# To What Extent Did Title IX Create Equality Within Athletics: Analyzing Female Athletic Participation in High School Institutions 

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#### Abstract

Since Title IX was signed into law in 1972, the legislation has long been associated with athletics. After the passage of Title IX, high school level and any other federally funded institution, now had to promote gender equality, including athletics. However, even though equality was and still is required, those demands are still not being met. Using data from the National Center for Education Statistics and the Civil Rights Data Collection in the 2013-2014 school year, I examine equality within high school athletics. I analyze the characteristics in high schools throughout the United States to determine what types of schools are most successful in implementing Title IX's demand for participation equality in athletics. A few of the traits in schools I evaluate are racial demographics, region of the country, rural and urban breakdowns, Title I eligibility, and enrollment size. A state and regional ranking system is also created to illustrate individual state's or region's athletic participation gap. These results show where girls participation in athletics suffer and where Title IX's demands for equality are being met.


## Introduction

Before the passage of Title IX and even still today, women face a constant uphill battle for equality in general, but especially in athletics. Often thought of as inferior athletes, even for professional athletes, women's sports experience inequality every day. As the athletic world for women continues to grow with the establishment of the Women's National Basketball Association, National Women's Soccer League, and many more professional leagues, women are still challenged by the inequality within athletics. There is a multitude of different examples where women face disparity, whether it is being underpaid, lack of visibility by media coverage, gender discrimination, etc. The disparity for female athletes is not dependent on what sport or season it is, there is only one commonality, gender.

Professional leagues are not federally funded institutions, therefore not covered under the umbrella of Title IX. However, if professional women athletes still received some forms of inequality, why would lower levels of female athletics be exempt from inequality also. That led me to study if inequality within athletics trickled down to the grassroots, high school athletics. If disparity within athletics formed at the lowest level of organized athletics, it could eventually lead to the disparity that women faced even as professional athletes. I decided to focus my research on specific characteristics of high school institutions that potentially lead to gender inequality.

## Literature Review

Since President Nixon signed Title IX of the 1972 Education Amendments to the Civil Rights Act into law, it has become one of the most controversial pieces of legislation in the United States. Most associate the advancement of equality in women's athletics as Title IX however, the law itself did not explicitly state anything regarding athletics at all. It states that: No 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 (Title IX 2015).

Women's athletics is covered under the umbrella of Title IX, because of its tie to federal funding. Since its enactment, scholars have long discussed Title IX's effectiveness in creating gender equality within athletics. A large majority of scholarly discussions however, primarily focus on equality of athletics at the collegiate level and fail to outline the effects the law has had on lower levels of education, such as high school levels. It is popular among scholars and those who have invested time into critiquing this piece of legislation, to argue that women's equality within athletics has still not been fully met. The literature regarding the level of success that Title IX has reached, predominantly focuses on three main aspects, how Title IX has not hurt male athletics, racial disparities created, and new improvements. This research will be helpful in determining characteristics of the high school institutions that best implement Title IX and their approach in doing so.

## Regulations

When Title IX was passed in 1972, legislators did not or could not enforce it immediately. It was clear that this legislation would take time to process and create compliance guidelines that federally funded institutions needed to follow. This was not something that could
have regulations written overnight, because of the sheer number of institutions that Title IX impacted. Regulations were eventually released in June of 1975 that required compliance by 1978, which was six years after Title IX's passing (Edwards 2010, Stevenson 2007). Since Title IX falls into the category of civil-rights law, the Department of Education's Office for Civil Rights (OCR), is the agency that directly mandates and enforces the regulations. Upon, the release of the regulations, a three-prong test was created to measure compliance. The first prong, calls for proportionality, meaning that the percentage of athletes for each sex should be equivalent to enrollment sizes. Since most federal high schools have roughly fifty percent male and female enrollment, the athletes should also demonstrate that proportion. If the first prong cannot be met, the second, a school showing a continuing practice of expansion in women's athletics, is used. This second prong of compliance was referenced in early years after regulations were released, but is becoming less relevant as the rule of expansion can only be used for so long. If neither of the first two prongs are met, the third must show that the interests and abilities of women's athletics are being fully and effectively accommodated. However, if a student is bringing a lawsuit against an institution with discrimination on the basis of sex, it is hard to justify the third prong (Murray 2002, Stevenson 2007).

