Searching for Superwoman:
A Statewide Analysis on the Pay of Female High School Principals

by
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of Female High School Principals

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Abstract

Equal pay day was “celebrated” on April 4, 2017. However, it was hardly a celebration as defined in traditional terms. The day represents how many days since the beginning of the calendar year women essentially worked for free. Women of all races and across all occupations typically earn 80 cents to every one dollar that their male counterpart earns. A deeper dive into data shows that the disparity in wages is worse for African-American women (63 cents per dollar), Native American women (59 cents per dollar), and Latina women (52 cents per dollar). Teacher unions have worked hard to eliminate the wage gap; however, school administrators in Ohio are not union members, and as such, do not have the same protections against wage discrimination. This quantitative, causal-comparative study examines the relationship between gender and salary for Ohio public high school principals during the 2015-2016 school year. Additional research questions examine the impact level of education, ethnicity, and school typology have on salary in an attempt to address issues related to intersectionality.

The results indicate that level of education, ethnicity, and school typology have a statistically significant impact on the salary of an Ohio public high school administrator. Specifically, the results indicate that women only represent one-fourth of the total population, the majority of women are working in the lowest paying school typology, and that future research should continue to investigate hidden factors in the existence of a real glass ceiling.
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Chapter I

Introduction

Many females have a problem not only with stereotypes, but with other people’s opinions of them in general. They trust them too much.  

Carol Dweck (2006)

The most recent United States Census data indicated that in 2010, a total of 308,745,538 people reside in the United States. Of that, 151,781,326 are males and 156,964,212 are females (U.S. Census Bureau, 2010). Upon further investigation of the data, specific to the state of Ohio, the male population totals 5,632,156 and the female population totals 5,904,348 (U.S. Census Bureau, 2010).

In 2003, there were 1.35 females for every male who graduated from college (Golden, Katz, & Kuziemko, 2006). In 2011, women, for the first time in over seventy-five years of Census data, women are more likely than men to obtain a bachelor’s degree (Bauman & Ryan, 2015). Additionally, 2014 became the first year that women’s college attainment was statistically higher than men’s college attainment across the United States with 30.2% of women earning a bachelor’s degree compared to 29.9% of men earning a bachelor’s degree (Bauman & Ryan, 2015).

Research evidence indicates an increase in the gender gap in education for the period of 1950-1975, and then a decrease in the gap between 1975-2005 (Parro, 2012). Additionally, the impact of changes in the family structure, specifically the impact of married parents and the presence of a father on both male and female college enrollment, proves to be another factor in the number of females enrolling in college (Sutherland, 2015).
Data exist to support an increase in women relative to college enrollment, closing the education gender gap, and earning a college degree. Women also make up a larger percentage of the workforce in education. Why, then, do women not hold an equally proportionate number of upper management jobs (i.e., administrative jobs) in education, particularly in secondary education? More specifically, do female high school principals earn the same as their male colleagues?

**Statement of the Problem**

There is an old adage when it comes to women in leadership roles, the higher up one ascends, the fewer the people. Education, a field dominated by women, is another example of the old adage at work; because truly, at the secondary level, men hold the title of high school principal in Ohio at a ratio close to 4:1 (Ohio Department of Education, 2014). Using data from the Ohio Department of Education, Millar (2014) reports that in 2013, 75% of teachers in Ohio were women, yet only 15% of superintendents within the state of Ohio are women. While it might be easy to argue that statistics support a figurative “glass ceiling,” data exist to support a real “glass ceiling” with respect to women obtaining the role of high school principal or superintendent. A review of current literature is void of any research specifically comparing salary rates between and female and male high school principals. This study will address that gap in the literature. This study will investigate the salaries of female and male high school principals in Ohio to determine if a financial “glass ceiling” exists.
Historical Pay Review

*If fighting for equal pay and paid family leave is playing the gender card, then deal me in!*

*Hillary Clinton (2016)*

The themes of gender roles, inequality, and the impact of World War I are factors in the struggle for equal pay at the very beginning of the 20th century. Fawcett (1918) begins by sharing the story of a man braiding a tunic and, how after he died, his widow continued on with the task of braiding tunics until it was discovered that John was dead. It is at this moment that the same tunic lost value and was worth two-thirds less than the original purchase price, simply because a woman made the tunic (Fawcett, 1918). The story highlights the impact of women in the workforce and the immediate threat women posed to men since women could be paid less for doing the same work as a male.

World War I necessitated an increase in the number of women in the workforce; this increase also added to the cultural fear that women would take jobs away from men. For example, women working in one iron forge, “. . . produced more than double that by thoroughly trained mechanics-members of trade unions-working the same machines under the same conditions” (Fawcett, 1918, p. 3). In this example, women outperformed men; however, even this author stated that when she shared this information with other women, she is careful not to insinuate that women are physically or mentally equal to men!

The ideas of universal equality for pay and that experience being a factor in determining wages originated in the 19th century. Fawcett (1918) provides an example of a male and female both starting out in a textile factory; since people assume that men
know how to set up a machine, men automatically start out earning more money (Fawcett, 1918).

The field of teaching is unique when discussing equal pay for equal work since traditional stereotypes categorize teaching as a female profession. Tonne (1928) points out that between 1841 and 1920, male teachers who worked in the city earned five times more than any female teacher in the city and that of any male or female teacher in a rural setting.

During the Civil War, male teachers were commonplace in elementary schools, yet, in the 1920s, the trend shifted to male teachers teaching in high school and female teachers teaching elementary school. Tonne (1928) states the gender-based shift with respect to teaching is because of the fact that industrial jobs were “male only” jobs, leaving teaching to be the only jobs for women who wanted to work outside of the home. Wages for male teachers were set to not only account for the fact that traditionally men are the head of the household, but to also account for supply and demand since at this time, a married woman was not allowed to teach children (Tonne, 1928).

Hughes (1937) points out that while the physical imbalance between men and women can be a reason for unequal pay, both sexes can become physically astute at their job, and both sexes physically deteriorate at the same rate as well. As Hughes (1937) states, “... sex, then, is not the determining factor in human inequalities, and should not be considered in the fixation of wages” (p. 86).

Brady (1947) discusses three main reasons why equal pay is important: simple justice, sustainable wages, and consumer purchasing power. She begins by providing examples of states (Michigan and Montana) that implemented equal pay laws at the
conclusion of World War I in an effort to keep factories producing at their current capacity (Brady, 1947). Each subsequent historical event (i.e., World War II) increases the number of women in the workforce and increases the number of states enacting equal pay laws; so that by 1947, seven states had such laws on the books (Brady, 1947).

Brady (1947) provides a historical context for the views of women as secondary earners and women as the keepers of low-wage jobs for the purpose of having a little extra spending money, never for the purpose of being the head of household. She also discusses the fact that wage equalization will benefit all sexes since the discrimination that takes place to find low wage workers will seem less about gender and more about the race, class, the age of a person, thus, making it easier to identify actual discrimination (Brady, 1947).

Finally, Brady (1947) speaks to the fact that married women must leave the profession, making it impossible to gain the seniority or skill usually associated with increased wages.

Nix (1952) describes the challenges women face in overcoming gender stereotypes and gaining equal pay for equal work in industries with collective bargaining agreements. At issue is the fact that while many employers will say they support equal pay for equal work, the reality is that employers qualify the statement by adding equal performance as well. Discriminatory practices hidden within the system allow for employers to propagate the wage gap by stating: (1) women require more help with “setting up,” lifting, and the like, (2) women have a higher rate of absenteeism, (3) women are tired more often, (4) women do not advance to higher levels, (5) women have a shorter industrial life, and (6) some jobs are “woman jobs” (Nix, 1952, p. 42). At issue
is that fact that while legislation exists to support equal pay for equal work, the failure of enforcement creates a tiered pay system leaving women as second-class citizens.

Labor unions serve as the legislative, executive, and judicial entity with respect to equal pay. The collective bargaining agreement is the means to not only introduce provisions for equal pay but to also create agreements to enforce equal pay provisions. For example, “. . . nearly a fifth of a sample of 2,644 collective-bargaining agreements analyzed by the Bureau of Labor Statistics affirmed the principle of equal pay for equal work” (Nix, 1952, p. 43). It is important to note that the teaching profession adheres to collective bargaining principles to this day.

At the federal level, Magnum (1961) examines the myths as well as the reasons why changing the female stereotypes associated with working women has been so slow; women are “naturally inferior” and employers hire women into the lowest paying jobs. Two pieces of legislation, the Civil Service Act of 1883 and the Classification Act of 1923, served to help women obtain jobs as well as equal pay within the ranks of the federal government (Magnum, 1961).

At the university level, the trial for Margaret Cussler is worth mentioning. Dr. Cussler began her academic career in 1947 as an associate professor at the University of Maryland. She served in that capacity for three decades where she was the lowest paid professor in her department and, even after she obtained full professor status, remained the lowest paid full professor at the university (Henry, 1977).

Henry (1977) goes on to state that, “. . . the only time a woman undertakes a case like this is when she feels that somehow it will help other women” (p. 9). This case did not make national news, in fact one reporter indicated that sex discrimination, “is not
news” (Henry, 1977, p. 9). The rallying cry embedded in this story is two-fold, and speaks to the idea of enforcement as well, that is, the use the court system to fight for equality (Henry, 1977, p. 9).

At the local level, Sorensen (1984) discusses for equal pay under Title VII of the Civil Rights Act of 1964. In 1981, the U.S. Supreme Court ruled that persons can file sex-based wage discrimination lawsuits under Title VII (Sorensen, 1984).

Nancy Perlman, the director of the New York Center for Women in Government states, “... comparable worth is a fairness issue. It doesn’t involve giving special consideration to special people. It simply means paying people a fair wage for their contribution” (Sorensen, 1984, p. 470). The common themes of males needing jobs, males serving as head of household, males negative reaction to low wages, and internalized fair wage standards continue to surface in the 1980s, with additional action being taken in the House Subcommittee on Compensation and Employee Benefits (Sorensen, 1984).

At the international level, Ayers (2011) discusses the United Nations Declaration of Universal Human Rights (1984) and how Article 23 states, “... everyone, without any discrimination, has the right to equal pay for equal work” (p. 89). While the focus of the article is Ireland, the issue globally impacts United Nations policy-making. Ayers (2011) follows the legislative and judicial trail female workers have undertaken in Ireland to close the wage gap that exists within their country. Following a very similar pattern to the United States, Ireland first attempts equality within the unions and labor market, securing legislation and using collective bargaining to not only make the laws but to enforce the laws as well (Ayers, 2011). The same barriers that exist in the United States, men as the
primary breadwinner, societal norms of women staying in the home, attitudes toward working mothers, etc., exist in Ireland as well (Ayers, 2011). The gender wage gap in Ireland in 2009 had women earning 22 cents less than men, and, even after adjusting for education and experience, an 8-cent gap still exists (Ayers, 2011).

Yesterday’s myths still ring true today. Myths such as women’s pay is equal to men’s, women chose jobs that are “women’s jobs” and carry a lower rate of pay, and the economy will suffer if women receive equal pay are present in articles written in the twenty-first century.

In 1963, John F. Kennedy signed the Equal Pay Act into law; however, 50 years later, White women earn 77 cents less than men, women of color make even less (Bellows, 2013). Bellows is quick to point out that this equates to earning 18 cents more today since 1963, after 50 years of activism. This wage gap will cost female full-time workers anywhere between $700,000.00 to two million dollars in lost wages over a lifetime (Bellows, 2013).

**Theoretical Framework**

_We’ve begun to raise daughters more like sons, but few have the courage to raise our sons more like daughters._

*Gloria Steinem (2004)*

Schrupp and Schrupp (2017) define feminism as an attitude as opposed to a fixed term. Feminists see gender as a tool for understanding the world view; making feminism an active process (Schrupp & Schrupp, 2017). The challenge with defining feminism lies within the context since the movement is dependent upon the current political and social climate. This study will outline the four feminist waves in an effort to provide a historical context for this study.
Much easier to define is feminist theory. Feminist theory is the philosophical cornerstone for research as it encompasses the economic, political, and social causes of gender equality. The reason understanding feminist theory is critical to this research is that combined with the idea of intersectionality, provides the basis for seeing gender as larger than simply male versus female.

Intersectionality, the idea that forms of discrimination overlap to compound the problem of oppression (Crenshaw, 1991). An example of intersectionality in practice is taking a look at a woman, as well as her occupation, race, socioeconomic status, and level of education, and then determining if she is earning a fair wage respective of her male colleagues. Mainstream media tends to provide only some of the story when discussing issues of gender; however, the reality is that defining gender and uncovering hidden gender bias is part of the overall problem in the fight for equality.

Gender bias is an action . . . and although possibly unintended and done unconsciously, the result is an unequal distribution of wealth, access, or opportunity between a males and females.

Bem (1993) outlines the internal assumptions many people possess with respect to gender, and how these assumptions color the “lenses” through which individuals view the world. Three lenses: androcentrism, gender polarization, and biological essentialism, examine the role of women as the weaker sex, the outlier compared to men (Leaper, 2017). Bem (1993) argues that gender is more than male versus female; gender does not exist in a vacuum and is not easily quantifiable into two categories (Leaper, 2017). Gender is fluid, changing, adapting; sometimes situationally, sometimes biologically; and therefore, gender needs to be considered holistically when examining bias.
An example of gender bias through the lens of androcentrism is evident when looking at the legal definition of self-defense. Bem (1993) points out how feminist scholars have assessed the legal definition of self-defense to be one favoring an altercation between two men. Self-defense, when viewed through the lens of the male policy makers, weighs heavily on the danger one individual feels at an exact moment in time: a fight in a bar for example (Bem, 1993). However, using the same self-defense definition in cases of women who have been victims of escalating violence or abuse over time will prove to be challenging as the woman is not necessarily in immediate danger, but living on a continuum of danger (Bem, 1993).

Another example of gender bias through the lens of androcentrism comes from an examination of the reality of living in a heterosexual world. Bem (2017) argues that, “... there are hidden assumptions embedded in cultural discourses, social institutions, and individual psyches that shape not only perceptions of social reality but also the more material things – like unequal pay and inadequate day care – that constitute social reality itself” (Bem, 1993, p. 233). If the world truly accepted the idea that gender is fluid, as explained by Bem, the LGBTQ community would never experience an act of violence such as the Pulse nightclub massacre in 2016.

Social network theory examines the relationship between power and authority and how successful leaders use networking to bridge any existing gender bias within a school setting (Deal, Purinton, & Waetjin, 2009). In an effort to combat gender bias within a school organization, social network theory provides the analytical tools to determine the relationship all members have with power and authority. Statistically examining patterns of natural behavior and social interaction can shed light on assumptions, eliminate
stereotypical thinking about leadership, remove gender from the equation and simply examine the behavior, and develop a plan for future leaders to implement change by removing bias.

Feminist theory, intersectionality, and social network theory provide the theoretical framework for this study. All three themes are strong enough to stand on their own; however, when combined, provide additional information to the reader in an attempt to really see the impact of wage discrimination.

**Purpose of the Study**

This study investigates the annual salary of all publically employed female and male high school principals in Ohio during the 2015-2016 school year. In order to provide a complete overview of pay, data used in the study went above and beyond simply examining gender and salary. I also examined descriptive data to determine the race, region, and other demographic information to help provide additional information relative to salary. I used the salary information in conjunction with additional descriptive data to categorize pay, region, educational level, and ethnicity. The study shows there is a difference in the annual salary amongst high school administrators within the state of Ohio. While the initial examination of salary and gender may or may not prove to be statistically significant, a further examination of years in education, earned degrees, the location of the school, and the ethnic background of the principal was taken into account to truly paint an earnings picture for both males and females. I hoped to identify any inequities within the current system. The information will be available to women entering the field of educational administration to aid them in negotiating their initial salary.
The research design for the study was quantitative in nature. I used ex post facto data to identify the sample size for both males and females as well as to determine the annual reported salary of each study participant. The independent variable was the gender of the principal; the dependent variable was the salary of each individual. The study took place exclusively within the state of Ohio. The sample size was a whole population: all public high school principals within the state. The gender of every public high school principal in the state was identified and the annual salary was linked to each principal.

**Research Questions**

The research question, “Do female high school principals earn the same amount of money as male high school principals?” can be broken down into four hypotheses:

- **Hypothesis 1:** The annual salary of female high school principals will significantly differ from that of male high school principals during the 2015-2016 school year.

The following hypotheses test for gender-based wage differences and demonstrate the impact of intersectionality on female high school principals:

- **Hypothesis 2:** The annual salary of female high school principals will significantly differ from that of male high school principals taking level of education into account.

- **Hypothesis 3:** The annual salary of female high school principals will significantly differ from that of male high school principals when taking ethnic background into account.
- Hypothesis 4: The annual salary of female high school principals will significantly differ from that of male high school principals when taking school typology into account.

**Definition of Terms**

**Feminist theory** - the philosophical cornerstone for research as it encompasses the economic, political, and social causes of gender equality.

**Intersectionality** - the idea that forms of discrimination overlap to compound the problem of oppression (Crenshaw, 1991).

**Negotiate** – to obtain or bring about by discussion (Oxford English Dictionary)

**Public High School** – defined by the State of Ohio to mean any high school reporting data to the ODE through the EMIS system for purposes of federal and state funding and accountability (Ohio Department of Education).

**Social networking theory** - examines the relationship between power and authority and how successful leaders use networking to bridge any existing gender bias within a school setting (Deal et al., 2009).

**Procedures**

The first step I used in the research process was accessing public records available to anyone within the Educational Management Information System (EMIS). Public records for the purposes of this study included the following: (1) a listing of public high school principals for the 2015-2016 academic school year, (2) gender of each principal, (3) education level or highest earned degree of each principal, (4) school typology, (5) the ethnicity of each principal, and (6) the total years in education for each principal.
The second step I used in the process was submitting a formal request for the salary information for all Ohio high school principals for the 2015-2016 school year. Salary information was extracted from the EMIS system and not publically reported. In this case, an email was sent to Dr. Mary Rose, the Data Administration Manager at the Ohio Department of Education. The process for the request includes asking the Ohio Department of Education for the annual reported salary of each principal for the 2015-2016 school year.

