Show Me The Money:
Exploring Gender Wage Differentials for Coaches in Women's NCAA Division 1 Basketball

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Thesis

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Abstract:

I examine the wage gap between male and female coaches in Women's NCAA Division 1 Basketball. Using coach, team, institution, and state level data, I test to uncover the portion of the wage disparity that can be attributed to labor market discrimination. My results indicate that female coaches receive fewer returns to their endowments than males receive, inferring that women should be earning higher salaries. A large portion of the wage differential is attributed to unexplained factors, which indicates evidence for potential labor market discrimination.

Table of Contents

Introduction

"It's insane," claims sports economist, Andrew Zimbalist. "You show me a fortune 500 company that would be profitable if the CEO got 75 percent of the revenue."[1] Zimbalist is expressing his confusion regarding the high coaching salaries in Women's NCAA Division 1 Basketball. As women's basketball has and continues to build prominence, it is natural that coaches are reaping benefits. But, why are the benefits so lucrative? My study scrutinizes these payments to uncover if their size results from coaches' actual success or, if there are other factors at play.

To embark on this study, first, I must ask the question, what does it take to label a coach, "successful?" Of course, winning is a critical factor used to mark a coach as a successful one. However, justifying coaches' performance solely on winning may not be sufficient. There are numerous other roles that coaches are expected to assume on top of preparing their teams to win games. A significant value is placed on coaches who have stellar background experience, can assure that their players maintain quality academic performance, promote respect and sportsmanship by their players, sweet talk and raise funds from booster clubs, increase home game attendance, put together a strong schedule, and increase the number of home games televised. But in reality, how much do these factors of coaching actually determine a coach's rewards? Delving even deeper, are these factors equally valued for both genders of coaches? Do coaches today receive equal returns across gender for their work ethic, performance (on and off the court), and

[1] Quoted from a 2011 interview with Bloomberg - http://www.bloomberg.com/news/2011-04-01/women-s-basketball-teams-operate-in-red-as-salaries-break-college-budgets.html

qualifications? I seek to investigate these questions specifically for NCAA Division 1 Women's Basketball.

In my study I examine the base salaries of NCAA Division 1 Women's Basketball coaches to shed light on the main determinants of pay and uncover any unjust, gendered differential that may or may not exist. I also scrutinize any change in a male or female coach's salary differential when the school's athletic director or president is female.

There have been countless studies illustrating the marginalization of women in the workplace and the insignificant amount of females in leadership positions. It is intriguing to observe how these trends exists in a sports environment, where typical "male" traits such as leadership and aggression are vital. Women's college basketball is an especially unique sports setting to test because, here, female coaches have historically outnumbered male coaches.

Background

Part of the motivation for conducting a study surrounding college sports stems from the immense development of the NCAA. It has evolved into something much larger than just a space for students to compete and exhibit their school spirit. It has emerged as a brand. The NCAA is a major commercialized business and continues to demonstrate signs of growth.

In their book, The Economics of Intercollegiate Sports, Grant, Leadley, and Zygmount (2008) investigate the competitive labor market for college coaching. They stress the economic growth of college sports and highlight that by the 1990s, coaching salaries at some schools surpassed those of the universities' presidents. In 2003, average

salary for the head coach of a Division 1 women's basketball team was $118, 300 (Bray, 2004). In "big time" Division 1 A basketball programs, the largest and fastest growing expenditure is coaches' salaries and benefits. However, according to Zimbalist (2006), despite the economic advancements of the NCAA, most Division 3, Division 2, Division 1 AA, and Division 1 AAA teams run substantial deficits in their athletic departments. In fact, only about three-fourths of the 110 "big time" schools in Division 1 A report an athletic surplus. In a 1996 issue of the NCAA News, it was reported that a typical Division 1 A athletic program operates with a $1.2 million surplus.

However, Zimbalist claims that the budgets of athletic programs can be misleading. He discusses how the absence of common accounting practices in NCAA athletics makes it challenging to develop a lucid picture of athletic budgets on a large scale. No schools count all athletic related expenses in their athletic budget and important expenditures are frequently omitted. Coaching salaries, for instance, can be assigned to areas such as an institution's athletic budget, faculty salary pool, or even off-budget expenditure covered by a booster club.

A glaring theme in the rise of the NCAA's brand has been the continual increase in female athletic participation. In 1972, women represented 15 percent of NCAA athletes. Since then, female athletic involvement has skyrocketed. By 2004, female athletes represented 41 percent of NCAA participants (Grant et al.). The rise in females' athletic interests has added to a dramatic increase in fan interest in women's NCAA sports. Zimbalist mentions that attendance and TV ratings of women's sports as a whole have been growing each year of its existence. The growing excitement surrounding

female NCAA athletics undoubtedly influences the aspirations of young female athletes, and the rise of women's collegiate athletics show no signs of slowing down.

This increased popularity sparks substantial financial potential from women's athletics, resulting in heavy competition for female coaching positions. Grant et al. claim, "As the creation of new women's programs added head coaching positions, and as pay increased for new and existing head coaching positions, these jobs attracted men seeking to join or advance in the coaching ranks." In fact, from 1972 to 2004, female head coaches of women's sports teams decreased from 90 percent to 4 percent (Grant et al.). There is an interesting explanation that can partially account for this drop, at least during the beginning stages of Title IX. The female head coaches prior to the establishment of Title IX (1972) were often both coaches and Physical Education teachers. Once the legislation passed, these women were forced to make a choice between coaching and teaching Physical Education. A large portion chose to give up coaching, primarily because "women's sports now fell under the supervision of male athletic directors." (Grant, 415) This implies that women confidently believed that they would be marginalized by their superior male athletic director. This belief motivates my curiosity to test if the historical marginalization of female coaches by male athletic directors, whether perceived or actual, still exists.

Women's college basketball is an especially intriguing division to study because it has been leading the charge in the spark of athletic participation and fan interest in women's sports. From 2000 to 2010, the number of female collegiate basketball players in the NCAA (Divisions 1,2, and 3) jumped from 14,445 to 15,423[2]. Women's basketball has progressed and continues to progress at arguably the fastest rate of any women's

[2] Reported by 2010 NCAA Sports Sponsorship and Participation Rates Report

sport. According to the NCAA, women's Division 1 basketball has emerged as the largest revenue producer of any female sport in the NCAA. It draws the largest crowds of any other female NCAA sport and has the potential to become the first female sport to help financially support other sports teams (even men's teams) at an institution. (Bloomberg, 2011)

In their book, "Handbook on the Economics of Women in Sports" (2013), Eva Marikova Leeds and Michael Leeds note that the median revenue for women's division 1 basketball teams from the 2004-2005 season was $489,840, with 38 percent of teams earning over $500,000, and four teams bringing in over $2 million in revenue. In 2010, according to data Bloomberg compiled through The Freedom of Information Act requests, each of the 53 women's basketball teams in the 6 largest conferences earned average revenues of $804,577. Leeds and Leeds (2013) also discuss that individual "premium" players alone are generating substantial amounts of revenue for their schools. Premium players consist of players that are eventually drafted into the WNBA. The authors found that, depending on the conditional percentile of team revenue, premium players can generate from $12,000 to $200,000 for their school. The Division 1 Women's Basketball White Paper reported that 797 games were nationally broadcasted during the 2012-2013 season, including a record high of regular season games shown by ESPN's coverage. Also, the number of games broadcasted on ESPN3 tripled in comparison to the prior season.

Along with the growing amount of money being generated, there is also a significant amount of money being spent on women's collegiate basketball. For instance, in just his first year as the University of Kentucky Athletic Director, Mitch Barnhart

spent $100,000 to promote the women's basketball program. Bloomberg highlighted that women's basketball teams operate heavily in the red. In 2010, each team in the 6 largest conferences lost money, with an average operating deficit of $2.7 million. Leeds and Leeds (2013) highlight that the mean expenses for women's basketball teams in the 2004-2005 season were $907,246, which were over $600,000 greater than average revenues. Even the Women's NCAA Tournament operates in a deficit. In 2011, the NCAA made $6.74 million in ticket sales, but spent $13.9 million to conduct the event.

Despite the heavy financial losses that women's teams incur, the coaches continue to be paid very high salaries, especially when compared to team revenues. The median salary for coaches in 2010 was $171,600. To showcase the growing appeal of coaching Division 1 women's basketball, in 1997, the median base salary was $60,603. (Grant 2008) Today, coaching compensation frequently accounts for about 60 percent of a team's revenue. In 2011, the Texas A&M coaching staff earned a staggering 114 percent of the team's revenue. Grant, in his book "The Economics of Intercollegiate Sports" (2008), contrasts coaching salaries with CEO salaries, claiming that "For a CEO to make $250,000 in the business world, he would have to generate $60 million - $70 million in sales."

Literature Review

From 1972 to 2002, the percentage of women in managerial positions rose from 20 percent to 46 percent (U.S. Bureau of Labor Statistics, 2002). Despite this jump, women, as a whole, are still under-represented in leadership positions and consistently marginalized in the workplace (Acosta & Carpenter 2006; Whisenat et al. 2002).

Cunningham and Sagas (2007) discuss how sports is a context that often reproduces traditional gender roles to re-establish male dominance. Sport organizations are environments that value stereotypical masculine traits and link job opportunities to gender typecasts. In popular culture, physicality, aggression, leadership, and other traits valued by athletic programs are typically associated with masculinity. Cunningham and Sagas continue to introduce "macro level, meso level, and micro level" forces that feed into the marginalization of women as leaders, specifically, coaches in basketball. The current study will test for the marginalization Cunningham and Sagas discuss, in a unique environment, where female head coaches outnumber male head coaches.

Balie (1998) investigated the reasons for the decline in female head coaches in Division 1 athletics. She tested two popular theories of male administration that pointed to the potential causes for the decline. The first theory claimed that there was an absence of qualified females in relation to males applying for coaching positions. Qualification was comprised of interscholastic playing experience, intercollegiate playing experience, college major in physical education, and years of coaching experience. However, she found that female basketball coaches are no less qualified than male coaches. The second theory was the perception that female coaches undergo larger time constraints if they have a family, compared to men. This theory was also unsupported by survey data in which both male and female coaches equally ranked "incompatibility with family life" as a potential reason for resigning. Both of these findings can insinuate the existence of a potential gender bias in the NCAA. Through my examination, I will compare qualifications of female and male coaches in the game today and observe any substantial differences that explain the wage gap between genders.

Brad R. Humphreys (2000) is one of the few authors to examine the earnings gap between genders in Division 1 Women's Basketball. He uses data from the 1990-1991 survey of Division 1 institutions. Revenue information from this experiment was estimated from revenue data collected in the NCAA's 1994-1995 survey. Since the NCAA did not label individual institutions in their revenue survey, Humphreys identified specific institutions by cross-referencing enrollment and tuition data with data in the U.S. Department of Education's Integrated Postsecondary Educational System (IPEDS).

Humphreys used an OLS estimation of an earnings equation and a Chow test to analyze his information. He initially found that female NCAA Women's basketball coaches earn a base salary 9 percent higher than that of male coaches of female teams. The gap decreased to 7 percent when institutional and individual factors were controlled for. Interestingly, the wage gap disappeared when the measurement describing the percentage of female head coaches at an institution was corrected for. This suggests that the "demographic power group" may influence the wage gap. Humphreys' model suggests that demographic groups have strong influences on the functioning of an organization. He also infers that the influence of a demographic group is dependent on its relative size.

A graduate thesis by Rekha S. Patterson (2004) concluded that gender did not impact the salary of Division 1 head coaches of women's teams. Her study included head coaches of women's basketball, soccer, softball, and volleyball. To retrieve her data, Patterson randomly selected 28 male and 28 female coaches from each of these sports and mailed a confidential questionnaire to them requesting salary, individual, and institutional information. 54 male and 68 female head coaches responded to her survey.

She used a basic OLS regression omitting gender initially, then including it in a later regression. The strongest influences of head coaching salaries were the conference of the school, the experience of the coach (which included coaching at the high school, junior college, and/or four year college), the number of supervisory positions, and the sport coached. I will also use these experience variables along with assistant Division 1, WNBA, and NBA coaching experience.

Linda Bell (2005) explored gender gaps in top executive positions. Her study is pertinent to understanding the effect that the gender of an athletic director and/or school president has on the salary of the head coach. Bell observed the effects of female executive salaries in women-led firms. She used OLS, fixed effects, and probit regressions to conclude that females in women-led firms earn between 10-20 percent higher salaries than comparable executive women in male-led firms. She also found that female executives in female-led companies are between 3-18 percent more likely than those in male-led firms to be in the top five highest paid executives in the firm. Bell observed a strong link between female-led firms and female representation within the company. It appeared that Becker's taste-based, co-worker discrimination model diminished when females led firms. The distaste for women as co-workers may fall as their proportion rises. The increase of female employees and executives may also decrease any lingering statistical discrimination against females, since they will have less need to rely on female stereotypes in order to predict the productivity of other women. When the numbers of female executives increase in women-led firms, better information about women may correct informational biases and asymmetries and lead to more hiring and promotion of women in high ranks. Through my OLS regressions, I am able to

observe any difference in female coaching salaries as a result of the gender of the athletic direct/president in a similar manner as Bell observed female executives' pay differentials under male and female CEOs.

Sociologist Mikaela Dufur (2000) found that across racial and gender lines, coaches were receiving unequal returns for different factors. Dufur conducted a study on 3600 male and female NCAA basketball coaches from Divisions 3, 2 and 1. A glaring discovery of her study was that coaching productivity had different effects based on minority and gender. For females and minorities, coaching performance was heavily weighted. For white males, positive coach productivity helped white males secure coaching positions, but negative performance had no adverse effects. As I mentioned in the introduction, "production" is a loaded term for coaches. Dufur claims, "Winning percentage, number of championships, tournament appearances, fundraising, recruiting, and graduation rates are all potential measures of success. Which measure is appropriate depends, in part, on the level of the institution. Prominent Division I-A schools emphasize athletic success; Division III schools are more likely to favor high graduation rates." Dufur concluded with a serious concern that having children appeared to benefit white male coaches, but negatively impacted minority women's coaching prospects.

Similar to Dufur, Solomon Polachek (1975) also found that gender dramatically influenced the financial effects of having a family. In his regressions, being married and having children produced opposite wage effects for males and females. Marriage positively influenced males' earnings, but diminished women's earnings. An additional child increased a husband's salary by approximately 3 percent, while it reduced a wife's salary by approximately 6.7 percent. These patterns were exacerbated over the length of a

marriage. Polachek found that for each additional year of marriage, even when controlling for market exposure, returns for children and marriage continually increased for males and consistently decreased for females. Although these differences were highlighted, Polachek was wary to conclude that they were driven solely by labor market discrimination. He explained that the differences could be partly attributed to household division of labor, "which could come about either because of direct market discrimination, societal discrimination, or the optimal mating process." (Polachek, 227) Regardless of the direct source, Polachek's evidence that some mix of societal processes and values influences these opposing salary effects insinuates that further examinations of gendered wage returns can be fruitful to better understand the various sources and their magnitudes.

Polachek's findings and conclusions illustrate that attributing wage gaps to labor market discrimination is not always cut and dry. To provide a clearer understanding, discrimination can be thought of as the unequal treatment of otherwise equal individuals. Economist Kenneth Arrow understands labor market discrimination as, "the valuation in the marketplace of personal characteristics of the worker that are unrelated to worker productivity." (1973) However, labor market discrimination does not appear in the same fashion in every case. Rather, it can present itself in numerous forms. One such form is taste-based discrimination.

Taste-based discrimination is most notably theorized by Nobel Memorial Prize winner, Gary Becker (1957). This form of discrimination can stem from employers, fellow employees, or customers. Employer discrimination is pertinent to the study at hand. In employer discrimination, hiring a person of a certain group (race, religion,

gender, etc.) results in a loss of utility for the employer. This lost in utility, labeled the discrimination coefficient, can be thought of as a cost to the employer. In Becker's model, he assumes that men and women have identical marginal revenue products. Marginal revenue product represents the dollar value of productivity produced by a marginal worker. To an employer, the perceived value of a worker who belongs to a discriminated group is the worker's marginal revenue product minus the employer's strength of discriminating preferences (the discrimination coefficient). Prejudice causes an employer to behave as if a minority's wages are higher than they are in reality, since the employer's loss in utility in hiring a minority appears as a supplemental cost to the worker's salary. Therefore, to compensate for the utility cost, an employer will pay the minority worker less than he or she would pay the majority worker.

However, Becker and Arrow theorize that employer discrimination is driven out of the market in the long run. In the short run, less prejudiced firms will capitalize on the cheaper minority labor, earning higher profits than their more prejudiced competitors, who choose to employ the more expensive majority group. In the conditions of perfect competition, the non-discriminatory companies will expand at the expense of the prejudiced firms, driving them out of the marketplace in the long run. Despite these theories, studies have proved that racial wage gaps do actually persist in the long run, resulting from imperfect information (Black, 1995), imperfect competition, or adjustment costs (Lang, Manove, Dickens, 2005).

Another common style of labor market discrimination is statistical discrimination, most famously theorized by Edmond Phelps and Kenneth Arrow. Statistical discrimination is not necessarily the result of prejudice or distaste for a certain group of

people. Asymmetric information is an important factor in statistical discrimination. In the labor market, employers possess imperfect information about the qualities of job applicants. While there are a number of means to gain a realistic idea of a worker's true capabilities, such as putting them through a training process or observing them for an extended period of time, these processes require significant time and resources. This is where statistical discrimination arises. In order to avoid incurring the costs of identifying a worker's true productivity, an employer can rely on applying preconceived personal or social notions about the productive abilities of a particular group of people to the individual job applicant. Unlike taste-based discrimination, which places personal prejudices over profits, statistical discrimination is consistent with profit maximization theory. Arrow claims, "the employer who seeks to maximize expected profit will discriminate against blacks or women if he believes them to be less qualified, reliable, long-term, etc. on the average than whites and men, respectively, and if the cost of gaining information about the individual applicants is excessive." (1972 , pg. 659) Regardless of their accuracy, the beliefs of the average skills levels of a group are used as a proxy for a worker's foreseen productivity.

