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To Work or Not To Work?
The Effects of Partner Earnings and Children on
Women's Labor Supply

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Abstract

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This study uses the 1990 Census to examine and compare the labor force participation decisions of three groups of women: married, cohabiting opposite-sex and cohabiting same-sex. Of particular interest are the effects of children and partner earnings on labor supply for all three groups. The lower labor force participation of married women compared to the two cohabiting groups in part reflects the fact that married women are more likely to have children and higher earning partners. Cohabiting women, particularly cohabiting gay women, who have children and high earning partners appear to engage in household specialization that is similar to married women. Even so, there are still large differences in labor supply determination between the three groups of women. In order to ascertain whether this reflects the fact that many of the cohabiting women are engaged in shorter-term, less committed relationships, the mobility questions in the census are used to construct a sample of women who have lived with their current partner for at least five years. Conditioning on long-term relationships does not have a qualitative effect on the results.

1. INTRODUCTION

There have been vast changes in labor market outcomes for women in the last century. The persistent and increasing rate of labor force participation (LFP) of women has been one of the most salient features of this change. Most research conducted on women and labor supply is generally of two types: either all women are grouped together and compared to men or married women are analyzed in comparison to married men. In the past, restricting research to samples of married women was the convention because women overwhelmingly married. Furthermore, they were of interest econometrically because of their discontinuous work histories and preference for part-time employment.

This paper analyzes the labor supply decisions of three distinct groups of women distinguished by their coupling decision. The three groups of women are: married, cohabiting opposite-sex and cohabiting same-sex "unmarried partnered" women.¹ Particular emphasis is placed on how partner earnings and the presence of children affect labor supply. Partner earnings should reduce labor supply through an income effect. Is the effect of partner earnings the same across the three groups? Also, children greatly influence women's work experiences, but most of these effects have been studied for married women only.

This research benefits greatly from the inclusion of unmarried partnered females.

couples residing together described their relationship as "unmarried partner" and much can be learned from both of these groups. Opposite-sex cohabitation has increased substantially over the last decade. Are there systemic differences between couples who marry and couples who do not? Little is known, in an economic sense, about same-sex unmarried partners. It is important to analyze this group in comparison to married and unmarried partner opposite-sex women for several reasons. First, same-sex couples are not afforded the legal right to marry in the U.S., therefore, couples could be more like married couples or more like unmarried partner opposite-sex couples.

Secondly, this research seeks to explore female labor supply in households where traditional gender roles are absent. The group of cohabiting women who are partnered with other women will allow for unique insights into this type of household formation. A household comprised of two women will, in general, be at an earnings disadvantage because of the gender gap. Consequently, the gender gap may affect their decisions regarding market behavior.

As the previous paragraphs have affirmed, theories abound as to why differences in acquired characteristics and returns to those characteristics may vary across the three groups. As a practical matter it is difficult to assess causal relationships based on this type of analysis. This research documents differences in characteristics and returns to those characteristics as they pertain to labor supply. However, this investigation cannot disentangle causality for different behaviors and preferences that produce the measured differences in labor supply.

Initial results show that partner earnings affect labor supply negatively for married women and positively for cohabiting and gay women. However, conditioning on incremental

levels of partner earnings returns results that are qualitatively similar across groups. The varied distributions of partner earnings across groups affect the subsequent coefficients on partner earnings.

and presence of children negatively affect female labor force participation and hours of work- although estimates and elasticities vary across studies (Angrist and Evans 1998: Zabel 1993: Mroz 1987).² The overwhelming majority of research in this area was limited to the analysis of married women. In the past this was acceptable due to the fact that most women married and had children. In more recent years there has been a decline in marriage rates and fertility rates.

A sizable amount of research on female labor force participation is concerned with estimating wage elasticities. The consensus from first and second-generation studies was that “female labor supply elasticities are large both in absolute terms and relative to male elasticities” (Killingsworth and Heckman 1986:185). However, consistency across studies was lacking. Researchers employed many different techniques, implement various assumptions, and use a variety of data sets to carry out studies on female LFP.

Mroz (1987) offered a critique of various studies by using one data set (PSID 1975) to replicate the range of some previously estimated elasticities. The Mroz study is important because it challenged all the empirical research that concluded responsiveness of female labor supply to changes in wage rates and other household income was larger than that of men. He asserted “wage rates, taxes, and non-labor income have a small impact on the labor supply behavior of *working* married women (p.795). This was in direct contrast to many previous studies.³

The distinction between labor supply choices at the extensive margin (i.e., entry and exit) and choices at the intensive margin (i.e., hours and weeks of work) is an important one.

