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### **Does Marriage Have a Differential Effect on the Career Path of Men and Women?**

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Does Marriage Have a Differential Effect on the  
Career Path of Men and Women?

By

Elizabeth Horgan

*A Thesis is submitted in partial fulfillment of the requirements for the course Senior Seminar (EC 375), during the Spring Semester of 2020*

*While writing this thesis, I have not witnessed any wrongdoing, nor have I personally violated any conditions of the Skidmore College Honor Code.*

*Thesis Advisor: Rodrigo Schneider*

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## **Abstract**

This paper investigates whether or not there is a differential effect of marriage on the career path of men and women. Using the 2010 US census, I analyze the relationship between gender, marital status, salary, age and education levels. As the background of this paper suggests, women are less likely to make career advancements past their husband and are more likely to prioritize his career goals. Due to these reasons, women would not receive the same benefit to their career from marriage that men do. Through the regressions of this study I was able to determine that on average, married women make \$25,300 less per year than married men. This large difference in salary of married people suggests that men are receiving a greater social benefit from marriage than women are. This paper suggests ways to fix this differentiation through creating a tax policy that no longer punishes married couples with similar salaries as well as future studies that could be done to support this work.

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## **1.0 Introduction**

There is a wage gap in the labor market that exists between men and women, and while many of its causes have been identified there are still factors that are considered unidentified. If marriage has a differential effect on the career path of men and women, then it could help explain this wage gap. When couples get married, they are more likely to move to a location that will benefit the husband's career over the wives (Loken 2012; Eliasson 2012). Married women are also more likely to be limited by their husband's career by not earning more or advancing past him (Folke and Rickne 2016; Bertrand et al. 2015). As dictated by social norms the majority of unpaid work that is done in a household is also disproportionately put as the responsibility of the wife regardless of the portion of the household income that she earns (Taiwan et al. 2014; Britt et al. 2013). There is a differential effect of marriage on women compared to men that is detrimental to women, as they are less likely to make career advancements past their husband and are more likely to prioritize his career goals. This paper finds that there is a disproportionately negative effect of the income of woman than the income of men when they are married.

## **2.0 Literature Review**

The literature review for this paper is structured as follows: an explanation of the wage gap between men and women, an investigation of joint decisions of living situations and job opportunities for a married couple as well as the limitations of marriage, and finally discussion of the social norms put on husbands and wives and the effect these expectations have on the success of their career.

## **2.1 The Wage Gap**

In previous literature scholars have found various explanations for the gender gap. Blau and Kahn (2017) look at both traditional and new research that is being done in explaining the gender gap. They look at the changes in the wage gap from 1980 to 2010 and the characteristics that they find as factors are “schooling, experience, industry, occupation, and union status” (Blau and Kahn 2017). Their findings also show that the wage gap has been closing over the past thirty years. Women’s educational attainment, as measured by college graduates, has surpassed that of men’s yet the gap still exists. The intention of this paper is to find if being in a relationship is beneficial or detrimental to a woman’s career path, and therefore is a factor in the part of the wage gap that is still unaccounted for. The gap in education between men and women has closed as more women than men are pursuing higher level of education. Miki and Yuval (2011) found this pursuit to be working to close the wage gap, however they are still discriminated against in the workplace and having this level of education is not advancing them as much as it would for a man.

## **2.2 Living Situations and Job Opportunities**

Couples working in academia, for example need to find work for both members of the couple in relatively close proximity. Woolstenhulme (2012) argues that for academic couples since both partners work in a highly specialized field and the locations of these opportunities can be geographically isolated, these couples face greater challenges than most. This challenge is referred to as the Two-Body Problem, which is characterized by the limited number of universities and the fact that many of them are located far apart from each other and sometimes far from job opportunities outside of the academic world. There may be more opportunities for

non-academic couples, but the issue of finding work near a partner is still relevant, especially in couples starting their careers. If there is an opportunity in a city for one spouse where it would be difficult for the other to find a job, a decision has to be made between whose career is more important and should be focused on.

In looking at the US college graduates, Costa and Kahn (2000) observe settling trends among couples who have recently graduated. By looking at these trends they were able to determine that from 1940-1990 it has become increasingly popular for college educated couples to live in larger cities. Wives' labor force participation increased, and in doing so increased the issue of colocation regarding spouse's careers. As couples are becoming increasingly likely to both have careers the need for good jobs for both members of the couples is increasing. This makes it more likely that couples live in a larger city with more opportunities for both the man and woman. They found that with couples in which neither member had any higher education there is a lower probability that they live in a city than a couple in which at least one of them had higher education. They also found that if both members of the couple had completed a form of higher education, they were even more likely to live in a city, however the difference was significantly less between one and both members being educated versus between none and one member.

