Counting Same-sex Couples:
Official Estimates and Unofficial Guesses

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Abstract:

Since 2000, Census Bureau editing programs have assigned the response of the person
reported as the spouse of the householder in a same-sex couple household to that of being
the unmarried partner of the householder. Up until 2004, no state granted marriage
licenses to same-sex couples in the United States. However, marriages between same-sex
couples have been legal in Massachusetts since 2004, in Connecticut since 2008, and
briefly in California in 2008, thus creating differences in how respondents report data and
how data are shown in Census Bureau publications. We will discuss the history of these
editing decisions and present “unofficial” estimates of the numbers of respondents who
reported themselves as same-sex married couples in Census 2000 and in the American
Community Survey during the transitional periods when states began to legalize same-
sex marriages. Finally, we will present some general characteristics of opposite-sex
couples, both married and unmarried, and of same-sex unmarried couples, by their
reporting status.

This report is released to inform interested parties of ongoing research and to encourage
discussion of work in progress. The views expressed on statistical or methodological issues
are those of the authors and not necessarily those of the U.S. Census Bureau.
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Introduction

How the Census Bureau edits and publishes the numbers of same-sex couples has been the basis for numerous reports in the media since the California Supreme Court ruled for the issuance of marriage licenses to same-sex couples in June, 2008. The media reports began with a widely published article appearing in the San Jose Mercury on July 12, 2008 entitled “Census Bureau Won’t Count Same-sex Marriages.” That story was followed by “Census Won’t Count Gay Marriages” in the July 17, 2008 Washington Post and “Census Won’t Recognize Gay Marriages in 2010 Count” in a July 17, 2008 Associated Press release.

These articles were written because of the way the Census Bureau edits and publishes data on same-sex couples that originally report themselves as being spouses on the questionnaire forms or collection instruments, not because the same-sex population would not be counted. In the editing process of Census 2000 data, unlike the 1990 Census, if a household consisted of a married couple with both spouses reporting the same sex—and where no item imputations were made for either person for either their
relationship or sex—then the respondent who reported being the spouse of the householder was edited to being the unmarried partner of the householder.¹

This was different from the editing process in the 1990 Census, when the relationship category remained the same (spouse) but the sex of the partner edited to that opposite of the householder.² Because there were no same-sex couples legally married in any state in the United States at the time of Census 2000, it was reasonable to assume that these responses were meant to reflect a social response of living together “like a married couple”—but without a marriage certificate. Using this rationale and without the ability to separate the aforementioned responses, spouses were assigned to unmarried partners to attempt to preserve the social response.

An additional consideration at this time involved the passage of the 1996 Defense of Marriage Act (DOMA). While the Census Bureau counts everyone regardless of his or her sexual orientation or marital status, as a federal agency it also follows the guidelines specified in DOMA. This act provides the definition of marriage and spouse for purposes of federal law³:

"In determining the meaning of any Act of Congress, or of any ruling, regulation, or interpretation of the various administrative bureaus and agencies of the United States, the word 'marriage' means only a legal union between one man and one woman as husband and wife, and the word 'spouse' refers only to a person of the opposite sex who is a husband or a wife."

¹ It is important to note that in Census 2000, as in the 2010 Census, all original reports will be retained for analysis if future needs arise.
² This explanation was posted to the Census Bureau website when same-sex couple statistics from Census 2000 were published. See <http://www.census.gov/Press-Release/www/2002/sf3compnote.html>
³ For the specifications of the act, see <http://thomas.loc.gov/cgi-bin/bdquery/z?d104:HR03396>
This definition does not include marriages between people of the same sex, even if they have been married under the laws of individual states. Inasmuch as the Census Bureau is a federal agency and provides data to other federal agencies for the purposes of enacting their programs that follow the same federal guidelines, the Census Bureau’s editing and tabulation practices are consistent with the guidelines in this federal law.

