

The Measurement of Same-Sex Unmarried Partner Couples in the 2000 U.S. Census

by

Dan Black

Center for Policy Research
426 Eggers Hall
Syracuse University
Syracuse, NY 13244-1020
(315) 443-9040
danblack@maxwell.syr.edu

Gary Gates

The Williams Institute
UCLA School of Law
405 Hilgard Avenue
Los Angeles, CA 90095
(310) 825-1868
gates@law.ucla.edu

Seth Sanders

Department of Economics
University of Maryland
College Park, MD 20742
(301) 405-3497
sanders@econ.umd.edu

Lowell Taylor

Heinz School of Public Policy
and Management
Carnegie Mellon University
Pittsburgh, PA 15213-3890
(412) 268-3278
lt20@andrew.cmu.edu

First Version: June 2002
Revised Version: September 2006

The authors gratefully acknowledge financial support from NICHD Grants HD3703-01 430 and HD046560-01A1. We thank Christopher Carpenter for generating cross tabulations of the California Health Interview Survey for us and Martin O'Connell for valuable assistance.

Introduction

Over the past decades there has been a growing demand for accurate demographic statistics on same-sex couples, for the purpose of informing such policy debates as marriage equality, domestic partner benefits, and adoption rights for same-sex couples. In response to this demand, statistical agencies such as the United States Census Bureau are making an effort to collect consistent and accurate data on same-sex partners.¹ In this paper we discuss procedures used by the Census Bureau in collecting and reporting data on same-sex unmarried partners in the 2000 Decennial Census, highlighting a serious measurement error problem. Our work serves as a cautionary tale for statistical agencies collecting data on same-sex couples, and as a guide for researchers who use existing data on same-sex couples.

Our work indicates that over 40 percent of same-sex “unmarried partner” couples in the 2000 U.S. Decennial Census are misclassified different-sex couples. This misclassification is the consequence of a relatively rare error—the misreporting or miscoding of an individual’s sex or the sex of a spouse or partner. At issue is well-known problem in epidemiology and demography: even a minor amount of measurement error, when applied to a large group, can create a major problem for drawing inferences about a small group in the population. Consider, for example, a population in which 1 out of 100 people are HIV-positive. If epidemiologists rely on a test that has a 0.01 error rate (for both false positives and false negatives), approximately half of the group that is identified as HIV-positive will in fact be misclassified. As a second example, consider a population of women in which only a small proportion hold “professional degrees” (i.e., degrees in law or medicine). A modest level of measurement error in education among the group of women *not* holding professional degrees can lead to massive misclassification among those who are identified as having a professional degree.²

¹ Quite clearly, there is substantial academic and public interest in the demography of same-sex couples; the reporting of same-sex unmarried partners, commonly understood to be gay and lesbian couples, was one of the most publicized stories from the release of the 2000 United States Decennial Census data. A Lexis-Nexis search of articles about Census 2000 counts of same-sex unmarried partners revealed that 92 major American newspapers published stories on this subject in June, July, and August 2001 alone (including, e.g., the *New York Times*, *Washington Post*, and *Los Angeles Times*). There are now gay demography web sites built around these data and a new stream of academic research is being produced from the data.

² A validation exercise by Black, et al. (2003) indicates that in the 1990 U.S. Census, only 45 percent of women recorded as holding a professional in fact have such a degree.

In the United States, Public Use Micro Samples (PUMS) of the 1990 Census and 2000 Census are a major source of data for studying same-sex couples. A potential problem with the use of same-sex couples data—Census data or any similar data source—is that some observations recorded as same-sex “unmarried partners” might in fact be different-sex couples with one individual for whom sex has been misreported or miscoded. Because the population of different-sex couples is large, and the incidence of same-sex couples is small, the potential exists for a serious misclassification problem. Previous work (Black, et al., 2000) indicates that this problem is only moderate in the 1990 Census. In this paper we demonstrate that matters are different and worse in the 2000 data.