The third step in the process required uploading participant information into SPSS, a data-based software program, to generate the hypothesis. Further statistical analysis required data labeling and cleaning after generating the initial hypothesis.

The fourth step in the process was to use the data to answer the research questions and to show how the data supported or did not support the hypotheses. An independent sample t-test was used to test the dependent and independent variables. Next, a two-way ANOVA was used to test additional independent variables against the initial dependent variable for the purposes of examining additional factors that might be related to a salary differential.

The fifth step in the process was to analyze the data to look for trends for possible future research since this study is one of the first, if not only, to specifically focus on high school principals. I also obtained IRB approval and guidelines set by the committee at this time.

**Significance of the Study**

The significance of the study was to address the gap in the research with respect to high school principals and earnings. At the time of the study, the literature did not
reflect this specific issue; in order to improve the human condition for female high school principals, female high school principals needed research to support stronger negation skills. The contribution this study makes is to provide evidence to support factors that contribute to an existing wage gap in educational administration.

Limitations of the Study

Methodological limitations. The information involves one state, Ohio, and the persons employed as high school principals during one school year, 2015-2016. The sample size included 874 unique participants; however, since each state does not report the same information in the same manner, a limitation of the study might be the generalizability of the study to other states. Additionally, the scope of the research was limited to one of 50 states within the United States. Finally, the lack of pre-existing research on this specific topic is a limitation because I was unable consult additional studies for best practice.

Summary

The newly hired high school principal has really one chance to negotiate their salary. Administrators are no longer members of a union in Ohio and as such, act as free agents with respect to their annual earnings and contract. The initial salary amount is, by default, the amount that the newly hired principal is tied to for the duration of their tenure in the new position. The salary can increase, assuming the board has the money to support the increase, but salary will generally not be an open topic for conversation after the initial date of hire. This study attempts to provide insight to new high school administrators, specifically female high school administrators, with data to support
negotiating a comparable wage, but also to provide descriptive data about Ohio high
schools to aid female high school principals in the administrative search process.
Chapter II

Literature Review

Some women being empowered does not prove the patriarchy is dead. It proves that some of us are lucky.

Roxane Gay (2014)

Females dominate the field of education; in fact, females annually account for over 70 percent of all newly hired teachers (Warner, Noel & Tadler, 2016). How is it possible that in a female-dominated field, males hold a disproportionate number of upper management/secondary administrative positions? According to the Ohio Department of Education in the 2015-2016 school year, out of 874 public high schools, 217, or only 24.8% of all public high schools have a female head principal (Ohio Department of Education, 2015).

Hageman and Beresford sought to examine human capital theory within the private sector and found the three reasons that women are less likely to earn a promotion to top management, which include: (1) women have fewer educational credentials, (2) women prefer different jobs, and (3) women have less work-related experience (Haveman & Beresford, 2012). These study findings are applicable to the public sector since the private sector represents four-fifths of the work force (Haveman & Beresford, 2012). The remaining one-fifth of the workforce, the women in the public sector, believe they can rely on labor unions to protect them from discriminatory practices. In reality, discriminatory practices seem to exist within the public sector as well.

The percentage of women in management declined in 2010 to 41% at the same time the percentage of women in the labor force increased to 47% (Haveman & Beresford, 2012). Women executives made up 28% of the workforce in 2010, down from
39% in 1991 (Haveman & Beresford, 2012). In the area of educational attainment, although women outnumber men in earning a college degree, women are less-likely to study STEM related fields, less likely to attend one of the top ranked business schools, and less likely to earn as much as their male counterparts (Haveman & Beresford, 2012). In the area of job preference, successful female and male executives hold identical views about the value of work (Haveman & Beresford, 2012). Finally, in the area of work-related experience, female college graduates are more likely to stop working to raise children or work fewer hours than males (Haveman & Beresford, 2012).

The media is rife with stories about women who have made it big, achieved more than their predecessors, and overcame obstacles to sit in the corner office. Sadly, the literature indicates that the omnipresent media examples are the exception, not the norm. The role of a high school principal is no different: the exception for women. Dr. Kathleen Nogay wrote her dissertation in 1995; the data she used to examine the number of high school principals in 1995 is eerily similar to the 2015-2016 data I used to examine the same population.

The job of a high school principal is tough, with long hours, high expectations, and limited praise. A high school principal’s job is similar to that of a parent: long hours, high expectations, and limited praise. Is it possible that traditional gender stereotypes, historical views on salary, and the expectations of a high school principal combine to set women up for failure when negotiating their first administrative contract?

This study examines the annual salary of high school principals in Ohio for the purposes of comparing men’s and women’s earnings to determine if women have made any progress in closing the wage gap.
Feminist Theory

Yes, there’s a problem with gender as it is today and we must fix it, we must do better.

Chimamanda Ngozi Adichie (2014)

First wave feminism. The conceptual framework for this study lies within feminist theory. Feminist theory examines four main concepts: discrimination, objectification, oppression, and stereotyping. The stages of the feminist movement include: first wave, second wave, third wave, and current contemporary views - the fourth wave. While it is important to note that feminist movements exist to promote equality and independence, it is feminist theory that serves as the philosophical cornerstone for research as it encompasses the economic, political, and social causes of gender equality.

The first wave of feminism focuses on suffrage and achieving the passage of the Nineteenth Amendment. The latter part (1906-1920), funded in large part by the estates of wealthy women, women who were members of the Congressional Union and the National American Suffrage Association (Johnson, 2015). Parades, publicity, and picketing were tactics used by the suffragettes, and these new tactics were expensive to bank roll. As Johnson (2015) states, “. . . fewer than 60 people represent nearly 60% of the funding” (Johnson, 2015, p. 64). The generosity of women such as Mary Burnham and Alva Belmont stems, in part from the fact that although they were wealthy and White; they too were not immune from the sexism of the era (Johnson, 2015). Women understood that they could not depend on men to be the source of funding, as there was much at stake for men in terms of female equality. Women, in turn, would need to make the change (literally and figuratively) for women (Johnson, 2015). Influential leaders of the time included Emma Goldman, Elizabeth Cady Stanton, Margaret Sanger, and
Sojourner Truth. First wave feminists fought for suffrage, reproductive rights, and an end to slavery (Hewitt, 2012).

Success stemming from the efforts of first wave feminists include the ratification of the Thirteenth Amendment (1789), the Sixteenth Amendment (1920), and the creation of Planned Parenthood (1916).

Criticism of the first wave feminist movement includes the limited scope of the movement, the belief that the Seneca Falls Convention (1848) was the beginning of the attempt to secure equal rights, and that history has lumped every event occurring in United States up to the passage of the Nineteenth Amendment as part of the first wave (Hewitt, 2012).

**Second wave feminism.** The second wave of feminism began in the 1960s, with the publication of Martha Wienman Lear’s article, “The Second Feminist Wave” in 1968. The focus of this movement was women’s liberation: a cultural shift in thinking about traditional female roles and defying stereotypes (Lear, 1968). Simone de Beauvoir, author of *The Second Sex*, provided an ideological outline for the second wave feminist movement in the United States. She outlines idea of objectification, and how women must fight for emancipation, independence, and freedom: specifically, to not become the “other” in society (Beauvoir, 2011). Betty Friedan, co-founder of the National Organization of Women and author of *The Feminine Mystique*, also contributed to the second wave feminist movement by providing examples of the objectification of women in the media; male oppression in terms of sexuality, education, career advancement; and stereotyping into roles whereby being a housewife was what most women should aspire to become (Friedan, 1963). Kate Millet, author of *Sexual Politics*, describes women
living in a patriarchal society, one dominated by a constant struggle for males to maintain emotional and physical power over women (Millet, 2016). The objectification of women in art as well as the mainstream media is one reason she believes women experience violence at the hands of those they love (Millet, 2016).

Successes stemming from the efforts of second wave feminists include the Supreme Court decision affirming a women’s right to obtain an abortion in Roe v. Wade (1973), an increased focus on legal issues such as domestic violence and rape, and equal access to jobs within the workplace.

Criticism of the second wave includes the idea that many, if not all, of the shared female experiences are really the shared experiences of White, middle class females. As Bilken, Marshall, and Pollard (2008) argue:

[S]econd wave feminism forced many women to choose between their racial and gendered identities, created the idea that the world would change if women were elected to public office because they were more peaceful and nurturing, and ignored the fact that some women had benefited from slavery, colonialism, had waged wars, and were not necessarily oriented toward change that would support women from all class, ethnic and racial locations, and sexual orientations. (p. 451) Pollard’s personal narrative describes the assumptions made by men and women with respect to affirmative action and the false belief that hiring black female professor was a bonus for a college since the college could check two boxes, gender, and ethnicity, without really instituting change (as cited in Bilken et al., 2008, p. 461). Additionally, Pollard indicates second-wave feminist literature also falls short, citing Klein’s 

*Handbook for Achieving Sex Equity Through Education*, and the fact that the book, while
ground-breaking, focuses almost exclusively on, “…the interests of white women” (as cited in Bilken et al., 2008, p. 463).

**Third wave feminism.** The third wave of the feminist movement sought to address the concerns by women in all socioeconomic categories. In particular, third wave feminists added the personal narrative as a means to share experiences and capture the theoretical argument in the form of an individual voice (Yu, 2011). The third wave idea that, “... the personal is the political”, shifted feminist conversation to one inclusive of theory, activism, and writing (Yu, 2011). Cherrie Moraga, a Latin-American feminist, used her voice to move feminism away from just sexism and toward issues of race, gender, disability, and class (Johnson, 2015). Additionally, Gloria Anzaldua, Barbara Smith, Audre Lorde, and Alice Walker, all women of color, use their voices to push the feminist conversation to include an examination of multiple oppressions: homophobia, racism, and socio-economic (Yu, 2011).

The fact is that multiple oppressions combine to further divide the population in terms of status and access. By examining the United States, it is clear that oppression runs deep within the country when examining of the treatment of the Native American population (the people that inhabited the United States prior to the arrival of Europeans) and the African-American population (the people who the Europeans forcibly moved). The fact is someone in the United States has always been the “other.” The third wave feminist movement provides an actual definition for the multi-layered oppression present in our society for over 500 years.

The term, intersectionality, coined by Crenshaw, is the idea that forms of discrimination overlap to compound the problem of oppression (Crenshaw, 1991). Third
wave feminists focus on the body as a form of personal expression, on sexuality, and on disability activism, continuing the work of the second wave, but seeking to be even more inclusive, being hyper-vigilant of those perceived as “other.” Specifically, third wave feminists seek to redefine relationships.

In terms of relationships, Williams and Jovanovic (2014) explore the ideas of sexuality and the term, “friends with benefits” with third wave feminism as the cultural backdrop. The researchers conducted their study at a college campus in California, and asked 233 participants to complete an online survey pertaining to feminist identity and relationships. The researchers found that feminist identity did not impact the participation of women in a “friend with benefits relationship”; however; the study does focus on the continued “stigma” attached to young women who are open about their sexuality (Williams & Jovanovic, 2014). The study is applicable to the conversation about earning potential in that the study examines the juxtaposition between female thought and female choice. Feminism, “. . . could be a motivator for participation in a friend with benefits (FWB) relationship, but it could also present the basis for avoidance of such relationships” (Williams & Jovanovic, 2014, p. 158).

Successes stemming from the efforts of third wave feminists include the shift in focus of the feminist movement to include the Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) community, individualism, and the unique differences each woman brings to the movement. The idea of intersectionality becomes the rallying cry of this wave. Criminal injustice and inequality in pay remain two single-issue agenda items of third wave feminists. Finally, choice feminism, or the idea that *anything* women choose
to do or not do is a “feminist” act really surfaces during the third wave (Hatton & Trautner, 2010).

A criticism of the third wave is that while still seeking to improve upon each preceding wave, still requires women to try to have it all. Moreover, that the problems identified by each preceding wave have no real solutions: problems simply shift and increase, reaching a tipping point to where even defining the term feminist becomes quite a challenge. Finally, choice theory actually increases the challenge of defining the feminist movement for the masses since the waters become muddied with women being able to opt in to feminism when it fits into their lifestyle instead of feminism being their lifestyle.

The idea of choice theory, also called neoliberalism, actually poses a problem for the feminist movement since, “. . . a movement that stands for everything ultimately stands for nothing” (Hirshman, 2006, p. 2). The third wave is a watered-down version of the previous waves because women do not have to fully commit to all feminist causes, the idea of choice moves the focus of the movement away from the collective and toward the individual (Thwaites, 2017). Dines (2010) discusses choice theory with an examination of the pornography industry and whether or not filming pornography really advances feminist causes or simply continues to objectify women (Dines, 2010). Sure, women can participate in the adult film industry, but in the end, do women gain anything from this, or does the industry itself gain from the exploitation of women to meet the needs of men?

**Fourth wave feminism.** The contemporary feminist movement, grounded in the ideals of all three previous movements, furthers the idea of feminist theory evolving from
the collective experiences of these women. The continuation, or fourth wave, as proposed by Harriet Kimble Wrye in her speech to the American Psychological Association in 2006, is an extension of the previous feminist work and evolves to include spirituality and community (Wrye, 2009). As Wrye states, “. . . many female psychoanalytic colleagues began to recognize that -doing it all- in a man’s world was burning us out, costing too much, compromising our nurturing side, diminishing our spirituality” (Wrye, 2009, p. 186). While not unique to the fourth wave, the continuing focus on shifting from self to service to others, service to the planet, and creating a new definition of power, one that views power in terms of collaboration and support instead of conquest and competition, is the challenge for modern day feminist theory (Wrye, 2009, p. 187).

Initial success stemming from the efforts of fourth wave feminists include continuing to shift the focus of the feminist narrative to include: gender as political, social, and economic factors in systemic change; a focus on the needs of single women, and issues relative to single women; and combining personal beliefs as well as political power to create a unified sphere of influence (Diamond, 2009).

Suggestions for the contemporary feminist movement include a continued effort to “. . . integrate the unfinished issues and contradictions of the last three waves in an overarching vision that combines the spiritual practice with political action and economic power and the insights derived from psychoanalytic theory and practice” (Diamond, 2009, p. 217). Specifically, drawing on ideas presented by Butler (1988) during the third wave, continues the focus on gender allows women to chip away notion that “. . . performing one’s gender wrong initiates a set of punishments both obvious and indirect,
and performing it well provides the reassurance that there is an essentialism of gender identity over all” (p. 528).

The idea that multiple elements exist to form feminist theory is the same basis for the reasons why feminist theory, as a whole, is so hard to conceptualize. Feminist theory, at its core, is about analyzing the gender inequities woven into our collective psyche and in society. Theory combines with practice to support the idea that oppressive acts do not operate in a vacuum; rather, all acts of oppression combine together in a concept known as intersectionality.

**Intersectionality**

Crenshaw (1991), a college professor, lawyer, and civil rights activist, examines the concept of intersectionality by describing the layers of inequalities that exist to maintain and reinforce the status quo. The belief that gender and race, “. . . intersect in shaping structural, political, and representational aspects of violence against women of color” stems from Crenshaw’s legal advocacy in the areas of rape and battery (Crenshaw, 1993, p. 1244). According to Gordon (2016), Crenshaw “meant intersectionality as a critique of the limitations of a legal regime in which sex discrimination and race discrimination were two separate wrongs” (p. 341). The court case, *DeGraffenreid v. General Motors*, is an example of how both gender and race intersect to actually prevent black women from obtaining equal access to higher paying jobs (i.e. a promotion) within the corporation (Gordon, 2016). The central issue argued in the case is that a black woman did not receive a promotion and that even though General Motors promoted black males and White females, the issue of discrimination based on gender and race did exist within the corporation (Gordon, 2016). This case highlights the limitations of the law and
how both gender and race impact the outcome. Identity politics, or the politics of isolating individuals categorically as African-American, gay, or female, “. . . frequently conflates or ignores intragroup differences” (Crenshaw, 1991, p. 1242). The groups then begin to experience tension among themselves and this ends up polarizing all groups as now they are all working against each other in addition to fighting the systemic issue of discrimination.

**Intersectionality and justice.** An example of structural intersectionality is Crenshaw’s experience with battered women’s shelters. She observed that support systems in the shelters failed to take into account race, class, and gender when providing intervention strategies since many of the people working at the shelters have a limited lens with which to view the issue--they are neither black nor poor (Crenshaw, 1991). Using the Immigration and Nationality Act of 1990 as an example, Crenshaw (1991) cites the law actually forces women to choose between seeking help for domestic violence or face deportation since persons applying for permanent resident status were required to remain married for a minimum of two years prior to formal application (Crenshaw, 2016). The unintended consequence, increasing instances of domestic abuse, draws attention to the fact that while a subsequent waiver exists to help these women, women could not actually access the waiver because of language barriers, cultural barriers, and economic barriers.

An example of unintended consequences is evident in the Congressional amendment to the Immigration and Nationality Act (1990), specifically the marriage fraud provision section, “. . . to protect immigrant women who were battered or exposed to extreme cruelty by the United States citizens or permanent residents these women
immigrated to the United States to marry” (Crenshaw, 1991, p. 1246). The failure lies in the fact that now prior to applying for permanent resident status, women had to remain married for two years in which case, “. . . when faced with the choice between protection from their batterers and protection from deportation, many immigrant women chose the latter” (Crenshaw, 1991, p. 1247). In fact, as Crenshaw (1991) states, “. . . Congress positioned these women to absorb the simultaneous impact of its anti-immigration policy and their spouses’ abuse” (p. 1250).

Crenshaw examined rape cases and found the structural intersectionality exists as, “. . . women of color are differently situated in the economic, social, and political worlds” (Crenshaw, 1991, p. 1250). Reform efforts rarely meet the needs of women of color as evidenced by the fact that rape crisis centers receive money only when they have an agency representative present when the case goes to court. However, black women are less likely to report; therefore, they are less likely to go to court and have their case end in a conviction, even though black women are more likely to be victims of rape (Crenshaw, 1991).

The examples found within the justice system provide examples of how race and class intersect with gender and how it is impossible to unravel one inequality from the other two since they combine to paint the full picture.

