Does Homeownership Vary by Sexual Orientation?

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Christopher Jepsen*
CBER and Economics Department
University of Kentucky
335BA Gatton B&E Building
Lexington, KY 40506-0034
jepsen@uky.edu

Lisa K. Jepsen
Department of Economics
University of Northern Iowa
CBB 208
Cedar Falls, IA 50614-0129
lisa.jepsen@uni.edu

Abstract

The housing literature considers whether the probability of owning a home is different for ethnic and racial minorities than for native whites. Most studies find that minorities are less likely to own a home than their white counterparts. A logical extension of this line of research is to consider whether home-ownership rates differ based on sexual orientation. We use data on couples from the 2000 Census and find that same-sex couples are less likely to own a home than are married couples. The average value of houses owned by same-sex male couples is statistically similar to the average value of houses owned by married couples, but houses owned by same-sex female and cohabiting couples have lower average values than those owned by married couples. Conditional on owning, same-sex couples are slightly less likely to have a mortgage compared to married couples.

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Abstract

The housing literature considers whether the probability of owning a home is different for ethnic and racial minorities than for native whites. Most studies find that minorities are less likely to own a home than their white counterparts. A logical extension of this line of research is to consider whether home-ownership rates differ based on sexual orientation. We use data on couples from the 2000 Census and find that same-sex couples are less likely to own a home than are married couples. The average value of houses owned by same-sex male couples is statistically similar to the average value of houses owned by married couples, but houses owned by same-sex female and cohabiting couples have lower average values than those owned by married couples. Conditional on owning, same-sex couples are slightly less likely to have a mortgage compared to married couples.

1. Introduction

Previous research has examined how different racial and ethnic groups compare with respect to the rate of home ownership and other relevant characteristics. Implicit in the analysis is the concern that discrimination may be present in the housing market in ways that discourage home ownership for racial and ethnic minorities.

Gay men and lesbians are minorities whose economic power and social profile are growing. Governments have passed laws against discrimination in pay, and a large number of employers offer benefits to same-sex partners. Employees of the federal government are protected from discrimination based on sexual orientation. Massachusetts and Connecticut recognize same-sex marriages, and Vermont, New Hampshire, New Jersey, Oregon, and California offer civil unions or similar benefits (Carpenter and Gates 2008).

Gay households have higher average incomes than their heterosexual counterparts, in part because the household is comprised of two men, and men, on average, have higher earnings than women. In addition, gay men and lesbians have more education than heterosexual men and women. Earnings and education are characteristics that are positively associated with home ownership. Without controlling for demographic characteristics, we would predict that gay couples would have higher probabilities of home ownership due to their higher incomes and educational levels. Lesbian couples might have higher ownership rates due to higher educational levels but could have lower rates due to lower incomes. If present, discrimination would reduce homeownership rates for same-sex couples.

The ability to buy a house in the United States is closely linked to the ability to secure a mortgage. If lenders see an application from two unrelated people of the same gender, they may infer that the applicants are members of a same-sex couple. Because homosexuality still carries

negative stigmas, the possibility of discrimination in the lending market is very real. The same is true for the real-estate market.

Using data on couples from the 2000 Census, we find that same-sex couples are less likely to own a home than are married couples. Further, same-sex male couples own houses with similar average values compared with the houses owned by married couples, whereas same-sex female couples own houses with lower average values than married couples. Finally, we do not find strong evidence that sexual orientation affects the likelihood of having a mortgage.

2. Literature Review

To date, the majority of the economic research on sexual orientation has focused on individual earnings (Allegretto and Arthur 2001, Arabsheibani et al. 2005, Badgett 1995, Berg and Lien 2002, Black et al. 2003, Blandford 2003, Carpenter 2004, 2005, 2007, Clain and Leppel 2001, Jepsen 2007, Klawitter 1997, Klawitter and Flatt 1998, Plug and Berkhout 2004, and Weichselbaumer 2003). Three papers compare same-sex and opposite-sex households (Black et al. 2007, Jepsen and Jepsen 2002, and Jepsen and Jepsen 2006); five papers focus on how sexual orientation influences housing decisions (Ahmed et al. 2008, Black et al. 2002, Leppel 2007a, Leppel 2007b, and Moss 1997).

Housing is important to people for many reasons. Housing often represents a person or family's largest financial asset, and good housing may benefit child development as well as people's emotional well-being in comparison to renting (see Leppel 2007b for an excellent review of homeownership theory).

The classic demand function for owning a home includes information about the rental market, housing prices, and tax rates (Rosen 1979). If homes are perceived to be risky assets, people are less likely to own than rent. If home ownership is a source of personal pride, people

are more likely to own than rent (Rosen 1979). The focus of Rosen's article is the effect of income-tax consequences of home ownership on both the quantity of housing consumed in the United States and the tenure choice of various demographic groups.

More recent studies incorporate additional demographic variables to predict home ownership. Commonly-studied variables include age, marital status, children, education, income, and wealth. We might expect the demand for housing to vary across different life-cycle stages. Rosen (1979) finds that the probability of home ownership increases with age, a result echoed by more current research (Ioannides and Rosenthal 1994; Gyourko and Linneman 1996). If same-sex couples are younger than married couples, they might be less likely to own. By controlling for age, we can separate the differences in home ownership rates due to age from those due to sexual orientation.

Marital status could be related to home ownership if people's preferences for stability in their living arrangements mirror their desire for permanency in their personal relationships. Married couples may have an easier time purchasing a home than unmarried couples if lenders view the legal protections of marriage as lessening the lenders' risks. Hoyt and Rosenthal (1990) and Ioannides and Rosenthal (1994) find that married couples consume more housing than singles.

Economic theory suggests that a family's demand for housing increases with the number of children. Rosen's (1979) study does not find a statistically significant effect of children on the probability of home ownership. In contrast, Ioannides and Rosenthal (1994) find a positive relationship between household size and home ownership. The influence of marriage and the number of minor children appear to be declining, however (Gyourko and Linneman 1996). Because same-sex couples are less likely to have children than married couples, we include the

number of people in the household and the number of minors in the household to control for family influences.

If better-educated consumers are more knowledgeable about housing and mortgage markets, they may be more likely to own than less-educated consumers. Same-sex couples have higher educational attainments than opposite-sex couples, so we control for educational levels. Ioannides and Rosenthal (1994) find that heads of household who graduated from high school were more likely to own a home than those who did not graduate from high school. Gyourko and Linneman (1996) find that the "impact on owning of being highly educated now rivals the influence of being married with minor children" (p. 318).

Housing is a normal good, so we predict that the demand for housing is positively related to income. Rosen (1979) finds that the progressive nature of the U.S. income tax system affects the demand for housing in the expected way; Gyourko and Linneman (1996) find that as housing becomes more expensive, income becomes a much stronger determinant of home ownership.