²The female labor supply literature is abundant. For a

Heckman (1993) asserted: “A major lesson of the past 20 years is that the strongest empirical effects of wages and non-labor income on labor supply are to be found at the extensive margin- at the margin of entry and exit—where the elasticities are definitely not zero” (p. 118). The present study is concerned with labor supply at the extensive margin- whether women work or not.

Mroz also examined the effects of children and non-wife income on labor supply. In most instances, non-wife⁴ income (per \$1000) and the presence of young and older children negatively affected female labor supply.⁵

As noted, previous research on female labor supply focused primarily on married women. Income and wage elasticities were usually compared to those of men. Not many studies, if any, compared the determinants of female labor supply across groups of women. However, it is widely known that women with children earn less than other women.

Waldfogel (1998) examines the “family gap” which refers to the disparity in earnings between women with and women without children.⁶ She posits that even as the gender gap has narrowed, the family gap has widened. In terms of the gender wage gap and the family gap, Waldfogel illustrates how the United States fares much worse than countries that have favorable family policies such as maternity leave and childcare. The lack of such policies directly affects whether a woman with children will work and how much. Fuchs (1989) strongly asserts: “In contemporary America, the greatest barrier to economic equality is children” (p. 39). Consequently, this study will analyze cohorts of women not just based on

In sum, family structure and the presence of children are important determinants of female labor supply. The three samples of women used in this analysis are diverse in family structure and exhibit variation in regard to the presence of children, which will provide for an interesting analysis.

2. 2. Changing Family Structure

The following section addresses the changing household structure and increasing rates of cohabitation among U.S. couples. Historically, marriage rates have been declining and cohabitation rates have been increasing. Women's choice to couple and coupling preferences are much more diverse than in the past. Table 1 shows some historical trends in living arrangements among U.S. residences. The occurrence of married households decreased approximately 29% from 1960 to 2000, while single households increased 95% during the same time frame. In 1960, 87.4% of households were comprised of married and single persons, with 12.6% of households comprised of some other composition (e.g., borders, roommates, etc.) In 2000, married and single households accounted for 78.3% of all households while differently comprised households were 21.7%.

Ressler and Waters (1995) provide an economic model for the demand of cohabitation relative to formal marriage. They show that the labor market participation rates of women are correlated with cohabitation rates. Further, they state, "this result is consistent with the proposition that the flexibility associated with cohabitation (as opposed to marriage) has increased in value as women have entered the labor market in greater numbers" (p. 581). Their research relies on Becker's (1981) theory of the decline of marriage. Becker conjectured that gains from trade decline as men and women's market characteristics become

more similar. This assertion leads to the possibility that women differ in their coupling decisions based on perceived gains from either marriage or cohabitation. The gains from trade with one's partner will help to determine how much labor a woman will supply to the market, as well as, to the household.

Research suggests that cohabitation is a prelude to marriage for some people and a replacement to marriage for others (Bumpuss and Sweet 1989; Raley 2001). Of women who have cohabited, 10.2% have never married, 23.6% did so prior to their first marriage, and 7.3% after their first marriage. In 1995, 7% of women were in a cohabiting relationship.⁷ There is evidence that the prevalence of cohabitation has substantially offset declining marriage rates (Bumpass and Sweet 1989).

The Census Bureau reports there were 5.5 million unmarried partner households in 2000, up from 3.2 million in 1990. Unmarried partner households accounted for 2.8% of the

While underreporting was diminished in the 2000 Census relative to 1990, it is likely that the 2000 Census “unmarried partner” count remains under-reported. The stigma of homosexuality and distrust of government may discourage many from reporting their relationships honestly.

The notion of “family” and what constitutes the household structure is changing. In addition, the trend of being “single” is also prevalent. In 1970, 19% of men and 14% of women were “never married.” In comparison, in 1999 almost 33% of men and 25% of women were “never married.”¹² Of course, many of these never married individuals may have been cohabiting with their partners.¹³

3. DATA

This study analyzes the 1990 U.S. Census Public Use Microdata Sample (PUMS-5%). Three sub-samples of women were taken from the PUMS based on responses to questions regarding marital status, spousal situations (present or not) and household relationship. The resultant sub-samples of women are identified as: married, cohabiting heterosexual and cohabiting homosexual. The cohabiting women are identified through the

was asked to choose the category that best represented how other members of the household were related to the householder.