**Intersectionality and education.** Beck (2016), a former elementary school teacher, shares the story of a student named Jayden (a pseudonym) to highlight the need for an increase in preparing aspiring teachers to recognize and act on the concept of respect for intersectionality. Jayden, a first-grade student, a child whose teachers described as a, “fairy” and how teachers, “. . . tried to police Jayden’s boundaries” by
discussing reading ability and playmates based upon “. . . transgressions of gender norms” (Beck, 2016, p. 2). Beck stated the experience, “. . . changed me and changed my relationship with Jayden” (Beck, 2016, p. 2).

Recognizing we all have prejudices and that prejudice is not something that disappears overnight, the responsibility of action, then, is on everyone. In the field of education, “. . . anti-discrimination policies ask educators to be neutral; yet, nothing and no one is neutral” (Beck, 2016, p. 2). Beck (2016) argues school policies should include language that speaks to gender, sexuality, class, race, religion, and ability in an effort to help educators unpack the complicated web of marginalization.

The education system provides another example of how limited the scope of action is with respect to marginalized populations. The economic sector provides another example of how gender, socioeconomic status, and mobility intersect to limit the actual career opportunities for women living at the poverty level. The study conducted by Clark and Bower (2015) examines the impact poverty has on women living at or below the margins.

**Intersectionality and business.** Clark and Bower (2015) interviewed 10 women who faced major financial barriers to examine their career experiences. The women identified survival as the primary reason they work, they need to earn money to provide basic necessities since many of the women are the primary breadwinner for their family (Clark & Bower, 2015). Women stated that they “would rather take a job that pays more versus a job that they would enjoy” making even the concept of a “career” a form of privilege since career implies a long-term solution and these women hold jobs for short-term survival (Clark & Bower, 2015, p. 379).
According to the U.S. Department of Labor (2010), women comprise almost half of the work force, but earn 19% less than men in terms of wages. Additionally, “in 2015, five million more women lived in poverty than men, and households headed by single women experienced poverty at a rate nearly double that of households headed by single men” (Clark & Bower, 2015, p. 374). Studies also show that lack of income and lack of employment contribute to an increase in depression-like symptoms in women (Clark & Bower, 2015). The intersection of gender and class also impacts the psychological well-being of low socioeconomic status of women.

The findings in the 2015 study conducted by Clark and Bower indicate that obtaining a career is next to impossible, working is about survival, transportation and child care costs limit the ability to have a career, and that mentoring is critical in any success these women experience, is not a surprise to most women (Clark & Bower, 2015). The barriers preventing women from exploring a career versus simply a job include education level, pregnancy, lack of affordable child care, work-life balance, mental health concerns, transportation, ageism, sexism, uncertainty, and negative work experiences have also been noted as the same barriers women face across the socioeconomic board (Clark & Bower, 2015). Pregnancy, for example, a finite event, has infinite ramifications for women who work outside of the home, including job obtainment, access to career exploration, and opportunities for career advancement are all impacted by a traditionally defined gender-specific singular event.

Gordon (2016) states that intersectionality, “. . . is a buzzword of feminist theory,” with an understanding of power, “. . . in a manner that evacuates questions of power; they use it as a prescription for diversity” and this is an issue because at this level, “. . .
intersectionality does nothing to change fundamental inequalities of power” (Gordon, 2016, p. 346). Rather, intersectionality should concern itself with “relationships among social groups, and importantly, how they are changing, rather than with the definition or representation of such groups per se” so that power is still a factor in the study of relationships (Gordon, 2016, p. 347).

Gordon (2016) provides examples of how intersectionality highlights more than single-issue ideas such as the connectedness of wage discrimination, climate change, undocumented LGBTQ immigrants, and same-sex couple citizenship rights; and how the lack of an overall awareness has failed to highlight the fact that eleven black women died at the hands of the police in 2015, yet the focus remains, still, on the black men killed by the police (Gordon, 2016). In an effort to continue the work originally defined by Crenshaw (1991), an examination of injustices experienced by individual or groups of individuals is critical to implementing any real change for marginalized populations. The examination of intersectionality matters because the scope of any examination of gender is not just gender. Societal factors exist to sustain, if not promote, a narrative that keeps marginalized populations, marginalized.

Is it possible that American culture not only sustains, but reinforces stereotypes to maintain the status quo? Stereotypes with respect to gender, race, and, class are omnipresent, perhaps so much so that society has become comfortably numb to the constant messaging reinforcing the marginalization of certain segments of the population.

*Gender, race, and literature.* Some people do not want to talk about race; some people want to believe, maybe even need to believe, that race is not an issue in America. A country with a history littered with poor race relations, from the purposeful poisoning
of Native Americans with smallpox to the purposeful enslavement of African Americans to build a capitalist society, to the current frozen executive order to ban travel from citizens of seven majority Muslim states, clearly has not learned lessons relative to history repeating itself, and maybe, the country does not care to.

It is sad, because the country should care. The 2010 United States Census reports that 17.6 million people report to be Black, Asian, American- Indian or Alaska Native (U.S. Census Bureau, 2010). In actuality, this number is most likely inaccurate as Tatum (1997) argues, since mixed race and Arabic students do not know how to categorize themselves when asked to make a decision based upon their race; the Arabic students choose White and the mixed-race students choose both depending upon the situation.

Racism is a system of advantage based on race (Wellman, 1977). It is important to capture the fact that, “. . . the history of racism in the United States reaches back to before our origins as a nation” (Bell, Castaneda, & Zuniga, 2000, p. 61) and that racism is a, “sociopolitical not biological construct, one that is created and reinforced by social and institutional norms and practices” (Bell et al., 2000, p. 60). Historically, African Americans are the “central minority” within the United States; however, it is important to paint a broader brush when discussing racism and racism should solely focus on people of color (Takaki, 2000, p. 70).

Defining race from the perspective of the “other” as stated in the paragraphs above is one perspective. Defining race from the perspective of those who are White and from a place of privilege is the other perspective. Lipsitz (1998) explains that, “. . . there has always been racism in the United States, but it has not always been the same racism”
Lipsitz (1998) argues that political and cultural power struggles have been the determining factor in who “feels” racism throughout our political history (p. 81).

Roppolo (2000), describes the Cleveland Indians’ mascot and how, even if unintentional, the mascot serves as an example of “dysconscious racism” or racism that people are unaware of (Roppolo, 2000, p. 75). The Cleveland Indians’ “Chief Wahoo” character is representative of how the Native American myth exists within the culture and how it would take an actual acknowledgement of guilt on behalf of the country to begin to right past wrongs and unravel the fabric of racism against Native Americans (Roppolo, 2000, p. 75).

**Gender, race, and art.** Judy Chicago, the feminist artist who created, *The Dinner Party* and *Womanhouse*, “practiced feminist ideals of egalitarianism and personal empowerment” (Gerhard, 2011, p. 592). Actual communities of artists and women exist to use feminist art to represent the power and examine the practice of feminism (Gerhard, 2011).

*The Dinner Party* (1979) depicts 39 place settings, representing historical as well as mythical women. All of the women, seated at a triangular table with the table itself standing on *The Heritage Floor. The Heritage Floor* is a series of triangular tiles representing 999 additional women who have been influential in history (Chicago, 2017). The purpose of the plates, floor, and additional banners, is to celebrate the contributions of women, many of which are absent from traditional documents or historical artifacts (Chicago, 2017).

Initially, *The Dinner Party* seems to capture the artistic spirit of the feminist movement, yet, dig deeper and Sojourner Truth, the only black woman seated at the table,
is the only woman who does not have a plate depicting a vagina (Spillers, 1984). The link between art, gender, and racism runs deeper in that:

[B]lack American women do not participate, as a category of social and cultural agents, in the legacies of symbolic power, they maintain no allegiances to a strategic formation of texts, or ways of talking about sexual experience, that even remotely resemble the paradigm of symbolic domination, except that such a paradigm has been their concrete disaster. (Spillers, 1984, p. 80)

Spillers (1987) refutes the argument made in the Moynihan Report (1965) that presumes male leadership within American society and that African American women essentially throw off this balance of power when they become mothers (Spillers, 1987, p. 66). All women are essentially, “captive and free,” but it is African-American women who have the additional burden of fighting for a seat at the feminist table (quite literally as seen in *The Dinner Party*), let alone the societal table (Spillers, 1987, p. 77).

**Gender, class, and literature.** Woods (2010) examines the superwoman phenomenon and the impact it has on the stress level of women, specifically African American women (p. 668). By definition, a superwoman is someone who, “. . . takes on the roles of mother, nurturer, and breadwinner out of economic and social necessity” (Woods, 2010, p. 669). The superwoman, or supermom, can juggle traditional role expectations associated with being a female and the more “male” role and expectations of career advancement and upward social mobility. In her book, *The Second Stage* (1981), Betty Friedan (1981) describes the superwoman expectation as the double enslavement of women since it requires a sacrifice, either home or work, in order to be a superwoman.
Although her book is 35 years old, the sentiment of unattainable goals with unrealistic expectations still rings true today.

A study conducted by Sumra and Schillaci (2015) investigated the level of stress on women who have multiple roles versus women who have limited roles in their daily life. The study found a significant negative correlation between perceived stress and life satisfaction, and role satisfaction (Sumra & Schillaci, 2015). Interestingly, the study also examined the popularized notion of the “superwoman” by asking participants if they had heard of this term. All 14 participants indicated they had and based upon their responses the following six themes emerged: 1) women “doing it all” without losing energy, 2) raising moral and happy children, 3) juggling and balancing many roles simultaneously without “dropping the ball” 4) doing housework and working outside the home, 5) having a supportive partner, and 6) overcoming stress. The results revealed that super women do not experience a significantly higher level of perceived stress and suggest that role quality versus role quantity may be a better predictor of stress and life satisfaction in women (Sumra & Schillaci, 2015).

One might ask, “Is the superwoman myth alive and well in 2017?” Are women, after 160 years of fighting for equality, still limited by societal expectations, undervalued as workers, and discouraged from applying for jobs considered “non-traditional” in nature? An examination of common female myths and the impact of the myths on contemporary women might help provide answers.

**Searching for Superwoman**

A study on women and leadership conducted by the Pew Research Center (2014) provides insight into the realities women face in obtaining top executive jobs or winning
political office. While findings support the fact that Americans believe women are almost identical to men in terms of intelligence and innovation, the same findings support women being stronger than men in areas of honesty, ethics, pay, and mentoring others (Pew Research, 2014).

The study also indicates that women still experience gender discrimination in the workplace, stereotypes still exist in terms of the type of companies best suited for female leadership (i.e., retail companies), and having children plays a factor in career advancement.

The Pew study provides an overview of themes consistently found in the real-world stories of female leaders. Mary Barra, Chief Executive Officer of General Motors, is an example of how time, education, and loyalty will only translate into a $200,000 dollar pay differential over a male counterpart with no industry experience, no experience within the company itself and fewer educational degrees. Marissa Mayer, former Chief Executive Officer of Yahoo, is an example of how women advance into executive roles in order to clean up the mess left by her male predecessor and how her hair and clothing play a part in determining her effectiveness as a leader. Hillary Clinton, former United States Senator, Secretary of State, and 2016 Democratic Presidential Candidate, is an example of how factors such as education, experience, and loyalty did not matter since the media and her opponent chose to focus the stereotypical issues of personality, physical strength, mental toughness, appearance, and commitment to motherhood and marriage.

**The reality of female leadership.** Mary Barra is the current Chief Executive Officer of General Motors. Ms. Barra earned the rank of 62nd most power person in the
world on the 2017 Forbes list (Forbes, 2017). Barra started working for General Motors in 1980 (Tankersly, 2011). Ms. Barra has a Bachelor’s degree in electrical engineering and a Master’s degree in Business Administration (Tankersly, 2011). She became the Chairman and CEO of General Motors in 2014 (Tankersly, 2011). Mary Barra will earn a salary of approximately 2 million dollars this year (Snavely, 2017).

Conversely, the CEO of Ford Motor Company, James Hackett, age 62, holds a Bachelor’s degree from the University of Michigan (University of Michigan, 2017) spent 30 years working in the furniture industry prior to his appointment in 2017 as the new CEO of Ford Motor Company. James Hackett will earn a salary of approximately 1.8 million dollars this year (Lawrence, 2017).

The $200,000 dollar differential seems like a victory for women, except for the fact that Ms. Barra has worked at General Motors for her entire professional career, holds a higher degree, and has been in her current role for three years compared to Mr. Hackett, appointed CEO this past May.

Marissa Mayer, the former head of Yahoo, resigned in June 2017, after leading the company for five years. One criticism of Mayer is that she is a leader who is too aggressive in nature. Mayer’s critics contend that she did not listen, did not admit or, accept mistakes, did not have an outlined strategy, did not collaborate, and did not let go of her ego long enough to win the trust of those around her (Myatt, 2017). In short, Mayer does not seem to possess qualities stereotypically female.

One account of Mayer and her failure as a leader includes reference to her as someone, “... who preferred to read Town and Country and wear Oscar de la Renta couture” as if, somehow, her reading habits and wardrobe impacts her leadership, or lack
thereof, at Yahoo (Carlson, 2014, p. 11). The same article describes the hesitations associated with hiring Mayer; her lack of experience as a manager, hiring strategies, operating on her own time, risk-taking, and admitting failure (Carlson, 2014). Mayer worked for Google and managed over 250 people, she was part of every hiring decision, she expected her colleagues to meet with her on Monday mornings, and she took risks and owned failure, all of which are common attributes generally associated with positive leadership skills, not hesitations.

Hillary Clinton would not break the ultimate glass ceiling on November 8, 2016. The pulse of the nation flat lined for many women after the 2016 Presidential election. Staring at the television screen, it was clear that Donald Trump would be the next president of the United States to win political office without winning the popular vote. How could Hillary Clinton lose that election? Her political as well as educational credentials clearly made her a shoe-in for the job. She had proven herself a political leader, supportive wife, and proud mother. She seemed to have the total package.

Women would have to regroup, as they have done every year for the past 200 years and figure out a new strategy to prove they can be wife, mother, and leader.

Clinton (2017) describes her experience as a female, mother, wife, and elected official in her book, *What Happened* (2017). She examines the realities she faced as a person running for President of the United States while being acutely aware that she is not just any person, she is the first female in history to achieve this status.

The final point to mention, involves two million dollars. According to The WAGE Project, a non-profit organization dedicated to closing the pay gap, a female professional school graduate will earn an estimated two million dollars less than her male
counterpart over the course of her lifetime (Murphy, 2017). The challenge for organizations involves finding, hiring, supporting, and paying female leaders. The challenge for school districts includes all of the above, and more.

**Obstacles for female leaders.** The theory of men and women coming from different planets began in earnest in the 1990s. Now, almost three decades later, research can prove this is simply not true. However, in the United States, games, books, speakers, magazines, and pop culture rely on the myth that men are from Mars and women are from Venus, and thus; never the two shall meet (Gray, 1992).

**The balancing act.** The ethnographic study of Phoenix Plastics demonstrates the reality of how gender plays out in the workplace (Herrick, 1999). The study attempts to highlight the idea that gender is, “. . . locally constructed through the micro practices of everyday life” and that it is possible for a woman to be both liked and powerful (p. 274).

Herrick (1999) references the social constructionist model of gender and language, “. . . the idea that women, like all people read the social cues for gender in any given social and communicative context and act accordingly” (p. 280). The social constructionist theory plays out when examining Kathy and Rose, the females at the core of this ethnographic study. Rose, a tough-as-nails, no-nonsense leader, acts as tough as a man. She issues memos, takes over a premium office, installs a suggestion box, and her co-workers view her as “aggressive” (Herrick, 1999). Kathy, a patient and empathetic listener, has worked at the company for four years and has tried to move them in the direction of staffing meetings, teaming, and is someone who employees trust (Herrick, 1999). Rose has the degrees, the title, the experience, and the authority, but it is ultimately Kathy who has the power. Power and authority are not interchangeable
concepts. A person receives a promotion and gains authority. The same person has to work to earn the power associated with the authority. Power and authority are huge factors for consideration for females aspiring to be leaders since the success of the leader depends upon striking the right balance.

Reis (2012), describes the problems associated with combining gender with sex to categorize people. The purpose of this study was to examine taxonomic measures against behavioral measures (stereotypical) to see if there is a difference between sex and gender. While it is easy to categorize people on the surface level based upon their sex, “. . . the dimensionality of gender indicates that these differences are inappropriate for diagnosing gender-typical psychological variables on the basis of sex” (Carothers & Reis, 2012, p. 1). Additionally, their findings indicated that, “. . . masculinity and femininity are not all-or-nothing traits, but that they are truly on a continuum” (Carothers & Reis, 2012, p. 14).

A mosaic of the brain, a term coined in the research conducted by Joel et al., (2015), further examines the faulty generalizations made when trying to categorize differences between male and female brains. While the physical size of the female brain is smaller, this size difference is irrespective of the actual capacity of the brain. After examining 1,400 human brain MRIs, researchers concluded that gray matter, white matter, and connectivity (wiring) function more like a mosaic and less as defined sex-based material within both male and female brains (Joel et al, 2015). The significance of this study is that pop culture might be fine propagating differences between males and females, but biologically speaking, “. . . although there are sex/gender differences in brain and behavior, humans and human brains are comprised of unique mosaics of features, some more common in females compared with males, some more common in males
compared with females, and some common in both females and males” (Joel et al., 2015, p. 15468).

The idea of biological differences factored into the firing of James Damore, a software engineer at Google. On August 7, 2017, Damore wrote an internal memo titled, “Google’s Ideological Echo Chamber” (Wakabayashi, 2017). The memo, leaked company-wide, included Damore’s personal feelings toward Google’s culture and his beliefs that biology, not discrimination, is to blame for the lack of women in tech-related positions (Wakabayashi, 2017).

Google’s quick response to the memo and subsequent firing of Damore was just one more example of how entrenched gender stereotypes are within our society. Google has a reputation for being a forward thinking, tolerant, and accepting company, so if women felt out of place here, is there no hope for women everywhere?

The physical and mental differences between males and females might seem like barriers to the naked eye; however, little actual science exists to suggest that even observable differences create a rationale for why women cannot be successful leaders. Pop culture’s relentless quest to continue the narrative that men and women are biologically different (read weak) has worked to limit females and their leadership opportunity. The “limit” narrative is only one part of her story; an examination of worth brings another bias into the equation.

