

**The marriage premium and within-household specialization among
same-sex couples: Evidence from the 2013-2015 American
Community Survey**

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Abstract

This study focuses on uncovering marriage effect on wage income and within-household specialization in same-sex couples. The study shows that in general, married lesbians have about 10.0-11.4% marriage premium on wage income, and married gay men enjoy a premium of about 10.0-10.6%. Furthermore, this study finds out that marriage leads to larger labor supply gaps in terms of employment status, annual working hours, annual working weeks, weekly working hours and annual wage income among same-sex couples, regardless of gender.

Introduction

Marriage is considered one of the major factors in wage determination models. Many studies have shown that marriage is associated with a wage premium for men and a penalty for women, *ceteris paribus*. Becker (1991), in his influential publication *A Treatise on the Family*, attempted to explain this differential by proposing specialization and division of labor. He suggested that husbands and wives, according to gender-based comparative advantages, tend to adopt new labor supply decisions after being married, which were likely to deviate from their labor supply choices when they were single. Becker also pointed out that after getting married, the couple specializes by having one party focus on accumulating market-specific human capital to raise wage, while the other party focus on accumulating household-oriented skills to be proficient at housework. Yet, this theory, as well as most previous studies concerning marriage effect on wage income, was based on the assumption that marital union should be between a man and a woman. The homosexual population is a component of the labor market and thus understanding how marriage affects homosexuals' wage income and labor supply decisions is a

step forward to understand the labor market behaviors of this minority group, especially with the legalization of same-sex marriage in the United States in June, 2015. Also, by looking at situations encountered by same-sex couples, one can shed light on some theories of marriage such as selection and specialization.

Using the recently-available 2013-15 IPUMS-USA data on same-sex married couples, I am now able to detect how marriage and its following effects, such as legal protections and changes in perceptions, can affect homosexual individuals' wage income in particular. In this study, I first examine whether marriage makes a difference on wage income for gays and lesbians; I then compare these differentials to that of heterosexual couples. Due to the difference in gender composition between heterosexual and homosexual households, I expect marriage affects wage incomes of married individuals differently based on sexual orientations, as the traditional notion of "women as housekeeper, men as bread-provider" does not hold among married same-sex couples. Finally, related to the marriage effect on wage income, I would like to see if marriage leads to an even larger labor supply specialization gap in same-sex couples.

Previous Studies

Since the groundbreaking study on sexual orientation and discrimination conducted by M. V. Lee Badgett (1991), many literatures have been devoted to uncover how homosexuality influences individuals' wage income and labor market decisions. Using 1989-91 pooled General Social Survey (GSS) data, Badgett found that gay and bisexual men earned 11% to 27% less than heterosexual male workers. The study also showed evidence that lesbian and bisexual women earned less than heterosexual women, though this result was statistically insignificant. Several

other studies have revisited and tested Badgett's findings. In particular, Black et al. (2003) replicated this study using GSS data in 1989-91, 1993-94 and 1996. The results showed that gay men earned 14% to 16% less than heterosexual men, which supported the major finding in the Badgett (1991) study. However, Black et al. (2003) also discovered that earnings were "between 20% and 34% higher for lesbian women than for heterosexual women" (Black et al., 2003). Studies conducted by Berg and Lien (2002), Blandford (2003), and Clain and Leppel (2001) all supported the findings in Black et al. (2003) using different data sources.¹

However, due to the incomplete nature of datasets regarding homosexuality, most previous studies suffer from the disadvantages of small sample and/or unclear definition of homosexuality. The problem of small sample size prevails in all studies using the GSS data. As Carpenter (2005) pointed out, the GSS "produces very small sample sizes of sexual minority individuals." According to this study, the sample used in Badgett (1991) consists of 34 lesbians/bisexual women and 47 gay/bisexual men, and "more recent research has used subsequent waves of the GSS data to compose samples of no more than 130 gay/bisexual men and lesbian/bisexual women, pooled over 9 years." The Public Use Microdata Sample of the U.S. Decennial Census data suffers from the same problem, as in Clain and Leppel (2001), the analysis was completed with 91 gay men and 58 lesbians. Considering the broad variations of wage determination model used in these studies, it is arguable that the subsequent results produced could be misleading. Although this study uses the same data, it does not suffer from the same problem because Clain and Leppel (2001) used a much earlier Census, when same-sex cohabitation was much less frequent.

¹ Berg and Lien (2002) used pooled 1991-96 GSS data; Blandford (2003) used pooled 1989-96 GSS data; Clain and Leppel used 1990 Public Use Microdata Sample (PUMS) data.

The other limitation that all previous studies encountered is that the datasets available by then did not have a clear indication of an individual's sexual orientation, and thus the definition of sexual orientation was often subjected to individual researcher's own knowledge and interpretation. For instance, the GSS survey does not explicitly ask questions regarding sexual orientation; rather it has records on respondents' sexual behaviors. Badgett (1991) chose to use the following four measures of same-sex behavior:

(1) having had one or more same-sex sexual partners (the most general definition ...); (2) having had more than one same-sex sexual partners ...; (3) having had at least as many same-sex sexual partners as opposite-sex sexual partners ...; (4) having had either more than one same-sex sexual partners or having had at least as many same-sex sexual partners as opposite-sex sexual partners ... (p. 730-731).

Subsequent studies that used the GSS data generally use one or more of these four measures to define homosexuality. Although arguably, having same-sex sexual behaviors could be a proxy to homosexuality, it should be noted that homosexuality, as an individual identity, is too fluid to be simply defined by behaviors.² Also, defining gays and lesbians by measures mentioned above could possibly bias the effect of homosexuality on wage income since an individual's sexual behavior may not match his or her public identity. That is to say, it is possible for a person to be

² According to Kinsey, Pomeroy, and Martin (1948), Kinsey et al. (1953) and Laumann et al. (1994), "sexual desire and activity is not static across a lifetime, and homosexual and bisexual activity is not uncommon in early adulthood" (Blandford, 2003).

behaviorally homosexual while “keeping it in the closet,” so that he or she is shielded from discrimination in the labor market (Blanford, 2003; Carpenter, 2005).³

Studies that based the analysis on the PUMS data generally focused on using the “unmarried partner” category in the RELATED variable (Clain and Leppel, 2001; Jepsen and Jepsen, 2006) to identify same-sex couples. This definition of homosexuality is seemingly more accurate than the ones based on homosexual behaviors and one can argue that people who identified themselves as the householders’ same-sex partners were more likely to be “openly” gays or lesbians. However, due to the restriction of federal and state laws on same-sex marriage, these studies on homosexuals’ wage income were confined to cohabiting same-sex couples. They typically focused on how discrimination affected cohabiting same-sex couples’ wage income, without touching on how marriage itself may have an impact on the subject, comparable to their heterosexual counterparts.

Other findings in this series of studies include occupation and residency concentration of same-sex couples. According to Black et al. (2007), because same-sex couples were less likely to have children due to higher costs⁴ and that urban areas were considered least discriminatory to homosexuals, gay and lesbian couples were more likely to live in metropolis with more adult-related amenities. They also discovered that “gay men are in occupations that are more ‘typically female’ than other men while lesbian women are in occupations that are less ‘typically female’ than other women” (Black et al., 2007). Consistent with the findings from Allegretto and Arthur

³ This includes the situation in which gays and lesbians marrying opposite-sex partners to conceal their sexual orientation. However, Clain and Leppel (2001) argued that concealing one’s homosexuality can also incur cost, as this person would be under anxiety and stress.