While Title IX is a controversial piece of legislation, the problems that arise from it are not taken lightly. In the 2013-2014 school year alone, the Office for Civil Rights received well over three thousand complaints regarding high school athletics (Eckes 2017). The litigation behind Title IX means that many of these alleged violations are difficult to prove, because discrimination on the basis of sex is scrutinized on an intermediate level, not a strict level. Intermediate level scrutiny standards, require sex-based classifications to demonstrate that there is an "exceedingly persuasive justification" for complaints to be valid (Eckes 2017). However,
because thousands of complaints are still received yearly, even decades after its passage, there needs to be a re-inspection of regulation guidelines within Title IX (Eckes 2017, Title IX 2015).

## No Effect on Male Athletics

Prior to Title IX legislation passing in 1972, many organizations, such as the National Collegiate Athletic Association (NCAA) and the American Football Coaches Association (AFCA), lobbied against the bill. The main opposition argument to Title IX as a proposal, and even still to this day, is that Title IX advances female athletics at the expense of male athletics (Edwards 2010). Even though Title IX did not outright specify athletics, the opposition parties were mainly athletic based, because the focal point was shifted towards sports. Opposition from higher officials, such as the athletic directors of Notre Dame and the University of Alabama to name a few, targeted Title IX because it would hurt their male dominating sport, football (Rose 2015). Valerie Bonnette, a former staff member at the Office of Civil Rights stated, "When it became clear that athletics was going to be covered by Title IX in the early 1970s, many people thought it would be the end of college sports as we knew them" (Rose 2015). That same mentality that regarded collegiate levels, was also felt on the high school levels.

In more recent years, the National Wrestling Coaches Association (NWCA) has targeted Title IX for the decrease in wrestling participation. The NWCA argues that the allocation of funds has shifted towards female athletics in the high school levels, has taken away funding opportunities in male sports (Stevenson 2007). This has become a question of Title IX that continually reemerges, usually with male sports that have lost participation or sports that have been removed altogether. However, scholars that have explored this hot button issue regarding Title IX, have more often found that male athletics are not punished by increasing female athletics. In recent decades, the rise of new and less traditional sports, such as soccer and
lacrosse, have seen their participation among male's skyrocket. These studies find that overall choice of sports has increased for both men and women, other sports, like wrestling, gymnastics, and even basketball, may see a decline (Stevenson 2007). Supporters of athletics and scholars, do not criticize high schools for implementing new, growing sports that offer athletes more choices, but some sports, like wrestling have suffered the consequence of decreased participation because of the increased choice of sport.

As Title IX is not responsible for the shift of male participation within athletics from sport to sport, they also study overall participation rates. In this argument, scholars also note that as participation within different sports vary, percentage of participation overall in male high school athletics does not. The National Federation of State High School Associations (NFHS) Athletic Participation Survey and the Civil Rights Data Collection (CRDC), both concluded that male athletic participation has not suffered since the passage of Title IX. The overall male participation rate has roughly stayed the same, around fifty percent. As Title IX regulations were enforced, scholars show that overall male participation continues to be above female participation, while being spread out more evenly across a multitude of sports. (Stevenson 2007, K-12 education: High school sports access and participation 2017).

## Racial Disparities

It is evident that Title IX helped propel women's equality further, although full equality has not been met. However, some scholars debate if it helped all women, especially in athletics. There is a growing field of scholars within Title IX as the legislation becomes older, that have noticed significant differences between female athletics. Prior to the passage of Title IX, women of color had similar participation to white women in high school sports. Black student participation in leadership roles, such as sports captains or other organization leaders, surpassed
the national average (Weinberger 2014). However, since 1972 to the early 2000s, leadership roles within sports has grown for men and white women, but not for black women. The gap present between women, could possibly be explained by the desegregation of schools in the 1960s that led to extremely high percentages of black students in urban, impoverished schools. These scholars argue that because minority groups have high percentages in urban schools, they have not seen the increased participation compared to white women, because of poverty factors in those urban schools. However, it is difficult to consider desegregation as a factor, because black male leadership roles within sports has continued to rise (Weinberger 2014).