*The leadership limitation myth.* Zenger and Folkman (2011) studied female leadership capacity in 2011. The research team surveyed 7,280 leaders, chosen from organizations evaluated by the Harvard Business Review, and confirmed that the majority of leaders are still men, and that the higher the level, the more men there are: 78% of the
top managers, 67% male at the next lowest level, and then 60% at the next level down (Zenger & Folkman, 2012). These statistics should not come as a surprise; however, what is surprising is that while stereotypes related to while female leaders (nurturer, relationships, etc.) exist in the findings, female leaders also outscored their male counterparts in 12 out of 16 competencies, some of which are stereotypical male competencies, such as taking initiative and being results driven (Zenger & Folkman, 2012).

In summary, women have integrity, build relationships, take initiative, champion change, collaborate, develop others, and strive for results (Zenger & Folkman, 2011). The only category in which males outright outscored females with respect to leadership competencies was in the category of developing a strategic perspective (Zenger & Folkman, 2011). The researchers asked women about the findings, specifically why ratings were high in the areas of self-development and initiative, and women reported they “need to work harder than men to prove ourselves” and “we feel constant pressure to never make a mistake, and to continue to prove our value to the organization” (Zenger & Folkman, 2012, p. 3). All leaders need to have the competencies listed in the study, regardless of gender, yet those leading organizations are overwhelming male (Zenger & Folkman, 2012).

The skill limitation myth. In the STEM-related fields, women are still a minority, with less than 20% earning an undergraduate degree in computer science (Sax et al., 2016). The study examined four decades worth of data to pinpoint exactly why women remain underrepresented in computer science (Sax et al., 2016). The study is timely in that Google, Apple, and Silicon Valley as a whole are all under fire for the limited female
representation within the industry. Despite efforts to attract women into the field, women, along with African-Americans, Latinos, and persons with a low socio-economic status, do not typically choose computer science as a major (Sax et al., 2016).

The study concludes with a discussion of the familiar narrative discussed in the previous section; once the field of computer science shifted away from a skill set consistent with a secretary and more toward a skill set consistent with a scientist, a gender gap ensued (Sax et al., 2016). Additionally, stereotypes of computers as toys that boys play with, a computer “nerd” as a male figure, and course work designed to prevent women from continuing on in the profession all played into the current narrative, and subsequent problem in Silicon Valley (Sax et al., 2016).

Trauth, Cain, Joshi, Kvasny, and Booth (2016) examine the influence of gender stereotypes with respect to information technology, with specific emphasis on gender-ethnic intersectionality. The assumptions within the study begin with the fact that the skill-set associated with the Information Technology profession is masculine in nature. Multiple studies cited within this research article to highlight the fact that certain skills carry a male or female rating. As an example, creativity, sensitivity, and communication, labeled “female” traits while problem-solving, focusing on results, and being assertive as “male” traits (Trauth et al., 2016). While the authors noted that, “. . . there is some evidence to change over time in these stereotypes, with traditionally masculine traits being seen as more acceptable in women” the fact remains that business students, for example, “. . . are more likely to rate masculine traits as more applicable to successful managers” and as a result; higher earnings and potential for career advancement (Trauth et al., 2016, p. 10).
University students ranked non-technical skills according to gender stereotypes. The results show three main findings (1) masculine gender stereotypes do exist when examining the skill set consistent with “success” in the IT profession, (2) masculine gender stereotypes exist when examining the technical skills needed to be successful in the IT profession, and (3) evidence supports intersectionality between gender and ethnicity when examining the stereotypes associated with the IT profession, specifically the varying responses of White, Black or Latino men and women (Trauth et. al, 2016).

The challenge for technology companies is not only on diversification, but rewriting the Information Technology narrative to be more inclusive by filling job vacancies with women so the industry is more representative of the whole. A great example of the one-sidedness found in the tech industry is the backlash Apple faced when it created the Health app, since the Health app cannot track the menstrual cycle of women, an odd health-related omission since the female menstrual cycle is a monthly health-related occurrence with significant health-related ramifications to every female in the world (Sax et al., 2016).

In 2015, more women than men were likely to earn a bachelor’s degree, this would be the first time, in over 75 years, that this will happen (Feeney, 2015). Doherty, Willoughby, and Wilde (2016) studied changes in the family structure and the impact on this widening education gap. They examined non-marital births and the absence of a father in conjunction with overall college enrollment (Doherty et al., 2016). The findings suggest a gender gap exists for males with no biological father present at a rate of 7.2 percentage points lower than that of cohort members, specifically, “... males were disproportionality less likely than females to attend college if they came from a family in
which the father had been absent from birth” (Doherty et al., 2016, p. 217). Women were more likely to enroll in college irrespective of a father-figure. As indicated in the Census data, women are graduating from college at a higher rate as well.

**The role of a high school principal.** The value of one’s worth to an organization, or their actual wages, human capital, and intangible factors, such as grit or perseverance, combine to determine a fair wage. While not all elements of “worth” are quantifiable, multiple studies speak to the idea of worth, and how important closing the wage gap is for a school district if the district wants to maintain high levels of student achievement.

**School culture.** Tran (2016) studied the impact of pay satisfaction and school achievement on high school principals’ turnover intentions by using data from 156 California high school principals. The study addresses the gap in literature with respect to pay and the intentions of a high school principal to look elsewhere for a job. Student achievement is directly (negatively) impacted by change, the school culture is directly (negatively) impacted by constant change, and thus, the focus of not only hiring, but keeping quality high school principals means their worth grows with each successful year, meaning that pay is relative to the want or need of the district to commit to the principal. The study references Fullan (2001) and the fact implementing effective school reform takes an average of five to seven years. If the high school principal role turns into a revolving door, change can happen but will not be sustainable, and school culture student achievement will suffer (Tran, 2016).

Social network theory examines the relationship between power and authority and how successful leaders use networking to bridge any existing gender bias within a school
setting. Deal et al. (2009) develop social networking theory by examining the business world and looking for patterns also observed in the world of education. They found that, “... the primary challenge in both business and education is dealing with people and relationships” (Deal et al., 2009, p. 2). Additional research indicates that the business world and the education world are similar in that leaders need: (1) an army of people to help individual mid-level leaders, since almost two-thirds of their time is spent on routine tasks, (2) people to help individual leaders determine what issues to tackle and in what order, and (3) individual leaders need to redirect any efforts toward reform away from human relations and more toward cultural bonds and power-based relationships (Deal et al., 2009).

Currently, educational leaders, specifically principals, have to manage chaos on a daily basis. Missing from the principal’s toolbox is the fact that within the chaos, patterns exist (Deal et al., 2009). The reality is that, “leaders are expected to make major changes in their schools and districts; they are encouraged simultaneously to be visionary instructional leaders and efficient fiscal managers; left out of the equation is the realization that patterned chaos is, and always has been, a way of life in schools” (Deal et al., 2009, p. 4). Additionally, “... misconceptions of the realities principals face thwart their well-intended efforts” (Deal et al., 2009, p. 5). The principal is only one source of school leadership, and the principal should use their leadership skills to develop additional leaders within the school (Deal et al., 2009).

Social networking analysis relies on the ability of the principal (or school leader) to use analytical data to dive into the patterns found within the complicated web of school leadership to help implement true school reform (Deal et al., 2009, p. 7). Social
networking analysis explores the patterns of relationships within groups, while social network is a term commonly used to define relationships found on the Internet: the distinction is important -- while school leaders might want to have a large social network, school leaders need to understand and navigate the organizational social networking found within their building or district (Deal et al., 2009).

Professional learning communities, school culture, and communication (the three C’s community, culture, communication) provide the backbone of any school networking organization (Deal et al., 2009). Professional learning communities exist to improve collegial collaboration however, “. . . the difficult truth is that most professional groups develop organically because of a collective commitment to serving young people in better ways” (Deal et al., 2009, p. 10). Social network analysis allows for school leaders to examine the patterns of communication to examine classroom practice assumptions that only exist in private conversations (Deal et al., 2009).

School culture exists on a continuum; sometimes school culture is a physical brand, slogan, or statement specific to the members within that school community (Deal et al., 2009). Other times, school culture is the unwritten language or rituals found within a school community; these are the cultural “killers” of an organization (Deal et al., 2009). Social networking analysis allows school leaders to map the network in an effort assess assumptions, define values, and to, “. . . provide clues to patterns often amorphous or hidden” (Deal et al., 2009, p. 11).

Social network theory analysis divides individuals into categories based upon their network. Assumptions relative to gender pay out in the analysis as data supports who has power, who has authority, and who has both. The process begins by examining
the _nodes_ or cluster groups within the building and then linking their symmetrical, asymmetrical, or isolate relationship. The purpose and resulting chart resembles a circle-plot graphic with lines running to and from each node. All network players fit into one of four groups: stars, bridges, bottlenecks, and isolates (Deal et al., 2009). Stars are the critical component to school reform, and, while all stars have power, many do not have an official title, or authority. Bridges, also known as gatekeepers, are the people with power who connect the group to another group. Bottlenecks control organizational information, they too have power and it is important to examine the reasons why a bottleneck does not share information. Finally, an isolate is someone with no connection to anyone else: a person who does not impact the rest of the network, and, consequently, the network does not impact them (Deal et al., 2009, p. 27).

**Time management.** A study conducted by Gilson (2008) reviewed quantitative data to determine how much time 322 secondary school principals spent on student achievement versus other external issues or internal crises that occur during the school day. The study, interestingly, indicates that out of the 145 participants, 20% are female (Gilson, 2008). The 20% finding is consistent with the total number of female high school principals within the state of Ohio. The data show secondary school principals spend the majority of their time (17.6%) involves attending school activities. The next closest percentage (8.4%) involves completing paperwork, and the third (3.6%) involves dealing with discipline (Gilson, 2008). Only 2.8% of principals spend time on activities to enhance teaching and learning (Gilson, 2008). These data are another key component when trying to paint the picture of expectations relative to the role of the principal. Certainly, one could argue that the amount of time spent on “management” tasks versus
“leadership” tasks redefines the character traits school districts are looking for in a principal.

A similar study conducted by Horning, Klasik, and Loeb (2010) revealed similar results to the Gilson study. Six categories define how principals spend their time, administration, organization management, day-to-day instruction, instructional programming, external relations, and other tasks (Horning, et al., 2010). Principals spend approximately 27% of the day on administrative duties such as overseeing student services, managing budgets, and dealing with student discipline (Horning, et al., 2010). The study results indicate that principals spend the least amount of time on instructional tasks, observations, and day-to-day instruction. The overall findings summarize the difficulty of the role, the relationship between outcomes and activities, and the need to increase student achievement while spending little to no time actually working on ways to improve or address student achievement, instructional practices, and teaching and learning.

Communication patterns are especially important in times of crisis. The state of Ohio requires principals to oversee fire drills, tornado drills, ALICE drills -- alert, lockdown, inform, counter, and evacuate, bus evacuation drills, as well as tracking medical concerns, administering concussion testing, coordinating AED training, screening for hearing and vision, and recording immunizations. Protocols exist for everything, and in theory as well as practice, the protocols run smoothly. In the event of an actual fire, for example, will the students and staff follow the established protocol or will the pre-existing communication patterns (unwritten) outweigh the monthly training sessions? The rationale for using social networking analysis in this scenario is to provide
real data relative to the real communication channels within the building (Deal et al., 2009).

**Strategies for success.** Whitaker (2012) outlines 18 factors for principal success. In summary, (1) Never forget that people matter, (2) Know thyself, (3) Be responsible for your own performance, (4) Create a positive atmosphere, (5) Filter out negatives and focus on positives, (6) Improve teacher performance, (7) Hire and retain the best teachers, (8) Be a change agent, (9) Focus on student learning, do not overemphasize standardized testing, (10) Know when to focus on behavior, not beliefs, (11) Remain loyal to the students, staff, and school, (12) Ask the best teachers in the building for help, (13) Treat all with respect, (14) Be sensitive to the needs to the best teachers, (15) Emotion will help drive change, be sensitive to this, (16) Avoid hurting someone and build positive relationships, (17) Improve or remove negative staff members, and (18) Follow the goals set out at the beginning of the year (Whitaker, 2012). In Whitaker’s view, the role of the principal is all about relationships with students, staff, parents, and the community. The 18 “rules” are hard to categorize when reviewing literature related to principal effectiveness since the literature chunks the day-to-day operations of the building into large categories such as “administrative tasks” or “other tasks” however; my hypothesis is that a high school principal spends the majority of her time on personnel or relationship-related issues amongst the staff.

**Female high school principals.** Rey (2005) describes characteristics specific to female leadership with a review of trait theory. Trait theory states that effective leaders possess the following characteristics: effective communication, task completion, responsibility, ethics, courage, problem solving skills, originality vision, humor, self-
awareness, confidence, courage, power, and experience (Rey, 2005). The female leader possesses another skill set, separate from male colleagues, in which conflict management, sensitivity, nurturing, and listening skills add to her impact as a leader (Rey, 2005). Female leaders tend to lead from behind, encourage participation, make shared decisions, and share power, all characteristics generally associated with inclusive leadership (Rey, 2005).

Inclusive leadership requires two components, following process and continuous promotion (Ryan, 2006, p. 56). Inclusive leadership is also a key component to another responsibility of a high school principal, developing administrative and teacher leaders. Ryan (2006) describes eight practices for weaving teacher leadership into the fabric of an institution, such as a school. A summary of the practices includes giving teachers real power in decision making, defined roles, continuous professional development, allowing for risk taking, providing resources, flexibility with scheduling, and allowing teachers to feel empowered (Ryan, 2006).

Lewis (2000) found that female leaders who display anger or sadness earn a lower rating by their subordinates than those who display no emotion at all (Lewis, 2000). Conversely, male leaders receive lower ratings when they express sadness, but not anger or remain emotionless (Lewis, 2000).

In addition to women having to be cognizant the impact emotions such as anger and sadness have on their ability to lead, women also have to be cognizant of the impact actual tears have on the perception of their ability to lead as well. Fischer, Eagly, and Oosterwijk (2013) conduct research on the impact crying has on perceptions of leadership. Specifically, they study “the perception of a crying person as emotional while
on the job compromises his or her perceived competence” (Fischer et al., 2013, p. 509). The results of this study reinforce the existence of gender stereotypes in the workplace and suggest that in order for employees to maintain confidence in their boss, women (and men) must provide an explanation for their tears when a clear reason does not immediately exist, otherwise they will appear as an emotional and incompetent leader (Fischer et al., 2013, p. 511).

Shakeshaft, Gilligan, and Pierce (1984) examine the school administrator certification process and identify the barriers, both internal and external, that tend to keep women from pursuing an administrative role within a school system. Internal barriers such as: motivation, self-esteem, and limited career aspirations, along with external barriers: gender stereotyping, discrimination, household demands, and too few role models, combine to create a black hole for women looking to advance in education (Shakeshaft et al., 1984, p. 68).

The study conducted by Reynolds, White, Brayman, and Moore (2008) examines the beliefs of decision makers within Canadian schools and the impact on women at the secondary level. The study specifically addresses the concept of invisibility and how sometimes gender can be known, yet not acknowledged as a factor by others since gender bias is a zero-sum game; one gender’s loss is the other gender’s gain (Reynolds et al., 2008, p. 37). A gender-based zero-sum view provides the basis for this study and insight as to how the invisible concept of gender plays a role in the hiring and promotion of women within a school organization (Reynolds et al., 2008).

Ten urban and rural schools across four provinces are the sample size for this study. The researchers interviewed decision makers (aka: the persons responsible for
hiring) and set out to examine why are there proportionately fewer women teaching in Canadian secondary schools compared to men and even fewer women appointed as principals? Over the course of 40 years, the percentages jump from 11% to 13% (Reynolds et al., 2008). Data support growth for female secondary principals, but the rate of growth, at two percentage points over forty years, seems painfully slow.

Participants in the three-year Canadian study participated in a series of questions by an interview research team in an attempt to determine what their impression was on career advancement opportunities for males and females as well as what factors related to career advancement might be differ by gender (Reynolds et al., 2008). The Canadian study supports other gender-based studies in education in that although the perspective exists within the United States, Australia, Britain, and Canada that gender is no longer a factor in for school administrators, gender is actually a factor and patterns of discrimination and disadvantage do exist both explicitly and implicitly (Reynolds et al., 2008). As one of the male participant’s states:

[T]he focus of men to go on from classroom teacher to vice-principal, ultimately to principal seems to be a little more noticeable than in women. [Women are] still a little more laid back, a little more comfortable in the classroom. . . . You would have to be a very special female person to handle the pressures along the line of the people being critical of your decisions. . . . I think [the female vice-principal] is being targeted more because there’s a perception that there might be vulnerability. (p. 44)

Participants in the Canadian study indicated views about women as caregivers, and not being able to discipline students contradict views of women being more
collaborative, collegial, intuitive, nurturing, and responsive as leaders. Additionally, the need for balance on an administrative team surfaced during the interview process. The belief of balance centers on the need to hire a male leader to offset a female leader to increase team effectiveness. Data in this study do not support this belief; rather it can be attributed to societal beliefs or Clegg’s “organizational rules of control.” Clegg’s organizational rules of control include a focus on the technical, social-regulative, extra-organizational, strategic, and state, help to categorize the effectiveness of a team and support the research findings (Reynolds, 2012). Implications of this study include the need for more strategic rules related to hiring practices to avoid the unintended consequences and/or bias found in hiring or promoting women to secondary school principals (Reynolds, 2012). Societal norms expect women to fill certain roles.

Female principals are unique. Despite studies indicating a disproportionate number of female high school administrators compared to the number of female high school teachers, female high school principals do exist. While a female high school principal is responsible for carrying the added weight of intersectionality in terms of gender, race, class, and education, a female high school principal also carries the additional weight of the role defining her as a person.