When one member of a couple has a job opportunity that requires them to move, the other member has to move as well if they want to stay together. To investigate the moving patterns of couples, Eliasson (2012) looks at couples in Sweden and their earnings before and after self-selected migration, where the couple chooses to move to a new location. There are confounding variables influencing each circumstance but Eliasson was able to look at the earnings of both the women and men before and after the migration. He found that the earnings

of wives whose salaries started on the higher end, were reduced over the move. Since these couples were choosing to move there could be a combination of reasons that this decrease exists such as cost of living decreasing, housing prices and regional amenities. However, the males earnings did not drop in the same way that the wives earnings did.

Single women have a lower likelihood of taking “career-enhancing actions” than women in a relationship, as demonstrated by Bursztyn, Fujiwara and Pallais (2017). They argue that single women have to decide between making decisions that could increase their careers or decisions that could increase the likelihood that they could have a husband. In their study they tested whether there were differences between married and single women and how they acted when they were alone versus when they were in front of single men and their decisions became known to them. The women who were not in relationships were less ambitious in public. If single women were less likely to be ambitious, then it would be harder for them to advance in their career even if they were as qualified as a male or married female worker.

Bursztyn et. al. (2017)’s argument that women are more ambitious when they are in a relationship is refuted by the argument that women who are in relationships also have to sacrifice more than women who are single. This could include moving or delaying their careers in order to allow their partner to be more comfortable or secure in their career. Loken (2012) researched where young couples in Norway decided to live when they start their own families. He found that couples with higher education have higher mobility as they have most likely moved away from home for schooling, therefore they are much more likely to move again when they begin their careers. By looking at Norwegian registry data he was able to determine the locations young adults live when they finish their education. He found that the labor market as well as family influences, such as where their parents live, have an effect on where they live. For men



the family ties were stronger, and they were more likely to live closer to their parents or other family members than their female partners. This prioritization of the male family over the female's family could lead to better career opportunities for the man as he is back in a familiar place where he most likely has more family connections as well as already be a part of the community. This shows that marriage has a lower social cost to men than to women, that could advance their career possibilities in a way that is not something that is normally thought of.

### **2.3 Limitations of Marriage**

While men have been found to prefer women who are less ambitious and do not make as much money as they do (Hitsch et al 2010), Fisman (2006) found that women prefer men who are ambitious. This leads to a structural difference in how couples initially are formed that could lead to women intentionally lessening their ambition in order to form a relationship. While the preference that men have is directly related to their own, the preference that women have for ambition in their partner is not directly related to their own levels of ambition. They are more likely to prefer the most ambitious partner as opposed to comparing their partners ambition to that of their own, they compare it to the other possible partners that they could find.

When looking at the qualities that people look for in partners the differences between what men and women are looking for have been studied extensively. By looking at online dating and the decisions that people made there Hitsch, Hortacsu and Ariely (2010) were able to find the differences between men and women that show something that could affect the labor market as well as the ways that they interact. They were able to determine that men were more likely to date someone if they had a shorter profile, implying that they are looking for someone who has less to say and most likely with less career driven goals.

There is a social norm that a man should earn more than his wife and the effects of this norm being broken were studied by Bertrand, Kamenica, and Pan (2015). A wife's income has an impact on marital satisfaction, likelihood of divorce, and division of home production. When a woman makes more money than her husband it leads to higher levels of divorce and lower marital satisfaction between the couple. This is due to the gender norms that have been inflicted on society that enforces the idea that the man should be providing for the family. This study shows that relative income has negative impacts on a marriage when the woman is making more than the man. This could lead to a hesitancy of women to go after jobs that pay more than their husband's which will limit their opportunities and lead to a large gap in salaries of married couples, with men making much more than their wives.

Once married, there is still a concern of keeping the marriage together and it not ending in divorce. There have been studies done to show that there is a gap in which after a woman is promoted to the role of CEO, the marriage is disproportionately more likely to end than if a man is promoted to this position. By looking into the gap and between men and women in top jobs in the career market Folke and Rickne (2016) were able to see a correlation between the earnings of a man and woman and see the correlation with divorce when the wife is promoted to a higher-level job.<sup>1</sup> This is not seen with men when they are promoted. This study specifically used Swedish data, and the data could have different cultural aspects in Sweden than in the US where this paper aims to investigate. When women who are promoted higher have higher divorce rates, other women can be less willing to get promoted, as they could be concerned about the status of their marriage.

