# Modern Families: Bargaining and Time-Use in Same-Sex Households 

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#### Abstract

We investigate the impact of bargaining power, as measured by relative income, on time use in household labor, care labor, leisure and paid labor in same-sex households and different-sex households. We find that, contrary to patterns among heterosexual men and women as well as the predictions of household bargaining models, there is a concave relationship between time spent in household labor and relative earnings for lesbians and for gay men with children. We also find that time spent in leisure among lesbians is twice as responsive to changes in relative earnings than time spent in leisure among heterosexual women. While these findings are inconsistent with household bargaining models, they are consistent with the impact of gender and identity motivated behavior on economic outcomes. While economic outcomes have been previously argued to be determined by the fulfillment of a feminine identity, our results suggest that time use patterns of women in different sex households are most consistent with the fulfillment of masculinity for their male partners. Our work highlights the need as well as provides direction for the development of more complete models of the household.


JEL: D13, J12, J15. Keywords: Family Structure, Household Bargaining, Sexual Orientation, Intrahousehold Time-Use.

## 1 Introduction

Long standing interest in the determinants of labor supply inside and outside of the household has led to a large literature that aims to explain the process that generates the intrahousehold distribution of goods and time. Many explanations of intrahousehold allocation are in

[^0]response to Beckers's (1981) unitary model of the household. While the models have most prominently been applied to the study of different-sex households, many of these models may be used to study same-sex households even though they were, at least implicitly, developed to increase an understanding of households with two partners of different sexes. ${ }^{1}$ Applying the models of the households to same-sex households allows us to empirically test the validity of these models as well as contribute to the knowledge of dynamics within same-sex households. Understanding how same-sex households function contributes to the literature on the economics of the household, because most bargaining models of the household highlight the importance of bargaining power in determining intrahousehold decision-making. However, it is difficult to separate power from gender in different-sex households given widespread gender inequities. The lack of gender asymmetry in same-sex households makes such an endeavor empirically feasible.

We examine whether the lack of gender asymmetry in same-sex households impacts the responsiveness of household members to power differentials. We find significant evidence that responsiveness to power differentials differs by sexual orientation for women in particular. The varying patterns in response to power differentials are inconsistent with bargaining models of the household. We find a convex relationship between time use in household labor and earnings share for heterosexual women but a concave relationship for lesbians. High relative earning lesbians spending less in household labor while high relative earning heterosexual women spend more time in household labor, suggests that gender performance of high earning heterosexual women is contingent upon having a male partner. As such, previously documented patterns of gender performance in heterosexual households (Bittman et al., 2003; Schneider, 2011; Bertrand et al., 2010) may be an effort to fulfill masculine identities not feminine ones. We also find that lesbians reduce their time spent in leisure

[^1]at a rate that is twice that of heterosexual women as their bargaining power increases. For men, we find some differences between gay and heterosexual men's responsiveness to relative earnings when the sample is divided into households with and without children. Our results show that many of the differences in household time use documented in previous research (Martell and Roncolato, 2016) are driven by differential responsiveness to bargaining power.

The channels and extent to which gender is predicted to impact power differentials varies by household model. Our findings suggest that the role of gender is oversimplified and underestimated in household bargaining models. Our results reiterate that while the household bargaining models can be used to explain the behavior of heterosexual women who make less than their husbands, it can not explain their behavior when their earnings comprise a larger share of household earnings. Furthermore, bargaining models can not explain the relationship between time spent in household labor and bargaining power for lesbians or gay men with children. Household preferences for equality and identity-motivated behavior can explain these time use patterns. Our results indicate that gender and identity appear to interact with bargaining power in complicated ways in both same-sex and different-sex households. To better understand household behavior, our results show that economic models of the household should more carefully incorporate the impact of gender and identity in forming and constraining preferences and power.

Household models have long pointed out, and our results reiterate, that policies to promote gender equity must address both market and intrahousehold inequities. More fundamentally, our results highlight that the development of more complete and accurate models of the household is crucial to the design of effective public policies aimed to promote equity by gender and sexual orientation. The time use patterns estimated below show that policies based on the predictions of household bargaining models will have potentially perverse outcomes. The need for more complete models of the household will only continue to grow as interest in promoting the well-being of these populations increases.

## 2 Literature Review

Household behavior, within the unitary framework, is the product of comparative advantage based specialization. Since men have higher market earnings potential and women make a greater initial investment in care labor, efficiency motivates men to specialize in the market and women to specialize in the home. Utility in the household model comes from the consumption of both household goods, produced through women's labor, and market goods, purchased with income from men's market labor. Given the assumptions of an altruistic patriarch and pooled income, patterns of specialization for men and women maximize consumption of household and market goods and therefore the single household utility function (Becker, 1981).

The preferences embodied in the single utility function of the unitary model motivated a number of feminist critiques and alternative models. These alternative household models assume that each member makes decisions to maximize his/her own utility given independent preferences. A common theme among bargaining models is individual preferences that may be at odds with patterns of household specialization. Both husbands and wives have a disutility of household labor. Since both husbands and wives have a disutility of household labor, household members must bargain to determine who will complete household production. The partner who completes the bulk of household labor is the partner whose weaker bargaining power gives his or her preferences less weight in influencing household outcomes. The determination of household bargaining power is central to an understanding of the determinants of the intrahousehold allocation of time-use.

The determination of household bargaining power depends on the fashion in which bargaining is characterized. In cooperative bargaining models of the household, bargaining power is most prominently determined by earnings potential. Individuals with higher earnings capacity and control over their income exert influence over intrahousehold decisions with
the power of the purse. Gender norms also influence bargaining power and the threat point in certain cooperative models, namely Lundberg and Pollak's separate spheres model (1983). In the separate spheres model unsuccessful bargaining leads to partners who retreat to separate spheres of production determined by gender norms (Lundberg and Pollak 1993, 1994, 1996). Noncooperative bargaining models do not assume that income is pooled and allow for the possibility of non-pareto efficient outcomes. Similar to cooperative bargaining models, earnings potential still functions as a source of power. Certain noncooperative models such as the conjugal contract model of Carter and Katz (1997) posit that institutions, namely the extent of patriarchy, can limit bargaining power of women regardless of their earnings potential. In both coopertive and noncooperative bargaining models, a higher relative earnings is negatively correlated with unpaid household and care labor assuming that unpaid household and care labor decreases individual utility (McElroy and Horney, 1981; Lundberg and Pollak, 1993; Doss, 1996; Lundberg and Pollak, 1996; Carter and Katz, 1997). ${ }^{2}$

The class of collective household models have less restrictive assumptions than both the unity model and group of the cooperative bargaining models (Chiappori, 1992; Doss, 1996; Chiappori et al., 2002). Within the collective framework, both institutional inequities and earnings potential affect bargaining power and the extent to which one individual's preferences affect intrahousehold outcomes. Thus, the extent to which partners specialize in household production, within the collective framework, depends on relative earnings potential, inequities between partners (including intrahousehold differences in age, education and race or extrahousehold differences in marriage or labor markets) and individual preferences (Chiappori et al., 2002; Orrefice, 2011). ${ }^{3}$ Individual preferences embody the standard assumption that both partners have a disutility of household labor.

Recently, there has been an increasing debate regarding gender identity and labor supply

[^2]choices. For example, independent of her degree of bargaining power, women may engage in actions (i.e. doing household labor) that are consistent with one's identity or social expectations. Neoclassical economists characterize this behavior as utility maximizing akin to cognitive assonance (Akerlof and Kranton, 2000). The neoclassical approach treats gender norms and preferences as components of the utility function that are given and biologically determined. To the contrary, many feminist economists focus on teh social prouction of gender. Gender, in this approach, is not the product of preferences but teh result of a complex and pervasive process of socialization. As such, feminist economists may describe the same behavior as women exercising agency given a restricted choice set (Kabeer, 2002) and further complicate Akerlof and Kranton's model by arguing that preferences and identity are context-dependent (England 1993, 2003). ${ }^{4}$

A small but growing literature has investigated outcomes in gay and lesbian households and documented their consistency with both bargaining models of the household as well as identity-motivated behavior. In the US, research has shown that partners in gay or lesbian households exhibit smaller differences in hours worked for paid labor, smaller differences in earnings and higher likelihoods of working full-time than partners in heterosexual households (Jepsen and Jepsen, 2015; Giddings et al., 2014). Smaller differences in earnings have also been documented for gay and lesbian households in Sweden (Ahmed et al., 2011). These smaller intrahousehold differences, which Giddings et al. (2014) call the specialization gap, are smallest among young couples (Giddings et al., 2014) suggesting that gendered divisions of household labor are becoming less prominent among all household types.

Smaller intrahousehold differences in earnings and labor market engagement are consis-

[^3]tent with both bargaining models and identity motivated behavior. Orrefice (2011) applies the collective model of household to same-sex households in the US to find evidence that bargaining takes place in same-sex households. Members of same-sex households who have higher income or are younger appear to have more bargaining power and supply less labor in the market. However, the impact of bargaining power proxies varies by household type.

Theoretically it is unclear why the impact of bargaining proxies on labor market outcomes for members of same-sex households differ from different-sex households. In different sex households, the older partner is generally believed to have higher bargaining power and supply less labor; the opposite case holds in same-sex households (Orrefice, 2011). Among heterosexual women, the presence of children reduces the probability a mother will work full time; the opposite case holds among lesbian mothers (Leppel, 2009). These diverging impacts of bargaining proxies on labor market outcomes may arise from differential impacts of identity on economic outcomes by sexual orientation as we discuss below. Martell and Roncolato (2016) are among the first to examine unpaid work in same-sex households using American Time USe data. We build on this foundation to empirically investigate if the patterns of household time use are more more consistent with bargaining models or identitymotivated behavior in same-sex households.