This edition of the Census allowed, for the first time, the inclusion of “unmarried partner” as a response to the relationship question. Consequently, there are women in same-sex cohabiting relationships and women in opposite-sex cohabiting relationships. If a woman is in an unmarried partner relationship with a male, she is identified as a cohabiting heterosexual woman. If a woman is in an unmarried partner relationship with another woman, she is identified as a cohabiting homosexual women- referred to as “gay” so there is no confusion between the two types of cohabiting women.¹⁴ The married women are identified through the “marital status” question. The women in this group are currently married to husbands who are present in the same household. Therefore, no divorced, separated, or widowed women are included in the married sample. Other exclusionary restrictions include: $25 \leq \text{age} \leq 60$, no military personal, no disabled or institutionalized persons, and no persons coupled with a minor.

The homosexual sample consists of 2,984 individual observations. This sample includes all observations from the PUMS 5% sample. There is some evidence that same-sex unmarried partners are under-reported in the Census and that this sample of self-reported “unmarried partners” is upwardly biased with respect to education and income levels. However, these variables are controlled for in the regression analysis.

The sample of heterosexual unmarried partner women has 75,221 observations, and the married sample consists of 73,062 observations. Both of these latter samples are random

¹⁴Regarding same-sex unmarried partners- it cannot be definitively known whether these individuals are homosexual or not; they are regarded as so in this pa

samples taken from the PUMS 5%.¹⁵ Therefore, the pooled sample consists of 151,267 observations.

4. DESCRIPTIVE ANALYSIS

4.1 Descriptive statistics

Descriptive statistics for each group of women are presented in Table 2. These tables highlight some important overall differences and similarities between the three groups.

The average hourly wages, for workers, across the three groups are \$10.5, \$9.9, \$13.5, for married, cohabiting, and gay women, respectively. The high wage for the gay women may be due to their higher education levels and their prevalence for working in professional occupations. The gay women in this sample have attained far more education compared to the other two groups of women. 49% of gay women have achieved a bachelor's degree or more, while 21% of married women and 15% of cohabiting women have achieved the same level of education.

The samples are similar with respect to average age: 39.5, 35.1, and 36.6, respectively, for married, cohabiting and gay women. The racial composition is similar in that the overwhelming majority of each sample is comprised of Caucasians. The distribution of African American and "other" races are somewhat alike for married and gay women. African Americans make up 13% of the racial composition of the cohabiting, which is high compared to the other two groups. This reflects the fact that marital rates for African Americans are lower compared to whites.

¹⁵The cohabiting sample is a sub sample from the entire 5% PUMS who meet sub-setting parameters. The married sample was generated by using sub samples #11, 31, 51, 71, 91 as defined by the Census and who met sub-setting parameters.

Twice as many gay women are professionals (44%) as compared to married (20%) and cohabiting (22%) women. Women who work full-time are more likely to be professional, and vice-versa, regardless of group. The percent of professionals among non-working gay women (10%) is twice as high as the other two groups (5% and 4%). However, as will be discussed, it is more likely that the occupations of individuals in gay couples are of the same type (e.g., professional). Therefore, if gay couples want to specialize between market and non-market labor (perhaps because of children) it will be more likely that a professional gay woman will chose not to work, while her professional partner specializes in market labor.

Selected descriptive statistics by labor supply are presented in Table 3. The statistics are presented overall, for each group, and subsequently by increments of labor supply. Gay women make up the largest percent of full-time workers (73%), while married women represent the highest percent of part-time workers (33%) and non-workers (25%).

Table 3 includes “% partner unemp” which represents the percent of partners who were unemployed. Regardless of coupling status, non-working women have the highest percent of non-working partners, 7.4%, 18% and 23% respectively for married, heterosexual cohabiting and homosexual cohabiting women.

Partner average earnings are highest for married women, regardless of the level of labor supplied. For both groups of cohabiting women, partner average income decreases as the amount of labor supplied decreases. This result is opposite for married women. Moreover, partner average earnings for the non-workers are considerably less for gay and cohabiting women. A husband’s average annual earnings are \$38,692. Compared to non-working cohabiting and gay women partner average earnings of \$17,049 and \$12,449, respectively, married women’s husbands earn, on average, much more. These characteristics

may point to a lack of household specialization in cohabiting households or increased specialization in married households. Or, it could be the case that cohabiting partnerships are formed with a proclivity for assortative mating.

