 2023 Brief of 67 Female Athletes, Coaches, Sports Officials, and Parents of Female Athletes, As *Amici Curiae* in Support of Applicants in The State of West Virginia, Lainey Armistead v. B.P.J. by Next Friend and Mother, Heather Jackson).

88. After a nine-month review and consultation, British Cycling recently banned transgender women from the female category in recognition of the unfair advantage transgender women have over natal women. (Dan Roan, *British Cycling to ban transgender women from competing in female category,* bbc.com (May 26, 2023)).

Facts Regarding Incidents of Transgender Athletes Injuring Female Athletes

89. The physiological differences between males and females are relevant to safety for female athletes. Because men are taller and heavier, they bring more force to bear in a collision. (Carlson Decl. ¶ 43.)

90. Because men are faster, they will be moving at faster speed at impact, causing a greater impact force. (*Id.* ¶ 46.)

91. Because men are stronger, they can generate larger forces with their arms and upper body in the form of ball velocity, pushing power, or punching power. (*Id.* ¶¶ 50-56.)

92. The greater force generated by males will strike female athletes with more energy than normal. For example, men spike volleyballs 29%-34% harder than females and can serve volleyballs 30% harder. (*Id.* ¶ 52.) A volleyball traveling 35% faster will deliver 82% more energy to a head upon impact. (*Id.* ¶ 53.) Because men have a 50% greater vertical jump during a volleyball "attack," female athletes will likely be exposed to higher ball velocities that are outside the range of what is typically seen in women's volleyball. (*Id.* ¶¶ 54-55.)

93. Similarly, males kick soccer balls 20% harder, which will deliver 44% more energy on head impact. (*Id.* ¶ 56.)

94. The increased force increases concussion injury risk. (*Id.* ¶¶ 58-69.) Females already are more likely than males to suffer concussions in sports: 79% higher in soccer, 31% higher in basketball, and 320% higher in softball/baseball. (*Id.* ¶¶ 58, 61.) On average, females also suffer more severe and longer lasting disability once a concussion does occur. (*Id.* ¶ 58.) Females who suffered concussions had a 170% higher frequency of cognitive impairment following the concussion than males. (*Id.* ¶ 64.) The addition of biologically male athletes into women's contact sports will inevitably increase the risk of concussive injury to girls and women. (*Id.* ¶ 69.)

95. Male participation in female sports also increases the risk to female athletes of an Anterior Cruciate Ligament (ACL) tear. (*Id.* ¶¶ 70-78.) Female athletes have a 150%-300% increased risk for ACL injury compared to male athletes. (*Id.* ¶ 72.) Contact causes 20%-36% of all female ACL injuries. (*Id.* ¶ 77.) Thus, as participation in the female category based on identity rather than biology becomes more common (entailing the introduction of athletes with

characteristics such as greater speed and lean muscle mass), and as collision forces suffered by girls and women across the knee increase accordingly, the risk for orthopedic injury and in particular ACL tears among impacted girls and women will inevitably rise. (*Id.*)

96. This research demonstrates that in contact or collision sports, sports involving projectiles, or sports where a stick is used to strike something, the physics and physiology reviewed above tell us that permitting male-bodied athletes to compete against, or on the same team as females—even when undergoing testosterone suppression—must be expected to create predictable, identifiable, substantially increased, and unequal risks of injuries to the participating women. (*Id.* p. 52.)

97. With regard to injuries in volleyball (a sport in which one of the plaintiffs in this action seeks to compete against girls), media articles have reported that high school volleyball player Payton McNabb suffered a concussion and neck injury in September 2022 when a male-bodied transgender athlete spiked the ball into her face. She testified before the North Carolina legislature that her "life has forever been changed" as she still struggles with the side effects of her injuries, including impaired vision, partial paralysis of the right side of her body, headaches, anxiety and depression. (*High School Volleyball Player Payton McNabb Urges Ban on Transgender Athletes After Serious Injury,* Marca.com (April 21, 2023).

98. Similarly, in soccer (a sport in which one of the plaintiffs in this action seeks to compete against girls), news articles have recently reported that a male-bodied transgender athlete injured a female player during a semi-professional women's league game in Australia. The transgender player's aggressive shoulder check sent the female player to the ground where she lay unmoving and was unable to train for some days. The transgender play had allegedly injured female players in the league before according to other media reports. (*WATCH: Transgender Soccer Player Injures Female Opponent*, freebeacon.com (June 1, 2023) https://freebeacon.com/latest-news/watch-transgender-soccer-player-injures-female-opponent/); (*Fed up parents erupt over trans woman football player who it the league's top goal scorer: 'Totally unfair?'* dailymail.co.uk (April 4, 2023); (Shay Woulahan, *Thousands of Complaints*

Filed After Trans YouTuber Allowed to Play on Women's Football League, Reportedly Injured Players, redux.info (April 1, 2023).

99. It has been reported that at the high school level, a male-bodied transgender rugby player injured three female players during a single match. The coach of the injured girls reportedly stated that the transgender athlete's "body size, strength . . . completely dominate any girl that I have on my team" and "I have three players that were injured in that first game against Guam High directly by that particular player." (Luke Gentile, *WATCH: Transgender rugby player slams female athletes, coach says three injured,* washingtonexaminer.com (April 14, 2022).

100. It has also been publicly reported that a male-bodied transgender hockey player recently caused serious and possibly permanent injury to a biological female player when the larger, heavily-muscled player collided with the smaller opponent. One reporter described the incident, noting "the size imbalance between the two skaters was so great that the [far smaller] Team player ended up being propelled head first into the boards with enough force to deliver a concussion." (Holt Hackney, *Professor Maintains that Trans Athletes Causing Serious Injuries to Girls,* sportslawexpert.com (December 12, 2022).

101. News articles also report that male-bodied transgender mixed martial artist Fallon Fox broke the skull of her opponent Tamikka Brents who later remarked "I have struggled with many women and I have never felt the strength I felt in a fight like that night…I've never felt so overpowered ever in my life. . . . I could usually move around in the clinch against… females but couldn't move at all in Fox's clinch." (Laura Meyers, *Transgender MMA Fighter Destroys Female Opponent,* thelibertarianrepublic.com.

102. In addition to the risks of physical injury, girls who are forced to compete against biological boys experience negative social and emotional impacts, including becoming intimidated and withdrawing from the competition, which deprives many such girls of the social, emotional, physical and mental health benefits of sports competition. (Blade Decl. at 11:24-12:18). *See also* sworn evidence regarding female athletes quitting when faced with unfair competition from transgender women. (March 9, 2023 Brief of 67 Female Athletes, Coaches, Sports Officials, and Parents of Female Athletes, As *Amici Curiae* in Support of Applicants in

The State of West Virginia, Lainey Armistead v. B.P.J. by Next Friend and Mother, Heather Jackson).