Measurement error as a potential problem in identifying same-sex couples

To demonstrate why measurement error is likely a major problem in 2000 U.S. Census, we consider in some detail the coding schemes used by the Census Bureau in 1990 and 2000 (summarized in Table 1). There are, in principle, two ways that a couple could be recorded as a same-sex couple in Census data. The first is that the householder (usually the person who fills out the Census form) identifies a same-sex individual in the household as an “unmarried partner” (UP). In both 1990 and 2000 these responses were accepted as valid and the relationship to householder (RH) variable was not subject to editing. Lines 1 and 2 in Table 1 represent these same-sex couples. (We discuss the distinction between these two lines shortly.)

A second way a couple could be recorded as a same-sex couple is that a householder identifies a same-sex individual as a “husband/wife.” In 1990, the Census Bureau treated such data as a logical contradiction and in most such cases altered the sex of the “husband/wife” so that the couple counted as a different-sex married couple, a practice that likely led to an undercount of gay and lesbian couples. In an effort to better count same-sex unmarried partners (in part responding to the enormous interest in gay and lesbian research spawned by the 1990 data), the Census Bureau adopted new coding procedures for 2000. In 2000 when a same-sex couple recorded one partner as a “husband/wife,” the RH status “husband/wife” was changed to unmarried partner (UP) but the sex of each partner remained as recorded. Unfortunately, because this procedure was considered a “consistency” or “logical” edit, the Census Bureau did not flag

the procedure as an “allocation” of the RH variable within these households. These couples are enumerated as same-sex “unmarried partner” couples. Lines 3 and 4 of Table 1 represent these couples.

A further ambiguity for the Census Bureau was how to handle the response of same-sex couples to a second question on each person’s marital status (MS). This was handled differently in 1990 and 2000, in part due to the placement of the marital status question on Census forms. In 1990, MS responses were elicited on the “short form,” which was administered to all households. These responses could then be used in the editing process. For example, when a same-sex “husband/wife” was reported, the decision to alter the sex of the “husband/wife” depended in part on whether the spouses indicated that they were both “currently married.” In 2000 MS responses were elicited only on the “long form,” meaning MS data are available for only one in six households. First round edits to the RH variable could not consider the MS variable; instead, edits to the MS response occurred after all edits were made to the RH variable.

In 1990 MS of unmarried partners (including same-sex couples) was generally left as recorded by the householder, so that some individuals within an “unmarried partner” couple have MS recorded as “other than currently married” (Line 1 of Table 1) and others as “currently married” (Lines 2 of Table 1). In 2000, the Census Bureau did not allow partners within an “unmarried partner” couple (same-sex or different-sex) to consider themselves “currently married.” The Bureau *allocated* marital status (to a category other than “currently married”) for any person who is recorded as being in an unmarried partnership *and* has a marital status recorded as “currently married.”

It seems reasonable to assume that most respondents who reported a RH as “husband/wife” also selected MS of “married,” and most respondents that reported a RH as UP selected MS to be “other than currently married.”³ If this assumption is correct, then in the 2000 Census, a household in which MS is *allocated* for both the respondent and partner is in most cases a household that originally declared the RH of the partner as a husband/wife (line 3 of Table 1).⁴ Similarly, in the 2000 Census, when the MS of a respondent and his or her partner are *not allocated*, this strongly indicates that the couple originally

³ In the PUMS, an allocation flag is recorded if the Census Bureau has allocated a data element. Logical edits, however, are not regarded as allocation and hence are not recorded on PUMS data.

declared the RH of the partner as an UP (Line 1 of Table 1). Such an assertion is backed up by internal Census analyses. They show that 90 percent of the double marital allocation group did actually have their relationship status changed from “husband/wife” to unmarried partner, and conversely approximately 85-90 percent of the couples that were edited in this fashion are included in the double marital allocation group.⁵

A notable consequence of the change between 1990 and 2000 was of course the inclusion of same-sex couples who indicate they are “married,” a group that would have been excluded using 1990 procedures. An unfortunate cost of this procedure is an increase in the number of different-sex couples misclassified as “same-sex” couples (i.e., when sex is misreported or miscoded). Black et al. (2000) analyze such *misclassification error*—the mixing of true same-sex couples with miscoded different-sex couples—and conclude that in 1990 the problem was modest. The reason that misclassification was relatively low is that the population at risk for misclassification—different-sex unmarried partners who were not legally married—was relatively small. In the 2000 Census, *any* different-sex couple, including married couples, could potentially be mistakenly misclassified as a same-sex couple. Because there are many more different-sex married couples than different-sex unmarried partnerships in the U.S., the impact of sex misreporting or miscoding potentially presents a far more serious problem in the 2000 Census than in 1990 Census.⁶