The influences of statistical discrimination can stem from personal experiences or cultural generalizations. Regardless of the sources, when employers act on these generalizations, there are numerous implications for minority workers. For one, the group perceived to have lower productivity will have lower probabilities of being hired. And, if a minority is hired, he or she is likely to receive lower earnings than the majority group and need to go above and beyond an employer's expectations to prove that he or she is a productive worker. Another implication is based on the differing backgrounds of minority

and majority employees. If generalizations of minority groups are based on accurate statistics, then if differences in their backgrounds and opportunities are equalized, the productive distribution between the minority and majority should mix together and end discrimination. Also, since predictions of people's productive capabilities can be based on widespread beliefs, statistical discrimination is widely recognized to persist in the long run. This can result in feedback effects, in which statistical discrimination becomes a self-fulfilling prophecy for minority groups. For instance, if employers generalize that blacks do not seriously invest in education or proper training, they will not hire blacks. If blacks recognize that employers act on these generalizations, then blacks have no incentives to actually invest in education, since their efforts will not be recognized. This sparks a cyclical process to fuel future statistical discrimination.

In 1973, economists Alan Blinder[3] and Ronald Oaxaca[4] separately developed identical techniques to decompose wage gaps and determine how much of the differences are attributable to labor market discrimination. Oaxaca claimed that discrimination against females "can be said to exist whenever the relative wage of males exceeds the relative wage that would have prevailed if males and females were paid according to the same criteria." In their techniques, they estimated a regression analysis to highlight wage gaps between groups (white males vs. black males and white males vs. white females), and then broke apart different possible sources of the disparity. They used their OLS equations to decompose the raw wage differential into the portion of the differential that can be explained by prior endowments, the portion of the differential that can be

[3] *Wage Discrimination: Reduced Form and Structural Estimates* (1973)

[4] *Male-Female Wage Differentials in Urban Labor Markets* (1973)

explained by different returns to worker characteristics, and the portion of the differential that is unexplained. Adding the unexplained portion and the portion that shows unequal returns to endowments highlights the amount of the wage differential that can potentially be attributable to labor market discrimination. Blinder further breaks down his analysis by estimating a "reduced form" as well as a "structural form of analysis." The structural-form analysis pertains to the study at hand and provides the conditional expectations of wages given the individual's present socioeconomic condition.

In Blinder's structural form, the wages of white women appeared flat over their life cycle and the raw wage differential appeared to heavily favor men. There appeared to be a failure of women, who despite being in the same education-occupation category as males, to "rise on the economic ladder" in a comparable fashion as males. Men were less sensitive to labor market conditions and experienced higher returns to education than females. The structural form concluded that 66 percent of the wage differential between white males and white female was attributable to discrimination. In Oaxaca's study, he also found the gendered wage differential to be quite large, in favor of men. However, this was largely attributable to a large concentration of females in low paying jobs, rather than females experiencing lesser returns to their characteristics than males. I estimate an Oaxaca-Blinder decomposition to measure the magnitude of discrimination, which I describe in detail in the methodology portion of my study.

DATA

My data consist of the coach-level data, team-level data, institution-level data, and state-level data that are expected to be key determinants of coaching salaries. I use the information collected from 149 of the 231 public institutions with a Division 1 women's basketball program. I limit my observations to strictly public universities, because the salaries of many coaches at private universities are not publicly available.

For the coach-level data, I obtain 295 observations of base salaries of 169 different coaches from 149 different institutions for as many years as possible between the 2001-2002 and 2013-2014 seasons. For coach demographic data, I include gender, ethnicity, and parenthood. Gender is a dummy variable taking on 0 for female and 1 for male. Ethnicity is a dummy variable taking on 0 for nonwhite and 1 for white. Ethnicity was determined solely by observing a coach's picture, so there is a potential for misjudgment. Children is a dummy variable taking on the value of 0 for a nonparent and 1 for a parent. I deduced if a coach was a parent if it was explicitly stated in his/her biography on his/her team's website. Not every biography included family descriptions, so there is potential that some coaches are marked in my data as a non-parents, when in reality, they are parents. Also, some coaches are currently parents, but were not parents at the time of their contract/pay year. So, I described them as non-parents. Of the 295 observations, 193 are female, 148 are parents, and 213 are white. Table 1 displays my descriptive statistics. Figures 1 and 2[5] illustrate the difference in salaries between males and females based on ethnicity and parenthood.

[5] Appendix includes Figures 1 and 2 written out in table form

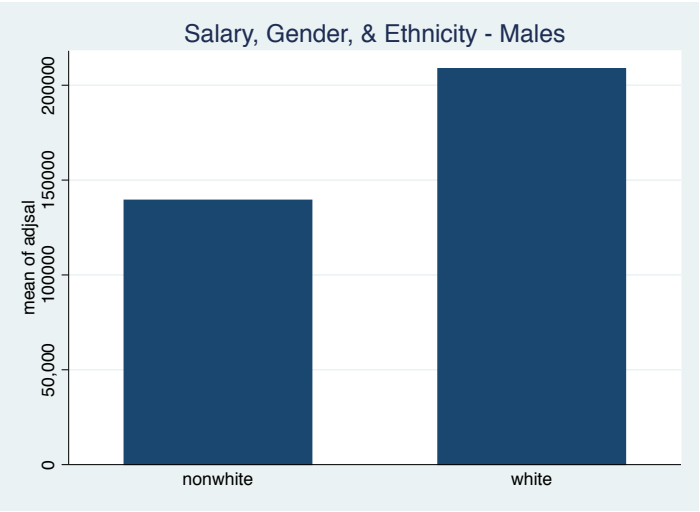
The summary statistics in Table 1 highlight a counterintuitive relationship between the means of the cost of living adjusted salaries and the means of their natural logarithmic form. In their dollar units, male coaches earn higher average salaries than female coaches. However, when computing the natural log form of the adjusted salaries, the mean of females' salaries becomes larger than the mean of males' salaries. This insinuates that the distribution of males' salaries is skewed to the right. Neither difference is statistically significant. Also, there are only a total of 146 observations that include age. Of the age measurements I collect, on average, men are 7 years older than women, which may contribute to the greater percentage of male parents than female parents.

Table 1
Summary Statistics of Demographic Variables by Gender

Variable	Females	Males
1. White	72.02%	72.55%
2. Parents	35.23%***	78.43%***
3. Age	41.815*** (7.171) [92]	48.463*** (10.340) [54]
4. Salary	186304.3 (109044.2) [193]	186666.3 (142548) [102]
5. Cost of Living Adjusted Salary	186005.5 (114735.5) [193]	189746.9 (155175.7) [102]
6. LN_ Cost of Living Adjusted Salary	11.981 (.538) [193]	11.947 (.588) [102]

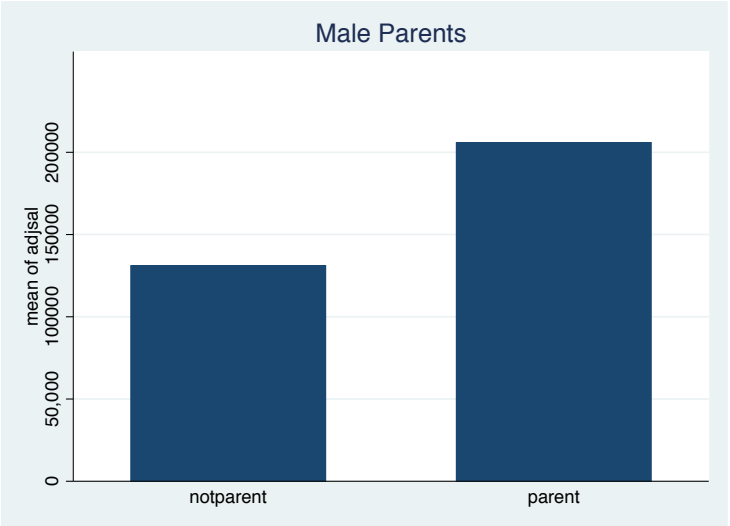
* Variable is significantly different by gender at .1 significance level
** Variable is significantly different by gender at .05 significance level
*** Variable is significantly different by gender at .01 significance level
Standard Deviations in parentheses.
Number of observations in brackets.
Note: LN_ Cost of Living Adjusted Salary is the main dependent variable in regressions

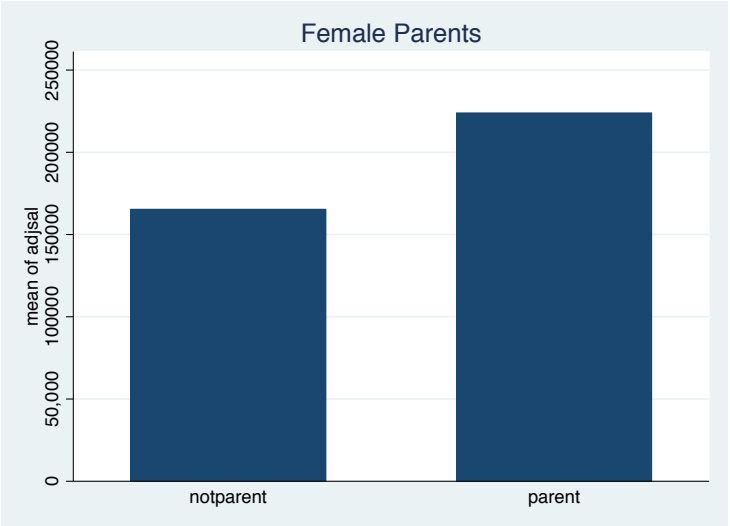
Figure 1[6]
Summary of Men's & Women's Salaries
Based on Ethnicity



Note: Salary is significantly different by ethnicity at the.05 significance level for males and females.

Figure 2
Summary of Men's & Women's Salaries
Based on Parenthood





Salary is significantly different by parents at .05 significance level for males.
Salary is significantly different by parents at at .01 significance level for females.
Non-parent male salary if is significantly different than non-parent female at .1 significance level

[6] Figures 1 & 2 are put in writing in Appendix Table 1

It is apparent that whites earn statistically significant higher average salaries than nonwhites. This difference is larger (yet statistically insignificant) between white males versus nonwhite males than it is between white females versus nonwhite females. Also, parents earn statistically significant higher salaries than nonparents. Again the difference between males with and without children (statistically insignificant) is larger than the difference between females with and without children(statistically significant). The regression analysis will provide evidence if these demographic factors are significant influencers of wages when controlling for other characteristics.

The coaching data performance can be viewed in 2 categories: past coaching information and current coaching information. This data will shed more light on the question of what *is perceived* to drive coaches' pay versus what *actually* drives their salaries.

Data on coaches' previous experiences is used to strengthen the overall portrait of coaches' qualifications and caliber. These data are acquired from coaches' careers prior to their experience at their current institution. Past coaching data is especially important for observations that include a coach's *initial* contract information at his/her current institution. Since these coaches have not begun their first season at their current school, their past coaching measures are the only coach-level data that can be used to judge their qualifications. My dataset consists of 93 observations of coaches that have not begun their first year with their current team. Past coach level data include past coaching dummy variables and past coaching statistics.

Past coaching dummy variables represent previous playing and coaching experience. The coaching experience dummy variables describe what levels the coach has

worked at, including the high school level, various collegiate levels, and the professional level.

To command respect as a leader, it is crucial to practice what is preached. That is why, in sports, a coach can earn greater credibility among his/her players if he/she had a successful career *playing* the sport. Many basketball players have deeper trust and confidence in their coach if they know that he/she has had firsthand experience playing basketball at high levels. Therefore, I include variables to control for both collegiate and professional playing experiences.

Based on the answers to the dummy variables, I include coaches' experience and performance measures at their previous respective coaching levels, including their winning percentages and years of coaching experience at each level. Aside from these measures, I also gathered their playoff history. For high school, I include the number of state championships won as head coach. For NAIA, Division 3, Division 2, and Division 1 head coaches, and assistant Division 1 head coaches, I collect conference championships won, national tournament appearance, "Sweet 16" appearances, "Elite 8" appearances, "Final 4" appearances, National Championship appearances, and National Championships won for their entire career before their current school. Also, for coaches with previous head and assistant Division 1 coaching experiences, I note how many Women's National Invitational Tournaments (WNIT) they competed in and how many WNIT championships they won.

I gather all coach through coaches' biography and/or archived statistics pages on their teams' websites and/or their Wikipedia pages. It is unclear if all of the biography

pages listed a coach's entire coaching background. Therefore, there is a potential that some measures are missing. Table 2 provides summary statistics of past coaching data.

Table 2
Previous Coaching Summary Statistics

Variable	Female	Male
1. Prior D1 Head Coach	49.22%***	22.55%***
2. Prior D1 Assistant Coaching	75.13%*	65.69%*
3. Prior D2 Head Coach	15.54%**	26.47 %**
4. Prior D3 Head Coach	7.7%	4.9%
5. Prior NAIA Head Coach	7.7%**	19.61%**
6. Prior High School Head Coach	5.18%***	22.5%***
7. WNBA Coach	3.11%	1.96 %
8. Total Prior Coaching Years	11.848 (5.586)	12.235 (6.833)
9. Prior Win % at all levels	.629 (.128)	.682 (.101)
10. Prior NCAA Tournaments as D1 head coach	1.088 (2.315)	.902 (2.344)
11. NCAA Tournament as Assistant Coach	2.388*** (3.975)	.931*** (1.981)
12. Prior WNITs as Head Coach	.357 (.804)	.402 (1.064)
13. Number of Observations	193	102

* Variable is significantly different by gender at .1 significance level
** Variable is significantly different by gender at .05 significance level
*** Variable is significantly different by gender at .01 significance level
Standard Deviations in parentheses.

From Table 2, it is evident that women have more prior experience in Division 1 coaching, both as head and assistant coaches. Women also appear to have more success at the Division 1 level, on average, reaching the NCAA tournament more than men as both head and assistant coaches. On average, males have slightly more overall prior coaching experience as well as prior winning percentages, when aggregating years and

performance from high school, junior college, NAIA, Division 3, Division 2, Division 1, NBA, and WNBA coaching levels.

Current coach data are gathered up to the season in which the coach was awarded a contract extension. If no contract information was found, data was gathered up to the year before their salary was documented. Contract information was collected through online newspaper articles, sports blogs, team pages, and university blogs. Current coach data include performance measures such as a coach's current average win percentage during his/her tenure at the current school up to a contract extension or the year prior to a payment if no contract information is available. I also collect postseason measures at a coach's current school. I include conference championships won, WNIT appearances, WNIT final 16 appearances, WNIT quarterfinal appearance, WNIT semifinal appearances, WNIT championship appearances, WNIT championships won, NCAA tournament appearance, "Sweet 16" appearances, "Elite 8" appearances, "Final 4" appearances, National Championship appearances, National Championships won during their tenure up to the point of a contract extension or the year prior to a payment if no contract information is available. These measures can serve as tools to measure unobservable characteristics such as motivation, dedication, and discipline, which are highly valued attributes in coaching.

Achieving wins and titles is not the lone goal of a coach or athletic department. Regardless of a program's success on the court, if members of the team earn poor grades and experience low graduation success rates, it reflects very poorly on the coach, the athletics program, and the institution. Therefore, I collect each coach's academic progress report (APR). APR is a composite team measurement based on how individual players

perform academically under a particular coach. APR data was collected in the Education and Research section of the NCAA website. APR data ranges from seasons 2003-2004 to 2011-2012. I compute a coach's average APR from as far back as 2004, up until his/her current extension/pay year. If the coach's pay year/extension was 2014, the average APR was calculated up to 2012.

Tenure is also included in my data. If pay information for a specific coach is his/her initial contract or simply the salary in his/her first year at a school, tenure is zero. If this is the case, all current coach measures such as APR, winning percentages, and postseason data will be 0. Table 3 illustrates summary statistics for current coaching variables.

Table 3
Current Coaching Summary Statistics

Variable	Female	Male
1. Tenure *	4.466** (6.367)	6.460** (7.762)
2. Win % at current school *	.333*** (.284)	.456*** (.281)
3. NCAA Tournaments at current school	1.502** (4.024)	2.66** (6.07)
4. Sweet 16s at current school	.761 (3.434)	1.166 (3.952)
5. Final 4s at current school *	.326 (2.049)	.4019 (1.83)
6. National Titles at current school	.129 (.847)	.147 (.937)
7. WNITs at current school	.502 (1.041)	.705 (1.346)
8. Average Academic Progress Report	960.381** (27.178)	966.237** (15.639)
9. Number of Observations	193	102

*Variable is significantly different by gender at .1 significance level
** Variable is significantly different by gender at .05 significance level
*** Variable is significantly different by gender at .01 significance level
Standard Deviations in parentheses.

Assessing the summary statistics of Table 3, on average, male coaches have better current performance measures than female coaches. Men appear to have higher winning percentages, more playoff appearances (and success in playoffs), and stronger APR records with their current teams.

Contract information is a vital aspect to my study. Since almost all contracts are multi-year, a coach's performance in certain years does not directly affect his/her salary for every year. For instance, if a salary was signed in 2011, and was set to expire in 2015, a coach's performance in 2012 would have no impact on his base salary in 2013. Rather, it is the *season before a contract is signed* that most directly impacts base salaries. Therefore, it is important to know when a contract was put in place. The salaries in my data range from the 2001-2002 season through the 2013-2014 season. For some coaches, I was able to acquire multiple sets of contracts and corresponding salaries. For others, I was only able to find salaries without contract information. My data includes a total 295 salary observations. If there is no corresponding contract information to a salary, I set the value for length of the contract to one year.

I gather salary information from a multitude of sources such as state salary databases, salary databases constructed by local newspapers, institution salary data, copies of contracts that I was able to uncover, and articles from newspapers, sports magazines, and other reputable sources. For some coaches, there were discrepancies in their salaries across sources. Unless some sources had errors in their data, these discrepancies most likely resulted from the source including other types of compensation, such as benefits or incentives, on top of the coaches base salary. Since I am strictly

observing base salaries, I take the lowest salary I find when I encounter discrepancies, since this is most likely closest to the coach's actual base salary.

Some salary agreements consist of increasing base salaries for future years. Since this was the case, I compute the average yearly value of a contract's guaranteed salary, by dividing the total of the contract's given base salaries by the length of the contract. If there was no contract information gathered for a specific coach, I stated the salary found as the contract's yearly average value.