Until 2004, no state granted marriage licenses to same-sex couples in the United States. Thus, there was no difference between state and federal law, and during this period the Bureau’s procedure was generally not in dispute. However, marriages between same-sex couples have been legal under state laws beginning in May 2004 in Massachusetts and from June to November 2008 in California, thus creating possible differences in how data are reported by respondents in surveys and how data are shown and tabulated in official Census Bureau reports. In October 2008, the state supreme court in Connecticut also ruled that excluding same-sex marriages was unconstitutional, thus adding a third state which allowed same-sex marriages at some time during calendar year 2008.

In the November 2008 election, voters in California amended that state’s constitution by banning same-sex marriages, thus overturning a state court ruling in June that previously approved same-sex marriages. As of the writing of this paper in early 2009, Massachusetts, Connecticut and Iowa, and most recently Vermont allow same-sex marriages to be performed in those states. There is no certainty how this issue will

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4 In this same election, voters in Florida and Arkansas also approved constitutional amendments banning same-sex marriage.
resolve itself among the remaining states or whether any changes will be made to any provisions of the 1996 Defense of Marriage Act.

This paper discusses the history of editing and tabulation decisions beginning with Census 2000. We present research on estimates of respondents who reported themselves as same-sex married couples from Census 2000 and from the American Community Survey during the transitional periods when states began to legalize same-sex marriages. This information gives data users insight into potential statistical problems that the Census Bureau faces in analyzing data for same-sex couples and the complexities that public data users would encounter in using the data. Finally, we present some general characteristics of same-sex couples that go beyond current tabulations shown in Census Bureau publications.

**Data source**
Internal data files for the American Community Survey (ACS) are primarily used in this study, containing detailed variables that have not been released to the public. The ACS sample size of final interviewed households was about 570,000 for 2003 and 2004 and slightly over 1.9 million for 2005 through 2007\(^5\). The American Community Survey was chosen for several reasons. First, since the proportion of households with same-sex partners is less than 1 percent of all households, other Census Bureau Surveys, such as the Current Population Survey and the Survey of Income and Program Participation,

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\(^5\) For a description of the national level and state samples in the ACS, go to the ACS Quality Measure page on the Census Bureau website at <<http://www.census.gov/acs/www/UseData/sse>>.
cannot yield statistically reliable estimates for this population group at either the national or the state level.

Second, the ACS is able to produce annual estimates at the state level, which is necessary to observe trends during periods of changing state laws. Third, the ACS also collects information on a wide variety of social and economic characteristics not collected in the upcoming Census 2010 that enables us to examine differences in the various population groups.

The internal data files used for this paper contain the final edited responses after all of the demographic data have been processed. An imputation flag is also available on this data file that enables us to distinguish between people who reported that they were unmarried partners of the householder from those who reported that they were spouses of the householder in same-sex households.

Currently, public use files do not contain the detailed imputation flag that identifies which unmarried partners reported themselves as spouses. This assignment is classified as a household consistency edit and not an imputation. As such, couples who reported themselves as spouses are indistinguishable on the public use files from couples that reported themselves as unmarried partners—both have an allocation indicating their response as “not imputed.”
This general practice—not counting assignments as imputations—is used in both the decennial Census and the ACS for uniformity of presenting estimates of imputed values on public use files and in tabulations across all variables. We also use internal 100 percent data files from Census 2000 that contain a similar flag indicating the assignment of the relationship status from spouse to unmarried partner.

**Editing and Tabulations Decisions for Census 2000**

Three topics are key to understanding the decision to assign reports of same-sex spouses to those of unmarried partners during Census 2000:

1. The re-examination of the 1990 decision to edit the sex of same-sex spouses.
3. A study of Census 2000 dress rehearsal data in 1998 that examined the characteristics of same-sex couples by their original reports of relationship.