Oplatka and Mimon (2008) examine the experiences of women in the field of education: specifically, the in administrative role of principal. Female principals examined their own job satisfaction and dissatisfaction relative to their current role. Since many of the women, “. . . check their personal feelings, as if a principal is only there for the school,” the concept of job satisfaction, for these women, became associated with negative feelings, that in reality, it was job dissatisfaction that motivated and inspired the
female principals in the study to continue to improve (Oplatka & Mimon, 2008, p. 143). Additionally, the female principals in the study used analogies such as a lioness, the sea, and a captain of a ship, to explain how they felt that a constant state of uneasiness or flux is better than being in a state of satisfaction since the state of satisfaction will lead to stagnation (Oplatka & Mimon, 2008, p. 144). This study, in particular, highlights a significant difference between male and female administrators in terms of perception.

When asked the same questions about job satisfaction, the males and females interpret the question completely different; this further highlights the need to hire more female high school principals to provide an alternative perspective to the role (Oplatka & Mimon, 2008).

The uniqueness of women in the role of principal is evident in the study by Wrushen and Sherman (2008) where they note regardless of the ethnicity of the principal, women care for children, have a strong sense of efficacy, collaborate, build consensus, are spiritual, and juggle multiple roles on a daily basis (Wrushen & Sherman, 2008,). The women have more in common than simply a shared professional title. Women shared common stories of the experiences that influenced their career, and, while the experiences could be categorized as negative as well as positive, “. . . a common theme, particularly among minority women and the women who reported negative experiences as children in schools, was a desire to reach the most difficult populations of students” (Wrushen & Sherman, 2008, p. 461). Additional feedback from the female principals included the challenges of balancing work and family, their desire to lead with compassion, the impact of racial stereotypes in addition to gender stereotypes, the impact of their individual power, how all of the women, “. . . felt uncomfortable describing themselves as
powerful” and how many of the women preferred to view themselves as, “servants of the community” (Wrushen & Sherman, 2008, p. 465).

The impact of a female high school principal on student achievement is significant according to a study conducted by Kim and Song (2014). The study relies on the Seoul Education Longitudinal Study of 2010, which uses data on 78 high schools and over 5,200 students (Kim & Song, 2014). Female high school principals lead 11 (14.1%) of the high schools surveyed, compared to male principals leading 67 (85.9%) of the surveyed high schools (Kim & Song, 2014). The findings show that in high schools with a female principal, there is a positive statistically significant difference in student academic achievement, student satisfaction and relationships with teachers compared to high schools with a male principal (Kim & Song, 2014). Additionally, female principals devoted more hours to work, attended school board meetings, developed teachers, and developed curriculum (Kim & Song, 2014). The findings support the fact that, “women have strong interest in the education of the whole child and in looking out for those who are most at risk, and also view the position of in the school as an attractive opportunity to make a difference for children and their families” (Kim & Song, 2014, p. 75).

The role of the high school principal, regardless of gender, seems exhausting and overwhelming, especially when characterizing qualities one must possess to function on a daily basis. For female leaders, their unique skill set, the reality of intersectionality, a female-based world view, the need to possess characteristics to simply survive in a male-dominated field, societal and personal pressure, and suddenly the pool of potential candidates seems to shrink, and not just because of the tasks and skill set, but because of the unrealistic expectations. Simply put, this described principal must be the boss, friend,
colleague, confidant, instructional leader, listener, caregiver, mom, wife, chef, carpool driver, role model, tough disciplinarian, sports enthusiast, music and art aficionado, human resource manager, facility supervisor, accountant, substitute teacher, school van driver, evaluator, journalist, public relations guru, minister, decision-maker and make less than her male counterpart.

Still searching for superwoman…. 
Chapter III

Methodology

This methodology describes the major components of research design. The chapter starts with addressing four research questions. The following sections describe the research purpose, research questions, research study design, characteristics of design, data source, sample size, selection, procedures of data request, data collection procedure, data analysis, variable list, validity, and, limitations of the researcher.

Research Purpose

I investigated the annual salary of female and male public high school principals employed in the state of Ohio during the 2015-2016 school year. In order to provide a complete overview of pay, it was important to not only use salary data for the study, but to also use additional descriptive measures such as school typology and educational experience to paint the complete earnings picture.

The single variable of the salary of a high school principal, the dependent variable, is an outcome variable and reflects the hypothesized relationships found within this study. The variables, gender, ethnicity, level of education, and school typology are independent variables and serve as factors for determining salary.

Research Questions and Hypothesis

I address the following research question addressed in this study: Do female public high school principals earn less than their male counterparts? Gender-based wage discrepancies combined with the concept of intersectionality, provided the background for the study.
In order to test for overall wage differences between female and male high school principals, I examined their annual salary and generated the following hypothesis:

Hypothesis 1: The annual salary of female high school principals will significantly differ from that of male high school principals during the 2015-2016 school year.

In order to test for gender-based wage differences and demonstrate the impact of intersectionality:

Hypothesis 2: The annual salary of female high school principals will significantly differ from that of male high school principals taking level of education into account.

Hypothesis 3: The annual salary of female high school principals will significantly differ from that of male high school principals when taking ethnic background into account.

Hypothesis 4: The annual salary of female high school principals will significantly differ from that of male high school principals when taking school typology into account.

**Research Study Design**

I applied causal comparative design in this study. Trochim and Donnelly (2008) describe causal studies as studies, “. . . designed to determine whether one or more variables causes or affects one or more outcome variables” (p. 5). In causal comparative studies, “it is not possible (or even desirable) to manipulate the independent variable in an effort to make causal connections” (Schenker and Rumrill, 2004, p. 117). I attempted to examine the magnitude of differences between males and females, not to simply show
that differences exist (as in a correlational design) or to conduct an experiment to generate differences within the study by providing a treatment to one of the groups (as in an experimental design).

The design element of causal comparative research includes using, “pre-existing or derived groups to explore differences between or among those groups on outcome or dependent variables” (Schenker & Rumrill, 2004, p. 117). Practical and ethical limitations prevent variables from manipulation in a causal comparative study. A common example used to illustrate this point is gender when studying gender (Schenker & Rumrill, 2004). The concept of intersectionality is present in this causal comparative study since participants can and do belong to multiple groups outside of the initial independent variable (i.e., gender and race).

Experimental design and causal comparative design share similarities in that they both use categorical independent variables, they both use continuous dependent variables, and they both use statistical tests to examine the relationship and the significance of those relationships discovered during the research process (Schenker & Rumrill, 2008).

Experimental design differs from causal comparative design in that experimental design requires the assignment of a treatment (or manipulation) to a group within the study, whereas in causal comparative, the differences found within a group are preexisting (Schenker & Rumrill, 2008).

Correlational design and causal comparative design share similarities in that they both use categorical independent variables, they both seek to examine an existing relationship, and they use similar statistical tests to explore the relationship between variables.
Correlational design differs from causal comparative design in that a correlational design examines the synchronization of two variables whereas causal comparative design examines the aspect of cause and effect (Trochim & Donnelly, 2008).

Causal studies are also cumulative in scope, requiring the researcher to not only identify the cause and effect variables, but also requiring the researcher to show the existence of a cause and effect relationship (Trochim & Donnelly, 2008).

Benefits of conducting a causal comparative study include the ability to look the whole (i.e., a worldview), and, the ability to use evidence-based practices to determine causes and effects in an effort to generate a scientific argument for making change (Trochim & Donnelly, 2008).

Weaknesses of conducting a causal comparative study include the limited ability to manipulate in the independent variable and the lack of a random sample (Trochim & Donnelly, 2008). I chose causal comparative for the design of this study because the strengths outweigh the weaknesses. The data, while not random, really do not need to be since culturally, the administrative position of high school principal does not experience a high annual rate of turnover. Additionally, it was not necessary to be able to manipulate the independent variable in this case since the focus of the study centers on identifying differences between males and females.

I used ex post facto data in this study. As in all ex post facto research, this study can only demonstrate possible relationships (Newman, Benz, Weis, & McNeil, 1997). It is important to note that limitations of studies using ex post factor research include the ability to randomize the sample, change, or manipulate the independent variable, and generalize the results (Newman & Newman, 1994).
The benefits of using ex post facto data include the fact that the entity responsible for collecting the data is interested in valid and reliable results. The same entity is responsible for the maintenance and storage of the data. Additionally, the instrument used to collect data by the agency or entity is scientifically valid and reliable. Finally, data collection generally takes place on a large scale, so a wealth of information is available to the researcher (Lord, 1973).

The weaknesses of ex post facto data include the fact that data are not an exact measurement; rather a collection of reported facts and cannot test a hypothesis, it can only illustrate a hypothesis (Lord, 1973). Additionally, limits exist within the study when trying to randomize the sample and generalize the results (Newman et al., 1997). For the purposes of this study, a one-time collection was critical to maintain validity and reliability since the EMIS collection system relies on the fact that school districts have time to validate the data for errors before the final submission, which counts toward actual and realized funding for the school. Additionally, as discussed with the causal comparative design, the lack of randomization within the sample is not a barrier to testing the hypothesis since a true random sample would not highlight the inherent gender discrepancy found in the role of high school principal.

The goal of this research was to determine if a relationship exists between the independent variable and the dependent variable. “The overarching aim of a quantitative research study is to classify features, count them, and construct statistical models in an attempt to explain what is observed” (Spalding University, 2017). The design focused on descriptive analysis of data to test four different hypotheses.
Data Source

The Education Management Information System (EMIS), is the uniform statewide data collection system used by the Ohio Department of Education to gather and store information relative to secondary and primary public-school districts. Information contained within the EMIS system is available to the general public through a public records request.

According to the Ohio Department of Education, the EMIS system, established in 1989 under provisions of Ohio Revised Code, is the reporting mechanism for sending required information to the federal and state government for purposes of determining funding and accountability, (Ohio Department of Education, 2017). Data stored in the EMIS system include student and staff demographic information, student, and staff attendance information, and building and district academic achievement information, and financial data.

The semi-annual reporting requirements for EMIS data for school employees occurs during the fall and winter of each school year. The staff demographic data collected in the EMIS system include: name, attendance, gender, ethnicity, date of birth, education level, years of teaching experience, early childhood qualification, employee ID number, state ID number, completed semester hours, and a unique district identifier.

The EMIS coordinator, a person designated as such in each public-school district, is responsible for reviewing and submitting data to the Ohio Department of Education. The accuracy of EMIS data is critical since federal and state funding is dependent upon this report. A small margin of error relative to the reporting makes this data reliable, valid, and grounded.
Sampling and Selection

Participants in this study, the data set, include all public high school principals employed during the 2015-2016 school year in Ohio. The study focused on one particular year in part because the salaries of school employees generally do not fluctuate in ways seen in other industries. While some movement takes place annually, the culture of school administration is one where a person remains in the same role and only experiences minor increases in their initial salary. According to Fowler’s (2009), in order to ensure a 95% confidence interval, the study needs to consist of 500 participants. Since all participants included on the EMIS report are, by default, in the study, the sample size can ensure the 95% confidence interval with and error of 4%. However, it is important to note that the study looked at males versus females, so while the sample size for males topped 650, the sample size for females reflects the number of females in the role, for a total of 216, or a 7% confidence value. The high confidence value associated with the female population means that the study is not generalizable, since one cannot add female participants where they do not already exist. I examined the current administrative population and created a narrative specific to the population of high school principals in Ohio during the 2015-2016 school year.

Procedures of Data Request

The first step in the process involved accessing public records within the EMIS system. Public records for the purposes of this study included the following: (1) a listing of public high school principals for the 2015-2016 academic school year, (2) gender of each principal, (3) education level or highest earned degree of each principal, (4) school typology, and (5) the ethnicity of each principal.
The second step in the process involved submitting a formal request for the salary information for all Ohio High School principals for the 2015-2016 school year. Salary information is not publically reported, meaning that a formal request must take place in order to extract this data from the ODE. In this case, I sent an email to Dr. Mary Rose, the Data Administration Manager at the Ohio Department of Education. The process for the request includes asking the Ohio Department of Education for the annual reported salary of each principal for the 2015-2016 school year. A copy of the request is located in the Appendix.

Data collected and stored in the EMIS system are public record and accessible by any person submitting a formal request to the Office of Data Quality and Governance. The request for data can include specifications for sharing, for example, that Microsoft Excel is the format for sharing data.

In order to guarantee the anonymity of the principals included in this study, I removed the names, employee ID, and state ID numbers of each principal. I asked for the school district IRN (identifier) for the purposes of generating demographic data relative to school district typography.

The third step in the process involved uploading participant information into Statistical Package for the Social Science (SPSS), a data-based software program created by IBM, in order to generate information relative to the hypotheses. The processes of data cleaning and data labeling allowed further statistical analysis.

I used the SPSS software program to gather and analyze data from the EMIS report. The large sample size, in this case over seven hundred participants, is representative of the target population. The same study can be replicated or repeated each
year since the Ohio Department of Education keeps track of the requested data for this survey in its Education Management Information System (EMIS), giving this study high reliability. The research questions are objective in nature and discussed with the data collected. Presentation of the data is in the form of numbers and statistics to provide readers with an objective overview of the population. This objectivity allows for future researchers to examine concepts for further investigation or predict future results.

**Data Analysis Procedures**

According to Pallant (2008), “. . . t-tests are used when you have to different independent groups of people and you are interested in comparing their scores” (p.109). In this study, data collection occurred one time so I used an independent sample t-test to determine the difference in salary for male and female high school principals. The t-test shows if a statistically significant difference existed between the mean scores of the two groups. In order to show statistical significance, the significance level, or p value, needed to equal .05 or less, therefore; I set the confidence interval of the difference between the two means at 95%. The effect size of the population shows the magnitude of the differences between the two groups, I calculated this measure using Cohen’s d (Salkind, 2014). The basis for the Cohen’s d calculations and effect size reflect the established guidelines of .0 -.20 for a small effect size, .20-.50 for a medium effect size, and any value above .50 for large effect size (Salkind, 2014, p. 208).

A two-way Analysis of Variance (ANOVA) calculates the differences between salary, gender, and three additional demographic categories as outlined in Table 1. A two-way ANOVA, “. . . allows you to test the impact of two independent variables on one dependent variable” (Pallant, 2016, p. 110). I used the between-groups ANOVA for
this study since the groups are different (males and females). Essentially, the ANOVA provides a data to support the influence of one independent variable on another independent variable.

The ANOVA provided information relative to mean and standard deviation. The Levene’s test of equality of error variances shows if I can reject the null hypothesis. In order to reject the null, also called the Type 1 error, the Sig. value needs to be greater than .05 to show equal variance across all groups since the researcher set the significance level at .05 for this study. The ANOVA provided results to determine interaction effects as well. A value of Sig. equal or less than .05 indicates a significant interaction effect, meaning a relationship might exist between the independent variable and the main effect. I used the same process to determine interaction effects. I determined effect size by using guidelines outlined by Cohen’s (1992) calculations of effect size.

Table 1 outlines the hypotheses, variables, and methodology used in this study.

Table 1

_Hypotheses, Variables, and Methodology Used in This Study_

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Statistical Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>Annual Salary (2015-2016)</td>
<td>Gender</td>
<td>Independent t-test</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>Annual Salary</td>
<td>Level of Education</td>
<td>Two-Way ANOVA</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>Annual Salary</td>
<td>Ethnicity</td>
<td>Two-Way ANOVA</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>Annual Salary</td>
<td>District Typography</td>
<td>Two-Way ANOVA</td>
</tr>
</tbody>
</table>
The fourth step in the process involved using the data to answer the research questions and to show how the data supported or did not support the hypotheses.

The fifth step in the process involved the analysis of the data in an attempt to identify trends for possible future research since this study is one of the first, if not only, to specifically focus on high school principals. Additionally, I applied for IRB approval and received committee guidelines at this time.

**Variable List**

Archival data identified the sample size of males and females employed as high school principals during the 2015-2016 academic year. The independent variables were the gender, level of education, ethnicity, and school typology, the dependent variable was the salary of each principal. I identified the gender and salary of every public high school principal with the information requested and provided by the Ohio Department of Education.

The coding for the independent variables is as follows:

- Gender (M = 1, F = 2)
- Ethnicity (Caucasian = 1, African-American = 1, Asian = 3, Hispanic = 4, Not Specified = 5, Multiracial = 6)
- Education level (Bachelors = 1, Masters = 2, Doctorate = 3, Educational Specialist = 4, and Non-Degreed = 5)
- School typology (Rural and High Poverty = 1, Rural and Average Poverty = 2, Small Town and Low Poverty = 3, Small Town and High Poverty = 4, Suburban and Low Poverty = 5, Suburban and Very Low Poverty = 6, Urban and High Poverty = 7, and Urban and Very High Poverty = 8)
Validity

External validity examines the generalizability of the results to other places or persons (Trochim & Donnelly, 2008). In this study, the sample size impacts external validity, specifically the fact that the sample comes from ex post facto data. The large representative sample size in this study, over 800 high school principals, means the external validity for this study was high. However, the sample size might be generalizable for persons in educational administration, the sample might not apply to all women and men in the workforce. According to Trochim and Donnelly (2008), threats to external validity in this study include, “. . . people, places, and time” (p. 36). This study took place in one state, with one year’s worth of data, on a specific, not randomly selected, population.

Internal validity examines the, “. . . approximate truth about inferences regarding cause-effect or causal relationships” (Trochim & Donnelly, 2008, p. 158). This study does not introduce a treatment, program, or intervention; the study simply observed existing patterns found within the data. This is a key point for consideration since it is possible that alternative explanations exist and this study cannot say with 100% certainty that the only factor involved in salary is gender.

Quality research design, argument, and analysis minimized threats to internal validity. According to Trochim and Donnelly (2008), “. . . the most straightforward way to rule out a potential threat to validity is simply to argue that the threat in question is not a reasonable one” (p. 233). Analysis also offers ways to rule out an alternative explanation. A simple t-test and ANOVA provide tools to help prove a relationship exists between the variables.
The purpose of this research was to test hypotheses and alternative hypotheses for the purposes of weeding out all possible alternative hypotheses to get as close as possible to true experimental design while maintaining that even then, the study cannot infer causation.

**Limitations**

**Methodological limitations.** The information involves one state, Ohio, and the persons employed as high school principals during one school year, 2015-2016. The sample size included 874 unique participants, however; since each state does not report the same information in the same manner, a limitation of the study might be the generalizability of the study to other states. Additionally, the scope of the research speaks to only one of 50 states within the United States. Finally, the lack of pre-existing research on this specific topic is a limitation.