In short, an important feature of the same-sex partner sample in the 1990 Census is that a very high fraction of the sample is likely comprised of genuine same-sex couples. Research can proceed without further corrections for misclassification bias. The cost of this low misclassification error in 1990 is that researchers can only study same-sex couples who identified themselves as “unmarried partners;” they cannot study those who considered the partner to be a “husband/wife.” While there is likely a higher

⁴ In the 1990 data, where all same-sex couples included recorded a RH as UP, it was rare that these couples ever recorded being “currently married.”

⁵ We are grateful to Martin O’Connell and Jason Fields at the US Census Bureau for this analysis.

⁶ According to Gates (2000), there were 20.2 times more different-sex married couples in the 1990 Census than different-sex unmarried couples.

level of misclassification error in the 2000 sample, these data do include same-sex couples who consider themselves married. We turn next to our empirical evaluation of the misclassification problem.

A Comparison of the 2000 PUMS with other data sources

We begin with an examination of data collected in the 2000 Census and two alternative sources, the 2000 Current Population Survey (CPS) and the 2001 California Health Interview Survey (CHIS). We compare amongst the three data sources inferences about the presence of children in same-sex couple households. In so doing we can begin to ascertain the extent to which the 2000 Census sample of same-sex couples is contaminated with misclassified different-sex couples. The logic is simple: the presence of children is much higher among different-sex couples than among same-sex couples. Thus, to the extent that a sample believed to be same-sex couples includes a substantial number of different-sex couples, that sample will show a suspiciously high prevalence of children in the household.

The CPS is an excellent data source for undertaking this statistical exercise. Questions asked are nearly identical to the 2000 Census, but because the interview is computer assisted, if two people of the same sex claim to be married, interviewers are prompted to ask again about the sex of the spouse. In our analysis we take the complete January sample of the CPS and add the new rotation groups as they enter the CPS, which results in a sample roughly four times the size of a single month's sample of the CPS. The sample size is nonetheless quite small (in comparison to the Census data); we have only 108 households of male same-sex unmarried partners and 100 households of female unmarried partners in the CPS.

In Panel A of Table 2, we compare this sample of the CPS to the 2000 Five-Percent Public Use Micro Sample (PUMS) of the Decennial Census. We limit our sample to households in which there are exactly two (unrelated) adults. Using the CPS data we estimate that 0.094 of same-sex male households and 0.191 of same-sex female households had children present. In contrast, the 2000 PUMS indicates that 0.232 of same-sex male couple households and 0.354 same-sex female couple households have children present.

How can the 2000 CPS and 2000 Census provide such disparate estimates? As discussed above, the Census Bureau generally edits data for logical consistency. The Bureau identifies the 1996 Federal Defense of Marriage Act as prohibiting it from defining marriage as anything but the union of one man and one woman (US Census Bureau, 2001). So in the case of a same-sex couple that included a “husband” or “wife” the Bureau changed the RH of the spouse to “unmarried partner” and recoded the marital status of the couple if they considered themselves “currently married.” The difficulty comes because under this procedure any household with a different-sex “husband” or “wife” for whom there is a misreport or miscode in the sex of either the householder or the spouse would now appear as a same-sex unmarried partner couple. In these cases, a marital status recorded as “currently married” is also altered or *allocated* to an alternative marital status. In contrast, same-sex couples with *non-allocated* marital statuses are primarily comprised of those who reported the partner as an “unmarried partner.” In the third column of Panel A we report the rates of child presence for these latter households. Differences are dramatic. In this sample, the presence of children is 0.083 for male couples and 0.202 for female couples, rates that are similar to those found in the CPS.

