A Societal Analysis of Females in Education

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A Societal Analysis of Females in Education

By

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Introduction

The education of females in America has been a process that can be traced back to the formation of America. Many historians examined the history of female education. The majority of these researchers provide the outlook that women still have a long way to come in order to receive an appropriate and equal education. The following study examines the works of historians that focus on the history of female education in the United States. Through examining these works, the current researcher finds that women are no longer behind in education. Instead, the researcher finds that women have surpassed men in education in the sense that females earn more degrees than men do at all levels of higher education with an exception of the doctoral degree.

The current researcher became interested in why women increased their involvement in education. During the later half of the twentieth century people’s attitudes towards women and their roles began to shift, which is one reason women began to participate in schooling in larger numbers. One can observe the shift in attitudes by listening to and analyzing music lyrics from the 1950s to present day. After analyzing music lyrics to study how attitudes about women changed, it is obvious to see that women have become more self-reliant beings.

Despite significant gains in education for women, females in America still fall behind males in different areas. One issue for women in the 21st century is the difference of incomes between men and women. Despite women earning more degrees than men earn, women’s median income remains significantly lower than men’s income. Americans contribute this issue to several factors such as child
bearing and career choice. Overall, the majority of women do not choose careers that earn high amounts of money.

The current researcher became interested in whether or not the current trend of women earning degrees in higher numbers than men would continue through the early half of the twenty-first century. The researcher was also interested in finding out what subjects the current students are interested in. In order to determine this, the researcher surveyed local seventh and eighth grade students. The researcher was interested in finding ways to get male and female students interested in careers that they would usually not know about or be interested in. One method the researcher surveyed today’s students on was job shadowing and if this would help students decide a career or get them interested in careers they do not know about.

The researcher found out important information throughout this whole study that is important to spread to other educators. The final part of the study is a workshop designed by the researcher that would inform other educators on the history of women in education and on today’s students. Through this workshop, it is the researcher’s desire for current educators to discuss practices they use in the classroom that could impact females’ decision on higher education. Current educators will also have an opportunity to discuss how outside influences, such as media and politics impact a female’s decision to participate in higher education and their career choices. Educators will be provided an exploratory session to brainstorm strategies for working with girls in the classroom. Also included in the session is time to discuss the current curriculum and its positives and negatives toward educating females.
Overall, females have made vast improvements in education, but there are always ways to make things better.
Part 1

The education of women in America has been a long and evolving process. One can see this just by examining different works from historians. The early works in the history of female education come from the participants in the movement themselves. In many of these works there is little analysis done of the overall successes in the evolving process. Instead, these works offer the outlook that there is still more to come in order for women to receive an appropriate and equal education. There is little research done on the early years of the United States. Instead, works done during this time tend to highlight important individuals instead of analyzing reasons of female involvement or the lack of involvement in education. There is an even smaller amount of research done on women in education after the first part of the 1800s up through the American Civil War. There is a gap in thorough research from approximately 1830 to 1870. During this time, historians mainly mention women as founders of the abolition movement. Despite the beginnings of the women’s movement, there is little investigation into actual female education during much of this period. Many historians focus on the progressive era and women during this time. When looking at the middle of the 20th century, historians mention how there is increases for women involved in education.

It is not until the 1970s, that historians begin to thoroughly examine several aspects of the history of education in order to offer explanations about female involvement in the institutions. During this time, these writers were still a part of the formation of the modern day education system. These historians write about what they are examining and mention how there is still a ways to go. In the last decade of
the 20th century and the beginning of the 21st century, historians began an in depth analysis of female involvement in the American education system. Readers get many good analyses of the history of education from different perspectives and emphasis on different aspects of the history.

In order to get a full understanding of the progression, one must look back to the early republic when the country was building its foundations. In many cases, historians overlook this period because people traditionally view women of this time as private and domestic creatures. New research suggests that this was not always the case implying that one must begin the journey of American female education right at the commencement of the United States. One must begin by examining the female role in society during the early republic and how they influenced society despite the female duties that restricted women to the home. Historians focus on the role of women in public speaking, women and their political voice in the early republic, the impact of female academies and seminaries, and on women’s intellectual ability and vocational studies to benefit themselves. Unfortunately, there is not much literature on the period just before and after the American Civil War. Many historians seem to skip this period in studying the history of female education.

Research of this topic begins to increase again around the 1870s probably because historians are looking for reasons for educational change during the progressive era. Historians who study this time look at the numbers by analyzing charts and statistics on who was involved in education and who was not involved. This data is much more widely available during this period than it is in previous
times. One perspective that historians leave out of much of this analysis is the examination of the process of being male versus female.

There is a significant increase in the amount of research done on the second half of the 20th century. One can contribute much of this to a major increase in women’s participation outside the domestic realm. Historians typically research this time by examining the amount of women participating in educational institutions. They also examine some political and social changes that contribute to the change in education. There are many resources available during this period for historians to examine. There is also an increase in social organizations and social activism designed specifically to assist females in their fight for equality, which encompasses education.

In the late eighteenth century, people tend to look at women as domestic beings whose main purpose is to raise the children and take care of the home. Historian Carolyn Eastman in “The Female Cicero: Young Women’s Oratory and Gendered Public Participation in the Early American Republic” (2007) agrees with this idea, but expands the female role to more than this. She uses evidence from Anna Harrington’s 1793 speech to a Massachusetts school to show that people defending the need to educate women took the stance those women needed education in order to better raise the children. Many historians refer to this argument as “republican womanhood” or “republican motherhood”. Eastman then continues her argument by examining the content of Harrington’s speech and declares that historians need to “re-examine the longstanding historical presumption that, on the whole, social custom forbade women from public speaking during the early decades
of the new nation.”¹ In other words, Harrington’s speech proves that women were actually participating in public speaking during the first few decades of the nation, which adds new twists to the idea of women as only domestic and private creatures. Eastman suggests, “Republican motherhood was by no means the only model for women seeking to define their roles in the post-revolutionary era.”²

Historian Carolyn Eastman offers a broader approach than most historians do towards women of the early republic. She argues that some women were receiving an education, which emphasized oral recitation and performance. She goes on to explain that this type of curriculum taught girls that educated women had an important role in American culture, which expanded their position away from a domestic or private responsibility. Eastman claims that educators did not only direct this type of education to the elite. She states “transmitted via standard, inexpensive schoolbooks and in common schools and female academies, they reached virtually all who read schoolbooks or attended school.”³ However, she does go on to declare that elite urban girls had more access to ideas that fostered women into social creatures that spoke publicly. Her participation in this type of curriculum opened up a range of possibilities for female public involvement.

In her research, she notes that one must change the way they view public speaking, in order to agree that women were social creatures that could use their speech to impact society. She claims that the term public refers to sociable. In the contemporary view of public speaking, one would envision a person delivering a

² Ibid, 260.
³ Ibid, 261.
formal speech to a large audience at some type of formal social gathering. This was not the sole view of public speaking at the end of the 18th century. People of the early republic viewed public speaking as a more social type of conversation during this time. Women could be spending the majority of their time in the home, but still participating in the public conversation. In changing one’s viewpoint of public speaking to thinking in terms of those who lived in the early decades of the United States, one can begin to understand that women did affect society through their public speaking. Therefore an education that consisted of oral recitation and performance was imperative not only to child raising but to having positive influences in the public sphere.

Eastman concludes her article with the view of women as public individuals changing by 1810 because their role in society shifted greatly. By this time, there is a transformation away from girls delivering public speeches such as at commencement ceremonies and females expressions of hopes and dreams. Between 1810 and 1820 attitudes toward female education changed. Eastman states “during these years and particularly by the 1820s, authors increasingly turned away from the open-ended notion of women’s education as intrinsically valuable, advocating instead more gender-specific educational subjects as well as more delimited roles for women in society at large.” It was during this time that women became the private woman that people tend to think of when mentioning women in American history. Eastman highlights two fundamental shifts in American culture in order to show the reasons for this backward transition. The first reason she offers is “political culture began to

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move away from privileging the public contributions of elite, educated women during the early Republic.\textsuperscript{5}

Eastman goes on to examine the impact of William Godwin’s 1798 biography of Wollstonecraft, an educated woman during the early republic. This biography paved the way for a re-evaluation of female education leading to a curriculum change to be more gender specific in order to teach females how to be ladies. The idea of an educated woman began to seem unattractive and unfeminine. Educators now taught women to be modest individuals. When examining Eastman’s historical analysis of women’s participation in education, one can draw the conclusion that female education was not always separate from men. At the birth of the United States, select women received education alongside men. However, this changed as the role of American women reversed to become a more silent and private creature.

After reading historian Nina Baym’s book review from the \textit{American Historical Review} (2008) on Caroline Winterer’s \textit{The Mirror of Antiquity: American Women and the Classical Tradition} one can see that Eastman is not the only historian to believe that women of the early republic were involved in education more than their historical stereotype credits them to. Baym claims that Winterer takes the approach of “classicism” which stems back to Greece and Rome. In reviewing Winterer’s book, Baym claims that “without disturbing the male-female hierarchy or upsetting conventional notions of women’s place, classical version of the female helped four generations of American women gain respect and influence in public

\textsuperscript{5} Ibid, 275.
life." The idea of “republican motherhood” gave elite women a political voice, despite being mainly restricted to the household. This was because the idea led to discussions about females’ role in society. Overtime, this led to the expansion of female education.

Historian Amy Thompson McCandless reviewed a book (2007) written by historian Mary Kelley titled *Learning to Stand and Speak: Women, Education, and Public Life in America’s Republic* (2006). This review and book further proves the implication that one must examine women in the early republic in order get a complete understanding of the history of female education in America. In McCandless’ review of Kelley’s book one can see that the book emphasizes that women were key contributors to the early republic, which negates any stereotype that women were private creatures. Thompson notes that Kelley suggests that the improvement in female education was possible because of the increase in female academies and seminaries between 1790 and 1860. Without this type of institution, the women’s movement may have been delayed. McCandless notes, “the large majority of the leaders of post-revolutionary and antebellum America’s organized benevolence and social reform had attended a female academy or seminary.”

This type of female involvement helped women to find their voice in order to speak out for more women’s rights. In other words, historical female academies paved the way for movement of women into a more public life. McCandless notes that Kelley analyzes primary sources such as letters, journals, essays, and diaries of

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students that attended the academies and seminaries in her book. Many of these
subjects are elite white women, but just like historian Eastman discussed, these were
not the only individuals to benefit from the expansion of education. Many middle
class females also benefitted from education during this time and led females to want
social mobility and economic opportunity. McCandless emphasizes in this book
review that the reason for this type of female success in the early republic was the
type of things educators taught to females in the academies and seminaries of the late
18th and early 19th centuries.

The curriculum that females learned was similar to that of what men learned
at their colleges. The academies and seminaries found this type of curriculum to be
useful to women, not in the home, but useful to them as teachers. Free black women
in the North also wanted an education that would help them to impact society.
Historian McCandless highlights that women who led social reforms developed their
arguments at the institutions. McCandless states, “Women sharpened their arguments
on racism and slavery and instilled in each other the confidence to publish those
arguments in antislavery newspapers.”8 These women had a huge impact on
changing the attitudes towards slavery in America.

McCandless comments that Kelley examines the numbers in her book. She
notes that the percentage of numbers of females attending the institutions is relatively
the same between the American Revolution and the Civil War as men. Many
historians that study the history of education analyze numbers.

One of the key differences to this book is the concentration on female
education in order to better the community. McCandless states that “Kelley has no

8 Ibid, 543.
doubt that the actions and writings of educated women significantly impacted public opinion in the period. ⁹ She highlights the famous Harriet Beecher Stowe, a female author who wrote *Uncle Tom's Cabin*, as being a key influence to President Lincoln and the start of the American Civil War. McCandless then notes many other women writers that Kelley notes in her book. She mentions names like Sarah Josepha Hale, Elizabeth Ellet, and Lydia Maria Child as being influential educated female writers during the 19th century.

Historian Linda M. Perkins offers a great book review (2007) on historian Margaret A. Nash’s *Women's Education in the United States, 1780-1840*. (2005). Perkins notes that Nash revises the account of women’s higher education during the early republic. These historians both agree on the idea that women were significantly involved in education at the beginning of the United States. This goes against the stereotype of a female’s world and a male’s world and how people looked at the worlds as separate fields. Perkins comments on the importance of three schools in the early 1800s that help prove that there was more opportunity for women’s education than historians have previously acknowledged. The three schools that Perkins notes here are the Troy Female Seminary, which was established in 1821, the Hartford Female Seminary in 1832, and Mount Holyoke Seminary in 1837.

Perkin’s book review highlights Nash’s idea that women and men of the early republic were not as different as many people previously imagined. She highlights the idea that “prominent Enlightenment philosophers such as John Lock, Rene

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⁹ Ibid, 543.
Descartes, and Francois Poullain de la Barre all attested to their belief in women’s intellectual abilities.”

This book review shows that Nash examined public library records as well as diary entries on literature to show that men and women selected the same type of readings for free time. This shows that women were interested in and engaging in the same types of activities and education as each other. Perkins notes that much of the old research is based on the idea that people believed that women were inferior to men intellectually. The old research suggests that the educators based the curriculum on what society considered useful to women. Perkins highlights that “there was no clear-cut agreement about which subjects fell into either category.”

Americans considered English as the most important subject for all students, male or female. There were differences in how the educators taught the subject to the different sexes. According to historian Perkins, “females were taught rhetoric for purposes of diction, tone, and pronunciation.” The idea of this course was to teach women proper ways to speak so that their elite social class would be distinct to their peers. For the most part, women did not learn foreign languages like Latin and Greek. Perkins infers that this is because these educators normally taught these languages to prepare men for ministry, medicine, and legal professions. During the late 18th century and early 19th century, women did not participate in these fields so this type of education was unnecessary. It is important to note that educational institutions did not forbid these languages from women, they just were not widely available to them and when these

11 Ibid, 254.
12 Ibid, 255.
languages were available, women chose not to learn them because they would not use them.

During the late 1700s and early 1800s, other types of beneficial curriculum appealed to women. It is during the early part of the 1800s that historians see a shift to a more gender specific type of schooling. Perkins claims that “needlepoint was the most common course offered to females.”13 Women found needlepoint very applicable to their life and that is most likely why it appealed to them. During this period, women were constantly mending and altering clothes for themselves and their families. This type of skill also provided women with a way to earn an income if necessary. Perkins states “Nash has successfully demonstrated that although there was little desire for political or legal equality of women before 1840, she found ample evidence that there was a belief in women’s intellectual equality.”14 In other words, women were just as smart as men were, but they were not getting involved in the politics of gender equality. Perkins emphasizes that higher education institutions were put into place during the early part of the 19th century, but most women did not attend. The females that did attend were white and middle class.