Facts regarding the Save Women's Sports Act, A.R.S § 15-120.02

103. In light of growing concerns regarding fairness and safety in girls' and women's sports, the Arizona Legislature passed A.R.S. § 15-120.02, the Save Women's Sports Act (the "Act"), which was signed into law on March 30, 2022.

104. The Save Women's Sports Act applies to all public schools or private schools whose students or teams compete against a public school. A.R.S. § 15-120.02(A). The Act covers all educational age levels, applying from kindergarten through grade twelve and to all institutions of higher education. *Id*. at § 15-120.02(I).

105. In relevant part, the Save Women's Sports Act provides that athletic teams at public schools (and private schools whose teams compete against public school teams) shall designate each team or sport as a "males", "men", or "boys" team or sport, or as a "females", women", or "girls" team or sport, or as a "coed" or "mixed" team or sport. *Id.* at § 15-120.02(A) The Act provides that "[a]thletic teams or sports designated for 'females', 'women' or 'girls' may not be open to students of the male sex." *Id.* at § 15-120.02(B).

106. Arizona Senate President Warren Petersen described the purposes of the Save Women's Sports Act as protecting female student athletes: "Female athletes deserve equal opportunities in sporting events, which will not happen so long as males are allowed to compete against them." (Gloria Rebecca Gomez, *Top Arizona Republicans ask to defend trans athlete ban in court,* TucsonSentinel.com (May 2, 2023)).

107. Representative Nancy Barto, who introduced the bill, similarly described the purpose of the Save Women's Sports Act: "Women are being displaced in their own sport. The Playing field is no longer level." (Sophie Lewis, *Arizona House passes bill banning transgender student athletes from participating in girls sports,* CBSNews.com (March 4, 2020)).

108. When the Arizona Senate passed S.B. 1165 (the precursor to A.R.S. § 15-120.02), the Arizona legislature made a series of legislative findings consistent with the research presented

above: that inherent, physiological differences between biological males and females create a "sports performance gap" between males and females. S.B. 1165, § 2(1), (5), (7), and (9) (2022).

109. The legislature further found that "[h]aving separate sex-specific teams furthers efforts to promote sex equality by providing opportunities for female athletes to demonstrate their skill, strength and athletic abilities while also providing them with opportunities to obtain recognition, accolades, college scholarships and the numerous other long-term benefits that flow from success in athletic endeavors." *Id.* at § 2(14).

110. The Arizona legislature made 14 separate findings when it passed the Save Women's Sports Act. S.B. 1165, § 2 (2022). These findings relate to biological sex and physiological differences between men and women, not transgender status. *See id.*

111. The legislature found a "sports performance gap between males and females, such that the physiological advantages conferred by biological sex appear, on assessment of performance data, insurmountable." S.B. 1165, § 2(9)(2022) (internal quotation omitted).

112. The legislature also cited court decisions and studies finding that the physiological difference between males and females resulted in different athletic capabilities. *Id.* at S.B. 1165, § 2(4)-(13).

113. Based on this evidence, the legislature concluded: "Having separate sex specific teams furthers efforts to promote sex equality by providing opportunities for female athletes to demonstrate their skill, strength and athletic abilities while also providing them with opportunities to obtain recognition, accolades, college scholarships and the numerous other long-term benefits that flow from success in athletic endeavors." *Id.* at § 2(14).

114. Defendants Petersen, Toma, and Horne assert that if the Save Women's Sports Act were enjoined, the State of Arizona would be at risk of lawsuits filed by girls and women unfairly forced to compete against, and potentially be injured by, male-bodied transgender athletes.

115. Defendants Petersen, Toma, and Horne further assert that if the Save Women's Sports Act were enjoined, female athletes in Arizona Schools will be unfairly denied the opportunity to fully demonstrate and prove their prowess as female athletes (including being denied the opportunity to win or place in sports competition and being denied scholarship and

educational opportunities), being denied the privacy to be free of unclothed male bodies in the locker room, and being placed at unreasonable and unnecessary risk of physical injury from male-bodied transgender athletes.

116. Plaintiffs complain about the harm they perceive in being precluded from participating on girls' teams in school sports. But, necessarily, every time a biological boy/transgender girl joins a limited-participation girls team, they deprive a biological girl of the opportunity to compete and win. And every time a transgender girl wins or places in an individual event, a biological girl is excluded.

117. Until very recently, everyone agreed sports could be separated by sex. As the Supreme Court has recognized, "[t]he two sexes are not fungible" and there are "inherent differences" between the sexes that are "enduring." *U.S. v. Virginia*, 518 U.S. 515, 533 (1996).

118. Nowhere are these differences more evident than in the sports context where biological boys have a clear advantage over girls. That is precisely why Title IX was enacted 51 years ago, to create a level playing field where girls would have their own teams where they can compete fairly and safely and become champions.

119. Title IX has been transformative for female athletes, with many obtaining educational and career opportunities previously denied them.

120. It is only in recent years where biological boys seek to compete on girls' teams, that the separation of sex in sport was upended along with the hard-fought benefits of Title IX.

Facts regarding Plaintiffs and their claims in this lawsuit

121. Plaintiffs in this case are two students who identify as girls. Plaintiff Jane Doe is 11 years old, and Plaintiff Megan Roe is 15 years old. Dkt. 1 at ¶¶ 7-8.

122. Jane Doe will attend middle school starting in July 2023. Cmplt. ¶ 44. Jane was recently prescribed a puberty blocking implant, which her parents intend to have medically implanted as soon as possible. Dkt. 97.

123. Jane intends to try out for the girls' soccer team at her middle school—which has separate teams for boys and girls—in the winter 2023-2024 athletic season. *Id.* ¶ 49. Jane also

intends to try out for the girls' cross-country team in the summer 2023 season, and the girls' basketball team in the spring 2024 season. *Id.* ¶ 50.

124. Megan Roe attends The Gregory School. *Id.* ¶ 56. Megan has been receiving puberty-blocking medication since she was 11 years old, after clinical documentation of the initial signs of puberty. Megan then started to receive hormone therapy when she was 12 years old.

125. Megan intends to try out for the girls' volleyball team at The Gregory School this fall. *Id.* ¶ 63.

126. Separate teams are available to both sexes in the sports in which Plaintiffs want to participate. Plaintiff Doe's school has soccer, basketball, and cross-country teams for both boys and girls. (Decl. of J. Doe, Dkt. 6, ¶ 9.) Plaintiff Roe's school has volleyball teams for both boys and girls. (Decl. of M. Roe, Dkt. 8, ¶¶ 7, 9).