We investigate bargaining in same-sex households by looking at the impact of bargaining power, as measured by relative income, on household outcomes (time spent in care labor, household labor) as well as market outcomes (time spent in paid labor). Investigating household outcomes in addition to market outcomes is important because it is difficult to aggregate non-market time use into a single category. A one hour reduction of paid labor does not necessarily lead to an hour more of household labor. The paid labor could be substituted with increased leisure alongside increased joint household production or the purchasing of household goods. The lack of asymmetry is particularly important in same-sex households. The smaller differences in labor market outcomes suggests that gay men will have higher house-
hold duties compared to heterosexual men. Indeed, gay men spend more time in household labor than heterosexual men (Martell and Roncolato, 2016). However, even though previous research shows that lesbian women supply more labor than heterosexual women (Jepsen, 2007; Antecol and Steinberger, 2013), after accounting for the incidence of parenthood lesbian women do not spend less time in household or care labor than heterosexual women (Martell and Roncolato, 2016). Our analysis of household time use alongside market time use allows us to more precisely investigate the process that determines the intrahousehold and market division of labor and to better understand the impact of bargaining on gendered behavior (such as care labor or leisure).

Comparing the determinants of the intrahousehold distribution of time use in same-sex and different-sex households allows us to build on the literature of the economics of the household by assessing the role of identity on household behavior. As we explain below, the differential responses of time use to bargaining power and earnings potential by sexual orientation suggests that existing models of the household need to better incorporate identity based behavior to understand household behavior and outcomes.

## 3 Conceptual Framework

We test for the impact of identity-motivated behavior and gender performance in same-sex households by comparing estimates of the responsiveness of time use to bargaining power proxies to the predictions of existing models of the household. Within the unitary model (Becker, 1981), women's specialization in household production is driven by the lower earnings potential in the market compared to their male partners. Asymmetries in the household time are driven by asymmetries in the investments in human capital and the market wage. Applying the intuition of this model to same-sex households, time spent on household production should likewise be determined by differences in market earnings potential and we
should observe a negative relationship between relative earnings and time spent on household and care labor. If the only channel through which gender matters is women's lower earnings potential relative to men in the market, then once other demographic characteristics are controlled for, the responsive to the difference in earnings should be the same for individuals who have a partner of the same-sex as those who have a partner of the different-sex. Further, we should fine no systematic differences in household time-use by sexual orientation.

In the general collective model and the group of bargaining models, earnings relative to one's partner also function a key determinant of bargaining power. These models predict a negative relationship between relative earnings and time spent on household and care labor (McElroy and Horney, 1981; Chiappori, 1992; Lundberg and Pollak, 1993; Carter and Katz, 1997; Chiappori et al., 2002). The models of Lundberg and Pollak (1993) and Carter and Katz (1997) consider the influence of gender distinct from earnings potential to explain the higher share of time women spend on household and care labor. Given the lack of gender asymmetry and thus separate spheres threat points in same-sex households, individuals in same-sex households are predicted to be more responsive to differences in relative earnings compared to different-sex households.

Investigating gender performance and identity motivated behavior in same-sex households is difficult because of the intersection of gender identity with sexual orientation identity. An established finding within the psychological literature on same-sex households is that there are stronger preferences for equality within same-sex couples (Goldberg, 2013). ${ }^{5}$ The application of Akerlof and Kranton's theory that individuals get utility from conformity to social categories is complicated by the intersection of social categories in same-sex households. Gay men and lesbians belong to individual gender and sexual orientation identity groups but also face choices as couples to either reject or conform to traditional heteronormative

[^4]expectations of household structure.
The theoretical consideration of identity and gender performance leads to more ambiguous predictions of the relationship between relative earnings and household time use. For example, lesbian and heterosexual women may respond similarly to changes in relative earnings if engaging in household production is one way in which women seek to fulfill their identity as a woman (Akerlof and Kranton, 2000). However, it is inappropriate to assume the social construction of being a lesbian woman is the same as the social construction of being heterosexual woman. The lesbian identity comes with its own unique set of norms and pressures, one of which may be rejecting that which is traditionally feminine (Blackman and Perry, 1990; Hiestand and Levitt, 2005). A similarly complicated story exists for gay men with regard to identity construction. Note that Schneider (2011) finds while that heterosexual women perform gender through household labor, she does not find that men similarly perform gender through a lack of household labor. Ferber and Nelson (1993) articulate that traditionally feminine identity has been assumed to be constructed through relationships and the sphere of the home, whereas masculine identity has been assumed to be prominently constructed through employment and market experience. If we assume only the identity of being a man or woman matters, gender identity-motivated behavior would predict that members of same-sex households to respond similarly to their heterosexual counterparts with regard to changes in relative income. However, even with this restrictive assumption, responsiveness may vary given differences in the gender identity of partners, i.e. while a heterosexual woman has a male partner, a lesbian woman has a female partner. When we consider the intersection of both gender identity and sexual orientation identity, there is a range of possible outcomes when comparing labor supply choices of members of same-sex households to their heterosexual counterparts. Further, contrary to bargaining models of the household, we may find systematically different levels of household time use even after controlling for relative income and differential responses to relative income for members of
same-sex households.
Same-sex couples also faces the choice of where to seek belonging in the category of family life and household structure. They may choose to conform to traditional heteronomative household models and thus seek acceptance in heterosexual family communities. Alternatively, they may reject traditional heteronormative models of specialization and strive for egalitarianism. The preference for egalitarianism may be a distinct way of fulfilling identity within the community of partnered gays and lesbians. ${ }^{6}$ If the preference for egalitarianism and rejection of the heteronomortive households dominates, we expect to see members of same-sex household being less responsive to differences in relative earnings than members of heterosexual households. As a result, we may in fact see a positive relationship between relative earnings and time spent on unpaid household and care labor. For example, a higher earner lesbian or gay man may do the same amount of household labor as his/her partner given preferences for equality.

## 4 Data

Our analysis utilizes data from the American Time Use Survey (ATUS) from 2003 to 2015. During the data collection for Current Population Survey, one member of each household is asked to report their time use for the previous 24 hours for the ATUS. ${ }^{7}$ The lack of time use data for both partners in the households creates some constraints. However, the data still allows us to investigate the degree to which time use and responsiveness of time use varies by sexual orientation. Given our interest in labor decisions related to market and non-market work, we limit our sample to respondents who are between the age of 25 and 65 .

We identify individuals as gay or lesbian if they cohabit with a member of the same-

[^5]sex. ${ }^{8}$ Our sample is restricted to individuals whose partners live in the same household and only consider households where at least partner is working. The sample for our baseline analysis includes 139 cohabiting gay men, 23,150 married heterosexual men, 1,318 cohabiting unmarried heterosexual men, 189 cohabiting lesbians, 25,417 married heterosexual women, and 1,420 cohabiting unmarried heterosexual women. Small sample sizes have historically been a limitation in study of the economic experiences and outcomes of gays and lesbians. Fortunately, the number of gays and lesbians captured in data collection surveys is on the rise. The sample size for our analysis is larger than or comparable to the sample sizes of previous scholarship using GSS data (see Badgett 1995; Martell 2013a; Berg and Lien 2002).

Table 1 shows the descriptive statistics for gay men compared to married and cohabiting heterosexual men. Gay men in our sample are on average more educated, more likely to be white and more likely live in an urban area than both groups of heterosexual men. Gay men are less likely to have children and less likely to have other adults present in the home. They have lower earnings relative to their partners and their partner's have higher absolute earnings compared to both married and cohabiting heterosexual men. ${ }^{9}$ Compared to cohabiting unmarried heterosexual men, gay men are older, earn more and are more likely to own their home.

Time spent on care labor is the only significant time use difference found between gay men and heterosexual married men. A large portion of care labor is secondary childcare. When the sample is disaggregated into households with and without children (descriptive statistics not shown here but available upon request), the difference in time spent on care labor between gay men and their heterosexual counterparts disappears. Comparing gay men to cohabiting heterosexual men, we see that gay men do on average more household labor

[^6]and less care labor. The difference in care labor again disappears when disaggregating the sample into households with and without children.

In table 2 we compare demographic and time use data of lesbians to married and cohabiting unmarried heterosexual women. Lesbians in our sample are on average more educated and more likely to live in an urban area compared to both groups heterosexual women. They are more likely to be white than cohabiting unmarried heterosexual women but not married heterosexual women. Lesbians have on average higher individual earnings which make up a greater share of their household income compared to both married and unmarried heterosexual women. The earnings of partners of lesbians are lower on average than the spousal earnings of married heterosexual women but higher than the partner earnings of cohabiting heterosexual women. Similarly reflecting this difference in income, lesbians are less likely than married heterosexual women to own their home but more likely than cohabiting heterosexual women to do so. Lesbians are less likely to have another adult present in the home and less likely to have a small child compared to both groups of heterosexual women. Compared to married heterosexual women, lesbians are also less likely to have a child between the ages 6 and 18. The fact that a similar statistically significance difference is not found for unmarried cohabiting heterosexual women, may be in part due to the fact that heterosexual cohabiting women in the sample are on average younger than lesbians and married heterosexual women.

In our sample, lesbians spend less time in household and care labor and more time in paid market work than married heterosexual women. Comparing lesbians to cohabiting heterosexual women, we find the same differences regarding care labor and paid market work, but there is not a statistically significant difference in household labor. Lesbians in our sample also spend on average less time in leisure than cohabiting heterosexual women. When disaggregating the sample into households with and without children, the only significant difference in care labor that persists is married heterosexual women with no children in the
household spend more time on care labor that lesbians without children in the household.