The amount of labor supplied by women is greatly influenced by the presence of children in the household. Table 4 presents labor supply statistics by couple and the presence of children. The presence of children requires some explanation. Children can be “own,” “other,” or both. “Own” refers to children who are a woman’s biological children. “Other” refers to children who are not a woman’s biological children, but who are the children of her partner. Married women do not have “other” children, as the Census counts stepchildren of married women as “own.” Therefore, only cohabiting couples have “other” children. Throughout the analysis the terms “own” and “other” are used to distinguish between the different types of children. When referring to children, more often than not, there is no distinction made between own and other.

As expected, full-time labor supply decreases with any incidence of children in the household regardless of couple type. Full-time labor supply for women without children in the household is 51%, 66% and 75% for married, cohabiting and gay women, respectively. These percents decrease to 37%, 47%, and 58% when children are present.

The percent of non-working women without children in the household is 22%, 9%, and 4% for married, cohabiting and gay women, respectively. The percent of non-workers for each group increases with the presence of children (27%, 23% and 16%, respectively for married, cohabiting and gay women).

4.2 Assortative Matching

Assortative mating or matching occurs when individuals select mates in a non-random manner. Positive matching is matching based on like characteristics. If matching is dissimilar, it is referred to as negative matching. Becker (1991) considered the substitutability or complementarity of individual traits. Becker viewed non-market traits (e.g., age, race) as complements and market traits (e.g., earnings, occupation) as substitutes. Becker predicted positive assortative mating for non-market characteristics and negative assortative mating for market characteristics. Like much of Becker's work, these predictions are based on heterosexual couples who maximize household utility by exploiting the sexual division of labor. Becker viewed same-sex couple households as inefficient because they are unable to profit from the sexual difference in comparative advantage.

Jepsen and Jepsen (2002) analyzed matching patterns of opposite-sex married couples and unmarried partners, as well as, same-sex male and female couples from the 1990 Census. In general, they found that all four couples had positive assortative mating strategies on all traits. Positive assortative mating was strongest for non-labor market traits than for labor market traits. In addition, they found married couples, overall, had stronger assortative mating behaviors than the other three couples. Furthermore, same-sex couples exhibited the weakest degree of positive assortative mating. Table 5 represents correlations based on some on somerket tstrongematching ihe ores ore

The correlations for annual income are calculated two different ways. First, all observations are used to determine the correlations. Correlations on income are .28 and .30 for cohabiting and gay couples, while it is very low (.07) for married couples. This weak correlation may be misleading because it may be suggestive of household specialization that took place after the marital decision. The result is driven by the fact that there is not a wage measure for women who are not working at the time of the survey, and disproportionately women who are not working are married women with children. Therefore, a second correlation is presented where the samples are restricted to households where both individuals work. These correlations are, again, all positive. The correlation on income for the cohabiting and gay couples decreases modestly, while it more than doubles for the married couples, although it is still rather small (.16).

In general, sorting behaviors for married couples are stronger with regard to social characteristics (age and race). This may be due to the more traditional nature of marriage versus the non-traditional aspects of cohabiting same-sex or different sex couples. Cohabiting and gay couples have stronger matching behaviors with regard to labor market traits.

5. METHODOLOGY AND RESULTS

5.1 Model

Binary logistic (logit) regressions along with linear probability (LP) models are employed to assess the probability of working versus not working for each group of women. Therefore, the dummy variable *WORK* is constructed such that:

$$WORK = y_i = \begin{cases} 1 & \text{if } H_i > 0 \\ 0 & \text{otherwise} \end{cases}$$

Where H_i represents annual hours worked by person i . The logit model is defined in the usual regression framework where:

$$\text{Prob}(y_i = 1) = \frac{e^{\beta'x_i}}{1 + e^{\beta'x_i}}$$

Where x includes characteristics such as age, race, education, geographical location, presence of children, and annual partner earnings for each individual in the sample. Separate regression equations are run for each group of women.

Linear probability analysis is used in conjunction with the logit analysis. While the logit model is preferred, some estimation with small cells requires the use of the linear probability model.

The modeling of labor supply as a dichotomous dependent variable is implemented for several reasons. After careful inspection of these micro data it is clear that measurement error is a potential problem regarding reported average weeks worked per year, average hours worked per week and reported earnings. Bound et al. (1989) analyzed problems associated with reporting errors on variables such as “usual” hours worked per week, weeks worked per year and annual earnings. Bound compared detailed company reports to survey data. He stated: “It appears, then, that these respondents arrived at their answers to the questions about usual pay and usual hours by a fairly straightforward process of finding a central value (corresponding most closely to the mean of recent weeks), but did so with considerable error. It also appears to be the case that their answers to the two questions, about usual earnings and usual hours, were arrived at independently rather than, for example, using estimates of their hourly wage rate and of their hours to calculate their weekly earnings” (28).