127. Plaintiffs filed suit against Defendants alleging three counts, but seek a preliminary injunction under only two of those counts: Count I – Deprivation of Equal Protection, U.S. Constitution, Amendment XIV, and Count II – Violation of Title IX, 20 U.S.C. § 1681 *et seq.*

CONCLUSIONS OF LAW

I. LEGAL STANDARD

1. "A plaintiff seeking a preliminary injunction must establish [1] that he is likely to succeed on the merits, [2] that he is likely to suffer irreparable harm in the absence of preliminary relief, [3] that the balance of equities tips in his favor, and [4] that an injunction is in the public interest." *Norbert v. City & Cnty. of San Francisco*, 10 F.4th 918, 927 (9th Cir. 2021) (citing *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008)).

2. "[W]here the party seeking a preliminary injunction fails to satisfy any one of the *Winter* factors, the preliminary injunction must be denied." *Video Gaming Techs., Inc. v. Bureau of Gambling Control*, 356 F. App'x 89, 92 (9th Cir. 2009) (internal citation omitted).

3. A preliminary injunction is "an extraordinary and drastic remedy, one that should not be granted unless the movant, *by a clear showing,* carries the burden of persuasion." *Lopez v. Brewer*, 680 F.3d 1068, 1072 (9th Cir. 2012) (quoting *Mazurek v. Armstrong,* 520 U.S. 968, 972 (1997) (per curiam)) (emphasis original).

4. None of the factors support Plaintiffs' request for injunctive relief. Accordingly, Plaintiffs' motion for a preliminary injunction is denied.

II. LIKELIHOOD OF SUCCESS ON THE MERITS

5. "Likelihood of success on the merits is the most important factor; if a movant fails to meet this threshold inquiry, [the court] need not consider the other factors." *California v. Azar*, 911 F.3d 558, 575 (9th Cir. 2018) (internal quotations omitted).

6. Because Plaintiffs have failed to show that they are likely to succeed on either their Equal Protection Clause or Title IX claims, no other factor needs to be considered.

A. Plaintiffs' Equal Protection Claim (Count I)

7. The Act does not mention transgender status. Instead, the Act classifies athletes based on biological sex, a distinction that acknowledges "inherent differences between men and women." *United States v. Virginia*, 518 U.S. 515, 533 (1996); *see also Frontiero v. Richardson*, 411 U.S. 677, 686 (1973) ("sex, like race and national origin, is an immutable characteristic determined solely by the accident of birth").

8. The Act constitutionally classifies on the basis of biological sex.

9. The Act satisfies rational basis review.

10. Even if it applied, the Act satisfies intermediate scrutiny.

11. Plaintiffs are not likely to succeed on the merits of their Equal Protection claim.

1. The Save Women's Sports Act designates sports teams based on biological sex, not gender identity.

12. The Equal Protection Clause is "implicated only when a classification treats persons similarly situated in different ways." *Clark, By & Through Clark v. Arizona Interscholastic Ass'n*, 695 F.2d 1126, 1128 (9th Cir. 1982) ("*Clark I*").

13. "The first step in equal protection analysis is to identify the state's classification of groups." *Country Classic Dairies, Inc. v. State of Mont., Dep't of Com. Milk Control Bureau*, 847 F.2d 593, 596 (9th Cir. 1988).

14. The Save Women's Sports Act classifies based on biological sex, not gender identity, by providing that school athletic teams "shall be expressly designated . . . based on the

biological sex of the students who participate on the team or in the sport . . . ." A.R.S. § 15-120.02(A). "Athletic teams or sports designated for 'females', 'women' or 'girls' may not be open to students of the male sex." *Id.* at § 15-120.02(B). Transgender status is not mentioned. *See id.* The Act thus classifies students by biological sex, not gender identity.

15. This is consistent with the Act's legislative findings. The Arizona legislature made 14 separate findings when it passed the Save Women's Sports Act. *See* S.B. 1165, § 2 (2022). These findings relate to biological sex and physiological differences between men and women, not transgender status. *See id.*

16. States have the ability to classify without violating the Equal Protection Clause. *Pers. Adm'r of Massachusetts v. Feeney*, 442 U.S. 256, 271 (1979). "Most laws classify, and many affect certain groups unevenly, even though the law itself treats them no differently from all other members of the class described by the law." *Id.* at 271-72.

17. Sex is not a "proscribed classification." *United States v. Virginia*, 518 U.S. 515, 533 (1996).

18. "[A] policy can lawfully classify on the basis of biological sex without unlawfully discriminating on the basis of transgender status." *Adams by & through Kasper v. Sch. Bd. of St. Johns Cnty.*, 57 F.4th 791, 809 (11th Cir. 2022) (rejecting equal protection and Title IX claims to school policy requiring students to use bathroom based on biological sex).

19. Numerous courts have rejected equal protection challenges brought by male student athletes who were excluded from female sports teams. *See Clark I*, 695 F.2d at 1131 (affirming dismissal of lawsuit that sought to force state high school athletics association to allow a male to participate on a female high school volleyball team); *Clark By & Through Clark v. Arizona Interscholastic Ass'n*, 886 F.2d 1191, 1193 (9th Cir. 1989) ("*Clark II*") (affirming summary judgment in favor of state high school athletics association that refused to allow a male to participate on a female high school volleyball team); *Kleczek v. Rhode Island Interscholastic League, Inc.*, 768 F. Supp. 951, 956 (D.R.I. 1991) (denying motion for preliminary injunction that sought to force state high school athletics association and school officials to allow a male to participate on a female high school field hockey team); *Petrie v. Illinois High Sch. Ass'n*, 394

N.E.2d 855, 862 (Ill. App. Ct. 1979) (affirming dismissal of lawsuit that sought to force a state high school athletics association and a school district to allow a male to participate on a female high school volleyball team); *B.C. v. Board of Educ., Cumberland Regional Sch. Dist.*, 531 A.2d 1059, 1066 (N.J. Super. Ct. App. Div. 1987) (affirming decision in favor of school district that excluded a male from participating on a female high school field hockey team); *Mularadelis v. Haldane Cent. Sch. Bd.*, 427 N.Y.S.2d 458, 463-64 (N.Y. App. Div. 1980) (reversing decision in favor of male who sought to force a school district to allow him to participate on a female high school tennis team).

20. Plaintiffs concede that "they do not challenge the existence of sex-segregated sports at all." Doc. 65, at 12. Thus, they concede that, as a general matter, Arizona may classify on the basis of sex and exclude boys from girls' sports teams. *See id.*; *Clark I*, 695 F.2d at 1127; *Clark II*, 886 F.2d at 1193.

21. The Save Women's Sports Act does not facially discriminate on the basis of transgender status.

22. Because the Act classifies athletes on the basis of biological sex, both of which can inherently contain transgender students, "there is a 'lack of identity' between the policy and transgender status," since sports options are "equivalent to those provided to all students of the same biological sex." *Adams by & through Kasper*, 57 F.4th at 809 (internal quotation and citations omitted).

23. Classifying by biological sex to protect girls playing school sports is constitutional.

2. The Ninth Circuit has rejected equal protection challenges to Arizona policies preventing boys from playing in girls' sports.