Results reported in Panel A of Table 2 are what one would expect if the 2000 CPS same-sex sample and the 2000 PUMS same-sex sample with *non-allocated marital status* are drawn from roughly the same population (same-sex couples), while the 2000 PUMS sample with *allocated marital status* is drawn from some mixture of the population of same-sex and different-sex couples.⁷

We also compare inferences drawn from the 2000 Census to the 2001 California Health Interview Study (CHIS). The CHIS is a survey of 50,000 Californian households, which explicitly asked the sexual

⁷ In principle, there is another possibility: For some unknown reason misrepresentation of relationship status by same-sex couples in the CPS might be higher among individuals with children present than individuals without children. Using CPS data we calculate that unrelated men living together with children account for 0.0014 of all households with children. Given that some of these households are not same-sex couples (but simply unrelated men, one of whom has a child), this estimate is an upper bound on the proportion of households with children that are in fact not same-sex male couples. For the 2000 PUMS (using the sample that includes men with imputed marital status), in contrast, we infer that 0.0020 of the households with children are households with a same-sex male couple. A Fischer’s exact test of the equivalence of these two rates rejects the hypothesis at a confidence level of 0.004. We conclude that the disparity of inferences drawn from the CPS and PUMS is almost certainly not due to some form of differential misreporting of relationship status among same-sex couples in the CPS; there simply are not enough two-male households with children in the CPS to account for the PUMS finding.

orientation of the respondents aged 18 to 64, and also asked if the individual was living with a partner and whether there were children present in the household.⁸ In Panel B of Table 2, we compare estimates of the presence of children for the California portion of the PUMS and same-sex partners in the CHIS. Again, these statistics demonstrate a suspiciously high rate same-sex sample with *non-allocated marital status*.

Finally, Table 3 breaks down same-sex couples by allocation of MS, providing estimates of the presence of children for various categories of reported same-sex “unmarried partner” couples. Recall that in most cases marital status is *not* allocated if a couple included a same-sex “unmarried partner” and the marital status of both partners was other than “married.” This sub-sample of *non-allocated* same-sex partners is conceptually similar to the sample of same-sex couples collected in the 1990 Census—a sample comprised largely of same-sex couples “contaminated” with a small fraction of couples who were different-sex unmarried partners *and* who had the sex of one partner miscoded. Marital status is most often *allocated* when a same-sex couple answers marital status as “married” *or* when a different-sex married couple had the sex of one partner miscoded. We should note there are a variety of unusual special cases that might lead to marital status being *allocated* for one partner but not the other. There are a few hundred such cases in the data.⁹ Although we do not analyze these rare cases in the work that follows, for the sake of completeness we also estimate the presence of children for these couples as well. The most important feature of Table 3 is that same-sex couples with *allocated* MS look quite similar to married couples in terms of the presence of children.

Further evidence of sex misreporting

Our reading of the evidence presented above is that some portion of couples identified as same-sex in the 2000 Census is in fact different-sex married couples. This happens when one person’s sex is misreported or miscoded, and results in the couple being classified as a same-sex “unmarried partner” couple with allocated MS.

⁸ We assume that a person who identifies as “gay” or “lesbian” and says that he or she is “living with a partner” has a same-sex partner. We thank Christopher Carpenter for producing results from the CHIS data.

In general we would expect misreporting or miscoding in data collection to be non-random. For example, elderly individuals, who have poorer eyesight, might make more errors. Similarly, individuals with poor English language skills might be more prone to errors in reporting.¹⁰ With this in mind, in Table 4 we compare the composition of same-sex couples—for those with *non-allocated* MS and *allocated* MS—along several potentially relevant dimensions of the householder. We find that couples with *allocated* MS are indeed disproportionately drawn from the elderly population, and that they are more likely to be Asian, Hispanic, an immigrant, and non-English speakers.¹¹

In short, in the 2000 Census the same-sex couples with *allocated* MS are likely a mix of true same-sex couples and a rather non-representative collection of different-sex married couples. It is difficult to know precisely what this mix is. We attempt to make some general headway, though, as follows. We first estimate three probit regressions—for married couples, same-sex male couples with *non-allocated* MS, and same-sex female couples with *non-allocated* MS—in which the dependent variable is “presence of children in the household” and independent variables are the householder’s race/ethnicity, education of each partner, and age of each partner.¹² We then use the estimates from these regressions to make two simple “predictions:” the predicted rates of child presence in the same-sex *allocated* MS samples if (i) the sample were entirely comprised of different-sex married couples, and (ii) the sample were entirely same-sex unmarried partners.

