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# National and State-Specific Health Insurance Disparities Among Adults in Same-Sex Relationships: Results from the American Community Survey

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**Abstract**

Most adults receive health insurance through their own or through a family member's employer-sponsored insurance (ESI) plan, but same-sex couples face additional federal and state barriers to enrolling spouses onto ESI. This paper examines national and state-specific disparities in insurance coverage among adults in same-sex relationships. Using data from the 2008-2010 American Community Survey (ACS), I estimate multinomial logistic regression models with data on 31,947 individuals in same-sex relationships and 3,322,858 individuals in opposite-sex relationships making this the largest study of insurance coverage among same-sex couples and the first to compare state-specific disparities. The probability that men and women in same-sex relationships have insurance through an employer decreases by 8% after controlling for demographic and economic factors. Results also indicate substantial variation across states in health insurance coverage among adults in same-sex relationships, with the largest insurance gaps for men occurring in the South and for women in the Midwest.



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**Introduction**

According to 2010 Census, there are approximately 900,000 same-sex couples in the United States (US Census 2011). Same-sex couples reside in every state but face various marriage discrimination laws. Six states currently recognize legal marriages; nine states and the District of Columbia have established civil unions or domestic partnerships for same-sex couples; and most states ban same-sex marriage altogether through legislative action or through amendments to their state constitutions (National Conference of State Legislatures, 2012). Differences in same-sex marriage laws can have an impact on access to health insurance for sexual minorities, or members of the gay, lesbian, bisexual, and transgender (GLBT) population. When states adopt same-sex marriage, private employers regulated by state insurance commissioners are required to treat married same-sex couples like married opposite-couples thus expanding health benefits to same-sex spouses.

The reach of state policies addressing health insurance are often limited by the Employee Retirement Income Security Act (ERISA) of 1974, whereby states are only allowed to regulate fully-insured employers who cover their employees through an insurance company. Self-insured employers are regulated by the federal government. In 2010, most workers (57.5%) with health insurance through a private employer were covered by self-insured plans (Crimmel 2011). Because so many workers are covered by self-insured plans, same-sex marriage policies can have a limited effect. In a study by Buchmueller and Carpenter (2012) using the 2001-2007 California Health Interview Surveys (CHIS), insurance mandates extending benefits to same-sex spouses had no statistically significant effect on dependent coverage for gay and bisexual men and a small positive effect on lesbian and bisexual women between.

In addition to state laws, the federal Defense of Marriage Act (DOMA) can prevent many LGBT workers from adding their spouses to employer coverage even when states have same-sex marriage. The DOMA defines marriage as "a legal union between one man and one woman as husband and wife" for federal purposes (Pub. L. 104-199). The federal government does not tax employer contributions to an opposite-sex spouse's health benefits, but under the DOMA, same-sex partner's health benefits are taxed as if the employer contribution is taxable income. As a result, GLBT employees pay more than $1,000 in additional federal income taxes when they add their same-sex spouses to employer health plans (Badgett, 2010).

Monitoring improvements in access to health insurance is fundamental for health researchers through the implementation of health reform, or the Affordable Care Act, (ACA). Data on sexual minorities, however, has historically been limited to convenience samples of gay men and lesbians through health care providers and researchers focusing their research on LGBT populations. Most LGBT public health research focuses on sexually transmitted diseases with only a few studies drawing attention to issues surrounding access and utilization of health care services (Boehmer, 2002). Population surveys typically do not ascertain sexual orientation, but data can sometimes be manipulated to identify same-sex couples and households. Three studies have used intra-household information from federal surveys to compare individuals in same-sex relationships to people in opposite-sex relationships.

Heck et al. (2006) use the National Health Interview Survey (NHIS) to compare four different measures of health care access between individuals in same-sex relationships to married people in opposite-sex relationships. Following logistic regression models for men and women, the authors found that women in same-sex relationships were significantly less likely than married women in opposite-sex relationships to have health insurance, to have seen a medical provider in the previous 12 months, and to have a usual source of care. Measures of health insurance coverage, unmet medical needs, and a usual source of care were not statistically different between men in same-sex relationship and men in opposite-sex relationships. Men in same-sex relationships were more likely to visit a health professional in the previous 12 months. The authors attribute the HIV epidemic as a "revolutionizing" factor among

gay men to maintain a regular provider. Unfortunately, the study sample is restricted to the single sample adult in each household who completes the in-depth interview; insurance information is not available for the partner. Compared to the other studies using federal surveys, the NHIS provides the smallest sample size (n=614 individuals in a same-sex relationship). The authors also had to pool data from a large time period, 1997-2003, for a large enough sample to conduct national-level analyses.

Ash and Badgett (2006) take advantage of larger sample sizes in the Current Population Survey (CPS). Although designed to measure labor force participation and unemployment, the Annual Social and Economic Supplement (ASEC) asks respondents to report health insurance coverage during the previous 16 months. Pooled data between 1996 and 2003 still provides small samples, but Ash and Badgett find that both men and women in same-sex couples are two to three times more likely to be uninsured than married people in opposite-sex relationships.