The tax consequences for same-sex couples may be different than those for married couples but similar to opposite-sex, unmarried couples because all unmarried couples are not subject to the "marriage penalty" with respect to federal income taxes. Alm et al. (2000) estimate that legalized same-sex marriage would generate $0.3 to $1.3 billion dollars in additional federal income tax revenues.

Our research is closely related to the studies of differences in home ownership and housing values based on race and/or ethnicity. Collins and Margo (2001) study racial differences in home ownership during the 20th century. Using census data, they find that home-ownership and housing-value differences between households headed by black and white men have narrowed over the time period.

Coulson (1999) compares home-ownership rates of Asian Americans, Hispanics, blacks, and whites. Coulson's study of Asian Americans is pertinent because, like gay men in comparison to heterosexual males, Asian Americans have higher average incomes than whites. He finds that Asian Americans have lower home-ownership rates than whites, and immigrant status, age, and location affect home ownership for Asian Americans.

Gyourko et al. (1999) and Gyourko and Linneman (1996) also consider race in their housing studies. Although Gyourko et al. (1999) focus on the effects of wealth on home ownership, they find that racial differences in home-ownership rates are small but that the location of the homes is quite different based on race, with minorities much more likely to live in central cities. Gyourko and Linneman (1996) study trends in home ownership from 1960 to 1990. They find that racial minorities are less likely to own a home. Race is more of a constraint in 1990 than it was in 1960, especially for people with only a high school education.

Immigrant status also affects home-ownership rates. Painter et al. (2001) compare home-ownership rates for Asians, blacks, Hispanics, and whites but focus on one county – Los Angeles. Like Coulson (1999), they find that immigrant status and race/ethnicity are important predictors of home ownership. Borjas (2002) also studies the home-ownership rates of immigrant populations. He finds that location is a stronger predictor of home ownership than either immigrant status or other demographic variables.

If same-sex couples are the victims of discrimination, we would expect them to have a lower probability of homeownership in comparison to married couples. Discrimination based on sexual orientation is certainly possible, but sexual orientation is not as easily observed as race, age, or gender. Same-sex couples could have a higher preference for homeownership if privacy is of more value to them than to heterosexual couples. One study referenced by Leppel (2007b)

found that 43% of gay men and lesbians reported concealing their sexual orientation when interacting with their neighbors. Same-sex couples could have a higher preference for ownership if they experience discrimination in the rental housing market. Although we know of no U.S. studies to test for discrimination in the rental market, Ahmed et al. (2008) do not find evidence of discrimination against lesbians in the Swedish rental housing market.

The level of commitment within a couple also likely influences the demand for housing, with people in more stable unions having a higher demand for ownership rather than renting. Unfortunately Census data do not provide information about the length of commitment of a couple. We would predict, however, that cohabiting couples are the least committed because they have the option to marry but choose not to. Married couples are likely to be the most committed because they have increased the costs of dissolving their unions. Gay and lesbian couples in the Census are likely to be a mix of couples, including those who would choose to marry if it were universally legal and those who would not. Because our Census data are from 2000, same-sex couples could not legally marry. Massachusetts legalized same-sex marriage in 2004; Connecticut legalized same-sex marriage in 2008. By 2008, Vermont, New Hampshire, New Jersey, Oregon, and California offered some form of legalized union that approximates the state rights of marriage (Badgett et al. 2008). Just based on a predicted level of commitment, we would expect married couples to be the most likely to own, unmarried opposite-sex couples to be the least likely to own, and gay and lesbian couples to fall somewhere in between.

Our study sheds light on factors that influence housing choices for two minority groups: gay male couples and lesbian couples. Potential discrimination may reduce the probability of home ownership among minority groups. Yet gay men have many characteristics that are positively associated with home ownership – high incomes and educational levels. Lesbians

have lower incomes than gay men but also have high educational levels and are more likely to have children. Thus our comparisons across couple types are instructive.

Several recent articles explicitly study the relationships between sexual orientation and home ownership. Leppel (2007a) models the decision to own rather than rent a home as a function of characteristics of the couple, characteristics of the residence, and the presence of antidiscrimination housing laws based on sexual orientation. Because she estimates separate models based on the sexual orientation of the couple, she cannot directly compare same-sex couples to opposite-sex couples. She finds that couples' preferences for owning a home in a central city vary; married couples are less likely to own central city homes, whereas same-sex couples show no preference. For same-sex couples with high household incomes, lesbians were more likely to own a home than gay men.

In an extension of her previous work, Leppel (2007b) uses the Oaxaca (1973) decomposition method to explain the gap in homeownership based on sexual orientation. She finds that age explains the largest percentage of the homeownership gap because older couples have more wealth. Income, the presence of children in the household, center city residence, the relative cost of housing, and appreciation of owner-occupied housing also explain differences in homeownership rates. The set of independent variables explains approximately two-thirds of the ownership gap between married couples and same-sex couples (including both gay men and lesbians).

Our research extends Leppel's (2007a and 2007b) in several ways. We expand the sample of households by including all couples in the regressions, by using a larger sample (the five-percent sample rather than the one-percent sample), by studying both rural and urban residents, and by focusing on recent movers. We also expand the outcomes studied by including

analyses of housing values and the probability of carrying a mortgage in addition to our analysis of the ownership decision.

Black et al. (2002) suggest that because gay men are less likely to have children, they allocate more of their resources to entertainment and other amenities and reduce their lifetime demand for housing in comparison to heterosexuals. Gay men are more interested in adult amenities such as symphonies and art museums rather than child-friendly amenities such as good public school systems. Black et al. (2002) find that attractive local amenities are more likely to predict where gay men live than is the area's gay-friendliness.

Moss (1997) advocates public policies that promote investment by gay and lesbian households and discourage discrimination based on sexual orientation as a way to revitalize inner cities. He notes that many U.S. cities such as San Francisco, Miami Beach, and New York City have experienced inner-city revitalization by attracting gay and lesbian residents.

3. Data and Descriptive Statistics

Data are from the five-percent sample of the 2000 Census. We identify the sexual orientation of a couple through the Census question about an individual's relationship to the head of household. If a person selects "husband/wife" or "unmarried partner" instead of "roommate" or some other designation, we assume that the partner and head of household are a couple. If both members are male, we classify them as a same-sex male couple; if both members are female, we classify them as a same-sex female couple. If one member is male and one member is female (regardless of which individual is the head of household and which individual is the partner) and they choose "unmarried partner," then we classify them as a cohabiting but unmarried couple. Married couples are those where the partner selects "husband/wife." The Census treats all same-sex couples as unmarried. For ease of exposition, we will call same-sex

male couples "gays," same-sex female couples "lesbians," cohabiting but unmarried opposite-sex couples "cohabs," and married couples "marrieds."