## 5 Empirical Specification

As discussed above, we are interested in testing if members of same-sex households respond differently than members of different-sex households to relative earnings potential captured by the share of household income comprised of the respondents earnings, a common proxy of bargaining power, and total household earnings. As such, our empirical approach builds on the literature investigating the determinants and levels of household time use as well as the extensive literature investigating household bargaining.

We estimate daily time use (in minutes) of household labor, care labor, leisure and paid labor. As is the case with most research investigating household time use, the data include many reports of zero time use. It is important to note that reports of no time spent in these activities represent classical measurement error and not censoring (Stewart, 2013). Therefore we utilize seemingly unrelated OLS regressions to predict time use. ${ }^{10}$ We do not use survey weights in estimation because the use of weights my lead to imprecise estimates (Solon et al., 2015), particularly when investigating time use for members of same-sex households or in the absence of endogenous sampling. ${ }^{11}$

[^7]Our empirical strategy follows the approaches utilized in studies of household time use and bargaining power for women as well as studies of the responsiveness of paid labor to proxies of bargaining power in same-sex households. The empirical specification most closely follows the approaches of Kimmel and Connelly (2007) and Martell and Roncolato (2016). In addition to controls for standard determinants of household and market time use, we follow Gupta (2007), Schneider (2011) and Killewald and Gough (2010) and also control for the respondents earnings as a share of total household income as a proxy of bargaining power. We also include the square of the respondents earnings share to capture the previously documented nonlinear relationship between earnings share and time use (Gupta (2007), Schneider (2011), Killewald and Gough (2010)).

Specifically, we estimate:

$$
\begin{equation*}
\hat{y}_{i}=\alpha+\beta_{1} H_{i}+\beta_{2}\left(E_{i} * H_{i}\right)+\beta_{4}\left(E_{i}^{2} * H_{i}\right)+\beta_{6}\left(W_{i} * H_{i}\right)+\boldsymbol{\beta} X_{i}+\epsilon_{i} \tag{1}
\end{equation*}
$$

where $y_{i}=$ household labor, care labor, leisure and paid labor for individual i. $H_{i}$ is an indicator for cohabiting with a partner of the same-sex, $W_{i}$ is respondent's weekly earnings indicators, $E_{i}$ is the percent of household income comprised by the respondent's earnings. $X_{i}$ includes relevant demographic characteristics (see, for examples: Kimmel and Connelly (2007), Giddings et al. (2014) and Jepsen and Jepsen (2015)): age and its square, weekly earnings, spouse's weekly earnings, years of education, and indicators for: being white, an urban residence, home ownership, the presence of a child under 6 , the presence of children between 6 and 18, the presence of non-own child, the presence of third adult, a summer time diary, a weekend time diary, a holiday time diary, and region of residence. ${ }^{12}$

As discussed above, the indicator for cohabiting with a partner of the same-sex and its interaction with the earnings variables are our estimates of interest. Earnings share is evidence of endogenous sampling and our specification that utilizes a comprehensive set of controls, we do not use probability weights in our estimation.
${ }^{12}$ Regional indicators include: Northeast, South, Midwest and West.
the percent of household income that is comprised of the individual's earnings. Although imperfect, the share of household income comprised of the respondents' earnings or some measure of relative wages is a commonly used proxy for household bargaining power (see, for examples: Kimmel and Connoly (2007), Masterson (2012) and Hener (2015)). According to Becker's unitary household model, time use is determined by market earnings potential. As such, after controlling for absolute and relative earnings, the estimates of the coefficient on the indicator variable for being a member of a same-sex household should be insignificant and small. If the coefficient on the indicator remains either large or significant, the estimate rejects the unitary household model as well as models that focus on earnings share as the key determinant of bargaining power in households. A large or significant estimate would be evidence in favor of the role that gender plays in forming preferences, restricting behavior and/or determining bargaining power through channels other than earning differentials. Similarly, if the interaction term between the indicator for being in a same-sex household and share of earnings is significant, this suggests that gender and identity influence household labor supply decisions differently in same-sex versus different-sex households.

In addition to weekly earnings of the respondent we include the weekly earnings of the respondent's partner to control absolute earnings as determinants of time use and adequately test the impact of earnings separate from gender on time use. We do note, however, that labor market outcomes such as earnings may result in part from the intra-household distribution of labor. As such, there are theoretical motivations for viewing earnings as potentially endogenous. Such endogeneity poses an empirical difficulty for researchers interested in estimating the impact of wages on household time use. Using other data sources with more extensive human capital information, researchers have used predicted wages or instrumental variables to estimate a causal and exogenous effect of earnings on time use. Unfortunately, the ATUS does not include valid instruments for earnings or preferred covariates to make accurate earnings predictions. As does Bredtmann (2014) and Martell and Roncolato (2016)
we use actual earnings in estimation. We note that Hersch and Stratton (1997) find no evidence that the potential endogeneity of earnings biases estimates of time use. In an abundance of caution and because there is no consensus that earnings endogenity does not bias time use estimates, we caution readers in interpreting the coefficient estimate of earnings in isolation. We do not believe that any differential response to earnings on time use by sexual orientation, which is our coefficients of interest, would be biased. The differential response is precisely our research question: Do members of same-sex households with weaker gender norms respond differently to earnings and bargaining power?

During much of the period over which the data used here cover, same-sex marriage was illegal in many states and marital status for gay and lesbian individuals is not observable. As such, a priori it is ambiguous if married or unmarried cohabiting heterosexuals are the appropriate reference group for members of same-sex households. While some gay men and lesbians were in marriage-like relationships but not allowed to marry, other cohabiting gay men and lesbians may have been in relationships more similar to cohabiting heterosexuals. On the basis of log likelihood ratio test comparing specifications that combine cohabiting and married respondents to specifications that partition the sample, we believe that it is most appropriate to estimate time use separately allowing coefficient estimates to vary reflecting different time use and bargaining processes across household types. ${ }^{13}$

Our baseline specification controls for the presence of children as a determinant of time use. Though, investigating the impact of the presence of children on time use among same-sex households poses unique empirical difficulties. Tables 1 and 2 show that same-sex households are less likely to have children than different-sex households. Any differential selection into parenthood by sexual orientation would lead to biased time use estimates in empirical specifications that simply condition time use on the presence of children. As does Giddings

[^8]et al. (2014); Jepsen (2007) and Martell and Roncolato (2016), we address this potential bias by more carefully exploring the impact of parenthood on time use by estimating time use separately by the presence of children instead of simply conditioning on children as primarily done in the existing literature.

## 6 Results for Men

### 6.1 Gay men vs married heterosexual men

We begin by comparing time use and the responsiveness of time use to earnings share for gay men and married heterosexual men. These results are summarized in Table 3. Table 3 shows that gay men spend 73 more minutes per day in household labor and approximately an hour and half a less time per day in leisure than married heterosexual men; these differences are statistically significant. While not statistically significant, we estimate that gay men spend over an hour less time per day on care labor than married heterosexual men. The difference in care labor, as we discuss below, is due to the lower incidence of parenthood in gay households. These results are consistent with existing time use research (Martell and Roncolato, 2016).

While we find differences in overall time use between gay and married heterosexual men, we do not find any statistically or economically significant differences in the responsiveness of time use to earnings. While both relative and absolute earnings affect time use for men, the impact of relative earnings is large and the impact of absolute earnings is small. Consistent with the existing literature, we document a convex relationship between earnings share and time spent in household labor, care labor and leisure. We find a concave relationship between earnings share and time spent in market labor. These results are consistent with the household bargaining literature which argues men utilize the increased bargaining power derived from their higher relative earnings to bargain out of household production in order
to further engage in the labor market. The result of this bargaining is non-linear. The significance and sign of the squared terms indicate that the impact of this bargaining effect in households is larger for men who earn less or similar amounts than their partners. The signs and significance of each interaction between the gay indicator and the earnings variables shows that gay and married heterosexual men respond to changes in their relative and absolute earnings in similar fashions. These time use patterns are shown in Figure 1, which presents time use predictions based off of equation 1 for gay and married heterosexual men across the distribution of relative earnings.

We find more evidence that gay men respond to changes in earnings differently than heterosexual men by predicting time use on the sample of men in households with children. Similar to estimates in the full sample, increases in relative earnings decreases time spent in household labor, care labor and leisure but increases time spent in market labor. While differences are not statistically significant, we note that gay men with children are more responsive to changes in relative earnings. An increase in the earnings share has a reduction in care labor and leisure that is roughly estimated to be twice as large for gay men than heterosexual men. Gay men with children who earn a very small portion of household earnings spend, albeit statistically insignificantly, nearly three more hours of care labor per day than heterosexual men. However, as the relative earnings of gay men increases they decrease their time spent in care labor twice as much as heterosexual men thereby causing differences in time use to disappear across the distribution of earnings share. Gay men with low relative earnings spend approximately the same time in leisure as heterosexual men, but decrease their leisure over twice as much in response to changes in their earnings share. These patterns of time use are consistent with existing models of household bargaining.

Patterns of time spent in household labor seem to vary by sexual orientation in household with children. While an increase in earnings share decreases time spent in household labor for heterosexual men in the first part of the earnings share distribution, the opposite appears
to be the case for gay men. This difference is not statistically significant but may still be economically meaningful given the small sample size. A ten percent increase in relative earnings causes heterosexual men with children to decrease the time they spend in household labor by approximately 35 minutes. However, this same increase will cause gay parents to increase the time they spend in household labor by approximately one hour per day. This pattern for gay men with children is inconsistent with household bargaining models but is consistent with the finding of preferences for equality in same-sex households. However, while the time spent in household labor for married heterosexual men with children does not respond to changes in absolute earnings, an increase in weekly earnings decreases time spent in household production for gay men with children.