As Title IX was passed, institutions had to consider the economic impact they would have by moving towards athletic equality. For some sports, like basketball, track and field, and cross-country, it was easy to implement a women's team. There was little added cost because facilities and some equipment would most likely be shared between the men's and women's teams. In June of 1975, schools finally received the regulations with which they must be in compliance by 1978. All institutions had three years to reach compliance that strained budgets, which is why many chose to incorporate sports with little economic cost. However, from 1978 to present day, schools are able to include Title IX compliance costs into their set budgets (Pickett, Dawkins, Braddock II 2012). High schools who could and can afford to add additional new, growing sports, such as soccer or lacrosse, did so to improve opportunities for students. However, institutions who could not afford to add new programs fell behind. Black women are significantly underrepresented in NCAA sports, which is traced back to high school participation where an athlete has the opportunity to grow (Pickett, Dawkins, Braddock II 2012). Black women overwhelmingly participate in basketball and track and field, in comparison to any other sport. Both sports, which are inexpensive for the institution and athlete, cause a link to be
formed between low-poverty schools and lack of black women's participation (Pickett, Dawkins, Braddock II 2009).

Women have benefited from the impact that Title IX has created, both academically and athletically, this is especially true when institutions had previously not given women opportunities. However, even with the passage of Title IX, black women are still at a disadvantage compared to white women. Racial divides are present as growing sports are not represented on the collegiate level and minority students are funneled into inexpensive sports established in high school (Pickett, Dawkins, Braddock II 2012). In order to achieve women's athletic equality, the downward trend of women of color must be reversed. Unless the legislation is amended, it is unlikely that high school institutions will accommodate for racial disparities without receiving more funding for female sports (Weinberger 2014).

## Examining Variations in Title IX

This literature is important to consider moving forward in examining how institutions can best implement and comply with Title IX regulations. As most of the literature thus far, focuses mainly on Title IX's impact on the college and university level, the high school needs to also be considered. High schools provide a base for all other aspects that follow in life, which is why equality must be met at the ground level.

High school studies on Title IX that have been done are mostly dated. While it is important to see the increase of equality over time, current data needs to be studied to understand where inequality still exists today. Most of the previous studies, focus mainly on the variation in participation rates of females to males and the inequality surrounding athletic participation. (Braddock II, Sokol-Katz, Greene, Basinger-Fleischman 2005). Participation rates are a huge indicator for athletic inequality, however are there specific variables or demographics of high
schools that contribute to the disparity in participation. The National Women's Law Center is one organization that has analyzed the different variables that contribute to inequality and the possibility behind variations (National Women's Law Center 2017). By using this literature, there are many variables that can be transferred to this study of Title IX within high school institutions.

For this evaluation of Title IX, high schools will be examined by possible different variables that contribute to the athletic gender inequality. Poverty, racial demographics, physical location, and size are a few of the variables that will be analyzed. These variables will help determine if there are specific characteristics of institutions that are better at meeting Title IX demands than others. By taking past information from studies and other characteristics that have not been studied, this examination will help define model institutions that meet the demands of Title IX.

## Analysis

The data sets I used to analyze high school implementation of Title IX, were the Common Core of Data (CCD) completed by the National Center for Education Statistics (NCES) and the Civil Rights Data Collection (CRDC). The NCES is a federal entity that collects data of all education institutions in the United States. Within the statistical data collected by the NCES is the CCD, which is a collection of data for all public elementary and secondary schools in the United States. I also used the CRDC, which is a data collection by the U.S. Department of Education specifically for the Office of Civil Rights. The primary use for the CRDC statistics, is by the Office of Civil Rights to administer and enforce civil rights statutes. Both data sets have the same unit of analysis, individual schools, allowing me to merge the data sets together on the variables of COMBOKEY (CRDC) and NCES_SCHOOL_ID. The two variables represent a unique identification code for each individual school. After the merging of the data sets, I was able to filter out individual schools I did not need by the variable SCH_SSATHLETICS_IND, which is a yes or no indicator if that school has single-sex athletics. The schools that responded no to the variable, primarily elementary and middle schools, were deleted because my analysis focuses on schools that only have athletics. In completion of the newly created merged data set and filtering out schools that were not needed, I was then able to use roughly 15,000 high schools, ninth though twelfth grades, to complete my analysis.