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<sup>1</sup> An argument is made that once a woman is promoted she is more likely to be able to find another spouse that is called the "temptation effect". As she becomes more successful she is tempted to find another partner that could be better suited for her new lifestyle (Folke and Rickne 2016).

The increase in divorce rates has been connected to women getting further in the workplace. Women joining the workplace is not what has this correlation, it is when there is a higher position that these women are holding that divorce rates begin to go up. As women get higher paying jobs than their spouses the probability of divorce increases as well (Folke and Rickne 2016). This reduces a woman's desire to get a higher paying job, as there is a lower chance that her marriage will survive that. If a woman's career is limited by what her husband can do, but the same problem does not face men, then they are going to have worse careers.

There are currently a shockingly little number of women in high positions of power in the labor force. A study done looking at the wage gap in Sweden has shown the possibility of a glass ceiling specifically gender based, reducing the opportunities that women see themselves as being able to reach. By being able to explain a gap in the number of women in higher paying jobs there is the ability to attempt to reduce this number. Albrecht (2003) showed the gender gap that exists in high paying jobs and that with less women in high paying jobs, there is a limit of other women who are aspiring to these positions as well. Women have lower incentives to not only join the workforce but also to reach for these higher paying positions. They are also inclined to take jobs that are less demanding if they do not think that they will be able to reach the goals of the men that are going into the same field as they are.

## **2.4 Social Norms**

When a couple is married, they take on the responsibility of living together and managing a household which requires hours of unpaid labor. The gender gap between men and women's wages has been closing, but there have been studies shown that the gap in social norms has not closed at the same rate but at a much slower one. The burden of the household chores in a

marriage stays on the woman, so that even if she has a career and her salary surpasses her husbands, due to social norms she is expected to be able to take care of the household. Using data from Taiwan, Shiu and Tang (2014) showed that when married couples make joint decisions on who is to do the family chores there is an unbalanced decision made. When married couples had children the household chores went up for the women regardless of whether she had a career. Asian men were shown to have an aversion to being in a dual-earner family and showed a preference to less educated women that will not have a career that rivals theirs. Marriage is becoming less attractive to women as when they have careers, they are still expected by society to go home and do the majority of the chores for their husband. Due to these expectations the amount of unpaid work married women do is much greater than her husbands, and this can affect the ability to maintain a full career the same way.

When Japan passed the Equal Employment Opportunity Act in 1985 studies were done to see the effect of this act on the deterrent effect of university education on marriage. In this study Edwards, Hasebe, and Sakai (2016) were able to see that after the act was passed there was an increase in young women choosing higher education over going to a junior college, and this educational difference had a significant impact on whether and at what age these young women get married. Women who went to universities were significantly more likely to delay marriage. When choosing to go to a university these young women are choosing to have a career instead of going to a junior college that has a basic curriculum not intended for them to build a career. After the EEOA was passed more woman were enrolling in universities and delaying marriage. This shows that when women are given the opportunity to have a successful career, they do not get married, which could be one of the reasons that married women are less likely to make as much as their husbands do.

There has been a shift in culture over the past 40 years where it is no longer assumed that the man of the family is the sole breadwinner while their wife stays home as a homemaker (Britt and Roy 2013). The decision now has to be made by a career driven individual to either find someone who is not looking to have a career to be the one to take care of household chores, or to make the decision that they will be doing more chores in addition to the work they do for their careers. While women have increasingly been joining the workforce since the 1970's, they are still expected to do more of the household chores than their husbands. When the couple has children, the wives are expected to do even more of the household chores. Britt and Roy (2013) found that self-reporting men were more likely to say that they do equal number of chores as their partner, when women were more likely to state that they did the majority of the chores in the house. These results show the difference in how much both members of the relationship feel that they are contributing, and most likely shows that men are undervaluing the amount of work that women do in the household chores.