In households without children, we find that the differences in responsiveness to earnings share are much less pronounced. The lack of differences in households with children likely arise due to the prominent role that children play in determining the intrahousehold division of labor. The bottom panel of table 3 shows that gay men without children spend approximately 70 more minutes per day in household labor than heterosexual men and this difference is roughly equal across the distribution of relative earnings. Gay men do not adjust their time spent in household labor, care labor and market labor differently to changes in earnings share than married heterosexual men. We do find, however, that gay men's time spent in leisure is less responsive than heterosexual married men. While married heterosexual married men decrease the amount of time they spend in leisure as their relative earnings increases, gay men do not adjust their time spent in leisure in response to earnings share. ${ }^{14}$ Gay men at all levels of relative earnings spend nearly two hours less per day in leisure than married heterosexual men.

[^9]
### 6.2 Gay men vs. unmarried cohabiting heterosexual men

One concern with the results comparing married heterosexual men to gay men is that they may be driven by higher levels of commitment or more stability in married households compared to gay households for which marriage has only recently become an option across the full sample. To address this concern, we also compare gay men to unmarried heterosexual men. In table 4 we compare time use and the responsiveness of time use to changes in absolute and relative earnings of cohabiting gay men to unmarried cohabiting heterosexual men. Overall, the results are qualitatively similar but more pronounced when comparing gay men to cohabiting heterosexual men. In the full sample, which includes households with and without children, results indicate that gay men do not respond differently to relative or absolute earnings than cohabiting heterosexual men. Thus, time use patterns of cohabiting heterosexual men and gay men reveal a convex relationship between earnings share and time spent in household labor, care labor and leisure as well as a concave relationship between earnings share and paid labor. Gay men, across the distribution spend an hour and a half less minutes in leisure and the same amount of time in paid labor. Table 4 also suggests that gay men may spend about 45 minutes more per day in household labor and 50 minutes less time per day in care labor than cohabiting heterosexual men. However, these differences are statistically insignificant. Again, the results in table 4 show that gay men do not adjust their time use differently than cohabiting heterosexual men to changes in their absolute or relative earnings.

Similar to the results comparing gay men to married heterosexual men, we find that among households with children, gay men respond differently than cohabiting heterosexual men to changes in their relative earnings. The most notable difference is in time spent in household labor. Again, heterosexual men exhibit a convex nonlinear relationship between earnings share and time spent in household labor. As the relative earnings of heterosexual men increase, they decrease their time spent in household labor. The decrease in time use gets
smaller at higher levels of relative earnings. This pattern is consistent with well-documented patterns in the household bargaining literature. Gay men, however, respond in an opposite fashion exhibiting a concave relationship between relative earnings and time in household labor. While gay men with low relative earnings spend a statistically insignificant hour less time in household labor than their cohabiting heterosexual counterparts, this difference disappears for gay men with more equal or higher relative earnings. Gay men exhibit nonlinear increases in their time spent in household labor as their relative earnings increases. This pattern is inconsistent with household bargaining theories. There are no differences in responsiveness to relative earnings on time spent in child care, but gay men appear to decrease their time spent in leisure more than cohabiting heterosexual men as they earn more. ${ }^{15}$ Finally, while cohabiting heterosexual men spend more time in paid labor as their relative earnings increase, the insignificant but large interaction between earnings share and the gay indicator suggest that gay men do not adjust their time in paid labor as their relative earnings changes. With the exception of leisure, these results are inconsistent with household bargaining as an explanation of time use in gay households.

When considering only households without children, we again find few differences between gay and cohabiting heterosexual men. Time spent in household labor, care labor and paid labor of gay and heterosexual men respond similarly to changes in their earnings share. As such, cohabiting gay men without children spend over an hour more time per day in household labor than heterosexual men and this difference persists across the distribution of relative earnings. Similar to the case for married men, gay men spend approximately two hours less time per day than cohabiting heterosexual men. Unlike heterosexual men who spend less time in leisure as their relative earnings increase, gay men do not adjust their time spent in leisure as their relative earnings increase.

In summary, for the full sample of men, the level of time spent on household labor is

[^10]higher for gay men than heterosexual men (both married and unmarried), but the difference in response to earnings share or weekly earnings is not found to be robustly statistically significant. However, in households with children, there is a convex relationship between heterosexual men's time spent on household labor and relative earnings whereas there is a concave relationship for gay men's household labor time and relative earnings. With regard to leisure time, differences in both level and response to earnings share are found between gay and heterosexual men, a result driven by households without children. In households without children, heterosexual men's leisure time has a negative relationship with share of earnings, but no such relationship is found for gay men.

## 7 Results for women

### 7.1 Lesbians vs. married heterosexual women

Estimated differences in time use and responsiveness to relative earnings for lesbian and married heterosexual women are presented in table 5. We document a convex relationship between relative earnings and time spent in household labor, care labor, and leisure along with a concave relationship between earnings share and time spent in paid labor. This pattern is consistent with the existing literature investigating the impact of gender identity on household time use (Bittman et al., 2003; Schneider, 2011; Bertrand et al., 2010). These time use patterns are shown in Figure 2, which presents time use predictions based off of equation 1 for lesbian and married heterosexual women across the distribution of relative earnings.

However, we find two important differences for lesbians. First, as relative earnings increases, lesbians increase (at a decreasing rate) the amount of time they spend in household labor until earnings share is closer to equality. Therefore, while lesbians with low relative earnings spend over an hour less time in household labor than married heterosexual women,
this difference disappears as the relative earnings of lesbians increases. For women at the higher end of the earnings share distribution, there is a predicted negative relationship between earnings share and household labor time, while for heterosexual women there is a predicted positive relationship. These results are inconsistent with theories of household bargaining. Second, we show that time spent in leisure for lesbians is more responsive to earnings share for married heterosexual women. Both lesbian and married heterosexual women decrease the amount of time they spend in leisure as their relative earnings increase. However, this decrease is twice as large for lesbians than for married heterosexual women.

The pattern of time use is largely consistent when we consider only households with children. While lesbian mothers with low relative earnings spend less time in household labor than married women, this difference disappears as relative earnings increase. We do not find any differences in responsiveness to absolute or relative earnings among mothers for time spent in care labor, paid labor or leisure. While statistically insignificant, it appears that all lesbian mothers spend approximately an hour less time in leisure than married heterosexual mothers. ${ }^{16}$

Patterns of time use and responsiveness to relative earnings does not appear to be driven by children. Results from estimating equation (1) for married lesbian and heterosexual women without children are shown in the bottom panel of table 5 and are mostly consistent with those for the full sample of all women. Again, lesbians with low relative earnings spend approximately 70 minutes less time per day in household labor. However, this difference decreases as lesbians increase their time spent in household labor as their relative earnings increase. This is the opposite pattern that we see for heterosexual women. We also show that both lesbian and heterosexual women decrease time spent in leisure as their relative earnings increases. However, lesbians are twice as responsive as married heterosexual women.

[^11]
### 7.2 Lesbians vs. unmarried cohabiting heterosexual women

Table 6 shows that, unlike the case for men, differences in responsiveness of time use to changes in relative earnings are less pronounced when comparing lesbians to cohabiting heterosexual women. We again find that lesbians adjust their time spent in leisure at a rate that is twice as high as cohabiting heterosexual women. To the contrary, while cohabiting heterosexual women decrease their time in household labor as their relative earnings increase, lesbian women increase their time in household labor. While lesbians with low relative earnings spend an hour less in household labor than cohabiting heterosexual women, this difference decreases as the relative earnings of lesbians increases. Lesbians spend a statistically insignificant but approximately 45 minutes more time per day in leisure and paid market work than cohabiting heterosexual women.

These differences disappear when we consider only lesbian and cohabiting heterosexual women with children. Cohabiting heterosexual women and lesbians with children respond similarly to changes in relative and absolute earnings. Further, there are no significant differences in time use between these two groups of women. However, even though insignificant, it appears that lesbian mothers may spend approximately 45 minutes less time per day in household labor than cohabiting heterosexual mothers. These results are in the middle panel of table 6. These groups of women may exhibit more similar responses to relative income due to the unique time pressures that the presence of children creates.

The bottom panel of table 6 shows that lesbian and cohabiting heterosexual women without children exhibit similar time use patterns as in the full sample of all households. We again find that lesbians without children and low relative earnings spend nearly 90 minutes less time per day in household labor than cohabiting heterosexual women. However, unlike heterosexual women, lesbians increase their time spent in household labor as their relative earnings increase. As such, the difference in household labor decreases across the distribution of earnings share. Lesbians without children decrease their time spent in leisure at a rate
that is nearly twice as high as heterosexual women. While lesbians with low relative earnings spend an insignificant 60 more minutes per day in leisure than cohabiting heterosexual women, this difference disappears quickly as relative earnings increases. Finally, similar to results in the top panel, lesbians increase their time in paid labor as their earnings share increases, though at an insignificantly smaller rate. Of particular note is that while lesbians with low relative earnings appear to do less household labor in order to spend approximately the same amount more time in paid labor.

## 8 Discussion and Conclusion

Taken altogether, these results provide limited evidence in support of household bargaining models as an explanation of the intrahousehold distribution of time use. Time use patterns that are consistent with bargaining models are most pronounced among heterosexual men and gay men without children. Men appear to bargain out of spending time in unpaid labor as their relative earnings increases. Overall, we find few differences in the responsiveness of time spent in household labor and care labor between gay and heterosexual men. Overall, earnings share impacts men's time spent on childcare but weekly earnings does not. Furthermore, there do not appear to be differences in how gay men and heterosexual men respond to either earnings share or weekly earnings. While we see that heterosexual men are on average spending more time on care in the full sample of households with and without children, this difference disappears when the sample is restricted to households with children. These overall findings are consistent with household bargaining models. However, we note that gay men with children exhibit a pattern of time use in household labor that is similar to lesbians and inconsistent with household bargaining models. Furthermore, some time use patterns are inconsistent with household bargaining models even for men in different-sex households. For example, heterosexual men spend more time in paid labor and less time in leisure as
their relative earnings increase. This time use pattern for heterosexual men as well as, and more prominently, time use patterns for lesbians, heterosexual women, and gay men with children are inconsistent with household bargaining models. These patterns highlight the role that identity and preferences play in the determining time use patterns in and out of the household.