24. In a similar challenge, the Ninth Circuit held an Arizona policy that excluded boys from playing on girls' volleyball teams did not violate the Equal Protection Clause. *See Clark I*, 695 F.2d at 1131-32.

25. The Ninth Circuit found "[t]here is no question" that "redressing past discrimination against women in athletics and promoting equality of athletic opportunity between the sexes . . . is a legitimate and important governmental interest." *Id.* at 1131.

26. The Ninth Circuit then found that excluding boys from girls' sports was substantially related to this interest because "[t]he record makes clear that due to average physiological differences, males would displace females to a substantial extent if they were allowed to compete for positions on the volleyball team." *Id.*

27. The state policy excluding boys from girls' volleyball "is simply recognizing the physiological fact that males would have an undue advantage competing against women for positions on the volleyball team." *Id.*

28. The Ninth Circuit reaffirmed this decision a few years later in a case involving the *Clark I* plaintiff's brother. *Clark II*, 886 F.2d at 1193-94.

29. The *Clark II* plaintiff also brought an equal protection challenge to the Arizona policy prohibiting boys from participating on girls' volleyball teams because his school did not have a boys' volleyball team. *Id.* at 1192. The Ninth Circuit rejected this challenge as well, reasoning that "[i]f males are permitted to displace females on the school volleyball team even to the extent of one player like Clark, the goal of equal participation by females in interscholastic athletics is set back, not advanced." *Id.* at 1193.

30. The *Clark I* and *II* decisions control here.

31. Similar to the Arizona policy challenged in the *Clark* cases preventing boys from playing girls' volleyball, A.R.S. § 15-120.02 prohibits biological boys from playing on teams or sports designated for biological girls.

3. The Act is subject to rational-basis scrutiny.

32. After determining the classification, the next step in equal protection analysis is to determine the level of scrutiny. *Country Classic Dairies, Inc. v. State of Mont., Dep't of Com. Milk Control Bureau*, 847 F.2d 593, 596 (9th Cir. 1988).

33. Plaintiffs contend that Arizona's protected class—biological females—should be *redefined* to include "transgender girls," *i.e.*, biological males who identify as female. Doc. 65, at 1.

34. By not challenging the classification on sex, but instead challenging how Arizona defines sex, Plaintiffs are actually bringing an underinclusiveness challenge. Such a challenge is

subject to rational basis scrutiny. *See, e.g.*, *Jana-Rock Constr., Inc. v. New York Dep't of Econ. Dev.*, 438 F.3d 195 (2d Cir. 2006); *Vazquez v. Walters*, 555 F. Supp. 3d 1034, 1040 (D. Or. 2021), *aff'd*, No. 21-35759, 2023 WL 3073101 (9th Cir. Apr. 25, 2023); *Orion Ins. Grp. v. Washington State Off. of Minority & Women's Bus. Enterprises*, No. 16-5582 RJB, 2017 WL 3387344, at *13 (W.D. Wash. Aug. 7, 2017), *aff'd sub nom. Orion Ins. Grp. v. Washington's Off. of Minority & Women's Bus. Enterprises*, 754 F. App'x 556 (9th Cir. 2018); *Hoohuli v. Ariyoshi*, 631 F. Supp. 1153 (D. Haw. 1986).

35. In *Jana-Rock Construction*, the plaintiffs, Spanish-born contractors, challenged their exclusion from a racial preference program that included only Latin American Hispanics. *Jana-Rock*, 438 F.3d at 205. The contractors conceded that the preference program was valid but argued that it was "fatally underinclusive" in excluding Spanish-born Hispanics. *Id.* Like Plaintiffs here, the contractors accepted the state's classification in general, but sought to redefine it to include an additional subclass. *See id.* Citing *Katzenbach v. Morgan*, 384 U.S. 641 (1966), the Second Circuit rejected this argument, holding that New York's choice of an allegedly "underinclusive" definition of its protected class was subject to rational-basis scrutiny. *Jana-Rock*, 438 F.3d at 212-14.

36. In *Hoohuli*, the plaintiffs, Hawaiian taxpayers, challenged their exclusion from a racial preference program for "Hawaiians." *Hoohuli*, 631 F. Supp. at 1154. The taxpayers acknowledged the preference program was valid but argued "the line the legislature has drawn is incorrect." *Id.* at 1159. The court found Hawaii had a rational basis for its definition of "Hawaiian" and rejected the taxpayers' equal protection claim. *Id.* at 1160-61.

37. Plaintiffs admit that Arizona can classify on the basis of sex in sports teams, but contend that the definition of the protected class Arizona has adopted—*i.e.*, biological girls and women—is underinclusive and must be broadened to include "transgender girls." Doc. 65, at 1. This claim fails unless Arizona's "definition lacks a rational basis." *Jana-Rock*, 438 F.3d at 200.

38. Rational-basis scrutiny also applies because biological girls and biological boys are not similarly situated with respect to athletic performance.

39. As the Arizona Legislature found, "Courts have recognized that the inherent, physiological differences between males and females result in different athletic capabilities." S.B. 1165 (2022), § 2(12) (citing *Kleczek v. Rhode Island Interscholastic League, Inc*., 612 A.2d 734, 738 (R.I. 1992) ("Because of innate physiological differences, boys and girls are not similarly situated as they enter athletic competition.")).

40. "[T]ransgender girls are biologically male," and "biological males are not similarly situated to biological females for purposes of athletics." *B.P.J. v. W. Virginia State Bd. of Educ.*, -- F. Supp. 3d --, No. 2:21-CV-00316, 2023 WL 111875, at *9 (S.D.W. Va. Jan. 5, 2023).

41. For this reason as well, the Act is subject to rational-basis scrutiny at most. *See also L.W. et al. v. Skrmetti et al.*, at 12 (No. 23-5600 (6th Cir. July 8, 2023) ("rational basis review applies to transgender-based classifications," noting that "[i]n the context of a preliminary injunction . . . that should be nearly dispositive" in denying the injunction request).

4. The Act satisfies rational-basis review.

42. Under rational-basis review, the Act "is not subject to courtroom factfinding and may be based on rational speculation unsupported by evidence or empirical data," and Plaintiffs "have the burden to negative every conceivable basis which might support it," *F.C.C. v. Beach Commc'ns, Inc*., 508 U.S. 307, 315 (1993).

43. The Act serves the obvious rational bases of promoting fairness, safety, and opportunity for women and girls in sports.

44. The Act's legislative findings make its purpose clear—to protect women's equality and the integrity of women's sports: "Having separate sex-specific teams furthers efforts to promote sex equality by providing opportunities for female athletes to demonstrate their skill, strength and athletic abilities while also providing them with opportunities to obtain recognition, accolades, college scholarships and the numerous other long-term benefits that flow from success in athletic endeavors." S.B. 1165 (2022), § 2(14).