## State and Regional Rankings

I first created a ranking of states and regions who best implement Title IX's proportionality. The ranking is based off of the athletic participation gap. The athletic participation gap is found by taking the female enrollment percentage minus female athletic
participation percentage. In essence, the number should equal zero, meaning that the percentage of female athletes should be equivalent to enrollment size, required in the first prong of Title IX.

Table 1 State Athletic Participation Gap

| Rank | State | Gap | Rank | State | Gap |
| :--- | :--- | ---: | :--- | :--- | ---: |
| 1st | AK | $4.80 \%$ | 27th | ID | $-3.69 \%$ |
| 2nd | NV | $3.58 \%$ | 28th | MD | $-3.86 \%$ |
| 3rd | HI | $1.67 \%$ | 29th | IL | $-4.04 \%$ |
| 4th | MT | $1.07 \%$ | 30th | AZ | $-4.05 \%$ |
| 5th | ME | $0.19 \%$ | 31st | VA | $-4.10 \%$ |
| 6th | WY | $-0.92 \%$ | 32nd | KS | $-4.66 \%$ |
| 7th | VT | $-0.99 \%$ | 33rd | KY | $-4.85 \%$ |
| 8th | SD | $-1.08 \%$ | 34th | PA | $-4.85 \%$ |
| 9th | NH | $-1.13 \%$ | 35th | CA | $-5.01 \%$ |
| 10th | CO | $-1.22 \%$ | 36th | IN | $-5.05 \%$ |
| 11th | ND | $-1.54 \%$ | 37th | OK | $-5.09 \%$ |
| 12th | WI | $-1.98 \%$ | 38th | NJ | $-5.26 \%$ |
| 13th | MN | $-2.00 \%$ | 39th | DC | $-5.88 \%$ |
| 14th | CT | $-2.39 \%$ | 40th | FL | $-5.96 \%$ |
| 15th | UT | $-2.91 \%$ | 41st | OH | $-6.10 \%$ |
| 16th | WA | $-2.94 \%$ | 42nd | DE | $-6.34 \%$ |
| 17th | IA | $-3.02 \%$ | 43rd | AR | $-6.74 \%$ |
| 18th | MO | $-3.02 \%$ | 44th | NC | $-6.95 \%$ |
| 19th | OR | $-3.18 \%$ | 45th | TX | $-7.66 \%$ |
| 20th | NY | $-3.26 \%$ | 46th | SC | $-7.90 \%$ |
| 21st | MA | $-3.28 \%$ | 47th | TN | $-9.02 \%$ |
| 22nd | NE | $-3.34 \%$ | 48th | LA | $-10.53 \%$ |
| 23rd | RI | $-3.40 \%$ | 49th | MS | $-10.74 \%$ |
| 24th | WV | $-3.48 \%$ | 50th | AL | $-11.52 \%$ |
| 25th | MI | $-3.53 \%$ | 51st | GA | $-11.62 \%$ |
| 26th | NM | $-3.63 \%$ | National Average | $-4.86 \%$ |  |
|  |  |  |  |  |  |

Table 1, ranks each state including Washington D.C., based on the state's athletic participation gap. States with negative gaps more than $1 \%$, are not meeting the proportionality standard for Title IX. There are only seven states, Alaska, Nevada, Hawaii, Montana, and Maine, that meet
this requirement. The $6^{\text {th }}$ and $7^{\text {th }}$ ranked states, Wyoming and Vermont, technically reach compliance because they have less than $1 \%$ difference. A position cannot be split into fractions, allowing those two states to meet the requirement. States with negative numbers indicate that there is a gap within the state. For example, in Georgia the lowest ranked state, females have an $11 \%$ less opportunity to compete in athletics than males. If a school has 50 positions in athletics for males to fill, females would have less than 39 position opportunities. Figure 1, provides a map of the United States, with each state's gap. The blue states, are meeting the Title IX requirement, with exception to Wyoming and Vermont because their gap is still present. As the red of the state darkens, the more they are not complying with Title IX.