Buchmueller and Carpenter (2010) use the Behavioral Risk Surveillance System (BRFSS) to compare access and utilization of health care between same-sex couples and opposite-sex couples (both married and unmarried). Again, both men and women in same-sex couples were significantly less likely to be insured. Married people in opposite-sex relationships had the highest rates and odds ratio of insurance coverage, followed by men and women in same-sex relationships, followed by unmarried men and women in opposite-sex relationships. The study, however, pools data during a period (2000—2007) of decline in health insurance coverage, especially among employer-sponsored health insurance (Halahan & Cook, 2008).

These three studies are restricted to national-level estimates. Given the variation in state policies and attitudes towards same-sex couples (Lax & Phillips, 2009; Lupia *et al.,* 2010), geographic patterns in health insurance are expected. Data from the American Community Survey can help measure the magnitude of health insurance disparities and identify where the largest gaps in coverage occur.

**Data Source & Methods**

I use recently added questions in the American Community Survey (ACS) to estimate the effect of being in a same-sex relationship on an individual's health insurance coverage. The ACS is a general household survey conducted by the U.S. Census Bureau and is designed to provide states and communities with reliable and timely demographic, social, economic, and housing information. Replacing the decennial census long form questionnaire in 2005, the ACS has an annual sample size of about 3 million households and a monthly sample size of about 250,000 households. The large samples included in the ACS make it a powerful source for studying same-sex households at the state level (Lofquist & Ellis, 2011; Gates & Steinberger, 2010). The ACS, however, does not ascertain sexual orientation. Instead, same-sex couples are identified based on intra-household relationships and assumed to be gay, lesbian, or bisexual. Beginning in 2005, respondents were allowed to identify a person as an unmarried partner. Respondents were reminded by the instruction guide that an unmarried partner, "also known as a domestic partner, is a person who shares a close and personal relationship with the reference person." Most GLBT couples use this option to identify their same-sex partners (Gates & Steinberger, 2010). Some GLBT couples choose to identify same-sex spouses as their husband or wife (especially in states where same-sex marriage is legal), but these individuals are recoded as same-sex "unmarried partners" by the Census Bureau (O'Connell & Feliz, 2011).

A single question regarding health insurance coverage was added in 2008 that inquires about current health insurance coverage for all members of the household with the following response categories: (1) insurance through a current or former employer or union, (2) insurance purchased directly from an insurance company, (3) Medicare, for people age 65 and over, or people with certain disabilities, (4) Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low-incomes or a disability, (5) TRICARE or other military health care, (6) VA (including those who have ever enrolled for or used VA health care), (7) Indian Health Service, and (8) any other type of health

insurance or health coverage plan. I analyze the ACS health insurance data by primary source of insurance coverage. I use hierarchical assignment to assign each individual to a single source of health insurance coverage, although respondents are able to report multiple sources of coverage. If multiple sources of coverage were reported for an observation, primary source of coverage was assigned in the following order: (1) Medicare (for people age 19 or older); (2) employer-sponsored insurance (ESI), TRICARE or other military health care, or VA (including those who have ever enrolled for or used VA health car); (3) Medicaid; (4) direct purchase coverage; (5) Medicare (for people age 18 or under); and (6) uninsured.

Population and state-level coverage disparities were estimated using Stata 12. I first use the entire sample to estimate the effect of being in a same-sex relationship on health insurance coverage compared to two other groups as was done in Buchmueller & Carpenter (2010): married opposite-sex relationships (the omitted group) and unmarried opposite-sex relationships. I used the following multinomial logistic regression model to control for factors associated with health insurance coverage:

$$\text{Insurance} = \alpha + \beta_1 \textit{Relationship}_i + \beta_k X_i + \varepsilon$$

where *Insurance* is one of the six primary insurance categories and *Relationship* indexes the type of relationship (same-sex relationship, married opposite-sex relationship, or unmarried opposite-sex relationship). X is the vector of control variables that includes categorical variables for age, race, educational attainment, couple's combined income relative to the federal poverty guidelines (FPG), employment status, industry of employment, region, citizenship, the presence of an own child under 18 years in the household, and survey year. Because odds ratios are difficult to interpret with more than two outcomes, average marginal effects were estimated using Stata's *margins* command.

Adjusted state-level estimates were then estimated to compare overall insurance rates (including public and private) and ESI rates across all fifty states and the District of Columbia. Using coefficients derived from the multinomial logistic regression model, I formed two counterfactuals using a generalization of the "recycled probabilities" methodology. This procedure allows one to compare means rates of insurance coverage across states, controlling for significant factors likely to influence rates of insurance. All standard errors were calculated using Taylor linearized series to account for the complex survey design. My sample was restricted to adults between 25 and 64 years to account for the completion of educational attainment and Medicare coverage beginning at 65. My final sample size included 15,529 men and 16,418 women in same-sex relationships, making this the largest analysis of insurance coverage among sexual minorities and the first to compare health insurance disparities across all states.