The time use patterns that are inconsistent with household bargaining models can be explained by identity motivated behavior and preferences for equality, which are under emphasized in household bargaining models. The negative relationship between earnings share and leisure time among heterosexual men is the opposite of what household bargaining theory would predict (even if consistent with a labor/leisure trade off). This pattern is consistent with heterosexual men engaging in time use patterns that fulfills their masculine identity. It is plausible that heterosexual men decrease time in leisure when their relative earnings increase, as they seek validation through their paid work experience and or feel pressure to meet financial expectations of being the male bread winner. This result may also be driven in part by the nature of work in the United States, as earnings increase (and in turn earnings share increases) the level of responsibility and time one is expected to be available for work also increases, leaving less time for leisure.

Household bargaining models cannot explain the time use pattern in which heterosexual women with high relative earnings spend more time in household labor as their relative earnings increase. As others have pointed out, this pattern is consistent with identity motivated behavior: gender performance (Schneider, 2011). We find that identity motivated behavior results in different time use patterns for lesbians. Lesbians, contrary to heterosexual women, exhibit a concave relationship between earnings share and household labor. At lower levels of earnings share, increasing relative earnings increases the amount of time spent in household labor. At higher levels of earnings share, increasing relative earnings decreases time spent in household labor. This decrease in time spent in household labor among lesbians with high
relative earnings suggests that the performance of gender is contextual. The lack of performance of gender through household labor for lesbian women suggests that the performance is contingent on being a women with a low earning male partner. The performance of gender that has been documented, then, may be a pattern in which women engage in household labor not to fulfill their identity but to protect the masculine identity of their male partner. While the negative relationship between earnings share and household labor time among primary earners for lesbians may at first seem consistent with household bargaining models, given that their partners, secondary earners, have a positive relationship between earnings share and household labor suggests that something else is at play. Given that secondary earners are not doing more household labor suggests that lesbian households with unequal earning distributions either have lower levels of household production, are more time efficient in household production, or are purchasing more market substitutes for household labor.

Preferences for equality, which may stem from the adoption of a lesbian identity that embodies more egalitarian social relations, can explain the relationship between earnings share and time spent in household labor for lesbian women. One plausible explanation for the time use pattern is that rather than exploit the difference in earnings potential, lesbian couples try to mitigate earnings differential. If the goal of lesbian households is for both partners to equally contribute to household incomes, lesbian women with low relative earnings will invest more time in activities to enhance their career and earnings potential. As relative earnings become more equal, time spent in household labor rises as investment in earning-enhancing behavior becomes less necessary. This same phenomenon does not appear to be occurring in heterosexual households. The goal of being a dual earner household in which earnings share is equal may be driven by income constraints given the gender wage gap as well as heightened socioeconomic vulnerability from intolerance of homosexuality. Alternatively, it may be driven by egalitarian preferences and a desire to reject the traditional heteronormative single bread winner family model. This explanation is supported in that
while household labor increases with income, time spent in leisure is more responsive to earnings share for lesbians than heterosexual women. Lesbians decrease their time spent in leisure at a rate that is approximately twice that of heterosexual women. Lesbian women may forgo leisure in order to spend more time on household labor to give their partners more time to invest in a career.

Preferences for equality may also explain time spent on household labor among gay men with children, given that we find also concave relationship between household labor and earnings share for this subsample. Gay parents may not face the same income constraints that lesbian households face, but may similarly have a preferences for having a dual earner household in which partners equally contribute. In addition to preferences for equality, this behavior may be motivated by male identity fulfillment through paid labor market experiences. Note, however, the responsiveness of gay men's leisure time to changes in earnings share suggests that this pressure for identity fulfillment through the market may be lower compared to that of heterosexual men.

Taken altogether, our results support the conclusion that household bargaining models, as they are currently formalized, are unable to explain certain time use patterns for men and the majority of time use patterns for women in both same-sex and different-sex households. These time use patterns provide evidence that identity motivated behavior is a key determinant of time use. While the importance of identity motivated behavior has been noted before (Akerlof and Kranton, 2000; Schneider, 2011), we are unaware of research that formally includes such behavior in models of the household. Future research on economics of the household should endeavor to incorporate identity motivated behavior into the intrahousehold division of time use to make more accurate and complete models of the household. The development of such models is crucial to the creation of effective policies to promote well-being of families. Our results here show that policies aimed to affect household behavior based on existing household models will have the potential to cause perverse impacts on time
use among both individuals living with different-sex and same-sex partners. If policymakers endeavor to implement inclusive policies, economists and social scientists should endeavor to create more inclusive models of the household. The need for inclusive models will likely only increase as gender norms among heterosexual households continue to evolve.

In addition to highlighting the need for more complete models of the household, our results also highlight important areas for future research. First, research should investigate any changes in the responsiveness of time use to relative earnings over time to measure the extent and speed in which gender norms and the role of identity changes. Research should also investigate how institutions, such as intolerance of homosexuality, affect time use patterns and intrahousehold decision-making. Further, our results note that lesbian households appear to have much more egalitarian patterns of time use. These egalitarian patterns may increase the well-being of lesbians by reducing household duties and stress. Alternatively, they may lead to double-days for lesbians in which they experience time crunches in their paid labor as well as household labor. Interdisciplinary research into the psychological impacts of these time use patterns will be crucial for understanding well-being of lesbians. For different-sex households, we certainly find evidence of double-days for primary earner heterosexual women and evidence that heterosexual men's pursuit of masculine identity fulfillment in market work may be the cause of lower leisure time. Strict gender norms and the behavior they motivate in different-sex households appear to be welfare reducing. To improve welfare, policies and programs should be designed to reduce the binds that gender norms impose and motivate heterosexual households to adopt time use patterns that are more flexible and perhaps more akin a homosexual lifestyle.

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Table 1: Descriptive Statistics for Gay and Heterosexual Men

|  | Gay | Married Heterosexual | Cohabiting Heterosexual |
| :--- | :---: | :---: | :---: |
| Demographic Characteristics |  |  |  |
| White | .9208633 | $.8599568^{*}$ | $.8103187^{* *}$ |
| Non-Hispanic | .8489209 | .8625918 | .831563 |
| Urban Residence | .9568345 | $.8374514^{* * *}$ | $.8179059^{* * *}$ |
| Summer | .2589928 | .2446652 | .2389985 |
| Other Adults Present | .057554 | $.1750756^{* * *}$ | $.1138088^{*}$ |
| Weekend | .5179856 | .505054 | .5015175 |
| Child Under 6 | .057554 | $.3164579^{* * *}$ | $.245827^{* * *}$ |
| Child between 6 and 18 | .0935252 | $.4850108^{* * *}$ | $.2420334^{* * *}$ |
| Home Owner | .7913669 | .8352484 | $.5250379^{* * *}$ |
| Unemployed | .028777 | .024622 | .0424886 |
| Age | 43.23741 | 44.03451 | $38.33005^{* * *}$ |
| Years Education | 15.27338 | $14.27166^{* * *}$ | $13.22838^{* * *}$ |
| Weekly Earnings | 1020.95 | 1078.018 | $729.033^{* * *}$ |
| Spouse's Earnings | 1030.422 | $549.9793^{* * *}$ | $487.4601^{* * *}$ |
| Earnings Share | 52.43762 | $66.238^{* * *}$ | $60.149^{* *}$ |
| Number of Children | .2517986 | $1.305227^{* * *}$ | $9165402^{* * *}$ |
| Daily Time Use in Minutes |  |  |  |
| Household Labor | 121.446 | 99.38911 | $95.21927^{*}$ |
| Care Labor | 53.86331 | $234.6761^{* * *}$ | $170.8566^{* * *}$ |
| Secondary childcare | 35.23022 | $186.2803^{* * *}$ | $135.1153^{* * *}$ |
| Leisure | 251.8032 | 277.8338 |  |
| Paid Market Work | 265.7626 | 252.8921 | 261.0663 |
| Observations | 139 | 23150 | 255.2231 |

Note: Authors' calculations from American Time Use Survey data, 2003-2015. * Difference from gay/lesbian average significant at $10 \%{ }^{* *}$ Difference significant at $5 \%{ }^{* * *}$ Difference significant at $1 \%$