Figure 1

## State Athletic Participation Gap Map



After examining the individual state rankings, I then ranked each region. To begin analyzing by different regions within the United States, I first created a region variable. The new variable broke down the states into six different regions, Northeast, Southeast, Midwest,

Mountain, Southwest, and Pacific. The Mountain region has the least level of gap and cannot technically be charged with a gap, like previous states of Wyoming and Vermont. Contrary to the Mountain, the Southeast has the largest gap at $8.06 \%$. Within the United States, girls have almost a 5\% less chance of athletic opportunities, compared to boys. Even forty-two years after Title IX required compliance in 1978, girls within the United States are still at an athletic opportunity disadvantage.

Table 2
Region Athletic Participation Gap

| Region | Gap |
| :--- | ---: |
| Mountain | $-0.79 \%$ |
| Northeast | $-3.63 \%$ |
| Pacific | $-3.65 \%$ |
| Midwest | $-3.71 \%$ |
| Southwest | $-6.42 \%$ |
| Southeast | $-8.06 \%$ |
| Total | $-4.86 \%$ |

## Demographics

To continue my analysis, I focus on specific characteristic within high schools, with my dependent variable as the female athletic participation rate. The female athletic participation rate was created by taking female athletes divided by the total number of athletes in a school. Since most high schools have roughly equal numbers of boys and girls, a compliant female athletic participation rate should be at $50 \%$. My first hypothesis $\left(\mathrm{H}_{1}\right)$ was, in a comparison of high schools, small schools with lower enrollments will be closer to achieving $50 \%$ female participation rates than larger size schools. In calculating the enrollment size of the school, I specifically only incorporated grades nine through 12 , since some high schools also contain lower grades. The purpose behind testing enrollment sizes of schools, was that students in smaller class sizes will have more opportunity to participate on a team than in larger schools. For
my analysis, I binned school enrollment numbers into ten equal categories. Each category holds roughly $10 \%$ of all the high schools in my data set. The binned enrollment groups vary from 102 students and less, in grades nine through twelve, to 1,934 students and higher.

Figure 2 Female Athletic Participation Rate by School Enrollment Size


It is clear from Figure 2, as enrollment size increases within schools, the female athletic participation decreases. However, Title IX's demand for equality, $50 \%$ participation rate, is still not met by even the smallest category of enrollment. Figure 2, proves $\mathrm{H}_{1}$ to be correct in showing the decreasing participation rate the larger the enrollment size. The participation rate levels off around the 800 enrolled students bar in Figure 2. That could possibly be due to the fact that, schools total athletic teams also start to level because there is no more athletics to include when enrollment sizes reach a certain point.

The second variable I analyzed was, ethnic diversity within schools. $\mathrm{H}_{2}$ states, among high schools, those with higher levels of ethnic diversity will have lower female athletic participation compared to predominantly white high schools. The ethnic diversity variable I
created from the data provided was an additive variable, incorporating all non-white races that the data set provided. Among the races included in the variable are, African Americans, American Indian, Asian, Hispanic, Pacific Islander, and students with two or more races. The total number of ethnically diverse students within a school were divided by the total population to create an ethnically diverse percentage. The ethnic percentage was then binned into ten equal categories.