**Descriptive Results**

Table 1 presents descriptive statistics for men and women by relationship type. Same-sex couples report significant differences from opposite-sex couples that inform predictions on their access to insurance, especially employer-sponsored insurance (ESI). Both men and women in same-sex relationships, for instance, are more likely to report equal or higher levels of income and education, whereas unmarried, opposite-sex couples are most likely to report the lowest-levels of income, education, and employment. 48% of men in same-sex relationships have a college degree compared to 34% of married men and 18% of unmarried men in opposite-sex relationships. Men in same-sex relationships (71%) and married men in opposite-sex relationships (77%) report the highest levels of full time employment. Interestingly, men in same-sex relationships have the highest combined income of any group. 70% of sexual minority men earn more than 400% of the poverty line, which was $43,320 for an individual or $88,200 for a family of four in 2010. Unmarried men in opposite-sex relationships tend to be younger (43% are 25-34 years) and are more likely to have less than a high school education (18%).

Women in same-sex relationships also report higher levels of education, income, and employment status. 47% of women in same-sex relationships, 37% of married women in opposite-sex relationships, and 23% of unmarried women in opposite-sex relationships have a college degree. Like their male counterparts, women in same-sex relationships exhibit high incomes: 60% of women in same-sex relationships live in households with more than 400% FPG, compared to 49% of married women and 37% unmarried women in opposite-sex relationships. As expected, married, opposite-sex couples report the highest levels of having an own child within the household. Not only is it easier for opposite-sex couples to have children compared to same-sex couples, but many opposite-sex couples choose to get married for or as a response to children.

Because same-sex couples share equivalent (and sometimes better) levels of education, income, and employment status to married opposite-sex couples, we should expect their access to insurance, especially through an employer, to be equivalent (or better).

**Population Analysis**

The results from the population-level multinomial logistic regression on insurance coverage is presented in Table 2, where nonelderly adults (25-64 years) can have one of five types of coverage (employer-sponsored insurance, directly purchased insurance, Medicaid, Medicare, or the comparison outcome, uninsured). After controlling for other explanatory factors, men in same-sex relationships are less likely than married men in opposite-sex relationships to have insurance through an employer (AOR=0.52) or directly from an insurance company (AOR=0.69) and more likely have insurance through Medicaid (AOR=1.29). The odds of insurance coverage are smaller for unmarried men in opposite-sex relationships, as expected based on their lower levels of education, income, and employment status. They are far less likely than men in same-sex relationships and married, opposite-sex relationships to have insurance through an employer (AOR=0.31), directly purchased from an insurance company (AOR=0.42), Medicaid (AOR=0.52), and Medicare (AOR=0.47). When the sample is restricted to employed men, several patterns remain (not shown). Notably, even working men in same-sex relationships are significantly more likely to maintain coverage through Medicaid (AOR=1.31).

Women in same-sex relationships are also less likely to have insurance through an employer (AOR=0.46) and directly purchased from and insurance company (AOR=0.61), but more likely to have insurance from Medicare (AOR=1.20). Like their male counterparts, unmarried women in opposite-sex relationships are also far less likely to have insurance through an employer (AOR=0.27), directly purchased from an insurer (AOR=0.42) or Medicare (AOR=0.81).Both women in same-sex relationships and unmarried women in opposite-sex relationships are more likely to have coverage through Medicaid (AOR=1.39). When the sample is restricted to employed women, statistical significance for Medicaid and Medicare diminishes for both women in same-sex relationships and unmarried women in opposite-sex relationships (not shown).

Average marginal effects are presented in Table 2, because odds ratios can be difficult to interpret when analyzing more than two outcomes. Average marginal effects represent the average change in the probability of coverage based on an individual's relationship status. For instance, compared to married men in opposite-sex relationships, men in same-sex relationships are, on average, 4% more likely to be uninsured, 8% less likely to have insurance through an employer, and 2% more likely to be covered through Medicaid. Meanwhile, unmarried men in opposite-sex relationships are 11% more likely to be uninsured and 12% less likely to have insurance through an employer. The remaining average marginal effects are miniscule in comparison. Similar magnitudes remain true when the sample is restricted to employed men (not shown).

Women in either same-sex relationships or opposite-sex relationships are more likely to be uninsured than their male counterparts (6% and 10% respectively). Women in same-sex relationships are 8% less likely to have coverage through an employer and 2% more likely to receive Medicaid

benefits. Meanwhile, women in unmarried, opposite-sex relationships are 15% less likely to have coverage through an employer and 4% more likely to be covered by Medicaid. Similar effects remain when the sample is restricted to employed women (not shown). The average marginal effect diminishes, however, for women in unmarried opposite-sex relationships; they are 11% less likely to have ESI and 2% more likely to have insurance through Medicaid.

**State-Specific Disparities in Coverage**

State-specific results in Table 4 indicate substantial variation across the states in health insurance coverage among nonelderly adults in same-sex relationships, with the largest disparities among men occurring in the South and among women in the Midwest. Approximately 78% of men in same-sex relationships have any insurance and 65% have insurance through an employer. Variation in ESI has a broader range than overall coverage and is more likely to fluctuate based on differences in state policies on same-sex couples. ESI coverage among men in same-sex relationships ranges from 52% in New Mexico to 76% in Connecticut. (The National Center for Health Statistics (NCHS) considers estimates with fewer than 50 observations in the denominator or a relative standard error greater than 30% as less reliable). The relative difference in ESI coverage also ranges substantially across the states. The ESI coverage gap between men in same-sex relationships and married, opposite-sex relationships is larger than 10% in thirteen states. Men in same-sex relationships in the South face the largest disparities in ESI coverage (RD=-7.22), whereas men in same-sex relationships in the Northeast have the smallest gaps in ESI coverage (RD=-5.86). Two states (Connecticut and Arkansas) reliably report a positive gap in ESI that is beneficial to men in same-sex relationships.