⁴ Many children in same-sex households came from either or both parties’ previous heterosexual marriages; if a same-sex couple wishes to adopt children, they would have to face monetary costs and cost of effort and time to deal with potential discriminations (Black et al, 2007).

(2001) and Blandford (2003), Black et al. (2007) found that homosexuals are on average more highly educated and invest more in human capital.⁵

There are also many studies devoted to the analysis of within-household specialization and labor supply decisions in same-sex couples. On the individual level, Tebaldi and Elmslie (2006), using data from 2001 Current Population Survey (CPS), found that in general, gay men supplied less working hours while lesbians supplied more working hours than their heterosexual counterparts. This could be an explanation to why gay men tended to earn less than heterosexual men while lesbians earned more than heterosexual women, when not controlling for working hours. However, this study did not control whether individuals in the sample are married or in cohabitation, even though the identified gay men and lesbians were in partnerships.⁶ Therefore, this study fails to address the question of the effect of marriage on labor market outcomes.

Jepsen and Jepsen (2006) and Antecol and Steinberger (2013) took a step further by using Becker's specialization model (Becker, 1991) to analyze within-household labor market decisions made by same-sex partners and married couples. Jepsen and Jepsen (2006) made comparisons among same-sex and opposite-sex roommates, unmarried same-sex couples,⁷ unmarried heterosexual couples and married heterosexuals.⁸ The results suggested that in terms of earnings, gay and lesbian couples are less alike than same-sex roommates, meaning that there was some sort of within-household specialization. Yet, in terms of working hours, lesbian and

⁵ Allegretto and Arthur (2001) and Blandford (2003) focused only on gay men, while Black et al. (2007) expanded the scope and included lesbians.

⁶ Tebaldi and Elmslie (2006) used data from the March 2001 Current Population Survey (CPS), in which homosexuals can be identified by "unmarried partner" in the RELATED variable. There is no available method to identify single homosexuals using the CPS data.

⁷ Defined by "unmarried partner" category under the RELATED variable (PUMS data).

⁸ Jepsen and Jepsen (2006) mentioned in their 2002 work that roommates, like couples, were often met at school or at work. Since people tended to match with the ones who have similar characteristics to them, the authors expected roommates and couples to have similar earnings.

gay couples were not distinguishable from same-sex roommates. Heterosexual roommates and couples, however, demonstrated specialization in terms of both earnings and working hours. Also, earnings and working-hour differentials between heterosexual roommates and couples were the largest among all comparisons.

Antecol and Steinberger (2013) discussed the labor supply gap between married heterosexual women and partnered lesbians. The gap between married heterosexual women and primary lesbian earners was larger than that between married heterosexual women and secondary lesbian earners. Noticeably, the gap between married heterosexual women and secondary lesbian earners decreased when controlling for children. This study also stressed the importance of controlling for the respondent's and spousal wage and non-labor income when analyzing labor supply decisions for women. Although for both heterosexual and homosexual men, the presence of children, respondent's and spousal wage and non-labor income were not as influential to their labor supply decisions. Contributing to the findings above, my study looks at the comparison of labor supply decisions between primary and secondary earners among same-sex married and cohabiting couples, with the effect of having young children in the family taken into account.

Theoretical Framework

Since this study focuses on uncovering how legal same-sex marriage affects individuals' labor market outcome and how this new family structure influences post-marriage decision-making, I propose a general model of marriage in terms of utility, followed by some discussions regarding the selection model and specialization model of marriage.

Suppose there are two decision-making periods in any relationship. In period 1, the cohabiting couple needs to decide whether or not to get married; in period 2, the married/cohabiting couple faces some negative utility shock (e.g. having a big fight) and needs to decide whether or not to get a divorce/breakup. If the couple is married and decides to divorce in period 2, they must individually pay a cost of C (e.g. legal fees), with $C > 0$; if the couple chooses to break up from cohabitation, there is no cost incurred. In both periods, there is some θ indicating utility loss due to negative shock to the relationship. The disutility θ is assumed to be normally distributed with standard deviation equals to one. Since the decision-making process of divorce/breakup is similar in both cases (selection and specialization), this section introduces the model starting at period 2.

In period 2, the couple perceives the actual quality of match, indicated by a negative shock θ . Assume that the couple is married and has the utility from marriage Y_m , their utility after the shock becomes $Y_m - \theta$ if they decided to stay married. If they decided to get a divorce, their utility after the divorce would be the utility after separation, Y_s , minus the cost C . Therefore, the couple would choose to stay married if $Y_m - \theta > Y_s - C$. Thus, one has the threshold level of disutility in marriage, $\theta_m < Y_m - Y_s + C$, and the couple stays married if $\theta \leq \theta_m$. If the couple is cohabiting in period 2 and want to stay cohabiting after the negative shock, their utility would be represented by $Y_c - \theta$. If they decided to separate, their utility level would be Y_s . Therefore, the couple would stay in cohabitation if $Y_c - \theta > Y_s$, which gives the threshold level of disutility in cohabitation, $\theta_c < Y_c - Y_s$. Thus, the couple stays in cohabitation if $\theta \leq \theta_c$.

Suppose the utility of marriage is larger than the utility of cohabitation due to the possibility of joint consumption and investment, one proposes $Y_m = Y_c + \Delta$. Combining with inequalities $\theta_m \leq Y_m - Y_s + C$ and $\theta_c \leq Y_c - Y_s$, one has $\theta_m \geq \theta_c$. This result is intuitive as a higher

level of disutility is usually needed to induce a divorce, because the benefit of marriage is larger than that of cohabitation and the cost of divorce is higher than that of a breakup.

In period 1, the couple is in cohabitation and is trying to decide whether or not to get married. They perceive a signal of match quality, indicated by potential negative utility shock θ_0 . θ_0 is also assumed to be normally distributed with standard deviation of one. Based on the reasoning above, this study propose that there is some θ_0^* — the expected value of θ_0 — that represents the threshold level of potential disutility to marriage. In other words, the couple would choose to get married if $\theta_0 \leq \theta_0^*$, and remain cohabitation otherwise. Presumably, θ_0^* is a function of the difference between the potential expected utilities of marriage ($\bar{Y}_m$) and cohabitation ($\bar{Y}_c$), the difference between the consumption coefficients of the householder (δ_H) and the partner (δ_P), and some other decision-related elements regarding marriage E . These relationships can be described mathematically as follows:

$$\theta_0 = f(\bar{Y}, \alpha, E)$$

where

$$\bar{Y} = \bar{Y}_m - \bar{Y}_c, \text{ and } \alpha = \delta_H - \delta_P,$$

in which

$$\delta_H = \frac{\text{Householder's consumption}}{\text{Joint Consumption}}$$

$$\delta_P = \frac{\text{Partner's consumption}}{\text{Joint Consumption}}$$

In the equations above and the discussion follows, $\bar{Y}$ is called the coefficient of utility comparison and α is called the inequality coefficient. Generally, the coefficient of utility comparison holds a negative correlation with θ_0 . In other words, the larger the difference of expected utilities between marriage and cohabitation, the lower the signal of negative shock. The reasoning behind it is that if marriage brings a lot more benefit than cohabitation, the couple is

more likely to consider getting married. The inequality coefficient α , on the other hand, is the major distinction between the specialization model and the selection models.