Figure 3 Female Athletic Participation Rate in Ethnically Diverse Schools


As shown in Figure 3, the ethnic diversity variable does affect the female participation rate. Figure 3's first bar that is $3.9 \%$ ethnic diversity or less, meaning it is a predominantly white school, still starts below the $50 \%$ threshold that Title IX requires. However, it has $46.8 \%$ participation rate compared to the highest level of ethnic diversity ( $95.2 \%$ or more) at $42.2 \%$ participation rate. Women of color in higher ethnically diverse schools, have lower athletic opportunities compared to less ethnically diverse schools. This analysis further shows that racial disparities are still present for women, similar to findings in previous studies. Another important
analysis is that the $50 \%$ ethnic diversity percentage within a school, is within the seventh bar. In an evaluation of roughly 15,000 schools, that means well over half of the institutions are principally white populations. That lead me to analyze the breakdown of ethnic diversity further in controlling by region. Does the athletic opportunity for girls in ethnically diverse schools fluctuate by regions of the United States or is it unequal overall? Figure 3 proves $\mathrm{H}_{2}$ to be true, as higher ethnic diversity percentages cause lower female athletic participations rate.

## Region

I used the same region variable used in the Regional Ranking (Table 2) to analyze female participation further. From here I began analyzing female participation rate by using ethnic diversity as the independent variable and region as the control variable.

Figure 4 Female Athletic Participation in Ethnically Diverse Schools by Region


Figure 4 represents the female participation ratio for ethnic diversity percentage, broken down into all six regions. The ethnic diversity percentage is binned into eight categories. The most
interesting result, is that the Mountain region consistently has the highest participation rate across all diversity categories. It is the only region to increase female participation rates with higher diversity percentages, even reaching full compliance within the $62.6-75 \%$ diversity range. Overall meaning, that the Mountain region is most likely meeting compliance in most schools as female participation does not drop below $45 \%$ in any diversity percentage categories. Other regions, such as the Midwest and Pacific, stay relatively consistent throughout all diversity percentages, but still dropping slightly. The Northeast region in Figure 4, stays relatively constant with the Midwest and Pacific, but sees a dip in the highest level of diversity. For the majority, the Northeast, Midwest, and Pacific hover around the $45 \%$ participation rate. However, the most significant changes in female participation rates, come from the Southeast and Southwest regions of the country. The Southwest continues to see a decline in participation rates as ethnic diversity increases, but does manage to always stay above $40 \%$. Although not as bad as the Southeast, the Southwest has poor participation rates overall. The Southeast consistently has the lowest participation rates, only reaching even $43.9 \%$ participation rates in predominantly white schools. As the ethnic diversity percentage increase, the Southeast region continually decreases, dropping to or below $40 \%$ more than once in the most diverse categories. From Figure 4, it is concluded that ethnically diverse schools have low participation rates among females, but also regions of the country play a significant role in the decreased female participation rates among diverse schools.

I continued to analyze the region variable without ethnic diversity, but by controlling for the geographic classification of schools. Based on my analysis of the region variable and enrollment size, I began to hypothesize that geographic classifications had significance in female athletic participation. My third hypothesis $\left(\mathrm{H}_{3}\right)$ is, among high schools, rural Mountain region
schools will have the highest female athletic participation rates in the United States compared to other regions or geographic classification schools. In order to geographically classify high schools into different categories, I had to reorganize an existing variable to fit my specific analysis. The variable Local_4 was created, placing schools in four different categories, city, suburb, town, and rural. The classifications are based on two deciding factors, urbanized areas and urbanized clusters. Urbanized areas are cities with a population of 50,000 or more people, and urbanized clusters, are a population of more than 2,500 , but less than 50,000 . The different categories are: 1 . City- inside an urbanized area and within a principle city population of 50,000. 2. Suburb- inside an urbanized area, but outside a principle city. 3. Town- outside urbanized area, but inside urban cluster. 4. Rural- outside urbanized area and urban cluster.

Figure 5 Female Participation Rates by Region and Geographic Classification


In viewing the box and whisker chart produced, the black line across the middle of each box represents the mean participation rate. The box is then defined at the $25^{\text {th }}$ percentile up to the $75^{\text {th }}$ percentile for each. Some $25^{\text {th }}$ to $75^{\text {th }}$ percentile ranges are wider, resulting in longer boxes and some are closer causing a more condensed box. The circles and stars above and below each of the box's whisker lines, are the outliers for the geographic areas within the region. After analyzing the box and whisker chart, $\mathrm{H}_{3}$ was partially correct. In rural areas, female participation rates were higher across all regions, except the Mountain region. However, the Mountain region continues to have higher female participation rates compared to other regions. Interestingly, the city and suburb geographic areas of the Mountain region are higher than the rural, being the outliers for both classifications in the analysis. Not surprisingly, the Southeast and Southwest continue to have the lowest participation rates, with the Southeast hovering at the $40 \%$ line. For the most part, Figure 5 was predictable based off of Figure 2 and Figure 4, which displayed enrollment and regions respectively.