I also incorporate team-level information that can highlight the caliber of the women's basketball program. I examine the team's average win percentage from the 2 seasons prior to the current coach's arrival. I also do this for 5 seasons prior to the coach's arrival. This data can provide an idea of the quality of the program. These measures also give an indication of the coach's performance in relation to the team's recent yearly performance. Being the coach to lift a program out of a slump or, conversely, the coach who was attributed with lack of success uncharacteristic of the program can affect the coach's compensation package in his/her upcoming contract.

Two other variables of interest are: sex of the school's president and sex of the school's athletic director. I will investigate the wage effect of the genders of both the athletic director and president of a school who were present during a coach's current contract, as well as the genders of the athletic director and president at the time the coach was hired. Similar to Bell's (2005) study about female executives in women-led firms, I test if the gender of the athletic director and president affects the salary of the head coach. Specifically, I want to examine if the female athletic directors (the minority gender) treat female head coaches differently than male head coaches. The small number of Division 1

female athletic directors can limit my examination, but it can still provide insight to a possible trend. Table 4 provides summary statistics of institution variables. It gives the gender distribution of coaches based on the genders of athletic directors and presidents. Roughly 15 percent of female coaches work under female athletic directors. There are only 3 observations of male coaches who work under current female athletic directors and 3 observations of males who were hired by female athletic directors. Figures 3, 4, 5, and 6[7] showcase the difference in male and female coaches' mean earnings depending on the genders of athletic directors and presidents.

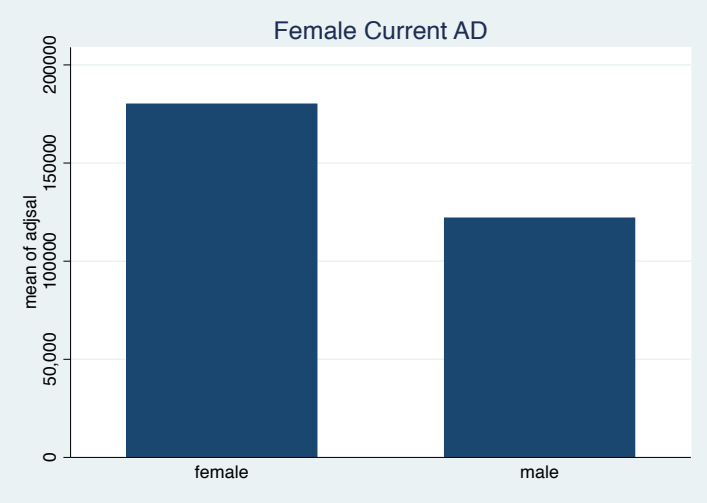
Table 4
Institutional Summary Statistics

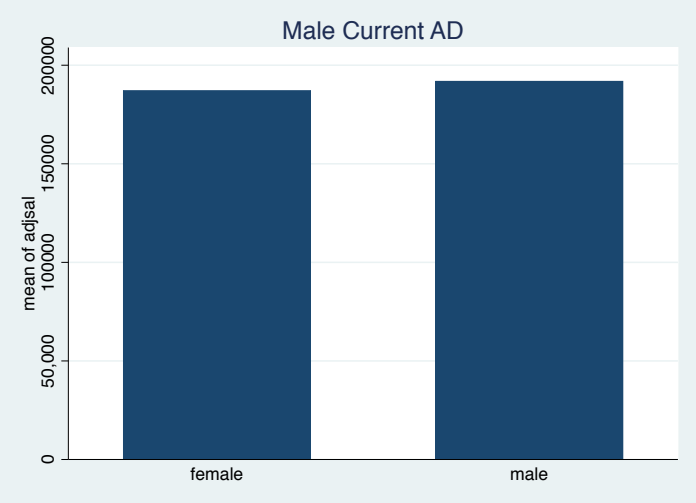
Variable	Female	Male
1. % Coaches Working Under Female AD	15.54%***	2.94%***
2. % Coaches Hired by Female AD	11.39%**	2.94%**
3. % Coaches Working Under Female President	18.65%	18.63%
4. % Coaches Hired by Female President	9.84%	8.82%

*Variable is significantly different by gender at .1 significance level
** Variable is significantly different by gender at .05 significance level
*** Variable is significantly different by gender at .01 significance level

[7] Appendix includes Figures 3, 4, 5, and 6 written out in table form

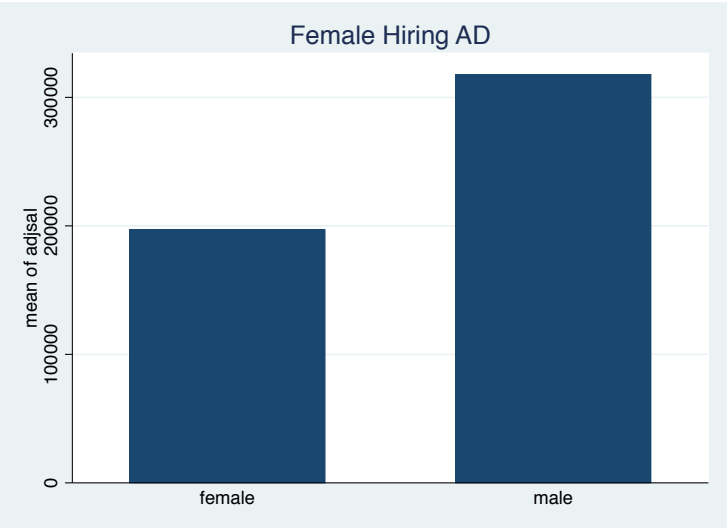
Figure 3[8]
Summary of Men's & Women's Salaries
Based on Gender of Current Athletic Director

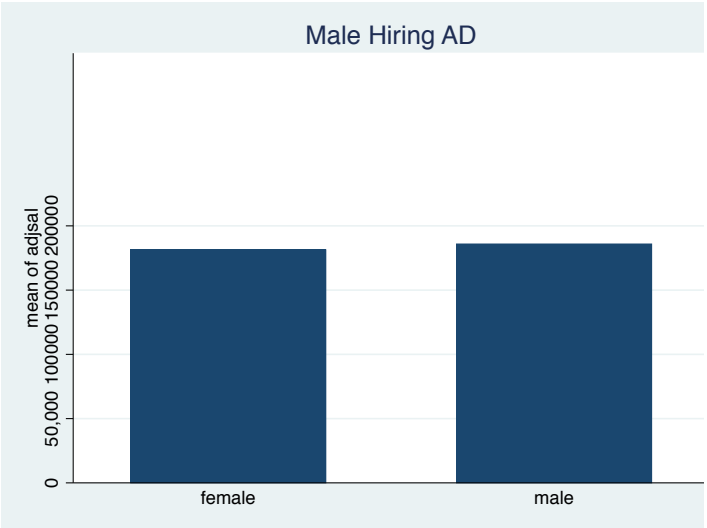




Male salaries are not significantly different than female salary
Salaries of coaches with male AD are not significantly different than salaries of coaches with female ADs

Figure 4
Summary of Men's & Women's Salaries
Based on Gender of Hiring Athletic Director

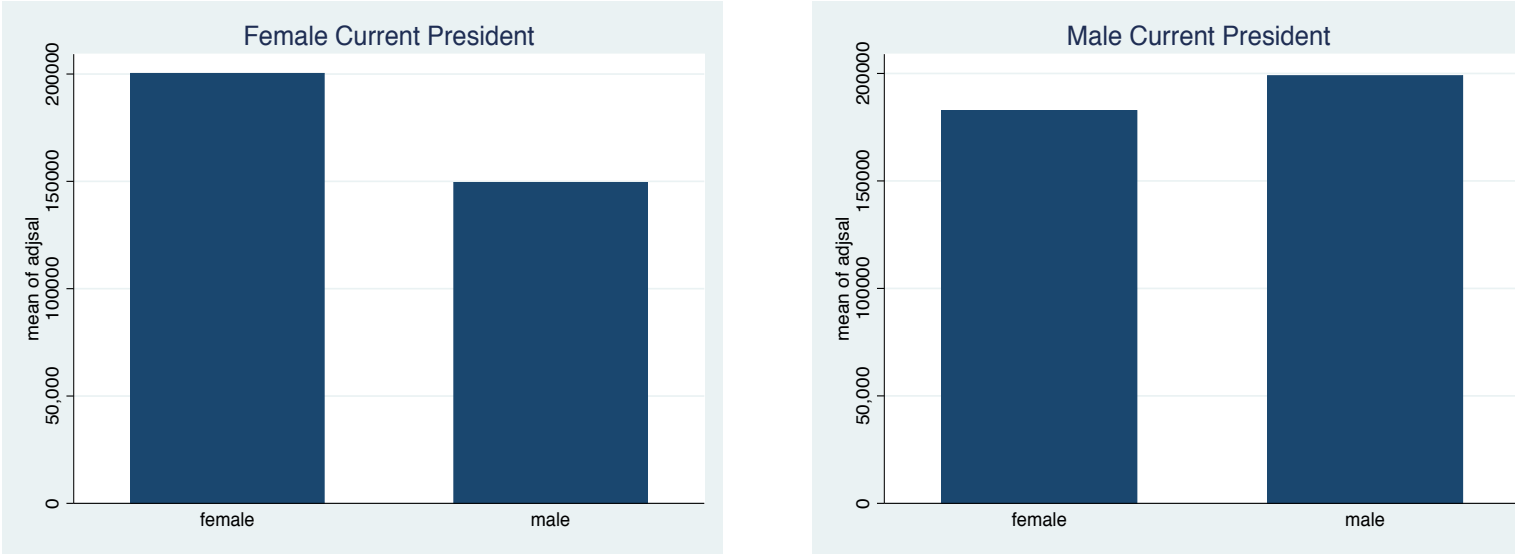




Male salaries are not significantly different than female salary.
Salaries of coaches with male AD are not significantly different than salaries of coaches with female Ads.

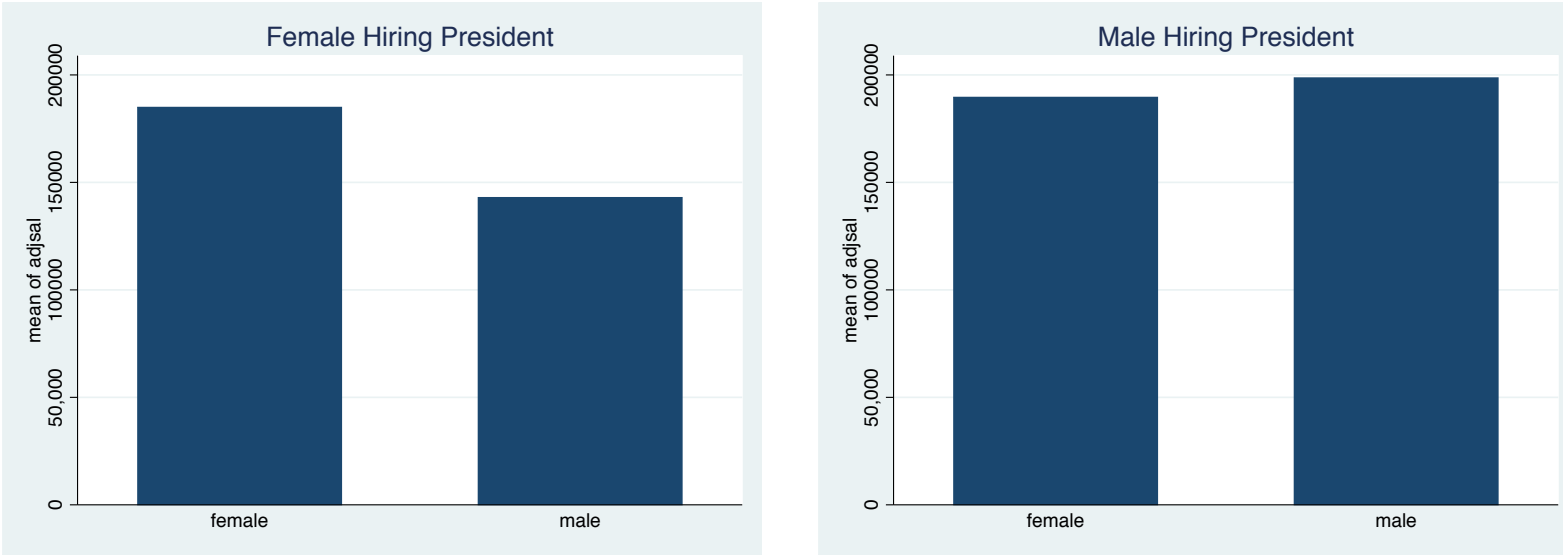
[8] Tables 3,4,5, & 6 summarized in writing in Appendix Table 2

Figure 5
Summary of Men's & Women's Salaries
Based on Gender of Current President



Male salaries are not significantly different than female salary.
Salaries of coaches with male Presidents are not significantly different than salaries of coaches with female Presidents.

Figure 6
Summary of Men's & Women's Salaries
Based on Gender of Hiring President



Male salaries are not significantly different than female salary.
Salaries of coaches with male Presidents are not significantly different than salaries of coaches with female Presidents.

From examining the summary graphs, although the differences are statistically insignificant, two patterns can be examined. First, it is highlighted which genders of athletic directors and presidents pay the largest *overall* salaries. Second, it can be deduced whether different genders of athletic directors and presidents appear to pay different genders of coaches unequal amounts. On average, *current* male athletic directors pay coaches overall higher average salaries than current female athletic directors. *Hiring* female athletic directors pay overall higher average wages than male hiring athletic directors. Overall, male current and male hiring presidents appear to pay coaches higher average wages than female current and hiring presidents.

Under a male current athletic director, on average, males are paid slightly higher average wages than females. Under a female current athletic director, on average, men receive substantially lower salaries than women. However, women experience higher average salaries if the current athletic director is male rather than female. These results must be interpreted with caution, since there are only 3 observations of male coaches at institutions with current female athletic directors. Under male hiring athletic directors, men are paid slightly higher average wages than women. When the hiring athletic director is female, on average, men are paid vastly larger salaries than women. Both men and women are paid more, on average, when they are hired by a female athletic director rather than male athletic director. However, there are only 3 observations of male coaches who were hired by female athletic directors. Male coaches earn greater average salaries under male current and hiring presidents than under female current and hiring presidents. Women earn higher average salaries under female current presidents and male hiring presidents than they do under male current presidents and female hiring presidents. Under

male current presidents, on average, males receive more money than females. Under female current presidents, on average, women earn more money than men. Female hiring presidents appear, on average, to pay women much larger salaries than men. When a hiring president is male, men appear to receive slightly higher average salaries than women. The trends circling the hiring presidents relates to Linda Bell's (2005) discovery that women executives earn higher wages when female lead a company rather than males. This can lead to a reduction of statistical discrimination against minority groups. Since female hiring presidents most likely do not need to rely on cultural stereotypes to generalize women's inherent characteristics, better information about female applicants may surface. If this is the case, females may begin to make up a demographic power group, which Humphreys (2000) believed to influence higher salaries for women.

A final variable I include is at the state level. Since I am comparing across states and in different years, I equalize the differences in yearly cost of living between states. When comparing coaches with equal endowments, it makes intuitive sense that a coach living in Los Angeles will earn a higher base salary than that of a coach living in Idaho, simply because it is much more expensive to make a living in Los Angeles. Controlling for living costs can help remedy these differences. The Council for Community and Economic Research collects data on cost of living indices from 1990 to 2013 for various regions/counties in each state. I match each institution to the geographically closest region in the cost of living data. I use this data to adjust coaches' earnings to control for regional and yearly differences in salaries. The natural log of this adjusted average serves as my primary dependent variable for my regressions to determine salary discrimination.

Hypothesis

The primary hypothesis I will be testing is that female coaches earn a higher base salary in women's Division 1 basketball than male coaches. This was Humphrey's (2000) conclusion in his similar study. If this is the case, I hypothesize there may be statistical discrimination at hand. There are less male coaches than female coaches in this setting, and athletic offices and institutions may be carrying out information-based discrimination by generalizing females as better suited to coach female teams. However, I feel that the earnings gap will be smaller now than it was in Humphrey's study because there has been an overall increase in the percentage of male coaches in women's collegiate sports since 1972 (Grant et al.). The continually growing economy of women's sports has increased males' demand to coach women's teams. Thus, with the increased male competition for these coaching positions, there will be higher qualified male coaches currently than there were in Humphrey's sample. I am making two assumptions: the male coaches today are more qualified and higher qualifications will result in higher relative base salaries. To search for information-based discrimination, I will look at my results-based variables. By having variables such as win percentage and championships, these job performance variables are easy to observe in a basketball setting.

Another hypothesis I will test is related to Bell's (2005) study. I hypothesize that female coaches will benefit from having a female athletic director instead of a male athletic director. This could exhibit taste-based, employer discrimination within female athletic directors. If female coaches earn higher wages than males do under female athletic directors, then the wage differential is the price of discrimination.

Methodology

To perform my study, I estimate a buildup of regressions, incrementally controlling for more categories of data in order to locate the moment when gender becomes insignificant. In each regression, I include a time trend. The dependent variable is the natural log of a contract's average yearly base salary value (or payment if no contract data) adjusted to the cost of living for the area geographically closest to each institution. This enables me to observe the percent change in annual salary as a result of the independent variables' influences.

My first equation is a standard OLS regression estimating a very simple equation, with log salary as the dependent variable and the gender dummy as the only independent variable. Next I add a time trend to the initial regression. These regressions illustrate the percent difference in annual salary between male and female coaches. The equations clearly omit many important variables, so they do not provide truly precise measures of gender's effect on salary.

Since I omit a number of explanatory variables, I incrementally add variables of different categories to my initial regression. First, I control for demographic variables. Since there are only 146 observations that include age, I drop age from the demographic regression to preserve observations. Next, I add current statistics for coaches at their present teams. After regressing an equation with demographics and current statistics, I include measures of coaches' previous experiences, prior to their tenure with their current teams. Then, I include team measures, such as win percentages prior to the coach's arrival, to my regression. Finally, I incorporate institutional factors to complete my series

of regressions. In each regression, I estimate robust standard errors to correct for potential heteroskedasticity.