Historians Carol Kehr Tittle and Elenor Rubin Denker in their book titled *Returning Women Students in Higher Education: Defining Policy Issues* (1980) examine much of the history of women in higher education. They examine people’s attitudes throughout history. They start by looking back to ancient times. Tittle and Denker state, “Among the Greeks and Romans there were statements of educational equality that men and women should receive, however, this equality was never

13 Ibid, 255.
14 Ibid, 256.
This attitude continued through the early republic until the 1820s. At this time, some Americans felt women should be educated so they could be better teachers. It was not until the middle century that women had the opportunity to attend American colleges. In the early part of the 1800s, there was a creation of female seminaries, but these institutions did not have the same standards and men's colleges.

Tittle and Denker examine the fields of studies that men and women participated in during the 19th century. They state, "For men, the liberal education was prerequisite to training for the established professions, for example law and medicine. Training for the established professionals was, however, not open to women...There was a strong tendency at these institutions for women to concentrate in home economics and education." Despite, colleges becoming available to female students during the 19th century, the curriculum they experienced at these institutions was not the same curriculum that males experienced. Tittle and Denker also looked at opposition from highly notable men during this period. They examine works published during the period that make the claim that educated women are unable to have children.

Just like many other historians that look at the 20th century, Tittle and Denker analyze the numbers of students attending institutions. This shows that the first part of the 20th century was a time of growth for colleges. By examining numbers and newspaper articles Tittle and Denker are able to see exactly where this growth stops for sometime. They state, "At the end of the war and the 1950s a second trend

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16 Ibid, 3.
occurred, and there was a return of women, and of society, to the ideology of the family: couples wanted larger families and social policies supported these trends."  

It was this ideology that the historians hold accountable for the regression in the numbers of females attending higher educational institutions.

This study of women in higher education continues to analyze the numbers to draw conclusions about the education system in America. Tittle and Denker analyze statistical data based on which types of degrees men and women were getting between 1869 and 1977. These historians also investigate the age of students during three different years of the 1970s. They examine the numbers of students enrolled in college based on race. Tittle and Denker conducted a longitudinal study in order to follow students and their lives after completing high school in the 1970s. This is a different approach that many historians of education seem to overlook when doing their research.

Historian Barbara Brenzel examines the history of female education following the American Civil War in her book review (1993) of historian John L. Rury’s *Education and Women’s Work: Female Schooling and the Division of Labor in Urban America, 1870-1930* (1991). Brenzel notes that in the 1870s, 1880s, and 1890s boys and girls that went to high school had the same curriculum. In fact, during this time, many boys left for jobs and girls remained in school. Brenzel states, “A high school education offered them their only opportunity for professional status, although that was limited to gender-appropriate jobs, mostly teaching.”  

\[17\] Ibid, 3.  
not mean that all girls were attending schools during this time. Just like boys left for employment opportunities, so did girls if they had to work. The females that attended schools were middle and upper class girls who did not have to worry about work, so they went to school to stay occupied. Presidents of highly credible universities talked negatively about female education. They assumed that coeducation hindered the maturity of males and it impeded female reproduction.

These false claims along with urban growth and changes in employment patterns led to another regression in female education. The last three decades of the 1800s looked to be promising for the education of females. However, with a rise in urban areas and changing employment patterns this promise seemed to be disappearing.

During the progressive era, there was a rise in vocational education. This was due to the needs of the job market. Brenzel states that “the author details this rise in vocationalism and shows how curriculum was crafted to meet the needs of gender, urbanization, and employment.”¹⁹ In other words, education was no longer the same for boys and girls. Instead, education turned to a more gender specific curriculum. Therefore, educators created a home economics class so educators could guaranteed women that they would learn the domestic skills needed to be wives and mothers. Brenzel emphasizes how Rury highlights the link between women’s education and the history of labor in America. He does this by examining charts and other kinds of statistics. This helps one to understand exactly who was going to school, who did not go to school, who ended their education early, and why people chose to attend school or not to attend.

¹⁹ Ibid, 1624.
Historian Rebecca S. Montgomery writes a good case study on women and education in Georgia in her book titled *The Politics of Education in the New South: Women and Reform in Georgia, 1890-1930* (2006). Historian Robin O. Harris provides a great book review for historians on this piece. Montgomery provides an in depth story of female education of the south during this time. Harris notes that the book “offers an interesting perspective of the drive for female education as integrally connected to reform initiatives.” Following the American Civil War was a period of reform across much of American society. Harris highlights exactly what Montgomery looks at in order to write her book. Harris states, “Ranging through the public kindergarten movement, child labor reform, rural school improvements... the admission to public colleges and universities, Montgomery provides a text replete with information drawn from association records, educational bulletins, and reports and papers of numerous prominent club women.” She is one of the first authors to examine these sources in order to understand the education of females especially in the south.

During this time, women failed to unite and stand together. This slowed down the progression of females in education and in society in general. In almost every fight that groups of women were trying to win, there were groups of other women opposing the fight. Harris criticizes historians who just examine specific curriculum. She says that it is better to examine actual papers of students and faculty.

Historian Kathleen Weiler offers a great analysis of women in education during the progressive era in her article titled “The Historiography of Gender and

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21 Ibid, 1.
Progressive Education in the United States” (2006). In her article, she discusses how historians overlook gender and women until after the women’s movement of the 1960s. She focuses on the idea that many historians’ contributions on women educators are examined on an individual biographical point of view instead of analyzing the structure of relationships between males and females. Weiler suggests that “historians of education need to go beyond the recovery project of writing the stories of those who have been ‘hidden from history’… to an analysis of the process of gendering – in the educational sites we study and in the writing of history as an intellectual enterprise.”

In her article, Kathleen Weiler suggests that the study of women in education has transformed numerous fields of study such as sociology, anthropology, literary studies, and history. It was not until the 1970s that professionals in various fields began to research and expand on the history of education. Weiler suggests that these professionals were not interested in gender as a historical analysis until this time. Therefore, the professionals did the first in depth analysis of progressive education in the 1970s. One can begin to see that the study of the history of education is a new field of study. In the early analyses of the 1960s, historians viewed women as creatures that always just care for children. Many of the studies that historians completed privilege a white male perspective on the topic. Throughout the study of the topic, professionals always took this perspective. It was not until female professionals pointed out that studies tend to ignore women’s issues or gender analyses. Even in some modern day research, Weiler suggests that professionals still

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ignore feminist work and much of the topic is still male dominated. Professional research also ignores the histories of minorities, probably because people have always, until recently, excluded these groups from mainstream education and its history. Kathleen Weiler suggests, "The treatment of gender in feminist histories of education has tended to follow a traditional empirical approach of recovering heroic women who have been overlooked. Rather than repeat again the arguments for and against theory or make arguments for the need to address gender..."23 Weiler believes historians need to historicize and theorize gender in order to develop a deeper understanding of the history of education. She states, "A feminist genealogical analysis thus calls for tracing the ways in which underlying conceptions of 'man' and 'woman' produce different histories."24 Many historians in the past ignored the question of gender all together when examining educational history. However, since the 1970s, some historians began to recover the past through celebrations of successes, but not through an analytical perspective. Weiler feels that one must understand the process of gendering before recovering the true history of female education.

One of the largest un-examined times for the history of women in education is during World War II and right after the war ended. This is the time when women became increasingly involved in public life outside the home. Historian Cally L. Waite writes a good book review (2007) on historian Linda Eisenmann's book titled *Higher Education for Women in Postwar America, 1945-1965* (2006). In this review, Waite examines how World War II started many significant changes in the lives of

23 Ibid, 164.
24 Ibid, 165.
American women. She emphasizes the time just after WWII as being the foundations for the women’s movement that lay ahead. While men were showing their patriotism by fighting in war, women contributed to the war effort by filling in the vacancies of the workers who left their jobs. Typically, historians offered the analysis that when the original male workers returned to the workforce women tended to return home and once again keep their focus on the family and the home. There is a new perspective offered here. Waite states, “According to Eisenmann, women not only stayed in the work force but attended college and earned advanced degrees in increasing numbers during this time period.”25 Waite examines the development of American colleges in the twentieth century to help her understand the change in the education system. There are two periods that historians like Waite and Eisenmann tend to focus on. The first period is the first half of the 1900s. During this time, Waite states, “women’s colleges developed rapidly and pressure was brought to bear on colleges and universities to co-educate and admit women.”26 The second period that historians think is significant is approximately fifteen years after World War II ended. This is in the 1960s when women became activists and started publicly advocating for equality.

Historians like Eisenmann and Waite believe that the gap in these two periods is too large and that historians must look at the middle of the 1900s in order to understand the foundation for the feminist movement that ignited in the 1960s. Historians like Eisenmann suggest that women of the 20th century were always active in education. She looks at the beliefs toward women following World War II. Waite

26 Ibid, 500.
suggests that Eisenmann examines social organizations that formed in the middle of the 1900s such as the Commission on the Education of Women in 1953. She looks at how the newly formed social organizations wanted to advance education for women and the research of women throughout history. These organizations helped contribute to gains in female education throughout the second half of the 20th century and historians cannot overlook them.

Eisenmann does recognize the importance of examining various aspects. Waite states, “Eisenmann draws from a wealth of resources, including interviews and oral histories as well as census data, government records, the reports of several organizations, and the formidable body of scholarly literature focused on women’s higher education.” 27 Modern day researchers, like Eisenmann, examine a variety of sources to help them develop an in depth analysis of the history of female education. In Waite’s book review of Eisenmann’s works, she notes that Eisenmann examines the outcomes of the organizations that people formed in the middle of the 20th century. She notes how there were significant gains in higher education due to the efforts of these organizations. Everything that Eisenmann discusses is the story of white women. There is still little research done on the history of black women in education.

Historians Dongbin Kim and John L. Rury also research many different sources in order to write their article titled “The Changing Profile of College Access: The Truman Commission and Enrollment Pattern in the Postwar Era” (2007). The research starts by examining President Truman’s 1947 Commission on Higher education. President Truman felt that Americans need better higher education and he

27 Ibid, 501.
recommended that people start making changes to the institutions. Historians Kim and Rury also examined the GI Bill and its impact on higher education in American. They found that the GI bill only changed the numbers of students attending colleges directly following the war and it did not have as great of an impact, as one would typically expect. They also studied the economy by looking at the labor market and the goods that the market produced. In doing the article, Kim and Rury hoped to identify who attended the higher education institutions, and how the makeup of the student body changed to consist of women and minority students.

In order to find this information out, the historians analyzed national and regional enrollment data of four decades from the 1940s to the 1980s. Kim and Rury state, "In absolute terms, enrollments grew from less that 1.5 million in 1940 to more than 11 million in 1980, a rate of increase that approaches 800 percent."²⁸ Through examining statistical information and the numbers of students attending institutions, the historians found the largest growth occurred in the last two decades of the study during the 1960s and 1970s. They found 1960 to be a turning point in the educational institutions. Before 1960, higher education expanded, but it was mainly men that were attending the schools. After 1960, women and minority students started attending schools in significant numbers. Kim and Rury state, "The college campus changed from a place reserved for a relatively small fraction of the populations to something of a social and academic elite, to one frequented by a broad cross-section

of students. Going to college became a relatively commonplace experience." 29 Kim and Rury put a lot of emphasis on the fact that the number of students finishing high school increased allowing for an increase in the number of students furthering their education. They state, “Together, these two developments – increases in high school graduates and growth in college enrollment – increased the size of the nations’ college student body by nearly ten times across the period in question.” 30

Rury and Kim look at several reasons for the significant increase for students attending educational institutions. One reason they contribute the increase to is the baby boom, which occurred after World War II. Rury and Kim state, “The generation born during the eighteen years immediately following the war was more than 50 percent larger than the one preceding it, numbering more than seventy-five million in total.” 31 In other words, there was an increase for students, so the numbers attending colleges directly went up as a result. Another reason for the increase in the amounts of students is the Civil Rights Movement, the women’s movement, gender-role expectations, and the amount of females that participated in the labor force. With an increase in the number of females in the labor force, women possibly thought of college as being more applicable. Rury and Kim state, “During this time period, female students became more aware of the future labor market and began to have similar level of high school math and science preparation for college education.” 32 The curriculum once again changed to be more applicable to the lives of females. Since this time, the nation’s colleges have never been the same.

29 Ibid, 305.
31 Ibid, 309.
32 Ibid, 326.
There is a new perspective that Rury and Kim offer in their article that they say is a factor in an increase for students attending higher educational institutions. In the second half of the 20th century, there is a development of different kinds of institutions such as junior colleges. There was also an increase in institutions available to students in America. After World War II, colleges began to spring up across America. There is an increase in the amount of four-year institutions and the amount of community colleges. There is also an increase in students that were commuting to colleges.

Economist Claudia Goldin of Harvard University examines the economy and also looks at the effects of the labor market on schooling in the article “The Quiet Revolution That Transformed Women’s Employment, Education and Family” (2006). Goldin examines changes in society, such as labor force participation, in order to explain his theory of the quiet revolution. The article begins with the following claim: “Women’s increased involvement in the economy was the most significant change in labor markets during the past century.”33 This article explains how this change was done over four different phases. The first three phases are all evolutionary, with the forth and final phrase being the revolution. Goldin explains this theory based on female involvement in the labor force. Women’s initial participation in the labor force was just basic jobs that lasted usually for short amounts of time. This changed overtime to women wanting long-term careers. Changes in society caused more women to need the money from their job. Women

began to need education in order to compete in the labor market. This is when women began to think of their future and their career more seriously.