Table 2: Descriptive Statistics for Lesbians and Heterosexual Women

|  | Lesbian | Married Heterosexual | Cohabiting Heterosexual |
| :--- | ---: | :---: | :---: |
| Demographic Characteristics |  |  |  |
| White | .8941799 | .8539167 | $.8288732^{*}$ |
| Non-Hispanic | .8730159 | .8623362 | .8422535 |
| Urban Residence | .9153439 | $.8332219^{* *}$ | $.8394366^{* *}$ |
| Summer | .2592593 | .2468427 | .256338 |
| Other Adults Present | .0529101 | $.1752764^{* * *}$ | $.1239437^{* *}$ |
| Weekend | .5820106 | $.5039147^{*}$ | .5070423 |
| Child Under 6 | .1322751 | $.3075894^{* * *}$ | $.2514085^{* * *}$ |
| Child between 6 and 18 | .2433862 | $.4865248^{* * *}$ | .3098592 |
| Home Owner | .7037037 | $.841366^{* * *}$ | $.5542254^{* * *}$ |
| Unemployed | .037037 | .0337176 | .0549296 |
| Age | 41.31217 | 42.63174 | $37.57746^{* * *}$ |
| Years Education | 15.60317 | $14.35472^{* * *}$ | $13.59437^{* * *}$ |
| Weekly Earnings | 945.1986 | $564.8496^{* * *}$ | $561.0483^{* * *}$ |
| Spouse's Earnings | 872.8201 | $1020.641^{* *}$ | $713.3486^{* * *}$ |
| Earnings Share | 51.34551 | $35.32254^{* * *}$ | $44.28754^{* *}$ |
| Number of Children | .6190476 | $1.296022^{* * *}$ | $.9514085^{* * *}$ |
| Daily Time Use in Minutes |  |  |  |
| Household Labor | 122.1958 | $159.0375^{* * *}$ | 133.4148 |
| Care Labor | 177.8677 | $323.1456^{* * *}$ | $233.7627^{*}$ |
| Secondary childcare | 137.328 | $243.5947^{* * *}$ | $179.693^{*}$ |
| Leisure | 225.3495 | $248.4951^{* *}$ |  |
| Paid Market Work | 241.3333 | $160.7135^{* * *}$ | $197.5289^{*}$ |
| Observations | 189 | 25417 | 1420 |

Note: Authors' calculations from American Time Use Survey data, 2003-2015. * Difference from gay/lesbian average significant at $10 \%{ }^{* *}$ Difference significant at $5 \%{ }^{* * *}$ Difference significant at $1 \%$

Table 3: Comparing Gay Men to Married Heterosexual Men

|  | Household Labor | Care Labor | Leisure | Paid Market Work |
| :---: | :---: | :---: | :---: | :---: |
| All Households, $\mathrm{n}=23,289$ |  |  |  |  |
| Gay | 72.810** | -68.122 | $-87.578^{* *}$ | -27.924 |
|  | (30.312) | (54.377) | (39.576) | (49.591) |
| Earnings Share | $-0.905^{* * *}$ | $-1.878^{* * *}$ | $-3.279^{* * *}$ | $6.686^{* * *}$ |
|  | (0.120) | (0.215) | (0.156) | (0.196) |
| Earnings Share $\times$ Earnings Share | $0.004^{* * *}$ | $0.012^{* * *}$ | $0.019^{* * *}$ | $-0.041^{* * *}$ |
|  | (0.001) | (0.002) | (0.001) | (0.002) |
| Weekly Earnings | 0.001 | 0.006* | $-0.008^{* * *}$ | -0.004 |
|  | (0.002) | (0.003) | (0.002) | (0.003) |
| Gay $=1 \times$ Earnings Share | -0.493 | -0.107 | 2.541 | 1.649 |
|  | (1.398) | (2.508) | (1.825) | (2.287) |
| Gay $=1 \times$ Earnings Share Sq. | -0.003 | 0.001 | -0.009 | -0.017 |
|  | (0.012) | (0.021) | (0.015) | (0.019) |
| Gay $=1 \times$ Weekly Earnings | -0.018 | -0.003 | -0.011 | 0.009 |
|  | (0.018) | (0.032) | (0.023) | (0.029) |
| $R^{2}$ | 0.0858 | 0.386 | 0.190 | 0.414 |
| Households with Children, $\mathrm{n}=15,652$ |  |  |  |  |
| Gay | 42.099 | 160.255 | -1.555 | -197.824 |
|  | (76.420) | (159.427) | (98.501) | (128.598) |
| Earnings Share | $-0.943^{* * *}$ | $-3.410^{* * *}$ | $-2.656^{* * *}$ | $6.262^{* * *}$ |
|  | (0.160) | (0.333) | (0.206) | (0.269) |
| Earnings Share $\times$ Earnings Share | 0.004*** | 0.021*** | $0.015^{* * *}$ | $-0.037^{* * *}$ |
|  | (0.001) | (0.003) | (0.002) | (0.002) |
| Weekly Earnings | 0.003 | 0.006 | $-0.008^{* * *}$ | $-0.007^{* *}$ |
|  | (0.002) | (0.004) | (0.003) | (0.003) |
| Gay $=1 \times$ Earnings Share | 5.286 | -3.329 | -4.421 | 3.101 |
|  | (3.826) | (7.983) | (4.932) | (6.439) |
| Gay $=1 \times$ Earnings Share Sq. | -0.047 | 0.008 | 0.048 | -0.019 |
|  | (0.036) | (0.075) | (0.047) | (0.061) |
| Gay $=1 \times$ Weekly Earnings | $-0.082^{*}$ | 0.013 | 0.050 | 0.064 |
|  | (0.043) | (0.091) | (0.056) | (0.073) |
| $R^{2}$ | 0.0921 | 0.262 | 0.170 | 0.412 |
| $\underline{\text { Households without Children, } \mathrm{n}=7637}$ |  |  |  |  |
| Gay | 69.493** | -10.666 | $-115.410^{* *}$ | 18.991 |
|  | (34.785) | (14.479) | (46.261) | (53.796) |
| Earnings Share | $-0.887^{* * *}$ | $-0.171^{* *}$ | $-3.999^{* * *}$ | $7.005^{* * *}$ |
|  | (0.196) | (0.081) | (0.260) | (0.303) |
| Earnings Share $\times$ Earnings Share | $0.005^{* * *}$ | 0.001 | $0.025^{* * *}$ | $-0.044^{* * *}$ |
|  | (0.002) | (0.001) | (0.002) | (0.003) |
| Weekly Earnings | -0.003 | 0.000 | -0.009** | 0.006 |
|  | (0.003) | (0.001) | (0.004) | (0.005) |
| Gay $=1 \times$ Earnings Share | -1.241 | 0.031 | 4.101* | 1.072 |
|  | (1.581) | (0.658) | (2.103) | (2.445) |
| Gay $=1 \times$ Earnings Share Sq. | 0.004 | -0.000 | -0.023 | -0.013 |
|  | (0.013) | (0.006) | (0.018) | (0.021) |
| Gay $=1 \times$ Weekly Earnings | -0.008 | 0.006 | -0.023 | -0.014 |
|  | (0.021) | (0.009) | (0.028) | (0.033) |
| $R^{2}$ | 0.0760 | 0.0156 | 0.184 | 0.420 |

Note: Authors' calculations from American Time Use Survey data, 2003-2015. * Difference from gay/lesbian average significant at $10 \%{ }^{* *}$ Difference significant at $5 \% * * *$ Difference significant at $1 \%$