From the above remarks it can be reasonably assumed that recalling values on variables such as hours worked per week, weeks worked per year and annual wages are most difficult for part-time and non-continuous workers. The data employed in this analysis cannot be double checked through such means as employee records. However, when constructing an hourly wage variable (which does not exist in the data) by using reported average hours worked per week and annual wage income, implausible hourly wages were returned in many instances. Constructed values of hourly wage ranged from under a dollar to several thousands of dollars per hour. As Bound indicated, errors in measurement exists for both measured variables, therefore, the constructed variable is fraught with problems.

The inclination for many women to work part-time and/or to have non-continuous work histories leads me to believe that their reported values for usual hours worked per week and weeks worked per year are measured with considerable error. Hence, a dichotomous dependent variable approach is used to circumvent some of the difficulties associated with an hours of work equation- measurement error being one of those difficulties. Furthermore, most of the action regarding female labor force participation is at the extensive margin, as discussed in the literature review.

5.2 Results

Presented in Table 6 are logit regression results for each group along with chi-square values for across group comparisons of coefficients. The continuous variable on annual partner earnings (partner earnings) represents a measure of total earnings for the partner of each woman. There are several variables that capture the effect that children have on the probability that women work. First, there is a set of dummy variables that represent the age

range of “own” children in the household. Each woman was asked if she had any “own” children present in the household. The exhaustive set of dummy variables is: no children (base), children less than 6 years of age (children < 6), and children greater than 6 years of age (children > 6). “Kids in household” is a continuous variable that represents the total number of children present in the household. “Other kids in household” is a continuous variable that represents the total number of children present in the household who are not the women’s “own” children. This variable is irrelevant for married women since stepchildren are counted as “own.” However, cohabiting and gay women are partnered with individuals who may or may not have separate children of their own living in the household.

Overall, kids in the household have a large negative affect on participation. The one exception is for women with children six years of age or greater where the coefficients are all positive. The probability of working decreases, for all groups of women, if there is a child less than six in the household. This effect is almost identical, overall, for married and gay women (-0.81). There is an additional small negative affect if the children in the household are not a woman’s own children.

The coefficient on partner earnings, as expected, is negative for married women (-0.054), but it is positive for cohabiting (0.052) and gay (0.108) women. The marginal effects that correspond to these coefficients (evaluated at the means of the independent variables) are: -0.0094, 0.0049, and 0.0026. It is hard to determine whether the coefficients on partner earnings represent an income effect or an affect produced by assortative mating strategies or both. Figure 1 illustrates a plausible theory explaining why overall coefficient signs vary among the three groups. Assume that partner earnings is represented as

$PE = AM + IE$, where the subscripts PE=partner earnings, AM=assortative matching, and IE=income effect. Figure 1 shows this relationship. Graph A represents the positive matching strategies of all three groups. Graph B illustrates the income effect expected between partner earnings and labor supply, where the slope of this function gets progressively steeper as partner earnings increases. Graph C is the vertical summation of Graphs A and B. Partner earnings of cohabiting and gay women are low compared to married women. In the overall analysis partner earnings are clustered left of middle for the cohabiting groups. The slope in Graph C, left of middle, is positive, where the assortative matching effect dominates. Average partner earnings of married women are concentrated right of center in Graph C where the slope is negative and the income effect dominates. This hypothesis is a plausible

married women the effects are all negative. The largest negative effect is for married women

sample (from Table 6) while continuing to use each groups “own” means. This row of predicted probabilities assumes that the typical woman from each group has the same returns as married women. The remainder of predictions in Table 8 interchanges coefficients and group means in a similar manner. Section II interchanges coefficients, while Section III interchanges group means.

Married women have the lowest probability of working (.725), while gay women have the highest (.985) for the base predictions. Regardless of the combination of betas or characteristics from the two cohabiting groups, the probability that married women will work increases (Section II and III under Married). Conversely, regardless of combination, the probability that gay women will work decreases when they are given either the coefficients or characteristics from the married or opposite-sex cohabiting women.