Women in same-sex relationships also face insurance coverage disparities in every region. 79% of women in same-sex relationships have any insurance, but only 66% have insurance through an employer (which is slightly higher than men in same-sex relationships). Again, I only discuss in detail the variation in ESI disparities because of the influence of federal and state policies on ESI coverage. ESI ranges among women in same-sex relationships from 54% in New Mexico to 76% in New Hampshire. The relative difference in ESI coverage is larger for women in same-sex relationships in every region than it is for men in same-sex relationships. The ESI coverage gap between women in same-sex relationships and married women in opposite-sex relationships is larger than 10% in twenty states. Women in same-sex relationships in the Midwest experience the largest disparities in ESI coverage (RD=-10.06); this is larger than disparities among any other group. Only one state (New Hampshire) reliably reports a positive ESI coverage gap that benefits women in same-sex relationships.

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**Table 1. Descriptive Statistics by Relationship Type**

| | Men | | | Women | | |
|---|---|---|---|---|---|---|
| | Same-Sex Relationship, Weighted Mean | Opposite-Sex Unmarried, Weighted Mean | Opposite-Sex Married, Weighted Mean | Same-Sex Relationship, Weighted Mean | Opposite-Sex Unarried, Weighted Mean | Opposite-Sex Married, Weighted Mean |
| **Age** | | | | | | |
| 25-34 | 0.197 | 0.430 | 0.177 | 0.217 | 0.446 | 0.203 |
| 35-44 | 0.320 | 0.265 | 0.270 | 0.283 | 0.258 | 0.271 |
| 45-54 | 0.316 | 0.200 | 0.299 | 0.319 | 0.203 | 0.294 |
| 55-64 | 0.168 | 0.104 | 0.254 | 0.182 | 0.093 | 0.232 |
| **Race** | | | | | | |
| White | 0.767 | 0.626 | 0.703 | 0.770 | 0.645 | 0.708 |
| Black | 0.054 | 0.139 | 0.077 | 0.074 | 0.112 | 0.071 |
| Asian | 0.036 | 0.019 | 0.057 | 0.022 | 0.029 | 0.066 |
| Other/Multiple Races | 0.022 | 0.029 | 0.018 | 0.027 | 0.031 | 0.019 |
| Hispanic | 0.120 | 0.186 | 0.145 | 0.106 | 0.183 | 0.136 |
| **Education** | | | | | | |
| Less than high school | 0.058 | 0.178 | 0.118 | 0.057 | 0.147 | 0.098 |
| High school degree | 0.163 | 0.341 | 0.259 | 0.169 | 0.285 | 0.251 |
| Some college or vocational | 0.305 | 0.299 | 0.288 | 0.303 | 0.341 | 0.314 |
| College degree | 0.475 | 0.182 | 0.336 | 0.471 | 0.227 | 0.336 |
| **Income Realtive to Federal Poverty Guidelines (FPG)** | | | | | | |
| <100 | 0.043 | 0.130 | 0.080 | 0.063 | 0.127 | 0.084 |
| 100-200 | 0.074 | 0.200 | 0.138 | 0.098 | 0.195 | 0.135 |
| 200-300 | 0.093 | 0.175 | 0.150 | 0.114 | 0.170 | 0.148 |
| 300-400 | 0.089 | 0.139 | 0.144 | 0.129 | 0.137 | 0.143 |
| 400+ | 0.702 | 0.356 | 0.489 | 0.596 | 0.371 | 0.491 |
| **Employment** | | | | | | |
| Full-Time | 0.706 | 0.684 | 0.772 | 0.670 | 0.551 | 0.471 |
| Part time | 0.108 | 0.109 | 0.074 | 0.142 | 0.171 | 0.196 |
| Unemployed | 0.050 | 0.099 | 0.048 | 0.045 | 0.073 | 0.039 |
| Not in labor force | 0.136 | 0.108 | 0.107 | 0.144 | 0.204 | 0.295 |
| **Own child in household** | 0.124 | 0.403 | 0.502 | 0.246 | 0.396 | 0.483 |
| **Region** | | | | | | |
| Northeast | 0.207 | 0.196 | 0.179 | 0.217 | 0.198 | 0.180 |
| Midwest | 0.175 | 0.230 | 0.224 | 0.190 | 0.226 | 0.224 |
| South | 0.330 | 0.327 | 0.366 | 0.317 | 0.328 | 0.366 |
| West | 0.289 | 0.247 | 0.232 | 0.276 | 0.249 | 0.231 |
| **Citizenship** | | | | | | |
| Citizen | 0.885 | 0.852 | 0.805 | 0.928 | 0.850 | 0.807 |
| Naturalized | 0.057 | 0.037 | 0.088 | 0.039 | 0.045 | 0.090 |
| Non-citizen | 0.058 | 0.112 | 0.107 | 0.033 | 0.104 | 0.102 |
| **Industry** | | | | | | |
| Public Admin | 0.046 | 0.036 | 0.059 | 0.068 | 0.039 | 0.046 |
| Agriculture | 0.007 | 0.019 | 0.020 | 0.005 | 0.008 | 0.008 |
| Mining | 0.003 | 0.009 | 0.010 | 0.002 | 0.001 | 0.002 |
| Construction | 0.039 | 0.179 | 0.130 | 0.029 | 0.017 | 0.017 |
| Manufacturing | 0.074 | 0.147 | 0.167 | 0.082 | 0.084 | 0.075 |
| Wholesale Trade | 0.025 | 0.038 | 0.041 | 0.019 | 0.021 | 0.020 |
| Retail Trade | 0.114 | 0.101 | 0.086 | 0.095 | 0.131 | 0.105 |
| Transportation | 0.039 | 0.061 | 0.065 | 0.032 | 0.025 | 0.022 |
| Utilities | 0.006 | 0.009 | 0.016 | 0.005 | 0.004 | 0.004 |
| Information | 0.042 | 0.025 | 0.024 | 0.029 | 0.022 | 0.020 |
| Finance | 0.102 | 0.046 | 0.061 | 0.071 | 0.077 | 0.086 |
| Professional | 0.150 | 0.117 | 0.117 | 0.118 | 0.111 | 0.099 |
| Education/Health | 0.204 | 0.073 | 0.105 | 0.327 | 0.281 | 0.377 |
| Arts | 0.092 | 0.091 | 0.048 | 0.070 | 0.126 | 0.066 |
| Other | 0.054 | 0.045 | 0.041 | 0.046 | 0.052 | 0.054 |
| Armed Services | 0.003 | 0.005 | 0.011 | 0.002 | 0.002 | 0.002 |
| Total | | | | | | |
| **Sample Size** | 15,529 | 133,347 | 1,491,384 | 16,418 | 125,800 | 1,569,327 |