The specialization model suggests that the larger the inequality coefficient, the lower the θ_0 . The inequality coefficient α signals that one party of the relationship has comparative advantage in home production and the other party has comparative advantage in workplace production. Under the specialization model, a couple gets married because both parties realize that one benefit of marriage is the possibility of joint investment. To reach maximum level of joint investment, each party needs to specialize in the part of production that corresponds to his or her comparative advantage. A larger inequality coefficient signals a large discrepancy of the comparative advantages, and thus a better provision for specialization in marriage. Therefore, a larger α leads to higher match quality and a lower potential disutility θ_0 . After the couple gets married, one expects some $\alpha' > \alpha$ as the specialization comes into realization in marriage.

Hypothesis 1: the level of specialization of married couples is higher than that of cohabiting couples.

The selection model of marriage suggests that the smaller the difference between the consumption coefficients of householders and spouses/partners, the lower the potential disutility. A smaller α indicates a smaller difference in the two parties' socioeconomic statuses. The selection models believes that people tends to match with the person who is similar to them in terms of race, age, and of course, socioeconomic status. The reason that makes a couple walk into marriage is less about the possibility of joint investment, but more about joint consumption and enjoying spending times together. Thus, a smaller α leads to a higher match quality and a lower potential disutility θ_0 . After the couple gets married, the selection model predicts that there

should be some $\alpha' \leq \alpha$ as the realization of joint consumption motivates both parties to develop more similarly to each other.

Hypothesis 2: the level of specialization of married couples is lower than that of cohabiting couples.

Data

This study uses 1% sample of the 2013 to 2015 American Community Survey (ACS) data from the Integrated Public Use Microdata Series (IPUMS). This dataset contains detailed information on married and cohabiting same-sex couples for both genders, and ample observations on their heterosexual counterparts. The dataset also includes each individual's labor market characteristics (such as wage income, employment status and working hours) and demographic information (such as gender, age, region of residence, place of birth and immigration status). Also, the ACS data is nationally representative with around 0.1 million individuals who live in same-sex partnership and 1.5 million heterosexuals.

The 2013 to 2015 ACS datasets contain direct identification information of married same-sex couples. The information is recorded in the variable SSMC for "same-sex married couple." This variable "reports whether the head of household and spouse are a same-sex married couple," according to the variable description provided by IPUMS-USA. Based on this information, this study is able to compare wage income differentials between married and cohabiting same-sex couples for the first time, and to see whether there exists within-household

specialization between householders and their cohabiting partners and whether the specialization differs by marital status.⁹

However, I am still unable to identify homosexuals who are not in a partnered relationship (single), the ones who are married to opposite-sex partners, and the ones who are closeted based on the data available so far.¹⁰ Fortunately, the scope of this study is focused on the marriage effect on wage income. As this study wants to see how “being married” affect homosexuals’ wage incomes, the comparison between married and cohabiting same-sex couples is appropriately sufficient. In addition, since it is expected that people who are in partnership, whether married or not, to share similar personal traits (e.g. lifestyle, being perceived as reliable, etc.) just like their heterosexual counterparts, the influence of not able to identify single homosexuals is reduced to the minimum.

The data is restricted so that I only look at individuals who are in the working age (between 18 to 65 years old). People who are in farm households and are in the military are also excluded due to the ambiguity of their wage income. This study acknowledges that only a limited number of states offered legal same-sex marriage before the Supreme Court ruling in June, 2015, that legalized same-sex marriage in all 50 states in the U.S.¹¹ Yet, as there are a large number of married same-sex couples actually live in states where same-sex marriage were illegal, analysis in this study should include homosexuals in all states from 2013 to 2015. These married same-sex couples are coded as married in the analysis.

⁹ Based on the information available, previous studies could only make wage income and specialization comparisons among married heterosexual couples, unmarried heterosexual couples, and unmarried same-sex couples.

¹⁰ This is similar to the problem encountered by Arabsheibani et al. (2004).

¹¹ States that legalized same-sex marriage in 2013 include California, Delaware, Hawaii, Maryland, Minnesota, New Jersey, New Mexico Rhode Island; states that legalized same-sex marriage in 2014 include Arkansas, Arizona, Colorado, Idaho, Indiana, Illinois, Kansas, Montana, North Carolina, Nevada, Oklahoma, Oregon, Pennsylvania, South Carolina, Utah, Virginia, West Virginia, Wisconsin, Wyoming.

Table 1 contains the total number of observations in different characteristics, categorized by marital status, sexual orientation and gender. As presented in both panels of the table, comparing to cohabiting homosexuals, married homosexuals are on average older, more likely to have a bachelor's degree or above, and have higher employment and full time employment rates. I found similar comparison pattern between married and cohabiting heterosexuals, except that married heterosexual women are less likely to be employed than cohabiting heterosexual women, and are more likely to drop out of the labor force. Making the comparison between sexualities, the table shows that married homosexuals are more likely to have a bachelor's degree or above than married heterosexuals. However, married gay men are less likely to be employed and/or fulltime employed than married straight men, while married lesbians have higher employment rate than married straight women. Both married and cohabiting homosexuals are more disproportionately white, and tend to live in the northeast and in urban areas.

I used multivariate regression analysis to estimate the marriage premium on wage income for homosexuals, compared to that of heterosexuals. To better understand how an individual's wage income differs due to marital status, regressions on this issue only includes fulltime-employed individuals. I use hourly wage and weekly wage as the dependent variables.¹² Notably, to calculate hourly and weekly wage, I use a variable that records the number of working weeks of an individual in a year (WKSWORK). As this variable that records is an intervalled categorical variable, I took the midpoint of every interval as individuals' annual working weeks. The regression tables (Table 3 and Table 4) only report results on weekly wage, and results on hourly wage are used as a robustness check, reported in Table 5. The main regressor is a dummy variable indicating a person's marital status (MARRIED). It is recoded from the marital status

¹² Hourly wage equals to total wage income divided by annual working weeks and the number of hours worked per week; weekly wage equals to total wage income divided by annual working weeks.

variable from IPUMS and equals 1 if an individual is married with spouse present.¹³ Other controls include age, race, education level, employment status, region of residence, survey year, immigration status, urban residency status, occupation and industry.

Table 2 presents mean values of full time-working individuals' major labor market characteristics, including annual working weeks, weekly working hours, wage income, etc. Results show that married homosexuals on average have more working weeks, longer working hours, higher wage income (including hourly and weekly wages) than cohabiting homosexuals. Same patterns are found in the comparisons between married and cohabiting heterosexuals. I also find that compared to their heterosexual counterparts, gay men on average have fewer working weeks, shorter working hours but higher wage income, while lesbians have more working weeks, longer working hours and higher wage income. This could result from the fact that homosexuals tend to be more highly educated and have higher hourly and weekly wages than heterosexuals.

When testing for within-household specialization, I set up differences in employment status (DIFFEMPLOYED), annual working hours (DIFFHOURWORK), annual working weeks (DIFFFULLYEAR), weekly working hours (DIFFFULLTIME), and annual wage income (DIFFINCOME) between the householders and their spouses/unmarried partners as dependent variables of regression to see if marriage makes a difference on labor market decisions. The dummy variable that indicates marital status (MARRIED) is also used as the main regressor in these regressions. Control variables in the specialization regressions are categorized into two parts: differences in individual characteristics and household-level characteristics. Individual characteristics such as age, race, and education level are calculated into differences between the primary and secondary earners, represented by the letter "d" in front of each variable's name.

¹³ Due to the consideration that this study analyze labor market behaviors in cohabitation, I exclude "married, spouse absent" from the MARRIED variable.