The editing specifications used for Census 2000 stated that if a household consisted of a couple with both spouses reporting the same sex—and where no imputations were made for either person for either their relationship or sex due to non-response—the partner who reported being the “spouse” of the householder was edited to being the “unmarried partner” of the householder. This was different from the 1990 Census where the relationship category would have remained the same (spouse), but the sex of the partner would have been edited to that opposite of the householder.

This change in the editing process for Census 2000 was made as studies have noted that individual reports of gender are usually the best reported items on surveys, certainly better than those reporting on the relationship item. Gender in Census 2000 had both the
lowest allocation rate (0.9 percent) and lowest index of inconsistency (1.7 percent) of all 
items on both the short and long forms. If any item were to be edited, sex would be the 
least likely to be in error, although the possibility of a marking error cannot be 
discounted.

This editing decision was partly guided by the 1996 Federal Defense of Marriage Act 
(H.R. 3396) that included a provision requiring Federal agencies to recognize only 
persons of the opposite-sex in defining a married couple for Federal program purposes. 
If the relationship category was to be edited, which category was it to be assigned?

In 1998, a Census dress rehearsal was conducted in California and South Carolina. A 
report using these data suggested that the characteristics of those same-sex couples that 
reported themselves as spouses were different from those who reported themselves as 
unmarried partners. Same-sex spouses were more likely to be living with their own 
children and were older than unmarried couples, and hence, did have characteristics 
similar to that of opposite-sex married couples. The edit, then, attempted to preserve 
the apparent intent of the self-identified relationship of spouse by assigning the response 
to the unmarried partner category, as the response of spouse could not be accepted.

An alternative solution would have been to allocate a random relationship category based 
on the sex and age of the respondents in question. This procedure could have yielded an

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6 The index of inconsistency is a measure of response variance in questions. The Census 2000 Content 
Reinterview Survey measured the consistency of responses between questions on Census 2000 and a 
subsequently administered survey. For a description of this survey and the ensuing analysis, see Paula J. 
Schneider, *Content and Data Quality in Census 2000*, Census 2000 Testing, Experimentation, and 
Evaluation Program Topic Report No. 12, TR-12 (US Census Bureau: Washington, DC, 2004), Table 1. 
7 Jason M. Fields and Charles L. Clark, “Unbinding the Ties: Edits Effects of Marital Status on Same-Sex 
8 At this time no state issued marriage licenses to same-sex couples.
edited answer such as roommate, unmarried partner or even a sibling if the ages were relatively close to each other. It should be noted that in the overall editing process of short form items, same-sex partners could also be allocated if responses to the relationship item were left blank on the form. Also, marital status was not included on the short form and thus could not be used in any editing or allocation scheme.

The results of this editing procedure on the short form (100 percent data) are shown in Table 1. Of the estimated 594,000 same-sex couples shown in officially released Census 2000 reports,9 253,000 (43 percent) were originally reported as spouses. Since, no same-sex couple could have been legally married in the United States in 2000, these responses could have resulted from any of the following scenarios:

1. Couples registered as domestic partners or who were in recognized civil unions10 might have felt that spouse was the closest category from which to choose.

2. Couples married in a church or religious ceremonies that were not legally recognized by any state may have considered themselves married.

3. Couples may have identified themselves as “spouses” for others reasons – e.g., because they were living together a long time, or may have “spousal” like characteristics, like living with their children or co-owning a house. These unions we will term as “socially defined” marriages—this is more of a sociological than a legal response.