Table 4: Comparing Gay Men to Unmarried Heterosexual Men

|  | Household Labor | Care Labor | Leisure | Paid Market Work |
| :---: | :---: | :---: | :---: | :---: |
| All Households, $\mathrm{n}=1457$ |  |  |  |  |
| Gay | $\begin{gathered} 47.344 \\ (32.892) \end{gathered}$ | $\begin{gathered} -51.419 \\ (51.793) \end{gathered}$ | $\begin{array}{r} -91.187^{*} \\ (49.376) \end{array}$ | $\begin{aligned} & -0.059 \\ & (58.763) \end{aligned}$ |
| Earnings Share | $\begin{gathered} -1.870^{* * *} \\ (0.505) \end{gathered}$ | $\begin{gathered} -2.452^{* * *} \\ (0.795) \end{gathered}$ | $\begin{gathered} -3.542^{* * *} \\ (0.758) \end{gathered}$ | $\begin{aligned} & 6.054^{* * *} \\ & (0.902) \end{aligned}$ |
| Earnings Share $\times$ Earnings Share | $\begin{aligned} & 0.014^{* * *} \\ & (0.004) \end{aligned}$ | $\begin{gathered} 0.016^{* *} \\ (0.006) \end{gathered}$ | $\begin{aligned} & 0.022^{* * *} \\ & (0.006) \end{aligned}$ | $\begin{gathered} -0.037^{* * *} \\ (0.007) \end{gathered}$ |
| Weekly Earnings | $\begin{gathered} -0.001 \\ (0.009) \end{gathered}$ | $\begin{gathered} -0.005 \\ (0.015) \end{gathered}$ | $\begin{aligned} & -0.011 \\ & (0.014) \end{aligned}$ | $\begin{gathered} 0.013 \\ (0.017) \end{gathered}$ |
| Gay $=1 \times$ Earnings Share | $\begin{gathered} 0.629 \\ (1.433) \end{gathered}$ | $\begin{gathered} 1.711 \\ (2.256) \end{gathered}$ | $\begin{gathered} 2.358 \\ (2.151) \end{gathered}$ | $\begin{gathered} 1.344 \\ (2.560) \end{gathered}$ |
| Gay $=1 \times$ Earnings Share Sq. | $\begin{gathered} -0.012 \\ (0.012) \end{gathered}$ | $\begin{gathered} -0.016 \\ (0.019) \end{gathered}$ | $\begin{gathered} -0.010 \\ (0.018) \end{gathered}$ | $\begin{gathered} -0.016 \\ (0.021) \end{gathered}$ |
| Gay $=1 \times$ Weekly Earnings | $\begin{gathered} -0.022 \\ (0.019) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.030) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.029) \end{gathered}$ | $\begin{gathered} -0.000 \\ (0.034) \end{gathered}$ |
| $R^{2}$ <br> Households with Children, $\mathrm{n}=669$ | 0.113 | 0.451 | 0.162 | 0.345 |
| Gay | $\begin{gathered} -53.951 \\ (88.798) \end{gathered}$ | $\begin{gathered} 32.225 \\ (196.845) \end{gathered}$ | $\begin{gathered} 63.087 \\ (136.725) \end{gathered}$ | $\begin{gathered} -213.184 \\ (165.012) \end{gathered}$ |
| Earnings Share | $\begin{gathered} -3.536^{* * *} \\ (0.728) \end{gathered}$ | $\begin{gathered} -5.530^{* * *} \\ (1.614) \end{gathered}$ | $\begin{gathered} -1.864^{*} \\ (1.121) \end{gathered}$ | $\begin{aligned} & 7.348^{* * *} \\ & (1.353) \end{aligned}$ |
| Earnings Share $\times$ Earnings Share | $\begin{aligned} & 0.026^{* * *} \\ & (0.006) \end{aligned}$ | $\begin{aligned} & 0.038^{* * *} \\ & (0.013) \end{aligned}$ | $\begin{gathered} 0.009 \\ (0.009) \end{gathered}$ | $\begin{gathered} -0.044^{* * *} \\ (0.011) \end{gathered}$ |
| Weekly Earnings | $\begin{gathered} 0.009 \\ (0.015) \end{gathered}$ | $\begin{gathered} -0.005 \\ (0.033) \end{gathered}$ | $\begin{gathered} -0.020 \\ (0.023) \end{gathered}$ | $\begin{gathered} 0.015 \\ (0.028) \end{gathered}$ |
| Gay $=1 \times$ Earnings Share | $\begin{aligned} & 9.402^{* *} \\ & (4.068) \end{aligned}$ | $\begin{gathered} 2.875 \\ (9.018) \end{gathered}$ | $\begin{gathered} -8.712 \\ (6.263) \end{gathered}$ | $\begin{gathered} 7.314 \\ (7.559) \end{gathered}$ |
| Gay $=1 \times$ Earnings Share Sq. | $\begin{gathered} -0.086^{* *} \\ (0.036) \end{gathered}$ | $\begin{gathered} -0.043 \\ (0.081) \end{gathered}$ | $\begin{gathered} 0.078 \\ (0.056) \end{gathered}$ | $\begin{gathered} -0.049 \\ (0.068) \end{gathered}$ |
| Gay $=1 \times$ Weekly Earnings | $\begin{gathered} -0.091^{* *} \\ (0.045) \end{gathered}$ | $\begin{gathered} 0.013 \\ (0.100) \end{gathered}$ | $\begin{gathered} 0.097 \\ (0.070) \end{gathered}$ | $\begin{gathered} -0.012 \\ (0.084) \end{gathered}$ |
| $R^{2}$ <br> Households without Children, $\mathrm{n}=$ | 880.153 | 0.239 | 0.148 | 0.350 |
| Gay | $\begin{gathered} 42.099 \\ (76.420) \end{gathered}$ | $\begin{gathered} 160.255 \\ (159.427) \end{gathered}$ | $\begin{aligned} & -1.555 \\ & (98.501) \end{aligned}$ | $\begin{gathered} -197.824 \\ (128.598) \end{gathered}$ |
| Earnings Share | $\begin{gathered} -0.943^{* * *} \\ (0.160) \end{gathered}$ | $\begin{gathered} -3.410^{* * *} \\ (0.333) \end{gathered}$ | $\begin{gathered} -2.656^{* * *} \\ (0.206) \end{gathered}$ | $\begin{aligned} & 6.262^{* * *} \\ & (0.269) \end{aligned}$ |
| Earnings Share $\times$ Earnings Share | $\begin{aligned} & 0.004^{* * *} \\ & (0.001) \end{aligned}$ | $\begin{aligned} & 0.021^{* * *} \\ & (0.003) \end{aligned}$ | $\begin{aligned} & 0.015^{* * *} \\ & (0.002) \end{aligned}$ | $\begin{gathered} -0.037^{* * *} \\ (0.002) \end{gathered}$ |
| Weekly Earnings | $\begin{gathered} 0.003 \\ (0.002) \end{gathered}$ | $\begin{gathered} 0.006 \\ (0.004) \end{gathered}$ | $\begin{gathered} -0.008^{* * *} \\ (0.003) \end{gathered}$ | $\begin{gathered} -0.007^{* *} \\ (0.003) \end{gathered}$ |
| Gay $=1 \times$ Earnings Share | $\begin{gathered} 5.286 \\ (3.826) \end{gathered}$ | $\begin{gathered} -3.329 \\ (7.983) \end{gathered}$ | $\begin{gathered} -4.421 \\ (4.932) \end{gathered}$ | $\begin{gathered} 3.101 \\ (6.439) \end{gathered}$ |
| Gay $=1 \times$ Earnings Share Sq. | $\begin{gathered} -0.047 \\ (0.036) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.075) \end{gathered}$ | $\begin{gathered} 0.048 \\ (0.047) \end{gathered}$ | $\begin{gathered} -0.019 \\ (0.061) \end{gathered}$ |
| Gay $=1 \times$ Weekly Earnings | $\begin{array}{r} -0.082^{*} \\ (0.043) \end{array}$ | $\begin{gathered} 0.013 \\ (0.091) \end{gathered}$ | $\begin{gathered} 0.050 \\ (0.056) \end{gathered}$ | $\begin{gathered} 0.064 \\ (0.073) \end{gathered}$ |
| $R^{2}$ | 0.0921 | 0.262 | 0.170 | 0.412 |

Note: Authors' calculations from American Time Use Survey data, 2003-2015. * Difference from gay/lesbian average significant at $10 \% * *$ Difference significant at $5 \% * * *$ Difference significant at $1 \%$

Table 5: Comparing Lesbian to Married Heterosexual Women

|  | Household Labor | Care Labor | Leisure | Paid Market Work |
| :---: | :---: | :---: | :---: | :---: |
| All Households, $\mathrm{n}=25,606$ |  |  |  |  |
| Lesbian | -70.508** | -48.976 | $65.689^{* *}$ | 54.739 |
|  | (28.372) | (47.639) | (31.258) | (36.613) |
| Earnings Share | $-2.185^{* * *}$ | $-4.883^{* * *}$ | $-2.261^{* * *}$ | $7.563^{* * *}$ |
|  | (0.109) | (0.183) | (0.120) | (0.140) |
| Earnings Share $\times$ Earnings Share | $0.015^{* * *}$ | $0.036^{* * *}$ | $0.014^{* * *}$ | $-0.053^{* * *}$ |
|  | (0.001) | (0.002) | (0.001) | (0.001) |
| Weekly Earnings | 0.004 | 0.004 | 0.005* | -0.004 |
|  | (0.002) | (0.004) | (0.003) | (0.003) |
| Lesbian $=1 \times$ Earnings Share | $3.385^{* * *}$ | 1.505 | $-3.123^{* *}$ | $-1.627$ |
|  | (1.216) | (2.042) | (1.340) | (1.570) |
| Lesbian $=1 \times$ Earnings Share Sq. | $-0.032^{* * *}$ | -0.016 | 0.018 | 0.018 |
|  | (0.011) | (0.018) | (0.012) | (0.014) |
| Lesbian $=1 \times$ Weekly Earnings | -0.009 | -0.018 | 0.018 | 0.009 |
|  | (0.020) | (0.034) | (0.022) | (0.026) |
| $R^{2}$ | 0.0863 | 0.531 | 0.145 | 0.407 |
| Households with Children, $\mathrm{n}=17,064$ |  |  |  |  |
| Lesbian | -62.368* | -22.136 | 63.238 | 43.301 |
|  | (36.237) | (69.260) | (38.477) | (46.382) |
| Earnings Share | $-2.280^{* * *}$ | $-6.335^{* * *}$ | $-1.735^{* * *}$ | $7.570^{* * *}$ |
|  | (0.131) | (0.250) | (0.139) | (0.168) |
| Earnings Share $\times$ Earnings Share | $0.015^{* * *}$ | $0.044^{* * *}$ | 0.010*** | $-0.053^{* * *}$ |
|  | (0.001) | (0.002) | (0.001) | (0.002) |
| Weekly Earnings | 0.004 | $0.013^{* *}$ | 0.004 | $-0.007^{*}$ |
|  | (0.003) | (0.006) | (0.003) | (0.004) |
| Lesbian $=1 \times$ Earnings Share | $3.323^{* *}$ | 2.217 | $-1.105$ | -2.114 |
|  | (1.691) | (3.231) | (1.795) | (2.164) |
| Lesbian $=1 \times$ Earnings Share Sq. | -0.029* | $-0.015$ | 0.009 | 0.022 |
|  | (0.015) | (0.029) | (0.016) | (0.019) |
| Lesbian $=1 \times$ Weekly Earnings | $-0.025$ | -0.038 | $-0.032$ | 0.028 |
|  | (0.034) | (0.065) | (0.036) | (0.044) |
| $R^{2}$ | 0.0865 | 0.332 | 0.121 | 0.400 |
| Households without Children, $\mathrm{n}=8542$ |  |  |  |  |
| Lesbian | -81.314* | $-25.820$ | 52.846 | 79.521 |
|  | (45.860) | (20.847) | (53.230) | (59.737) |
| Earnings Share | $-1.979^{* * *}$ | $-0.459^{* * *}$ | $-3.625^{* * *}$ | $7.546^{* * *}$ |
|  | (0.197) | (0.090) | (0.229) | (0.257) |
| Earnings Share $\times$ Earnings Share | $0.014^{* * *}$ | 0.003*** | $0.025^{* * *}$ | $-0.053^{* * *}$ |
|  | (0.002) | (0.001) | (0.002) | (0.002) |
| Weekly Earnings | 0.002 | 0.000 | 0.004 | -0.000 |
|  | (0.004) | (0.002) | (0.005) | (0.006) |
| Lesbian $=1 \times$ Earnings Share | 3.533* | 1.030 | -3.981* | -1.840 |
|  | (1.832) | (0.833) | (2.127) | (2.387) |
| Lesbian $=1 \times$ Earnings Share Sq. | $-0.034^{* *}$ | -0.009 | 0.021 | 0.022 |
|  | (0.015) | (0.007) | (0.018) | (0.020) |
| Lesbian $=1 \times$ Weekly Earnings | -0.003 | -0.006 | 0.050* | -0.015 |
|  | (0.026) | (0.012) | (0.030) | (0.034) |
| $R^{2}$ | 0.0876 | 0.0175 | 0.144 | 0.420 |