Household-level controls, however, are included without any modification. To accurately define sample size of the specialization regressions, only one individual per household is included in the regressions. A comprehensive list and descriptions of all variables used in this study is given in the Appendix.

Method

Based on all distinctions discussed above, I only ran regressions on fulltime workers, separately by gender and by each of the two wage measurements in natural logarithm. The regression is given as follows with the “Race,” “Education” and “Region” stand for a set of dummy variables for the different races, education attainments and regions of residence:

$$\begin{aligned} \text{Log WEEKWAGE} = & \beta_0 + \beta_1 \text{MARRIED} + \beta_2 \text{Age} + \beta_3 \text{Race} + \beta_4 \text{Education} + \\ & (\text{HOURWAGE}) \\ & \beta_5 \text{Region} + \beta_6 \text{Urban} + \beta_7 \text{Immigration} + \beta_8 \text{YEAR} + (\beta_9 \text{YCHILD}) \end{aligned}$$

As shown above, the effect of having young children (under the age of 5) in the household is also taken into account. I ran the regressions that included the effect of having children separately and are presented in Table 5.

To detect within-household specialization, I used the labor market characteristics of the primary earner minus those of the secondary earner to obtain differences in employment status, annual working hours, annual working weeks, weekly working hours and annual wage income as dependent variables and see if marriage is a significant factor that induces differences in labor market decisions. Regression testing for specialization is given as follows:

$$\text{DIFFEMPLOYED} = \beta_0 + \beta_1 \text{MARRIED} + \beta_2 d\text{Age} + \beta_3 d\text{Race} + \beta_4 d\text{Education} +$$

(DIFFHOURWORK, etc.)

$$\beta_5 dImmigration + \beta_6 Urban + \beta_7 Region + \beta_8 Year + \beta_9 Ychild$$

The effect of having children is included in these regressions. The results are presented in Table 6 and Table 7.

Results

Table 3 and Table 4 are regressions results for males and females on weekly wage. The first four columns are regressions on homosexuals with different numbers of controls, and the last two columns are regressions on heterosexuals with and without taking single heterosexuals into consideration.

The regression results in Table 3 and Table 4 show that marriage effect on wage income exists for both genders across sexual orientations. Specifically, the main result of Table 3 is that the marriage premium over cohabitation for men is roughly similar for same-sex and opposite-sex individuals. The other interesting fact is that the regression-adjusted gap is much smaller than the raw gap between married and cohabiting men. Table 4, on the other hand, shows that there is a fairly large difference in terms of marriage premium between homosexual and heterosexual females. Similar to the result in Table 4, the regression-adjusted gap drops dramatically after including controls. It is also interesting to point out that the marriage premium homosexual females is almost identical to that of homosexual men.

To better present the effect of having young children on wage income, I ran regressions that controlling the presence of young children, regressions that only with people who have young children, and regressions that only with people who do not have young children separately

(Table 5 and Table 6). Table 5 presents the results for full-time working individuals and Table 6 presents the results that taking both full-time and part-time working individuals into account. Table 5 shows that marriage premium stays more or less the same even if controlling for the presence of young children, regardless of gender and sexuality. Also, full-time working individuals who do not have young children generally enjoy significant marriage premium. Interestingly, however, marriage premium becomes insignificant for full-time working gay men while stays significant for full-time working lesbians and heterosexuals.

Table 6 shows a more complicated situation. By taking both full-time and part-time working individuals in to the regressions, I found that although controlling for the presence of young children still does not change the marriage premium of heterosexuals by much, it increases that of homosexuals. This could be explained by the fact that homosexuals are less likely to have children than heterosexuals and that married homosexuals are more likely to have children than cohabiting ones. Thus the presence of young children would have a larger impact on homosexuals' marriage premium. Table 6 also shows that after combining full-time and part-time working individuals, marriage premium is significant for all four groups when only looking at people with children. However, marriage premium for heterosexual women is insignificant or negative after combining two working conditions, and confirmed that children have a negative impact on heterosexual women's wage income in general.

Results concerning whether same-sex marriage has an impact on specialization and labor supply decisions are presented in Table 7 and Table 8. For both gay and lesbian couples, marriage does make a significant difference on individuals' labor supply decisions about employment status, annual working hours, annual working weeks, weekly working hours and annual wage income. The results show that, for same-sex couples, marriage induces higher level

of specialization than that in cohabitation, regardless of gender. This finding is consistent with the specialization situations among heterosexual couples, in which married couples tend to have larger specialization than the cohabiting ones (Jepsen and Jepsen, 2006).

Discussion

The results presented in the section above is consistent with Hypothesis 1, namely, the data suggests that marriage leads to higher level of specialization among same-sex married households. This finding shows that the specialization, instead of selection, plays an important role in explaining individuals' labor market decisions after marriage. It also demonstrates that joint investment could be a motivation for cohabiting same-sex couples to get married. As discussed in the "theoretical framework" section, cohabiting same-sex couples seem to choose marriage as a strong binding commitment which enables them to specialize. Specialization not only allow the couples to reach maximum output in terms of both home and workplace production, it also potentially enables them to maximize joint investment on public goods such as raising children. In a case of encountering disutility of marriage, specialization is also at stake when making the decision of whether to get a divorce. For the party who specializes in home production, the threshold level disutility of marriage would be high because this person needs to consider maintaining his/her living standard after the divorce, as one assumes that this person stop investing in workplace-related human capital after getting married. For the party who specializes in workplace production, the threshold level disutility of marriage would also be high because the other party has a claim on his/her earnings.

Besides shedding light on how marriage and the following labor supply decisions are made, within-household specialization is particularly interesting when discussed across sexuality. According to Becker's model, within-household specialization is determined by comparative advantages associated with genders and their corresponding physiological and psychological traits. Men should specialize in workplace production because men are stronger, more assertive, etc. and women specialize in home production because women are more caring, gentle, etc. However, this model is lacking in explanatory power because as suggested in this study, specialization still exists among married same-sex couples, and thus gender-related traits should not be the only determinant.

Apart from some insights concerning the explanatory power of the specialization model, I also show that children plays an important role in wage determination. As reported above, the marriage effect on wage income more or less diminishes when the regressions controlling for the existence of young children. Yet, the impact of having young children on wage income seems to be larger on married heterosexual females and gay men. As presented in Table 5 and Table 6, marriage effect on heterosexual women's wage income is positive when only concerning fulltime workers, but it is negative when married heterosexual women under all working conditions are taken into account. This finding is consistent with most of the existing literatures as heterosexual females are more prone to suffer from a wage penalty since they traditionally devote more to take care of their families and children. When they are weighing between their jobs and families, women who are not paid enough to cover the "cost" on the family side will naturally choose to drop out of the labor force. Hence, there are 30.5% married straight women who are not in the labor force — the highest percentage among all groups. The impact of having young children is also larger for married gay men than married lesbians, since marriage premium on gay men is

insignificant when I only look at full-time workers and significantly positive when taking both full-time and part-time workers into the regressions, which indicates that married gay men are more likely to decrease their working hours after having children than lesbians.

Limitations

This study suffers from a few limitations. First of all, I am unable to determine the direction of causality of specialization. Based on the available data, one cannot say that marriage and employment status are the predominant reasons for same-sex couples to walk into marriage, and one also cannot draw the conclusion that it is because of the difference in labor market decisions on both parties that encourages same-sex marriage. It is possible that those labor market decisions are made after the individuals got married and have decided future familial arrangements such as whether or not to have children.