To test my hypothesis that female coaches benefit from female athletic directors and school presidents, I create interaction terms between sex of the athletic director/president and sex of the coach. I generate interaction terms for both current and hiring athletic directors and presidents. Examining the interaction terms provides a closer look at how a male coach is affected by a male athletic director or president.

Next, I perform a twofold, pooled Oaxaca-Blinder decomposition[9]. To do so, I first estimate separate regressions for male coaches and female coaches. These regressions consist of the same independent variables as my last OLS regression, which includes demographic information, coaches' current statistics, coaches' previous statistics, team data, and institution data. Since the male salaries in my sample are skewed[10], I will estimate two different pooled twofold Oaxaca-Blinder Decompositions. One decomposition will use the natural log of adjusted salaries as the dependent variable, while the other will use the adjusted salaries in dollars as the dependent variable. The pooled Oaxaca-Blinder Decomposition is given by the following equation:

$$(lnsalary_f - lnsalary_m)^{11} = \sum \beta^*(avgx_f - avgx_m) + \sum avgx_f(\beta_f - \beta^*) + \sum avgx_m(\beta^* - \beta_m)$$

[9] A standard threefold Oaxaca-Blinder Decomposition includes an interaction term that measures the effect of simultaneously different means and different coefficients from both groups. A twofold decomposition pools together coefficients from both groups to create a reference coefficient, which allows for a more straightforward interpretation than the threefold decomposition. Discussed in http://www.stata-journal.com/sjpdf.html?articlenum=st0151

[10] As shown in Table 2, males earn higher wages than females in dollars. But when the natural log of salaries are compared, the male mean becomes smaller than the female mean. This suggests that male salaries are skewed to the right.

[11] The equation for the 2nd decomposition will be $(salary_f - salary_m) = \sum \beta^*(avgx_f - avgx_m) + \sum avgx_f(\beta_f - \beta^*) + \sum avgx_m(\beta^* - \beta_m)$

The " f " and " m " subscripts denote male and female. The " * " superscript denotes the coefficients from a pooled regression, which uses coefficients from both males and females to compute reference coefficients. The decomposition equation can be broken down into:

1) $\boldsymbol{lnsalaryf - lnsalary_m}$ - This is the raw wage differential. This is computed by finding the average values of the log of salary for females and males and taking their difference.

2) $\sum \boldsymbol{\beta^*(avgx_f - avgx_m)}$ - This is the explained portion of the wage differential. This provides an explanation of the wage gap by highlighting differences in coaches' endowments, which can be evidence of pre-market discrimination or simply differences in quality. This is referred to as the Endowment Effect.

3) $\sum \boldsymbol{avgx_f(\beta_f - \beta^*)} + \sum \boldsymbol{avgx_m(\beta^* - \beta_m)}$ - This is the unexplained portion of the wage differential. This can be described by differences in the *returns* to endowments (differences in coefficients). This is the Labor Market Discrimination coefficient.

Labor Market Discrimination = $\sum \boldsymbol{avgx_f(\beta_f - \beta^*)} + \sum \boldsymbol{avgx_m(\beta^* - \beta_m)}$

Once I obtain these measures of potential pre-market and labor-market discrimination, I can discover what portion of the wage differential is due to each form of potential discrimination by dividing each of the terms by the raw wage differential. Additionally, I can further break down the decomposition to discern the impact of each specific variable on each term in the Oaxaca-Blinder decomposition.

Results

I. Regression Analysis

Table 5 presents my initial salary regressions. In Columns 1 and 2, when only gender and time are controlled for, the salary differential is negative, but insignificant. Adding demographic controls causes the effect of gender to become significant and also indicates that coaches experience a staggering 16 percent decrease of salary if they are male rather than female. However, this change in differential is due to the positive salary impact of being a parent and the fact that men are much more likely to be parents than women are (See Table 2). Gender continues to have a significant and negative effect on male wages when current coaching statistics are controlled for (Column 4). However, the differential falls, implying that the current statistics that have an impact on salary are lower for men than women. Column 6 highlights the instance when gender loses its significance. When prior coaching statistics are included in the regression, gender has no influence on salary. Since controlling for coaches' previous experiences eliminates gender's effect on salary, it is implied that the female coaches in my data have more successful backgrounds in coaching. This is consistent with the summary statistics in Table 2.

Table 5
The Effect of Gender on Coaches' Salary in Specification With Increasing Controls

VARIABLES	(1)	(2)	(3)	(4)	(5)
1. Male	-0.034	-0.042	-0.166**	-0.118**	0.069
	(0.069)	(0.066)	(0.068)	(0.057)	(0.075)
2. Controls	None	Time	Time & Demographics	Time, Demographics, & Current Stats	Time, Demographics, Current Stats, & Prior Stats
3. Obs.	295	295	295	295	289
4. R-squared	0.001	0.087	0.168	0.503	0.658

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In Table 6[12], when re-estimating the regressions from Columns 3 and 4 of Table 5 by gender, being a parent was found to significantly influence salaries, but by different magnitudes. Intuitively, it is understandable that coaches experience positive returns for being parents. Being a parent implies that a person consistently exhibits nurturing qualities, is capable of being a role model/leader/teacher, shows a commitment, is willing to make sacrifices, and is able to support the physical and personal maturity of another person. These are all signals that are highly valued in coaching. Often times, teammates and coaches regard each other as family. Coaches are expected not only to be teachers of their respective sport, but also to be leaders and role models. Due to the great amount of time spent around their players, coaches play a huge role in developing skills and athleticism, as well as personal character development. If a person is able to welcome parenting, it is a signal that they possess valuable coaching qualities, outside of the knowledge of simply the "X's and O's" of their sport.

[12] Full regression output in appendix – Appendix Table 3

However, it is crucial to note that male coaches appear to receive considerably higher returns for being a parent. While females earn 26.5[13] percent higher wages for being a parent than they would if they did not have children, males experience a 48.6 percent increase for having children. Also, when current coaching statistics are controlled for, having children remains significant and positive for male coaches – who earn 19 percent more if they have children - but becomes statistically insignificant for female coaches. While this finding somewhat parallels Polachek's conclusion that males and females experience opposite wage effects for parenthood, it is not synonymous with this result. For one, when female coaches do experience parenthood affecting their salaries, it is a positive impact. Also, in my sample, 78.43 percent of male coaches are parents, while only 35.23 percent of females have children. The greater likelihood that males are parents influences the significant effect of parenthood on male salaries. Also, the effects of parenthood become insignificant across gender when prior experiences are controlled for and remain insignificant when more controls are added to the regressions.

Table 6
Effects of Parenthood on Salaries by Gender

VARIABLES	(1) Female	(2) Male	(3) Female	(4) Male
1. Children	0.235***	0.396***	0.031	0.191*
	(0.082)	(0.095)	(0.064)	(0.108)
2. Controls	Time & Demographics	Time & Demographics	Time, Demographics, & Current Stats	Time, Demographics, & Current Stats
3. Observations	193	102	193	102
4. R-squared	0.127	0.262	0.522	0.559

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

[13] Since the absolute value of the coefficient is greater than .2, the effect of "children" coefficient computed by the formula: $(e^{\beta} - 1) * 100\%$

Table 7 displays regressions that add controls for team and institutional characteristics. In Column 1, the combined effects of the interaction terms and the gender dummy variables address the influence of the gender of the athletic director and president. I use Linda Bell's (2005) conclusions to hypothesize that female coaches will benefit from having a female athletic director instead of a male athletic director. This hypothesis can be partially accepted. When looking at the summary statistics, women earn higher wages under *male* current athletic directors than they do under female current athletic directors. But, in comparison to men, women earn lower wages than men when the current athletic director is male.

In Row 32, the interaction term between the current athletic director and coach's gender is significant at the 5 percent level and implies that the effect of a male current athletic director on men is 61.6[14] percent higher than for women. However, this should not be taken to mean that female athletic directors necessarily treat women better than they treat men. In Row 34, the interaction term between the gender of the hiring athletic director and coach is also significant at the 5 percent level. This term illustrates that under a male hiring athletic director, women are much better off than their male counterparts. The interaction term displays that, all else equal, male coaches receive wages 49.6 percent[15] less than those of female coaches when their hiring athletic director is a male.

Breaking down this regression by gender produces the results in Columns 2 and 3 of Table 7. Rows 31 and 33 in Column 2 display that the genders of a current and hiring athletic director have statistically insignificant effects on a female coach's salary.

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[14] Effects of athletic director and president computed by formula: $(e^{\beta} - 1) * 100\%$

[15] Computed by $(e^{(-.686)} - 1) * 100\%$

However, for men, the gender of the current athletic director is statistically significant at .01 significance level. In Column 3, Row 31 illustrates that men earn roughly 40 percent[16] higher salaries if the current athletic director is male, rather than female. Despite these findings, it is difficult to place a high value on the role of an athletic director's gender since there are so few female athletic directors[17].

In Rows 36 and 38 of Column 1, the interaction terms between a current president and coach's gender and between a hiring president and coach's gender have no significant effects by gender. However, in Column 1, Row 35, the gender of the institution's current president is significant at the .1 significance level. This coefficient implies that across genders, coaches receive 18.2 percent[18] lower wages under a male current president than they receive under a female current president. However, only 18 percent of institutions in the sample employ a current female president. Row 37 includes the salary effect of the hiring president's gender, which is significant at the .1 significance level. The coefficient indicates that across genders, coaches earn 25.48 percent[19] higher salaries if the president they were hired by was male rather than female. Again, however, there is a small sample size (roughly 11 percent) of coaches who were hired by female presidents.

When separating males and females, Row 35 of Column 2 displays that the gender of an institution's current presidents does not have a significant effect on women's wages. However, a president's gender does have significant effects on men's salaries. In Row 35 of Column 3, the gender of the current president is significant at the

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[16] Computed by $(e^{(.338)} - 1) * 100\%$

[17] My sample includes 33 observations of current female athletic directors and 25 observations of hiring female athletic directors

[18] Computed by $(e^{(-.201)} - 1) * 100\%$

[19] Computed by $(e^{(.227)} - 1) * 100\%$

.01 significance level. The coefficient suggests that male coaches earn 28.75 percent[20] less pay under male current presidents than under female current presidents.

Table 7
The Effects of Gender on Coaches' Salaries
Full Specification

VARIABLES	(1) Total	(2) Females	(3) Males
1. Gender	0.334		
	(0.383)		
2. Time	0.046	0.045	0.016
	(0.039)	(0.043)	(0.087)
3. Time^2	0.0003	-0.002	0.005
	(0.002)	(0.003)	(0.005)
4. Ethnicity	-0.047	-0.022	0.135
	(0.063)	(0.073)	(0.098)
5. Children	0.041	-0.0163	0.258*
	(0.054)	(0.066)	(0.149)
6. Contract Length	0.090***	0.075***	0.102***
	(0.015)	(0.018)	(0.0265)
7. Tenure	-0.0226**	-0.00964	-0.0445**
	(0.0112)	(0.0139)	(0.0218)
8. Win % at Current School	0.150	0.0888	0.00975
	(0.138)	(0.175)	(0.320)
9. NCAA Tourn at Current School	0.0389**	0.0939***	0.0677**
	(0.0165)	(0.0257)	(0.0302)
10. Sweet 16s at Current School	0.122**	0.0985	0.0559
	(0.0573)	(0.0878)	(0.0791)
11. Final 4s at Current School	-0.360*	-0.402	-0.224
	(0.191)	(0.268)	(0.250)
12. National Titles at Current School	0.288	0.172	0.168
	(0.190)	(0.411)	(0.260)

[20] Computed by $(e^{(-.339)} - 1) * 100\%$

13. WNITs at Current School	0.0554**	0.130***	-0.0219
	(0.0266)	(0.0400)	(0.0394)
14. Avg. APR at Current School	7.48e-05	-3.70e-06	0.000141
	(7.52e-05)	(0.000102)	(0.000178)
15. D1 Head Coaching Experience	0.105	0.155*	0.495***
	(0.0718)	(0.0860)	(0.184)
16. D2 Head Coaching Experience	-0.0726	-0.0525	-0.00638
	(0.0692)	(0.0894)	(0.136)
17. D3 Head Coaching Experience	-0.104	0.146	-0.219
	(0.0829)	(0.144)	(0.211)
18. D1 Assistant Experience	-0.0770	-0.164**	-0.00476
	(0.0657)	(0.0703)	(0.188)
19. WNBA Coaching Experience	-0.314**	-0.239	0.785
	(0.123)	(0.152)	(0.485)
20. NCAA Tourn Prior D1 Coach	0.0523***	0.0416**	-0.0304
	(0.0158)	(0.0187)	(0.0672)
21. WNITs Prior D1 Head Coach	0.0405	0.102**	-0.00987
	(0.0446)	(0.0495)	(0.110)
22. NCAA Tourn Prior D1 Assistant	0.0553***	0.0591***	0.0572*
	(0.0121)	(0.0132)	(0.0303)
23. WNITs Prior D1 Assistant Coach	-0.0222	0.0807**	-0.147***
	(0.0286)	(0.0355)	(0.0470)
24. High School State Titles	0.0301	-0.0589	0.351***
	(0.0498)	(0.0476)	(0.125)
25. Years Coaching-All Prior Levels	-0.0101	-0.00592	-0.0273**
	(0.00723)	(0.00869)	(0.0105)
26. D1 Playing Experience	0.000360	0.0363	0.0376
	(0.0886)	(0.0893)	(0.138)
27. D2 Playing Experience	-0.247**	-0.116	-0.508**
	(0.0950)	(0.133)	(0.221)
28. D3 Playing Experience	-0.174	0.118	-1.151**
	(0.167)	(0.177)	(0.512)
29. WNBA Playing Experience	0.0851	0.200	

	(0.110)	(0.132)	
30.Team Win% 2 Yrs Before Arrival	0.163	0.171	0.0193
	(0.146)	(0.155)	(0.302)
31. Gender of Current AD	-0.186	0.133	0.338***
	(0.119)	(0.165)	(0.123)
32. Gender Current AD x Coach	0.480**		
	(0.187)		
33. Gender of Hiring AD	0.108	0.0216	-0.756
	(0.126)	(0.207)	(0.528)
34. Gender of Hiring AD x Coach	-0.686**		
	(0.333)		
35. Gender of Current President	-0.201*	-0.0779	-0.339***
	(0.117)	(0.0896)	(0.116)
36. Gender Current Pres. x Coach	-0.0809		
	(0.168)		
37. Gender of Hiring President	0.227*		
	(0.120)		
38. Gender of Hiring Pres. x Coach	-0.0666		
	(0.189)		
39. Constant	11.00***	10.97***	11.56***
	(0.247)	(0.298)	(0.595)
40. Observations	236	167	97
41. R-squared	0.673	0.703	0.781

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Rows 8, 9, and 13 begin to tell an interesting story. Examining a coach's win percentage (Row 8) and playoff experiences (Rows 9 and 13) are two ways to measure a success rate that seem to go hand in hand. If a team has a high winning percentage, they will probably earn a playoff appearance. On the other hand, if a team has reached the NCAA Tournament, it is necessary that they had to have a relatively strong record. However, often times, teams may have great success throughout a season, but lose a few

key games that will determine their playoff future. There can also be instances where teams, especially those in strong conferences with high strength of schedule, have mediocre seasons, but rally to win important games at the end of a season to make the playoffs. Comparing the significance of win percentages and NCAA Tournament/WNIT appearances proves that having a strong win percentage is not enough of a statement for coaches' to earn higher salaries. The significance of NCAA Tournament and WNIT appearances implies that *results* are more important than just winning percentages. Simply achieving a strong winning percentage does not carry as much weight, if it does not result in a playoff appearance. This is intuitive since schools and athletic programs receive substantial monetary rewards from the NCAA if their program earns a spot in the playoff bracket. Not to mention, participating on a national scale in the NCAA Tournament is a fantastic marketing opportunity for a university.

For three out of the four variables that were jointly significant for both genders, males experience higher returns. Men receive greater rewards than females for an additional year in their contracts, having prior Division 1 head coaching experience, and winning an additional state championship as a high school head coach. Males experience more than double the returns for having prior Division 1 head coaching experience than females do.

Females, on the other hand, receive significant and positive returns for more prior playoff experiences than men. In Row 22, women receive slightly larger returns for an additional NCAA Tournament experience as a former assistant coach than men receive. The effect of an additional NCAA Tournament appearance as a former Division 1 head coach (Row 20) has an insignificant effect on men's salaries, but increases women's

salaries by 4 percent. Women see positive returns from an additional WNIT appearance as a prior assistant coach (Row 23), while males see a surprising and counterintuitive decrease to their salary for an additional WNIT appearance as a prior assistant coach. While prior statistics are positively valued, it is apparent that men do not have strong backgrounds. So, these patterns can be influenced by the fact that women have better previous coaching backgrounds than males in my sample.

Consistent with the trends in previous regressions, females appear to be a bit more impacted by team success than males. Males seem to be minimally impacted by their productivity, or lack thereof. Female coaches experience increases in base pay for additional postseason appearances with their current programs: 5.69 percent increase for an additional trip to the NCAA Tournament (Row 9) and 10 percent increase for an additional WNIT berth (Row 13). It is curious that the coefficient on WNIT is larger than that of the NCAA Tournament, since the NCAA Tournament is the most prestigious and challenging tournament to compete in.

It is also interesting to note the negative coefficients for tenure in Row 7. The negative return for an additional year of tenure showcases coaches' rationale for deciding to remain at their current school or accept another team's employment offer. Theoretically, a coach will only accept an offer from another school if the salary being offered is more alluring than the salary at the current school. Therefore, the initial contracts of most coaches who just switched schools (and have 0 tenure) are more profitable than the contracts of coaches that remain at their current institution (and build tenure). Males suffer slightly more than females for building up additional years of

tenure. This may indicate that males experience larger wage increases than females when beginning their career with a new institution.

II. Oaxaca-Blinder Decomposition Analysis

Table 8 outlines the overall results and the appendix contains comprehensive tables of the full Oaxaca-Blinder output. Although each portion of the equation is statistically insignificant and must be interpreted carefully, the Oaxaca-Blinder output can still provide insight.

