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A More Inclusive Approach to Identifying Same-Sex Cohabitors in the American Time Use Survey

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Identification of same-sex couples in the American Time Use Survey (ATUS) is of increasing interest to the research community. While the ATUS surveys one person per household, using information about who else lives in the household, researchers can easily identify respondents in co-resident same-sex couple arrangements. Previous research has outlined two approaches to identifying same-sex couples in the ATUS that use information on the sex of household members. We extend that work by using additional information collected from a direct question to identify unmarried partners in the CPS. We identify 25% more cohabiting same-sex couples when we use the CPS direct question information than when we use information from the ATUS alone. We argue that our additional identification strategy is more inclusive of same-sex cohabiting relationships.

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Identification of same-sex couples in the American Time Use Survey (ATUS) is of increasing interest to the research community given the size of the ATUS and the potential use of these data to provide a glimpse into the daily lives of same-sex couples (Schneebaum 2013; Prickett et al 2015; Martell & Roncolato 2016; Augustine et al. 2017; Fetto 2018; Martin-Storey et al. 2018; Genadek et al 2019; AUTHOR 2019). The ATUS is a nationally representative twenty-four hour time diary survey of one randomly selected individual per eligible household. Households are sampled from the Current Population Survey (CPS) and ATUS interviews are conducted two to five months following the completion of the CPS. The ATUS has been fielded annually since 2003. In addition to the time diary, the ATUS collects a household roster that lists every person in the ATUS respondent's household as well as each person's sex and relationship to the respondent. Using information from the household, researchers can easily identify respondents in co-resident same-sex couple arrangements.

To our knowledge, Prickett et al (2016) were the first to discuss how to identify same-sex couples using the ATUS. Their recommendation is to use information about the respondent's and spouse's/partner's sex collected at the time of the ATUS interview. The authors recommend this approach over using information about respondent and spouse/partner sex collected during the CPS.¹ We fully agree with the Prickett and colleagues' recommendation about which sex variable to use. However, we extend their work and urge researchers to consider an additional identification strategy intended to be more inclusive of same-sex cohabiting relationships. Our recommendation requires using additional information from the CPS and is based on research done by the U.S. Census Bureau to better identify different-sex unmarried partner relationships.

¹ Variable names are TESEX and PESEX in the original ATUS data obtained from the Bureau of Labor Statistics, respectively. For users of ATUS data from IPUMS, variable names are SEX and SEX_CPS8.

Our proposed strategy to be more inclusive of same-sex cohabiting couples is especially important given the small but growing number of same-sex couples. Until the legalization of same-sex marriage (Obergefell v. Hodges, 2015), same-sex couples were limited in their opportunities to formalize their relationships via marriage. This underscores the importance of a more inclusive approach to identifying same-sex cohabiting couples.

Background

Beginning in 2007, the Census Bureau improved the way that it collected information about different-sex cohabitation in the CPS (Kreider 2008; Kennedy & Fitch 2012). Prior to 2007, different-sex cohabiting partners were identified based on the relationship of each individual in the household to the CPS respondent. Kreider (2008) refers to these as “householder couples.” Identification of householder couples has been supplemented with a direct question to identify unmarried partners. Kreider (2008) refers to these as “additional couples.” The question asked to identify additional couples was “Does [respondent] have a boyfriend/girlfriend or partner in the household?” The direct question resulted in a 21% increase in the number of different-sex cohabiting couples in 2007 compared to the relationship question alone (Kreider 2008). In addition, the respondent identified the boyfriend/girlfriend/partner in the household and the line number of the partner was recorded.

Using the direct question to capture additional cohabiting couples is useful for identifying additional cohabiting couples in two kinds of arrangements (Kreider 2008; Kennedy & Fitch 2012). First, it captures cohabiting couples who live in a household where neither member of the couple is the householder. Second, the direct question includes couples in which the cohabiting boyfriend/girlfriend is not listed as the unmarried partner of the main CPS respondent. Additional different-sex additional couples tend to be slightly younger and more likely to include

never married individuals; in addition, a lower percentage has children compared with householder couples (Kreider 2008).