45. This conclusion is supported by a series of specific findings that cite published studies, including (among others) that (1) "there are inherent differences between men and women," *id.* § 2(5); that "[i]n studies of large cohorts of children from six years old, boys typically

scored higher than girls on cardiovascular endurance, muscular strength, muscular endurance, and speed/agility," *id.* § 2(6); that "there is a sports performance gap between males and females," *id.* § 2(9); and that "[t]he benefits that natural testosterone provides to male athletes is not diminished through the use of testosterone suppression," *id.* § 2(13) (cleaned up).

46. Plaintiffs have not negatived every conceivable basis that might support the Act. *F.C.C. v. Beach Commc'ns, Inc*., 508 U.S. 307, 315 (1993)

47. Nor have Plaintiffs provided factual evidence that the Act is the result of a "bare desire to harm." *See B.P.J. v. W. Virginia State Bd. of Educ*., -- F. Supp. 3d --, No. 2:21-CV-00316, 2023 WL 111875, at *4 (S.D.W. Va. Jan. 5, 2023) (rejecting the claim that a similar West Virginia statute was based on a "bare desire to harm" because the record "does not contain evidence of that type of animus more broadly throughout the state legislature").

5. Intermediate scrutiny does not apply to the Act.

48. Intermediate or "heightened" scrutiny does not apply to the Act because it does not discriminate on the basis of transgender status.

49. The Act's exclusion of biological males from women's sports is "transgender-neutral"—it applies equally to *all* biological males, regardless of their transgender status. *See* A.R.S. § 15-120.02(B).

50. As *Clark I* and *Clark II* demonstrate, Arizona has a history of non-transgender boys seeking access to girls' sports teams, and the Act excludes them from doing so.

51. Moreover, all of the Act's recited justifications apply to biological males who are not transgender, just as they do to biological males who are transgender. *See* S.B. 1165, § 2(1)-(14).

52. The policies at issue in the cases cited by Plaintiffs had no conceivable application to non-transgender males. Instead, the laws at issue in those cases are distinguishable because they were specifically applicable *only* to transgender individuals—they were not laws that excluded all biological males and happened to include transgender individuals among them. *See Karnoski v. Trump*, 926 F.3d 1180, 1186 (9th Cir. 2019) (addressing a policy "that transgender individuals would not be allowed to serve in the military"); *D.T. v. Christ*, 552 F. Supp. 3d 888,

894 (D. Ariz. 2021) (challenging a law that allows only "a person who has undergone a sex change operation" to change their sex on their birth certificate).

53. The Act also does not discriminate between "cisgender athletes" and "transgender women athletes."

54. "Cisgender athletes" and "transgender athletes" are treated equally by the Act—both are allowed to compete on teams consistent with their biological sex, and both are excluded from teams inconsistent with their biological sex.

55. The "purpose" of SB 1165, as reflected both in the plain text of the statute and its legislative findings, was to exclude *biological males* from girls' sports teams. *See Oncale v. Sundowner Offshore Servs., Inc*., 523 U.S. 75, 79 (1998) ("[I]t is ultimately the provisions of our laws rather than the principal concerns of our legislators by which we are governed.").

56. The statute's text excludes "students of the male sex," A.R.S. § 15-120.02(B), regardless of transgender status.

57. The statute's findings uniformly address the competitive advantages of *biological males*, regardless of transgender status. S.B. 1165, § 2(1)-(13).

58. Further, the statements of two individual legislators cited by Plaintiffs, Doc. 65, at 6, do not reflect animus at all, and they fall far short of showing "evidence of … animus more broadly throughout the state legislature." *B.P.J.*, 2023 WL 111875, at *4.

59. In any event, because the Act does not involve a traditionally suspect class, Plaintiffs' animus claim cannot succeed if the Act serves a legitimate government interest, which the Act does. *Boardman v. Inslee*, 978 F.3d 1092, 1119 (9th Cir. 2020); *Animal Legal Def. Fund v. Wasden*, 878 F.3d 1184, 1201 (9th Cir. 2018).

60. Holding that the Act satisfies equal protection does not disrupt litigation involving transgender individuals. Lawsuits challenging policies that actually single out transgender individuals for disfavored treatment—such as, arguably, *Karnoski* and *D.T.*—continue to trigger heightened scrutiny in the Ninth Circuit. Laws that treat transgender individuals equally, like S.B. 1165, do not.

6. The Act withstands intermediate scrutiny, even if it applies.

61. Under intermediate scrutiny, the state need only show that the *classification as a whole* serves important governmental interests and is substantially related to the achievement of those interests. *Mississippi Univ. for Women v. Hogan*, 458 U.S. 718, 724 (1982).

62. This scrutiny is "intermediate" precisely because, unlike strict scrutiny, it does *not* require exact precision.

63. Although Plaintiffs have brought an as-applied challenge, the "facial or as-applied" label "does not speak at all to the substantive rule of law." *Bucklew v. Precythe*, 139 S. Ct. 1112, 1127 (2019).

64. A statute's validity always turns on how it relates "to the overall problem the government seeks to correct, not on the extent to which it furthers the government's interests in an individual case." *Ward v. Rock Against Racism*, 491 U.S. 781, 801 (1989); *see also United States v. Edge Broad. Co.*, 509 U.S. 418, 427 (1993).

65. "Sex-based classifications fall under intermediate scrutiny and therefore do not have a 'narrowly-tailored' requirement." *B.P.J.*, 2023 WL 111875, at *8.

66. It thus is not relevant under intermediate scrutiny if most studies address individuals who have undergone male puberty.

67. In any event, the Arizona legislature cited specific pre-puberty studies. *See* S.B. 1165, § 2(6) (citing studies of "large cohorts of children from six years old" that demonstrate that "boys typically scored higher than girls on cardiovascular endurance, muscular strength, muscular endurance, and speed/agility").

68. The Arizona legislature's finding is supported by extensive empirical evidence presented to the Court. *See* Doc. 38-3, at 33-53 (Brown Decl. ¶¶ 77-125) (citing numerous studies to establish that "significant physiological differences, and significant male athletic performance advantages in certain areas, exist before significant developmental changes associated with male puberty have occurred"); Doc. 38-5, at 37 (Carlson Decl. ¶ 83) ("[T]he available evidence strongly indicates that no amount of testosterone suppression can eliminate male physiological advantages relevant to performance and safety.") (Hilton Decl. ¶¶ 7.1-7.22) (analyzing athletic

performance records from international, national, and local sources demonstrating prepubertal physical performance advantages for males).

69. These studies demonstrate that Arizona's *policy as a whole* advances important governmental objectives and is substantially related to those objectives. *Hogan*, 458 U.S. at 724 (requiring a "close relationship" between means and ends, not exact precision).

70. "The legislature's definition of 'girl' as being based on 'biological sex' is substantially related to the important government interest of providing equal athletic opportunities for females." *B.P.J.*, 2023 WL 111875, at *8.