Another limitation in this study is subjected to the imperfection of survey data. The data on working week was not available in the sample that contains the information of same-sex married couples. As discussed above, I chose to use the midpoints of intervalled working weeks to obtain required information. However, since the codes in the variable (WKSWEEK) was set up so that each interval contains 13 work weeks, the accuracy of using the interval midpoints is reasonably doubtful.

Conclusion

This study is the first to uncover the marriage effect on homosexuals' wage income. The analysis shows that both married gays and lesbians enjoy a wage premium comparing to their unmarried by cohabiting counterparts. Similar to the situation encountered by heterosexuals, marriage wage premium of gay men is larger than that of lesbians. From descending order, the marriage wage premium could be ordered as heterosexual men > homosexuals > heterosexual women. This paper also demonstrates that children play an important role in heterosexual women and gay men's wage income, as both groups' marriage wage premiums significantly changed taking the number of young children into account.

Within-household specialization analysis shows that comparing to cohabiting same-sex couples, married same-sex couples are more likely to specialize in labor market decisions. This finding is consistent with situation of their heterosexual counterparts, as married heterosexual couples tend have higher level of specialization than cohabiting ones. This could be explained by the hypothesis that same-sex couples with fewer similarities are more likely to get married. This finding also supports that it is the "relative gender," rather than gender itself, that determines the role of specialization.

Tables

Table 1: Descriptive Statistics

PANEL 1: MALE	MARRIED HOMOSEXUAL	COHABITING HOMOSEXUAL	MARRIED HETEROSEXUAL	COHABITING HETEROSEXUAL
N	4298	42059	608861	102203
AGE	48.13	37.21	48	37.53
%BLACK	5.63	12.14	6.79	13.73
%WHITE	82.74	92.91	81.23	71.57
%ASIAN	6.21	3.98	6.23	3.98
%OTHER	5.42	10.96	5.76	10.72
%HISPANIC	12.47	18.71	11.76	18.26
%HISHSCHOOL DROPOUT	4.84	14.89	9.21	15.71
%HIGHSCHOOL	15.17	31.04	25.37	32.59
%SOME COLLEGE	24.69	30.32	28.01	29.93
%BACHELOR	28.04	16.73	22.05	15.49
%MORE THAN COLLEGE	27.27	7.02	15.35	6.28
%EMPLOYED	78.66	74.05	84.31	70.76
%UNEMPLOYED	3.3	6.81	2.96	7.8
%NOT IN LABOR FORCE	18.03	19.14	12.74	21.44
%FULLTIME EMPLOYED	71.43	66.79	81.18	64.15
%NORTHEAST	35.27	29.36	30.18	29.8
%MIDWEST	12.66	20.98	22.95	21.56
%SOUTH	24.31	27.38	29.17	26.61
%WEST	27.76	22.28	17.7	22.03
%URBAN	87.69	78.18	76.16	77.38
%IMMIGRANT	19.01	16.45	19.73	16.19

PANEL 2: FEMALE	MARRIED HOMOSEXUAL	COHABITING HOMOSEXUAL	MARRIED HETEROSEXUAL	COHABITING HETEROSEXUAL
N	4511	52141	653242	90852
AGE	46.65	38.57	46.95	36.76
%BLACK	7.69	13.4	6.35	13.13
%WHITE	82.71	71.74	80.8	71.39
%ASIAN	4.46	4.51	7.16	4.59
%OTHER	5.14	10.35	5.68	10.89
%HISPANIC	10.33	17.68	11.81	18.37
%HIGHSCHOOL DROPOUT	5.01	11.91	7.69	12.3
%HIGHSCHOOL	15.67	25.87	23.29	25.58
%SOME COLLEGE	26.76	33.32	29.95	35.52
%BACHELOR	24.19	18.9	23.49	18.11
%MORE THAN COLLEGE	28.38	10	15.59	8.49
%EMPLOYED	77.39	68.79	66.59	69
%UNEMPLOYED	3.21	6.48	2.9	6.51
%NOT IN LABOR FORCE	19.4	24.73	30.5	24.49
%FULLTIME EMPLOYED	68.83	54.98	52.01	54.89
%NORTHEAST	37.75	30.17	30.09	30.23
%MIDWEST	14.41	20.6	22.83	21.38
%SOUTH	24.87	27.9	29.38	26.93
%WEST	22.97	21.32	17.7	21.46
%URBAN	85.28	79	75.88	78.2
%IMMIGRANT	12.72	16.52	20.07	16.25

Table 2: Mean Tables

PANEL 1: MALE	MARRIED HOMOSEXUALS	COHABITING HOMOSEXUALS	MARRIED HETEROSEXUALS	COHABITING HETEROSEXUALS
WEEKSWORK	48.76 (0.138)	47.55 (0.073)	49.21 (0.001)	47.21 (0.045)
UHRSWORK	45.46 (0.162)	44.59 (0.066)	45.79 (0.013)	44.57 (0.039)
YRHRSWORK	2220.31 (10.283)	2123.53 (4.593)	2256.01 (0.783)	2016.41 (1.172)
INCWAGE	88668.82 (1746.94)	51095.46 (446.179)	75452.6 (114.102)	46736.38 (225.871)
HOURLWAGE	39.52 (0.728)	23.72 (0.204)	33.37 (0.05)	21.93 (0.105)
WEEKWAGE	1826.09 (36.3)	1064.27 (9.715)	1534.53 (2.421)	982.21 (5.007)

PANEL 2: FEMALE	MARRIED HOMOSEXUALS	COHABITING HOMOSEXUALS	MARRIED HETEROSEXUALS	COHABITING HETEROSEXUALS
WEEKSWORK	48.76 (0.131)	47.61 (0.071)	48.44 (0.014)	47.62 (0.046)
UHRSWORK	44.05 (0.145)	42.65 (0.054)	42.43 (0.012)	42.34 (0.034)
YRHRSWORK	2150.94 (9.308)	2033.069 (4.045)	2057.319 (0.832)	1992.163 (1.031)
INCWAGE	68438.85 (1177.829)	43244.59 (315.66)	52942.74 (88.39)	40886.79 (181.816)
HOURLWAGE	31.67 (0.523)	21.05 (0.146)	25.55 (0.042)	20.06 (0.084)
WEEKWAGE	1405.45 (25.34)	905.24 (6.822)	1092.88 (1.892)	853.93 (3.839)

Table 3: Marriage Effect on Weekly Wage (Male)