### **3.0 Data**

This paper finds whether there is a differential relationship between marriage and career success for a man and a woman through looking at marital status and income. Income is used to determine career success with a higher income indicating greater success in one's field. In order to find the differential effect of marriage on the career paths of men and woman I am going to be looking at how the status of marriage effects the salaries on both men and woman. The data that I was able to obtain was from the 2010 US Census compiled from IPUMS, a website that allows data to be used for learning purposes. With this data the salary, marital status, sex, education level, as well as age of each participant of the census is able to be identified. This section will

describe the relevant data that this paper uses, examine the possible issue of endogeneity in this study, and discuss the average wages for different groups as explained in the final subsection.

### **3.1 Data Description**

In order to focus the results of this paper to be looking only at working people all people who were under the age of 18 and who were over the age of 62 were dropped from the study, along with anyone whose salary was zero. It is necessary to remove people whose salaries are zero in order to not have skewed results as the study is looking at the comparison of salaries across different groups, however this will also create a bias as there are some groups who have more people who do not work, and this will not be represented if they are removed from the study. There is a method the Heckman correction that was created in order to remove this bias that exists when using a non-randomly selected data set. In this case only people whose salaries were greater than zero were selected to be in the data set. This method however was not used in this study and the possible bias that could arise due to this is discussed in the limitations section of this paper. The following data was then used:

Wage – The total pre-tax wage and salary income from the previous year (2009) including wages, salaries, commissions, cash bonuses, tips and all other forms of income received from a person’s employer [ipums].<sup>2</sup>

Married – A dummy variable created to say whether or not a person was legally married. All people who were married with spouse present, married with spouse absent or married but legally separated were considered married. All persons who were divorced, widowed, or never married were considered to be not married.

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<sup>2</sup> Income is not adjusted for inflation [ipums]

Sex1 – A dummy variable to determine the sex of the person whether they are male or female. The dummy variable is equal to one if the person is female and zero if a person is male.

Inter – The interaction between the marital status and gender.

heduc – A dummy variable created to look at the effect of level of education that this differential effect could take. A person considered to not have completed higher education would be anyone who completed only up to two years of higher education. A person would be considered highly educated if they have completed anywhere from four years of college to over five years of college.

neverMarried – As the effects of marriage could still be felt by someone who was at one point married but then in some way either through divorce or having been widowed is no longer married another marriage dummy was created. This tells if a person has never been married and categorizes married, separated, divorced, and widowed people all as having been married.

### **3.2 Endogeneity**

The decision to get married is not made at random and the various other factors that go into the decision to get married can also be affecting a man or a woman's career path. These factors are endogenous and have to be identified and controlled for when looking to find the relationship between purely marital status and career success in men and women. While some of these factors are able to be controlled others are not and will be considered when looking at ways to improve this study.

### 3.2.1 Education

When looking at marriage and a women's education levels there have been distinct differences found for women who have completed a college education and hold a four-year college degree versus with women who have not received a degree in terms of equality of gender roles. Pessin (2018) found that the changing of gender norms across the United States has a different effect on relationships across different education levels. By looking at marriages by region, Pessin found that in regions that were less progressive and continued to have more traditional gender norms women without college degrees were more likely to get married and women with degrees were less likely to marry. When looking at regions that were more progressive towards gender equality the number of women with a college degree who got married increased while it decreased for women without a college degree. In these regions divorce rates declined as well.

Pessin (2018) concluded that women who are career driven and are obtaining these higher degree levels are more likely to not marry in the first place if they are aware that they will be expected to follow more a traditional role as a wife. They are aware that their possible career goals could have a negative effect on their relationship and possibly lead to divorce. This suggests that women who are career driven to begin with are less likely to be getting married, leaving marriage to affect mostly women who are planning on putting their personal relationship above their professional goals. This creates an unbalance in the ambition of single and married women that is not seen in single or married men as this conscious decision is made by the woman.

For these reasons there is a distinction between the marriages of women who have a degree and those that do not. Therefore, this will be controlled for in this paper by looking at



both women who are considered to have a standard level of education and women who are considered to have been higher educated as well as both groups together. By receiving a four-year college degree, a woman is considered to have completed a higher level of education.

### **3.2.2 Cohabitation**

As this paper previously mentioned, there are various barriers that a woman in a relationship must face in the work force that a man does not have to including the lack of their career being prioritized, choosing as a couple better opportunities for the husband, being limited by their husbands career status, and expectation of doing the majority of household chores. These barriers clearly exist when a couple is married, however they can also exist in a couple that is not married but is cohabitating even though it is more likely that a couple will not pool financial resources or have children when cohabitating as opposed to married (Waite 1995). If a couple has decided that they are not having children, then this decision is linked to the decision not to be married and typically for the woman to then have more energy to focus on a career. This leaves more career driven women to be more likely to not marry, and if they have a partner to instead cohabit with them. This leaves the women who do marry to be possibly more focused on finding a balance in their personal and professional life as opposed to focusing solely on their career.