**Summary**

The research study set out to examine if there is a wage gap between male and female high school principals in the state of Ohio while taking into account the concept of intersectionality and that, if a wage gap does exist, it is likely that other factors also impact wages.

The research cannot prove causation, however, it can provide a basis for future studies involving wages, as well as a deeper dive into the rationale behind the reasons for a wage gap.
Chapter IV

Results

Introduction

This quantitative, causal comparative study is designed to explore if one variable causes or affects another variable (Trochim & Donnelly, 2008). Specifically, this study examines the relationship between gender and salary among public high school principals in the state of Ohio during the 2015-2016 school year. I analyzed data to explore the differences in outcome (salary) within pre-existing groups, in this case male and female high school principals (Schenker & Rumrill, 2004, p. 117). I also analyzed descriptive data to examine the relationship between salary and additional demographic factors associated with high school principals for the purpose of showing how salary is one of many factors worth examining when studying the impact of intersectionality on employment. The following sections describe the demographic characteristics of the population, summarize the findings with respect to the four research questions, and provide analytic data to support or refute each hypothesis.

Demographic Characteristics

The research population in this study includes all individuals in reporting category 108 (principal) in the Ohio Department of Education Educational Management Information System (EMIS) system for the 2015-2016 school year. The 874 individuals in this category represent individuals serving in the capacity of public high school principal on a full-time, or 1.00 FTE (full time equivalent) status. Out of the total number of 874 which, for purposes of this study will equal 100%, the number of principals reporting as male is 657, or 75%, and the number of principals reporting as female is 217,
or 25%. It is worth mentioning that in the state of Ohio, the definition of public school includes all schools that receive funding from the state: public high schools, community schools, STEM schools, Educational Service Centers, and state supported schools.

I used archival data from the Ohio Department of Education in this study. The EMIS system, the system the state of Ohio uses to manage federal and state accountability data, requires each school district to submit a semi-annual report of public school employees and uses a coding system to categorize demographic data. The coding system is located in the annual EMIS manual, which is readily accessible to anyone searching the Ohio Department of Education website. I submitted a public records request for salary information since this information is not part of the semi-annual EMIS report. The salary reporting category for all individuals in this study is category “A” meaning the individuals are salaried employees. Specific coding qualifications are located within the corresponding category. Table 2 outlines the demographic characteristics for this study.

Table 2

*Demographic Characteristics of Ohio Public High School Principals During 2015-2016*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>657</td>
<td>75.2</td>
</tr>
<tr>
<td>Female</td>
<td>217</td>
<td>24.8</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>51</td>
<td>5.8</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>767</td>
<td>87.8</td>
</tr>
<tr>
<td>Doctorate Degree</td>
<td>40</td>
<td>4.6</td>
</tr>
<tr>
<td>Educational Specialist</td>
<td>14</td>
<td>1.6</td>
</tr>
<tr>
<td>Non-Degreed</td>
<td>2</td>
<td>.2</td>
</tr>
</tbody>
</table>

(continued)
Table 2

Demographic Characteristics of Ohio Public High School Principals During 2015-2016 (continued)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>744</td>
<td>85.1</td>
</tr>
<tr>
<td>African American</td>
<td>106</td>
<td>12.1</td>
</tr>
<tr>
<td>Asian</td>
<td>5</td>
<td>.6</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4</td>
<td>.5</td>
</tr>
<tr>
<td>Not Specified</td>
<td>14</td>
<td>1.6</td>
</tr>
<tr>
<td>Multiracial</td>
<td>1</td>
<td>.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Typography</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural and High Poverty</td>
<td>128</td>
<td>14.6</td>
</tr>
<tr>
<td>Rural and Average Poverty</td>
<td>106</td>
<td>12.1</td>
</tr>
<tr>
<td>Small Town and Low Poverty</td>
<td>116</td>
<td>13.1</td>
</tr>
<tr>
<td>Small Town and High Poverty</td>
<td>102</td>
<td>11.7</td>
</tr>
<tr>
<td>Suburban and Low Poverty</td>
<td>91</td>
<td>10.4</td>
</tr>
<tr>
<td>Suburban and Very Low Poverty</td>
<td>63</td>
<td>7.2</td>
</tr>
<tr>
<td>Urban and High Poverty</td>
<td>66</td>
<td>7.6</td>
</tr>
<tr>
<td>Urban and Very High Poverty</td>
<td>110</td>
<td>12.6</td>
</tr>
<tr>
<td>Not Reported</td>
<td>92</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Data Analysis

This study sets out to examine four different hypotheses related to gender and salary. The population sample included 874 unique individuals, both men and women, employed as high school principals in the state of Ohio. I used an independent samples t-test, a two-way analysis of variance test, a one-way analysis of variance test, effect size and z-scores to show the relationships between variables. The results relative to each research question and corresponding hypothesis are located below.

Hypothesis 1: The annual salary of female high school principals will significantly differ from that of male high school principals during the 2015-2016 school year.
I categorized gender in terms of male and female. I categorized salary as a continuous variable using the actual salary amount provided by the state of Ohio. It is important to note that the data charts are absent of commas and decimal points, which are generally present when differentiating between dollars and cents.

An independent samples t-test is the instrument I used to examine the relationship between salary and gender. The categorical variable, also known as the independent variable, is gender. The continuous variable, also known as the dependent variable, is salary. The results indicate equal variances since the sig. value for Levene’s test for equality of variables is greater than .05. Table 3 provides a visual of the data.

Table 3

*Independent Samples Test Comparing Salary and Gender of High School Principals*

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Sig</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>657</td>
<td>87580.52</td>
<td>22359.78</td>
<td>.481</td>
<td>-.168</td>
<td>872</td>
<td>.866</td>
</tr>
<tr>
<td>Female</td>
<td>217</td>
<td>87871.80</td>
<td>21212.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results indicate that there is no statistically significant difference in scores for males (M = 87580.52, SD = 22359.78) and females (M = 87871.80, SD = 21212.08); t (872) = -.168, p = .866 (two-tailed) in this population. The difference in the means, using Cohen’s d calculations, is a .013, indicating the effect size is very small. A small effect size means that while statistically significant, the actual or realized difference or impact is not significant.

**Hypothesis 2:** The annual salary of female high school principals will significantly differ from that of male high school principals taking level of education into account.
A two-way between-groups analysis of variance (ANOVA) is the instrument used to examine the relationship between salary, gender, and level of education. The first variable, gender, is male or female. The second variable, level of education, contains five subsets (Group 1: Bachelor’s degree; Group 2: Master’s degree; Group 3: Doctorate degree; Group 4: Educational Specialist, and Group 5: Non-Degreed). The interaction effect between gender and level of education on salary is not statistically significant: $F(4,864) = 0.335, p = .85$. A statistically significant main effect for level of education does exist; $F(4,864) = 5.20, p < .001$. However, the effect size is small at .024 partial eta squared. The results indicate that the main effect for gender does not reach statistical significance. Table 4 outlines descriptive information for the population.

**Table 4**

*Descriptive Statistics for the Gender and Level of Education of Ohio High School Principals*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Degree</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Bachelor’s</td>
<td>75849.27</td>
<td>25211.08</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Master’s</td>
<td>87972.01</td>
<td>21624.02</td>
<td>584</td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
<td>94149.37</td>
<td>25840.58</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Ed Specialist</td>
<td>83437.90</td>
<td>33640.45</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Non Degreed</td>
<td>97000.00</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87580.52</td>
<td>22359.78</td>
<td>657</td>
</tr>
<tr>
<td>Female</td>
<td>Bachelor’s</td>
<td>72501.50</td>
<td>19077.99</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Master’s</td>
<td>88984.15</td>
<td>20807.41</td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
<td>93028.00</td>
<td>26401.84</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Ed Specialist</td>
<td>93787.00</td>
<td>9502.01</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Non Degreed</td>
<td>800598.00</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87986.25</td>
<td>20991.07</td>
<td>217</td>
</tr>
<tr>
<td>Total</td>
<td>Bachelor’s</td>
<td>74667.70</td>
<td>23089.07</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Master’s</td>
<td>88213.50</td>
<td>21422.92</td>
<td>767</td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
<td>93841.30</td>
<td>25659.11</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Ed Specialist</td>
<td>86394.78</td>
<td>28772.31</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Non Degreed</td>
<td>88799.00</td>
<td>11597.96</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87652.84</td>
<td>22068.75</td>
<td>874</td>
</tr>
</tbody>
</table>
A Bachelor’s, Master’s, or Doctorate is a degree designation reflecting earned credits and completed coursework in accordance with traditional collegiate requirements. In the state of Ohio, an Educational Specialist is as a person who holds a minimum of a Master’s degree and has taken additional coursework to specialize in an area such as reading, guidance, leadership, or administration. Table 5 outlines the two-way analysis of variance data for level of education.

Table 5

ANOVA Summary Table for Level of Education

<table>
<thead>
<tr>
<th>Source Type III</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td>35214639.8</td>
<td>.073</td>
<td>.786</td>
<td>.000</td>
</tr>
<tr>
<td>Level of Education</td>
<td>4</td>
<td>9.977E + 9</td>
<td>5.20</td>
<td>.000</td>
<td>.024</td>
</tr>
<tr>
<td>Gender x Level of Education</td>
<td>4</td>
<td>160781237</td>
<td>.335</td>
<td>.854</td>
<td>.002</td>
</tr>
<tr>
<td>Total</td>
<td>874</td>
<td></td>
<td>.335</td>
<td>.854</td>
<td>.002</td>
</tr>
</tbody>
</table>

I used a one-way analysis of variance to examine the impact level of education has on salary. The results indicate there is a statistically significant difference at the p < .05 level in level of education for four groups: $F(4,869) = 5.44, p < .001$. A large effect size in salary exists between a Doctorate degree and a Bachelor’s degree at .78 using Cohen’s d. The final z-score is calculated by subtracting the z-score of the Doctorate group from .50 (the new statistical zero) to show that principals holding a Doctorate degree earn 28% more than those with a Bachelor’s degree. A moderate effect size in salary exists between a Masters and Bachelor’s degree at .60 using Cohen’s d. The final z-score is calculated by subtracting the z-score of the Master’s degree group from .50 (the
new statistical zero) to show that principals holding a Master’s degree earn 22% more than those with a Bachelor’s degree.

Figure 1 provides a visual depiction of the impact level of education has on salary. The members of this population, those with and without a college degree, are located on the x-axis. The y-axis represents the salary range for all participants.

Figure 1. This figure illustrates salary and level of education.

Figure 1. Level of education.

Hypothesis 3: The annual salary of female high school principals will significantly differ from that of male high school principals when taking ethnic background into account.
A two-way between-groups analysis of variance (ANOVA) is the instrument used to examine the relationship between salary, gender, and ethnicity. The first variable, gender, is divided into two categories, male and female. The second variable, ethnicity, contains six subsets: Group 1: White; Group 2: African-American; Group 3: Asian; Group 4: Hispanic; Group 5: Not Specified, and Group 6: Multiracial. The interaction effect between gender and ethnicity on salary is not statistically significant: $F (4, 863) = .16, p = .95$. A statistically significant main effect for ethnicity does exist: $F (4, 863) = 3.15, p = .008$; however, the effect size is very small at .018 partial eta squared. The results indicate that the main effect for gender does not reach statistical significance.

Table 6 outlines descriptive information for the population; gender, ethnicity, and salary.

### Table 6

*Descriptive Statistics for Gender and Ethnicity for Ohio High School Principals*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Ethnicity</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>White</td>
<td>86789.85</td>
<td>22454.98</td>
<td>582</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>96073.23</td>
<td>21771.49</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>87063.66</td>
<td>16170.10</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>90000.00</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Not Specified</td>
<td>82035.36</td>
<td>12921.37</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Multiracial</td>
<td>106808.00</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87580.52</td>
<td>22359.78</td>
<td>657</td>
</tr>
<tr>
<td>Female</td>
<td>White</td>
<td>86233.98</td>
<td>22065.36</td>
<td>162</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>93685.21</td>
<td>17638.44</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>90618.50</td>
<td>22895.41</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>98159.00</td>
<td>13101.59</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Not Specified</td>
<td>73119.33</td>
<td>17532.84</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87871.80</td>
<td>21212.08</td>
<td>217</td>
</tr>
<tr>
<td>Total</td>
<td>White</td>
<td>86668.81</td>
<td>22357.13</td>
<td>744</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>95014.39</td>
<td>19988.64</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>88485.60</td>
<td>16296.53</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>96119.25</td>
<td>11448.88</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Not Specified</td>
<td>80124.75</td>
<td>13789.08</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Multiracial</td>
<td>106808.00</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87652.84</td>
<td>22068.75</td>
<td>874</td>
</tr>
</tbody>
</table>
I am relying on traditional ethnic descriptors and definitions for purposes of understanding this study. Table 7 outlines the two-way analysis of variance data for ethnicity, gender, and salary.

Table 7

**ANOVA Summary Table for Ethnicity**

<table>
<thead>
<tr>
<th>Source Type III</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td>8094.143</td>
<td>0.000</td>
<td>0.997</td>
<td>0.000</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>5</td>
<td>1.523E+9</td>
<td>3.15</td>
<td>0.008</td>
<td>0.018</td>
</tr>
<tr>
<td>Gender * Ethnicity</td>
<td>4</td>
<td>77432635.2</td>
<td>0.160</td>
<td>0.958</td>
<td>0.001</td>
</tr>
<tr>
<td>Total</td>
<td>874</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A one-way analysis of variance is the instrument I used to follow up on the impact of ethnicity on salary. The results indicate there is a statistically significant difference at the $p < .05$ level in ethnicity for four groups: $F(5,863) = 3.29$, $p = .006$. A moderate effect size in salary exists between White and African-American principals at .39 (Cohen’s $d$). It is important to note that the category, Not Specified, is significant as well; however, there are too few members of this population to interpret the data.

In order to calculate the $z$-score, I used the White (total) category as the mean or baseline measurement. The final $z$-score is calculated by subtracting the $z$-score of the African-American group from .50 (the new statistical zero) to show that African-American principals earn 15% more than White principals.

Figure 2 provides a visual depiction of the impact ethnicity has on salary. The members of this population, the ethnicity of the principals, is located on the x-axis. The y-axis represents the salary range for all participants.
Hypothesis 4: The annual salary of female high school principals will significantly differ from that of male high school principals when taking school typology into account.

I categorized the school typology variable by using the Typology of Ohio School Districts chart, created by the Ohio Department of Education in 2013 after the most recent United States Census. The purpose of the chart is to provide updated typology information reflective of the community surrounding the school district. The importance of these data is that they determine the level of funding provided to each district, and they provide an economic snapshot of the community relative to all other communities within the state of Ohio.
A two-way between-groups analysis of variance is the instrument used to examine the relationship between salary, gender, and typology. The population is gender specific and the typology is categorically specific. The district typology variable contains nine subsets: Group 1: Rural and High Poverty; Group 2: Rural and Average Poverty; Group 3: Small Town and Low Poverty; Group 4: Small Town and High Poverty; Group 5: Suburban and Low Poverty; Group 6: Suburban and Very Low Poverty; Group 7: Urban and High Poverty; Group 8: Urban and Very High Poverty, and Group 9: Not Reported in Typology. The interaction effect between gender and school typology on salary is not statistically significant: $F(8, 856) = 1.46, p = .17$. A statistically significant main effect for school typology does exist: $F(8, 856) = 44.2, p = <.001$ and the effect size is moderate at .030 partial eta squared. The results indicate that the main effect for gender does not reach statistical significance. Table 8 outlines descriptive information for the population.

Table 8

*Descriptive Statistics for the Gender and Typology for Ohio High School Principals*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Typology</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Rural/High Poverty</td>
<td>76289.83</td>
<td>21652.40</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td>Rural/Average Poverty</td>
<td>78534.45</td>
<td>17853.00</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Small Town/ Low Poverty</td>
<td>85913.06</td>
<td>16691.53</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Small Town/High Poverty</td>
<td>88665.53</td>
<td>15132.99</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Suburban/ Low Poverty</td>
<td>99105.80</td>
<td>21346.10</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Suburban/Very Low Poverty</td>
<td>110676.88</td>
<td>18493.01</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Urban/High Poverty</td>
<td>98000.57</td>
<td>19216.88</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Urban/Very High Poverty</td>
<td>100982.56</td>
<td>11484.76</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Not Reported in Typology</td>
<td>63047.34</td>
<td>24200.72</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87580.52</td>
<td>22359.78</td>
<td>657</td>
</tr>
</tbody>
</table>

(continued)
Table 8

*Descriptive Statistics for the Gender and Typology for Ohio High School Principals* (continued)

<table>
<thead>
<tr>
<th></th>
<th>Female Rural/High Poverty</th>
<th>Rural/Average Poverty</th>
<th>Rural/Average Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>76493.57</td>
<td>18686.40</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>74062.15</td>
<td>16413.24</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Small Town/Low Poverty</td>
<td>92040.62</td>
<td>10877.79</td>
</tr>
<tr>
<td></td>
<td>Small Town/High Poverty</td>
<td>79991.66</td>
<td>10001.00</td>
</tr>
<tr>
<td></td>
<td>Suburban/Low Poverty</td>
<td>100371.65</td>
<td>12445.75</td>
</tr>
<tr>
<td></td>
<td>Suburban/Very Low Poverty</td>
<td>118528.83</td>
<td>8214.577</td>
</tr>
<tr>
<td></td>
<td>Urban/High Poverty</td>
<td>97283.85</td>
<td>20191.99</td>
</tr>
<tr>
<td></td>
<td>Urban/Very High Poverty</td>
<td>98356.42</td>
<td>14038.75</td>
</tr>
<tr>
<td></td>
<td>Not Reported in Typology</td>
<td>69847.13</td>
<td>20457.31</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87871.80</td>
<td>20457.31</td>
</tr>
</tbody>
</table>

|                | Total Rural/High Poverty | 76312.11              | 21281.25              | 128 |
|                | Rural/Average Poverty    | 77690.62              | 17602.78              | 106 |
|                | Small Town/ Low Poverty  | 86758.24              | 16117.75              | 116 |
|                | Small Town/ High Poverty | 87134.85              | 14699.37              | 102 |
|                | Suburban/Low Poverty     | 99384.01              | 19681.90              | 91  |
|                | Suburban/Very Low Poverty| 112172.49             | 17246.21              | 63  |
|                | Urban/ High Poverty      | 97772.53              | 19378.96              | 66  |
|                | Urban /Very High Poverty | 99788.86              | 12716.89              | 110 |
|                | Not Reported in Typology | 66447.23              | 22544.55              | 92  |
|                | Total                    | 87652.84              | 22068.75              | 874 |

The definitions for each typology category are, in effect, outlined as written. The category of “Not Reported” reflects schools such as community schools that do not report within a traditional school district within the state of Ohio. Table 9 outlines the two-way analysis of variance data for typology, gender, and salary.
Table 9

ANOVA Summary Table for School Typology

<table>
<thead>
<tr>
<th>Source Type</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td>55403744.4</td>
<td>.170</td>
<td>.681</td>
<td>.000</td>
</tr>
<tr>
<td>Typology</td>
<td>8</td>
<td>1.443E+10</td>
<td>44.2</td>
<td>.000</td>
<td>.292</td>
</tr>
<tr>
<td>Gender x Typology</td>
<td>8</td>
<td>477434397</td>
<td>1.46</td>
<td>.167</td>
<td>.013</td>
</tr>
<tr>
<td>Total</td>
<td>874</td>
<td>874</td>
<td>1.46</td>
<td>.167</td>
<td>.013</td>
</tr>
</tbody>
</table>

A one-way analysis of variance is the instrument I used to follow up on the impact of ethnicity on salary. The results indicate there is a statistically significant difference at the p < .05 level in typology for eight groups: $F(8,865) = 54.12, p < .001$.