71. Here, "the governmental interest claimed is redressing past discrimination against women in athletics and promoting equality of athletic opportunity between the sexes. There is no question that this is a legitimate and important governmental interest." *Clark I*, 695 F.2d at 1131.

72. Plaintiffs' expert, Dr. Shumer, provided testimony of the athletic disadvantages that girls still face. *See* Second Rebuttal Decl. of Daniel Shumer, M.D., in Further Support of Mot. for Prelim. Inj., Doc. 113, ¶¶ 57, 60. For example, Dr. Shumer stated: "Across the board, girls have far fewer opportunities to play sports and therefore far less coaching and skill training than boys in every age group. For example, during the 2019-2019 year, fifty-seven percent of high school athletics participation opportunities went to boys, with only forty-three percent going to girls, translating into over one million more opportunities for boys than girls." *Id.* at ¶ 60 (internal citations omitted).

73. The Save Women's Sports Act sought to address important government interests such as those identified by Dr. Shumer. S.B. 1165, § 2(14).

74. And "there is clearly a substantial relationship between the exclusion of males from the team and the goal of redressing past discrimination and providing equal opportunities for women." *Id.*

75. Further, "the existence of … alternatives … does not mean that the required substantial relationship does not exist." *Id.*

76. "[A]bsolute necessity is not required before a gender based classification can be sustained." *Id.*

77. "[E]ven the existence of wiser alternatives than the one chosen does not serve to invalidate the policy here since it is substantially related to the goal." *Id.* at 1132.

78. Plaintiffs have failed to show that they are likely to succeed on their Equal Protection claim.

B. Plaintiffs' Title IX Claim (Count II)

79. "Title IX levels the playing fields for female athletes." *Ollier v. Sweetwater Union High Sch. Dist.*, 768 F.3d 843, 871 (9th Cir. 2014).

80. Title IX provides that "[n]o person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." 20 U.S.C. § 1681(a).

81. Title IX's regulations require schools to "provide equal athletic opportunity for members of both sexes." 34 C.F.R. § 106.41(c).

82. "[A] central aspect of Title IX's purpose was to *encourage* women to participate in sports." *Neal v. Bd. of Trustees of California State Universities*, 198 F.3d 763, 768 (9th Cir. 1999) (emphasis original).

83. Although Title IX "applies equally to boys as well as girls, it would require blinders to ignore that the motivation for the promulgation of the regulation was to increase opportunities for women and girls in athletics." *B.P.J.*, 2023 WL 111875, at *9 .

84. "Title IX has enhanced, and will continue to enhance, women's opportunities to enjoy the thrill of victory, the agony of defeat, and the many tangible benefits that flow from just being given a chance to participate in intercollegiate athletics." *Neal*, 198 F.3d at 773.

85. The Act does not discriminate against Plaintiffs based on sex.

1. Title IX addresses biological sex, not gender identity.

86. Title IX prohibits discrimination in school activities like sports "on the basis of sex." 20 U.S.C. § 1681(a).

87. Since Title IX does not define "sex," courts interpret statutory terms "in accord with the ordinary public meaning . . . at the time of its enactment." *Bostock v. Clayton Cnty., Georgia*, 140 S. Ct. 1731, 1738 (2020). "To determine the plain meaning of a statute, we traditionally refer

to dictionaries in use at the time of the statute's enactment." *Gollehon v. Mahoney*, 626 F.3d 1019, 1023 (9th Cir. 2010) (citation omitted).

88. Dictionary definitions demonstrate that Congress' use of "sex" meant "biological sex." "Reputable dictionary definitions of 'sex' from the time of Title IX's enactment show that when Congress prohibited discrimination on the basis of 'sex' in education, it meant biological sex, *i.e.*, discrimination between males and females." *Adams by & through Kasper v. Sch. Bd. of St. Johns Cnty.*, 57 F.4th 791, 812 (11th Cir. 2022) (quoting contemporaneous dictionary definitions).

89. The Supreme Court confirmed this understanding contemporaneously just one year after Congress passed Title IX: "sex, like race and national origin, is an immutable characteristic determined solely by the accident of birth . . ." *Frontiero v. Richardson*, 411 U.S. 677, 686 (1973).

90. Interpreting "sex" as used in Title IX to mean something other than biological sex would be contrary to the Supreme Court's contemporaneous interpretation in *Frontiero*.

91. A statute "should be construed so that effect is given to all its provisions, so that no part will be inoperative or superfluous, void or insignificant." *Stand Up for California! v. U.S. Dep't of the Interior*, 959 F.3d 1154, 1159 (9th Cir. 2020) (internal quotation omitted).

92. Title IX repeatedly discusses sex as a binary concept. *See, e.g.*, 20 U.S.C. § 1681(a)(5) ("only students of one sex"); 20 U.S.C. § 1681(a)(6) ("limited to persons of one sex"); 20 U.S.C. § 1686 ("living facilities for the different sexes"); 34 C.F.R. § 106.34(a)(1) ("separation of students by sex within physical education classes").

93. Title IX's sports regulations also contemplate two sexes: Title IX acknowledges the validity of "separate teams for members of each sex" and exists to "provide equal athletic opportunity for . . . both sexes" to "effectively accommodate the interests and abilities of members of both sexes." 34 C.F.R. § 106.41(b), (c).

94. Title IX's provisions and these regulations regarding "both sexes" only make sense if sex means biological sex, i.e., males and females.

95. *Bostock v. Clayton County*, 140 S. Ct. 1731, 1741 (2020), addressed Title VII, not Title IX. *See id.* at 1737. And *Bostock* addressed discrimination specifically targeted at

individuals on the basis of their transgender status—*i.e.*, "[a]n employer who fires an individual for being . . . transgender." *Id.* Here, the statute classifies solely on the basis of biological sex and is transgender-neutral, distinguishing this case from *Bostock*.

96. *Bostock* stated that "it is impossible to discriminate against a person for being homosexual or transgender without discriminating against that individual based on sex." *Id.* at 1741. But *Bostock* stated this because "[a]n individual's homosexuality or transgender status is not relevant to employment decisions." *Id.* Here, by contrast, one's status as a biological male *is* relevant to athletic performance. *See B.P.J.*, 2023 WL 111875, at *7 ("[O]ne's sex … dictates physical characteristics that are relevant to athletics."). This fundamental factual difference—employment opportunity versus athletic competition—further distinguishes *Bostock* from the instant case.

97. Further, *Bostock* itself emphasized that it was not considering "other federal or state laws that prohibit sex discrimination," and that it was not addressing "sex-segregated bathrooms, locker rooms, and dress codes." *Id.* at 1753. *Bostock* thus did not address Title IX or "sex-segregated" sports teams. *Id.*

98. Title IX is radically different from Title VII in this context, because sports teams segregated by biological sex advance the fundamental purpose of Title IX, *see Williams*, 998 F.2d at 175, while employment discrimination against transgender individuals violates the purpose of Title VII.