### **3.2.3 Drive to Marry**

To be successful in a career there must be a drive to succeed, and this drive is also seen in people who are willing to get married. If there is a relationship between this drive to marry and the drive to succeed in other aspects of life such as a career path, then there is a distinct and

unmeasurable factor that is difficult to account for unless asked questions that do not appear on the US Census. Blakemore et al. (2005) found that women that were feeling the social pressure to marry much greater than men were. They also found that women were also likely to express that their desire for roles as “spouse” were in opposition to their desire for their role as “worker” that was not seen in the young men faced with the same options.

### **3.3 Basic Overview of Data**

The salary of men and women can be compared using various different methods, looking at their marital status as well as their different levels of education. Over all levels of education and marital status, men in the United States make more money than women do. As displayed in Table 1<sup>3</sup> when looking at the salary of all people there is a distinct difference in salary where men aged 18-62 are making a mean salary of \$38,692.09 and women in the same age bracket across all levels of education or marital status are making a mean of \$24,029.54. When controlling for just educated individual, people who have completed four years of college, these numbers rise, but so does the gap, with men making a mean \$74,209.30, and women making significantly less, \$41,715 ending up with a mean difference of \$32,493.50. The gap is \$25,898.89 when looking at married men and women, with men making the significantly larger amount. Looking deeper into that marital gap, Table 2 shows that men make more than women in each level of marital status, whether they are married with their spouse present, married with their spouse absent, separated, divorced, widowed, or single. When a person has never been married men make an average of only \$525.36 more than women, and when a person is divorced, married with an absent spouse, widowed, and separated, men make an average of

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<sup>3</sup> All tables are found in the Appendix of this paper.

\$3,750.69-\$8,887.56 more than women. The greatest difference in wages by far is when looking at married men and women. Married men make an average of \$27,209.15 more than a married woman. This shows that the marital status that is most showing a wage gap between men and women is when they married with a present spouse. Also displayed in Table 2 is that the marital status that allows women to have the highest average salary is divorced, while the second highest is marriage and vice versa with men, with their highest average salary being from married men and second highest from divorced men.

Looking at the differences between both men and women, when someone is married their salary is at an average \$3838,462.13 whereas unmarried average salary is at an average \$21,549.05 as seen in Table 3. Breaking this up into men and women, married men make \$51,916.06 while unmarried men make \$21,850.24, and married women make \$26,017.17 while unmarried women make \$21,242.31. The overall differences of these tables show that while married men and women make on average more, married men are making much more than unmarried men compared to married and unmarried women.

#### **4.0 Methodology**

The model used to find the differential effect that this paper is looking for is a regression using the dependent variable of wage to gauge the successfulness of a person's career. The independent variables used in this model are believed to play a part in the effect and include gender, marital status, the interaction of gender and marriage, and education levels. In order to analyze the relationship between wages and marriage and gender and the interaction of gender and marital status the following models were used:

$$(1) \text{ Wage}_{it} = \beta_0 + \beta_1 \text{Married}_t + \beta_2 \text{Sex1}_i + \beta_3 \text{Inter}_{it} + \varepsilon_{it}$$

$$(2) \text{ Wage}_{it} = \beta_0 + \beta_1 \text{Married}_t + \beta_2 \text{Sex1}_i + \beta_3 \text{Inter}_{it} + \beta_4 \text{age}_{it} + \varepsilon_{it}$$

$$(3) \text{ Wage}_{it} = \beta_0 + \beta_1 \text{Married}_t + \beta_2 \text{Sex1}_i + \beta_3 \text{Inter}_{it} + \beta_4 \text{age}_{it} + \beta_5 \text{edu}_{it} + \varepsilon_{it}$$

These models use the independent variable wage and finds the effects that the dependent variables of marriage, gender, and the interaction of marriage and gender have on it. The second model also accounts for age and the third accounts for age as well as education levels. All models also account for the amount of error that exists in these regressions.