One societal change that took place in the 20th century was the age of marriage. Goldin examines when one forms their identity in order to understand how identity formation, marriage, and education are related. In the evolutionary phases of the movement, women married earlier in life, which meant they had not formed their adult identity at the time of marriage. Instead, this occurred after the female got married. In the revolutionary phase, women married later in life and formed their adult identity prior to marriage. This enabled women to receive an education and choose a career field before getting married. Goldin goes on to examine exactly how the labor force changed the lives of women in America.

Goldin examines women’s work outside the home and high school attendance and graduation rates to explain how appealing jobs opened up to women with more education. One thing that she thinks researchers over emphasized was the impact of World War II. She thinks researchers exaggerate the claim that World War II changed employers’ view of women. Goldin also examines the ages of women having children and its impact on women in the labor force. With the age of women giving birth increasing, there are more women furthering their education in order to have a better career. Goldin also examines the introduction of oral contraceptives into American society, which further impacts young women planning their careers. Goldin claims, “Young women in the 1960s and 1970s were better able to predict what their future lifetime employment would be. As a result they increased their investments in formal schooling, majored in career-oriented subjects, and continued
on to professional and graduate schools in far greater numbers.”34 This emphasis on
women’s participation in the labor market offers a new perspective to why there is an
increase in female students attending higher institutions.

One is able to find an alternative approach to the education of women during
the middle of the 20th century by examining older works such as historian Elizabeth
This is from a perspective of a female who is currently living in one of the most
critical periods in the history of female schooling. Historian Janeway examined
newspaper articles throughout history to get an idea about what women were doing in
society during the period. She finds evidence in the newspapers that women’s lives
did center on the home in the 1930s. Janeway states, “‘Socially, life for ’34 revolves
around the home, the bridge table, and her clubs,’ the Times reported.”35 She finds
this claim to remain true even in the 1950s. She states “Married they must aspire to
be, housewives they must expect to become.”36

She also looked at the perspectives of females who were attending colleges
during the period. Many of these females did not think that college was applicable to
their lives and they wanted colleges to make changes. When Janeway asked alumni
what they thought of their education, she received mixed signals. Most every woman
said she would have done what she did again if she had another opportunity.
However, Janeway reports, “one in five was critical enough to her college experience
to feel that changes should be made. ‘College,’ they said over and over, ‘prepared me

34 Ibid, 18.
Unfinished Liberation (New York: Change, 1975), 11.
36 Ibid, 10.
for something I’m not...for something better than the monotonies of dusting, sweeping, cooking, and mending.”\textsuperscript{37} At this time, people felt that the college curriculum did not apply to the life of female, so instead of changing attitudes in society toward women and their careers, educators changed the curriculum. The new curriculum taught women how to cook, manage the household, how to care for a child, and all the other stereotypical kinds of jobs that women have been responsible for throughout history.

This essay is different than most of the other sources that have been examined because it was written in the 1970s when women were making significant gains in education. Janeway took the approach that society has made progress in the education field, but society is not yet at a stopping point. She states, “The evidence that we have made some progress suggests to me that we should re-double our efforts, for once The Old Ark’s A-Movering, it’s wise to keep on pushing.”\textsuperscript{38} She examines how many of the old male professors that run the campuses are not accepting the changes as well as some would like them to. At the end of the 1960s and early 1970s, women still had a lot of ground to cover, as women were highly under-represented in doctorate programs throughout the country.

Janeway emphasizes the idea of returning students, which are students, specifically women, who are re-entering the educational system in order to re-enter the labor market, as their families grow older. This view offers a new approach to looking at the numbers of female students in the later part of the 20\textsuperscript{th} century. She examined why women were attending college during this period. When questioning

\textsuperscript{37} Ibid, 11.
\textsuperscript{38} Ibid, 12.
women in the Cincinnati area about why they are in college, Janeway discovered “35.4 percent are preparing for employment; 30.3 percent are responding to a need or desire for education or achievement; 25.3 percent are seeking personal growth; 4.5 percent believe further education will promote independence; and 4.5 percent are looking for stimulation.” In other words, women in the 1960s and 1970s attend college for various purposes.

Women may be attending school for various purposes, but most women are concentrating on the same fields, despite being there for different reasons. Janeway states, “Too many students head for training in traditional areas of ‘women’s work.’ These areas are often over supplied, and almost always poorly paid.” Janeway finds several reasons for the fields of studies that women choose to pursue. First, she feels there is a lack of career guidance. Second, she feels campuses are not set up for women who have families. Janeway states, “Not many colleges welcome part-time candidates for professional degree; and rarer still is the campus that offers adequate child car – or any child care, for that matter.” She also feels that husbands still have the final say in what goes on in the female’s life. Therefore, the husband must be in favor of his wife receiving an education, or it just does not happen.

There is an emphasis in this essay on the idea that schools are still unsuccessful in educating American women at the time Janeway wrote the essay, which is 1975. Janeway explores how the changes made are going against the grain. She takes the perspective that it will be a hard journey to level out the playing field at educational institutions. She does think that eventually women’s experience will

39 Ibid, 17.
40 Ibid, 18.
41 Ibid, 18.
produce a deep effect, but that schools need time to change. In time, schools will change because people’s attitudes will begin to change. She ends her essay suggesting a way to facilitate the changing of people’s attitudes. She states, “let us ask also what we can do for them. We can do a great deal by supplying no only talent, but wisdom; and the institutions which first realize that… will be the ones best fitted to manage our present problems and confront the future boldly.”

In analyzing how historians of the history of females in education conducted research and their findings, many questions may come to one’s mind. One may begin to wonder exactly how much men and women’s roles have changed as we approach the end of the first decade of the 21st century. For example, are there still certain duties that people in society consider a man’s job and certain duties that society considers a woman’s job? One may also wonder, exactly how far women have come in the type of professions they go into nowadays. Has the amount of female versus male students enrolled in doctorate programs leveled off today or is there still a large difference? In what fields are women receiving masters and doctorate degrees? One may also wonder the kinds of experiences that women have if they study in a field that men dominate. An aspect that many people may find missing from the history of female education is how the availability of financial aid and scholarships influenced the make up of the student body. Many historians have examined women’s entry into the labor force and how it correlates with the number of women in college. An aspect that one may find missing from this type of analysis is how the increase in the cost of living for Americans has affected female involvement. Historians Rury and Kim focused a lot on the increase of students commuting to college. A view that many

42 Ibid, 27.
may find left out in this argument is the relationship of the rise in automobiles and highways to the number of students driving to college. One may begin to wonder how much the individual family and their educational background contributes to the increase of women in education. For example, does the amount of education that previous family members have affect the amount that future family members will receive? If so, Americans can expect to see a continued increase of students in educational institutions. One thing that historians seem to leave out of their analysis is the attitudes of people in modern day society. One will see that not many male historians study the history of females in education. Does this fact suggest something about the attitudes that exist today?
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Part 2

After researching the overall history of females in education, one begins to formulate many questions, such as how females in education changed in more recent times. One must take an in depth look at how many males and females were receiving higher degrees. In order to develop a full understanding of gender changes in education, it is imperative to look at how society changed since the 1950s. One way to analyze how attitudes in society changed in the 20th century is to examine music lyrics from the decades in question.

James Brown sang proudly “This is a man’s world” in 1964. Forty-five years later, as 2009 ends, Brown may be hesitant to sing these words with pride. Women are no longer depending on men. Many women’s primary goals are not to be married, and are not to take care of a home and children. Instead, women are more concerned with being self-sufficient and not having to depend on others, as well as being financially secure. These primary goals have caused many changes in society including changes in the student body of higher institutions. Americans no longer live in a male dominated society, where women “belong” to men. Women are taking the initiative to ensure that they will fulfill their goals in being financially secure and being self-sufficient. Female musicians are the ones singing about taking care of themselves. If you listen to the lyrics of music throughout the decades between 1950 and present day, then you can begin to experience how attitudes about women have changed. Instead of hearing James Brown blasting on the radio as people drive to work and school, you hear the female R&B music group, Destiny’s Child, singing about being independent and buying their own items.
Attitudes in society have changed since Brown claimed, “This is a man’s world”. Throughout the years between 1950 and present day, one can begin to understand attitudes in society based on lyrics to songs like those sung by James Brown and Destiny’s Child. Today, we see writings, like the Shriver Report, that claim America is now a woman’s nation and this changes everything. American’s are reading headlines like “At Colleges, Women are Leaving Men in the Dust”43. This is a huge gain for women in American society. At almost all levels of higher education, women have surpassed men. This is not new data. The number of women participating in school-age education and higher education has been on the rise for decades. It is no wonder that Destiny’s Child is proud to sing Independent Woman.

When one examines statistical data on male and female participation in higher education, it is obvious to see that female involvement in these institutions is no longer an issue in America. Women are attending colleges in numbers that researchers have never seen. Women, like the four ladies that make up Destiny’s Child, are proud to make these sorts of accomplishments. Despite an increase for women attending colleges in numbers that surpassed the amount of men, there are still issues that need to level out between the sexes. An issue that is prevalent in the 21st century is the difference of incomes between men and women. Regardless of the fact that women are earning more degrees than men are, women’s median earned income remains significantly lower than men’s earned income.

Americans contribute the issue over the difference of earnings between men and women to several factors. The main factor that people believe leads to the difference of wages is due to men having fewer career interruptions from events like

child bearing and child raising. Although many attitudes towards life goals has led to an increase in female participation in education, there are still attitudes that people have towards male and female responsibilities outside of work, which could lead to women having to miss more work than men. Absenteeism from a job can lead to one not getting a raise or not getting the same raise as a male co-worker who did not have to take time off for responsibilities outside of the workplace. Despite these factors, there is hope that the gap in income earned between men and women will someday be narrowed and maybe even reversed.

Fifty years ago, Americans would not believe that the number of women earning degrees would exceed the number of men earning degrees. The U.S. National Center for Education Statistics at the U.S. Census Bureau recently released the 2009 Statistical Abstract, which collected data through December 2006. In table 288 titled “Earned Degrees Conferred by Level and Sex”, one can examine the number of degrees earned starting in 1950. Beginning in 1970 on the table, one can examine the numbers of degrees earned in each year through 2006. In 1950, a total of 497 people participated in the study. They all earned some type of degree from a higher institution. In this year, 75.7% of the degrees earned were by men. During 1950, men earned more degrees than women did at every level on the study. Out of 432 earned Bachelor’s degrees, men earned 329 of these and women earned only 103. At the Doctoral level six men earned degrees and only one female earned a degree.  


45 Ibid.
During this time and the following decade, men dominated on college campuses, which is in part due to the GI Bill following World War II. In addition, during this time, society did not consider women equal to men. One can see this when listening to one of the 1950's one hit wonders by Phil Phillips and The Twilights' "Sea of Love" song. In this song, the singer repeatedly refers to a woman in which a man has fallen in love with as the man's pet. The song's lyrics are "Come with me my love, to the sea, the sea of love, I want to tell you, how much I love you, do you remember when we met, that's the day I knew you were my pet, I want to tell you, how much I love you." These lyrics imply a man will love a woman and take care of them just as one would do for a household pet like a cat or dog.

Despite songs like the "Sea of Love" the percentage was a little better for women earning degrees in 1960. Women closed the gap of degrees earned by about 10%. In 1950, men earned 75.7% of all degrees and in 1960, men earned only 65.8% of all degrees. In 1960, the U.S. Census Bureau looks at 477 people that earned degrees. At the Bachelor's degree level, 254 of the degrees earned were by men and 138 of the degrees earned were by women. At the Master's degree level, 51 men earned degrees and only 24 women earned degrees. The largest percentage difference of degrees earned in 1960, according to the U.S. Census Bureau, is at the Doctoral degree level where men earned 9 degrees and women earned 1.47

In spite of an increase in the amount of women earning degrees men are still dominating college campuses across the country in the 1960s. According to James Brown's "It's a Man's Man's Man's World" society is a man's world because of all

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the accomplishments made by men. The lyrics are “This is a man’s world, this is a
man’s world…you see, man made the cars that take us over the road, man made the
trains to carry heavy loads, man made electric light to take us out of the dark, man
made the boat for the water, like Noah made the ark.”48 He does go on to state in his
lyrics that the world would be nothing without females, but he is referring to needing
females to help a man. This 1966 song helps one to see the attitudes that existed and
can help one to infer that the gap between men and women attending college is in part
due to existing cultural positions.

Another popular tune in the 1960s was a song by a female music artist,
Tammy Wynette. Her song “Stand By your Man” sends a similar message to
listeners about women’s views on their roles and their views towards men. She sings,
“Sometimes it’s hard to be a woman, giving all your love to just one man, you’ll have
bad times, and he’ll have good times, doin’ things that you don’t understand, and if
you love him, oh, be proud of him, cause after all he’s just a man, stand by your man,
give him two arms to cling to, and something warm to come to, when nights are cold
and lonely.”49 She sings about women having bad times and men having good times,
but then she suggests that
women should not do anything but support their husbands. Cultural feelings during
this time were changing, which can be seen in the increase in the amount of women
attending colleges. However, many Americans still held onto the values of a man’s
world and a woman’s job to support her man.

48 James Brown “It’s a Man’s Man’s Man’s World.” Lyrics. It’s a Man’s Man’s Man’s World. 1966.
49 Tammy Wynette “Stand By Your Man.” Lyrics. Stand By Your Man. 1969.
Despite some of the songs sung throughout the 1960s, women continued to close the gap between the numbers of men earning degrees in 1970. In 1970, the U.S. Census Bureau looked at 1,271 people that earned degrees. According to the study, 59.2% of all college degrees earned were by men. This is the first year that the addition of the Associate’s degree in the table. In 1970, 117 men and 89 women earned Associate’s degrees. Also in this year, 451 men and 341 women earned Bachelor’s degrees. At the Master’s degree level, 126 males and 83 females received degrees. Finally, at the Doctoral degree level 26 males and 4 females earned degrees. Overall, the number of women earning degrees is increasing throughout the decades examined including the 1970s.