VARIABLES	(1) model 1 Homosexual	(2) model 2 Homosexual	(3) model 3 Homosexual Education	(4) model 4 Homosexual Occupation+ Industry	(5) model 5 Heterosexual With Singles	(6) model 6 Heterosexual Coupled Only
married	0.528*** (0.0150)	0.274*** (0.0141)	0.101*** (0.0134)	0.105*** (0.0126)	0.175*** (0.00157)	0.135*** (0.00301)
age		0.268*** (0.0118)	0.168*** (0.0111)	0.128*** (0.0103)	0.111*** (0.00202)	0.0956*** (0.00332)
age2		-0.00539*** (0.000299)	-0.00294*** (0.000282)	-0.00220*** (0.000261)	-0.00175*** (4.96e-05)	-0.00136*** (7.71e-05)
age3		3.56e-05*** (2.43e-06)	1.68e-05*** (2.29e-06)	1.26e-05*** (2.12e-06)	8.67e-06*** (3.90e-07)	5.48e-06*** (5.79e-07)
black		-0.209*** (0.0203)	-0.166*** (0.0190)	-0.0969*** (0.0177)	-0.0946*** (0.00378)	-0.103*** (0.00501)
white		0.144*** (0.0152)	0.0831*** (0.0142)	0.0426*** (0.0132)	0.0376*** (0.00295)	0.0481*** (0.00384)
asian		0.166*** (0.0261)	0.0282 (0.0244)	-0.0183 (0.0226)	-0.0595*** (0.00430)	-0.0640*** (0.00541)
hispanic		-0.305*** (0.0135)	-0.141*** (0.0129)	-0.0864*** (0.0120)	-0.0923*** (0.00255)	-0.103*** (0.00325)
immigrant		-0.145*** (0.0132)	-0.105*** (0.0125)	-0.0649*** (0.0116)	-0.0517*** (0.00226)	-0.0666*** (0.00278)
high school			0.173*** (0.0143)	0.107*** (0.0134)	0.113*** (0.00280)	0.118*** (0.00356)
college			0.326*** (0.0145)	0.175*** (0.0141)	0.172*** (0.00289)	0.185*** (0.00367)
bachelor			0.672*** (0.0155)	0.342*** (0.0163)	0.355*** (0.00327)	0.379*** (0.00406)
more than college			0.917*** (0.0176)	0.514*** (0.0196)	0.523*** (0.00377)	0.548*** (0.00454)
northeast		0.0283** (0.0116)	0.0167 (0.0108)	0.0299*** (0.0101)	0.0297*** (0.00209)	0.0333*** (0.00254)
midwest		-0.0984*** (0.0131)	-0.0661*** (0.0122)	-0.0408*** (0.0115)	-0.0422*** (0.00230)	-0.0430*** (0.00277)
south		-0.0621*** (0.0120)	-0.0519*** (0.0112)	-0.0604*** (0.0104)	-0.0614*** (0.00212)	-0.0608*** (0.00256)
urban		0.271*** (0.0108)	0.136*** (0.0103)	0.117*** (0.00988)	0.155*** (0.00188)	0.172*** (0.00224)
year2013				-0.0351*** (0.00854)	-0.0437*** (0.00167)	-0.0471*** (0.00200)
year2014		0.0310*** (0.0101)	0.0268*** (0.00939)	-0.00604 (0.00840)	-0.0265*** (0.00167)	-0.0275*** (0.00200)
year2015		0.0401*** (0.00994)	0.0339*** (0.00927)			
Constant	6.679*** (0.00472)	2.270*** (0.147)	3.290*** (0.139)	4.625*** (0.153)	4.925*** (0.0300)	5.130*** (0.0490)
Observations	29,708	29,708	29,708	29,708	789,707	514,802
R-squared	0.040	0.217	0.319	0.451	0.460	0.429

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Marriage Effect on Weekly Wage (Female)

VARIABLES	(1) model 1 Homosexual	(2) model 2 Homosexual	(3) model 3 Homosexual Education	(4) model 4 Homosexual Occupation+ Industry	(5) model 5 Heterosexual With Singles	(6) model 6 Heterosexual Coupled Only
married	0.437*** (0.0143)	0.257*** (0.0134)	0.150*** (0.0123)	0.106*** (0.0113)	0.0419*** (0.00148)	0.0302*** (0.00291)
age		0.263*** (0.0139)	0.150*** (0.0127)	0.102*** (0.0117)	0.127*** (0.00211)	0.109*** (0.00335)
age2		-0.00542*** (0.000347)	-0.00268*** (0.000317)	-0.00173*** (0.000291)	-0.00229*** (5.15e-05)	-0.00190*** (7.90e-05)
age3		3.68e-05*** (2.76e-06)	1.61e-05*** (2.52e-06)	9.91e-06*** (2.31e-06)	1.39e-05*** (4.02e-07)	1.10e-05*** (6.00e-07)
black		-0.157*** (0.0232)	-0.107*** (0.0210)	-0.0699*** (0.0193)	-0.0262*** (0.00361)	-0.0271*** (0.00521)
white		0.0876*** (0.0187)	0.0273 (0.0170)	-0.00420 (0.0155)	0.0142*** (0.00303)	0.0126*** (0.00417)
asian		0.185*** (0.0294)	0.0642** (0.0267)	0.00155 (0.0245)	0.00611 (0.00428)	0.00790 (0.00566)
hispanic		-0.253*** (0.0158)	-0.0895*** (0.0146)	-0.0594*** (0.0133)	-0.0608*** (0.00253)	-0.0536*** (0.00340)
immigrant		-0.131*** (0.0156)	-0.0716*** (0.0143)	-0.0281** (0.0131)	-0.0466*** (0.00228)	-0.0611*** (0.00300)
high school			0.222*** (0.0207)	0.105*** (0.0194)	0.0784*** (0.00355)	0.0859*** (0.00484)
college			0.404*** (0.0200)	0.171*** (0.0194)	0.143*** (0.00356)	0.162*** (0.00489)
bachelor			0.769*** (0.0207)	0.378*** (0.0207)	0.348*** (0.00380)	0.374*** (0.00515)
more than college			0.993*** (0.0216)	0.551*** (0.0228)	0.528*** (0.00416)	0.563*** (0.00554)
northeast		0.0409*** (0.0134)	0.0187 (0.0121)	0.0165 (0.0111)	0.0173*** (0.00213)	0.0212*** (0.00274)
midwest		-0.125*** (0.0154)	-0.0837*** (0.0139)	-0.0807*** (0.0129)	-0.0744*** (0.00235)	-0.0740*** (0.00296)
south		-0.0654*** (0.0139)	-0.0580*** (0.0125)	-0.0763*** (0.0115)	-0.0856*** (0.00216)	-0.0863*** (0.00276)
urban		0.359*** (0.0127)	0.235*** (0.0117)	0.175*** (0.0109)	0.190*** (0.00187)	0.197*** (0.00228)
year2013		-0.0395*** (0.0114)	-0.0331*** (0.0103)	-0.0382*** (0.00936)	-0.0361*** (0.00167)	-0.0384*** (0.00211)
year2014				-0.00521 (0.00922)	-0.0220*** (0.00167)	-0.0218*** (0.00211)
year2015		-0.00119 (0.0112)	-6.65e-05 (0.0101)			
Constant	6.569*** (0.00546)	2.267*** (0.178)	3.294*** (0.163)	4.939*** (0.188)	4.618*** (0.0353)	4.859*** (0.0530)
Observations	20,477	20,477	20,477	20,477	628,283	371,345
R-squared	0.044	0.203	0.348	0.496	0.461	0.456

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5: Robustness Check with Full-time Workers