Table 9 is calculated by taking the differences of each cell in Table 8, Section II and III, and subtracting them from each groups baseline (Section I, Table 8), this is presented to facilitate the interpretation of Table 8. The changes from the base analysis for married women are positive in all instances. The change from base is negative, in all cases, for the gay group. The changes from base are mixed for the cohabiting group. If this group is given either the returns or characteristics of the gay group, their probabilities increase. If cohabiting women are given either the returns or characteristics of married women, their probabilities decrease.

6. LONG TERM RELATIONSHIP ANALYSIS

The next phase of this project re-analyzes the effect of partner earning and the presence of children on couples in long-term relationships. This analysis is pertinent for

several reasons. First, gay couples are not legally allowed to married, therefore, some gay couples, if allowed, would marry. Secondly, it is appealing to note differences between short and long-term cohabiting couples. It is impossible to characterize the commitment levels of cohabiting and gay couples. One could argue that the same could be said of married couples. Nonetheless, it is important to separate out long-term committed couples when analyzing the effects of partner earnings and children on labor supply. The preferences of long-term couples could differ from other couples. The models and techniques implemented in the first analysis are used in this secondary analysis.

6.1 Identifying long-term couples

The Census question concerning mobility is used to identify long-term couples. The Census asked respondents about their mobility status. Mobility status is determined by whether respondents lived in the same house for the five years preceding the questionnaire. Long-term couples are identified as such if they both answered “yes” (yes, same house) to the mobility question. The resultant sub-samples are: 39,071 married, 13,604 cohabiting, and 600 gay women. It is most certainly the case that some long-term couples moved together in the last five years. Unfortunately, there is no way to distinguish between those who moved as a couple (from a previous location) and those who moved separately from different locations. In other words, this method of identifying long-term relationships only counts couples that have not moved in the previous five years. By using the mobility question, couples are categorized as long-term, short-term or indefinable. Based on this restriction and acknowledging the undercount; 53.5% of married, 18.1% of cohabiting, and 35.2% of gay women from the total sample are in long-term relationships.

7. DESCRIPTIVE ANALYSIS

Table 10 presents descriptive statistics, by group, based on length of relationship. Recall that descriptive statistics for the total sample are presented in Table 2. For

gay couples (Column 3). However, the urban/rural location does not significantly change between long and short-term cohabiting and gay couples (Column 4).

8. RESULTS OF LONG TERM ANALYSIS

The logit regression results for the long-term samples are listed in Table 11. The signs of the coefficient on partner earnings are the same as the signs from the overall analysis for all three groups. Statistically, the coefficient for married women is the same in both analyses. The coefficients have decreased in magnitude for the long-term cohabiting and gay samples. As discussed previously, these coefficients may be misleading so an enhanced analysis is presented in Table 12. Table 12 is analogous to Table 7 in the first analysis.

The first interesting facet of Table 12 is that, in general, the results are similar to those in Table 7; hence they are also consistent with the theory presented in Figure 1. For low levels of partner earnings (first section of Table 12), the marginal effects are overwhelming positive. For high levels of partner earnings (last section of Table 12), the marginal effects are, by and large, negative. The results for the gay sample are questionable due to small sample sizes. The sample sizes for gay women with are: 42, 27, and 29, respectively for increasing increments of partner earnings.

The marginal effects on partner earnings are mostly positive when partner earnings are restricted to less than \$15,000. The magnitude of the effects from Table 7 to Table 12 are mixed. For married women, the signs are all positive, but the magnitudes are all smaller for the long-term couples. Thus, for this group of married women, the effect of partner earnings on the probability of working is positive, but less so than for the entire sample. The signs and the magnitudes are almost identical for the cohabiting women for low levels of partner

earnings across the two tables. The results are mixed for the gay women, as the marginal effects change in significance, sign and magnitude. The effects are strongest if children are present in the household, which is consistent with the results in Table 7.

The last third of Table 7 analyzes the marginal effect of partner earnings on samples restricted to partner earnings greater than or equal to \$30,000. Consistent with Table 7, the results are overwhelming negative. The marginal effects on partner earnings for married women are almost identical between the two analyses. The signs are the same for cohabiting women, but the magnitudes are all less (meaning larger negative numbers) in Table 7. This is an interesting result. The result indicates that cohabiting women, in long-term relationships with men who earn a considerable amount of money, are responsive to changes in partner earnings. This result is stronger, for all three groups, when children are present. The marginal effect for gay women without children flips signs from Table 7 to Table 12, but the magnitudes are very small.