Throughout the 1970s, the number of women attending institutions of higher education continued to increase. Loretta Lynn’s song titled “The Pill” demonstrates the feelings of empowerment that women had during this time period. She is singing about the birth control pill that is available that helps women so they are not stuck just having baby after baby. She is talking to her husband and sings, “all these years I’ve stayed at home, while you had all your fun and every year thats gone by, another babys come…this old maternity dress I’ve got, is goin’ in the garbage, the clothes I’m wearin’ from now on, won’t take up so much yardage, miniskirts, hot pants and a few little fancy frills, yeah I’m makin’ up for all those years”. Many other women felt empowered during this time as well. Just like Loretta Lynn, women in large numbers were no longer tolerating staying in the home. This shows as the gap between males and females participation in higher education continued to close.

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Gloria Gaynor is another female music artist that sings a song of female empowerment. Her song is about a woman who recently broke up with a man and instead of being sad and depressed she sings about strength. She sings, "go on no go walk out the door, just turn around now, 'cause your not welcome anymore, weren’t you the one who tried to hurt me with goodbye, you think I’d crumble, you think I’d lay down and die, oh no, not I, I will survive." During this time, women became less and less dependent on men. Women no longer wanted to need a man to survive. This song demonstrates a change in female’s attitudes towards men. It’s no wonder why women were attending colleges in higher numbers. Women wanted to be independent. They did not want to be dependent on a man.

In 1980, women evened out the amount of women earning degrees compared to the amount of men earning degrees. During this year, 1,731 degree earners were looked at for the study. Men still earned slightly more degrees than women did, but it is very close to 50-50. According to the U.S. Census Bureau, men earned exactly 51.1% of all degrees earned. The number of women that earned associates degrees in 1980 was more than the number of men. Males earned only 184 Associates degrees, while women earned 217. Women narrowed the gap at the Bachelor’s and Master’s degree levels. Earning Bachelor’s degrees were 474 males and 456 females. Earning Master’s degrees were 151 males and 147 females. Like in the previous years, the Doctoral degree level contains the widest gap between the amount of men earning degrees and the amount of women earning degrees. In 1980, 23 men earned doctoral degrees.

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degrees and only 10 females earned the same kind of degree. Only 30% of the Doctoral degrees earned went to women.

Women continued to attend colleges at higher numbers throughout the 1980s and attitudes towards women’s roles continued to change. Cyndi Lauper sings “Girls Just Want to Have Fun”. This song shows what was going on in the lives of females during the ‘80s. She sings, “I come home in the morning light, my mother says when you gonna live your life right...oh girls just want to have fun, the phone rings in the middle of the night, my father yells what you gonna do with your life... oh girls just want to have fun.” Females just wanted to have a good time. Lauper’s song indicates that women were no longer remaining submissive to men. Females had their own life and they were thoroughly enjoying their freedoms in the social realm, as well as at colleges across America.

The numbers of women attending colleges continued to rise throughout the 1980s. By 1990, women were taking over college campuses. Females were now earning more degrees than men were. In 1990, The U.S. Census Bureau studied 1,940 individuals that earned college degrees of varying levels. Men earned only 46.6% of the degrees earned. Women were earning more degrees at every level except the doctoral level in 1990. At the Associate’s degree level, 191 men earned a degree and 264 women earned a degree. During this same year, 492 men earned a Bachelor’s degree opposed to 560 women that earned the same level degree. Even at the Master’s degree level, women exceeded men in the number of people earning degrees. In 1990, 154 males earned a Master’s degree, and 171 females earned a

53 Ibid.
Master’s degree. Women continued to lag behind at the doctoral level. Only 14 women and 24 men earned a Doctoral degree.\textsuperscript{54} That means that only 37\% of the Doctoral degrees earned went to women.

Throughout the 1990s, women continued to become more involved in colleges across America and less involved in submissiveness to men. Many songs of the 1990s that famous female music artists sing helps one to understand how women were truly felt. In 1997, R&B music singer Mary J. Blige released her \textit{Share My World} album. One of the songs on this album is “Not Gon’ Cry”. In this song Blige sings, “While all the time that I was loving you, you were busy loving yourself... eleven years out of my life, besides the kids I have nothing to show, wasted my years a fool of a wife, I shoulda left your ass a long time ago... No, I’m not gon cry, It’s not the time, cuz you’re not worth my tears.”\textsuperscript{55} In this song, a husband and wife are separating. The woman has opened her eyes to see how a man mistreated her throughout the eleven years of her marriage. Women were not stuck in relationships anymore during this time. Women, like Blige, could now take care of themselves and they did not have to depend on a man.

Another song from the ‘90s that helps one understand females’ attitudes is “Bitch” by Meredith Brooks. In this song Brooks sings to a man, “I’m a bitch, I’m a lover, I’m a child, I’m a mother, I’m a sinner, I’m a saint, I do not fell ashamed, I’m your health, I’m your dream, I’m nothing in between, You know you wouldn’t want it any other way, So take me as I am, This may mean you’ll have to be a stronger

According to Brooks, women are now everything including a child, a mother, a lover, and a bitch. Women no longer have to be perfect because Brooks is a sinner and a saint. Women are not obedient to what a man wants. Instead, Brooks suggests that the man is going to have to be stronger if he wants to be able to be with the woman.

Women in the ‘90s, just like Mary J. Blige and Meredith Brooks, were feeling empowered. They were participating in society and women developed into their own person as an individual and not as a wife. The songs of female empowerment help one to understand attitudes at this time. It is no wonder why women continued to attend colleges at numbers greater than men. Women took over campuses across the country over the past several decades. The U.S. Census Bureau studied 2,385 people in 2000. According to the U.S. Census Bureau, only 42.6% of earned degrees went to a male. Of the people studied, at the Associate’s degree level only 225 men earned a degree, while 340 women earned a degree of that same level. At the Bachelor’s degree level, 530 men earned a degree and 708 women earned a degree. At the Master’s degree level, 192 men and 265 women earned a degree. However, women were still behind men in earning Doctoral degrees. In 2000, out of the people studied men earned 25 of the Doctoral degrees, while women earned 20 of the degrees at the same level. Despite lagging behind men, women closed the gap in the number of

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Women continue to attend colleges at higher numbers in the early part of the 21st century. When listening to music of this time, it is obvious to see that women enjoy being able to take care of themselves and not have to rely on a man. Destiny’s Child sings a song that is perfect for the start of the new century that helps one understand the attitudes of women during this time. Destiny’s Child sings a song called “Independent Woman”. In this song the female music group sings, “Tell me how you feel about this,

Try to control me, boy, you get dismissed, pay my own car note, and I pay my own bills, always 50/50 in relationships, The shoes on my feet-I bought ‘em, The clothes I’m wearing- I bought ‘em, The rock I’m rockin’- I bought it, ‘cause I depend on me.”\footnote{Destiny’s Child, “Independent Woman.” Lyrics. Survivor. 2001.} Females want to be able to take care of themselves during this time. It is no wonder Americans see colleges taken over by women. Females are furthering their education in order to further their careers so they can pay their own bills and they can depend on themselves.

The U.S. Census Bureau ended its study in 2006. Between 2000 and 2006, women continued the trends that Americans have seen over the past 50 years. The U.S. Census Bureau studied 2,936 people that earned degrees in 2006. Out of these people, men received only 41.3% of all degrees earned. At the Associate’s degree level, men earned 270 degrees, where women earned 443 degrees. At the Bachelor’s
degree level, men earned 631 degrees and women earned 855 degrees. Out of the people studied, 238 men earned Master’s degrees and 356 women earned Master’s degrees. In the past, the gap between men and women for Doctoral degrees earned was always significant, up until 2000. Between 2000 and 2006, women continued to close the gap. Out of the people in the study in 2006, men earned 29 Doctoral degrees and women earned 27 of the same level degrees.\(^59\) This means that 48% of the Doctoral degrees earned went to women. This is a huge difference from 1960 where women only earned 10% of the Doctoral degrees.

In 2006, newspapers like the New York Times were reporting on the fact that women were graduating from higher education institutions at a greater rate than men. Newspaper writer, Tamar Lewin, reports that “At Colleges, Women Are Leaving Men in the Dust.” In this article, a college senior, Rick Kohn, expresses his opinion of why females are more successful in higher education than women are. Kohn states, “‘what’s the difference between an A and a B? Either way, you go on to the next class.’”\(^60\) He goes on to state that “he does not see his female classmates sharing that attitude.”\(^61\) Women care more about an education than men do. This is one reason women attend colleges in greater numbers than men.

There are many other reasons why women are attending higher institutions at greater numbers than men are. The Rockefeller Foundation and Time polled 3, 413 people to determine what men and women think of their changing roles in society and


\(^{61}\) Ibid.
their attitudes toward each other as spouses. Analysts John Halpin and Ruy Teixeira examine the findings in their essay titled “Battle of the Sexes Gives Way to Negotiations.” In the study, it shows how women’s “very important” life goals align with needing more money. In the survey, women ranked several different things that people value. Based on the things that most of the women chose to be “very important”, it is obvious to understand why women attend college. Eighty-five percent of women feel that it is “very important” to be “self-sufficient and not having to depend on others”. Eighty-one percent of women felt it was “very important” to be “financially secure”. The only value to rank higher than these two categories was health, where 96% of women felt it was “very important”. Women want to be able to make enough money to be happy and be able to take care of themselves.

According to a U.S. Census Bureau study on “Money Income of People-Selected Characteristics by Income Level: 2006” the higher the degree level the more money women make. If women did not further their education after high school, then they would not be able to fulfill the life goals that they stated were “very important” to them in The Shriver Report. According to the study, women who are high school graduates make an average of $17,546 a year. That number is significantly less than what women make with a higher education. Women that earn an Associate’s degree have a median yearly income of $26,295. The amount of money continues to rise as the level of degree gets higher. A female with a Bachelor’s degree makes an average

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of $35,094. A female with a Master’s degree makes an average of $46,250. A female with a Doctoral degree makes $61,091.\textsuperscript{64} Based on this information, if women want to fulfill the goals of being self-sufficient and financially secure it is imperative that they earn a degree. This is another reason why women are attending colleges in high numbers.

After examining data on earned degrees, it is obvious to see that the issue for women is no longer education. Women reversed the gap in the percentage of earned degrees between the sexes, but not all the gaps between the sexes are following the same pattern. Despite seeing headlines like “At Colleges, Women are leaving Men in the Dust” and songs like Destiny’s Child “Independent Woman”, there are still headlines that point out how the playing field between men and women is still not level. For example, in 2009 the \textit{New York Times} now has articles titled “Women Earn Less Than Men, Especially at the Top.”\textsuperscript{65} Based on this headline, women have a new issue at hand, which is the gap in income between men and women.

Men earn more money than women do regardless of the level of educational attainment. The U.S. Census Bureau conducted a study of different characteristics of people 15 years old and over. According to a U.S. Census Bureau study, men that have a high school diploma make $13,487 more than women that have a high school diploma. The gap between the sexes widens, as the level of education gets higher. Men that have an Associate’s degree make $15,512 more than women with an Associate’s degree do. The difference in income earned between men and women

with a Bachelor’s degree is $19,309. At the Master’s degree level, men make $21,175 more than women do. The Doctoral degree level has the largest gap with men making $29,420 more than women do.66 There are other studies that focus on just adults 18 and over that show slightly different numbers, but the overall trend of men making significantly more money than women do at each level of educational attainment still exists in the other studies.

There are several reasons why Americans believe the income gap between men and women exists. One reason is the types of careers that men and women choose to work in. The *New York Times* writer, Catherine Rampell, reports that “in most jobs, the gap between men’s and women’s earnings narrows greatly when you adjust for factors like career path and experience.”67 Most women are not choosing careers that pay as much as the careers that most men choose.

According to the U.S. Department of Labor “Quick Stats on Women Workers, 2008” the most prevalent occupation for employed women was “secretaries and administrative assistants” with approximately 3,168,000 female employees. The next most common career for women is “registered nurses” with an estimated 2,548,000 female employees. The third most common career for female workers is “elementary and middle school teachers” with an estimated 2,403,000 female employees. The other careers on the “10 most prevalent occupations for employed women in 2008” in descending order are “cashiers”, “retail salespersons”, “nursing, psychiatric, and home health aides”, “first-line supervisors/ managers of retail sales workers”,

“waiters and waitresses”, receptionists and information clerk”, and “bookkeeping, accounting, and auditing clerks”. The majority of women are not in careers that are known to “pay the big bucks” as many Americans say.

After examining the U.S. Department of Labor’s “Quick Stats on Women Workers, 2008”, one can see that none of the “ten most prevalent occupations for employed women” are listed in the “ten occupations with the highest median weekly earning among women with full-time wage and salary workers” list. According to this study, the highest paying female occupation for full-time wage and salary workers is pharmacists that make an average weekly earning of $1,647. The second highest paying occupation for women is chief executives that make an average of $1,603 a week. Lawyers is the third paying occupation for women and they make a weekly average of $1,509. The other seven highest paying occupations are computer software engineers at an average of $1,351 per week, computer and information systems managers making a weekly average of $1,260, physicians and surgeons that make an average of $1,230 per week, management analysts at $1,139 per week, human resource managers at $1,137 per week, speech-language pathologists that make an average of $1,124 per week and computer scientists and systems analysts that make a median income of $1,082 per week. After reading through the top ten highest average weekly earnings list and looking at the ten most common jobs for women, it is obvious to see that the majority of women are not working in the fields

that pay the most money. One could assume that this is one reason why women do not make as much as men.

Catherine Rampell not only reported that career path is a reason women do not make as much as men, she also mentioned that experience is a reason. Recent studies show peoples attitudes of things in society. Analysts John Halpin and Ruy Teixeira include a table of the survey they gave to more than 3,400 adults across America. In the survey, men and women were given statements in which they had to state whether they strongly agree, somewhat agree, somewhat disagree or strongly disagree. The percentages are based on the numbers of people that agree. One statement participants were asked to respond to was “despite changes in the modern family, women today still bear the primary responsibility for taking care of sick or elderly parents”. Overall, the majority of men and women agreed with this statement. Eighty-six percent of the women surveyed agreed and sixty-six percent of the men surveyed agreed. Despite a 20% difference between men and women, the majority of both sexes agree that it is a female’s responsibility to take care of older parents. One can assume if women are the ones taking care of sick and elderly parents, then women are missing more work than men are in order to fulfill this family responsibility. Overtime, the work women miss to fulfill this responsibility adds up, which in turn makes a man at the same job more experienced than the woman resulting in less pay for the females.