99. Title IX, unlike Title VII, has an implementing regulation that explicitly authorizes sports teams segregated by biological sex. 34 C.F.R. § 106.41(b).

100. "If males are permitted to displace females on the school volleyball team even to the extent of one player like Clark, the goal of equal participation by females in interscholastic athletics is set back, not advanced." *Clark II*, 886 F.2d at 1193.

101. The Ninth Circuit's decision in *Doe v. Snyder* also does not require a finding in favor of Plaintiffs.

102. First, *Doe* discussed *Bostock* only in dicta. *Doe v. Snyder*, 28 F.4th 103, 113 (9th Cir. 2022). Dicta is not binding precedent. *See Exp. Grp. v. Reef Indus., Inc.*, 54 F.3d 1466, 1472

(9th Cir. 1995) ("[T]hese statements were not necessary to the decision and thus have no binding or precedential impact in the present case").

103. Second, the *Doe* dicta narrowly disagreed with the district court that *Bostock* did not need to be considered in a Title IX claim simply by noting that *Bostock* only involved Title VII. *Doe*, 28 F.4th at 114.

104. Third, the *Doe* dicta did not resolve whether a law precluding coverage for gender reassignment surgeries discriminated based on sex because the district court had not yet addressed it. *Id.* at 114. Thus, the Ninth Circuit has not ruled that discrimination based on transgender status also constitutes impermissible discrimination under Title IX.

105. Title IX prohibits discrimination based on biological sex. Arizona's law does not discriminate against Plaintiffs based on sex. Plaintiffs' Title IX claim thus fails.

2. Title IX allows for sex-based distinctions for sports teams.

106. Unlike the Supreme Court in *Bostock*, which only decided under Title VII "whether discrimination based on transgender status necessarily equates to discrimination on the basis of sex," Title IX "includes express statutory and regulatory carve-outs for differentiating between the sexes . . . ." *Adams by & through Kasper v. Sch. Bd. of St. Johns Cnty.*, 57 F.4th 791, 811 (11th Cir. 2022).

107. For example, Title IX allows schools to "operate or sponsor separate teams for members of each sex where selection for such teams is based upon competitive skill or the activity involved is a contact sport." 34 C.F.R. § 106.41(b).

108. Title IX expressly allows schools to take sex into account in creating sports teams.

109. Title IX does not prohibit consideration of sex, but instead prohibits "exclusion from participation," "denial of benefits," or "discrimination" "on the basis of sex." 20 U.S.C. § 1681(a). To "exclude" meant "to shut out," "hinder the entrance of," or "bar from participation, enjoyment, consideration, or inclusion." Webster's Third New International Dictionary 793 (1966). To "deny" meant "to turn down or give a negative answer to." *Id*. at 603.

110. Through these provisions, Congress sought to prevent female students from being shut out, barred, or turned down from educational benefits, including activities such as sports. Arizona's law fulfills Congress' goal.

111. "Title IX permits sex-separate athletic teams 'where selection for such teams is based upon competitive skill or the activity involved is a contact sport.'" *B.P.J.*, 2023 WL 111875, at *9 (quoting 34 C.F.R. § 106.41(b)). That is exactly what Arizona requires.

112. Arizona "does not violate Title IX because it does not exclude" Plaintiffs "from school athletics." *Id.* "Title IX authorizes sex separate sports in the same manner as" the Act, "so long as overall athletic opportunities for each sex are equal." *Id.*

113. "[I]t would require blinders to ignore that the motivation for the promulgation of the regulation was to increase opportunities for women and girls in athletics." *Id.* (quoting *Williams v. Sch. Dist. of Bethlehem, Pa.*, 998 F.2d 168, 175 (3d Cir. 1993)).

114. The Act promotes the core purpose of Title IX: "Having separate sex-specific teams furthers efforts to promote sex equality by providing opportunities for female athletes to demonstrate their skill, strength and athletic abilities while also providing them with opportunities to obtain recognition, accolades, college scholarships and the numerous other long-term benefits that flow from success in athletic endeavors." S.B. 1165, § 2(14).

115. S.B. 1165, "which largely mirrors Title IX," does not violate Title IX. *B.P.J.*, 2023 WL 111875, at *10.

116. Separate teams are available to both sexes in the sports in which Plaintiffs want to participate. Plaintiff Doe's school has soccer, basketball, and cross-country teams for both boys and girls. (Decl. of J. Doe, Doc. 6, ¶ 9.) Plaintiff Roe's school has volleyball teams for both boys and girls. (Decl. of M. Roe, Doc. 8, ¶¶ 7, 9). Plaintiffs thus are not being excluded from participation, denied benefits, or discriminated "on the basis of sex."

117. Title IX does not require states or schools to eliminate sex-separated teams or change the criteria for participating in sex-separated teams, to allow students to compete on a team that is different from their biological sex.

118. The Ninth Circuit recognized the converse of this point by holding that Title IX authorizes, but does not require, sex-segregated facilities that exclude transgender students. *Parents for Priv. v. Barr*, 949 F.3d 1210, 1227 (9th Cir. 2020). The Ninth Circuit did not say, however, that Title IX *requires* a state or school to ignore biological sex in favor of a transgender student. *See id.*

119. Forcing girls to compete against boys is antithetical to Title IX's purpose and threatens to reverse years of progress for girls and women under Title IX. *See, e.g.*, *Neal v. Bd. of Trustees of California State Universities*, 198 F.3d 763, 769 (9th Cir. 1999) ("Title IX has altered women's preferences, making them more interested in sports, and more likely to become student athletes. Adopting Appellees' interest-based test for Title IX compliance would hinder, and quite possibly reverse, the steady increases in women's participation and interest in sports that have followed Title IX's enactment.") (internal citation omitted).

120. For these reasons, Plaintiffs are not likely to succeed on their Title IX claim.

III. IRREPARABLE HARM

121. Because Plaintiffs failed to show a likelihood of success on the merits, the Court does not need to consider the irreparable harm factor. *California v. Azar*, 911 F.3d 558, 575 (9th Cir. 2018) (internal quotations omitted). Nevertheless, Plaintiffs have failed to satisfy this factor as well.

122. To satisfy the irreparable harm factor, "plaintiffs seeking preliminary relief [are required] to demonstrate that irreparable injury is *likely* in the absence of an injunction." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 22 (2008) (emphasis original).

123. As previously set forth, the Arizona law does not violate the law or deprive Plaintiffs of their rights. This refutes the central pillar of Plaintiffs' irreparable harm argument.

124. The Act is not likely to cause plaintiffs irreparable harm because it allows them to participate in sports with others of their biological sex. *See* A.R.S. § 15-120.02(C).