In Row 2 of Column 1, the Raw Wage Differential highlights the slight increase in the natural log of cost of living-adjusted salaries that female coaches receive over male coaches. The severity of the wage gap is small, and consistent with my hypothesis that it will be less than it was in Humphreys' study (2000). While the wage gap is low, over half of it can be attributed to the explained portion of the decomposition, which comprises the Endowment Effect (Row 4). The Endowment Effect illustrates that females have higher levels of positively valued endowments than males do. This parallels the regression analysis, which uncovered that women have more qualified basketball backgrounds and see their wages more significantly influenced by their past experiences than men.

The unexplained portion of the decomposition (Row 5) illustrates the coefficients' effect on the wage gap. The negative sign of the unexplained portion indicates that it is negatively influencing the wage gap. Therefore, this implies that males are receiving higher *returns* for their previous coaching experiences than females are experiencing. This additionally infers that if women were rewarded accordingly, they would receive

even higher salaries, further expanding the wage gap. Examining the Endowment Effect in Row 4 of Column 1 displays that the wage differential *should* be closer to 8.6 percent, in favor of women, but because of different rewards to endowments, the gap gets reduced to 2.7 percent.

Appendix Table 6 displays each coefficient's impact on the unexplained portion of the differential and each endowment's impact on the explained portion of the differential. Division 1 playing experience, previous Division 1 head coaching experience, and prior playoffs as an assistant coach appear to have the strongest positive impacts to the Endowment Effect. Current win percentage and current playoff measures seem to have some of the strongest negative effects to the explained portion of the differential. The gender of the current athletic director, APR averages, and contract length are large contributing factors to the unexplained portion of the differential. The constant term, gender of the current president, and a coach's total prior years of coaching and win percentage in those years (across all levels) have the strongest negative impacts to the coefficient effect.

Quite different conclusions are uncovered when the Oaxaca-Blinder Decomposition is estimated with the dollar value of adjusted salary as the dependent variable. These results can be examined in Column 2.

In the pooled decomposition with dollars of salary as the dependent variable, the Raw Wage Differential (Row 3) indicates that females earn 4,761 (or 2.5 percent) *less than* males. This finding debunks my hypothesis that the wage gap will favor women. The unexplained and explained portions of the decomposition follow the pattern of the original estimation that used the natural log of salary as the dependent variable.

The positive Endowment Effect (Row 4) goes against the direction of the Raw Wage Differential. Since the differential favors men, the positive explained portion indicates that, again, women have higher levels of positively valued previous experiences than men do. In this instance, the signs of the wage gap and the unexplained portion (Row 5) of the decomposition are the same. This infers that, again, males appear to receive higher returns for their previous coaching experiences than females. This indicates that if women were to experience the same returns for endowments as men receive, women would receive higher salaries. The Endowment Effect indicates that if there was no difference in men's and women's returns to endowments, women would earn salaries $28,446 (or 15 percent) higher than men. Tables 9 and 10 break down the explained and unexplained portions to illustrate the each variable's impact in their calculation.

Appendix Table 8 outlines the individual effect of each endowment on the explained portion and the individual effect of each coefficient on the unexplained portion of the differential. APR, experience as a Division 1 assistant coach, and a current athletic director's gender most strongly influence the unexplained portion, while the gender of a current president, a coaches total years of prior coaching, and a coach's win percentage in those years most negatively affect the unexplained portion. For the explained portion, current winning percentage and current playoff experience have the most positive effects, while Division 1 playing and head coaching experience have the most negative effects.

Table 8
Oaxaca-Blinder Results

Dependent Variable	Natural Logarithm of Salary (1)	Salary (2)
OVERALL		
1. Females	11.97***	184,986***
	(0.0395)	(8,423)
2. Males	11.95***	189,747***
	(0.0582)	(15,351)
3. Raw Wage Diff.	0.0272	-4,761
	(0.0704)	(17,510)
4. Explained	0.0863	28,446
	(0.0814)	(19,760)
5. Unexplained	-0.0591	-33,208
	(0.0765)	(21,444)
6. Observations	289	289

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Full output include in Appendix

Conclusion

My study set out to discover potential labor market discrimination in Women's Division 1 basketball, one of the most up and coming sports in the NCAA. First I aimed to explore the factors that determine a coach's salary. Through time series OLS regressions with robustness checks, I uncovered that, across genders, the most influential determinants of pay are playoff appearances with a current team, prior Division 1 coaching experience, prior Division 1 playoff experience, and the length of a contract. I found that a coach's winning percentage does not carry as much influence as a coach's playoff appearances. While playoff appearances are dependent on a strong win percentage, coaches do not see a direct benefit from a great winning percentage, unless

they earn a spot in the playoffs, whether it is the NCAA Tournament or the WNIT. This is to be expected, since institutions and athletic departments receive monetary rewards from the NCAA from playoff appearances. Coaches' contracts almost always include personal bonuses for reaching the NCAA Tournament as well.

To my surprise, players' academic performance under their coach appeared to bear no impact on the coach's salary. Dufur made the distinction that the academic performance of the players on prominent Division 1 teams is not strongly emphasized as a measure of a coach's success. These results can be potentially troubling. The excitement and hard work of collegiate athletics can easily distract players from their academic duties. If an athletic department rewards coaches for wins and playoff appearances, but does not stress and reward coaches for their players' performance in the classroom, coaches have no external incentives to assure their players maintain strong academic standards. This finding insinuates a potential need for public Division 1 athletic departments to assess the overall goals of their program, since academics plays a vital role in futures of these student-athletes. It can prove interesting to test my results against not only Division 3 institutions (who Dufur claims emphasize academics), but also against *private* Division 1 institutions, which often pride themselves on their academic standards.

I also discovered that the gender of an athletic director and/or president does in fact influence salaries. It was shown that male current athletic directors appear to favor men over women. The interaction term between the gender of a current athletic director and the gender of a coach displayed that, all else equal, when a current athletic director is a male, men receive 61.6 percent higher salaries than women. Male coaches earn 40

percent higher wages if their current athletic director is male rather than female. Conversely, when a *hiring* athletic director is male, women earn salaries 49.6 percent higher than men. Coaches overall earn 18.2 percent lower salaries if their institution's president is male rather than female. Male coaches experience 28.75 percent lower earnings if a current president is male rather than female. When male presidents hire coaches, across gender, coaches earn 25.48 percent higher salaries than they would if a female president hired them.

The primary goal of this study was to identify a wage gap, and then address the magnitude of the disparity that can potentially arise from labor market discrimination. To do so, I estimated two two-fold, pooled Oaxaca-Blinder Decompositions. While I found conflicting outcomes in determining a wage gap, both Oaxaca-Blinder decompositions illustrated biases against female coaches. When the gap was in favor of females and also when the gap was against females[21], the explained portion of the differential favored females, indicating that women had higher levels of endowments. Despite women's higher quality of previous coaching experience, the rewarding system appears to be unfair. In both instances, the unexplained portion of the decomposition heavily favored men. This suggests that women experience substantially less returns for positively valued accomplishments than men receive. So, based on the returns to men's endowments, regardless of which gender the wage gap favors, these female coaches deserve to be paid higher salaries. While the labor market discrimination coefficient is statistically insignificant, and only points to *potential* labor market discrimination, the results of this study suggest that a further, more extensive examination can prove fruitful.

[21] Table 8 – Raw Wage Differential favored females when natural log of adjusted salary was dependent variable (Column 1) and favored males when dollars of adjusted salary was dependent variable (Column 2)

In statistical discrimination, the group with the perceived lower productivity is less likely to be hired and also likely to receive lower earnings. Statistical discrimination is difficult to combat. It is a solution for employers to maximize their profits by saving the time and resources it takes to meticulously evaluate a worker's productive capabilities. Also, it is difficult to identify where the group stereotypes at play stemmed from. The stereotypes (whether accurate or not) could arise from limited personal experiences or longstanding societal generalizations. Since statistical discrimination affects employees' incentives, it can become a self-fulfilling prophecy. This can cause a discriminated group to play an active role in *perpetuating* their own discrimination.

My findings show that since more females than males are hired in this setting, it is unlikely that statistical discrimination is the force driving women's unequal opportunities. Also, statistical discrimination is centered on imperfect information. In the NCAA, when head coaches are hired, athletic directors are well aware of their coaching background, since it is easily and cheaply accessible So, there is not a strong need to infer coaches' productive capabilities by drawing on gendered productivity stereotypes when their capabilities can be easily gaged by evaluating previous coaching records. Therefore, my findings insinuate that employer taste-based discrimination is a likely force of the potential labor market discrimination that I have uncovered.

Throughout history, the United States government has implemented policies to forbid labor market discrimination. The Equal Pay Act of 1963 outlawed wage disparities based on gender. Unequal pay between men and women for work that required similar skills under similar working conditions was deemed illegal. Title VII of the Civil Rights Act of 1964 prohibited labor market discrimination based on race, color, religion, sex,

and natural origin. My work suggests that the NCAA should play a more active role in monitoring contracts to insure against labor market discrimination. My study also calls for further research, with closer availability to coaches' contracts to evaluate base salaries as well as bonuses and benefits, to more accurately determine if labor market discrimination is present in Women's NCAA Division 1 basketball

Caveats

A caveat of this study is that I evaluate base salaries of contracts. In doing so, two problems arise. First, base salaries do not explain the entire story of coaches' salaries. Many schools structure their contracts differently. Some contract raises may hold base salaries constant and dramatically increase benefits and bonuses, while others may do the opposite. Regardless, bonuses and benefits are a huge aspect of division 1 coaches' contracts. According to Winthrop Intelligence, in 2012, on average, coaches received $21,555 in bonuses, just for receiving a bid to the NCAA Tournament. On average, reaching the Final 4 is worth $87,300 in bonuses for a coach. Also, coaches receive benefits such as cars, clothing sponsorships, and country club memberships that are difficult to quantify when collecting data.

Second, depending on where I acquired specific salary measures, I am unable to determine if every salary in my data set is strictly a base salary. Based on my experience collecting salary data, my intuition is that a portion of the salaries collected from state databases include at least some benefits or bonuses. This can skew not only my salary measures, but also the severity that each variable impacts base salaries. For instance, since contracts include bonuses for NCAA Tournament appearances, its coefficient may

be picking up these added incentives if the salaries I gathered from state databases include bonuses.

My study can also be extended by including a measure to test the effect of the "demographic power group." When Humphreys (2000) added a variable for the percent of female head coaches at an institution, he witnessed a disappearing of a gendered wage gap. He observed that when a female was the women's head basketball coach, females made up 50% of the head coaches in the institution's women's athletics program. When the women's head basketball coach was a male, this percentage dropped to less than 33%. Further examination of how the demographic power group affects coaches' pay in NCAA Women's Division 1 basketball would prove to be interesting.

A final caveat is that my study is limited to *public* universities who participate in Division 1 women's basketball. Women's Division 1 basketball currently consists of 351 participating universities. While 231 of these consist of public universities consist, leaving out private institutions ignore 120 observations. The athletic programs of the private institutions may have different goals and missions than those of the public school, impacting the ways in which they value success and reward their coaches. Despite shortcomings, my study provides a great base for collecting and testing data for future studies in coach discrimination, especially for authors who have close access to NCAA and salary information. It suggests that future examinations of Women's Division 1 basketball can be fruitful and provides a foundation for experimental process.

Data Appendix

Appendix Table 1
Describes Figures 1 & 2
Salary, Gender, Ethnicity, & Parenthood by Gender - Summary Statistics

Variable	Overall	Female	Male
Parent	214181.8 (156346.4) [148]	223937.1+++ (145087.2) [68]	205889.8++ (165772.3) [80]
Non-Parent	160233.6 (88849.59) [147]	165370.7* (88267.43) [125]	131045.6 (88483.98) [22]
White	200557.8 (139328.8) [213]	196180.7++ (117227.3) [139]	208779.8++ (174047.7) [74]
Non-White	152858.9 (93646.04) [82]	159813.9 (104581) [54]	139445.9 (67499.26) [28]

*Male salary is significantly different than female salary at the .1 significance level within row
**Male salary is significantly different than female salary at the .05 significance level within row
***Male salary is significantly different than female salary at the .01 significance level within row
+Salary of coach with children is significantly different than coach without children at .1 significance level within columns
++Salary of coach with children is significantly different than coach without children at .05 significance level within columns
+++Salary of coach with children is significantly different than coach without children at .01 significance level within columns
Standard Deviations in Parentheses .
Number of observations in brackets.

Appendix Table 2
Describes Figures 3, 4, 5, & 6
Salary Under Athletic Director/President by Gender - Summary Statistics

Variable	Overall	Female	Male
Male Current AD	188873.1 (131255.4) [262]	187095.7 (113285.6) [163]	191799.5 (157015.9) [99]
Female Current AD	174803 (119660.1) [33]	180082.3 (124185.5) [30]	122010.6 (29638.27) [3]
Male Hiring AD	183085.5 (130412.4) [245]	181351 (111425.8) [151]	185871.8 (156791.2) [94]
Female Hiring AD	211551.3 (150056) [25]	197072.2 (140616.7) [22]	317731.7 (208247.8) [3]
Male Current President	188351.2 (136218.2) [240]	182737.1 (115978.2) [157]	198970.5 (168279.9) [83]
Female Current President	182708.6 (98538.35) [55]	200259.3 (109569.8) [36]	149454.6 (63261.46) [19]
Male Hiring President	192884.3 (128791.4) [238]	189621.5 (103064.5) [152]	198651.3 (165306.3) [86]
Female Hiring President	171462.4 (83051.37) [28]	184952.9 (95482.98) [19]	142982.3 (37698.46) [9]

*Male salary is significantly different than female salary at the .1 significance level within row
**Male salary is significantly different than female salary at the .05 significance level within row
***Male salary is significantly different than female salary at the .01 significance level within row
+Salary of coach with male AD/President is significantly different than coach with female AD/President at .1 significance level within columns
++Salary of coach with male AD/President is significantly different than coach with female AD/President at .05 significance level within columns
+++Salary of coach with male AD/President is significantly different than coach with female AD/President at .01 significance level within columns

Standard Deviations in Parentheses
Number of observations in brackets

Appendix Table 3
Demographics & Current Statistics
Male vs. Females

	(1) Female Demographics	(2) Male Demographics	(3) Female Current Stats	(4) Male Current Stats
VAR	ln_adjsal	ln_adjsal	ln_adjsal	ln_adjsal
1.Time	-0.124*	-0.201**	-0.022	-0.098
	(0.063)	(0.094)	(0.046)	(0.091)
2.Time^2	0.00972**	0.0166***	0.00392	0.010*
	(0.004)	(0.006)	(0.003)	(0.006)
3.Ethnicity	0.182**	0.230**	-0.00946	0.0869
	(0.085)	(0.089)	(0.069)	(0.078)
4.Children	0.235***	0.396***	0.031	0.191*
	(0.082)	(0.095)	(0.0641)	(0.108)
5.Contract Length			0.108***	0.117***
			(0.016)	(0.025)
6.Tenure			-0.023**	-0.0231
			(0.00893)	(0.0147)
7.Win % at Current School			0.435***	0.281
			(0.144)	(0.251)
8.NCAA Tournaments at Current School			0.072***	0.037**
			(0.017)	(0.017)
9.National Titles at Current School			-0.048	0.009
			(0.047)	(0.044)
10.WNITs at Current School			0.127***	-0.00958
			(0.035)	(0.0373)
11.Avg. APR at Current School			-0.00022**	0.00016
			(8.95e-05)	(0.0002)
12.Constant	12.04***	11.82***	11.32***	11.07***
	(0.256)	(0.400)	(0.200)	(0.355)
13.Observations	193	102	193	102
14.R-squared	0.127	0.262	0.522	0.559

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 4
Gender, Demographics, Current Stats, & Prior Stats
Male vs. Females

	(1) Female Prior Stats	(2) Male Prior Stats
VARIABLES	ln_adjsal	ln_adjsal
1.Time	0.00553	0.00283
	(0.0427)	(0.0646)
2.Time^2	0.00160	0.00247
	(0.00254)	(0.00434)
3.Ethnicity	-0.0228	-0.0322
	(0.0655)	(0.0953)
4.Children	0.0192	0.117
	(0.0687)	(0.111)
5.Contract Length	0.0669***	0.0800**
	(0.0169)	(0.0370)
6.Tenure	-0.0158*	-0.0192
	(0.00879)	(0.0190)
7.Win % at Current School	0.284	0.423*
	(0.180)	(0.233)
8.NCAA Tournaments at Current School	0.0544**	0.00475
	(0.0263)	(0.0190)
9.National Titles at Current School	0.0434	0.340
	(0.133)	(0.246)
10.Sweet 16s at Current School	0.0498	0.162**
	(0.0519)	(0.0769)
11.Final 4s at Current School	-0.0880	-0.383
	(0.0884)	(0.240)
12.WNITs at Current School	0.0966***	0.0414
	(0.0330)	(0.0489)
13.Avg. APR at Current School	-7.87e-05	9.75e-05
	(9.93e-05)	(0.000143)
14. D1 Head Coaching Experience	0.131*	0.111
	(0.0770)	(0.161)

15.D2 Head Coaching Experience	-0.160**	-0.0787
	(0.0765)	(0.138)
16.D3 Head Coaching Experience	0.222	-0.0362
	(0.145)	(0.163)
17.D1 Assistant Experience	-0.152**	-0.127
	(0.0681)	(0.190)
18.WNBA Coaching Experience	-0.165	0.496
	(0.125)	(0.499)
19.Coach Prior Win % - All levels	0.349***	0.0650
	(0.107)	(0.188)
20. NCAA Tourn Prior D1 Head	0.0564***	-0.00570
	(0.0174)	(0.0529)
21.NCAA Tourn Prior D1 Assist	0.0719***	0.0106
	(0.0202)	(0.0423)
22. NCAA Tourn Prior D2 Head	0.0325**	0.00986
	(0.0160)	(0.0262)
23. NCAA Tourn Prior D3 Head	-0.0283	0.00429
	(0.0249)	(0.0470)
24.Sweet 16 Prior D1 Head	0.0660	0.648**
	(0.118)	(0.253)
25.Final 4 Prior D1 Head	-0.205	-4.236***
	(0.295)	(1.503)
26.Sweet 16 Prior D1 Assist	-0.0448	0.337**
	(0.0300)	(0.165)
27.NAIA Championships	-0.249	-0.176
	(0.390)	(0.183)
28. Coach Years -All Prior Levels	-0.0107*	0.00337
	(0.00610)	(0.00786)
29.D1 Playing Experience	0.0742	0.195
	(0.0870)	(0.164)
30.D2 Playing Experience	-0.133	-0.115
	(0.115)	(0.161)
31.D3 Playing Experience	-0.0446	-0.312