The responsibility of women having to take care of their sick and elderly parents is not the only reason women fall behind men in the workplace. Another

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statement that participants of the survey had to respond to was “in households where both partners have jobs, women take on more responsibilities for the home and family than their male partners”. Once again, the majority of men and women agree that this statement is true. Eighty-five percent of women agree that in a home that has both parents, women have more responsibilities for the home and family than the men do. Sixty-seven percent of men agree on the same issue.\(^7\) One can assume that women have to take time off work in order to take care of things in the home or to take care of the family. Therefore, if a child is sick, most likely the woman has to miss work in order to be with the child and/or take the child to the doctors. Over the lifetime of just one child, this time away from work begins to add up.

This is not the only time women miss work when having a child. Think about the pregnancy itself. Women must take time off to attend all of the doctors’ appointments throughout a pregnancy. What if a female gets put on bed rest while pregnant or what if the female is very sick throughout the pregnancy? The result for the female is missing more work. One can begin to imagine the amount of time a woman must have to take off if they have several children. This causes men to get more experience than women in a job because men do not have to miss work for these issues. The more experience an employee has, then the more money they make.

Despite the large gaps in income earned, Destiny’s Child still sings “Independent Women” with delight. In analyzing new data, one can see how women have reversed the educational gap between males and females. One can also see how the new issue for women is the gap in income earned between men and women.

\(^7\) Ibid.
Since 1950, people’s attitudes towards women have changed drastically. When examining music lyrics from the decades studied, one can get a better understanding of how women’s roles in society and people’s attitudes towards women have changed. Despite the changes in lyrics over time, there are still pre-existing attitudes in society that led to new issues for women. In the 1950s, male music artists referred to women as pets. In the 21st century, female music groups are singing about women taking care of themselves. This huge gain for women and their ability to be independent correlates with women getting better educations. The new issue for women is the gap in incomes. Even though James Brown might not sing “It’s a man’s world” with pride, women still have issues that they must try and resolve.
Part 3

Chapter 1:

Introduction:

The education of women in America has been a long and evolving process. According to the US Census Bureau (2009), women participating in higher education have been on the rise for decades. In 1950, men earned more degrees than women did at every degree level. Since the 1950s, the amount of women earning college degrees has surpassed the amount of men earning degrees at all degree levels except for the doctoral level. However, women continue to close the gender gap at earning doctoral degrees (US Census Bureau, 2009).

Research Problem:

In the United States, women are attending higher education institutions and earning higher education degrees in greater numbers than men earn (Lepowski, 2009). Despite great gains for women in education, there is still an unequal representation of men and women across different fields of study. Men and women do not pursue the same career field (Amelink & Creamer, 2010; Baylor, Doerr, Plant, & Rosenberg-Kima, 2010; Davies & Guppy, 1997; Jacobs, 1995). One could assume that students in upstate New York follow some of the same national trends for women in education. One trend is that women are entering college in greater numbers than men are. Another trend is that men and women have an unequal representation in majors in college. The problem this study examines is that women are attending colleges in greater numbers than men are and that women remain under-represented in certain fields of study, particularly in math and science careers.
Significance of the Problem:

It is important to know if school-age students in western New York have post high-school goals that align with the national trends for women in education. This will enable school staff and other people in society to know if the trend of more women attending colleges than men will continue over the next few years. If this trend is going to continue, it is important for school staff to attempt to ensure that men do not fall drastically behind women in education. In order to ensure that men do not fall behind women, it is important to see if school-age students’ desires match with the current trends. If they do, then teachers and other school personnel must take action to ensure that male students are prepared for and are interested in higher education. Results from this study could provide insight to which gender has the goal to attend college after high school, thus allowing professionals to see if the national trend of more women attending colleges than men will continue. This study could also provide insight to what academic content areas males and females are interested in. If males tend to like math and science more than females do, then professionals can begin to look at why there is this difference and what schools can do to try to interest female students in this field of study. It is important to study if women will continue to shy away from math science majors in college because schools need to take action to get women interested in all areas of study. This is important because women tend to choose careers that do not pay as much as the careers that men choose (Jacobs, 1995). Once teachers and other school staff know the results they can do things like field trips, job clubs, and job shadows to attempt to get boys interested in careers that require higher education. School staff can try these same types of
attempts to get girls interested in fields of study that men typically dominate. Results from this study can change how school staff helps students transition from high school to post-high school life. In the researcher’s middle and high school experiences, she was able to participate in job shadowing. According to the researcher’s experiences, job shadowing is following around a person at work that is doing a career that one is interested in. The researcher found job shadowing to be extremely useful in determining a career and would like to know if other students feel that shadowing will help in determining a career. If so, this is one technique that school staff can use to prepare students for their post-high school life.

Purpose:

The purpose of this study is to examine whether data from a local upstate New York 7th grade classroom shows that the national trend of more women attending colleges than men will continue over the next few years and shows that the national trend of women under-represented in math/science majors will continue over the next few years. The study will also examine if students from the local New York 7th grade classroom feel that their current schooling is preparing them for their future after high school. It is clear that women currently attend college in greater numbers than men (Lepowski, 2009; US Census Bureau, 2009). It is also clear that women do not pursue jobs in the math and science fields as often as men do (Amelink & Creamer, 2010; Baylor, Doerr, Plant, & Rosenberg-Kima, 2010; Davies & Guppy, 1997; Jacobs, 1995). It is unclear, however, if these trends are going to continue. It is also unclear if students feel that their current schooling is preparing them for life after high school. It is also uncertain if students feel that job shadows will help them decide
what career they want to have as an adult or if students feel that job shadows will help them become interested in careers that they do not have prior knowledge about.

Theory:

This study is based on the theory that women tend to choose majors with low starting salaries and tend to stay away from majors with high starting salaries (Jacobs, 1995; Brown, Clifford, & Free, 2007). In order to address this issue, one must study if girls are still interested in different academic classes that boys. It is also based on the theory that women are under-represented in science majors (Ware & Lee, 1988; Jacobs, 1995). This study is also based on the idea that more men than women are attending college (Lepowski, 2009; US Census Bureau, 2009).

Research Question:

This study looks to answer the following question: Focusing on seventh grade students, does the national trend of increasing amounts of women earning degrees appear that it will continue as today’s seventh grade students graduate high school?

Definition of Terms:

In this study, the research refers to the national trend. The national trend is referring to the fact that more women are earning degrees than men (Lepowski, 2009; US Census Bureau, 2009) and that women are under-represented in math and science careers such as engineering and physical science (Amelink & Creamer, 2010; Baylor, et al., 2010; Davies & Guppy, 1997; Jacobs, 1995).
Chapter 2:

Literature Review:

Many researchers are interested in gender differences that exist today. The differences and reasons for these differences greatly differ from that fact that women are earning more degrees than men (Lepowski, 2009), to collaboration of female-female pairs doing better on assignments (Parker, 2010), and women being underrepresented in the field of engineering (Baylor, 2010) to name a few. The purpose of the research in the mentioned studies is not always to study gender differences, but the studies always mention some topic having to do with gender, whether it has to do with women responding more positively to education, gender roles in society, gender differences in careers, or reasons for gender differences in careers and education.

Women Respond More Positively to Education

Previous research studies provide information that women are entering college in greater numbers than men, and women are earning more bachelor degrees than men (Lepowski, 2009; Baylor, Doerr, Plant, & Rosenberg-Kima, 2010; Griffiths, 2009). This is a huge improvement for women over the past century (Croxford, Ducklin, Frame, & Tinklin, 2005). However, these degrees are not spread out equally amongst all fields. Women still remain under-represented in majors like engineering (Baylor, Doerr, Plant, & Rosenberg-Kima; Amelink & Creamer, 2010). This is not only the case in the United States. This trend is seen in foreign nations like the UK.
In Griffiths’ study, she mentions how the number of women entering college has increased in the past ten years. Researchers in America also find that women are more likely than men to attend college based on current numbers (Baylor, Doerr, Plant, & Rosenberg-Kima, 2010).

Researcher Lepowski did not perform her research on women exceeding men in college. However, through her research she found pertinent data on this issue. Lepowski does not mention that women attend college in higher numbers like the previous researchers mentioned; she instead mentions how more women are earning bachelor degrees than men (Lepowski, 2009). This could be due to the fact that women are attending college in greater numbers than men, but it could also be due to the possibility that women are more successful in a college environment than men. Further studies would be needed to prove this.

Despite the fact that women are earning more bachelor degrees than men (Lepowski, 2009) and entering college in greater numbers than men (Baylor, Doerr, Plant, & Rosenberg-Kima, 2010; Griffiths, 2009), a study done in Scotland concludes that young people believe it is important for men and women to get good qualifications at school (Croxford, Ducklin, Frame, & Tinklin, 2005). One could assume then that men and women are both trying to earn bachelor degrees in order to get good qualifications. Yet there is still a difference between male and female performance in education. Researcher Jeffrey Parker investigates how gender affects grades on homework projects performed by assigned pairs of students in an undergraduate macroeconomics study. He finds that male-male pairs tend to underperform on assignments compared to other male-female pairs and female-
female pairs (Parker, 2010). Parker’s findings provide evidence that women perform better than men in a higher education setting. One explanation could be that there is no female present in the male-male pair. However, there could be many reasons for this such as a difference of ability, effort, and engagement between the students.

One group of women that tends to engage in their education is a non-traditional aged female student. Researchers Lovell and Vaccaro investigate this type of student. In their study, they came up with several themes, which one could use to explain why some women are successful in college, attend college in greater numbers than men, and why women earn more bachelor degrees than men (Lepowski, 2009; Baylor, Doerr, Plant, & Rosenberg-Kima, 2010; Griffiths, 2009). They find that family inspires older women undergraduates to be successful in school. They also find that women value themselves and therefore believe that personal growth, learning, and education are needed and deserved (Lovell & Vaccaro, 2010). Lovell and Vaccaro’s research, offers a possible reason to why male-female pairs and female-female pairs do better than male-male pairs in certain courses (Parker, 2010). However, the research does not investigate men, so one cannot officially conclude that males are not inspired and do not value themselves as much as women. Overall, the current trend is that women attend college more and respond more positively to higher education than men whether it is because they are inspired more, engaged more, attend more, or earn more bachelor degrees than men.

Gender Differences in Careers and the Income Gap
Despite the fact that more women attend college and earn bachelor degrees than men, there are still gender differences in professional careers. Women remain underrepresented in many careers such as engineering (Amelink & Creamer, 2010; Baylor, Doerr, Plant, & Rosenberg-Kima, 2010), senior management positions (Griffiths, 2009), and higher education administrative positions (Lepowski, 2009). Even though women earn more bachelor degrees than men do, women are still not equally represented in careers that were traditionally male dominated. On the other hand, men are not equally represented in careers that were traditionally dominated by women, but this is not due to a belief that women are unable to do certain jobs (Croxford, Ducklin, Frame, & Tinklin, 2005). One study states, “while, in theory, anyone can do any job they want to these days, it is still unusual to see a female mechanic or a male nurse” (Croxford, Ducklin, Frame, & Tinklin, 2005, 141).

Even though there are gender differences in careers, when one examines the history of women and men in education and careers, it is easy to see how far women, on a worldwide scale, have come in the last century. In Scotland, women have gone from being seen as a second-class citizen at the early part of the twentieth century to making up almost half of the workforce at the beginning of the twenty-first century. In America, women have entered into more male-dominated roles in large numbers throughout the twentieth century (Diekman & Goodfriend, 2006). With all these changes, one could assume that there are changes with males in the labor force. However, for the most part men’s work roles have remained stable (Diekman & Goodfriend, 2006). One could also assume that there is a change in caretaking roles that women traditionally dominate because women have increased their time spent
outside of the home at work. Yet, there has been little change in caretaking roles like spending time with children and caring for elderly parents (Diekman & Goodfriend, 2006). Great strides have been made in changing attitudes towards gender equality, however there is still a long way to go before equal opportunities are truly achieved (Croxford, Ducklin, Frame, & Tinklin, 2005).

An area where one can see major differences between men and women is in income earned. In the United States, full-time female workers do not earn as much money as full-time male workers (Briem & Dietrick, 2009). One reason for this could be that women are under-represented in careers that make a lot of money. Some believe that different genders happen to like different subjects and therefore choose different careers (Croxford, Ducklin, Frame, & Tinklin, 2005). For example, some people believe that women are under-represented in fields like engineering because of stereotypes that push women away from the field and cause women to dislike the subject (Baylor, Doerr, Plant, & Rosenberg-Kima, 2010). The fact that men dominate the field naturally pushes women away from studying to be an engineer (Baylor, Doerr, Plant, & Rosenberg-Kima, 2010). Because of the stereotypes, women are not interested in the engineering subject and therefore miss a job in an engineering career that typically pays well.

Some studies offer evidence that professionals could use in the engineering field and possibly in other fields where women are under-represented in order to even out the numbers of males and females in the field. There are studies that show if female engineering students work with agents, which are people to encourage engineering candidates to pursue a career in the field, that have a similar race and
gender then there is an increase in the effectiveness of persuading females to pursue engineering (Baylor, Doerr, Plant, & Rosenberg-Kima, 2010). Professionals could use this method to increase the number of women in the field of engineering and possibly other fields where women are under-represented. According to a different study, another way to increase female involvement in the field of engineering is to create a learning environment that emphasizes care and respect, and to oversee students’ interactions during group work (Amelink & Creamer, 2010). One could assume that this would work in other fields, besides just engineering; however, researchers would have to complete further studies to determine if this applies to other fields.