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10 In 2000, Vermont and California had such provisions.
4. Couples who are legally married to each other but are of the opposite sex and made an error in the marking of their sex on the mailout/mailback Census form.\textsuperscript{11} The proportion of unmarried same-sex couples assigned from reports of spouses was not similar across all states. Figure 1 shows that low assignment percentages were noted on the West coast and in New England while relatively high percentages were recorded in the central states. This pattern contrasts with the pattern shown in Figure 2 where the West coast and New England area states have relatively high proportions of all couple households composed of same-sex couples.\textsuperscript{12}

One possible explanation is that the Human Rights Campaign and other gay and lesbian organizations publicly encouraged same-sex couples for Census 2000 to accurately mark the forms and to check the unmarried partner category.\textsuperscript{13} Perhaps this message was publicized more widely in those areas with more gay, lesbian, bi-sexual and transgender (GLBT) populations, thus producing the two-fold effect of (1) reporting responses as partners, not spouses, and (2) increasing the overall reporting of same-sex unmarried partner households that otherwise may have reported themselves as roommates or nonrelatives. This could have resulted in smaller proportions of same-sex couples on the coast reporting their relationship as spouses and greater numbers of couples identifying

\textsuperscript{11} As shown in a subsequent section, the age of same-sex spouses are similar to the householder. The adjacent category on the relationship list is child of the householder. If the relationship item, as opposed to the sex item, were in error, large differences between the ages of the householder and the “spouse” would have emerged for same-sex spouses (table 5). This did not occur.

\textsuperscript{12} Couple households consist of all opposite-sex married and unmarried partner households and all same-sex households, including unmarried partners and spouses.

themselves as unmarried partners on Census forms, given the confidentiality of responses provided to the Census Bureau.

**National estimates of same-sex couples, 2003-2007**

Research has been undertaken both by outside data users and the Census Bureau to evaluate the reasonableness of the data on same-sex couples from Census 2000 and the American Community Survey. Keeping the aforementioned data quality issues in mind, trends in the married and unmarried component of the same-sex couple population for the years 2003-2007 are shown in Table 2 from the American Community Survey.

Overall, the proportion of all same-sex couples that were assigned from spouse responses was about 50 percent between 2003 and 2006, declining to 45 percent in 2007. It is important to note that all of the spousal responses recorded before 2004 occurred in time periods when there were no legal same-sex marriages in any state or territory of the United States. Therefore, these responses could have only been derived from the four previously mentioned sources.

However, for the period 2004-2007, a fifth component was added: legal marriages performed in Massachusetts beginning in May 2004. Table 2 shows that in 2007 there

were a reported 341,000 same-sex “married” couples in the survey although by 2007 there were only 11,000 marriage licenses issued to couples in the United States, all from Massachusetts, and up to 70,000 registered domestic partnerships or civil unions. Even if one assumed that several thousand couples married in Canada and returned to the United States, that would still leave over 325,000 same-sex spouses to account for who could not possibly have obtained a legal marriage certificate. In fact, reports of same-sex spouses occurred throughout the entire United States as shown in Figure 3. Similar to the pattern exhibited from Census 2000, states with relatively high proportions of couples being assigned from original reports of spouses are found in the central areas of the United States.

**Estimates of same-sex couples for Massachusetts and California, 2003-2007**

Table 3 presents for Massachusetts and California the distribution of same-sex households by their editing status similar to that shown for the entire country in Table 2. When examining these weighted estimates, it should be remembered that the ACS is a sample and that the sample more than tripled in completed interviews between 2004 and 2005. On average, each ACS interviewed household in 2003 and 2004 represented about 190 households. Between 2005 and 2007, the sample increased to about 1.9 million interviewed households, meaning that the average weight declined to about 57 per

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16 Numbers transmitted to the authors by Kevin Foster of the Massachusetts Registry of Vital Records and Statistics, December 9, 2008.
18 The 2006 Census of Canada recorded approximately 7,500 same-sex married couples living in Canada. No estimate was made of the number married in Canada who may have migrated to the United States. Anne Milan, Mireille Vezina and Carrie Wells, “Family Portrait: Continuity and Change in Canadian Families and Households in 2006,” Catalogue 97-553-XIE (Ottawa: Statistics Canada, September 2007).
interviewed household. Weighted estimates of 1,000 households or less in 2003 or 2004 may in reality represent the responses on only 4 or 5 households.