The CPS is increasingly gaining acceptance as a data source for studying same-sex couples. While estimates of same-sex unmarried couples using the 2007 CPS versus the 2006 ACS are low (Kreider 2008), estimates of the percentage of unmarried same-sex couples are improved using both the householder and additional couples. Research comparing the 2009 ACS and the 2010 CPS indicates that the CPS can produce reasonable estimates of same-sex couples (Lofquist and Ellis, 2011).

The improved measurement of cohabiting couples in the CPS starting in 2007 is a benefit that can and should be leveraged when using the ATUS. This is possible because the CPS is the sampling frame for the ATUS, which means that information from the direct question used to identify additional cohabiting couples in the CPS may also be used to identify additional cohabiting couples in the ATUS. While this is important for analysis of both cohabiting different-sex and same-sex couples, it is especially important for the identification of same-sex couples in the ATUS because between 2007 and 2015, the majority of same-sex couples were unmarried (U.S. Census Bureau 2017). Also, given the relatively small sample of same-sex couples in the ATUS, the inclusion of additional couples has greater potential to impact estimates of time use than for different-sex couples, which comprise a much larger sample. We propose an extension of Prickett and colleagues' (2016) proposed method for identifying same-sex couples. Based on the work done by Kreider (2008), the inclusion of "additional couples" should result in better representation of same-sex couples in the ATUS.

Methodology and Analysis

Leveraging the linkage between the CPS and the ATUS, we use information from the direct question about unmarried partners in the CPS to identify *additional* same-sex cohabiting couples in the ATUS. Our logic is as follows. If the ATUS respondent does not identify a spouse or unmarried partner in the household at the time of the ATUS, we look at their answers to the direct CPS question to see if they identified an unmarried partner in the household at the time of the CPS. If the unmarried ATUS respondent did not identify a partner at the time of the ATUS and did identify an unmarried partner at the time of the CPS via the direct question,² we check to see if the directly-identified boyfriend, girlfriend, or partner at the time of the CPS is in the household at the time of the ATUS interview. When partners identified via the direct CPS question are in the household at the time of the ATUS, we use the sex of both the ATUS respondent and CPS partner to code ATUS respondents as being in a same-sex cohabiting relationship if both the ATUS respondent and the partner are the same sex.

We refer to couples identified using the relationship to the ATUS respondent as “householder couples”³ and couples identified using the direct cohabitation question as “additional couples” (Kreider 2008). Using the 2007 ASEC, Kreider (2008) identified 17.1% of cohabiting different-sex couples using the direct question method. We conduct the same analyses using the 2007-2017 ATUS data available via IPUMS (Hofferth et al 2018) to assess the validity of our results. Table 1 shows the share of different-sex and same-sex ATUS respondents identified as householder and additional couples. The share of different-sex cohabiting couples identified using the direct question method in the ATUS is slightly higher than Kreider (2008) as is the share of same-sex couples. We identify 21.9% of same-sex couples using the direct question compared to 20.3% of different-sex couples. Overall, the percent of same-sex

² The original variable name in the ATUS data obtained from the Bureau of Labor Statistics and via IPUMS is PECOHA.

³ These are the cases identified by Prickett et al (2016).

cohabiting couples that we identify using the direct question method is in line with what we would expect based on Kreider's (2008) work on different-sex cohabiting couples and is similar to what we observe for different-sex cohabiting couples in the ATUS.

Table 2 shows the number of same-sex householder and additional couples identified in the ATUS by year of the survey. As described above, the direct relationship question in the CPS was not introduced until 2007, so we do not see any additional couples in the 2003-2006 ATUS. The share of same-sex cohabiting couples identified using the direction question method varies across years. In 2017, we identified only 5.2% of same-sex cohabiting couples using the direct question method compared with 35.7% in 2008.