Another career in which women are under-represented is in leadership roles at universities. Women are under-represented in higher education administration positions; however, according to a study done at Minnesota State Colleges and Universities this is not because of differences between men and women with career aspirations and professional assets. According to the same study men and women both have desires to advance to a higher administrative position (Lepowski, 2009). Based on this study, one could assume that a reason for the underrepresentation of women in higher education positions is not because women do not want to have this type of a position. Based on a different study, one could assume that young people believe that males and females can do any job that they want (Croxford, Ducklin, Frame, & Tinklin, 2005).

Other research suggests that men and women do not value their role as a worker equally (Galbraith & James, 2002). In a study conducted in the Tampa Bay
area, Galbraith and James found that males tend to rate roles as a worker higher than females did (Galbraith & James, 2002). This could imply that men work harder than women do because they think the role as a worker is important. If this is true, then it could be a reason why women are under-represented in higher education administrative careers. However, researchers would need to conduct further studies to support this claim.

A different study could offer another reason why women are under-represented in specifically higher education leadership roles. One study concludes that women feel more support and structure, which enabled career progression into leadership roles in a university where women held management and leadership roles more often (Griffiths, 2009). One could assume from this that as women continue to increase in numbers in leadership careers at the university, then even more women will have career progression into leadership roles. This can help increase the overall number of women in leadership roles. Female involvement in careers that typically make more money could possibly help close the income gap.

Throughout history, men and women usually worked in different occupations, which resulted in unfavorable impacts for women’s wages (Briem & Deitrick, 2009). In female dominated occupations, men and women earn less than in occupations that are not concentrated with women (Briem & Deitrick, 2009). This shows that traditional female careers earn less money than non-traditional female careers. If women continue to work in traditional female careers, then the income wage gap may never change. More women need to take on careers, like engineering or
administrative positions, that are dominated by men in order to shrink the income gap.

Summary

Women are entering college in greater numbers than ever before and in greater numbers than men are. Is this true at the local colleges in Monroe County in New York? There are studies that show that women are more successful than men are in certain college classes. Women are also earning more bachelors degrees than men are. However, the degrees are not spread out equally over all fields. For example, women lag behind in areas like engineering.

Despite significant gains for women in education, there are still gender differences in the types of jobs and positions within certain fields. For example, women are under-represented in fields like engineering. Women are also under-represented in higher education leadership positions. There are many reasons that could lead to these differences. There are also many ways that professional could attempt to eliminate or decrease the differences in careers. This makes one wonder if these gender differences hold true to the local area specifically at SUNY Brockport.
Chapter 3:

Participation and Methods

The present action research will be conducted with two groups of seventh and eighth grade students in a suburban school in Western New York. The goal of the research is to predict if the national trends of more female students attending college and an under-representation of females in math and science fields will continue over the next few years. In order to accomplish this objective, students from the seventh and eighth grade will be administered a survey, which will be analyzed to determine if the two trends stated previously will continue over the next few years.

Participants

The participants in this research are forty-one seventh and eighth grade students currently enrolled in a suburban school in Western New York. Of the forty-one students, twenty-one are boys and twenty are girls. The participants range in age from twelve to fifteen. Their race/ethnicity was not surveyed because this study is only looking at differences between males and females. This could be an issue when trying to apply the results of the survey to the general population.

The school they attend, as mentioned previously, is a suburban middle school located in Western New York. Currently, only grades seven and eight are being taught within, and to the researcher’s knowledge, there are no plans for future expansion to incorporate more grades into the school. According to the school website, there are currently 592 students enrolled in the seventh and eighth grade school, with the majority of the students being white.
The researcher does not teach in the school in which the participants attend, nor has the researcher ever been to the school in which the participants attend. To the researcher’s knowledge, she does not know any of the students that participated in the study. The researcher does teach in a different school district that is in the same county. She received a bachelor of science in history with a concentration in adolescent social studies education from a Western New York State college. The person doing this study is currently initially certified to teach social studies and special education for grades seven through twelve. The researcher is currently working toward her master of science in education degree in adolescent social studies education from the same state college that she received her first degree from.

Procedures for the Study

This research study was conducted in a total of two days. In order to determine if the national trends stated previously will continue over the next few years, the researcher asked a colleague to administer a survey to seventh and eighth grade students who attend the school that the colleague teaches social studies at. The researcher will refer to the person that administered the survey as the colleague throughout this study. The colleague administered the same survey at two different times over two different days to two different groups of students and it was optional for students to complete. The first administration of the survey was done during homeroom where students report first thing in the morning to hear morning announcements and to have attendance taken. The second administration of the survey was done during a study hall where students work on missing assignments, independent reading, and/or assigned homework. During both times, students
completed the survey independently. All of the students were able to complete the survey in ten minutes. Students were not offered any incentive to complete the survey.

Instruments for the Study

There will be one major instrument of data for this study. The instrument will be a survey that the researcher designed. The survey consists of nine questions. Seven of the questions are measured quantitatively and two of the questions are measured qualitatively. The seven quantitative questions were multiple choice and four of the questions used a Likert scale where students selected from four options that were labeled a, b, c, and d. There were two demographic questions on the study that asked for the participants’ age and sex. The other seven questions pertained to information that the researcher thought was pertinent for this study.

Data Analysis

The qualitative questions will be organized and analyzed using SPSS (v. 16.0) computer software. The researcher is going to look at trends for males and females based on the survey. For example, the researcher wants to know how many males and females want to attend college versus get a job after they graduate from high school. The researcher is also looking for gender trends for question six on the survey (refer to the survey for question six). Once the data from the survey is analyzed, it will be compared to data from the US census bureau on males and females and the degrees that they earn. When comparing the US Census Bureau data to the data collected from the researcher’s survey, the researcher will be able to conclude if the previously mentioned trends will continue over the next few years.
Data will also be analyzed to see if students feel that the school they attend is preparing them for after high school and to see if students feel that job shadowing helps them determine a future career. This data will be analyzed and used for implications as to what students feel will help them learn about careers and determining a career field for their future.

The first qualitative question was put on the study for demographic reasons. The researcher will analyze this data by grouping participants' responses. The second qualitative question stated “what job would you like to have as an adult?” The researcher will code responses based on whether or not the job requires a college degree. The researcher will continue to code the responses and look at different themes, such as fields of study and gender. At the time of writing this chapter, the researcher is unsure if she will actually use the data collected from this question because she has yet to see the completed surveys. Upon receiving the completed surveys and analyzing the data stated above, there may be a need to further code the responses. At that time, this section of the study will be revised. The researcher plans to use this data to analyze what the participants want their career field to be as an adult. Responses from this question should provide data that enables the researcher to see if the national trend of more men studying math and science will continue.

This entire research study could have been conducted through the means of a qualitative study. If it were completed as a qualitative study, then interviews or notes could have been conducted in order to obtain more detailed information about what students plan to do after high school. The responses from the participants would have
been more open ended. However, the researcher chose not to collect data this way because data was meant to be examined numerically like the US Census Bureau data.
Chapter 4:

Introduction:

Are the national trends of women attending college in greater numbers than men and women being under-represented in math and science majors going to continue based on 7th and 8th grade students’ opinions? In order to answer this question, seventh and eighth grade students in a western New York school participated in a survey. The survey contains questions such as what would you like to do after you graduate high school and what is your favorite academic subject? The following chapter presents the researcher’s findings.

Results:

The results from the student survey indicate that students have different opinions on several different categories. According to the TTEST function on Microsoft Excel, the researcher found that there is no significant difference between males and females in any of the categories. The first category is favorite academic subject area. There were four possible choices, math, social studies, English, and science. There were ten female responses and twelve male responses. The mode for favorite academic subject for females is English. Forty percent of the females say that English is their favorite subject, while twenty percent of the females chose math, twenty percent chose social studies, and twenty percent chose science. The mode for favorite academic subject area for males is social studies. Fifty percent of the boys chose social studies as their favorite academic subject area. The other three options varied. Three of the twelve boys responded that they like science. Two of the boys said they liked English and one of the boys reported that they liked math.
Table 1

*What is your favorite academic subject area?*

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</tbody>
</table>

The next category inquires as to what the student would like to do after they graduate from high school. There were three possible options to choose. They included *get a job, go to college, or none of the above*. Ninety-five percent of the participants said that they want to go to college after they graduate from high school. Out of the ten female respondents, one hundred percent answered that they want to go to college. Out of the twelve male respondents, eleven said they want to go to college and one chose none of the above. There is very little difference between what each student wants to do after high school. The majority of male and female students want to attend college.

Table 2
What Would You Like to do When You Graduate High School?

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get a Job</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Go to College</td>
<td>11</td>
<td>91.7</td>
</tr>
<tr>
<td>None of the Above</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get a Job</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Go to College</td>
<td>10</td>
<td>100.0</td>
</tr>
<tr>
<td>None of the Above</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The third category is if students think it is more important to have a job that makes a lot of money than to have a job that they enjoy doing. Students ranked their opinion on a four point Likert scale from strongly agree to strongly disagree. Of the twelve males, one male chose strongly agree, five males chose agree, and six males chose disagree. Zero males selected strongly disagree. The mode for males for this question on the survey is disagree. Fifty percent of the males chose this. Zero females chose strongly agree. Four females selected agree and four females chose disagree. Two females chose strongly disagree. There are two modes for the female respondents for this question because four of the female respondents indicated agree and four chose disagree, which made agree and disagree both have forty percent of the female respondents choose that. There is no significant difference between the students’ opinions in this category.
Table 3

*It is more important for me to have a job that makes a lot of money, than to have a job that I enjoy to do.*

<table>
<thead>
<tr>
<th>Males</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td>Agree</td>
<td>5</td>
<td>41.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>6</td>
<td>50.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Females</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
<td>40.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>40.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>2</td>
<td>20.0</td>
</tr>
</tbody>
</table>

The final category pertains to job shadowing, such as whether students feel that job shadowing can help them choose a career. Question seven of the student survey asked students to rank if they felt job shadowing would help them decide what career they would want as an adult. One male respondent chose strongly agree. Seven male respondents chose agree. Three male respondents chose disagree and one male said strongly disagree. The mode for question seven for the male respondents is agree. Fifty-eight percent of the male participants chose agree and eight percent chose strongly agree. Three of the female respondents chose strongly agree. Six of
the female participants chose agree and one said disagree. Zero female respondents chose strongly disagree. Sixty percent of females chose agree and thirty percent chose strongly agree. The mode for females is also agree. Question eight of the student survey asked students to rank if they felt job shadowing would get them more interested in careers that they did not know about. Three boys said that they strongly agreed. Six boys chose agree. Two of the male respondents chose disagree and one chose strongly disagree. The mode for question eight based on the male participants is agree with fifty percent of the boys choosing this. Twenty five percent of the boys chose strongly agree. Twenty five percent of the male participants chose either disagree of strongly disagree for question eight. Three of the female participants chose strongly agree and six chose agree. One of the female respondents chose disagree and zero chose strongly disagree. Thirty percent of the female participants chose strongly agree and sixty percent chose agree. Only ten percent of the girls chose disagree. Once again, the male and female choices have the same mode.

Table 4

*I think that job shadowing will help me to decide what career I want to have as an adult.*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td>Agree</td>
<td>7</td>
<td>58.3</td>
</tr>
<tr>
<td>Disagree</td>
<td>3</td>
<td>25.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>8.3</td>
</tr>
</tbody>
</table>
### Table 5

*I think that job shadowing will get me interested in careers that I do not know about.*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>3</td>
<td>25.0</td>
</tr>
<tr>
<td>Agree</td>
<td>6</td>
<td>50.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>16.7</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>3</td>
<td>30.0</td>
</tr>
<tr>
<td>Agree</td>
<td>6</td>
<td>60.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
<td>10.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Chapter 5:

Introduction:

The researcher conducted this study to explore if national trends that exist in today's society will continue. The specific trends she was interested in was that more women are attending and graduating from college than men are (Lepowski, 2009) and that women are underrepresented in the fields of math and science (Amelink & Creamer, 2010; Baylor, Doerr, Plant, & Rosenberg-Kima, 2010; Davies & Guppy, 1997; Jacobs, 1995). Seventh and Eighth grade students completed a survey which demonstrated their opinions towards education such as what they would like to do after high school and what their favorite subject is. The results of the survey demonstrated no significant difference between male and female students in any of the categories. Results showed that the majority of students want to attend college after they graduate high school. The results of the survey did not provide good evidence for the researcher to make sound predictions about future trends.

Discussion of Results:

The researcher interpreted the results of the survey to suggest that all students, both male and female, want to attend college after high school. According to the results of the survey, 95% of the participants expressed that they wanted to go to college after high school. One reason for this may be because students do not know about all the other options that are available, such as the military or exchange programs. Another reason could be that students have high expectations for themselves as adults. The question on the survey that pertained to subject area showed that the
The majority of males and females' favorite subject area is not math or science. The majority of males chose social studies as their favorite subject area and the majority of females selected English as their favorite subject. This could be because students are the most successful in these classes or for many other reasons that were not examined. Examining why students like certain classes is a suggestion for further research. There is no evidence from the survey that suggest that the participants chose their favorite subject based on the field of study they want to pursue following high school. There is no significant difference between males and females for the third category, which is if students think it is more important to have a job that makes a lot of money than to have a job that they enjoy to do. There are only slight differences between girls and boys in this category. As for the final category, the bulk of male and female students agree that job shadowing will help them decide a career and get information about careers. One reason for this could be that students are interested in their life as an adult and want to learn and experience careers that are available to them. Students have very few opportunities to explore careers. In order for students to have these opportunities the school must provide this type of chance.

The researcher based the study on current trends that exist in today's society. Lepowski (2009) and the US Census Bureau (2009) portray that women currently attend college and earn more degrees in greater numbers than men. For example, a study conducted by the US Census Bureau that ended in 2006 showed that men receive only 41.3% of all degrees earned from a higher institution (US Census Bureau, 2009). This study is unable to predict if this trend will continue. However, the current study suggests that both boys and girls want to attend college. The
investigator also based the study on other research that suggests that more men participate in math and science fields than women do (Amelink & Creamer, 2010; Baylor, Doerr, Plant, & Rosenberg-Kima, 2010; Davies & Guppy, 1997; Jacobs, 1995). Results of this study do not provide substantial data to determine if the trends stated above will continue in the future. The study does suggest that students have varying opinions on their favorite subject area. In conclusion, educators can not assume what subjects students are interested. However, they can believe that the majority of students want to go to college so it is a school's job to help prepare students for this. Educators can also assume that students feel that they will become interested in careers and have help deciding careers through the technique of job shadowing. Therefore, this kind of opportunity should be provided for students.