Table 5 reports the results of the probit estimations. For female same-sex couples with *allocated* MS, the observed presence of children is 0.52. Given the demographic characteristics of the sample, we would expect children to be present in 0.55 of households if the sample were entirely married couples.

⁹ For example, when one individual in a same-sex unmarried partnership is marked as being single and the other as being married, the latter’s status will be *allocated*.

¹⁰ Black, et al. (2003), for example, find that education misreports in the U.S. Census were much lower among individuals who speak English at home than among those who do not.

¹¹ Table 4 has some patterns that would be interesting to explore with a proper validation study. For example, miscoding does seem more prevalent among those over 65, and such errors are most often a woman being reported as a man. This would happen if in married-couple households over 65 men are more likely than women to fill out the form *and* are more likely to misreport of sex of a spouse than to misreport their own sex. Notice also that because the racial/ethnic mix in non-representative, this will affect the observed presence of children (e.g., Hispanics in the U.S. have higher fertility than non-Hispanics).

¹² Details of the regressions are provided in the Appendix.

The corresponding prediction is 0.22 if the sample were entirely same-sex female couples.¹³ Carrying out this same exercise for male same-sex couples with *allocated* MS, we observe child presence of 0.41. Given the characteristics of the sample we would predict child presence of 0.47 if the sample were entirely married couples or 0.11 if the sample were entirely same-sex male couples. With these statistics in hand we can make back-of-the-envelope calculations about the amount of contamination in the sample of same-sex couples with *allocated* MS. In particular, suppose the probability of making a sex misreport for a married person is independent of the presence of children (conditional on age, education, etc.) and rate of child presence among same-sex couples does not vary by reported relationship status (again conditional on age, education, etc.).¹⁴ The observed rate of child presence in the female sample, 0.520, would be consistent with the sample being 9.6 percent same-sex female couples and 90.4 percent different-sex married couples, as $(0.096 \times 0.217) + (0.904 \times 0.552) = 0.520$. Similarly, the observed rate of child presence in the male sample, 0.409, would be consistent with the sample being 17.1 percent same-sex male couples and 82.9 percent different-sex married couples, as $(0.171 \times 0.109) + (0.829 \times 0.471) = 0.409$.

This approach suggests that the same-sex couple sample with *allocated* MS is likely comprised largely of different-sex couples. Because more than half of same-sex couples in the 2000 Census are MS allocated (see Table 4), this means that a substantial proportion of same-sex unmarried partners in the Census are likely misclassified different-sex married couples. If we combine both the allocated MS and non-allocated MS couples, our estimates suggest that approximately 47 percent of the female same-sex couples sample and 43 percent of the same-sex male couple sample are actually different-sex married couples.

Alternative direct evidence on the rate of misclassification

¹³ Note that these predictions also would require that making a misreport on sex (for a married couple) or marking MS as married (for a lesbian couple) is independent of the presence of children. We have no way of testing this assumption.

¹⁴ It is worth emphasizing again that these assumptions are not testable. Hence our characterization of these calculations as back-of-the-envelope!

Direct evidence of the rate of contamination among same-sex couples comes from statistics on sex misreporting. A recent Census Bureau study by O’Connell and Gooding (2006) uses the 2004 Test Census of New York. Their work, which is based on a name-matching procedure, implies an overall sex miscoding rate of 0.0038 for couples. Given that the error rate for a couple is the sum of the error rate for miscoding of the householder’s error rate plus the error rate for miscoding the spouse’s (or partner’s) sex minus the product of the two rates (which is essentially zero given the low rates), these figures imply an individual sex miscoding rate of 19 per 10,000. This error rate is similar to that found in a much earlier study that matches 1970 Census and CPS data (U.S. Census Bureau, 1975). This latter study gives a mean rate in sex misreports of 23 per 10,000.