The middle third of Table 12 is similar to the results in Table 7. The signs are again all negative for the married sample, but the magnitude of the changes are mixed. The signs are all positive for the cohabiting group, just as before, but the magnitude changes are also varied. The signs for the gay women are once again positive for the total sample and the sample without children. In addition, the magnitudes are larger in Table 5. However, the sign changes to negative in Table 12 (middle section) for gay women with children.

Overall, the changes from Table 12 to Table 7 are similar. For married women in general, the effects are the same or amplified toward not working for the long-term couples. For example, for low partner earnings, the marginal effect of partner earnings positively affects the probability that married women will work. But, this effect is less so for long-term

married women. Furthermore, at high levels of partner earnings, the effects are statistically equivalent.

For cohabiting women, the first third of Table 12 is similar to Table 7 except the effect is much stronger towards the probability of work for women when children are not present in the household. Regarding the middle third of Table 7, the effect of partner earnings on the probability of working is increased for the total long-term sample and if children are present. However, the effect is less for long-term cohabiting women without children present. For high levels of partner earning, the marginal effect of partner earnings on the probability of work are more negative for the long-term couples.

The comparisons across the two analyses are mixed for the gay women. However, they are similar to the results of the cohabiting women. The second analysis seems to indicate that long-term cohabiting and gay couples are more intricately involved. The probability of work is affected to a greater degree for long-term couples; this is most evident for partner earnings greater than or equal to \$30,000.

Predicted probabilities, ($P(y=1)$ for work) with respect to work, for the long-term samples are presented in Table 13. This table is comparable to Table 8 in the overall analysis. The predicted probabilities decrease for each group. The decrease in the probabilities are -7.9%, -3.4%, and -0.5%, respectively for married, cohabiting and gay women. This result indicates that women in long-term relationships are less likely, on average, to work compared to the overall samples. But, the decrease is more significant for married and cohabiting women.

The remainder of Table 13 interchanges coefficients and characteristics across groups to illustrate how the predicted probabilities change. This exercise is carried out in the same

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Table 1

Table 2
Descriptive Statistics
(standard deviations in parenthesis)

Variable Name	Total Sample	Married Women	Cohabiting Women	Gay Women
WORKER CHARACTERISTICS:				
Hourly wage (workers only)	10.3 (9.7)	10.5 (10.1)	9.9 (9.4)	13.5 (8.8)
Partner annual earnings	28,531 (27,215)	33,951 (30,108)	23,446 (23,096)	23,988 (20,152)
Full-time workers	0.51 (0.50)	0.42 (0.49)	0.59 (0.49)	0.73 (0.45)
Part-time workers	0.30 (0.45)	0.33 (0.47)	0.27 (0.44)	0.22 (0.42)
Non-workers	0.20 (0.39)	0.25 (0.44)	0.14 (0.35)	0.05 (0.22)
Professional	0.21 (0.41)	0.20 (0.40)	0.22 (0.41)	0.44 (0.50)
SOCIAL CHARACTERISTICS:				
Age	37.3 (8.7)	39.5 (8.9)	35.1 (7.9)	36.6 (7.9)
White	0.83 (0.37)	0.88 (0.33)	0.79 (0.41)	0.88 (0.33)
Black	0.09 (0.29)	0.06 (0.24)	0.13 (0.33)	0.07 (0.26)
Other race	0.07 (0.25)	0.07 (0.24)	0.08 (0.27)	0.05 (0.22)
No children	0.60 (0.49)	0.38 (0.48)	0.61 (0.40)	0.84 (0.27)
Own children < 6	0.18 (0.27)	0.28 (0.44)	0.08 (0.27)	0.03 (0.16)
Own children ≥ 6	0.23 (0.41)	0.34 (0.47)	0.12 (0.33)	0.05 (0.22)
Total children in household	0.93 (1.17)	1.19 (1.20)	0.71 (1.09)	0.28 (0.77)
Total other children only in household	0.41 (0.93)	- -	0.42 (0.94)	0.15 (0.56)
EDUCATION:				
High school or less	0.54 (0.50)	0.51 (0.50)	0.57 (0.49)	0.23 (0.42)
Some college	0.28 (0.45)	0.28 (0.45)	0.28 (0.44)	0.27 (0.44)
BA or more	0.19 (0.39)	0.21 (0.41)	0.15 (0.36)	0.49 (0.50)
LOCATION:				
Reside in urban area	0.68 (0.47)	0.63 (0.48)	0.72 (0.45)	0.84 (0.37)
N	151,267	73,062	75,221	2,984

Table 3
Selected descriptive statistics by labor supply

Table 4
Labor supply percentages: by couple and presence of children

	Couple:		
	Married	Cohabiting	Gay

Table 5
Important correlations for couples by group

Characteristic:	Couple:		
	Married	Cohabiting	Gay
Age	.89	.66	.52
Education	.61	.52	.58
Income	.07	.30	.28
Income (workers)	.16	.29	.26
Race ^a	.97	.93	.93
Occupation ^b	.25	.28	.43

^aThis is a measurement of when the race of each individual within a couple is the same.