Since each category appears to be significant, the best way to organize the effect size and z-score for this research question was in the form of a table. Table 10 provides a summary of the effect size for each group.

Table 10

Calculations of Effect Size on Ohio High School District Typology Within All Categories

<table>
<thead>
<tr>
<th>Type</th>
<th>R/HP</th>
<th>R/AP</th>
<th>ST/LP</th>
<th>ST/HP</th>
<th>S/LP</th>
<th>U/HP</th>
<th>U/VHP</th>
<th>S/VLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/HP</td>
<td>x</td>
<td>.07</td>
<td>.55</td>
<td>.59</td>
<td>1.12</td>
<td>1.05</td>
<td>1.33</td>
<td>1.85</td>
</tr>
<tr>
<td>R/AP</td>
<td>.07</td>
<td>x</td>
<td>.53</td>
<td>.58</td>
<td>1.16</td>
<td>1.08</td>
<td>1.43</td>
<td>1.97</td>
</tr>
<tr>
<td>ST/LP</td>
<td>.55</td>
<td>.53</td>
<td>x</td>
<td>.02</td>
<td>.70</td>
<td>.61</td>
<td>.89</td>
<td>1.52</td>
</tr>
<tr>
<td>ST/HP</td>
<td>.59</td>
<td>.58</td>
<td>.02</td>
<td>x</td>
<td>.70</td>
<td>.61</td>
<td>.92</td>
<td>1.56</td>
</tr>
<tr>
<td>S/LP</td>
<td>1.12</td>
<td>1.16</td>
<td>.70</td>
<td>.70</td>
<td>x</td>
<td>.08</td>
<td>.02</td>
<td>.69</td>
</tr>
<tr>
<td>U/HP</td>
<td>1.05</td>
<td>1.08</td>
<td>.61</td>
<td>.61</td>
<td>.08</td>
<td>x</td>
<td>.12</td>
<td>.78</td>
</tr>
<tr>
<td>U/VHP</td>
<td>1.33</td>
<td>1.43</td>
<td>.89</td>
<td>.92</td>
<td>.02</td>
<td>.12</td>
<td>x</td>
<td>.81</td>
</tr>
<tr>
<td>S/VLP</td>
<td>1.85</td>
<td>1.97</td>
<td>1.52</td>
<td>1.56</td>
<td>.69</td>
<td>.78</td>
<td>.81</td>
<td>x</td>
</tr>
</tbody>
</table>

The z-score calculations for the Rural and High Poverty category are listed in Table 11. An example of interpretation is that 46% of principals in the Suburban and
Very Low Poverty category earn more than members in the Rural and High Poverty category.

Table 11

*Calculations of z-score With Rural High Poverty as the Mean Typology*

<table>
<thead>
<tr>
<th>Type</th>
<th>R/HP</th>
<th>R/AP</th>
<th>ST/LP</th>
<th>ST/HP</th>
<th>S/LP</th>
<th>U/HP</th>
<th>U/VHP</th>
<th>S/VLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-score</td>
<td>x</td>
<td>.07</td>
<td>.70</td>
<td>.72</td>
<td>.86</td>
<td>.85</td>
<td>.90</td>
<td>.96</td>
</tr>
<tr>
<td>% above mean</td>
<td>2%</td>
<td>20%</td>
<td>22%</td>
<td>36%</td>
<td>35%</td>
<td>40%</td>
<td>46%</td>
<td></td>
</tr>
</tbody>
</table>

The z-score calculations for the Rural and Average Poverty category are listed in Table 12. An example of interpretation is that 47% of principals in the Suburban and Very Low Poverty category earn more than members in the Rural and High Poverty category.

Table 12

*Calculations of z-score With Rural and Average Poverty as the Mean Typology*

<table>
<thead>
<tr>
<th>Type</th>
<th>R/AP</th>
<th>ST/LP</th>
<th>ST/HP</th>
<th>S/LP</th>
<th>U/HP</th>
<th>U/VHP</th>
<th>S/VLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-score</td>
<td>.x</td>
<td>.70</td>
<td>.71</td>
<td>.87</td>
<td>.85</td>
<td>.92</td>
<td>.97</td>
</tr>
<tr>
<td>% above mean</td>
<td>20%</td>
<td>21%</td>
<td>37%</td>
<td>35%</td>
<td>42%</td>
<td>47%</td>
<td></td>
</tr>
</tbody>
</table>

The z-score calculations for the Small Town and Low Poverty category are listed in Table 13. An example of interpretation is that 43% of principals in the Suburban and Very Low Poverty category earn more than members in the Small Town and Low Poverty category.
Table 13

*Calculations of z-score With Small Town and Low Poverty as the Mean Typology*

<table>
<thead>
<tr>
<th>Type</th>
<th>ST/LP</th>
<th>ST/HP</th>
<th>S/LP</th>
<th>U/HP</th>
<th>U/VHP</th>
<th>S/VLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-score</td>
<td>x</td>
<td>ns</td>
<td>.75</td>
<td>.72</td>
<td>.81</td>
<td>.93</td>
</tr>
<tr>
<td>% above mean</td>
<td></td>
<td></td>
<td>25%</td>
<td>28%</td>
<td>31%</td>
<td>43%</td>
</tr>
</tbody>
</table>

The z-score calculations for the Small Town and High Poverty category are listed in Table 14. An example of interpretation is that 44% of principals in the Suburban and Very Low Poverty category earn more than members in the Small Town and High Poverty category.

Table 14

*Calculations of z-score With Small Town and High Poverty as the Mean Typology*

<table>
<thead>
<tr>
<th>Type</th>
<th>ST/HP</th>
<th>S/LP</th>
<th>U/HP</th>
<th>U/VHP</th>
<th>S/VLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-score</td>
<td>x</td>
<td>.75</td>
<td>.72</td>
<td>.82</td>
<td>.94</td>
</tr>
<tr>
<td>% above mean</td>
<td></td>
<td>25%</td>
<td>28%</td>
<td>32%</td>
<td>44%</td>
</tr>
</tbody>
</table>

The z-score calculations for the Suburban and Low Poverty category are listed in Table 15. An example of interpretation is that 25% of principals in the Suburban and Very Low Poverty category earn more than members in the Suburban and Low Poverty category.

Table 15

*Calculations of z-score With Suburban and Low Poverty as the Mean Typology*

<table>
<thead>
<tr>
<th>Type</th>
<th>S/LP</th>
<th>U/HP</th>
<th>U/VHP</th>
<th>S/VLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-score</td>
<td>x</td>
<td>ns</td>
<td>ns</td>
<td>.75</td>
</tr>
<tr>
<td>% above mean</td>
<td></td>
<td></td>
<td></td>
<td>25%</td>
</tr>
</tbody>
</table>
The z-score calculations for the Urban and High Poverty category are listed in Table 16. An example of interpretation is that 28% of principals in the Suburban and Very Low Poverty category earn more than members in the Urban and High Poverty category.

Table 16

*Calculations of z-score With Urban and High Poverty as the Mean Typology*

<table>
<thead>
<tr>
<th>Type</th>
<th>U/HP</th>
<th>U/VHP</th>
<th>S/VLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-score</td>
<td>x</td>
<td>ns</td>
<td>.78</td>
</tr>
<tr>
<td>% above mean</td>
<td></td>
<td></td>
<td>28%</td>
</tr>
</tbody>
</table>

The z-score calculations for the Urban and Very High Poverty category are listed in Table 17. An example of interpretation is that 28% of principals in the Suburban and Very Low Poverty category earn more than members in the Urban and Very High Poverty category.

Table 17

*Calculations of z-score With Urban and Very High Poverty as the Mean Typology*

<table>
<thead>
<tr>
<th>Type</th>
<th>U/VHP</th>
<th>S/VLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>z-score</td>
<td>x</td>
<td>.79</td>
</tr>
<tr>
<td>% above mean</td>
<td></td>
<td>29%</td>
</tr>
</tbody>
</table>

The information contained in Table 18 provides an overview the impact typology has on salary. The mean salary of principals is located in the column that corresponds with the typology showing the impact poverty has on the overall salary of the high school principals employed within that district. This post-hoc comparison, using the Turkey’s HSD test, indicates a mean score for typology to be statistically significant in every group.
not categorized with a pair in the chart. The main effect for gender did not reach statistical significance.

Table 18

Typology Subsets With Similar Mean Scores Demonstrated in a Tiered Table Format

<table>
<thead>
<tr>
<th>Typology</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Reported</td>
<td>92</td>
<td>66</td>
<td>447.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural/High Poverty</td>
<td>128</td>
<td></td>
<td></td>
<td>763</td>
<td>12.11</td>
<td></td>
</tr>
<tr>
<td>Rural/Average Poverty</td>
<td>106</td>
<td></td>
<td></td>
<td>776</td>
<td>90.62</td>
<td></td>
</tr>
<tr>
<td>Small Town/Low Poverty</td>
<td>116</td>
<td></td>
<td></td>
<td>867</td>
<td>58.24</td>
<td></td>
</tr>
<tr>
<td>Small Town/High Poverty</td>
<td>102</td>
<td></td>
<td></td>
<td>871</td>
<td>34.85</td>
<td></td>
</tr>
<tr>
<td>Urban/High Poverty</td>
<td>66</td>
<td></td>
<td></td>
<td>977</td>
<td>72.53</td>
<td></td>
</tr>
<tr>
<td>Suburban/Low Poverty</td>
<td>91</td>
<td></td>
<td></td>
<td>993</td>
<td>84.01</td>
<td></td>
</tr>
<tr>
<td>Urban/Very High Poverty</td>
<td>110</td>
<td></td>
<td></td>
<td>997</td>
<td>88.86</td>
<td></td>
</tr>
<tr>
<td>Suburban/Very Low Poverty</td>
<td>63</td>
<td></td>
<td></td>
<td>112</td>
<td>172.49</td>
<td></td>
</tr>
</tbody>
</table>

Note. a Uses Harmonic Mean Sample Size = 92.171.
    b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
    c Alpha = .05.

The graphic of Figure 3 provides a visual depiction of the impact typology has on salary. The members of this population, the typology of the district of each principal, is located on the x-axis. The y-axis represents the salary range for all participants.
I examined the typology, gender, level of education, and ethnicity subset further to try and capture where all (ha-ha) of the female principals were actually working. After all, I am searching for Superwoman. Table 19 provides a summary of the findings for the female high school principals in this study.
Table 19

Ohio High School Female Principals, Degree, Ethnicity, Typology, for the 2015-2016 Year

<table>
<thead>
<tr>
<th>Typology</th>
<th>N Female/Total</th>
<th>Ethnicity</th>
<th>Level of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/HP</td>
<td>14/128</td>
<td>14 White</td>
<td>1 Doctorate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13 Masters</td>
</tr>
<tr>
<td>R/AP</td>
<td>20/106</td>
<td>20 White</td>
<td>19 Masters</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Bachelors</td>
</tr>
<tr>
<td>ST/LP</td>
<td>16/116</td>
<td>16 White</td>
<td>15 Masters</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Bachelors</td>
</tr>
<tr>
<td>ST/HP</td>
<td>18/102</td>
<td>15 White</td>
<td>16 Masters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Asian</td>
<td>1 Bachelors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Hispanic</td>
<td>1 Non-Degreed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Not Reported</td>
<td></td>
</tr>
<tr>
<td>S/LP</td>
<td>20/91</td>
<td>16 White</td>
<td>3 Doctorate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 African American</td>
<td>15 Masters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Not Reported</td>
<td>2 Ed Specialist</td>
</tr>
<tr>
<td>S/VLP</td>
<td>12/63</td>
<td>12 White</td>
<td>12 Masters</td>
</tr>
<tr>
<td>U/HP</td>
<td>21/66</td>
<td>14 White</td>
<td>1 Doctorate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 African American</td>
<td>20 Masters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Hispanic</td>
<td></td>
</tr>
<tr>
<td>U/VHP</td>
<td>50/110</td>
<td>24 White</td>
<td>5 Doctorate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 African American</td>
<td>41 Masters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Asian</td>
<td>1 Ed Specialist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Bachelors</td>
<td></td>
</tr>
<tr>
<td>Not Reported</td>
<td>46/92</td>
<td>31 White</td>
<td>1 Doctorate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13 African American</td>
<td>32 Masters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Hispanic</td>
<td>1 Ed Specialist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Not Reported</td>
<td>12 Bachelors</td>
</tr>
</tbody>
</table>

The table includes a listing of only the female high school principals by typology to illustrate the hidden challenges associated with finding Superwoman. The first number, the N is the total number of female principals in this typology as well as the total number of all principals in this typology. The ethnicity column illustrates the ethnicity of female principals within this typology. The level of education column illustrates the highest earned degree of the female principals within this typology.
In conclusion, gender is not a factor in salary in the population examined in this study. The study does not provide evidence to support the following research hypothesis: (1) the annual salary of female high school principals will significantly differ from that of male high school principals during the 2015-2016 school year, (2) the annual salary of female high school principals will significantly differ from that of male high school principals taking level of education into account, (3) the annual salary of female high school principals will significantly differ from that of male high school principals when taking ethnic background into account, and (4) the annual salary of female high school principals will significantly differ from that of male high school principals when taking school typology into account.

While gender, on its own, did not prove to be a factor, it is important to note that in this study, level of education, ethnicity, and typology do matter in terms of salary. I will provide a review of the overall impact of ethnicity, typology, and level of education and their impact on all high school principals’ in Chapter V.
Chapter V
Discussion

*If you exclude 50% of the talent pool, it’s no wonder you find yourself in a war for talent.*

~Theresa Whitmarsh (2014)

Where is she? The question still remains unanswered. The number of women in the role of high school principal, hovering at or around 20%, is consistent holistically as well as categorically within the data. A total of 216 or 24% of public high school principals in the state of Ohio during the 2015-2016 school year were women. A total of 63 public high school principals work in a district with the highest mean salary, Suburban and Very Low Poverty, and 12 of them, or 19%, are women meaning that 19% of a total population of 24% are in the highest mean wage group. Comparatively speaking, a total of 658 or 75% of public high school principals in the state of Ohio during the 2015-2016 school year were men. In the same category of Suburban and Very Low poverty, 51 or 81% are men. Is it possible that women did not apply for the jobs in school districts with the Suburban and Very Low Poverty typology? Is it possible that women do not live in areas designated as Suburban and Very Low Poverty? Is it possible that women, particularly women who identify as anything other than White, do not want to earn as much money as their male counterparts? Perhaps we know the answers. The concepts of feminism, intersectionality, and social networking exist to maintain a real glass ceiling with respect to earnings in the area of educational administration (Crenshaw, 1991; Deal et al., 2009; Wrye, 2009; Yu, 2001).

The examination of salary involves more than simply looking at salary data; it involves trying to uncover hidden factors within salary as well. This study attempts to
find a possible relationship between the limited number of female high school principals in the state of Ohio and the annual salary of all principals with the state of Ohio. In an attempt to explore additional variables that might impact earnings, this study also examines the relationship gender, level of education, school typography, and ethnicity have on annual wages for all high school principals employed in Ohio during the 2015-2016 school year.

**Summary of Findings**

I chose this topic to purposely be a “myth buster.” The examination of historical pay and the myths present since World War I: e.g., that myths such as women’s pay is equal to men’s, women chose jobs that are “women’s jobs” and carry a lower rate of pay, and the economy will suffer if women receive equal pay, are all myths supporting unbalanced power and unequal authority. The themes, woven like thread throughout our national narrative, reinforce the idea of gender as a zero-sum game, really showcasing the concept of invisibility and how sometimes gender can be known, yet not acknowledged (Reynolds et al., 2008).

I examined the EMIS report for the 2015-2016 school year in an attempt to highlight any possible relationships between gender and income. The research questions and supporting data, outlined below, help capture the systemic issue of wage disparity and highlight the fact that gender equity is a river that runs deeper than simply increasing minimum wage.

**Gender and salary.** The first research question examines the annual salary of female high school principals with the intention of showing a significant difference from that of male high school principals during the 2015-2016 school year. The findings
suggest that there is no significant difference in the annual salary between female and male high school principals for the 2015-2016 school year (.02 effect size). It is important to note that the population size for males ($N = 657$) and the population size for females ($N = 217$) means that while the results for males are generalizable, the limited number of females means the results are not generalizable to participants outside of this specific study. Since there are not enough women in the population to even count as a fair or valid assessment of real wages. According to Fowler’s (2009), in order to ensure a 95% confidence interval, the study needs to consist of 500 participants. Since all participants included on the EMIS report are, by default, in the study, the sample size can ensure the 95% confidence interval with an error of 4%. However, it is important to note that the study looked at males versus females, so while the sample size for males topped 650, the sample size for females reflects the number of females in the role, for a total of 216, or a 7% confidence value. The high confidence value associated with the female population means that the study is not generalizable, since one cannot add female participants where they do not already exist.