If these estimates about the prevalence on sex misreports are roughly on point for the 2000 Census, and if rates are the same for unmarried different-sex couples as they are for married couples, we can infer that there is a relatively low level of contamination in the sample of same-sex couples with *non-allocated* MS. There are 211,277 unmarried different-sex couples in the PUMS data. If rates of misreport are 20 per 10,000, then we would infer that among same-sex couples with *non-allocated* MS, 93.4 percent of same-sex female couples are correctly coded, as are 94.1 percent of same-sex male couples. On the other hand, there are 2,730,911 married couples in the PUMS data. If rates of sex misreports are also 20 per 10,000 here, then for the sample with *allocated* MS, only 26.6 percent of same-sex female couples and 22.2 percent of same-sex male couples are correctly coded.¹⁵

Using the calculations from the preceding paragraph, we would infer that approximately 41 percent for same-sex female couples – both *allocated* and *non-allocated* MS couples – in the PUMS data are misclassified different-sex couples, as are approximately 42 percent for same-sex male couples. As with the analysis in the previous section, we infer that misclassification rates in these data are very high—in excess of 40 percent.

¹⁵ These calculations use statistics on sample sizes given in Table 3.

Discussion

A large body of published and on-going work, in the academy and in the public press, uses 2000 U.S. Census data on same-sex couples to draw inferences about gay and lesbian households. Our analysis here leads us to believe that these same-sex couples data are highly contaminated with different-sex couples, and we are therefore concerned that many of the inferences drawn from these data are incorrect.

Researchers who use these data for future work are advised to follow one of two paths. First, they can simply restrict analysis to the sample of same-sex couples with *non-allocated* MS. The unfortunate consequence is that these data exclude gay and lesbian couples who wished to be considered “married.” This is troubling not only because of the reduction in sample size, but because these latter couples may differ along some demographic dimensions from same-sex couples who identify as “unmarried partners.” Second, one could try to implement inference strategies from the literature on mixing distributions. Unfortunately the sample of same-sex couples with *allocated* MS is very heavily contaminated with married couples, and the demographic characteristics of these couples are unknown (and are clearly different from married couples generally). Thus devising sensible strategies that use these data will be very difficult.

Our work provides a cautionary account for organizations (like the Census Bureau) that wish to collect accurate data on same-sex couples. Measuring gay and lesbian people in the population comes with a variety of challenges (Gates and Sell, 2006) and the measurement of same-sex couples is no exception. In light of the increasing complexity of the legal status of same-sex couples in the U.S. (and in many other countries), our research points to the strong possibility that the challenges associated with the accurate enumeration of same-sex couples will continue to grow.

One potentially effective way for data collection agencies to reduce the “false positive” measurement problem among same-sex couples is to follow the 2001 Canadian Census by including separate categories on the household roster for same-sex and different-sex unmarried partners (Turcotte, Renaud, and Cunningham, 2003). Such a procedure allows analysts to consider consistency between the household roster response and the sex of the partners.

Another option that might improve precision in enumeration involves the marital status question. For example, respondents could be asked to report current *legal* marital status, and also given the option of indicating the additional category of “domestic partnership.” This would better reflect the appropriate legal status of same-sex couples in the United States. As of April 2006, roughly one in five Americans live in a state with some legal status for same-sex couples (i.e., marriage in Massachusetts, civil unions in Vermont and New Jersey, and partnership registries in New Jersey, California, Maine, Hawaii, and the District of Columbia). As currently constructed, marital status elicitation in most surveys do not provide a mechanism for enumerating these partnerships.

Our work provides an unfortunate demonstration of the law of unintended consequences, applied to statistical population studies. A genuine effort by the U.S. Census Bureau to better enumerate same-sex couples, coupled with a Congressional act defining marriage as a “legal union of one man and one woman as husband and wife,” produced measurement error that actually decreased the accuracy of the Census enumeration of same-sex couples from 1990 to 2000. In consequence, we must advise both careful thought and cautious inference with regard to these data.