Each observation in the data set is a couple. In the Census, we are unable to identify the sexual orientation of individuals who are not part of a cohabiting couple. The data set is comprised of four couple types: gays, lesbians, cohabs, and marrieds. Each member of the couple must be at least 18 years old. We exclude couples who have values for sex, relationship to head of household, or tenure status (rent versus own) that are allocated by the Census. We also exclude all households where more than one individual claims to be the unmarried partner or spouse of the head of household. We focus on the subsample of couples who report moving to their current residence within the last five years in order to isolate the people who are most likely to have made a joint decision recently about how much housing to consume. For example, two 55-year-olds who have lived in the same house for 20 years may not be consuming the "optimal" amount of housing based on their current needs. An additional advantage of limiting the sample to recent movers is that it increases our confidence that the self-reported housing values are accurate.[1] Hoyt and Rosenthal (1990) use a similar restriction in their study of the effects of capital gains on housing decisions.

Table 1 reports the descriptive statistics. Home ownership rates are highest for married couples, at 69 percent. Lesbian and gay couples have virtually identical rates, at 57 and 56 percent, respectively. Cohabs have the lowest home ownership rates, at 36 percent.

The average value of the homes owned suggests that gays are different from the other couples. Gays have the most expensive homes, averaging $217,300. Married couples and lesbians have similar average home values, $177,500 and $173,700, respectively. Cohabs have

[1] When we include all couples, regardless of when they last moved, the results are similar to the reported results except where noted.

the lowest value homes, averaging only $122,500. Median values are lower and maintain the same rankings across couples. There are several reasons why gays could have the most expensive homes. They may have different preferences for housing, as suggested by Black et al. (2002), and/or they may spend more on housing because housing is a normal good and their joint household income is higher than any other couple type. Another possible explanation is that gays are the most likely to live in an urban area (82 percent), where housing is more expensive than rural areas. Lesbians (79 percent) are more likely to live in urban areas than cohabs (72 percent) and married couples (71 percent). We will explore the differences in housing values in greater detail in the results section.

Household incomes also vary by couple type. Gays have the highest average household income ($79,300), married couples have the second highest ($69,900), lesbians have the third highest ($65,300), and cohabs have the lowest ($51,800). Again, median incomes are lower and maintain the same rankings across couples. Same-sex couples have more education than opposite-sex couples. Gays and lesbians average almost 13.7 years of schooling, whereas cohabs average about 12.8 years and marrieds about 13.4 years. The table shows that 35.9 percent of gay heads of household and 30.7 percent of gay partners have at least a bachelor's degree. The comparable percentages for the other couple types are as follows: 35.0 percent for lesbian heads of household and 32.3 percent for lesbian partners; 30.0 percent for married heads of household and 26.2 percent for married partners; and 17.6 percent for cohab heads of household and 14.6 percent for cohab partners.

With respect to other demographic characteristics, gays and lesbians are similar to each other and more similar to married couples than to cohabs. The average age of the gays and lesbians is late-30s, and the average age of married couples is early-40s. The cohabs are

younger, with an average age in the early-30s. Eighty-three percent of married and gay household heads are white. Eighty-one percent of lesbians and 77 percent of cohabs are white.[2] Approximately 16 percent of all individuals in our sample are born outside the United States.

4. Models

Following the relevant literature, we model housing tenure choice as follows:

(1) $OWN_c = \alpha COUPLE_c + \beta HOUSEHOLD_c + \gamma HEAD_c + \phi PARTNER_c + \varepsilon_c$

OWN is a dichotomous variable equal to one if the couple owns their residence, and *c* denotes couples. We estimate the model using OLS (also known as a linear probability model because the outcome variable is dichotomous) because it is less sensitive to distributional assumptions than logit or probit models, and OLS coefficients are easier to interpret (Wooldridge 2001). As a robustness check, we also estimate logit models, which produce similar results.

COUPLE contains three dichotomous variables measuring couple type: gays, lesbians, and cohabs. Married couples are the omitted category. The coefficients in α measure the difference in the likelihood of owning a home relative to married couples (the omitted category).

The model also contains demographic controls. The *HOUSEHOLD* vector includes various household characteristics such as total income, total income squared, number of people in the household, number of household members under age 18, center city, and center city unknown (approximately 30 percent of the observations do not contain information about whether the couple lives in a center city area; omitting the center city variables entirely does not substantially change the results). *HEAD* contains characteristics of the head of household, whereas *PARTNER* contains characteristics of the partner/spouse. The characteristics for both *HEAD* and *PARTNER* include age, age squared, race (black, Hispanic, or other; white is the

[2] In the 2000 Census, respondents may select more than one category for race. Therefore, the means for race do not

omitted category), highest level of education completed (high school graduate, some college, college graduate, or post-undergraduate schooling; less than a high school degree is the omitted category), and a dichotomous variable for those individuals not born in the United States.

Although our paper is similar in scope to Leppel (2007a), the models are quite different. Leppel (2007a) analyzes separate regressions based on three sexual orientation categories: (1) married, opposite-sex couples; (2) cohabiting but unmarried, opposite-sex couples; (3) cohabiting lesbian couples and cohabiting gay couples. She partitions the data into two age groups: under 30 and 30 and older. She also partitions the older age category into three household income groups: under $50,000, $50,000-$100,000, and over $100,000. Thus, she estimates 12 equations. We estimate one equation and include dummy variables for couple type. This way, we can compare the effect of sexual orientation directly on the housing tenure choice. In addition, Leppel (2007a) includes variables for living in a state with anti-discrimination laws. State laws such as anti-discrimination laws are difficult if not impossible to identify in the metropolitan area fixed effects models described below. She uses the one-percent sample from the Census, whereas we use the five-percent sample from the Census. Whereas Leppel (2007a) restricts her analysis to the 25 largest metropolitan areas, we include all rural and urban locations. Finally, Leppel (2007a) does not restrict her samples to recent movers.

The regression estimated in equation (1) implicitly compares couple types across the United States. There are, however, vast differences in housing markets across the country, and many of these differences are unlikely to be captured by the control variables in the equation. For example, Black et al. (2002) illustrate that gays and lesbians are more likely to locate in high-amenity locations. Housing prices in these locations are likely to reflect such amenities. Therefore, in equation (2), we include metropolitan-area fixed effects (*METRO*):

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sum to one hundred percent.