Limitations:

This study has a number of limitations that the researcher acknowledges. Participants were from a suburban district in Western New York and were of a convenient sample. The participants were not taken at random, which allowed the researcher to choose a convenient sample. The researcher had a colleague administer the survey to 7th and 8th grade students. The colleague was the social studies teacher of the students participating in the study, which may present bias in this study. In addition, the sample size may affect the validity and reliability of the results. The population of the participants threatens the external validity of the study. Further, the researcher and others can not generalize this study to a greater population because the selection of participants and the sample size. It is also unable to be generalized to rural or urban school districts since participants from these locations are missing from
the study. A suggestion to improve the study would be to conduct this survey in rural, urban, and suburban school districts so that the results could be more generalized to them. Another suggestion to improve the study would be to collect data from multiple grade levels throughout middle school and high school.

Another limitation of the survey is the instrumentation used to collect data. This may be a threat to the internal validity of the study. The researcher did not test the validity and reliability of the survey. She is also inexperienced in making surveys. As a result, the instrument used may not have consistently measured what it was intended to measure. When making the survey, the researcher did not look at socio-economic status or ethnicity. The survey did not collect data on numerous variables. An improvement to the study that the researcher could have made is to test the validity and reliability of the survey before administering it to students. She could also include questions to determine the participants’ ethnicity and socio-economic status. This would enable the researcher to interpret the results in a variety of ways, not just by looking at differences between males and females.

The final limitation of the survey is a threat to the internal validity because of interactions between the person handing out the survey and the students taking the survey. The participants may have completed the surveys in a way to make themselves look good in order to please their teacher since their teacher administered the survey to the students and the teacher was in the classroom when the surveys were filled out. The participants may have thought that if they filled the survey out in a particular way, then it would affect their grade.

Implications:
Keeping in mind the limitations, these findings still have implications for educators who are interested in differences between males and females or who are interested in preparing students for life after high school. An implication from the results of this study is they show that researchers, teachers, students, administrators, and families need to think about students' life after high school. The results of the survey suggest that the majority of students want to go to college. Students should not be characterized as either college material or non-college material. Instead, school staff should attempt to educate all students so they have the skills needed to be successful at college. Administrators, teachers, and parents need to hold high expectations in order to prepare students for college. Teachers and counselors should educate students and their parents on college requirements early on in high school, so that everyone is aware of what is needed to get students to where they want to be upon completion of high school. Administrators should offer trainings to prepare and educate parents on the college process such as finding a college and paying tuition. High schools should also offer college prep courses or courses where students can earn college credit.

One implication of this study is that students do not know of a variety of available options after high school. According to the survey, 95% of students chose that they wanted to go to college after high school. One reason for this may be because students do not know about all the other options that are available. School counselors should inform students and parents about a range of opportunities for students after they graduate high school. There should be small group discussions
and large assemblies that enlighten people on options such as the military, exchange programs, Peace Corps, and careers that are available to high school graduates.

Another implication of the study is that parents and school staff should not have pre-conceived notions about students and the subjects that they like. According to the study there is no significant difference between males and females and their favorite academic subject area. Counselors should refrain from assuming that a student will not like a certain course based on their sex. School staff should provide parents with a chance to rid themselves of gender stereotypes through education.

The study also suggests that schools should offer students job shadowing opportunities. Based on the results of the survey, the majority of all students agree that job shadowing will get students interested in careers and help them decide a career. Teachers should provide learning opportunities for students to investigate different careers. A part of this should be a job shadowing opportunity where a student observes and participates at a job. Counselors should offer group sessions that allow students to learn about careers and have students complete on site job visits. Parents should participate in the traditional bring your child to work day. This will provide students with an opportunity to learn about and visit their parents' careers. This helps learners experience different careers.

Future research should focus on why students want to go to college or why women earn more degrees. This type of research is missing for this topic. It is also unclear why women are earning more degrees than men are. Another suggestion for future research would be a longitudinal study to see what students want to do after college and if students actually do what they want to do. Researchers could study if
students' opinions change or what causes students to not do what they said they wanted to do. Researchers should study the impact of job shadowing opportunities on career choice.


Griffiths, V. (2009). Women managers in higher education: Experiences from the UK. 

*The International Journal of Learning, 16*(10), 397-405.


How the Subject Should Be Taught:

The current study has many implications. The research and findings in this study are important for current educators to learn in order to best work with females in education. The researcher designed a workshop for other educators. In the workshop, the researcher uses a variety of strategies to teach the findings to other colleagues.

The workshop begins with a PowerPoint and group discussion on the changes in the landscape of education for women. Refer to appendix B for notes to the PowerPoint. This covers the history of female education back to the foundations of America. After participants in the workshop learn about the history of female education, there will be a group discussion about the similarities and differences of female schooling throughout history compared to present day. During this time, the presenter and the participants of the workshop will fill out a Venn diagram. During this time, the presenter will provide the participants with recognition through the pause, prompt, and praise technique.

After having a discussion and filling out a Venn diagram that compares the history of female education to present day female education, the presenter will continue to go through the PowerPoint. This part of the workshop thoroughly examines the number of males and females earning degrees from the 1950s through present day. When discussing the numbers of males and females earning degrees, the presenter will provide participants with a nonlinguistic representation, a graph, to
help the learners visualize what was happening with the percentage of degrees earned by men and women.

Upon completion of analyzing the numbers of degrees earned by sex, the presenter will facilitate a discussion on the reason for an increase in degrees earned by females. One part of this discussion includes an analysis of music lyrics from each decade from the 1950s through present day. During this time, the presenter will have the participants get into groups of three, but no more than four members to examine how certain music lyrics portray males and females throughout the different decades. Refer to appendix C for the analysis worksheet.

Upon the completion of analyzing the music lyrics, the presenter will facilitate an exploratory session that brainstorms strategies for working with girls. The presenter will offer the strategy of self-check to the teachers in the workshop. In this strategy, teachers should pick a time period and mark how many times they call on males and females during this time. This will enable educators to monitor their own classroom practices. This will also enable educators to learn if females are earning more degrees than men are because teachers tend to interact more with females or if females are earning more degrees than men in spite of what is going on in the classroom. During the exploratory session, the cooperative learning groups will brainstorm how outside influences may affect females in education. For example, the presenter will offer suggestions to groups to examine how media messages, service ads, and politics affects females.

After analyzing how music lyrics show that attitudes about women changed in the later half of the 20th century, the presenter will discuss a small local study that she
completed with seventh and eighth grade students. After discussing the results of the study, the presenter will provide suggestions to the educators in the workshop. The presenters will suggest that educators do not assume students will not go to college; instead, the presenter will recommend that school staff attempt to educate all students so they have the skills needed to be successful at college. The presenter will also advocate that school staff begin to teach students and their parents about the multitude of options available for students upon completion of high school. The final recommendation put out by the presenter will be to educate students through activities like job shadowing on different careers so that students can become knowledgeable about their options. This could help close the income gap that exists between males and females.

**Grounded Theory:**

Researchers consider the strategies used in this teaching component as best practices for teachers. Current educational research by Robert J. Marzano, Debra J. Pickering, and Jane E. Pollock supports the strategies used during this workshop. The strategies included in the workshop include identifying similarities and differences using Venn diagrams, providing recognition through the pause, prompt, and praise technique, using non linguistic representations and using small cooperative learning groups.

Participants in the workshop will have to identify similarities and differences between the history of female education and present day female education. The presenter and the participants will fill out a Venn diagram to record the similarities
and differences that the participants suggest. Educators Robert J. Marzano, Debra J. Pickering, and Jane E. Pollock support past researchers that found indentifying similarities and differences to be mental operations that are basic to human thought.\textsuperscript{72} One way to identify similarities and differences is through comparison method using a graphic organizer. The graphic organizer that is used in this teaching component is a Venn diagram. This type of diagram provides learners with a visual display of the similarities and differences between two items.\textsuperscript{73} As the participants at the workshop identify similarities and differences to fill out the Venn diagram, the presenter will provide recognition to the participants that are engaged in the activity.

The next strategy used in this teaching component is a non linguistic representations. During the workshop, the presenter will share data on numbers of degrees earned by sex. While presenting this data, the presenter will provide participants in the workshop with a graph to show the decreasing percentage of degrees earned by men from 1950 through 2006. Marzano, Pickering, and Pollock discuss psychologist Paivio’s dual-coding theory and states that “this theory postulates that knowledge is stored in two forms – linguistic form and an imagery form...the imagery mode...is expressed as mental pictures.”\textsuperscript{74} This strategy is a best practice for teachers.

Along with using non linguistic representations, the presenter will also use cooperative learning groups to promote learning amongst the participants in the workshop. Marzano, Pickering, and Pollock state “organizing students in cooperative

\textsuperscript{73} Ibid, 18.
\textsuperscript{74} Ibid, 73.
learning groups has a powerful effect on learning.”\textsuperscript{75} During the workshop, the presenter will make sure that the groups contain no more than four people. Educational researchers report the effect of group sizes and find that “cooperative groups should be kept rather small in size.”\textsuperscript{76}

Throughout this teaching component, the presenter uses many strategies that educational researchers proved to be best practices for teachers. The strategies used, such as identifying similarities and differences using Venn diagrams, positive recognition using the pause, prompt, and praise strategy, the use of non linguistic representations, and small cooperative learning groups are all grounded in theory and are proved in increase student learner. Using these strategies will ensure that the participants in the workshop will get a lot out of the presentation and be able to improve the education of male and female students.

\textsuperscript{75} Ibid, 77.
\textsuperscript{76} Ibid, 88.
Appendix A

Survey

1. How old are you? ______

2. What is your sex?
   a. male
   b. female

3. What is your favorite academic subject?
   a. Math
   b. Social studies
   c. English
   d. Science

4. What would you like to do after you graduate from high school?
   a. Get a job
   b. Go to college
   c. none of the above

5. This school is preparing me for what I want to do after high school.
   a. Strongly agree
   b. Agree
   c. Disagree
   d. Strongly disagree

6. It is more important for me to have a job that makes a lot of money, than to have a job that I enjoy to do.
   a. Strongly agree
   b. Agree
   c. Disagree
   d. Strongly disagree

7. I think that job shadowing will help me to decide what career I want to have as an adult.
   a. Strongly agree
   b. Agree
   c. Disagree
   d. Strongly disagree
8. I think that job shadowing will get me interested in careers that I do not know about.
   a. Strongly agree
   b. Agree
   c. Disagree
   d. Strongly disagree

9. What job would you like to have as an adult?
Appendix B

Slide 1:

- Introductions and background on myself
- Describe that we will begin by examining the history of education for women

Slide 2 “Foundations of America”:

- In order to get a full understanding of the progression of female education, one must look back to the foundations of the country.
- This is typically an overlooked period because people traditionally view women as private people that were restricted to the home during this time.
- Although there is not a lot of literature that examines women in education in early America, one can see that people felt it was important to educate women during this time.
- Discuss the idea of “Republican Motherhood” and how it gave elite women a small political voice. This concept helped 4 generations of women gain respect and influence public life.

Slide 3 “Who had access to education in early America?”:

- Mainly elite urban girls had access to education, however anyone that could read or attend school could benefit from the school books.
- During this time, women received an education that emphasized oral recitation and performance. Women learned how to become better public speakers. This is evidence that women were not just private beings.
- It’s important to know that women were not learning this type of curriculum to be able to give a public speech to a large audience; instead women learned oral recitation and performance in order to be better versed when socializing.

Slide 4 “Shift from Public to Private”:

- During the early part of the 19th century, we see women shift into the role of a private and domestic person that people traditionally view women as.
- From 1810 through the 1820s people begin to advocate for a more gender-specific curriculum.
During this time, the idea of an educated woman began to seem unattractive and unfeminine.

Education for women did not stop during this time. It just changed. Educators now taught women to be modest.

**Slide 5 “Women Find Their Voice”:**

Women were not restricted to being private and educational opportunities continued to grow despite the gender-specific curriculum of the 1820s.

There is an increase in female education because of an increase in female academies and schoolings that occurred within the first century of the United States. This type of schooling helped lead women into a “public” life.

The majority of women receiving education at this time were elite white women, but many middle class females also benefitted from education at this time.

Women that helped lead early social reforms were largely from a female academy or seminary.

The curriculum that females learned was similar to that of what men learned at college. This was useful to women as teachers, not necessarily in the home.

Women begin to sharpen their arguments on racism and slavery. Some even published their arguments in anti-slavery newspapers.

For example, Harriet Beecher Stowe wrote *Uncle Tom's Cabin*, which is noted as a key influence to President Lincoln and the start of the American Civil War. Other women like Sarah Joseph Hale, Elizabeth Ellet, and Lydia Maria Child.

**Slide 6 “American Revolution-Civil War”:**

According to Mary Kelley.

**Slide 7 “Opportunities for Women In Education”:**

The fact that these schools existed provide evidence that there was opportunities for women in education that many historians previously did not acknowledge.

According to library records, women were interested in the same types of readings.

**Slide 8 “What Curriculum Was Taught to Males and Females?”:**
- There was no clear cut agreement, besides the fact that everyone agreed English was
  the most important subject for males and females.

- Females were taught "how" to speak so that their elite social class would be distinct
to peers.

- Men learned other languages like Latin and Greek to prepare them for careers in
  ministry, medicine, and legal professions.

- Women typically did not participate in these fields, so it was not useful for them to
  learn these languages. However, women were not forbid from these languages.
  Instead, the option was limited and women were not interested.

**Slide 9 “Curriculum Shifts”:**

- Women find needlepoint applicable to their life and that is most likely why the
  course appealed to them.