## 5.0 Empirical Results

The results of the models are in line with the assumptions of this paper. In looking at wage the first model showed that there is a positive effect of marriage in that wage increases by a value \$30,065.82 which was shown to be statistically significant with a p-value of 0.00 as shown in Table 4. Gender had a negative effect on wage where if a person was female their wage would decrease a statistically significant amount, by \$607.93. When looking at the interaction of gender and marital status there is a negative effect that is statistically significant of \$25,300 for married women. This shows that, on average, married women make \$25,300 less per year than married men, which suggests that there is a larger punishment, or smaller reward, for women to get married compared to men. The second model stayed consistent with these results, with marriage having a significant but less effect of increasing wage by \$26098.91, gender having a larger

effect of decreasing wage by \$1,321.54 and the interaction decreasing wages by \$24,200 and additionally age having a significant positive effect on wages of \$369.52. The third model shows a lesser effect by marriage only increasing by \$21,412.81 and gender having a greater effect of decreasing wage by \$4,168.29 with the interaction decreasing wages by \$22,100 and age increasing wage by \$336.13 with education level increasing wage by \$6,713.52.

## **6.0 Policy Implication**

The results of the study have shown that marriage is detrimental to a woman's career while it can be seen as beneficial to a man's career. The government needs to create a tax policy that mitigates these effects. There are currently two possible options for filing taxes as a married couple, either jointly or continue to file as individuals. Married couples are encouraged to file jointly as they then are allowed to immediately deduct a significant amount of their income [TurboTax]. In most cases this joint filing is beneficial to the couple and considered to be the 'marriage bonus'. However, in some cases if a couple files jointly they can end up paying more in taxes than they would have if they were to file separately. Since the United States breaks income tax into different brackets based on income if a couple files together, they can be pushed into a higher tax bracket that they would not be in if they were to file separately. If one member of the couple's salary is much smaller than the other than it makes it much less likely that they push them into that higher bracket. Instead the lower salary can pull the higher earner salary into a lower bracket, so they have to pay less than they would have had to pay if they were filing as a single person, this is the marriage bonus. When both members make similar amounts, it makes it much more likely that their income is now being taxed at a higher tax bracket. This effect is referred to as the marriage penalty and is another negative effect of married women working in

higher paying jobs, as married men are making more money than married women in couples in the United States.

A tax policy must be implemented to encourage couples that make similar salaries to file jointly and receive the same benefits that they would if they were making drastically different salaries, and not have to deal with a marriage penalty. In order to do this, there should be an amendment made to the joint filing tax policy. When filing jointly couples should be able to stay in their own tax bracket, and then average together their tax rates. This way if a couple has similar salaries, they will not be bumped into a higher tax bracket, but instead they will both stay in their previous brackets and pay an average tax rate. In creating this new way of filing jointly for married couples' women whose salaries are close to their husbands and vice versa will no longer be punished by the tax system. This will encourage couples to continue to file jointly and mitigate the issues that are caused by women earning less when they are married. They will now be able to keep a larger portion of their salary to make up for the other inequalities that are placed upon them once they are married.

## **7.0 Limitations**

As discussed in the data section of this paper there were various limitations with the data that was collected for this study. This paper uses data from the 2010 US census and only has the data for an individual year. A future study should look at longitudinal data as opposed to cross-sectional data. It would be interesting to look at how women's careers progress over time and see if there is a statistically significant impact on their careers based on what age they choose to get married, or if they choose to get married at all. Doing this study over the course of several years

would allow for a greater understanding on the effect that marriage has to a career path as opposed to looking at one specific point in time as well as control for time-invariant variables.

In order to control for factors such as a woman versus a man's drive to marry a survey on opinions would have to be done in addition to the information that the US Census is able to provide. There are also different personality traits that could be tested for that have not been recorded in the census, as well as priorities and values. In a future study it may be interesting to look at one specific type of job and find the differential effect of marriage on the career paths of men and woman in that specific job. If the focus is in a career where a person has to be ambitious to succeed, then there could be less of an endogenous issue of ambition level that an individual has. The issue of whether a woman is perceived as agreeable could also cause the findings of this paper to be overestimated. Women who are perceived as agreeable could be more likely to get married and sustain that relationship. If they are more agreeable it would also be more likely that they are not going to negotiate a raise with their boss or ask for a promotion. This could create a bias where married women have lower wages than the average woman. The results however could also be underestimated if you look at the levels of responsibility of these people. If women who decide to get married are more responsible than the average woman, then since more responsible people are more productive, it is likely that married women would make more money than the average woman.