(2) $OWN_{cm} = \alpha COUPLE_{cm} + \beta HOUSEHOLD_{cm} + \gamma HEAD_{cm} + \phi PARTNER_{cm} + \lambda METRO_{m} + \varepsilon$

The variables are defined as in equation (1), and *m* denotes metropolitan areas.

The fixed-effect technique follows the approach of Borjas (2002), who studies the relationship between immigration and housing tenure. The Census contains four designations of metropolitan area: metropolitan statistical area (MSA), primary metropolitan statistical area (PMSA), Super Public Use Microdata Area (SuperPUMA), and Public Use Microdata Area (PUMA). The most aggregated is MSA, where, for example, the cities of Oakland, San Francisco, and San Jose are included in the same metropolitan area. PMSAs are the next most aggregate. Using the Bay Area as an example again, Oakland, San Francisco, and San Jose are three separate PMSAs. Next in aggregation are SuperPUMAs, which are areas that contain at least 500,000 residents. The smallest in aggregation are PUMAs, areas of 100,000 or more people created by the Census. We estimate four fixed effect models, one for each of the four measures of metropolitan areas. We are unable to control for within-PUMA differences in housing beyond what is captured in the variables included in the equations.

We extend the analysis beyond the rent versus own decision to consider differences by couple type in the type of residences owned, conditional on ownership.[3] Collins and Margo (2001) study the effects of race on home ownership, property values, and mortgages. Therefore, we include models to study how property values and mortgages may differ based on sexual orientation. The Census data on property value are categorical. The value of the property is defined as the midpoint of the Census category.[4] For example, properties in the "$90,000 to

[3] We discuss the implications of conditioning the sample on homeownership when we discuss the results from this model.

[4] Properties in the category of "1,000,000 or more" were given a value of 1.2 million, an arbitrarily chosen number. The percentage of couples that fall into this category ranges from 0.4 percent of cohabs to 1.6 percent of gays. The results presented in the next section are robust to alternative values from 1 million to 5 million.

$99,999" category have a value of 95 (measured in thousands of dollars). OLS regressions are estimated for the natural log of the property values as shown in equation (3):

(3) $VALUE_{cm} = \alpha COUPLE_{cm} + \beta HOUSEHOLD_{cm} + \gamma HEAD_{cm} + \phi PARTNER_{cm} + \lambda METRO_{m} + \varepsilon$

VALUE is the natural log of the value of the property in thousands of dollars. *COUPLE*, *HEAD*, *PARTNER*, and *METRO* are the same as in previous equations. *HOUSEHOLD* contains the same variables as in previous equations, as well as additional variables that capture the attributes of the house, such as the number of bedrooms, the type of heating fuel, etc. The equation is estimated only for people who own their property and for whom the value of the house is not allocated by the Census. We estimated an OLS regression, although interval regressions produce similar results.[5]

Equation (4) describes the OLS regressions estimated for mortgages, where the sample is limited to homeowners with non-allocated mortgage status.

(4) $MRTG_{cm} = \alpha COUPLE_{cm} + \beta HOUSEHOLD_{cm} + \gamma HEAD_{cm} + \phi PARTNER_{cm} + \lambda METRO_{m} + \varepsilon$

Mortgages are measured by a dichotomous variable *MRTG* equal to one for people with mortgages. Otherwise, all the variables are the same as in equation (2) except *HOUSEHOLD* now contains the value of the house and the house value squared. With respect to the decision to incur a mortgage, the salient features of the house are captured by its value. Therefore, we replace the additional features of the house that were included in the housing value equation (3) (such as number of bedrooms, etc.) with housing value.

5. Results

Table 2 reports the results of the linear probability models described in equation (1). The model in the first column contains no controls other than couple type. The model in the second

column adds controls for the household (income, number of people, number of individuals under 18, center city, and MSA status). The model in the third column adds controls for the characteristics of the head of household (age, race/ethnicity, education level, foreign-born status), whereas the fourth column adds the same controls for the partner.

All models show that gays, lesbians, and cohabs are less likely to own a home than are married couples, as the coefficients are negative and statistically significant for all model specifications. The magnitudes of the coefficients decrease when we include additional controls for the head of household (column 3) and the partner (column 4). For example, lesbians are 11.9 percent less likely to own in the most sparse specification (column 1), but they are only 6.9 percent less likely in the most detailed specification (column 4). For gays, the likelihoods are 13.0 in column 1 and 9.5 percent in column 4. The coefficients for cohabs decrease the most, from 32.2 percent in column 1 to 19.7 percent in column 4. The decrease in coefficient size suggests that part of the lower homeownership rate among same-sex couples and unmarried couples is explained by characteristics of the couple, such as income and demographics. However, we cannot distinguish whether the remaining gap is due to discrimination or unmeasured characteristics of the couple or the housing market. The fact that the largest coefficients are for cohabs is not surprising because they have the least committed relationships; they have chosen not to marry. Some of the same-sex couples in our sample would marry (and thereby enjoy the legal protections of marriage) if allowed to do so. Even so, our results suggest that home ownership is less attractive for couples who do not have the legal protections of marriage.

[5] Interval regressions control for the uncertain value of the property, using the upper and lower bound for each category.

The effects of the remaining variables are as expected and consistent with the previous studies. The higher a couple's household income, the more likely it is to own a home. The size of the effect, however, is not economically significant. For every additional $1,000 in household income, the couple is approximately 0.3 percent more likely to own. Couples with more children under the age of 18 in the household are more likely to own a home once we control for their personal characteristics. Older people and better-educated people are more likely to own a home. Couples in metropolitan areas are less likely to own a home.

Table 3 reports the results of the fixed effects models described in equation (2). Because the models control for the metropolitan area of residence, the results for couple type are interpreted as differences in the likelihood of ownership within the metropolitan area. For couples living in rural areas, we create a separate category for metropolitan area.[6] For example, for couples who live in California but who do not live in an area with a population of at least 100,000, we create a "rural California" category for MSAs and PMSAs (rural areas are included SuperPUMAs and PUMAs). The first column of Table 3 contains no fixed effects; it is identical to the results in column 4 of Table 2. The remaining four columns differ only in the definition of the metropolitan area. They are arranged from most aggregate to least aggregate: column 2 reports MSA fixed effects; column 3 reports PMSA fixed effects; column 4 reports SuperPUMA fixed effects; and column 5 reports PUMA fixed effects.