## Title I

My fourth hypothesis $\left(\mathrm{H}_{4}\right)$ states, in a comparison of high schools, those that have poverty variable, Title I, will have lower female athletic participation rates than schools that do not participate in either Title. Title I is a federally funded program that provides additional funds to schools with high poverty rates in order to meet the educational goals. The purpose of testing the variable Title I is to analyzes if poverty affects female participation.

Figure 6
Female Athletic Participation Rate by Title I


I first ran a difference of means test on the Title I variable to see how poverty affected female participation rates overall. No statistical significance was found overall between if a school participates or not in the Title I program, with the mean difference being only $.01 \%$. Figure 6, shows the average female participation rates for Title I participating schools or not, by each region. Three regions, the Northeast, Midwest, and Mountain, vary by less than $1 \%$, with the lower each being non-eligible Title I schools. In each of those three regions participation number were fairly predictable from examining Figures 3 and 4. The Southeast, is the only region to support $\mathrm{H}_{4}$, with Title I schools having lower participation rates. Even though there are some differences in the poverty variables within the regions, overall the divide was not as substantial as I hypothesized it would be.

## Conclusion

Throughout my analysis, there are many factors that contribute to the lower female participation rate in high schools. The division between regions of the country created the large disparity for girl's athletics. Although every region had a negative participation gap, some regions did far worse than others. The Southeast and Southwest by far, had the worse female participation rates across all characteristics. The Mountain region was the most equal region of the country for girls to participate in athletics. It technically did not have a disparity between girls and boys, because the gap was less than 1\%. Meanwhile, the Midwest, Northeast, and Pacific stayed relatively consistent with each other, but still fell short in athletic equality.

By looking solely at the analysis, schools with low enrollment, low ethnic diversity, and in rural geographic areas are the ideal schools for girls to play athletics. However, it is not possible to have every high school within the United States follow these characteristics and it is not optimal for students. Across the board, high schools need to find new ways to achieve participation equality. For example, suburban, ethnically diverse, Mountain schools, have high female participation rates.

Prairie View High School, located in suburban Henderson, Colorado, is an example of a Mountain school that follows the characteristics. It has a $51 \%$ female participation rate while also maintaining a less than $1 \%$ participation gap. Not only does Prairie View achieve athletic equality, it is also an ethnically diverse school, as it falls in the fifth category, 50.1-62.5\% ethnic diversity. High schools, like Prairie View, provide an example of a model Mountain institution that defies the statistics the rest of the regions produce. It shows that a school is still able to meet athletic equality, even though having high enrollment numbers and having an ethnically diverse student body.

It is also important to consider that even with large generalizations across 15,000 plus high schools, there are schools that may fall under negative categories, but are the outliers. Grady High School, located in Atlanta, Georgia, is one of these model schools. As a city school with high enrollment numbers, Grady High School has a 55\% female participation rate. It is also within the $62.6-75 \%$ ethnic diversity range. Meanwhile, for the Southeast region in which Grady is in, only meets slightly over $40 \%$ female participation for that ethnic diversity category. While the state of Georgia is the $51^{\text {st }}$ ranked state in participation gap at over 11\%, Grady High School has a participation gap of positive $.2 \%$. It is individual high schools, that defy the generalizations and give hope that athletic equality can be met in the future. These types of schools, like Grady High School, serve as models to what other institutions can look to as they increase equality.

Equality within athletics is still far from being met, but especially in high school institutions as I have outlined. Title IX was a giant step forward to creating equality for women and girls in the United States. However, more needs to be done so in the future the playing field for all athletes, regardless of gender, is level.

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