References

- Black, Dan, Seth Sanders, and Lowell Taylor. 2003. "Measurement of Higher Education in the Census and CPS," *Journal of the American Statistical Association* 98(463).
- Black, Dan, Gary Gates, Seth Sanders, and Lowell Taylor. 2000. "Demographics of the Gay and Lesbian Population in the United States: Evidence from Available Systematic Data Sources," *Demography* 37: 139-154.
- Gates, Gary, Jason Ost. 2004. *The Gay and Lesbian Atlas*, Urban Institute Press, Washington, DC.
- Gates Gary, Randall Sell. 2006. "Measuring Gay and Lesbian Couples" in *The Handbook of Measurement Issues in Family Research*, eds. S Hofferth and L Casper. Lawrence Erlbaum Associates, Inc.
- Gates, Gary. 2000. "Essays on the Demographics and Location Patterns of Coupled Gay Men," Ph.D. Dissertation, Carnegie Mellon University.
- O'Connell, Martin and Gretchen Gooding. 2006. "The Use of First Names to Evaluate Reports of Gender and Its Effect on the Distribution of Married and Unmarried Couple Households." Poster presented at the *Annual Meetings of the Population Association of America*, Los Angeles, CA.
- Simmons, Tavia and Martin O'Connell. 2003. "Married-Couple and Unmarried-Partner Households: 2000." Washington, DC: U.S. Department of Commerce, Economics.
- Turcotte, Pierre, Viviane Renaud and Ron Cunningham. 2003. "Same-sex Relationships and Sexual Orientation in Canada: Data, Concepts, and Methodological Issues." Presented at the *Annual Meetings of the Population Association of America Meetings*, Minneapolis, MN.
- U.S. Census Bureau. 1975. "Accuracy of Data for Selected Population Characteristics as Measure by the 1970 CPS-Census Match." *1970 Census of Population and Housing, Evaluation and Research Program Report*. Washington, DC: U.S. Government Printing Office.
- US Census Bureau. 2001. Technical Note on Same-Sex Unmarried Partner Data From the 1990 and 2000 Censuses. *Population Division, Fertility & Family Statistics Branch*.

**Table 1: Classification of Households with Couples
Recorded as Same-sex “unmarried partners”, 1990 and 2000 Census**

Relationship to Householder (RH)	Marital Status (MS) ^a	1990	2000
1. Unmarried Partner (UP)	Other than Currently Married ^b	<i>Included</i>	<i>Included</i>
2. Unmarried Partner (UP)	Currently Married	<i>Included</i>	<i>Included</i> (MS allocated)
3. Husband/Wife (H/W)	Currently Married	<i>Deleted</i> (Sex of H/W Changed)	<i>Included</i> (RH Changed to UP; MS allocated)
4. Husband/Wife (H/W)	Other than Currently Married ^b	<i>Deleted</i> (H/W’s RH allocated)	<i>Included</i> (RH Changed to UP)

^a Marital Status was asked on the short form in 1990 but only on the long form in 2000.

^b Never Married, Divorced, Separated, and Widowed.

Included indicates that a reported same-sex couple was recorded as a same-sex couple after Census editing and allocation procedures were completed

**Table 2: Same Sex Couples and Presence of Children,
2000 PUMS, CHIS, and CPS**

Panel A

	2000 CPS	2000 PUMS	
		All same-sex partnerships	Same-sex partnerships with <i>non-allocated</i> MS
Same-sex male couples			
Proportion with children	0.094	0.232	0.083
Number of observations	108	14,551	7,529
Same-sex female couples			
Proportion with children	0.191	0.354	0.202
Number of observations	100	15,290	7,848

Panel B

	2001 CHIS	2000 PUMS, California observations only	
		All same-sex partnerships	Same-sex partnerships with <i>non-allocated</i> MS
Same-sex male couples			
Proportion with children	0.036	0.221	0.071
Number of observations	152	2,484	1,566
Same-sex female couples			
Proportion with children	0.180	0.351	0.203
Number of observations	144	2,291	1,386

Notes: California Health Interview Survey data are for self-identified gays and lesbians; we thank Christopher Carpenter for providing these means. Census results are from the authors' calculation using the Five-Percent 2000 Public Use Micro Samples.