The results show that the inclusion of metropolitan area fixed effects reduces the size of the coefficients for couple type. In addition, the magnitude of the coefficients decrease as the scope of the metropolitan area becomes more focused (Oakland rather than the Bay Area, for example). The changes are largest for gay couples, as the coefficient shrinks from 9.5 percent in column 1 to 6.0 percent in column 5. A large percentage of the coefficient for lesbians is

absorbed by the fixed effects, as the coefficient decreases from 6.9 percent to 5.0 percent. In contrast, the change for cohabs is quite small – from 19.7 percent to 18.1 percent. This pattern is consistent with the notion that the fixed effects capture salient but difficult to measure attributes of the metropolitan area and that this change is most noticeable for gay and lesbian couples relative to married couples (and less so for cohabs compared to marrieds). The fixed effects absorb more variation as their area of focus narrows. However, all the coefficients are statistically different from zero at the one-percent level, suggesting that the fixed effects do not absorb all of the relevant variation. As a robustness check, we estimate the same model described in equation (2), but we include the interaction of metropolitan area with income to allow income to have a different effect on homeownership in each metropolitan area. The results are extremely similar to Table 3, so we do not report them. The results from the fixed effect models support the results from linear probability model that unmarried couples are less likely to own a home than married couples, which again may reflect differences in a couple's willingness to purchase a substantial financial asset without either the legal protections or commitment of marriage.

Leppel (2007b) uses a decomposition model to explain the gap in home ownership rates by couple type. We consider a variation of equation (2) where we include interaction terms between couple type and each of the independent variables. We include these interaction terms to allow the effects of the independent variables differ by couple type. Because over 90 percent of the couples are married, the coefficients for the household- and person-level characteristics are driven by married couples. By allowing the coefficients to vary by couple type, we can capture the variation in these coefficients across couple types. The results are reported in Table 4. Note that Table 4 contains the results from one regression. Each column contains a separate set of

[6] This category includes couples with values of 9997, 9998, or 9999 for the MSA or the PMSA variable.

interaction terms: the first column contains interactions with the dichotomous variable for lesbian couples; the second column contains interactions with gays; the third contains interactions with cohabs; and the fourth column contains interactions with marrieds. The top panel contains the couple type variables; the second panel contains interactions with household characteristics; the third panel contains interactions with head of household characteristics; the fourth panel contains interactions with partner characteristics. The model contains PUMA fixed effects as well.[7]

The coefficients for gay and lesbian couple types are larger than in previous tables. This result suggests that the differences in the ownership decision between same-sex couples and married couples cannot be explained fully by differences in household and personal characteristics. When we include interaction effects between couple type and household/person characteristics, lesbians are 34.1 percent less likely to own than married couples. When we did not include such interaction terms, lesbians were only 5.0 percent less likely to own (Table 3, column 5). The differences for gays are nearly as large: in the fully interacted model (Table 4), gays are 30.8 percent less likely to own compared with a 6.0 percent effect in the model without interaction terms (Table 3, column 5). For cohabs, the coefficient actually drops when we add interaction terms, from 18.1 percent in the model without interaction terms (Table 3, column 5) to 13.6 percent in the model with interaction terms (Table 4).

The large and statistically significant negative coefficients for gays and lesbians in the more flexible interaction model in Table 4 provide further evidence that the differences in homeownership rates between same-sex couples and married couples cannot be explained completely by differences in observable characteristics such as income, age, and race/ethnicity. Also, the coefficient for cohabs is closer to zero than the coefficients for gays and lesbians, which suggests that the cohabs are more similar to married couples (the omitted category) than

[7] We did not include interactions between PUMA and couple type.

are gays or lesbians. We would suspect the opposite result if differences in homeownership are driven by unmeasured differences in the level of commitment – cohabs would be less like marrieds because they are the least committed couple type, on average. Cohabs have chosen not to marry despite their ability to do so, whereas gays and lesbians were not permitted to marry (at the time of the 2000 Census). Therefore, we suspect that the average level of commitment in gay and lesbian couples is above the commitment level of cohabs but is below the commitment level of marrieds. As such, our results in Table 4 do not suggest that we are capturing differences in commitment.

The effects of the other major variables are as expected. As found in Leppel (2007b), income has a positive effect on homeownership for all couple types, as does the number of children. Nonwhites are less likely to own than whites. People with more education are more likely to own.

We now consider two additional housing decisions, the value of the house and the presence of a mortgage, for the subset of couples who own their residence. We condition on homeownership rather than trying to model homeownership and the value/mortgage decision at the same time. We do so due to the difficulty of identifying the homeownership decision in addition to attributes of the home (value and mortgage status). In other words, Census data do not contain variables that are related to the homeownership decision but not related to attributes of the home, which would allow us to estimate a model with a Heckman selection-bias correction for homeownership.[8]

Consequently, the results from the log value and mortgage regressions should be interpreted as conditional on homeownership. The sample of homeowners is likely different

[8] Rosen (1979) discusses a selection-bias technique but does not use one because he expects that the magnitude of the bias would be "much smaller" than in a wage analysis (p.11).

from the overall sample of couples. The most obvious difference is that homeowners usually have the finances to afford to own a home. Either they have sufficient assets and income to afford a home, or they have found other ways to own a home such as finding a "great deal." Homeowners also have a preference for owning over renting. Because we do not know how these differences will affect regression coefficients in a home value equation or a mortgage equation, the home value and mortgage results presented below should be interpreted as conditional on ownership.

For couples who own a home, we consider whether the value of the home is related to couple type. The results of the log value regressions described in equation (3) are reported in Table 5. The first column contains no controls aside from couple type; the second column adds controls for the household; the third column adds controls for the head of household; and the fourth adds controls for the partner. The fifth through eighth columns include metropolitan-area fixed effects.

Without controls for metropolitan area, we find that gay couples own houses that are much more expensive than the houses owned by all other couple types. When we control for the fact that gays have higher earnings and other characteristics associated with higher home values (column 4), they own homes that average around eight percent more than the value of homes owned by married couples. But when we control for metropolitan-area fixed effects, the difference decreases or ceases to be statistically significant. When the model includes PUMA fixed effects (column 8), the smallest level of aggregation, we find that gays actually have lower home values of approximately 2 percent. This pattern of results suggests that gay couples own homes of higher value largely because they live in more expensive metropolitan areas; compared

to other couples in the same metropolitan area, gays own homes with similar, if not slightly lower, values.

Without controlling for any characteristics other than couple type, lesbians have homes of similar value to married couples (column 1). Lesbians are younger, less white, and have lower incomes – all characteristics that are correlated with lower home values. Yet, lesbians live in more expensive metropolitan areas (Black et al. 2002) where housing is more expensive. Once we account for demographic characteristics and metropolitan areas (columns 5-8), we find that lesbians have lower-value homes of five to six percent less compared to married couples who have similar characteristics and live in the same metropolitan areas. Perhaps lesbians purchase different types of houses than gays because lesbians face fewer constraints to having children. The influence of children may be more complicated than we can measure using Census data which only capture the number of minors in a household and not a couple's plans for children.