**Table 2. Multinomial Logistic Regression Analysis of Health Insurance Coverage Among Men: American Community Survey, 2008-2010**

| | Men | | | | | | | | | | | | Women | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AOR (SE) | | | | | | | | | | | | AOR (SE) | | | | | | | | | | | |
| | Employer vs Uninsured | | | Direct Purchase vs Uninsured | | | Medicaid vs Uninsured | | | Medicare vs Uninsured | | | Employer vs Uninsured | | | Direct Purchase vs Uninsured | | | Medicaid vs Uninsured | | | Medicare vs Uninsured | | |
| **Relationship Type** | | | | | | | | | | | | | | | | | | | | | | | | |
| In a same-sex relationship | 0.52 | (0.020) | *** | 0.69 | (0.037) | *** | 1.29 | (0.117) | *** | 0.90 | (0.084) | | 0.46 | (0.018) | *** | 0.61 | (0.033) | *** | 1.11 | (0.078) | | 1.20 | (0.105) | ** |
| In an unmarried, opposite-sex relationship | 0.31 | (0.003) | *** | 0.42 | (0.007) | *** | 0.52 | (0.011) | *** | 0.47 | (0.017) | *** | 0.27 | (0.003) | *** | 0.42 | (0.008) | *** | 1.39 | (0.024) | *** | 0.81 | (0.029) | *** |
| In a married, opposite-sex relationship | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| **Couple's Combined Income** | | | | | | | | | | | | | | | | | | | | | | | | |
| <100% FPG | 0.06 | (0.001) | *** | 0.18 | (0.004) | *** | 5.21 | (0.174) | *** | 0.32 | (0.011) | *** | 0.45 | (0.006) | *** | 0.56 | (0.010) | *** | 1.16 | (0.044) | *** | 0.73 | (0.025) | *** |
| 100-200% FPG | 0.13 | (0.002) | *** | 0.25 | (0.004) | *** | 2.98 | (0.098) | *** | 0.45 | (0.013) | *** | 0.25 | (0.003) | *** | 0.39 | (0.006) | *** | 1.53 | (0.050) | *** | 0.61 | (0.020) | *** |
| 200-300% FPG | 0.27 | (0.003) | *** | 0.40 | (0.006) | *** | 1.52 | (0.054) | *** | 0.53 | (0.016) | *** | 0.11 | (0.001) | *** | 0.23 | (0.004) | *** | 2.53 | (0.078) | *** | 0.51 | (0.016) | *** |
| 300-400% FPG | 0.45 | (0.006) | *** | 0.56 | (0.009) | *** | 1.07 | (0.046) | * | 0.68 | (0.022) | *** | 0.05 | (0.001) | *** | 0.16 | (0.004) | *** | 4.48 | (0.141) | *** | 0.39 | (0.015) | *** |
| 400% FPG or more | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| **Education** | | | | | | | | | | | | | | | | | | | | | | | | |
| Less than high school | 0.32 | (0.005) | *** | 0.20 | (0.004) | *** | 1.21 | (0.035) | *** | 0.99 | (0.036) | | 0.28 | (0.005) | *** | 0.19 | (0.005) | *** | 1.29 | (0.036) | *** | 0.89 | (0.038) | *** |
| High school graduate | 0.47 | (0.006) | *** | 0.34 | (0.005) | *** | 1.09 | (0.029) | *** | 0.94 | (0.030) | * | 0.43 | (0.005) | *** | 0.33 | (0.005) | *** | 1.15 | (0.029) | *** | 0.81 | (0.028) | *** |
| Some college or vocational | 0.62 | (0.007) | *** | 0.49 | (0.007) | *** | 1.09 | (0.030) | *** | 1.05 | (0.032) | * | 0.55 | (0.007) | *** | 0.47 | (0.007) | *** | 1.22 | (0.030) | *** | 0.97 | (0.032) | |
| College degree | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| **Race/Ethnicity** | | | | | | | | | | | | | | | | | | | | | | | | |
| Hispanic | 0.72 | (0.009) | *** | 0.34 | (0.008) | *** | 0.67 | (0.017) | *** | 0.77 | (0.031) | *** | 0.70 | (0.009) | *** | 0.41 | (0.009) | *** | 0.91 | (0.021) | *** | 0.72 | (0.033) | *** |
| Black | 0.97 | (0.014) | ** | 0.42 | (0.011) | *** | 1.23 | (0.031) | *** | 1.30 | (0.044) | *** | 0.97 | (0.015) | * | 0.51 | (0.014) | *** | 1.56 | (0.038) | *** | 1.68 | (0.061) | *** |
| Asian | 1.01 | (0.020) | | 0.89 | (0.024) | *** | 1.49 | (0.051) | *** | 1.15 | (0.071) | ** | 1.10 | (0.023) | *** | 1.03 | (0.028) | | 1.63 | (0.056) | *** | 1.13 | (0.077) | * |
| Other/Multiple races | 0.68 | (0.017) | *** | 0.47 | (0.019) | *** | 1.08 | (0.044) | * | 1.01 | (0.064) | | 0.68 | (0.018) | *** | 0.52 | (0.020) | *** | 1.02 | (0.040) | | 1.24 | (0.081) | *** |
| White | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| **Age** | | | | | | | | | | | | | | | | | | | | | | | | |
| 25-34 | 0.44 | (0.006) | *** | 0.31 | (0.006) | *** | 1.04 | (0.027) | * | 0.14 | (0.006) | *** | 0.53 | (0.007) | *** | 0.33 | (0.006) | *** | 1.57 | (0.043) | *** | 0.14 | (0.006) | *** |
| 35-44 | 0.52 | (0.007) | *** | 0.43 | (0.007) | *** | 0.94 | (0.024) | ** | 0.28 | (0.010) | *** | 0.59 | (0.008) | *** | 0.42 | (0.008) | *** | 1.15 | (0.032) | *** | 0.28 | (0.011) | *** |
| 45-54 | 0.66 | (0.008) | *** | 0.64 | (0.009) | *** | 0.94 | (0.024) | ** | 0.49 | (0.013) | *** | 0.72 | (0.009) | *** | 0.60 | (0.009) | *** | 1.00 | (0.027) | | 0.45 | (0.012) | *** |
| 55-64 | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| **Employment Status** | | | | | | | | | | | | | | | | | | | | | | | | |
| Part-time | 0.48 | (0.006) | *** | 0.91 | (0.014) | *** | 1.30 | (0.026) | *** | 2.65 | (0.088) | *** | 0.54 | (0.005) | *** | 1.26 | (0.017) | *** | 1.27 | (0.024) | *** | 1.60 | (0.057) | *** |
| Unemployed | 0.23 | (0.003) | *** | 0.40 | (0.008) | *** | 1.35 | (0.027) | *** | 1.04 | (0.050) | | 0.21 | (0.003) | *** | 0.50 | (0.011) | *** | 1.38 | (0.031) | *** | 0.89 | (0.051) | ** |
| Not in labor force | 0.52 | (0.007) | *** | 0.98 | (0.019) | | 2.47 | (0.056) | *** | 14.59 | (0.406) | *** | 0.46 | (0.005) | *** | 1.26 | (0.019) | *** | 1.87 | (0.036) | *** | 6.85 | (0.213) | *** |
| Full time | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| **Own child in household** | 1.57 | (0.014) | *** | 1.46 | (0.018) | *** | 3.16 | (0.056) | *** | 1.12 | (0.031) | *** | 1.64 | (0.016) | *** | 1.32 | (0.018) | *** | 2.39 | (0.042) | *** | 0.79 | (0.027) | *** |
| **Citizenship** | | | | | | | | | | | | | | | | | | | | | | | | |
| Naturalized | 0.60 | (0.009) | *** | 0.93 | (0.020) | *** | 0.86 | (0.024) | *** | 0.58 | (0.026) | *** | 0.70 | (0.012) | *** | 1.06 | (0.024) | ** | 0.91 | (0.025) | *** | 0.65 | (0.034) | *** |
| Non-Citizen | 0.31 | (0.004) | *** | 0.42 | (0.010) | *** | 0.38 | (0.010) | *** | 0.26 | (0.014) | *** | 0.35 | (0.005) | *** | 0.51 | (0.012) | *** | 0.41 | (0.010) | *** | 0.28 | (0.017) | *** |
| Citizen | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |

Note: AOR=adjusted odds ratio. SE=standard error. All models also include a control for industry, region, survey year.