	(0.132)	(0.441)
32.Constant	11.19***	10.96***
	(0.231)	(0.320)
33.Observations	187	102
34.R-squared	0.687	0.768

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 5
Oaxaca Blinder Decomposition Output
Dep. Variable - Natural Logarithmic Form of Adjusted Salary

VAR	(1) Overall	(2) Explained	(3) Unexplained
1.Time		0.003	0.248
		(0.018)	(0.706)
2.Time^2		-0.017	-0.489
		(0.022)	(0.426)
3.Ethnicity		0.0002	-0.032
		(0.002)	(0.069)
4.Children		0.003	-0.066
		(0.02)	(0.107)
5. Contract Length		0.016	-0.134
		(0.021)	(0.106)
6. Tenure		0.018	0.065
		(0.014)	(0.109)
7. Win % at Current School		-0.036*	0.09
		(0.018)	(0.133)
8. NCAA Tourn at Current School		-0.007	0.017
		(0.015)	(0.07)
9. Sweet 16s at Current School		-0.031	-0.093
		(0.039)	(0.083)
10. Final 4s at Current School		0.007	0.129

	(0.024)	(0.096)
11. Nat'l Titles at Current School	-0.001	-0.045
	(0.001)	(0.040)
12. WNITs at Current School	-0.018	0.073**
	(0.015)	(0.034)
13. Avg. APR at Current School	0.004	-0.112
	(0.001)	(0.110)
14. D1 Head Coaching Experience	0.030*	-0.046
	(0.017)	(0.045)
15. D2 Head Coaching Experience	0.014*	-0.021
	(0.008)	(0.035)
16. D3 Head Coaching Experience	0.003	0.016
	(0.004)	(0.012)
17. D1 Assist Experience	-0.0102	-0.214
	(0.00815)	(0.132)
18. Coach Prior Win % - All levels	0.004	0.100
	(0.011)	(0.0903)
19. WNBA Coaching Experience	-0.0006	-0.0215
	(0.002)	(0.015)
20. NCAA Tourn Prior D1 Head	0.009	-0.016
	(0.013)	(0.046)
21. WNIT Prior D1 Head	-0.001	0.082**
	(0.0027)	(0.039)
22.NCAA Tourn Prior D1 Assist	0.043***	0.022
	(0.017)	(0.037)
23. WNIT Prior D1 Assist	-0.001	0.0347**
	(0.002)	(0.014)
24. High School State Titles	-0.006	-0.0214*
	(0.005)	(0.013)
25. Years Coaching-All Prior Levels	-0.001	0.081
	(0.003)	(0.119)

26. D1 Playing Experience		0.065	-0.016
		(0.042)	(0.061)
27. D2 Playing Experience		-0.002	0.017
		(0.005)	(0.012)
28. D3 Playing Experience		-0.0005	0.013
		(0.004)	(0.014)
29.Team Win% 2 Yrs Prior		0.006	0.016
		(0.006)	(0.107)
30. Gender of Current AD		-0.007	-0.267*
		(0.01)	(0.152)
31. Gender of Current Pres		-0.00104	0.192**
		(0.003)	(0.096)
32.Females	11.97***		
	(0.0395)		
33.Males	11.95***		
	(0.0582)		
34.Difference	0.027		
	(0.07)		
35.Explained	0.086		
	(0.081)		
36.Unexplained	-0.059		
	(0.077)		
37.Constant			0.339
			(0.421)
38Observations	289	289	289

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 6
Oaxaca-Blinder Breakdown by Variable
Natural Log of Salary

Variables	% of Each Variable Attributable to Coefficient Effect	% of Each Variable Attributable to Endowment Effect
Time	-420.004%	3.488%
$Time^2$	828.42%	-19.353%
Ethnicity	53.717%	0.270%
Children	111.96%	2.95%
Contract Length	226.703%	18.301%
Tenure	-110.549%	21.157%
Win % at Current School	-152.686%	-41.15%
NCAA Tournaments at Current School	-28.27%	-7.657%
Sweet 16s at Current School	157.582%	-36.357%
Final 4s at Current School	-218.918%	7.551%
National Championships at Current School	76.307%	-1.3592%
WNITs at Current School	-123.963%	-21.08%
Avg. APR at Current School	190.179%	4.345%
D1 Head Coaching Exp	78.182%	34.795%
D2 Head Coaching Exp	34.88%	15.975%
D3 Head Coaching Exp	-26.943%	3.948%
D1 Assistant Coaching Exp	362.79%	-11.879%

Coach Overall Prior Win %	-169.653%	4.937%
WNBA Head Coaching Exp	36.318%	-0.648%
NCAA Tourn as Prior D1 Head Coach	27.288%	10.79%
WNITs as Prior D1 Head Coach	-137.931%	-0.737%
NCAA Tourn as Prior D1 Assistant Coach	-37.853%	50.165%
WNITs as Prior D1 Assistant Coach	-58.731%	-0.717%
High School State Championships	36.249%	-7.348%
Total Years Coaching-All Prior Levels	-137.45%	-0.648%
D1 Playing Exp	26.428%	74.892%
D2 Playing Exp	-29.004%	-1.834%
D3 Playing Exp	-21.578%	-0.546%
Team Win% in 2 Years Prior to Arrival	-27.042%	6.535%
Gender Current AD	451.348%	-7.576%
Gender Current President	-324.371%	-1.209%
Constant Term	-573.41%	

Appendix Table 7
Oaxaca Blinder Decomposition Output
Dep. Variable - Dollars of Adjusted Salary

VARIABLES	(1) Overall	(2) Explained	(3) Unexplained
1.Time		536.3	205,883
		(4,492)	(191,178)
2.Time^2		-4,464	-213,755*
		(5,501)	(117,362)
3.Ethnicity		-13.61	-17,116
		(125.7)	(18,499)
4.Children		-3,367	-21,035
		(4,796)	(25,034)
5. Contract Length		2,492	-33,306
		(3,359)	(29,378)
6. Tenure		4,202	2,640
		(3,358)	(28,683)
7. Win % at Current School		-7,603*	44,295
		(4,116)	(35,618)
8. NCAA Tourn at Current School		1,707	-3,908
		(3,719)	(19,820)
9. Sweet 16s at Current School		-11,002	-44,746
		(13,658)	(31,892)
10. Final 4s at Current School		2,824	67,829*
		(10,336)	(40,750)
11. Nat'l Titles at Current School		-527.2	-24,120
		(4,437)	(16,634)
12. WNITs at Current School		-3,103	27,693**
		(2,850)	(11,528)
13. Avg. APR at Current School		479.6	-54,999*
		(2,065)	(31,871)
14. D1 Head Coaching Experience		7,489*	-19,402
		(3,948)	(15,832)

15. D2 Head Coaching Experience	2,186	-11,641
	(1,579)	(8,959)
16. D3 Head Coaching Experience	1,281	4,423
	(1,480)	(3,252)
17. D1 Assist Experience	-2,288	-60,785**
	(1,847)	(29,815)
18. Coach Prior Win % - All levels	445.7	38,685
	(1,160)	(26,684)
19. WNBA Coaching Experience	-236.0	-6,182
	(558.9)	(4,133)
20. NCAA Tourn Prior D1 Head	2,980	-8,761
	(4,004)	(11,946)
21. WNIT Prior D1 Head	-86.51	21,453**
	(484.7)	(10,007)
22.NCAA Tourn Prior D1 Assist	12,600**	-9,940
	(5,034)	(13,443)
23. WNIT Prior D1 Assist	-275.9	7,978**
	(576.7)	(3,468)
24. High School State Titles	-2,524	-4,126
	(1,954)	(2,835)
25. Years Coaching-All Prior	125.5	29,917
	(628.9)	(31,103)
26. D1 Playing Experience	25,384**	-18,720
	(12,106)	(17,175)
27. D2 Playing Experience	-348.4	4,714
	(991.6)	(3,139)
28. D3 Playing Experience	134.1	2,904
	(894.4)	(3,706)
29.Team Win% 2 Yrs Prior	399.2	-4,772
	(778.0)	(25,883)
30. Gender of Current AD	-867.5	-121,133***
	(2,467)	(45,644)

31. Gender of Current Pres		-113.4	37,724
		(387.8)	(23,551)
32.Females	184,986***		
	(8,423)		
33.Males	189,747***		
	(15,351)		
34.Difference	-4,761		
	(17,510)		
35.Explained	28,446		
	(19,760)		
36.Unexplained	-33,208		
	(21,444)		
37.Constant			149,102
			(109,193)
38Observations	289	289	289

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 8
Oaxaca-Blinder Breakdown by Variable
Dollars of Adjusted Salary

Variables	% of Each Variable Attributable to Coefficient Effect	% of Each Variable Attributable to Endowment Effect
Time	-619.986%	-11.263%
$Time^2$	643.694%	93.746%
Ethnicity	51.543%	0.286%
Children	63.343%	70.723%
Contract Length	100.295%	-52.335%
Tenure	-7.951%	-88.253%
Win % at Current School	-133.389%	159.673%
NCAA Tournaments at Current School	11.767%	-35.85%
Sweet 16s at Current School	134.745%	231.07%
Final 4s at Current School	-204.259%	-59.302%
National Championships at Current School	72.635%	11.073%
WNITs at Current School	-83.39%	65.17%
Avg. APR at Current School	165.62%	-10.073%
D1 Head Coaching Exp	58.428%	-157.291%
D2 Head Coaching Exp	35.055%	-45.92%
D3 Head Coaching Exp	-13.319%	-26.908%
D1 Assistant Coaching Exp	183.044%	48.0511%

Coach Overall Prior Win %	-116.494%	-9.36%
WNBA Head Coaching Exp	18.618%	4.957%
NCAA Tourn as Prior D1 Head Coach	26.383%	-62.579%
WNITs as Prior D1 Head Coach	-64.602%	1.817%
NCAA Tourn as Prior D1 Assistant Coach	29.934%	-264.634%
WNITs as Prior D1 Assistant Coach	-24.026%	5.795%
High School State Championships	12.424%	53.012%
Total Years Coaching-All Prior Levels	-90.09%	-2.635%
D1 Playing Exp	56.37%	-533.117%
D2 Playing Exp	-14.194%	7.318%
D3 Playing Exp	-8.746%	-2.817%
Team Win% in 2 Years Prior to Arrival	14.371%	-8.383761227%
Gender Current AD	364.775%	18.219%
Gender Current President	-113.6%	2.382%
Constant Term	-449%	

Variable - **Coach**
Definition – coach of women's basketball team

- 169 different coaches
- 295 observations

Variable - **State**
Definition - State in which institution is located

- 49 states included

Variable - **Gender**
Definition – Gender of coach

Variable – **year**
Definition – Year of contract extension. If not contract information, represents the year before the payment information collected. In the master dataset, "year" represents the year corresponding to revenues, expenses, endowments and undergraduate enrollments

---

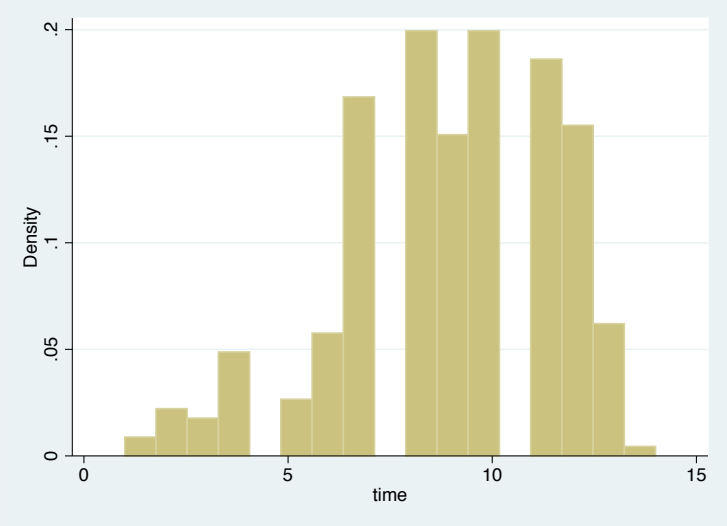
Variable – **Ethnicity**
Definition – Describes whether a coach is white or nonwhite

Variable – **Institution**
Definition – Public NCAA Division 1 women's basketball program

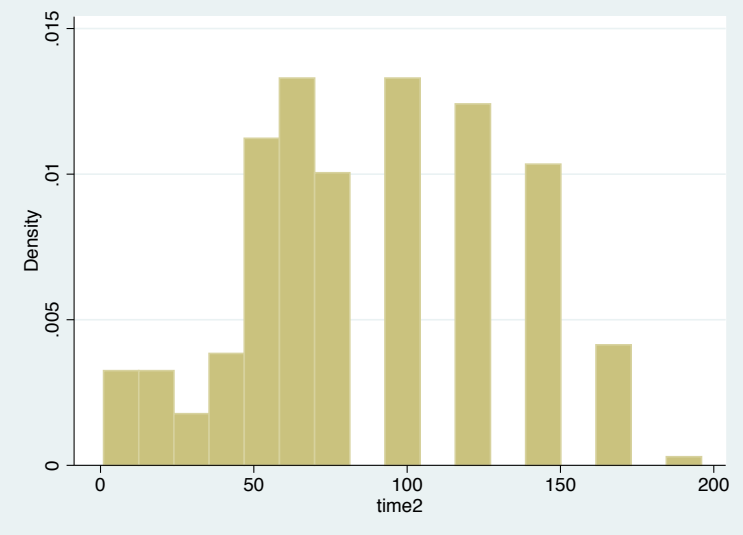
---

Variables - **Sal2020, Sal2019, Sal2018 , Sal2017 , Sal2016, Sal2015, Sal2014, sal2013, sal2012, sal2011, sal2010,sal2009, sal2008, sal2007, sal2006, sal2005, sal2004, sal2003, sal2002**
Definition – Salary a coach is set to earn in respective fiscal year. These variables are **dropped.** Since I have average value of payments, corresponded to matching years of coach and institutional data and adjusted to 2014 CPI Inflation Index, these salary variables are unnecessary.

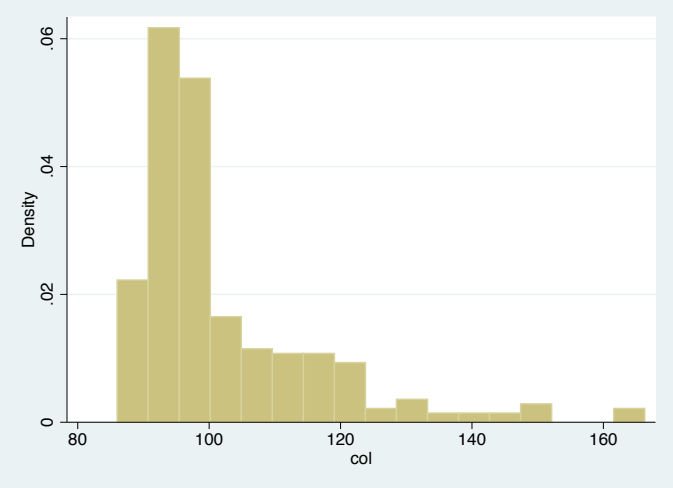
Variable – **Time**
Definition – Sector Variable to create a time trend. Time equals 1 if year = 2001, 2 if year = 2002, 3 if year = 2003, etc.