Cohabs have homes of substantially lower average values than married couples. They, too, are younger, less white, and have lower incomes than married couples, which are characteristics associated with lower housing values. Like the results for lesbian couples, cohabs have homes of lower average values than married couples even after we control for demographic and metropolitan-area characteristics (columns 5-8). Cohabs have home values that are approximately 14 percent lower than married couples in the same metropolitan areas. The housing value results support the previous results (linear probability and fixed effects) in that married couples are different from unmarried couples. Unlike the previous results, however, we find differences within the unmarried couples in housing values; lesbians and cohabs own houses with lower values than married couples, whereas gays own houses with similar values. The

results are consistent with the findings from Black et al. (2002) that gays tend to live in high-amenity areas – areas that also have expensive home prices.

When we include all couples, not just those who have moved within the last five years, the coefficients for gays and lesbians are larger than the corresponding values in the sample of recent movers. The results for cohabs are similar for recent movers and for all owners. The increase in coefficients for gays and lesbians is consistent with the notion that the neighborhoods where gays and lesbians live have experienced greater appreciation on average than the neighborhoods where married couples live, at least in terms of self-reported values.

Another way to study a couple's investment in housing is to consider the value of the house relative to household income. This variable measures the importance of housing in terms of household income, as it normalizes the value of the house in terms of current household income. Because the sample is limited to recent movers, the ratio is a reasonable measure of the share of current income devoted to housing. We estimate OLS regression with this ratio as the dependent variable, and the results are shown in Appendix Table 1.[9] The independent variables are the same as in equation (3), except that income and income squared are no longer included because they are now part of the dependent variable. The results show that once we control for personal characteristics, there are no statistically significant differences between same-sex couples and married couples in the ratio of housing value to income. Cohabs have slightly lower value to income ratios, suggesting that they spend slightly more of their income on housing compared to married couples.

Finally, we consider whether same-sex couples are more or less likely to have a mortgage on their house than are married couples. Although the model does not test for discrimination in

[9] Although not reported in the table, the results are similar if the dependent variable is the ratio of log value to log household income.

the lending market, if we find that same-sex couples are less likely to have a mortgage, the result could suggest that they do not have the same access to credit that heterosexuals do. If we find that cohabs as well as gay and lesbian couples are less likely to have a mortgage, the result could suggest that unmarried couples, regardless of sexual orientation, face discrimination from mortgage creditors.

Table 6 contains the results from the model described in equation (4). The layout of Table 6 is the same as Table 5. Once we control for personal characteristics (columns 3 through 8), we find that lesbians and gays are less likely to have a mortgage than married couples. However, the effect is only two percentage points, compared to likelihood of having a mortgage of roughly 70 percent (Table 1). (When we include all couples, not just recent movers, the coefficients for lesbians for columns 3 through 8 are not statistically significant.) Cohabs are approximately four percentage points less likely to have a mortgage than married couples, once we control for the personal characteristics of the head of household (columns 3 through 8). The larger coefficient for cohabs compared to other couple types is not surprising. Lenders are probably more reluctant to issue mortgages to cohabiting but unmarried couples because their unions are viewed as less stable. In the current housing market where many households need two incomes to qualify for a mortgage, a less-committed couple is a worse credit risk, ceteris paribus; by choosing not to marry, the cohabs have signaled that they are less legally committed to each other than a married couple. The level of commitment between same-sex partners is less obvious because most do not have the choice to marry legally. The coefficients themselves do not suggest large amounts of discrimination, but it is possible that discrimination is present but outweighed by other factors such as age and household income. As we found in the housing

probability models and value models, unmarried couples appear to be different from married couples in the mortgage market.

6. Conclusions

Our paper extends the housing literature that focuses on racial/ethnic differences in housing to consider differences in housing decisions based on sexual orientation. It also extends a growing literature on same-sex couples, including the work of Leppel (2007a and 2007b). We use a large sample of couples from across the country to examine housing differences between married couples and gays, lesbians, and cohabs. With respect to the decision to own, the results from Tables 2, 3, and 4 show that all three types of unmarried couples are less likely to own their residences compared with married couples. Some of the difference can be explained by household and personal characteristics, and some of the difference can be explained by differences in the metropolitan areas where the couples choose to live. Even after controlling for all these factors, we still find that, compared to married couples, lesbian couples are 5.0 percent less likely to own, gay couples are 6.0 percent less likely to own, and cohab couples are 18.1 percent less likely to own (Table 3, column 5).

Conditional on owning, lesbians and cohabs have lower-valued homes than married couples, whereas gays have comparably-valued homes. Lesbians, gays, and cohabs have a slightly lower likelihood of having a mortgage compared to married couples.

Our research is consistent with other studies that find differences in the housing outcomes of same-sex couples compared to opposite-sex couples. The results from our analysis of housing values suggest some differences between gay couples compared to lesbian couples, and our analysis of mortgages suggests that cohabiting couples are slightly different from married couples.

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Table 1 – Descriptive Statistics

	Lesbians		Gays		Cohabs		Marrieds	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Own residence	0.568	0.495	0.557	0.497	0.364	0.481	0.687	0.464
Value (in $1,000s)*	173.7	162.1	217.3	207.3	122.5	126.4	177.5	167.6
Has mortgage*	0.854	0.353	0.852	0.355	0.809	0.393	0.836	0.370
Household characteristics								
Income (in $1,000s)	65.3	58.6	79.3	75.8	51.8	47.1	69.9	65.4
Number of people	3.059	1.412	2.824	1.400	3.043	1.321	3.420	1.426
Number of minors	0.825	1.170	0.568	1.096	0.874	1.163	1.189	1.249
Presence of minor	0.438	0.496	0.281	0.450	0.476	0.499	0.602	0.489
In MSA	0.787	0.409	0.820	0.384	0.724	0.447	0.709	0.454
Head of household characteristics								
Age	37.9	11.5	39.7	12.3	33.3	10.6	41.5	13.4
White	0.805	0.396	0.829	0.376	0.772	0.420	0.826	0.380
Black	0.105	0.307	0.078	0.268	0.129	0.335	0.068	0.252
Hispanic	0.124	0.329	0.134	0.340	0.132	0.339	0.119	0.324
Other race	0.118	0.322	0.117	0.321	0.125	0.331	0.125	0.331
No high school	0.142	0.349	0.149	0.356	0.192	0.394	0.155	0.362
High school grad	0.207	0.405	0.198	0.399	0.314	0.464	0.253	0.435
Some college	0.301	0.459	0.294	0.456	0.317	0.465	0.292	0.455
College grad	0.206	0.404	0.219	0.413	0.130	0.336	0.186	0.389
Graduate degree	0.144	0.351	0.140	0.347	0.046	0.211	0.114	0.318
Foreign born	0.131	0.337	0.151	0.358	0.116	0.320	0.173	0.379

* Conditional on ownership.