In this study all people whose income was zero were dropped. By dropping a select few of the population, the data set that was used was non-randomly selected and therefore there is some bias that exists. This bias could lead to a misrepresentation of the data set. If someone is married to someone who does not have a job, then their spouse has more time and more responsibility to do the household chores, and they do not have to worry about conflicting job

opportunities that a couple where both partners are working would have to deal with. As married woman are more likely to be the one in the relationship without the job this makes it more likely that men whose wives do not have careers is creating a bias in conflict with men whose wives do have careers. This would lead to the advantage of marriage being greater for men's careers if they are the sole breadwinner. There are many single income households where the breadwinner needs to make enough money to support their dependents and in that they could have a stronger drive to make money. To improve this study all single income households could be controlled for, as well as the number of dependents a working person has. The lack of controlling for the number of children either a single man or woman or couple has is another limitation of this study. This could affect ability to have a dual career couple, or if they are both working it could limit the amount of work one of them would be able to do if they have to spend years of their lives focusing on raising a child as well and all the complications that this entails. This study also does not take into consideration specific race or ethnicities and the differences that could be found within different cultures. There are different social and professional expectations from women of different races and ethnicities that all exist together in the United States.

In future studies, it would be ideal to have access to information on couples that are not married but are living together and are in committed relationships in which if one of them had to move for work the other would move with them. There are many people in committed relationships that have not been represented in this study since they are not legally married. Couples that are in same sex marriages or same sex relationships are also not accounted for in this study.



## **8.0 Conclusion**

This paper looked into the relationship of marital status and gender and how it disproportionately effects men and women's success in their careers. Previous literature has suggested that there are various factors that go into relationships that limit a woman's ability to succeed in the professional world to the extent that her male partner would be able to. While men are earning more than women in every category of relationship or education, the regressions run in this paper showed that there is an advantage to marriage for men that does not exist for women. This shows that marriage is a possible factor that women are not able to close the wage gap that exists in the United States. As the explanation for the results found in this study rely strongly on issues that are built on social norms and gender roles, changes need to be made to the way women are perceived as a society before women will be able to close the gap. Future studies should be done to discover in more detail if there are other factors that are causing this detrimental effect, and possible ways to limit them.

## Appendix

**Table 1: Summary of Wages by Women vs Men**

	Women	Men	Observations
All People	24,029.54	38,692.09	1,804,902
Educated	41,715.8	74,209.3	510,400
Married	26,017.17	51,916.06	1,032,702

**Table 2: Two-sample t test with equal variances**

	Observations		Mean Wage		dif	St_Err	t_value	p_value
	Men	Women	Men	Women				
Married Spouse Present	461419	495682	53784.23	26575.08	27209.15	104.098	261.4	0
Married Spouse Absent	18232	15829	26456.79	19547.89	6908.901	424.447	16.3	0
Separated	16584	24956	27926.67	19039.1	8887.562	342.335	25.95	0
Divorced	87643	112989	32167.31	28416.62	3750.691	177.913	21.1	0
Widowed	6584	21707	28281.83	19544.58	8737.254	482.584	18.1	0
Never Married /Single	295409	247868	18645.98	18120.62	525.363	79.463	6.6	0

**Table 3: Summary of Wages by Married vs Not Married**

	Married	Not Married	Observations
All People	38,462.13	21,549.05	1,804,902
Men	51,916.06	21,850.24	885,871
Women	26,017.17	21,242.31	919,031

**Table 4: Linear Regression Simple Model**

wage	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
married	30065.820	93.365	322.03	0.000	29882.828	30248.811	***
sex1	-607.930	99.278	-6.12	0.000	-802.512	-413.348	***
inter	-25300.000	131.288	-192.64	0.000	-25500.000	-25000.000	***
Constant	21850.236	69.878	312.69	0.000	21713.277	21987.194	***
Mean dependent var		31226.126	SD dependent var			45480.004	
R-squared		0.080	Number of obs			1804902.000	
F-test		52449.286	Prob > F			0.000	
Akaike crit. (AIC)		43686482.335	Bayesian crit. (BIC)			43686531.959	

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

**Table 5: Linear Regression with Age**

wage	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
age	369.521	2.672	138.29	0.000	364.284	374.759	***
married	26098.914	97.203	268.50	0.000	25908.400	26289.429	***
sex1	-1321.536	98.891	-13.36	0.000	-1515.359	-1127.712	***
inter	-24200.000	130.825	-185.18	0.000	-24500.000	-24000.000	***
Constant	9025.406	115.898	77.87	0.000	8798.250	9252.562	***
Mean dependent var		31226.126	SD dependent var			45480.004	
R-squared		0.090	Number of obs			1804902.000	
F-test		44534.695	Prob > F			0.000	
Akaike crit. (AIC)		43667461.061	Bayesian crit. (BIC)			43667523.091	