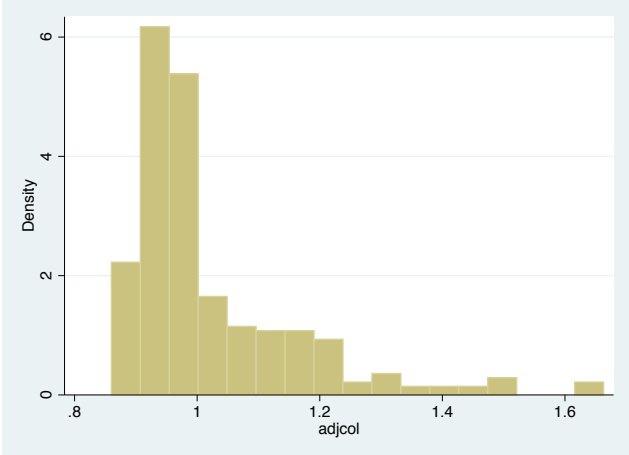
Variable – **Time2**
Definition – "Time" variable squared



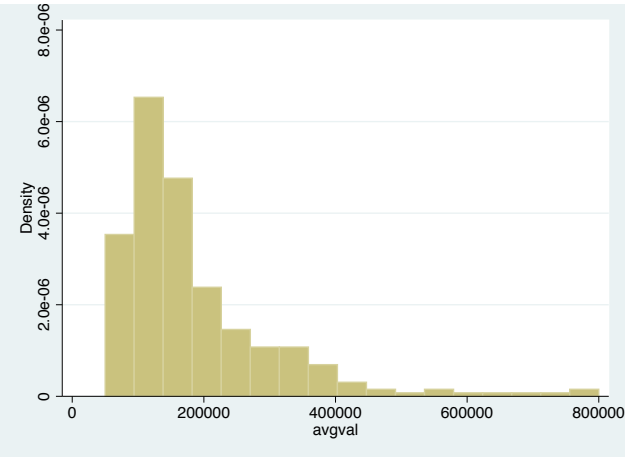
Variable – **COL**
Definition – Cost of living. Each value is the cost of living from the metropolitan area/county closest to a particular university in the year of a contract extension



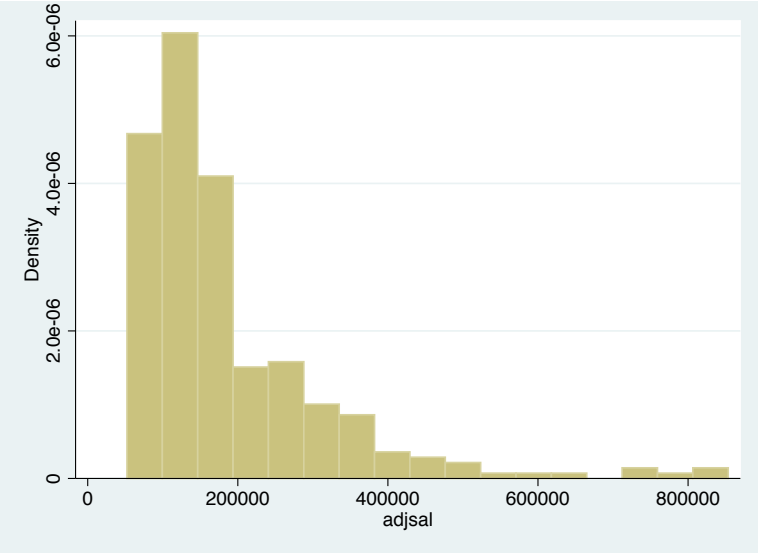
Variable – **adjcol**
Definition – cost of living divided by 100. Since I am dividing salaries by cost of living, dividing cost of living by 100 insures that coefficients will be accurate and not excessively large



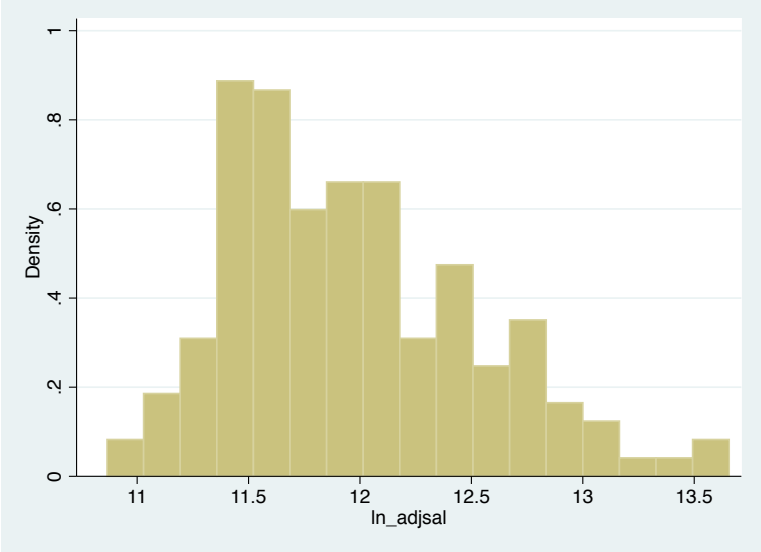
Variable - **avgval**
Definition – The average yearly base salary of a contract or the amount of pay received in a single year if no contract information was available.



Variable – **adjsal**
Definition – A coach's average value of a contract (or singular payment if no contract information available) ("avgval") divided by the corresponding adjusted cost of living (cost of living/100)



Variable – **ln_adjsal**
Definition – Natural log of "adjsal" **My main dependent variable**



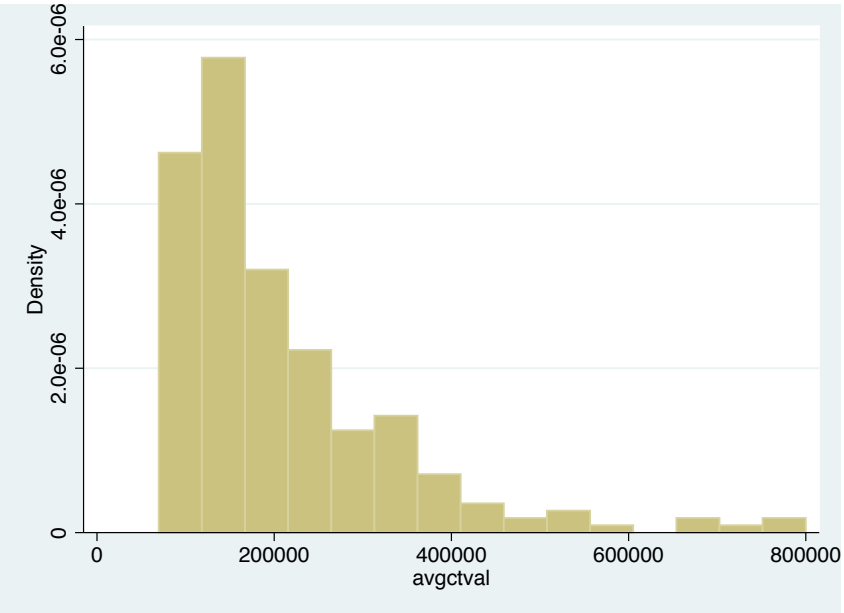
Variable – **ctyears**
Definition – The year a contact was signed, info on contract length – CAN BE DROPPED. Just used to note contract length/year information
---

Variable – **ctlength**
Definition – The length of a contract

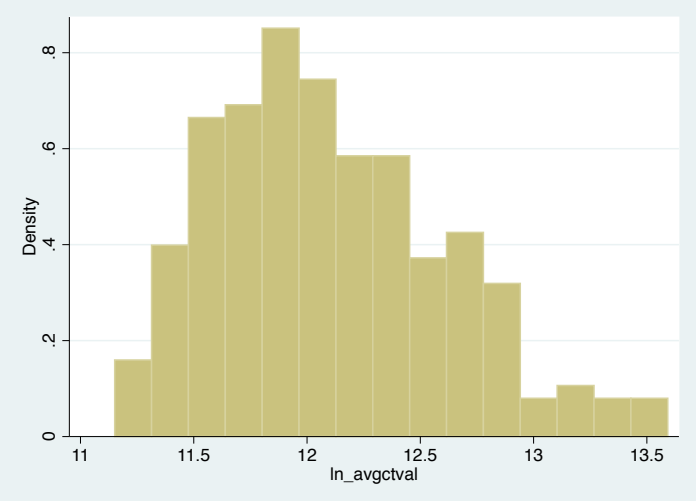
- Plan to leave empty cells, rather than add zeros to the observations with no contract information
    - I can use this variable for specifically looking at observations with contract information

---

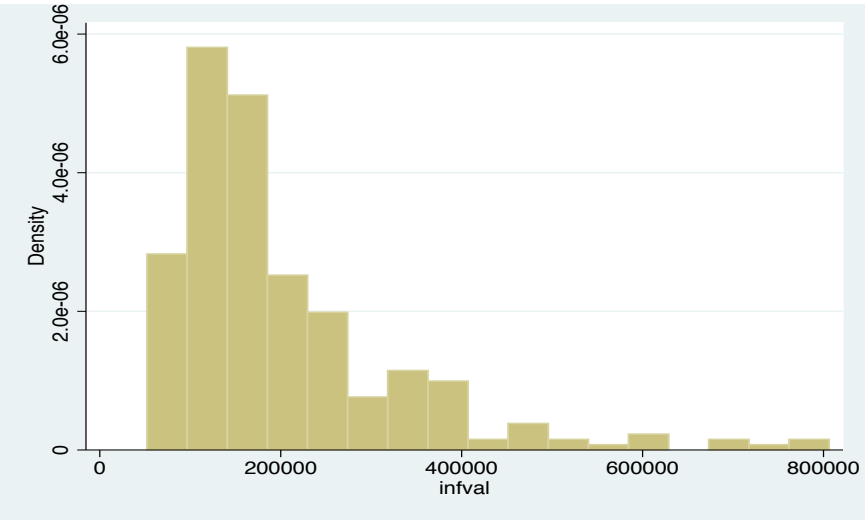
Variable – **avgctval**
Definition – The average yearly base salary of just those observations with a contract observation..



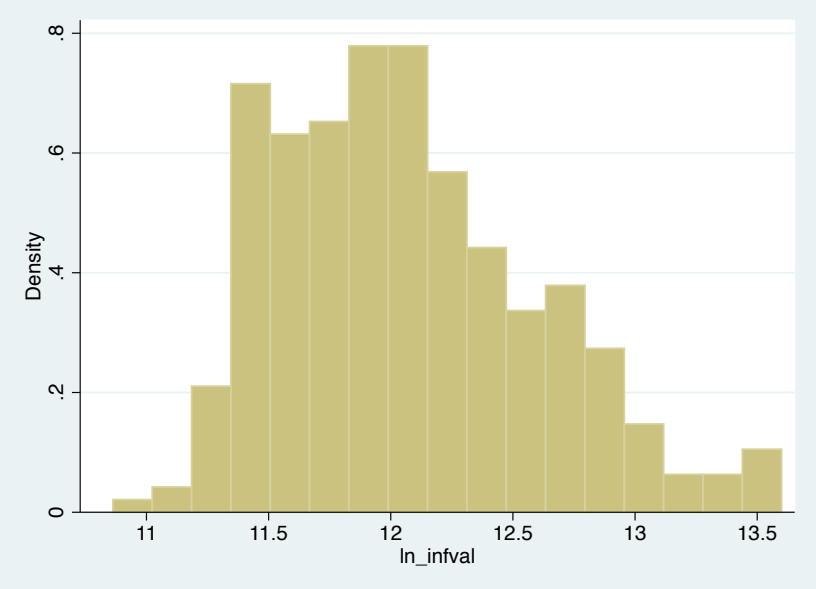
Variable - **ln_avgctval**
Definition - Natural log of avgctval



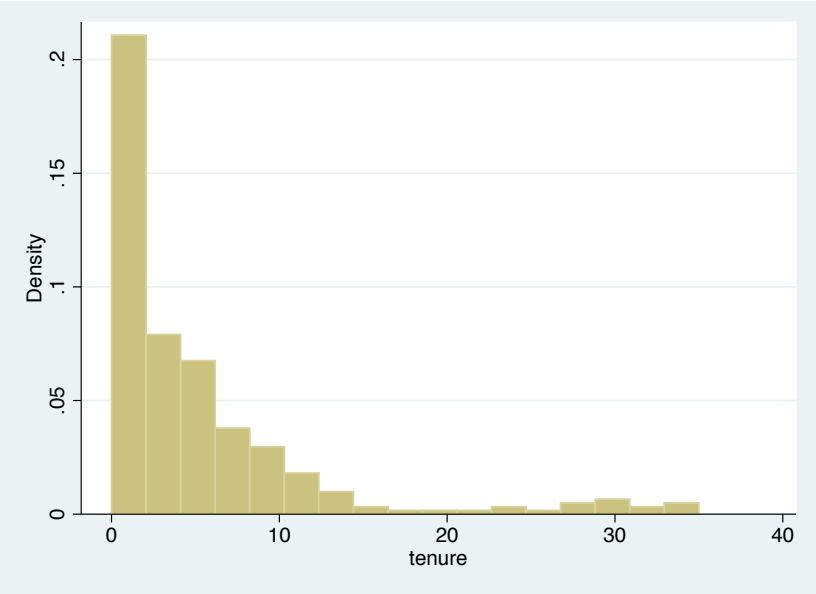
Variable - **infval**
Definition - The average yearly base salary of a contract, adjust to 2014 inflation.



Variable - **ln_infval**
Definition - The natural log of average yearly base salary of a contract, adjust to 2014 inflation. Before implementing cost of living data, this was my primary dependent variable.

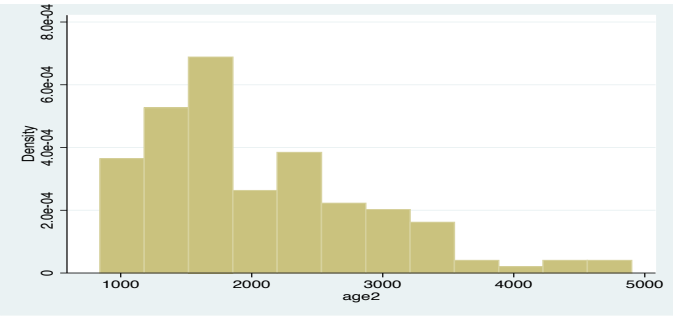


Variable – **Tenure**
Definition – The amount of years a coach has been coaching at his/her current institution up to the contract/salary being given



Variable - **Age**
Definition – A coach's age when his/her contract is signed or the year before his/her payment (if contract information is unknown)

Variable – **Age2**
Definition – Age variable squared



Variable - **D3play**
Definition – Dummy Variable to illustrate if a coach has playing experience at the Division 3 level

---

Variable - **D2play**
Definition – Dummy Variable to illustrate if a coach has playing experience at the NCCAA level

---

Variable - **D1play**
Definition – Dummy Variable to illustrate if a coach has playing experience at the Division 1 level

---

Variable – **Nbaplay**
Definition – Dummy Variable to illustrate if a coach has playing experience at the NBA level

---

Variable – **Wnbaplay**
Definition – Dummy Variable to illustrate if a coach has playing experience at the WNBA level
---

Variable – **Hsexp**
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the WNBA level

---

Variable – **Jcexp**
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the Junior College level

---

Variable – **Naiaexp**
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the NAIA level

---

Variable - **D3exp**
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the Division 3 level

---

Variable - **D2exp**
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the Division 2 level

---

Variable – **Assistexp**
Definition – Dummy Variable to illustrate if a coach has assistant coaching experience at the Division 1 level

- 212 coaches have assistant coaching experience at the D1 level:

Variable - **D1exp**
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the Division 1 level

- 118 have held a previous d1 head coaching position

Variable - **D3mexp**
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the men's Division 3 level

---

Variable - **assistmexp**
Definition – Dummy Variable to illustrate if a coach has assistant coaching experience at the Division 1 level

---

Variable - **d1mexp**
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the men's Division 1 level

---

Variable – nbaexp
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the NBA level

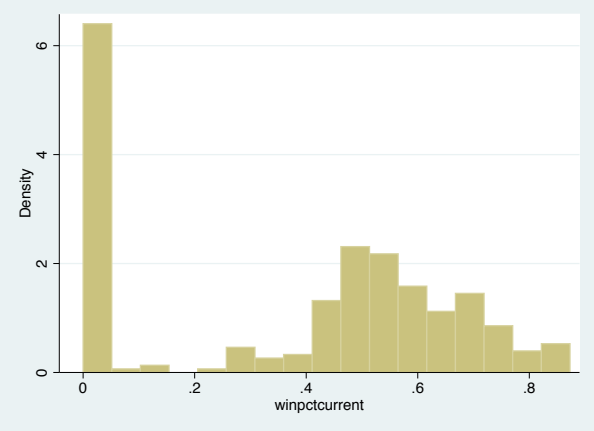
- 2 observations with NBA experience
    - 1 person

Variable - **wnbaexp**
Definition – Dummy Variable to illustrate if a coach has head coaching experience at the WNBA level

- 8 observatiosn with WNBA coaching experience

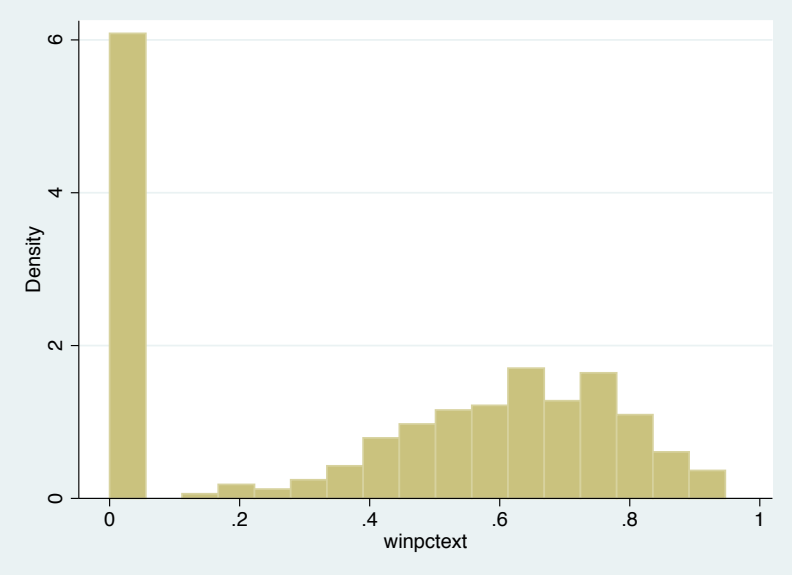
Variable - **winpctcurrent**
Definition – A coach's total win percentage over the course of his/her tenure up to the contract extension or payment (if no contract information available)

- Missing values because some coaches did not begin 1st season at school yet when contract was made
- 98 missing and replaced with 0



Variable – **winpctext**
Definition – A coach's win percentage the year he/she was awarded an extension. If no contract information, a coach's win percentage the season before payment

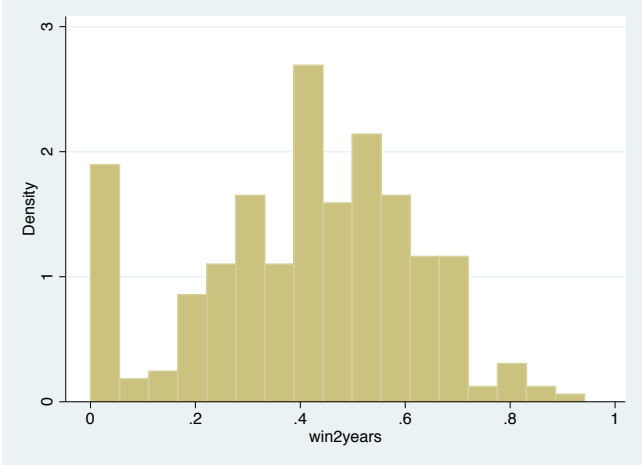
- Missing values because some coaches did not begin 1st season at school yet when contract was made
- 101 missing and replace with 0



Variable - **win2years**

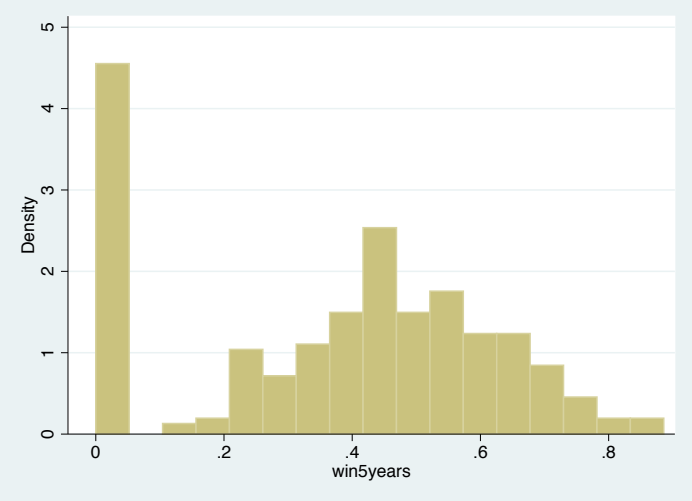
Definition – A team's win percentage for the 2 seasons prior to the coach's arrival

- Some missing because could not find archives dating back far enough
- 32 replaced with 0



Variable - **win5years**
Definition – A team's win percentage for the 5 seasons prior to the coach's arrival

- Some missing because could not find archives dating back far enough
- 71 replaced with 0



Variable - **hschamp**
Definition – High school state championships won as head coach

---

Variable – **naiachampp**
Definition – NAIA tournament championships won if a coach has had previous NAIA head coaching experience

---

Variable - **d3tournp**
Definition – NCAA D3 National tournament appearances if a coach has had previous D3 head coaching experience

---

Variable - **d2tournp**
Definition – NCAA D2 National tournament appearances if a coach has had previous D2 head coaching experience
---

Variable - **d1confp**
Definition – Conference championships won at D1 level if a coach has had D1 head coaching experience. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d1tournp**
Definition – NCAA D1 National tournament appearances if a coach has had previous D1 head coaching experience. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d116p**
Definition – NCAA D1 Sweet 16 appearances if a coach has had previous D1 head coaching experience. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d18p**
Definition – NCAA D1 Elite 8 appearances if a coach has had previous D1 head coaching experience. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d14p**
Definition – NCAA D1 Final 4 appearances if a coach has had previous D1 head coaching experience. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d12p**
Definition – NCAA D1 National Championship appearances if a coach has had previous D1 head coaching experience. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d1champp**
Definition – NCAA D1 National Championships won if a coach has had previous D1 head coaching experience. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **assistconfp**
Definition – Conference championships won as an assistant D1 coach.