Table 1 – Descriptive Statistics (Continued)

	Lesbians		Gays		Cohabs		Marrieds	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Partner characteristics								
Age	37.061	11.367	37.925	11.845	32.331	10.351	39.703	13.003
White	0.796	0.403	0.805	0.396	0.760	0.427	0.820	0.384
Black	0.105	0.307	0.085	0.279	0.133	0.340	0.065	0.247
Hispanic	0.131	0.338	0.157	0.364	0.139	0.346	0.124	0.329
Other race	0.125	0.331	0.138	0.345	0.133	0.340	0.133	0.340
No high school	0.147	0.355	0.163	0.370	0.219	0.414	0.151	0.358
High school grad	0.217	0.412	0.232	0.422	0.331	0.471	0.273	0.446
Some college	0.314	0.464	0.298	0.457	0.304	0.460	0.313	0.464
College grad	0.201	0.400	0.206	0.405	0.111	0.314	0.181	0.385
Graduate degree	0.122	0.327	0.101	0.302	0.035	0.183	0.081	0.273
Foreign born	0.144	0.351	0.185	0.388	0.124	0.329	0.184	0.388
Number of couples	8,587		8,085		155,108		1,127,496	

Table 2 – Regression Results for Home Ownership

	(1)	(2)	(3)	(4)
Lesbians	-0.119 **	-0.088 **	-0.067 **	-0.069 **
	(0.005)	(0.005)	(0.005)	(0.005)
Gays	-0.130 **	-0.116 **	-0.100 **	-0.095 **
	(0.006)	(0.005)	(0.005)	(0.005)
Cohabs	-0.322 **	-0.267 **	-0.203 **	-0.197 **
	(0.001)	(0.001)	(0.001)	(0.001)
Household characteristics				
Income (in $1,000s)		0.004 **	0.003 **	0.003 **
		(7.9E-05)	(7.1E-05)	(6.8E-05)
Income squared		-6.4E-06 **	-5.0E-06 **	-4.6E-06 **
		(2.3E-07)	(1.9E-07)	(1.8E-07)
Number of people		-0.030 **	-0.018 **	-0.013 **
		(0.001)	(0.001)	(0.001)
Number of minors		0.027 **	0.038 **	0.035 **
		(0.001)	(0.001)	(0.001)
Center city		-0.173 **	-0.128 **	-0.124 **
		(0.001)	(0.001)	(0.001)
In MSA		-0.091 **	-0.054 **	-0.052 **
		(0.001)	(0.001)	(0.001)
Head of household characteristics				
Age			0.024 **	0.017 **
			(2.0E-04)	(2.8E-04)
Age squared			-1.9E-04 **	-1.3E-04 **
			(2.1E-06)	(2.9E-06)
Black			-0.132 **	-0.079 **
			(0.002)	(0.003)
Hispanic			-0.033 **	-0.009 **
			(0.002)	(0.002)
Other race			-0.075 **	-0.042 **
			(0.001)	(0.002)
High school grad			0.060 **	0.042 **
			(0.001)	(0.001)
Some college			0.070 **	0.042 **
			(0.002)	(0.002)
College grad			0.083 **	0.047 **
			(0.002)	(0.002)
Graduate degree			0.035 **	0.001
			(0.002)	(0.002)
Foreign born			-0.106 **	-0.053 **
			(0.001)	(0.002)

Table 2 – Regression Results for Home Ownership (Continued)

	(1)	(2)	(3)	(4)
Partner characteristics				
Age				0.010 **
				(2.8E-04)
Age squared				-8.4E-05 **
				(3.0E-06)
Black				-0.062 **
				(0.003)
Hispanic				-0.011 **
				(0.002)
Other race				-0.034 **
				(0.002)
High school grad				0.049 **
				(0.001)
Some college				0.069 **
				(0.002)
College grad				0.089 **
				(0.002)
Graduate degree				0.073 **
				(0.002)
Foreign born				-0.072 **
				(0.002)
Constant	0.687 **	0.616 **	-0.065 **	-0.152 **
	(0.0004)	(0.003)	(0.004)	(0.004)
Observations	1,299,276	1,299,276	1,299,276	1,299,276

Notes: Standard errors are in parentheses. The regressions in models (2) through (4) also include a dichotomous variable for unknown city center status. * denotes significance at five percent; ** denotes significance at one percent.

Table 3 – Fixed Effects Regressions for Home Ownership

	(1)	(2)	(3)	(4)	(5)
Lesbians	-0.069 **	-0.059 **	-0.059 **	-0.054 **	-0.050 **
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Gays	-0.095 **	-0.083 **	-0.082 **	-0.070 **	-0.060 **
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Cohabs	-0.197 **	-0.190 **	-0.189 **	-0.186 **	-0.181 **
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Fixed Effects	none	MSA	PMSA	superPUMA	PUMA

Notes: Standard errors are in parentheses. Each regression has 1,299,276 observations. Each regression includes the additional controls for the household, the head of household, and the partner, as listed in Table 2 with two exceptions. Columns (2) through (5) do not include the MSA variable (because they include fixed effects instead) and column (5) does not include center city variables because they do not vary within PUMA. * denotes significance at five percent; ** denotes significance at one percent.

Table 4 – PUMA Fixed Effects Regression for Home Ownership, Interactions with Couple Type

	Interaction with Couple Type			
	Lesbians	Gays	Cohabs	Marrieds
Lesbians	-0.341 **			
	(0.051)			
Gays		-0.308 **		
		(0.053)		
Cohabs			-0.136 **	
			(0.013)	
Household characteristics				
Income (in $1,000	0.003 **	0.003 **	0.004 **	0.003 **
	(3.2E-04)	(1.8E-04)	(1.3E-04)	(7.1E-05)
Income squared	-4.5E-06 **	-4.3E-06 **	-5.3E-06 **	-4.4E-06 **
	(9.2E-07)	(3.8E-07)	(4.3E-07)	(1.9E-07)
Number of people	-0.017 *	-0.022 **	-0.007 **	-0.012 **
	(0.008)	(0.008)	(0.002)	(0.001)
Number of minors	0.038 **	0.050 **	0.026 **	0.030 **
	(0.009)	(0.010)	(0.003)	(0.001)
Head of household characteristics				
Age	0.015 **	0.017 **	0.018 **	0.014 **
	(2.8E-03)	(2.9E-03)	(7.3E-04)	(3.0E-04)
Age squared	-8.8E-05 **	-1.3E-04 **	-1.3E-04 **	-1.1E-04 **
	(3.1E-05)	(3.2E-05)	(9.1E-06)	(3.1E-06)
Black	-0.067 *	-0.094 **	-0.051 **	-0.082 **
	(0.026)	(0.029)	(0.005)	(0.004)
Hispanic	0.027	0.014	-0.006	-0.005 *
	(0.023)	(0.022)	(0.005)	(0.002)
Other race	-0.010	-0.049 *	-0.013 **	-0.028 **
	(0.021)	(0.022)	(0.005)	(0.002)
High school grad	0.038 *	0.034	0.046 **	0.042 **
	(0.018)	(0.019)	(0.003)	(0.002)
Some college	0.030	0.069 **	0.049 **	0.047 **
	(0.018)	(0.019)	(0.004)	(0.002)
College grad	0.079 **	0.100 **	0.062 **	0.059 **
	(0.021)	(0.021)	(0.005)	(0.002)
Graduate degree	0.093 **	0.122 **	0.063 **	0.017 **
	(0.022)	(0.023)	(0.007)	(0.002)
Foreign born	0.005	-0.038	0.021 **	-0.030 **
	(0.020)	(0.020)	(0.005)	(0.002)