Table 3: Presence of Children by Marital Status Allocation in the 2000 PUMS

<i>Same-sex Couples by Allocation of Marital Status</i>	Fraction with Children 18 or Younger	
	<i>Male Couples</i>	<i>Female Couples</i>
Neither partner allocated (n=6,937 male, 7,130 female)	0.074 (0.0032)	0.195 (0.0047)
Both partners allocated (n=7,023 male, 7,442 female)	0.409 (0.0058)	0.520 (0.0058)
Partner allocated (n = 343 male, 522 female)	0.162 (0.0200)	0.232 (0.0185)
Householder allocated (n=249 male, 196 female)	0.237 (0.0273)	0.357 (0.0344)
Total (n=14,552 male, 15,290 female)	0.232 (0.0035)	0.354 (0.0039)
<i>Different-sex Couples with children in household</i>		
Married Couples (n=2,730,911)	0.471 (0.0003)	
Unmarried Partners (n=211,277)	0.387 (0.0011)	

Notes: Authors' calculation using the Five-Percent 2000 Public Use Micro Samples. We use two-adult households with sex not allocated.

**Table 4: Characteristics of Householder in Same-Sex Couples
by Allocation of Marital Status, 2000 PUMS**

	Female Couples		Male Couples	
	<i>non-allocated marital status</i>	<i>allocated marital status</i>	<i>non-allocated marital status</i>	<i>allocated marital status</i>
Fraction over 65	0.051	0.117	0.042	0.198
Fraction Hispanic	0.086	0.135	0.088	0.151
Fraction Asian	0.016	0.034	0.019	0.039
Fraction immigrants	0.073	0.161	0.085	0.179
Fraction that do not speak English at home	0.108	0.205	0.139	0.227

Notes: Authors' calculations, 2000 PUMS, five percent sample. We use two-adult households with sex not allocated.

**Table 5: Observed and Predicted Rates of Child Presence
for Same-Sex Couples with Allocated Marital Status**

	Observed presence of children	“Predicted” using same-sex couple equation	“Predicted” using married equation
Same-sex female couples with allocated MS	0.520	0.217	0.552
Same-sex male couples with allocated MS	0.409	0.109	0.471

Notes: Authors' calculation using the five percent 2000 Public Use Micro Samples and U.S. Census Bureau, 1975. We use two-adult households with sex not allocated. “Predicted” values use a probit regression in which the presence of children (18 or younger) is the dependent variable. See Appendix for details text for details.

Appendix

**Probit Regressions for Child Presence for Different-sex Married Couples
and Same-sex Couples with Non-allocated Marital Status**

	(1) Different-sex Married Couples	(2) Same-sex Male Couples	(3) Same-sex Female Couples
Householder's race/ethnicity			
Black	0.246 (0.0066)	1.590 (0.1349)	0.914 (0.0940)
Hispanic	0.523 (0.0064)	0.743 (0.1404)	0.466 (0.1029)
Asian	0.332 (0.0086)	0.368 (0.3428)	-0.464 (0.2774)
Native American	0.170 (0.0156)	1.207 (0.2768)	0.662 (0.2031)
Other race	0.048 (0.0538)	0.209 (1.0927)	0.150 (0.8562)
Householder's education	0.026 (0.0007)	-0.149 (0.0186)	-0.066 (0.0134)
Partner's education	-0.003 (0.0008)	-0.140 (0.0187)	-0.069 (0.0134)
Householder's age	-0.040 (0.0003)	-0.027 (0.0056)	-0.030 (0.0038)
Partner's age	-0.087 (0.0003)	-0.033 (0.0060)	-0.013 (0.0039)
Constant	5.344 (0.0123)	3.333 (0.3213)	1.997 (0.2133)
N	2,543,201	7,063	7,304

Notes: Authors' calculation using the five percent 2000 Public Use Micro Samples and U.S. Census Bureau. The reported coefficients are for probit regressions in which 1 is the presence of children aged 18 and younger (0 otherwise). Column (1) uses the sample of reported different-sex married couples, column (2) uses same-sex male couples in which the MS is *non-allocated*, while column (3) uses same-sex female couples in which the MS is *non-allocated*.