We also compare the demographic characteristics of ATUS respondents in same-sex cohabiting relationships who are in householder versus additional couple arrangements (see Table 3). We make two sets of comparisons. First, we compare additional couples identified via the direct question (2007-2017) to householder couples in all years (2003-2017). We also compare additional couples to householder couples in the 2007-2017 period. There are very few statistically significant differences between same-sex couples identified via the two methods. The limited differences show that same-sex couples identified via the direct question tend to have lower incomes, are less educated, and are younger.

Conclusion

We build on previous work on the measurement of same-sex couples in the ATUS (Prickett et al. 2016) and on the measurement of cohabiting couples in the CPS (Kreider 2008). While researchers can identify ATUS respondents who are in same-sex relationships solely from the household roster, the number of same-sex couples in the data is still quite small. Starting in 2007, the CPS asks unmarried respondents whether they have a boyfriend/girlfriend/partner in the

household. Kreider (2008) shows that using the information from this additional question yields a substantial increase in the number of different-sex cohabiting couples identified in the 2007 CPS data. Applying this same approach to same-sex cohabiting couples in the ATUS, we identify 25% more (112/452 in Table 2) same-sex cohabiting couples in the ATUS from 2007 to 2017. Based on our research, we encourage researchers to leverage the link between the ATUS and the CPS to identify an additional set of cohabiting same-sex couples in the ATUS.

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Table 1. Number and Percent of Different-sex and Same-sex Cohabiting Couples Identified as Householder Couples and Additional Couples, 2007-2017

	Total Number	Householder Couples ¹			Additional Couples ²		
		Unweighted			Unweighted		
		Number	%	Weighted %	Number	%	Weighted %
Different-sex	4962	4048	81.6	79.7	914	18.4	20.3
Same-sex	564	452	80.1	78.1	112	19.9	21.9

¹Householder couples are identified using the ATUS relationship to household head information.

²Additional couples are identified using the CPS self-reported relationship variable information.

Table 2. Number of Same-Sex Cohabiting Householder and Additional Couples in ATUS Data by Year

	Householder Couples ¹	Additional Couples ²	Total Couples ³	Additional Couples as % of Total
2003	65	--	65	--
2004	27	--	27	--
2005	20	--	20	--
2006	21	--	21	--
2007	21	7	28	25.0
2008	18	10	28	35.7
2009	35	12	47	25.5
2010	39	17	56	30.4
2011	32	14	46	30.4
2012	46	12	58	20.7
2013	44	10	54	18.5
2014	54	7	61	11.5
2015	55	10	65	15.4
2016	53	10	63	15.9
2017	55	3	58	5.2
Total (All Years)	585	112	697	16.1
Total (2007-2017)	452	112	564	19.9

¹Householder couples are identified using the ATUS relationship to household head information.

²Additional couples are identified using the CPS self-reported relationship variable information.

³Total couples include both couples identified via the householder and additional couples methods.

Table 3. Comparison of Demographic Characteristics for Same-Sex Cohabiting Householder Couples and Additional Couples

	Householder Couples ¹		Additional Couples ²
	2003-2017	2007-2017	2007-2017
Income			
Less than \$25K	12.4	12.9	20.3
\$25K-49,999K	16.4	16.6	23.2
\$50K-74999K	18.2	18.2	16.6
\$75K-149999K	33.4	32.4	20.3 ^{A B}
\$150K+	17.5	18.9	18.0
missing	2.1	1.0	1.7
Race			
White	91.7	92.2	82.5
Black	5.3	5.2	7.2
Other	2.9	2.6	10.2
Education			
Less than HS	6.0	5.4	10.7
HS and Some College	37.1	37.8	48.8
College Degree +	56.9	56.8	40.5 ^{A B}
Employed	81.1	80.0	76.0
Age			
Under 30	19.7	19.2	32.2
30-39	25.1	25.1	13.4 ^{A B}
40-49	26.4	24.9	25.0
50-59	16.2	16.7	20.8
60+	12.7	14.1	8.5

^A=% in category is statistically different (p<.05) between direct question and householder method (2003-2017)

^B=% in category is statistically different (p<.05) between direct question and householder method (2007-2017).

¹Householder couples are identified using the ATUS relationship to household head information.

²Additional couples are identified using the CPS self-reported relationship variable information.