Variable – **assisttournp**
Definition – NCAA Tournament appearances as an assistant D1 coach.

Variable - **assist16p**
Definition – NCAA Tournament Sweet 16 appearances as an assistant D1 coach.

Variable - **assist8p**
Definition – NCAA Tournament Elite 8 appearances as an assistant D1 coach.

Variable - **assist4p**
Definition – NCAA Tournament Final 4 appearances as an assistant D1 coach.

Variable - **assist2p**
Definition – NCAA National Championship appearances as an assistant D1 coach.

Variable – **assistchampp**
Definition – NCAA National Championships won as an assistant D1 coach.

Variable – **assistwnitp**
Definition – Women's National Invitational Tournament (WNIT) appearances as an assistant D1 coach.

Variable – **assistwnitchampp**
Definition – WNIT Championships won as an assistant D1 coach.

Variable - **d1mtournp**
Definition – Men's NCAA D1 National tournament appearances if a coach has had previous men's D1 head coaching experience
---

Variable - **d1mnitp**
Definition – Men's NIT appearances if a coach has had previous men's D1 head coaching experience
---

Variable – **nscaachampp**
Definition – NSCAA Championships won if a coach has had head coaching experience at NSCAA level
---

Variable – **aiawchampp**
Definition – AIAW Championships won if a coach has had head coaching experience at AIAW level
---

Variable - **d1wnitp**
Definition – Women's National Invitational Tournament (WNIT) appearances as a D1 head coach. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d1wnit16p**
Definition – WNIT Final 16 appearances as a D1 head coach. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d1wnit8p**
Definition – WNIT Quarterfinal appearances as a D1 head coach. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d1wnit4p**
Definition – WNIT Semifinal appearances as a D1 head coach. Does not include the coach's current D1 School. This is a measure of a coach's previous success
---

Variable - **d1wnit2p**

Definition – WNIT Championship appearances as a D1 head coach. Does not include the coach's current D1 School. This is a measure of a coach's previous success

---

Variable - **d1wnitchampp**
Definition – WNIT Championships won as a D1 head coach. Does not include the coach's current D1 School. This is a measure of a coach's previous success

---

Variable – **confchamp**
Definition – Conference championships won during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information

---

Variable – **ncaatourn**
Definition – NCAA Tournament appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information

---

Variable - **sweet16**
Definition – NCAA Sweet 16 appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information

---

Variable - **elite8**
Definition – NCAA Tournament Elite 8 appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information

---

Variable - **final4**
Definition – NCAA Tournament Final 4 appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information

---

Variable – **finals**
Definition – NCAA National Championship appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information

---

Variable – **natchamp**
Definition – NCAA National Championships won during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information

---

Variable – **wnit**
Definition – Women's National Invitational Tournament (WNIT) appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information
---

Variable - **wnit16**
Definition – WNIT Final 16 appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information
---

Variable - **wnit8**
Definition – WNIT Quarterfinal appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information
---

Variable - **wnit4**
Definition – WNIT Semifinal appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information
---

Variable - **wnit2**
Definition – WNIT Championship appearances during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information
---

Variable – **wnitchamp**
Definition – WNIT Championships won during coach's tenure at his/her current school up to year of contract extension or year prior to payment if no contract information
---

Variable – **genderadc**
Definition – Gender of the current athletic director during time of contract/payment

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Variable – **genderadh**
Definition – Gender of the athletic director at the time of a specific coach's hire

---

Variable – **Genderpresc**
Definition – Gender of the current school's president (or chancellor depending on title) during time of contract/payment

---

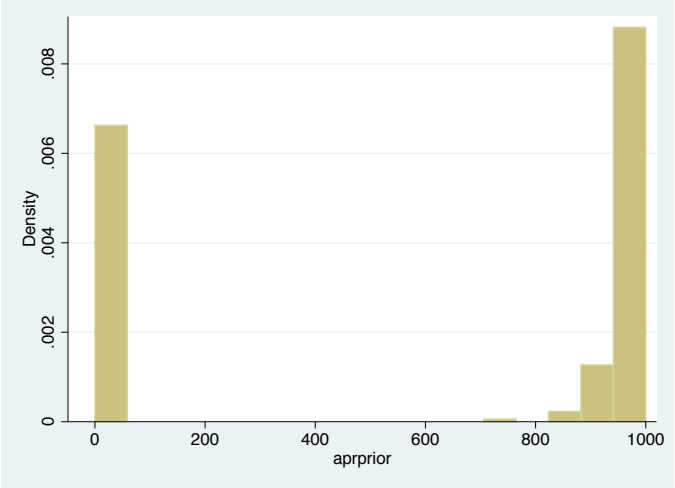
Variable – **Genderpresh**
Definition – Gender of the current school's president (or chancellor depending on title) at the time of a specific coach's hire

---

Variable – **children**
Definition – Dummy Variable to note if a coach is a parent (at time of contract/payment)

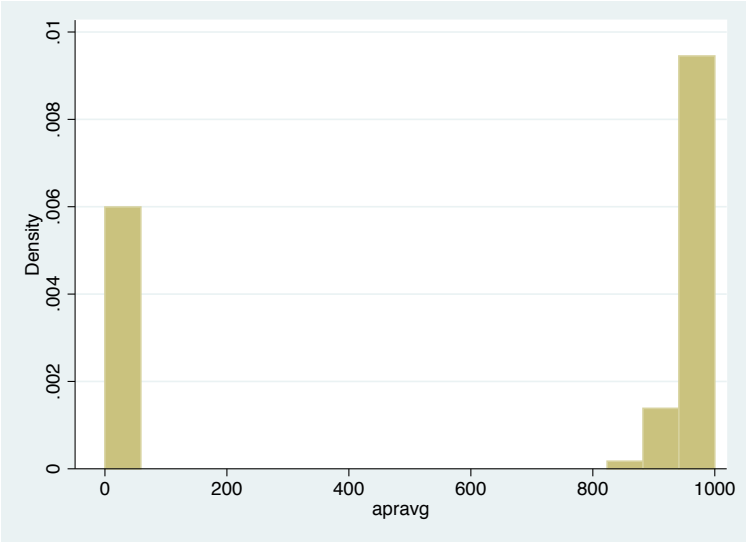
Variable – **aprprior**
Definition – A coach's APR the year of his/her extension or the year prior to payment if no contract information available. A maximum APR grade = 1000

- Some not available because the coach's pay or contract was his/her 1st year
- Some not available if pay year/contract year was before 2005 or after 2013
    - APR data only available from 2004-2012

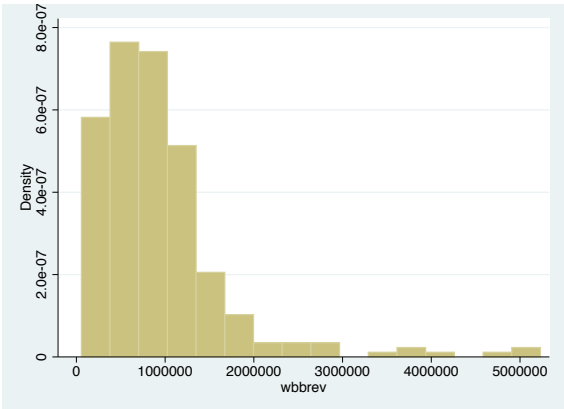


Variable – **apravg**
Definition – A coach's average APR during his/her tenure at current school up to year of extension or before payment if no contract information was found. APR information was available from the 2003-2004 season to the 2011-2012 season. If the "year" variable of a contract or payment was after 2012, the average APR was taken up to 2011-2012 due to the data's limitations

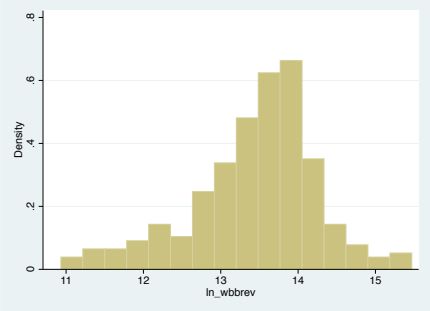
- Some not available because the coach's pay or contract was his/her 1st year



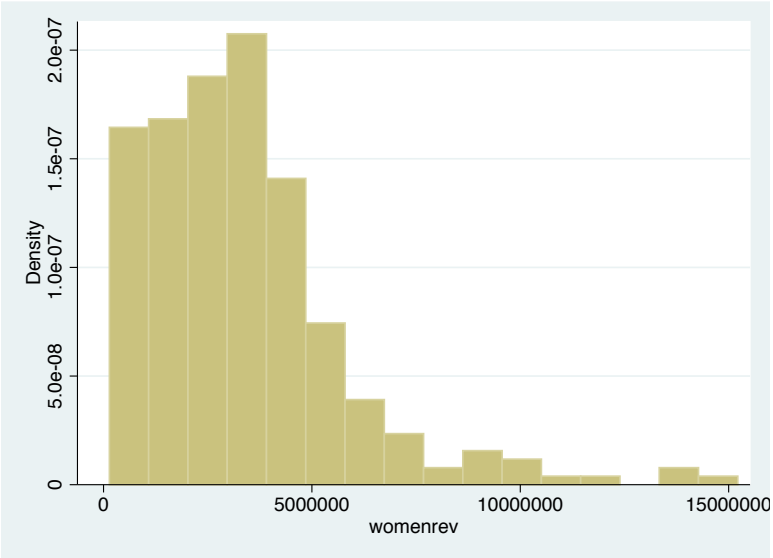
Variable – **wbbrev**
Definition – Yearly revenues (2003-2012) of an institution's women's basketball team



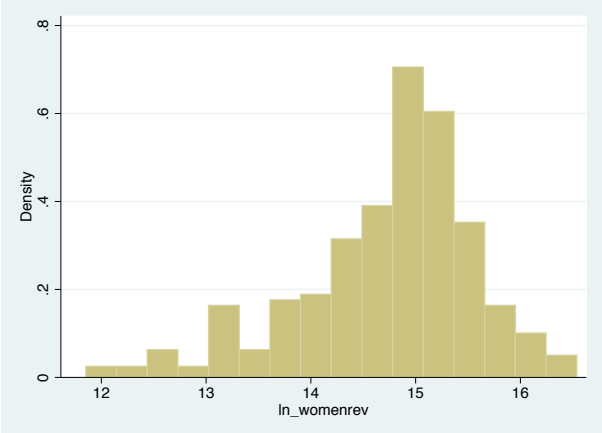
Variable – ln_wbbrev
Definition – ln(wbbrev)



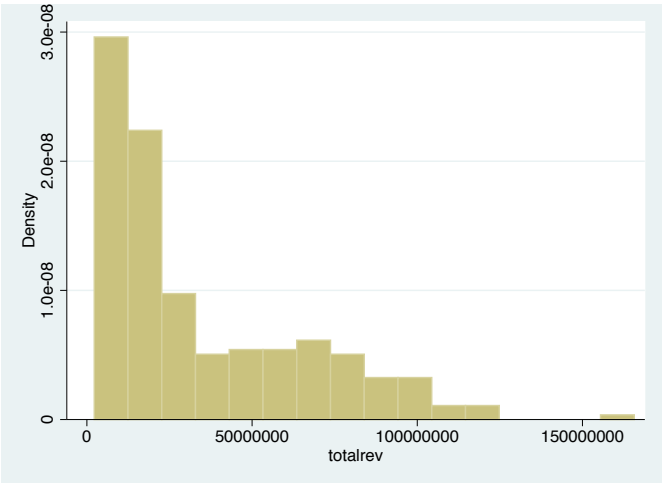
Variable – **womenrev**
Definition – Yearly revenues (2003-2012) of all women's athletic teams at a specific institution



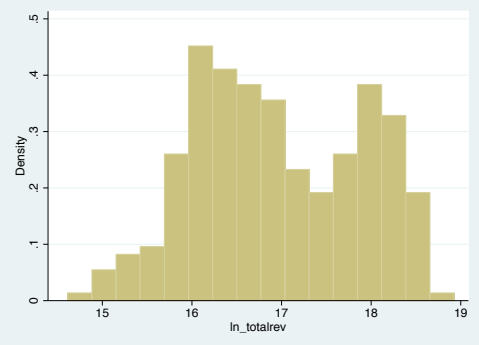
Variable – ln_**womenrev**



Variable – **totalrev**
Definition – Yearly revenues (2003-2012) of all athletic teams at a specific institution



Variable – ln_**totalrev**



Variable – **maleug**
Definition – Yearly male enrollment (2003-2012) at a specific institution

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Variable – **femaleug**
Definition – Yearly female enrollment (2003-2012) at a specific institution

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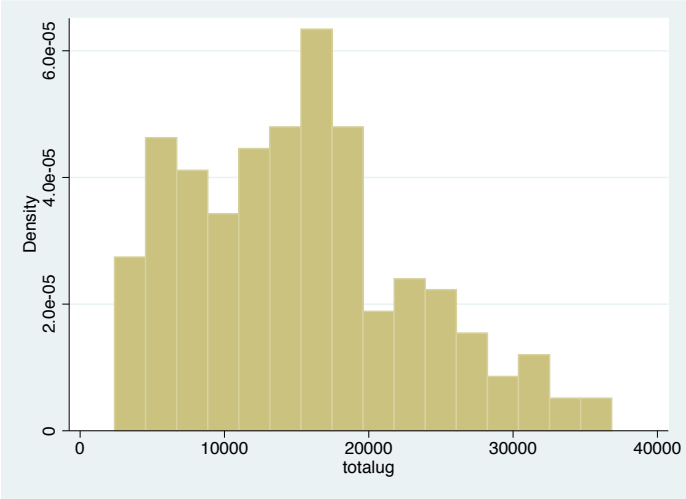
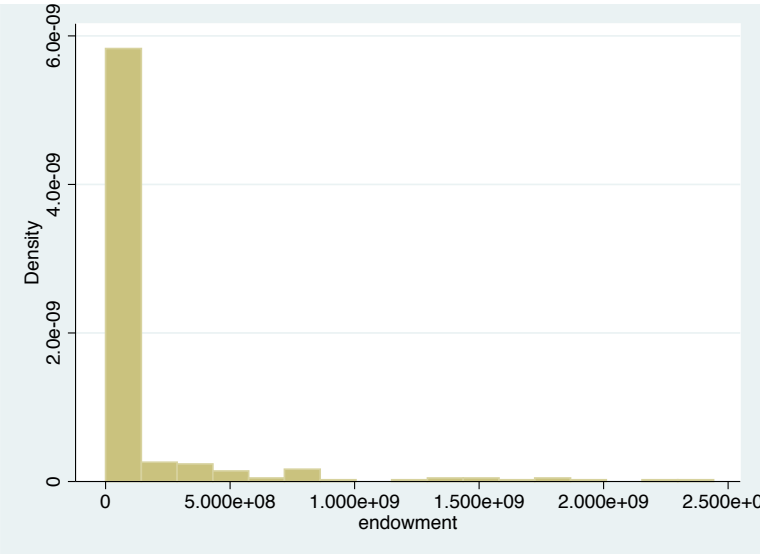
Variable –**totalug**
Definition – Yearly enrollment (2003-2012) at a specific institution

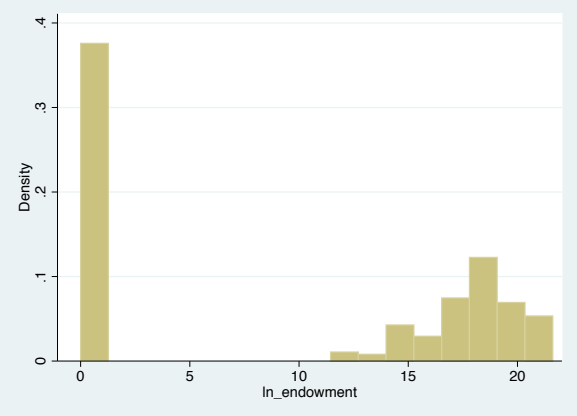


Variable – **endowment**
Definition – An institution's endowment the year of a specific coach's extension/ year prior to payment if no contract information

- Dataset was missing a lot of schools
- 141 missing and replaced with 0



- **ln_endowmnet**



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