^bThis number is a correlation that measures the instances when the occupation of each

Table 6
 Logit regression results and coefficient tests²¹

Variables:	1 Married Sample	2 Cohabiting Sample	3 Gay Sample	4 X² for difference of 1 & 2	5 X² for difference of 1 & 3	6 X² for difference of 2 & 3
partner earnings	-0.054 (0.002)	0.052 (0.004)	0.108 (0.038)	0.35	2.03	17.78
children < 6	-0.810 (0.040)	-0.146 (0.061)	-0.817 (0.519)	172.86	9.75	3.39
children ≥ 6	0.070 (0.033)	0.527 (0.052)	0.374 (0.469)	93.76	0.89	3.64
kids in household	-0.325 (0.012)	-0.427 (0.020)	-0.397 (0.171)	1024.55	17.80	23.00

Table 7

Linear probability results:
marginal effect of partner earnings on labor supply by
partner earnings and presence of children²²

*Significant at the 5% level: ** Significant at the 10% level

a

Figure 1

Decomposition of the coefficient on partner earnings

Assume: $PE = AM + IE^{23}$

Table 10

Descriptive statistics: differences between total sample and long-term samples,
and long-term sample and short-term sample

Variable Name:	1			2			3			4		
	Long-term sample			Short-term sample			LT - Total			LT - ST		
	Marr	Cohab	Gay	Marr	Cohab	Gay	Marr	Cohab	Gay	Marr	Cohab	Gay
WORKER CHARACTERISTICS: Hourly wage	10.5	10	15.3	10.5	10.2	13.3	0.00	0.10	1.80	0.00	-0.20	2.00

Table 11
 Long-term relationships
 Logit regression results and coefficient tests²⁵

Variables:	1	2	3	4	5	6
	Married Sample	Cohabiting Sample	Gay Sample	X ² for difference of 1 & 2	X ² for difference of 1 & 3	X ² for difference of 2 & 3
ptr earnings	-0.053 0.002	0.020 0.007	0.066 0.065	21.85	0.04	1.72
children < 6	-0.598 0.060	-0.202 0.143	1.931 1.487	26.50	0.80	1.34
children ≥ 6	0.186 0.044	0.189 0.105	1.749 1.399	10.79	1.91	1.91
kids in HH	-0.319 0.017	-0.356 0.044	-1.159 0.536	204.45	7.61	7.95
other kids in HH	- -	-0.064 0.049	0.614 0.558	-	-	0.96
age	0.116 0.015	0.159 0.023	0.201 0.180	99.75	3.10	3.96
age squared	-0.002 0.0002	-0.002 0.0003	-0.002 0.002	148.48	4.29	4.39
black	0.432 0.057	-0.231 0.063	-1.185 0.500	5.63	2.24	7.91
other race	-0.126 0.055	-0.394 0.076	-1.401 0.566	30.72	7.21	9.87
some college	0.740 0.030	0.734 0.064	0.720 0.493	432.26	8.75	8.56
BA or more	1.242	1.421	0.982	385.18	21.75	23.78

Table 12

Table 13

Long-term analysis:

Predicted probabilities for a typical woman working for each group with
interchanging characteristics and coefficients using the logit models in Table 6²⁷

		Couple:
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Table 14
Long-term relationships
Percentage difference in the predicted probabilities from Table 8

Appendix

Table A1

Logit results:
marginal effect of partner earnings on labor supply by
partner earnings and presence of children²⁸

Total

*significant at the 5% level: ** Significant at the 10% level

^aSub-sample of households that have children (own, other or both) present

²⁸ These effects are from regressions that also control for all variables as in regressions in Table 6.

Table A2

Linear probability results: marginal effect of partner earnings
on labor supply by partner earnings and presence of children²⁹

*significant at the 5% level: ** Significant at the 10% level

^aSub-sample of households that have children present.

^b