*P<.10; **P<.05; ***P<.01

Table 3 Average marginal effect of relationship type on insurance coverage

| | All Men | | | | |
|---|---|---|---|---|---|
| | AME (SE) | | | | |
| | Uninsured | Employer | Direct Purchase | Medicaid | Medicare |
| **Relationship Type** | | | | | |
| In a same-sex relationship | 0.04 (0.004) *** | -0.08 (0.004) *** | 0.01 (0.003) ** | 0.02 (0.003) *** | 0.00 (0.001) ** |
| In an unmarried, opposite-sex relationship | 0.11 (0.001) *** | -0.12 (0.002) *** | 0.01 (0.001) *** | 0.00 (0.001) *** | 0.00 (0.000) |

| | All Women | | | | |
|---|---|---|---|---|---|
| | AME (SE) | | | | |
| | Uninsured | Employer | Direct Purchase | Medicaid | Medicare |
| **Relationship Type** | | | | | |
| In a same-sex relationship | 0.06 (0.004) *** | -0.08 (0.004) *** | 0.01 (0.003) | 0.02 (0.002) *** | 0.01 (0.001) *** |
| In an unmarried, opposite-sex relationship | 0.10 (0.001) *** | -0.15 (0.002) *** | 0.01 (0.001) *** | 0.04 (0.001) *** | 0.01 (0.000) *** |

Note: AME=Average marginal effect. SE=Standard error. All models include controls for income, education, race/ethnicity, age, region, own child present in the houshold, citizenship, industry, and survey year.