[^12]Table 6: Comparing Lesbian to Cohabiting Heterosexual Women

|  | Household Labor | Care Labor | Leisure | Paid Market Work |
| :---: | :---: | :---: | :---: | :---: |
| All Households, n=1609 |  |  |  |  |
| Lesbian | $-62.497^{* *}$ | 16.150 | 44.931 | 41.550 |
|  | (28.264) | (44.404) | (34.942) | (42.373) |
| Earnings Share | $-1.776^{* * *}$ | $-4.401^{* * *}$ | $-2.604^{* * *}$ | $7.320^{* * *}$ |
|  | (0.445) | (0.699) | (0.550) | (0.667) |
| Earnings Share $\times$ Earnings Share | $0.011^{* * *}$ | $0.027^{* * *}$ | 0.020*** | $-0.053^{* * *}$ |
|  | (0.004) | (0.006) | (0.005) | (0.006) |
| Weekly Earnings | 0.006 | 0.025 | -0.017 | 0.001 |
|  | (0.011) | (0.017) | (0.013) | (0.016) |
| Lesbian $=1 \times$ Earnings Share | $3.082^{* *}$ | 1.895 | $-3.134^{* *}$ | $-1.313$ |
|  | (1.223) | (1.921) | (1.511) | (1.833) |
| Lesbian $=1 \times$ Earnings Share Sq. | $-0.029^{* * *}$ | -0.018 | 0.014 | 0.019 |
|  | (0.011) | (0.017) | (0.013) | (0.016) |
| Lesbian $=1 \times$ Weekly Earnings | -0.011 | -0.028 | 0.042 | -0.001 |
|  | (0.021) | (0.033) | (0.026) | (0.031) |
| $R^{2}$ | 0.106 | 0.568 | 0.177 | 0.386 |
| $\underline{\text { Households with Children, } \mathrm{n}=820}$ |  |  |  |  |
| Lesbian | -43.409 | 20.002 | 18.869 | 20.409 |
|  | (37.458) | (74.627) | (43.954) | (54.891) |
| Earnings Share | $-2.247^{* * *}$ | $-6.239^{* * *}$ | -1.599** | $6.073^{* * *}$ |
|  | (0.598) | (1.192) | (0.702) | (0.877) |
| Earnings Share $\times$ Earnings Share | 0.016*** | 0.039*** | 0.012* | $-0.039^{* * *}$ |
|  | (0.005) | (0.011) | (0.006) | (0.008) |
| Weekly Earnings | 0.010 | 0.011 | $-0.037^{* *}$ | 0.010 |
|  | (0.016) | (0.032) | (0.019) | (0.023) |
| Lesbian $=1 \times$ Earnings Share | 2.698 | 3.074 | $-1.017$ | $-0.122$ |
|  | (1.751) | (3.489) | (2.055) | (2.567) |
| Lesbian $=1 \times$ Earnings Share Sq. | $-0.028^{*}$ | -0.019 | 0.008 | 0.005 |
|  | (0.016) | (0.031) | (0.018) | (0.023) |
| Lesbian $=1 \times$ Weekly Earnings | $-0.012$ | -0.052 | $-0.010$ | -0.001 |
|  | (0.036) | (0.072) | (0.042) | (0.053) |
| $R^{2}$ | 0.104 | 0.316 | 0.181 | 0.380 |
| Households without Children, $\mathrm{n}=789$ |  |  |  |  |
| Lesbian | -89.228** | -23.220 | 61.781 | 83.180 |
|  | (43.026) | (14.968) | (55.605) | (65.520) |
| Earnings Share | $-0.925$ | 0.068 | $-4.362^{* * *}$ | 8.606 ${ }^{* * *}$ |
|  | (0.694) | (0.241) | (0.896) | (1.056) |
| Earnings Share $\times$ Earnings Share | 0.004 | 0.000 | $0.032^{* * *}$ | $-0.065^{* * *}$ |
|  | (0.006) | (0.002) | (0.007) | (0.009) |
| Weekly Earnings | 0.001 | -0.004 | 0.009 | -0.004 |
|  | (0.015) | (0.005) | (0.019) | (0.023) |
| Lesbian $=1 \times$ Earnings Share | 3.358* | 0.784 | -3.900* | -3.175 |
|  | (1.754) | (0.610) | (2.267) | (2.671) |
| Lesbian $=1 \times$ Earnings Share Sq. | -0.030** | -0.007 | 0.013 | 0.037 |
|  | (0.015) | (0.005) | (0.019) | (0.023) |
| Lesbian $=1 \times$ Weekly Earnings | -0.002 | -0.002 | 0.063* | -0.007 |
|  | (0.026) | (0.009) | (0.033) | (0.039) |
| $R^{2}$ | 0.133 | 0.0564 | 0.212 | 0.418 |

[^13]Figure 1: Linear Predictions of Time Use for Gay and Married Heterosexual Men


Note: Predictions from authors' calculations from American Time Use Survey Data.

Figure 2: Linear Predictions of Time Use for Lesbian and Married Heterosexual Women


Note: Predictions from authors' calculations from American Time Use Survey Data.


[^0]:    *We would like to thank Nick Reksten as well as participants of the Bard College and Levy Economics Institute seminar for useful comments and suggestions.

[^1]:    ${ }^{1}$ We do not fully summarize the details of the various approaches to modeling the household here. We direct curious readers to the excellent summaries in Doss (1996) and Donni and Chiappori (2011) for a full accounting of models of the household.

[^2]:    ${ }^{2}$ The predicted extent to which labor supply decisions are influenced by earnings share varies by model.
    ${ }^{3}$ In Chiappori et al. (2002), divorce laws and the sex ratios are used as examples of distribution factors which affect labor supply, however the model itself does not require the distribution factors be gender related.

[^3]:    ${ }^{4}$ Evidence of identity based household behavior or "gender performance" has been documented in recent research finding that, counter to predictions of bargaining models, when women are primary earners, they do more household labor ((Bittman et al., 2003; Schneider, 2011; Bertrand et al., 2010)). However, the debate on the importance of identity motivated behavior is not settled. Gupta (2007) and Killewald and Gough (2010) argue that results consistent with identity motivated behavior are driven by increased household production that low-income households (which are predominately female headed) complete.

[^4]:    ${ }^{5}$ Goldberg, however, cautions the assumption that preferences for equality means a rejection a gender norms (Goldberg, 2009).

[^5]:    ${ }^{6}$ See Goldberg (2013), Dalton and Bielby (2000) and Padavic and Butterfield (2011) for a deeper investigation into the complicated construction of identity for same-sex parents.
    ${ }^{7}$ See Frazis and Stewart (2007) and Frazis and Stewart (2012) for more detail on the ATUS and appropriate use of time use data in general.

[^6]:    ${ }^{8}$ The ATUS survey classifies roommates as distinct from cohabiting partners. Roommates are not included in our sample.
    ${ }^{9}$ These statistics are consistent with findings from existing work on the demographics of gays and lesbians (see Black et al. (2007)).

[^7]:    ${ }^{10}$ In some, but not all cases, reports of zero time use in the ATUS represent classical measurement error. Researchers interested in estimating time use for shorter time periods, such as care labor done on weekday mornings, may correctly view reports of zero time use to represent censoring (Stewart, 2013). Since our goal is to estimate representative longer term averages, zero minutes reported in our time use categories reflects classical measurement error. Since we use the same covariates in all time-use specifications, our empirical specification simplifies to a standard OLS (Greene, 2002).
    ${ }^{11}$ To make population estimates nationally representative, the probability weights in the ATUS, as do weights in other federal and national surveys in the US, weight racial minorities more heavily and white respondents less heavily. In the U.S., members of same-sex households are more likely to be white. Weighting white respondents less heavily will inflate estimated standard errors for gay men and lesbians. These inflated standard errors will compound the difficulty that small samples pose for empirical research of same-sex households. These inflated standard errors will exacerbate the inflation of standard errors that will occur if researchers use weights when endogenous sampling is not present (Solon et al., 2015). Existing research suggests that endogenous sampling, correlation between survey non-response and time use, is not a concern in the ATUS. Respondents whose characteristics suggest they are busy and have more time pressures do not exhibit differential response patterns than those who are not (Abraham et al., 2006). Given the lack of

[^8]:    ${ }^{13}$ This is consistent with the approaches of the many of researchers comparing same-sex to different-sex households (Antecol et al., 2008; Giddings et al., 2014; Jepsen and Jepsen, 2015).

[^9]:    ${ }^{14}$ The positive interaction term cancels out the negative effect of time use for all men.

[^10]:    ${ }^{15}$ While the interaction term is insignificant, it is meaningfully large.

[^11]:    ${ }^{16}$ While not statistically significant at conventional standards, we interpret the coefficient estimate as significant because the p-value of estimate is reasonably close to ten percent and the sample size of lesbians is small.

[^12]:    Note: Authors' calculations from American Time Use Survey data, 2003-2015. * Difference from gay/lesbian average significant at $10 \%$ ** Difference significant at $5 \% * * *$ Difference significant at $1 \%$

[^13]:    Note: Authors' calculations from American Time Use Survey data, 2003-2015. * Difference from gay/lesbian average significant at $10 \%^{* *}$ Difference significant at $5 \%^{* * *}$ Difference significant at $1 \%$