125. Plaintiffs also can participate on co-ed teams. *Id.*

126. "[M]ost courts seem to lean toward the harm being irreparable only when the person cannot participate in the sport at all." *Gregor v. W. Va. Secondary Sch. Activities Comm'n*, No. 2:20-CV-00654, 2020 WL 6292813, at *4 (S.D. W. Va. Oct. 27, 2020) (citing cases).

127. Courts have found no irreparable harm existed, and denied preliminary injunction motions, when high school athletes claimed harm from not being allowed to compete on a school sports team. *Id.*; *A.M. by & through McKalip v. Pennsylvania Interscholastic Athletic Ass'n, Inc.*, No. 1:20-CV-290-SPB, 2020 WL 5877617, at *4 (W.D. Pa. Oct. 1, 2020) (citing cases); *Dziewa v. Pennsylvania Interscholastic Athletic Ass'n, Inc.*, No. CIV.A. 08-5792, 2009 WL 113419, at *7 (E.D. Pa. Jan. 16, 2009).

128. If Plaintiffs do not compete in school sports this year, it will be due to their voluntary choice since they have the option of participating on teams that match their biological sex or on co-ed teams.

129. "Self-inflicted wounds are not irreparable injury." *Al Otro Lado v. Wolf*, 952 F.3d 999, 1008 (9th Cir. 2020) (internal quotation and citations omitted); *see also Epic Games, Inc. v. Apple Inc.*, 493 F. Supp. 3d 817, 847-48 (N.D. Cal. 2020) (same); *Volga Dnepr UK Ltd. v. Boeing Co.*, 464 F. Supp. 3d 1238, 1247 (W.D. Wash. 2020) ("In circumstances where parties seeking injunctive relief inflicted the harm upon themselves, courts have declined to find irreparable harm.").

130. In Arizona, "[a]n act with no specified effective date takes effect on the ninety-first day after the day on which the session of the legislature enacting it adjourns sine die." *True v. Stewart*, 18 P.3d 707, 708 n.1 (2001).

131. The Act does not have a specified effective date. *See* S.B. 1165 (2022).

132. The Act went into effect on September 24, 2022. *See* Arizona State Legislature, *General Effective Dates*, https://www.azleg.gov/general-effective-dates/.

133. Plaintiffs did not bring suit to compete in school sports during the 2022-23 academic year.

134. "Plaintiff's long delay before seeking a preliminary injunction implies a lack of urgency and irreparable harm." *Oakland Trib., Inc. v. Chron. Pub. Co.*, 762 F.2d 1374, 1377 (9th Cir. 1985).

135. Plaintiffs have failed to demonstrate that irreparable injury is likely in the absence of an injunction.

IV. BALANCE OF EQUITIES AND PUBLIC INTEREST

136. Because Plaintiffs failed to show a likelihood of success on the merits, the Court does not need to consider the balance of equities and public interest factors. *California v. Azar*, 911 F.3d 558, 575 (9th Cir. 2018) (internal quotations omitted). But Plaintiffs have also failed to establish those elements.

137. The balance of equities factor compares the burdens or hardships on the plaintiff with the burden on the defendant if an injunction is ordered. *Porretti v. Dzurenda*, 11 F.4th 1037, 1050 (9th Cir. 2021).

138. The public interest factor evaluates the injunction's "impact on nonparties rather than parties." *Id.*

139. When the government is a party, the balance of equities and public interest factors merge. *Drakes Bay Oyster Co. v. Jewell*, 747 F.3d 1073, 1092 (9th Cir. 2014) (citing *Nken v. Holder*, 556 U.S. 418, 435 (2009)).

140. The State of Arizona will suffer irreparable injury if an injunction is ordered.

141. "[A]ny time a State is enjoined by a court from effectuating statutes enacted by representatives of its people, it suffers a form of irreparable injury." *Maryland v. King*, 567 U.S. 1301, 1303 (2012) (Roberts, C.J., in chambers) (internal quotation omitted); *see also Coal. for Econ. Equity v. Wilson*, 122 F.3d 718, 719 (9th Cir. 1997) ("it is clear that a state suffers irreparable injury whenever an enactment of its people or their representatives is enjoined"); *L.W., et al. v. Skrmetti, et al.*, No. 23-5600 at 14 (6th Cir. July 8, 2023) (state faces irreparable harm if law enjoined including the inability "to enforce the will of its legislature" and other public-policy considerations).

142. The people of Arizona have an interest in the effectiveness of laws passed by their elected officials.

143. Women in Arizona also have an interest in not competing against, being injured by, or being displaced by, men in women's sports.

144. Plaintiffs have the ability to participate in sports on either teams of their biological sex or co-ed teams.

145. Accordingly, the public interest and balance of equities do not favor a preliminary injunction.

146. Finally, the Court notes that other courts have recognized issues regarding transgender individuals are "more complex" when they are "about sports," an arena that poses "vexing line-drawing dilemmas for legislatures" for which the Constitution does not offer a "principled way to judge." *L.W. et al. v. Skrmetti, et al.,* No. 23-5600 at 12 (6th Cir. July 8, 2023).

147. By permitting the "vigorous, sometimes frustrating arena of public debate and legislative action across the country," rather than "remov[ing] these trying policy choices from fifty state legislatures" the judiciary would allow our "constitutional democracy" to function. *Id.* at 12-13 (internal quotations omitted).

148. Courts should therefore "be wary of removing a vexing and novel topic" from the "ebbs and flows of democracy" by "construing a largely unamendable federal constitution to occupy the field." *Id.* at 6.

RESPECTFULLY SUBMITTED on July 13, 2023.

WILENCHIK & BARTNESS, P.C.

/s/ Dennis Wilenchik
Dennis I. Wilenchik, Esq.
Karl Worthington, Esq.
The Wilenchik & Bartness Building
2810 North Third Street
Phoenix, Arizona 85004
admin@wb-law.com
Attorneys for Defendant Thomas C. Horne

/s/ Maria Syms
Maria Syms, Esq.
Director of Legal Services
Arizona Department of Education
1535 W Jefferson, BIN #50
Phoenix, Arizona 85007
Maria.Syms@azed.gov
Attorneys for Defendant Thomas C. Horne

JAMES OTIS LAW GROUP, LLC

/s/ Justin D. Smith
D. John Sauer, Mo. Bar No. 58721*
Justin D. Smith, Mo. Bar No. 63253*
13321 North Outer Forty Road, Suite 300
St. Louis Missouri 63017
(816) 678-2103
Justin.Smith@james-otis.com
** pro hac vice*

Attorneys for Intervenor Defendants

CERTIFICATE OF SERVICE

I hereby certify that on July 13, 2023, I electronically transmitted the attached document to the Clerk's Office using the CM/ECF System for filing and transmittal of a Notice of Electronic Filing to the CM/ECF registrants.

By:/s/ Hilary Myers