*P<.10; **P<.05; ***P<.01

**Table 4 Adjusted rates of insurance and relative differencence to married opposite-sex couples by state and sex**

| | Men | | | | | | Women | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Any Coverage | | | Employer-Sponsored Insurance | | | Any Coverage | | | Employer-Sponsored Insurance | | |
| | Adjusted Rate (%) | RD (%) | | Adjusted (%) | RD (%) | | Adjusted Rate (%) | RD (%) | | Adjusted (%) | RD (%) | |
| **Northeast** | **82** | **-4.88** | *** | **68** | **-5.86** | *** | **85** | **-4.05** | *** | **69** | **-6.73** | *** |
| Connecticut | 82 | -5.98 | *** | 76 | 0.61 | ** | 82 | -6.48 | *** | 69 | -7.26 | *** |
| Maine | 74 | -10.39 | *** | 61 | -8.00 | *** | 78 | -7.69 | *** | 58 | -13.22 | *** |
| Massachusetts | 93 | -0.64 | *** | 71 | -5.80 | *** | 95 | -0.58 | *** | 72 | -6.21 | *** |
| New Hampshire | 83 | 0.26 | | 71 | -3.89 | *** | 85 | 2.40 | *** | 76 | 1.31 | *** |
| New Jersey | 80 | -4.72 | *** | 70 | -4.42 | *** | 80 | -6.58 | *** | 69 | -7.50 | *** |
| New York | 81 | -6.42 | *** | 67 | -5.61 | *** | 83 | -5.68 | *** | 69 | -6.26 | *** |
| Pennsylvania | 82 | -4.02 | *** | 68 | -7.02 | *** | 85 | -3.55 | *** | 71 | -5.95 | *** |
| Rhode Island | 71 | -15.92 | *** | 61 | -13.21 | *** | 77 | -11.73 | *** | 66 | -11.25 | *** |
| Vermont | 83 | -3.74 | *** | 58 | -12.26 | *** | 77 | -9.38 | *** | 58 | -11.64 | *** |
| **Midwest** | **80** | **-6.14** | *** | **67** | **-6.74** | *** | **79** | **-8.26** | *** | **65** | **-10.06** | *** |
| Illinois | 78 | -8.09 | *** | 67 | -7.05 | *** | 77 | -9.70 | *** | 64 | -10.32 | *** |
| Indiana | 82 | -1.47 | *** | 65 | -7.77 | *** | 79 | -6.04 | *** | 65 | -10.19 | *** |
| Iowa | 82 | -5.31 | *** | 71 | -1.53 | *** | 78 | -11.13 | *** | 62 | -11.32 | *** |
| Kansas | 78 | -6.81 | *** | 63 | -9.74 | *** | 78 | -7.37 | *** | 70 | -4.89 | *** |
| Michigan | 78 | -7.96 | *** | 69 | -4.85 | *** | 80 | -6.29 | *** | 64 | -12.45 | *** |
| Minnesota | 82 | -6.95 | *** | 64 | -9.44 | *** | 88 | -1.07 | *** | 66 | -7.10 | *** |
| Missouri | 74 | -9.86 | *** | 65 | -7.42 | *** | 72 | -12.19 | *** | 60 | -13.44 | *** |
| Nebraska | 93 | 6.61 | *** † | 79 | 7.34 | *** † | 75 | -11.76 | *** | 63 | -8.37 | *** |
| North Dakota | 79 | -7.42 | *** † | 66 | -4.80 | ** † | 73 | -15.07 | *** † | 60 | -11.74 | *** † |
| Ohio | 83 | -2.59 | *** | 71 | -4.15 | *** | 78 | -9.54 | *** | 67 | -10.27 | *** |
| South Dakota | 79 | -4.97 | *** † | 69 | 0.88 | † | 97 | 12.36 | *** † | 88 | 18.86 | *** † |
| Wisconsin | 80 | -8.93 | *** | 63 | -12.40 | *** | 80 | -10.43 | *** | 65 | -11.13 | *** |
| **South** | **75** | **-5.38** | *** | **62** | **-7.22** | *** | **76** | **-5.55** | | **64** | **-7.46** | *** |
| Alabama | 78 | -5.88 | *** | 63 | -9.69 | *** | 82 | -3.70 | *** | 65 | -10.86 | *** |
| Arkansas | 77 | -1.93 | *** | 72 | 4.56 | *** | 72 | -7.58 | *** | 65 | -4.09 | *** |
| District of Columbia | 95 | 4.46 | *** | 66 | -8.15 | *** | 87 | -6.68 | *** | 66 | -9.06 | *** |