Table 4 – PUMA Fixed Effects Regression for Home Ownership, Interactions with Couple Type (Continued)

	Interaction with Couple Type			
	Lesbians	Gays	Cohabs	Marrieds
Partner characteristics				
Age	0.022 **	0.017 **	0.001	0.012 **
	(2.9E-03)	(3.0E-03)	(7.3E-04)	(3.0E-04)
Age squared	-2.1E-04 **	-1.6E-04 **	2.7E-05 **	-1.0E-04 **
	(3.3E-05)	(3.4E-05)	(9.3E-06)	(3.2E-06)
Black	-0.060 *	-0.041	-0.058 **	-0.058 **
	(0.027)	(0.028)	(0.005)	(0.004)
Hispanic	-0.046 *	-0.022	-0.00002	-0.006 **
	(0.021)	(0.020)	(0.005)	(0.002)
Other race	-0.013	-0.026	-0.001	-0.019 **
	(0.021)	(0.020)	(0.004)	(0.002)
High school grad	0.040 *	0.055 **	0.025 **	0.052 **
	(0.018)	(0.018)	(0.003)	(0.002)
Some college	0.071 **	0.070 **	0.047 **	0.077 **
	(0.018)	(0.019)	(0.004)	(0.002)
College grad	0.082 **	0.096 **	0.040 **	0.106 **
	(0.020)	(0.021)	(0.005)	(0.002)
Graduate degree	0.096 **	0.103 **	0.033 **	0.098 **
	(0.023)	(0.023)	(0.007)	(0.002)
Foreign born	-0.007	-0.003	-0.012 **	-0.042 **
	(0.018)	(0.017)	(0.004)	(0.002)
Constant	-0.210 **			
	(0.005)			

Notes: Standard errors are in parentheses. The table contains the results from a single regression with 1,299,276 observations. Despite its location in the table, the constant term is not interacted with the lesbian couple type variable. * denotes significance at five percent; ** denotes significance at one percent.

Table 5 – Regression Results for Log Value of Residence, Conditional on Ownership

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Lesbians	-0.024	-0.011	-0.007	-0.012	-0.052 **	-0.049 **	-0.057 **	-0.060 **
	(0.013)	(0.010)	(0.010)	(0.009)	(0.009)	(0.008)	(0.008)	(0.008)
Gays	0.161 **	0.061 **	0.074 **	0.081 **	0.015	0.013	-0.011	-0.021 *
	(0.014)	(0.011)	(0.010)	(0.010)	(0.009)	(0.009)	(0.009)	(0.009)
Cohabs	-0.439 **	-0.240 **	-0.149 **	-0.122 **	-0.146 **	-0.144 **	-0.144 **	-0.145 **
	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Household variables?	no	yes	yes	yes	yes	yes	yes	yes
Head of HH variables?	no	no	yes	yes	yes	yes	yes	yes
Partner variables?	no	no	no	yes	yes	yes	yes	yes
Fixed effects?	none	none	none	none	MSA	PMSA	SuperPUMA	PUMA

Notes: Standard errors are in parentheses. Each regression has 777,475 observations. Each regression includes the additional controls for the household, the head of household, and the partner, as listed in equation (3). * denotes significance at five percent; ** denotes significance at one percent.

Table 6 – Regression Results for Having a Mortgage, Conditional on Ownership

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Lesbians	0.018 **	0.027 **	-0.019 **	-0.019 **	-0.020 **	-0.020 **	-0.020 **	-0.020 **
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Gays	0.016 **	0.017 **	-0.022 **	-0.024 **	-0.026 **	-0.026 **	-0.024 **	-0.022 **
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Cohabs	-0.027 **	0.015 **	-0.037 **	-0.034 **	-0.039 **	-0.039 **	-0.039 **	-0.039 **
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Household variables?	no	yes	yes	yes	yes	yes	yes	yes
Head of HH variables?	no	no	yes	yes	yes	yes	yes	yes
Partner variables?	no	no	no	yes	yes	yes	yes	yes
Fixed effects?	none	none	none	none	MSA	PMSA	SuperPUMA	PUMA

Notes: Standard errors are in parentheses. Each regression has 777,475 observations. Each regression includes the additional controls for the household, the head of household, and the partner, as listed in equation (4). * denotes significance at five percent; ** denotes significance at one percent.

Appendix Table 1 – Regression Results for Value to Income Ratio, Conditional on Ownership

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Lesbians	-0.063 *	-0.064 *	-0.008	-0.005	-0.018	-0.017	-0.019	-0.020
	(0.031)	(0.032)	(0.029)	(0.029)	(0.030)	(0.030)	(0.031)	(0.032)
Gays	-0.069	-0.068	-0.020	-0.023	-0.024	-0.022	-0.017	-0.026
	(0.038)	(0.040)	(0.037)	(0.037)	(0.037)	(0.037)	(0.036)	(0.038)
Cohabs	-0.076 **	-0.089 **	-0.031	-0.039 *	-0.039 *	-0.036 *	-0.038 *	-0.040 *
	(0.022)	(0.023)	(0.017)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Household variables?	no	yes	yes	yes	yes	yes	yes	yes
Head of HH variables?	no	no	yes	yes	yes	yes	yes	yes
Partner variables?	no	no	no	yes	yes	yes	yes	yes
Fixed effects?	none	none	none	none	MSA	PMSA	SuperPUMA	PUMA

Notes: Standard errors are in parentheses. Each regression has 775,300 observations. Each regression includes the additional controls for the household, the head of household, and the partner, as listed in equation (4). * denotes significance at five percent; ** denotes significance at one percent.