The mean salary for both males and females is approximately $88,000.00 per year. In context, the median household income in Ohio for the year 2016 was $52,334.00 (U.S. Census, 2017). The salary information used in this study did not factor in additional perks traditionally associated with being a high school administrator such as paid retirement, health benefits, length of contract, or flexible days. The salary reported is the straight salary reported to the Ohio Department of Education in the EMIS system.

**Gender, salary, and level of education.** The second research question examines the annual salary of female high school principals with the intention of showing a
significant difference from that of male high school principals when accounting for level of education. The findings suggest that gender and level of education do not combine to impact salary at a statistically significant level; however, level of education does impact salary at a statistically significant level.

Male and female high school principals with a Doctorate degree will earn 28% more than their colleagues with a Bachelor’s degree and male and female high school principals with a Master’s degree will earn 22% more than their colleagues with a Bachelor’s degree. I did not calculate the difference in pay between high school principals and principals without any degree or an Educational Specialist degree due to the limited number of persons in each category.

**Gender, salary, and ethnicity.** The third research question examines the annual salary of female high school principals with the intention of showing a significant difference from that of male high school principals when accounting for ethnicity. The findings suggest that gender and ethnicity do not combine to impact salary at a statistically significant level; however, ethnicity does impact salary at a statistically significant level.

Male and female high school principals identifying as African-American will earn 15% more than their colleagues who identify as White. The difference in pay between principals identifying as Hispanic and Not Reported is significant, but the actual difference is not calculated due to the limited number of principals in this category.

**Gender, salary, and typology.** The fourth research question examines the annual salary of female high school principals with the intention of showing a significant difference from that of male high school principals when accounting for school typology.
The findings suggest that gender and school typology do not combine to impact salary at a statistically significant level; however, school typology does impact salary at a statistically significant level.

Male and female high school principals working in a Suburban and Very Low Poverty district have a combined mean salary higher than every other typology listed. For example, a principal (male or female) working in a Suburban and Very Low Poverty district will earn 47% more than a principal in a Rural and High Poverty district, 43% more than a principal in a Small Town and Low Poverty district, 29% more than a principal in an Urban and Very High Poverty district, 28% more than a principal in an Urban and Very High Poverty district, and 25% more than a principal in a Suburban and Low Poverty district. The category of Not Reported is also important to note as this category represents the 92 public schools, many on-line or charter schools, that do not identify with a particular school district rather function as their own stand-alone district. The Not Reported category has the lowest mean income of $66,447.23 dollars.

**Interpretation of Findings**

The choice to examine gender in this study specifically relates to feminist theory. The current climate, also referred to as the fourth wave of feminism within the United States of America, is ripe with movements supportive of women, #MeToo, Time’s Up, Equal Pay Day, International Women’s Day, and the Women’s March, to name a few. The #MeToo and Time’s Up movements, respectively, bring awareness to instances of sexual harassment and assault in the workplace and affect change by developing action steps to prevent future instances of sexual harassment and assault from occurring in the workplace (Langone, 2018). The Equal Pay Day movement (April 10, 2018) highlights
gender-based wage inequity by showing the total number of days a woman would have to work for free before she begins to earn the same amount as her male colleague. The International Women’s Day movement promotes gender parity. Finally, the Women’s March movement believes in change through political activism. The contemporary activist approach that “feels” new is not new. From the beginning, the feminist movement relied upon parades, picketing, and publicity to fight for suffrage, reproductive rights, and an end to slavery (Hewitt, 2012). Second wave feminists, and the focus on women’s liberation, continue the activist tradition by using the legal system to help advance women’s rights (Lear, 1968). Third wave feminists push traditional socioeconomic barriers and use personal narratives to shift the overall focus away from White women and toward all women (Yu, 2011). Today, social media is the tool women supporting feminist causes are using to mobilize.

Gender equality, in theory, is a concept the majority of Americans support. Gender equality, in practice, is a reality most Americans will not experience. This study examines the impact of gender first, to quantify the uphill battle in the fight for equality.

The choice to examine intersectionality in this study lies in the research supporting the fact that investigating oppression means peeling back multiple layers of inequality (Crenshaw, 1991). Gordon (2016) states that intersectionality: is a buzzword of feminist theory,” with an understanding of power, “. . . in a manner that evacuates questions of power; they use it as a prescription for diversity” and this is an issue because at this level, “. . . intersectionality does nothing to change fundamental inequalities of power. (p. 346)
Evidence to support the systemic reality of intersectionality is present in the justice system, the business world, and in education. The Immigration and Nationality Act of 1990 is an example of intersectionality in the justice system. Crenshaw (1991) cites the law actually forces women to choose between seeking help for domestic violence or face deportation since persons applying for permanent resident status had to remain married for a minimum of two years prior to formal application (Crenshaw, 2016). In business, barriers preventing women from exploring a career versus simply a job include: education level, pregnancy, lack of affordable child care, work-life balance, mental health concerns, transportation, ageism, sexism, uncertainty, and negative work experiences, are the same barriers women face across the socioeconomic board (Clark & Bower, 2015). Finally, in the field of education, “…anti-discrimination policies ask educators to be neutral; yet, nothing and no one is neutral” (Beck, 2016, p. 2).

A society blind to ethnicity, race, and class, is a society that values the holistic contributions of all, not the individual successes of a few. This study examines the impact the level of education, ethnic background, and typology (which is really socioeconomic status) have on determining annual earnings.

The choice to examine gender, education, ethnicity, and typography and the specific impact on public high school principals lies within social network theory, or rather, the attempt to quantify the balance of power and authority. Since power and authority are not interchangeable concepts, stereotypes commonly associated with female leaders increase the probability that female leaders find themselves at a disadvantage simply because of gender. Social network theory examines the relationship between power and authority and how successful leaders use networking to bridge any existing
gender bias within a school setting. Deal et al. (2009) develop social networking theory by examining the business world and looking for patterns also observed in the world of education. Patterns in the business world suggest that some women do not have the same ability as their male peers to fail forward, a phenomenon also known as a glass cliff (Elsaid & Ursel, 2018). The study examines female Chief Executive Officers (CEO) to see if their appointment and longevity is consistent with males (Elsaid & Ursel, 2018). The findings indicate that while female CEOs stay in their role as long, if not longer than males, the initial appointment of a female to the role is dependent upon the company’s current position of approaching or at a level equivalent to failing (Elsaid & Ursel, 2018). In such a case, females in the business world are granted authority, but never really earn power since few employees will rally to support an already sinking ship. This concept is critical as it reinforces the idea that female leaders have to work twice as hard to achieve minimum standards set for their male counterparts. In order to be a successful educational leader, all leaders need: (1) an army of people to help individual mid-level leaders, since almost two-thirds of their time is spent on routine tasks, (2) people to help individual leaders determine what issues to tackle and in what order, and (3) individual leaders need to redirect any efforts toward reform away from human relations and more toward cultural bonds and power-based relationships (Deal et al., 2009). The additional challenges for female leaders include: being more inclusive, showing less emotion, and managing the isolation and loneliness associated with being one of a handful of persons in the role (Oplatka & Mimon, 2008).

The old adage, “it’s not what you know, but who you know,” is alive and well in education. Power and authority, traits consistently identified as “male” traits, are the
cornerstone for success, even in an educational system shaped by labor unions under the veil of equality. This study examines the relationship between jobs in the highest paying districts and how social networks play a role in obtaining those jobs.

The four research questions and subsequent results combine to show that trying to uncover systemic inequities is quite a challenge. The first research question is really a surface level question, a softball-styled question connecting to feminism, to see if the disparity in income is so glaring that it really is visible to the naked eye. In this case, the number of females in the population eliminates any possible generalizations related to income and force a closer look at what the data is actually saying.

The second, third, and fourth research questions ask the reader to consider the impact of education, ethnicity, and class, all components of intersectionality, on annual income. The results do not indicate statistical significance in the category of gender; however, an examination of areas potentially impacted by gender requires reframing the question. The area of education and income affects all members of this population, simply stated, spend the money to get the degree, it will pay off in the long run. The area of ethnicity is relative to persons thinking about becoming an administrator. The results suggest that, while small, districts are indeed willing to hire and pay more for persons with a diverse ethnic background. The area of typology, the most interesting to me, is a study in class. A few observations about the results: (1) the majority of female public high school administrators work in districts with the overall lowest mean salary, (2) the second highest majority of female public high school administrators work in districts located in urban areas with high poverty, (3) the districts with the highest overall mean employed only 12 total women, all with Master’s degrees and all White, during the 2015-
2016 school year, and (4) three districts (Urban and High Poverty, Urban and Very High Poverty, and Suburban and Low Poverty) combine to generate an overall mean salary that is statistically insignificant - meaning that traditional notions about urban schools potentially lacking of money to hire good administrators would appear to be false. They have the money.

The implications of this study can help reframe the conversation about feminism in the sense that some women have figured out that applying for and winning jobs in urban areas will reap financial rewards. Comparatively speaking, other women, women working in online schools, charter schools, or schools outside of traditional district boundaries are taking jobs whereby they will never financially catch up to their female colleagues in suburbia who are making almost $50,000.00 more per year. The results suggest that there are, indeed, women who possess the licensure, degree, and desire to work in an administrative capacity, so from a feminist perspective, how can women stop circumventing and actually shatter the glass ceiling?

The implications of this study can help reframe the conversation about intersectionality because it does matter. The results indicate that ethnicity, level of education, and typology are additional factors, in addition to gender, worth consideration when examining income. A female high school principal working in the top paying districts in the state can afford, on the salary difference of $50,000.00 alone, to continue her education, physically relocate, and continue climbing the ladder. The impact of ethnicity should be concerning when examining the “who” in the top district versus the “who” in the second, third, and fourth highest paying districts. Perhaps it is a coincidence that every female in the Suburban and Very Low Poverty category is White. Perhaps it
aligns with social networking and our societal views of authority and power. The idea that a female high school principal has to not only prove her worth in terms of education, diversity, and commitment, while also managing traditional gender roles all while creating professional networks to try and advance her career is daunting. It is, in fact, asking for someone unrealistically to be superwoman.

**Context of Findings**

The study uses data from the Ohio Department of Education representing the 2015-2016 school year. As such, it is a snapshot in time, not meant to be an overarching view of what salary has or will be; rather it serves as a representative sample of a specific population’s salary and the impact additional factors have on salary in one school year.

The findings in this study only reflect the 2015-2016 school year and will not reflect personnel changes occurring after the study. The salary information does not include additional perks sometimes provided to administrators such as retirement pay or benefit information. The data included only members of the principal cohort (EMIS reporting category 108) and reflects only public high schools within the state of Ohio. Additionally, I removed members of the principal cohort that were not salaried employees from the data set. It is important to use these data as part of the larger, ongoing conversation about gender and salary as the study really created more questions than it answered.

**Implications of Findings**

Something is still missing. The findings indicate that on the surface, women actually earn almost the same as their male peers. The issue with that initial interpretation is that the limited sample size of females makes that statement false. The study results do
not prove anything other than in 2015-2016, the 24% of women employed as a principal in the state of Ohio did not earn statistically more or less than their male counterparts. In order to make a general statement about the equality of pay, more women need to actually be principals.

The findings indicate that level of education matters with respect to earnings. The 22% and 28% increase with a Master’s and Doctorate degree, respectively, mean that the investment in education will, literally, pay off.

The findings indicate that ethnicity matters with respect to earnings. The fact of the matter is that while the data supports an increase in salary for African American principals, the number of African American principals, or any other minority for that matter, remains shockingly low compared to the number of White males in this role. For example, when examining female high school principals, notice the majority of African American principals are working in an Urban/Very High Poverty district or they are working in a school that does not report in the area of typology. Additionally, African American female high school principals account for a mere 21% of female high school principals in Ohio. A reminder that females, in general, only account for a total of 24% of public high school principals, so take an already small total percentage (24%) and factor in the even smaller total African American female high school principal at 21%, and the picture becomes clear as to how small African American representation is within this population. The numbers are even worse when examining the female high school principals that reported as Asian or Hispanic. Finally, the overwhelming percentage, both male and female, of White high school principals is cause for further discussion. The ethnicity of the student population in Ohio cannot possibly mirror the ethnicity of the
majority of the public high school administrative population at 85% as evidenced in this study.

The findings indicate that typology is the factor that matters the most when trying to figure out where Superwoman is located within this population. In fact, typology matters when trying to figure out where any public high school administrator is located, the largest mean salary within the state, and where ethnicity, or lack thereof, really shines. Table 19 outlines all four research questions in an attempt to highlight the socioeconomic disparities within the state of Ohio. The first observation is that the highest paying school districts employed 12 White women during the 2015-2016 school year. A deeper dive will also show that out of the 51 males that round out the 63 schools within this study designated as a Suburban and Very Low Poverty school, 46 are White and the remaining 5 are African American. Contrast that to the lowest paying districts in the state of Ohio, the typology of Not Reported, with 46 females and 46 male high school principals, and notice White females and White males outnumber any other ethnic group. The only typology category that even comes close to an ethnic balance is that of Urban and Very High Poverty with 25 African American women, 24 White women, 33 African American men, and 24 White men. Keep in mind that the Urban and Very High Poverty typology has the second highest mean salary within the state of Ohio during the 2015-2016 school year.

The study really creates more questions for future research opportunities. A snap shot in time is a valid starting point, but realistically, are there trends missing that might be observable in a longitudinal study?
Limitations of the Study

**Methodological limitations.** The information involves one state, Ohio, and the persons employed as high school principals during one school year, 2015-2016. The sample size includes 874 unique participants; however, since each state does not report the same information in the same manner, a limitation of the study is the generalizability of the study to other states. The number of female participants, 216, is another factor in the generalizability of the study. Additionally, the scope of the research includes only one of fifty states within the United States. Finally, the lack of pre-existing research on this specific topic is a limitation because I was unable consult additional studies for best practice.

**Future Research Directions**

I would advise to keep searching for superwoman. She exists, she is earning the degree, obtaining the license, applying for positions in administration, but something is still preventing her from being more than 20%.

One suggestion would be to conduct a qualitative study in conjunction with the quantitative data to provide an opportunity for women to share their actual experiences, to really hear their voice. Female high school principals would be willing to share their experiences and would find value in reading that they are not alone in their struggle to be all to all. I often think women in positions of power and authority are afraid to show vulnerability; yet the feeling of vulnerability is a shared feeling, one that might help other aspiring female administrators find strength to pursue job opportunities at the high school level.
A second suggestion for future research would be to continue to research this specific topic. Current literature with respect to female high school principals and wage disparity is very limited. The information is public record, so researchers can access the data. We need to keep looking for the real, perceived, and hidden factors behind the lack of female representation in the role of high school principal.

A third suggestion for future research would be to examine the actual hiring process itself. For example, start with the application process, transition to the interview process, and the conclude with the hiring decision. I suspect that females are applying for the position, perhaps not to the extent of males; however, it is important to investigate if bias in inherent or actually present during the hiring process. After an examination of the hiring process, a follow up interview with the female candidates not chosen for the position would add further insight for the researcher.

A fourth suggestion for future research would be to examine if established peer mentoring programs exist for aspiring female administrators. If such a program exists, the next step would be to study the impact a female mentor has on the career advancement of female teachers.

When I reflect on this study, I wish I would have been able to access data indicating the total number of years each principal has been in education. The state of Ohio started collecting these data for principals during the 2017-2018 school year and since the data are a year in the rears, it would have meant waiting another calendar year to complete the study. I also wish I would have developed additional research questions to focus on the birth year of each principal since I suspect ageism is another intersectional factor at play in the employment and salary of female high school principals.
Inside each little girl, a superwoman is waiting. I challenge researchers to continue this academic fight to help her find her voice; she already knows her place.
References


Ohio Department of Education (2014). *Staff data*. Retrieved from https://education.ohio.gov/Topics/Data/Frequently-Requested-Data/Staff-Data


United States Census Bureau. (May 12, 2011). *2010 Census demographic profiles.* Retrieved from https://www2.census.gov/census_2010/03-Demographic_Profile/Ohio/


Appendices
Appendix A

IRB Approval

February 7, 2018

Dr. Jane Beese, Principal Investigator
Ms. Holly Schafer, Co-investigator
Department of Counseling, School Psychology & Educational Leadership
UNIVERSITY

RE:   HSRC PROTOCOL NUMBER: 088-2018
      TITLE: Searching for Superwoman: A Statewide Analysis on the Pay of Female High School Principals

Dear Dr. Beese and Ms. Schafer:

The Institutional Review Board has reviewed the abovementioned protocol and determined that it is exempt from full committee review based on a DHHS Category 4 exemption.

Any changes in your research activity should be promptly reported to the Institutional Review Board and may not be initiated without IRB approval except where necessary to eliminate hazard to human subjects. Any unanticipated problems involving risks to subjects should also be promptly reported to the IRB.

The IRB would like to extend its best wishes to you in the conduct of this study.

Sincerely,

Mr. Michael Hripko
Associate Vice President for Research
Authorized Institutional Official

MAH:cc

c: Dr. Jake Protivnak, Chair
   Department of Counseling, School Psychology & Educational Leadership
Appendix B
ODE Records Request

Dr. Rose,

Good afternoon. I am in the process of working on a research project sponsored by YSU and I am writing to request an Excel spreadsheet with the following information:

Reporting categories for all full-time Ohio Public High School Principals for the 2015-2016 school year.

1. Gender (CI090)
2. Racial/Ethnic Group (CI080)
3. Education Level (CI100)
4. Total years of experience (CI210)
5. School typology category (CI040) - does this categorize the district to the EMIS coding system of 1-8?
6. Salary for the 2015-2016 school year
7. District IRN#

Thank you very much,
Holly J. Schafer