For example, the 90 percent confidence interval for the 7,328 male-male households in Massachusetts in 2003 is ±2,260 households. In 2007, the 9,963 male-male households in Massachusetts had a 90 percent confidence interval of ±1,418 households. Even if one used the recently released 3-year data set for 2005-2007, the 90 percent confidence around an estimate of 10,836 male-male households in Massachusetts for this period is ±809.

First examining data for Massachusetts, the number of same-sex marriages recorded by the state registry numbered 6,121 in 2004, 2,060 in 2005, 1,442 in 2006, and a provisional count of 1,522 in 2007. Of the total 11,145 marriages through 2007, 4,045 were to male couples and 7,100 were to female couples. ACS data for 2007 indicate there were 23,023 unmarried couples of which 64 percent (14,618) originally reported themselves as spouses. In 2003, a smaller proportion of all same-sex couples in Massachusetts reported themselves as “spousal” households (41 percent). Between 2004 and 2005 when marriages were first performed in Massachusetts, this proportion increased from 44 percent to 57 percent.

Is the increase in the proportion of ACS same-sex spouses in Massachusetts between 2004 and 2005 and the corresponding issuance of same-sex marriage certificates a statistical coincidence or is it indicative of the ability of the ACS to detect these changes
in Massachusetts during this transitional period? Does the increase in the proportion reporting that they are spouses in Massachusetts coincidence with the marriage laws indicate a transition from couples being same-sex unmarried partners to same-sex married couples over the years? The Massachusetts data suggests that it may be possible that the ACS is able to identify these trends and transitions for this population group at the state level.

While these events may explain the patterns observed in Massachusetts, it does not explain the continued large number of same-sex spouses in California. In California, about 40 percent of all same-sex households between 2003 and 2006 each year were estimated to be same-sex spouses, with a slight decline in this percentage (34 percent) by 2007, resulting in about 36,000 same-sex spouses (Table 3). These proportions were about 10 percentage points below that of the national average for the same period (Table 2). When the 2008 ACS data are released, we may be able to examine if any change in the unmarried/spouse reports occurred consistent with the number of same-sex marriages legalized in California, which is estimated to have been about 18,000.

Characteristics of Same-Sex Couples

The identification of legally married couples from those couples who report so but who do not have a marriage certificate is a daunting task. The following section shows the

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19 Gates, Badgett, and Ho (2008) reported that through 2007 there were 48,157 couples who registered themselves in civil unions or domestic partnerships in California of which 45,749 were residents of California. How these couples reported themselves on Census forms is impossible to ascertain either using public or internal data files.

characteristics of same-sex couples specific to the type of household and the sex of the partners based on the latest 2007 calendar year data from the American Community Survey.

Table 4 first shows the distribution of household characteristics of opposite-sex and same-sex couples. The findings indicate that unmarried opposite-sex householders tend to be younger than both married opposite-sex and unmarried same-sex householders. The average age of unmarried opposite-sex householders is approximately 37 years while for the other two couple types, it is 50 years and 47 years, respectively. The difference between the householder and partner for these three types of couples is between 1 and 2 years. The data also show that 51 percent of unmarried opposite-sex couples are between the ages of 15 to 34 years, compared with only 17 percent and 19 percent of married opposite-sex and unmarried same-sex couples, respectively. Reflecting their younger age, a much smaller proportion unmarried opposite-sex couples report both partners with at least a Bachelor’s degree than the other two couple types.

Unmarried opposite-sex and same-sex couples both report higher proportions of interracial relationships than do married opposite-sex couples. Looking at another family composition indicator, about 43 percent of both of the opposite-sex couples report children living with them in the household compared with 21 percent of male-partnered unmarried couples and 31 percent of female-partnered unmarried couples.