Panel 1: Homosexual male	Baseline	Controlling for children	Only Individuals with Children	Only Individuals with no children
No Control	0.528***	0.508***	0.626***	0.397***
	(0.0150)	(0.0156)	(0.0637)	(0.0160)
Age + Ethnicity	0.274***	0.271***	0.324***	0.220***
	(0.0141)	(0.0150)	(0.0632)	(0.0155)
Education	0.101***	0.110***	0.0951	0.0741***
	(0.0134)	(0.0141)	(0.0639)	(0.0145)
Occupation + Industry	0.105***	0.103***	0.0593	0.0760***
	(0.0126)	(0.0132)	(0.0808)	(0.0137)
Panel 2: Homosexual female	Baseline	Controlling for children	Only Individuals with Children	Only Individuals with no children
No Control	0.437***	0.449***	0.719***	0.378***
	(0.0143)	(0.0143)	(0.0534)	(0.0149)
Age + Ethnicity	0.257***	0.259***	0.336***	0.227***
	(0.0134)	(0.0136)	(0.0559)	(0.0141)
Education	0.150***	0.148***	0.251***	0.123***
	(0.0123)	(0.0124)	(0.0519)	(0.0129)
Occupation + Industry	0.106***	0.103***	0.140***	0.088***
	(0.0113)	(0.0114)	(0.0637)	(0.0118)
Panel 3: Heterosexual male	Baseline	Controlling for children	Only Individuals with Children	Only Individuals with no children
No Control	-	0.450***	0.485***	0.448***
	-	(0.0037)	(0.0170)	(0.0038)
Age + Ethnicity	-	0.236***	0.218***	0.247***
	-	(0.0037)	(0.0155)	(0.0039)
Education	-	0.185***	0.108***	0.185***
	-	(0.0034)	(0.0143)	(0.0036)
Occupation + Industry	0.135***	0.125***	0.0592***	0.123***
	(0.0030)	(0.0031)	(0.0129)	(0.0033)
Panel 4: Heterosexual female	Baseline	Controlling for children	Only Individuals with Children	Only Individuals with no children
No Control	-	0.244***	0.536***	0.215***
	-	(0.0037)	(0.0124)	(0.0038)
Age + Ethnicity	-	0.104***	0.232***	0.102***
	-	(0.0037)	(0.0114)	(0.0039)
Education	-	0.043***	0.0927***	0.0422***
	-	(0.0033)	(0.0105)	(0.0035)
Occupation + Industry	0.0302***	0.021***	0.0537***	0.0199***
	(0.00291)	(0.00295)	(0.0094)	(0.0031)

Table 6: Robustness Check with Full-time & Part-time Workers

Panel 1: Homosexual male	Baseline	Controlling for children	Only Individuals with Children	Only Individuals with no children
No Control	0.363***	0.587***	0.655***	0.320***
	(0.0156)	(0.017)	(0.0598)	(0.0162)
Age + Ethnicity	0.165***	0.256***	0.402***	0.147***
	(0.0151)	(0.0156)	(0.0577)	(0.0157)
Education	0.013***	0.081***	0.148***	0.001
	(0.0145)	(0.0151)	(0.0592)	(0.0151)
Occupation + Industry	0.054***	0.103***	0.180***	0.044***
	(0.0134)	(0.014)	(0.0611)	(0.0139)
Panel 2: Homosexual female	Baseline	Controlling for children	Only Individuals with Children	Only Individuals with no children
No Control	0.467***	0.616***	0.840***	0.458***
	(0.0157)	(0.0164)	(0.0529)	(0.0165)
Age + Ethnicity	0.282***	0.322***	0.462***	0.271***
	(0.0148)	(0.015)	(0.0548)	(0.0156)
Education	0.158***	0.183***	0.334***	0.144***
	(0.0139)	(0.0142)	(0.0518)	(0.0146)
Occupation + Industry	0.098***	0.114***	0.179***	0.090***
	(0.0126)	(0.013)	(0.0573)	(0.0133)
Panel 3: Heterosexual male	Baseline	Controlling for children	Only Individuals with Children	Only Individuals with no children
No Control	0.624***	0.628***	0.586***	0.630***
	(0.0033)	(0.0033)	(0.0141)	(0.0035)
Age + Ethnicity	0.361***	0.339***	0.277***	0.343***
	(0.0034)	(0.0035)	(0.0131)	(0.0038)
Education	0.287***	0.274***	0.156***	0.269***
	(0.0032)	(0.0033)	(0.0122)	(0.0035)
Occupation + Industry	0.187***	0.177***	0.088***	0.172***
	(0.0029)	(0.0030)	(0.0109)	(0.0032)
Panel 4: Heterosexual female	Baseline	Controlling for children	Only Individuals with Children	Only Individuals with no children
No Control	0.306***	0.305***	0.534***	0.278***
	(0.0038)	(0.0038)	(0.0121)	(0.0040)
Age + Ethnicity	0.095***	0.082***	0.203***	0.076***
	(0.0040)	(0.0041)	(0.0119)	(0.0043)
Education	0.020***	0.015***	0.045***	0.011***
	(0.00375)	(0.0038)	(0.0113)	(0.0041)
Occupation + Industry	-0.018***	-0.019***	-0.010	-0.020***
	(0.0033)	(0.0033)	(0.00994)	(0.00355)

Table 7: Specialization - Homosexual Male

VARIABLES	(1) model 1 Difference in Employment Status	(2) model 2 Difference in Annual Working Hours	(3) model 3 Difference in Annual Working Weeks	(4) model 4 Difference in Weekly Working hours	(5) model 5 Difference in Annual Income
married	0.0311** (0.0129)	79.61*** (29.57)	0.0465*** (0.0148)	0.0455*** (0.0144)	10,155*** (2,676)
ychild	0.0486 (0.0466)	-57.17 (106.5)	-0.0236 (0.0533)	-0.0596 (0.0518)	10,387 (9,642)
dage	-0.00369*** (0.000778)	-4.128** (1.780)	-0.00240*** (0.000890)	-0.00201** (0.000866)	362.4** (161.1)
dblack	-0.0398 (0.0367)	-37.56 (83.86)	0.00254 (0.0419)	-0.0412 (0.0408)	-7,567 (7,589)
dwhite	-0.0253 (0.0246)	0.529 (56.36)	0.0165 (0.0282)	-0.00590 (0.0274)	-5,173 (5,101)
dasian	-0.0721** (0.0352)	-94.75 (80.56)	-0.0394 (0.0403)	-0.0314 (0.0392)	-3,428 (7,290)
dhispanic	-0.0433** (0.0189)	-108.6** (43.29)	-0.0268 (0.0216)	-0.00412 (0.0211)	-6,101 (3,917)
dimmigrant	0.00448 (0.0172)	-32.78 (39.23)	0.000150 (0.0196)	-0.0402** (0.0191)	-648.2 (3,550)
dhigh-school	0.0915*** (0.0276)	230.0*** (63.05)	0.101*** (0.0315)	0.0998*** (0.0307)	-1,065 (5,706)
dcollege	0.112*** (0.0275)	241.5*** (62.98)	0.115*** (0.0315)	0.0983*** (0.0306)	-2,825 (5,700)
dbachelor	0.109*** (0.0287)	272.8*** (65.53)	0.117*** (0.0328)	0.121*** (0.0319)	2,540 (5,931)
dmore-than-college	0.125*** (0.0300)	350.3*** (68.53)	0.131*** (0.0343)	0.123*** (0.0333)	18,279*** (6,201)
dwhitecollar	0.127*** (0.0118)	295.0*** (26.94)	0.108*** (0.0135)	0.137*** (0.0131)	13,705*** (2,438)
dbluecollar	0.143*** (0.0170)	326.8*** (38.89)	0.0994*** (0.0194)	0.139*** (0.0189)	654.7 (3,520)
dpinkcollar	0.144*** (0.0188)	196.2*** (42.89)	0.0879*** (0.0214)	0.0353* (0.0209)	1,945 (3,882)
northeast	-0.0190 (0.0163)	-43.99 (37.23)	-0.0250 (0.0186)	-0.0227 (0.0181)	5,735* (3,370)
midwest	0.0145 (0.0208)	44.27 (47.57)	0.00440 (0.0238)	0.00644 (0.0231)	-7,090* (4,305)
south	0.00228 (0.0171)	-1.682 (39.12)	-0.0172 (0.0196)	-0.00589 (0.0190)	-10,589*** (3,540)
urban	-0.0479** (0.0215)	-85.01* (49.19)	-0.0447* (0.0246)	-0.0445* (0.0239)	18,913*** (4,452)
year2013	-0.000712 (0.0154)	64.93* (35.18)	0.0207 (0.0176)	0.0200 (0.0171)	1,000 (3,184)
year2014	0.00217 (0.0151)	40.95 (34.47)	0.00606 (0.0172)	0.0154 (0.0168)	4,310 (3,120)
Constant	0.215*** (0.0260)	610.6*** (59.40)	0.259*** (0.0297)	0.273*** (0.0289)	38,188*** (5,376)
Observations	5,023	5,023	5,023	5,023	5,023
R-squared	0.044	0.044	0.024	0.037	0.040