| Florida | 74 | -5.83 | *** | 61 | -7.03 | *** | 74 | -7.26 | *** | 61 | -8.20 | *** |
| Georgia | 76 | -3.93 | *** | 63 | -7.25 | *** | 74 | -7.67 | *** | 64 | -8.92 | *** |
| Kentucky | 79 | -3.62 | *** | 62 | -9.44 | *** | 82 | -1.16 | *** | 74 | -0.27 | |
| Louisiana | 74 | -4.44 | *** | 58 | -8.97 | *** | 75 | -4.04 | *** | 59 | -10.12 | *** |
| Maryland | 83 | -1.99 | *** | 67 | -7.81 | *** | 84 | -3.26 | *** | 74 | -2.26 | *** |
| Mississippi | 69 | -9.86 | *** | 55 | -12.62 | *** | 83 | 2.38 | *** | 59 | -11.85 | *** |
| North Carolina | 76 | -5.09 | *** | 66 | -2.96 | *** | 76 | -5.86 | *** | 65 | -5.81 | *** |
| Oklahoma | 71 | -7.42 | *** | 55 | -12.60 | *** | 75 | -4.12 | *** | 64 | -6.28 | *** |
| South Carolina | 74 | -7.89 | *** | 59 | -11.56 | *** | 74 | -7.86 | *** | 66 | -6.16 | *** |
| Tennessee | 72 | -11.35 | *** | 60 | -10.48 | *** | 78 | -6.34 | *** | 64 | -9.27 | *** |
| Texas | 74 | -4.87 | *** | 61 | -6.16 | *** | 74 | -5.74 | *** | 61 | -9.02 | *** |
| Virginia | 75 | -9.60 | *** | 68 | -6.25 | *** | 80 | -5.86 | *** | 71 | -5.46 | *** |
| West Virginia | 74 | -8.03 | *** | 52 | -21.86 | *** | 93 | 11.08 | *** | 69 | -5.37 | *** |
| **West** | **79** | **-5.72** | *** | **64** | **-6.84** | *** | **80** | **-4.98** | *** | **65** | **-6.99** | *** |
| Alaska | 72 | -8.19 | *** † | 70 | -1.07 | † | 78 | -2.77 | *** | 64 | -9.43 | *** |
| Arizona | 76 | -8.19 | *** | 58 | -10.74 | *** | 79 | -5.95 | *** | 60 | -10.71 | *** |
| California | 80 | -5.30 | *** | 65 | -6.73 | *** | 83 | -2.73 | *** | 68 | -4.13 | *** |
| Colorado | 80 | -3.13 | *** | 63 | -4.83 | *** | 72 | -10.65 | *** | 58 | -11.37 | *** |
| Hawaii | 79 | -14.84 | *** | 58 | -24.96 | *** | 88 | -6.36 | *** | 75 | -8.45 | *** |
| Idaho | 77 | -3.75 | *** † | 68 | -0.23 | † | 77 | -4.16 | *** | 69 | -1.22 | *** |
| Montana | 64 | -13.31 | *** † | 65 | -0.65 | † | 88 | 9.36 | *** | 66 | -0.81 | |
| Nevada | 78 | -6.65 | *** | 66 | -10.39 | *** | 76 | -9.20 | *** | 65 | -11.79 | *** |
| New Mexico | 71 | -9.79 | *** | 52 | -14.13 | *** | 73 | -9.05 | *** | 54 | -14.05 | *** |
| Oregon | 77 | -5.40 | *** | 67 | -4.15 | *** | 81 | -2.17 | *** | 67 | -4.22 | *** |
| Utah | 85 | 1.45 | *** | 69 | -2.21 | *** | 76 | -9.01 | *** | 63 | -12.77 | *** |
| Washington | 79 | -4.36 | *** | 69 | -2.69 | *** | 78 | -7.33 | *** | 65 | -8.35 | *** |
| Wyoming | 40 | -38.93 | *** † | 35 | -32.00 | *** † | 75 | -4.50 | *** † | 58 | -11.20 | *** † |
| **United States** | **78** | **-5.70** | *** | **65** | **-6.71** | *** | **79** | **-5.66** | *** | **66** | **-7.68** | *** |

Note: RD=Relative difference compared to rate of insurance or ESI of married, opposite-sex couples. † indicates a relative standard error (RSE) of so percent or more or fewer than 30 individuals in a same-sex relationship, both of which the National Center for Health Statistics (NCHS) suggest are less reliable. All models include controls for income, education, race/ethnicity, age, region, own child present in the houshold, citizenship, industry, and survey year.

*P<.10; **P<.05; ***P<.01