- During this time women were constantly mending and altering clothes for their own
  families or for others, which enabled women to make a small income.

**Slide 10 “Higher Education”:**

- The attitude of the Greeks and Romans continued through early America until the
  1820s.

- In the early part of the 1800s there was a creation of female seminaries, but they did
  not have the same standards as men’s colleges.

**Slide 11 “Higher Education”:**

- Although colleges become available to females in the 19th century, the curriculum
  was much different for females and males.

- People did not widely accept and welcome women into higher education. Many
  highly notable men made claims that educated women were unable to have children.

**Slide 12 “Post Civil War”:**

- 1870s-1890s boys and girls had the same curriculum in high school.

- Many girls remained in school longer than boys did during this time because males
  had to be the bread winner for the family. In some middle and lower class families
  girls did not stay in school either b/c they had to earn an income.
-Middle and upper class girls did not have to worry about work, so they went to school to stay occupied.

-Some presidents of credible universities assumed that coeducation of males and females hindered the maturity of males and impeded female reproduction.

-The rise in urban areas and changing employment patterns changed the outlook on female education.

**Slide 13 “Progressive Era”:**

-The job market created a need for vocational education, which in turn caused the curriculum to be crafted to needs of gender, urbanization, and employment.

-Males and Females were no longer receiving the same education. The curriculum became gender specific with women taking home economics classes to guarantee that women would learn domestic skills.

-The progressive era was a time of reform across American society. However, women failed to unite and stand together. For every issue that women tried to reform, there were groups of other women opposing the fight.

-Colleges developed rapidly during the first half of the 20th century and it created a pressure to co-educate and admit women.

**Slide 14 “WWII”:**

-There were many changes in the lives of American women.
  ~Women filled in vacancies of workers that were away at war

-This is when the participants in the workshop will identify similarities and differences and fill out the Venn diagram to assist in this strategy

**Slide 15 “Middle of the 20th Century”:**

-President Truman felt that Americans needed a better higher education

-Organizations and recommendations from the president helped contribute to gains in female education throughout the second half of the 20th century.

-GI Bill changed the number of students attending colleges directly following WWII, but its impact was not as large as one would typically expect.

**Slide 16 “Growth in Education between 1940-1980”:**
-enrollment grew from less than 1.5 million in 1940 to more than 11 million in 1980, which means the rate of increase was almost 800%.

-the largest growth was during the 1960s and 1970s.

-1960 became a turning point. Before 1960, higher education expanded, but it was mainly men attending schools. After 1960 women and minorities begin attending in significant numbers.

-One reason for the growth in higher education can be attributed to the fact that the number of students finishing high school increased, which in turn allows more students to further their education.

Slide 17 “Overall Percentage of Degrees Earned by Men”

-Pass out the graph on “percentage of degrees earned by men”

-The numbers and percentages are based on the number of people surveyed by the US Census Bureau.

-The percentages on the slide refer to the overall percentage of men to earn a degree.

-According to the US Census Bureau and the people who participated in the survey…

-1950: 329 men earned a bachelor’s degree, and 103 women earned the same degree. 6 men earned a doctoral degree and 1 woman earned the same degree.

-1960: 254 men earned a bachelor’s degree, and 138 women earned the same degree. 9 men earned a doctoral degree and 1 woman earned the same degree.

-1970: 451 men earned a bachelor’s degree, and 341 women earned the same degree. 26 men earned a doctoral degree and 4 women earned the same degree.

-1980: 474 men earned a bachelor’s degree, and 456 women earned the same degree. 23 men earned a doctoral degree and 10 women earned the same degree.

-1990: 492 men earned a bachelor’s degree, and 560 women earned the same degree. 24 men earned a doctoral degree and 14 women earned the same degree.
-2000: 530 men earned a bachelor’s degree, and 708 women earned the same degree, 25 men earned a doctoral degree and 20 women earned the same degree

-2006: 631 men earned a bachelor’s degree, and 855 women earned the same degree, 29 men earned a doctoral degree and 27 women earned the same degree

Slide 18 “Reasons for an Increase”:

-The generation born during the eighteen years immediately following the war was more than 50% larger than the one preceding it.

-With an increase in the number of females in the labor force, women possibly thought of college as being more applicable

-Women became more aware of the future labor market and began to receive a similar level of high school math and science in order to be prepared for college

-The curriculum once again changed and since this time the nation’s colleges have never been the same

-In the second half of the 20th century, new types of educational institutions arise. There is a development of junior colleges, and an increase of four-year institutions and community colleges. There is also an increase in the amount of students commuting to colleges.

Slide 19 “Examining Music Lyrics to Hear How Attitudes in Society Changed”:

-One reason for a change in the percentage of women earning degrees, is that attitudes about women changed.

-We will examine music lyrics from each decade between 1950 and 2010 to see how the lyrics portray the changing attitudes in society

-The presenter will place the participants into small cooperative learning groups to analyze the music lyrics on the worksheet

Slide 20 “The Playing Field Is Still Uneven”:

-Men are earning more money than women are, despite both sexes having the same type of degrees
Slide 21 “Local Study”:
- From here, I set up a study to find out what our current students are thinking
- In spring 2010

Slide 22 “Research Problem”:
- These are the issues I had in mind during the study

Slide 23 “Research Question”:
- This is the question I sought to find the answer to.

Slide 24 “Significance of Problem”:
- This is why the study should be completed

Slide 25 “Purpose of the Study”:
- This is what the study did

Slide 26 “Results”:
- Read the slide and click to the next one

Slide 27 “Categories”:
- No major difference between males and females with their favorite academic subject area. The favorite subject for females is English and for males is social studies.
- All but 1 student wanted to go to college
- the males and females were both split on the importance of money over enjoyment
- the majority of students said they would be interested in job shadowing

Slide 28-30 “Implications”:
- It is important for school staff to learn all of this to ensure a proper education
- Teachers should self-check to make sure that they are calling on girls and boys equally
- Educators need to make sure students know all of their post-secondary options and that students are knowledgeable about the different career fields. This way maybe the gender income gap could decrease.

- Students are attending colleges, so it is necessary for educators to prepare students to succeed in higher education.

- After discussing the implications, we will brainstorm strategies for working with girls.
Appendix C

Name: __________________________

Directions: Interpret the following lyrics in terms of how they portray males and females

1. 1950: “Come with me my love, to the sea, the sea of love, I want to tell you, how much I love you, do you remember when we men, that’s the day I knew you were my pet, I want to tell you, how much I love you”
   -Phil Phillips and The Twilights

2. 1960: “This is a man’s world, this is a man’s world… you see, man made the cars that take us over the road, man made the trains to carry heavy loads, man made electric light to take us out of the dark, man made the boat for the water, like Noah made the ark”
   -James Brown

3. 1960: “Sometimes it’s hard to be a woman, giving all your love to just one man, you’ll have bad times, and he’ll have good times, doin’ things that you don’t understand, and if you love him, oh, be proud of him, cause after all he’s just a man, stand by your man, give him two arms to cling to, and something warm to come to, when nights are cold and lonely”
   -Tammy Wynette

4. 1970: “All these years I’ve stayed at home, while you had all your fun and every year that’s gone by, another babys come… this old maternity dress I’ve got, is goin’ in the garbage, the clothes I’m wearin’ from now on, wont’ take up so much yardage, miniskirts, hot pants, and a few little fancy frills, yeah I’m makin’ up for all those years”
   -Loretta Lynn
5. 1970: “Go on now go walk out the door, just turn around now, ‘cause your not welcome anymore, weren’t you the one who tried to hurt me with goodbye, you think I’d crumble, you think I’d lay down and die, oh no, not I, I will survive.”
   -Gloria Gaynor

6. 1980: “I come home in the morning light, my mother says when you gonna live your life right... oh girls just want to have fun, the phone rings in the middle of the night, my father yells what you gonna do with your life... oh girls just want to have fun.”
   -Cyndi Lauper

7. 1990: “While all the time that I was loving you, you were busy loving yourself... eleven years out of my life, besides the kids I have nothing to show, wasted my years a fool of a wife, I shoulda left your ass a long time ago... No, I’m not gon cry, It’s not the time, cuz you’re not worth my tears”
   -Mary J. Blige

8. 1990: “I’m a bitch, I’m a lover, I’m a child, I’m a mother, I’m a sinner, I’m a saint, I do not feel ashamed, I’m your health, I’m your dream, I’m nothing in between, you know you wouldn’t want it any other way, so take me as I am, This may mean you’ll have to be a stronger man”
   -Meredith Brooks
9. 2000: “Tell me how you feel about this, Try to control me, boy, you get dismissed, pay my own car note, and I pay my own bills, always 50/50 in relationships, the shoes on my feet- I bought ‘em, the clothes I’m wearing- I bought ‘em, the rock I’m rockin’- I bought it, ‘cause I depend on me.”
-Destiny’s Child
Overview of Changes in the Landscape of Education for Women

By: Mackenzie Marr

Foundations of America

- Historian Carolyn Eastman expands on the idea that women only took care of the home and raised children
- "Republican Motherhood": women need to be educated in order to better raise the children
- Anna Harrington's speech in 1793 proves that women were involved outside of the home
- Historian Mary Kelley emphasizes that women were key contributors to the early republic

Who had access to education in early America?

- Anyone who had access to schoolbooks or common schools
- Mostly elite urban girls
- Most of the curriculum focused on public speaking or social speaking
- Increase in female academies and seminaries between 1790-1860
Shift from Public to Private

• Between 1810-1820 attitudes toward women shift
• Gender-specific educational subjects teaching females how to be ladies
• Women become "private"

Women Find Their Voice

• Female educational institutions contributed to Women's social reforms
• Mainly elite white women and middle class females benefitted from education and began to want social mobility and economic opportunity

American Revolution-Civil War

% of Females attending institutions
is equal to or greater than
% of males attending institutions
Opportunities for Women in Education

• 1821: Troy Female Seminary
• 1832: Hartford Female Seminary
• 1837: Mount Holyoke Seminary

What Curriculum Was Taught to Males and Females?

Females: taught English rhetoric for diction, tone, and pronunciation

Males: taught English as well as foreign languages to help prepare them for future careers

Curriculum Shifts

• Early 1800s: shift to gender specific schooling
  ex: Needlepoint becomes the most common course offered to females
Higher Education

- Ancient Greece and Rome: statements of educational equality, but it was never implemented
- Early America: people felt women should be educated, so they can teach kids to be good citizens, which is the idea of "Republican Motherhood"

Higher Education

- Mid 1800s women are able to attend American Colleges
- Men: studied liberal arts to train for professions in law and medicine
- Women: concentrated in home economics

Post Civil War

- 1870s-1890s: males and females had the same curriculum
- Many boys left for jobs and middle to upper class girls stayed in school for their only chance of professional status
- Presidents of credible universities did not like females participating in education
Progressive Era

- Rise in vocational education leads to a more gender specific curriculum

WWII

- Largely unexamined time for the history of women in education
- WWII started changes in the lives of American women
- In greater numbers, women began to attend colleges and earn degrees in increasing numbers

Middle of the 20th Century

- Development of social organizations that wanted to advance education for women  
  ex: Commission on the Education of Women (1953)
- President Truman’s 1947 Commission on Higher Education
Growth In Education between 1940-1980

"The college campus changed from a place reserved for a relatively small fraction of the population to something of a social and academic elite, to one frequented by a broad cross-section of students. Going to college became a relatively commonplace experience."

-Dongbin Kim and John L. Rury

Overall Percentage of Degrees Earned by Men

- 1950: 75.7%
- 1960: 65.8%
- 1970: 59.2%
- 1980: 51.1%
- 1990: 46.6%
- 2000: 42.5%
- 2006: 41.3%

Reasons For an Increase

- Baby boom following WWII
- Civil Rights and Women Rights Movements
- Change in gender-role expectations
- After WWII, female participation in the labor force changed
- Development of different educational institutions
Examining Music Lyrics to Hear How Attitudes in Society Changed

- 1950s: Phil Phillips and The Twilights "Sea of Love"
- 1960s: James Brown's "It's a Man's Man's Man's World" and Tammy Wynette "Stand By your Man"
- 1970s: Loretta Lynn "The Pill" and Gloria Gaynor "I Will Survive"
- 1980s: Cyndi Lauper "Girls Just Want to Have Fun"
- 1990s: Mary J. Blige "Not Gon' Cry" and Meredith Brooks "Bitch"
- 2000s: Destiny's Child "Independent Woman"

***Interpret the lyrics on the handout

The Playing Field Is Still Uneven

- Men earn more money than women do regardless of the level of educational attainment

  ex:
  - High School Diploma: Men earn $13,487 more than women
  - Associate’s Degree: Men earn $15,512 more than women
  - Bachelor’s Degree: Men earn $19,309 more than women
  - Master’s Degree: Men earn $21,175 more than women
  - Doctoral Degree: Men earn $29,420 more than women

Local Study
Research Problem

- Women are attending college and earning more degrees than men are (Lepowski, 2009)
- The percentage of men earning degrees has decreased in the last 50 years
- However, there is an unequal representation of males and females across different fields of study

Research Question

- Will the national trends that more women are attending and graduating college than men and women are under-represented in math and science fields continue through 2020?

Significance of Problem

- So that school staff can ensure proper education for students
- So that school staff can ensure that men do not fall significantly behind women in regards to education
- So that school staff can attempt to make students interested in all subject areas and career fields
Purpose of the Study

• To examine if local seventh and eighth grade students exhibit the current national trends

• To examine if students feel that job shadowing will help students decide their future and help students decide career paths

Results

• No significant difference between males and females in any of the four categories

Categories

• 1: Favorite Academic Subject Area

• 2: Post-Secondary Options

• 3: Importance of money over enjoyment

• 4: Job Shadowing
Implications
• School staff need to consider post high school life for students during their education
• All students should be taught skills for college
• All students need to have high expectations

Implications Cont’d.
• Education of college requirements at an early age
• Trainings to assist parents in the college process
• College prep courses or College Courses

Implications Cont’d.
• Teach about a variety of options available after high school
• Eliminate judgments about differences between boys and girls
• Teachers need to self-monitor
• Offer job shadowing opportunities