Unmarried same-sex couples have the highest reported household income at $103,000 and unmarried opposite-sex couples report the lowest average household income at just
under $64,000. Among the same-sex couples, male-partnered couples reported a household income of $111,000 compared with $95,000 for female-partnered households.\textsuperscript{21} While married opposite-sex couples are least likely to have both spouses employed (50 percent), they are most likely to report owning their home (83 percent).

Next, we further examine the demographics of same-sex couples by showing how they initially reported their relationship status—as either spouses or as unmarried partners (Table 5). It should be remembered that the characteristics shown for the reported spouses are an aggregation of several the component groups previously mentioned and are not to be considered the true characteristics of all couples that have been legally married in the United States or immigrants from countries where a legal marriage ceremony has been performed.

Table 5 shows that same-sex couples originally reporting themselves as spouses are older and also are more likely to live with children in their households than those who reported themselves as unmarried partners. Male couples, regardless of editing status, are more likely to report being of Hispanic or Latino origin than female couples but no differences are noted in the proportions Hispanic among male or female households by their relationship reporting status. Those who reported themselves as unmarried partners, regardless of gender, are most likely to report being in interracial relationships.

\textsuperscript{21} Total household income includes the income of the householder and all other individuals 15 years and over, whether they are related to the householder or not.
Couples reporting that they are unmarried partners also had higher levels of educational attainment than those reporting they were spouses for both males and females. Regardless of the gender of the householder, at least 50 percent of unmarried partners had the householder with at least a Bachelor’s degree compared with less than 40 percent of those couples assigned from spouse responses.

Unmarried male couples have the highest reported household income at $124,000. About 70 percent of unmarried partner couples, regardless of gender, report both partners being employed, compared with 47 percent of male couples and 52 percent of female couples who reported themselves as spouses. However, unmarried partners, regardless of gender, are least likely to report owning their homes.

**Summary**

This paper provides an historical background to the Census Bureau’s attempts to collect, edit, and tabulate data on same-sex couples. We find that the composition of 741,000 same-sex couples estimated from the 2007 American Community Survey consists of 55 percent reporting that they are unmarried partners and the balance, 45 percent, reporting that they are spouses. Similar proportions were also noted in the Census 2000 100-percent data file. Both data sets also show considerable variation in these proportions among the States.
Recognizing the limitations in describing the characteristics of same-sex couples, this current project expands previous research by Simmons and O’Connell\textsuperscript{22} that gave basic counts and descriptive information of same-sex couples using the 2000 Decennial Census. Simmons and O’Connell focused their research specifically on three primary characteristics of married-couple and unmarried-partner households, which were households with children under the age of 18 years, racial and ethnic descriptions, and average age of the householder and their partner/spouse. The tables in this paper fill important gaps in the analysis of socioeconomic characteristics same-sex couples by their original reporting status and provide a stepping-stone for further research in this area.

Principally, we find that those same-sex couples that originally reported that they were living together as spouses are slightly older, more likely to have children in the household and to own their own home. However, they are less likely to have an interracial partner, have both partners employed and have both with at least a Bachelor’s degree.

More importantly, this paper demonstrates the difficulty of showing the characteristics of the “married” segment of same-sex couples, even when using the detailed internal Census Bureau data files. It is clear that the numbers of reported same-sex spouses greatly exceed the benchmarked administrative data, and that further investigation goes beyond the statistical issues into the sociological domain of self-identification of relationships among couples. The rapidly changing geographical landscape of State regulations,

residence rules and laws regarding same-sex marriages also poses many difficulties in data evaluation and the identification of trends within states over time.

Providing the public with detailed tabulations of same-sex spouses without a true understanding of the limitations of the data could present an unreliable or even incorrect social and demographic profile of this population. The meaning of the self-identified responses of same-sex couples as spouses, partners or even as roommates require further investigation and probably different questions than what the current survey instruments contain. In order to produce better statistics on same-sex couples, we must first be confident that we have accurately identified the different component populations in question. Only then can we turn unofficial guesses into official estimates.
REFERENCES


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