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

**Table 6: Linear Regression with Age and Education Level**

wage	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
age	336.134	2.497	134.60	0.000	331.239	341.028	***
educ	6713.520	13.096	512.66	0.000	6687.854	6739.187	***
married	21412.812	91.275	234.60	0.000	21233.917	21591.707	***
sex1	-4168.289	92.560	-45.03	0.000	-4349.703	-3986.875	***
inter	-22100.000	122.301	-180.44	0.000	-22300.000	-21800.000	***
Constant	-34900.000	138.101	-252.83	0.000	-35200.000	-34600.000	***
Mean dependent var		31226.126	SD dependent var			45480.004	
R-squared		0.206	Number of obs			1804902.000	
F-test		93378.881	Prob > F			0.000	
Akaike crit. (AIC)		43422104.851	Bayesian crit. (BIC)			43422179.287	

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

## References

- Albrecht, J., Björklund, A., Vroman, S. (2003) "Is there a Glass Ceiling in Sweden?" *Journal of Labor Economics*, 21(1), 145-177.
- Bertrand, M., Kamenica, E., Pan, J. (2015). "Gender Identity and Relative Income Within Households." *The Quarterly Journal of Economics*, 130(2), 571-614.
- Blau, F.D., Kahn, L.M. (2017). "The Gender Wage Gap: Extent, Trends, and Explanations." *Economic Literature*, 55(3), 789-865.
- Britt, S.L., Roy, R.R.N. (2014). "Relationship Quality Among Young Couples from an Economic and Gender Perspective." *Journal of Family and Economic Issues*, 35, 241-250.
- Bursztyjn, L., Fujowara, T., Pallais, A. (2017). "'Acting Wife': Marriage Market Incentives and Labor Market Investments." *American Economic Review*, 107(11), 3288-3319.
- Costa, D.L., Kahn, M.E. (2000) "Power Couples: Changes in the Location Choice of the College Educated, 1940-1990." *The Quarterly Journal of Economics*, 115(4), 1287-1315.
- Edwards, L., Hasebe, T., Sakai, T. (2016). "Education and Marriage Decisions of Japanese Women and the Role of the Equal Employment Opportunity Act" *Center on Japanese Economy and Business Working Papers*, 346
- Eliasson, K., Nakosteen, R., Westerlund, O., Zimmer, M. (2012). "All in the family: Self-selection and migration by couples." *Papers in Regional Science*, 93(1), 101-124.
- Fisman, R., Iyengar, S., Kamenica, E., Simonson, I. (2006). "Gender Differences in Mate Selection: Evidence From A Speed Dating Experiment." *Quarterly Journal of Economics*, 121(2), 673-697.
- Folke, O., Rickne, J. (2020). "All the Single Ladies: Job Promotions and the Durability of Marriage." *American Economic Journal: Applied Economics*, 12(1), 260-287.
- Hitsch, G., Hortaçsu, A., Ariely, D. (2010). "Matching and Sorting in Online Dating." *American Economics Review*, 100(1), 130-163.
- Loken, K.V., Lommerud, K. E., Lundberg, S. (2013). "Your Place or Mine? On the Residence Choice of Young Couples in Norway." *Demography*, 50(1), 285-310.
- Miki, M., Yuval, F. (2011). "Using education to reduce the wage gap between men and women." *The Journal of Socio-Economics*, 40, 412-416.
- Owen Blakemore, J.E., Lawton, C.A., Vartanian, L.R. (2005). "I Can't Wait to Get Married: Gender Differences in Drive to Marry" *Sex Roles*, 53(5), 327-335.
- Pessin, L. (2018). "Changing Gender Norms and Marriage Dynamics in the United States." *Journal of Marriage and Family*, 80(1), 25-41.
- Shiu, J., Tang, M. (2017). "A capable wife: couple's joint decisions on labor supply and family chores." *Empir Econ*, 53, 827-851.
- Waite, L.J. (1995). "Does Marriage Matter?" *Demography*, 32(4), 1995
- Woolstenhulme, J.L., Cowan, B.W., McCluskey, J.J., Byington, T.C. (2012). *Evaluating the Two-Body Problem: Measuring Joint Hire Productivity within a University*.