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 8: Specialization - Homosexual Female

VARIABLES	(1) model 1 Difference in Employment Status	(2) model 2 Difference in Annual Working Hours	(3) model 3 Difference in Annual Working Weeks	(4) model 4 Difference in Weekly Working Hours	(5) model 5 Difference in Annual Income
married	0.0521*** (0.0132)	99.91*** (28.90)	0.0421*** (0.0150)	0.0511*** (0.0149)	10,801*** (1,866)
ychild	-0.00672 (0.0318)	-87.16 (69.65)	-0.0607* (0.0362)	-0.0189 (0.0359)	3,575 (4,497)
dage	-0.00331*** (0.000853)	-4.058** (1.867)	-0.000893 (0.000969)	-0.00145 (0.000962)	151.0 (120.6)
dblack	-0.00248 (0.0389)	-40.94 (85.12)	-0.0199 (0.0442)	0.0451 (0.0439)	-1,464 (5,495)
dwhite	-0.0136 (0.0264)	-59.50 (57.75)	0.0120 (0.0300)	-0.00413 (0.0298)	-2,383 (3,728)
dasian	0.0100 (0.0455)	32.22 (99.62)	0.0520 (0.0517)	0.0211 (0.0513)	8,080 (6,432)
dhispanic	-0.0256 (0.0216)	-56.22 (47.40)	-0.00644 (0.0246)	-0.0189 (0.0244)	-703.6 (3,060)
dimmigrant	-0.00588 (0.0213)	-25.02 (46.69)	-0.0160 (0.0242)	-0.0471* (0.0241)	-3,202 (3,014)
dhigh-school	0.0976*** (0.0271)	200.9*** (59.40)	0.115*** (0.0308)	0.102*** (0.0306)	-4,532 (3,835)
dcollege	0.109*** (0.0268)	183.1*** (58.66)	0.110*** (0.0304)	0.0886*** (0.0302)	-5,466 (3,787)
dbachelor	0.134*** (0.0287)	250.5*** (62.73)	0.112*** (0.0326)	0.132*** (0.0323)	1,479 (4,050)
dmore-than-college	0.127*** (0.0305)	233.6*** (66.78)	0.0962*** (0.0347)	0.125*** (0.0344)	6,311 (4,311)
dwhitecollar	0.134*** (0.0126)	286.1*** (27.66)	0.0984*** (0.0144)	0.128*** (0.0143)	10,010*** (1,786)
dbluecollar	0.152*** (0.0190)	385.2*** (41.57)	0.125*** (0.0216)	0.172*** (0.0214)	4,207 (2,683)
dpinkcollar	0.125*** (0.0171)	185.9*** (37.46)	0.0640*** (0.0194)	0.0350* (0.0193)	1,986 (2,418)
northeast	-0.0203 (0.0177)	-110.6*** (38.70)	-0.0498** (0.0201)	-0.0346* (0.0199)	4,712* (2,499)
midwest	-0.0276 (0.0212)	-46.67 (46.52)	-0.0146 (0.0241)	0.00346 (0.0240)	-7,281** (3,003)
south	-0.0132 (0.0182)	-74.10* (39.91)	-0.0321 (0.0207)	-0.0314 (0.0206)	-4,178 (2,576)
urban	-0.0575*** (0.0185)	-114.6*** (40.47)	-0.0216 (0.0210)	-0.0363* (0.0209)	15,316*** (2,613)
year2013	0.00506 (0.0160)	48.79 (34.96)	0.0166 (0.0181)	0.0263 (0.0180)	-2,789 (2,257)
year2014	0.00890 (0.0156)	42.47 (34.19)	0.00680 (0.0177)	0.0155 (0.0176)	774.6 (2,207)
Constant	0.231*** (0.0240)	705.8*** (52.61)	0.278*** (0.0273)	0.286*** (0.0271)	23,989*** (3,396)
Observations	4,928	4,928	4,928	4,928	4,928
R-squared	0.046	0.044	0.021	0.037	0.040

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix

Variable Descriptions	
Variable Name	Description
<i>Sexuality</i>	
SSM	Whether a person is a married homosexual
SSUP	Whether a person is a unmarried but partnered homosexual
MARRIEDHH	Whether a person is a married householder based on RELATED definition
HOMOSEXUAL	Whether a person is identified as a homosexual
HETEROCOUPLE	Whether a person is a unmarried but partnered heterosexual
HETERO	Whether a person is identified as a heterosexual
<i>Demographics</i>	
AGE	Shows a person's age
AGE2	Square of AGE
AGE3	Cube of AGE
SEX	Classification of a person's gender
MARST	Classification of a person's marital status
MARRIED	Whether a person is married
NORTHEAST	Whether a person lives in the northeast region
MIDWEST	Whether a person lives in the Midwest region
SOUTH	Whether a person lives in the south region
WEST	Whether a person lives in the west region
WHITE	Whether a person is white
BLACK	Whether a person is black
ASIAN	Whether a person is Asian
OTHER	Whether a person is in an ethnic group other than black, white and Asian
IMMIGRANT	Whether a person is an immigrant
URBAN	Whether a household's location was urban or rural.
<i>Family</i>	
RELATED	Shows the person's relation to the householder
NCHLT5	Shows the number of young children (<5 years old) a person has
NCOUPLE	The number married couples in a household
<i>Education</i>	
HSDROP	Whether a person is a high school drop-out
HS	Whether a person completes high school
COLLEGE	Whether a person has taken some college education
BACHELOR	Whether a person has a bachelor degree
HIGHEDUC	Whether a person has more education than bachelor degree
<i>WORK</i>	
UHRSWORK	Shows usual working hours of an person in a typical week
WKSWORK2	Weeks worked last year, intervalled
OCC	Classification of an individual's occupation
IND	Classification of the industry an individual works in
<i>Income</i>	
INCWAGE	Shows a person's annual pre-tax wage and salary income
HOURLWAGE	Shows a person's hourly wage
WEEKWAGE	Shows a person's weekly wage
<i>Labor Supply</i>	
NWORK	Number of people working in a household
YRHRSWORK	Total working hours in a year

DIFFHOURWORK	Difference in total annual working hours
DIFFEMPLOYED	Difference in employment status
DIFFFULLYEAR	Difference in annual working weeks
DIFFFULLTIME	Difference in weekly working hours
DIFFINCOME	Difference in annual wage income
<i>Other</i>	
YEAR	Survey year
SERIAL	Identification code for each household

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