Health Insurance Coverage among Working-Age Adults in the United States:
The Role of Changes in Family Characteristics

WORKING DRAFT – SOME CITATIONS STILL MISSING
PLEASE DO NOT DISTRIBUTE OR CITE

Christine Percheski
Northwestern University
c-percheski@northwestern.edu

ABSTRACT (short version):
Health insurance coverage for working-age Americans has declined substantially over the past three decades, but there has been little research into how this decline relates to changes in family characteristics. Using CPS data, this paper applies two decomposition techniques (shift/share and Oaxaca-Blinder) to estimate how much of the decline in insurance rates between 1984 and 2008 can be accounted for by changes in the marital and parental status of the population. I find that declines in the percentage married explain some of the uninsurance trend, although this was offset for women by increases in employment. For young adults, family changes are associated with even larger declines in insurance rates, but this was partially offset by increased educational attainment, school enrollment, and full-time employment. Although not the main driver of uninsurance among working-age adults, changes in marital and parental status were a non-trivial factor, especially for young white men.

Introduction

       The percentage of working-age adults in the United States who are uninsured has risen substantially over the past few decades, prompting vigorous public debate and recent legislative action. Research on falling rates of insurance coverage has focused primarily on problems in the individual insurance market and on changes in employment, employer offers of health insurance, and the affordability of employer-sponsored insurance offers. Some recent research has also considered the extent to which changing immigration and racial/ethnic compositions can account for the rise in the percentage uninsured (ie. Buchmueller, LoSasso, Luric, & Dolfin 2007; Rutledge and McLaughlin 2008). Considerably less research has considered how changes in family characteristics may be related to the increase in the percentage of adults lacking health insurance.

       The lack of scholarly attention to the relationship between family structure changes and health insurance coverage declines is surprising given the obvious link between family characteristics and health insurance coverage. Many people obtain their insurance coverage through a family member's employer-sponsored coverage; for adults, this is usually through their spouse's employer or labor union. Additionally, access to public insurance is conditional on family characteristics in many states. Prior to welfare reform, many states automatically enrolled unmarried mothers on welfare in the state Medicaid program (citation). This link between welfare and Medicaid has been altered as states have changed eligibility and benefits associated with welfare under TANF, and uninsurance rates among unmarried mothers previously on welfare have increased (Cawley, Schroeder, and Simon 2006). However, Medicaid still provides insurance to many mothers, and in many states, Medicaid is not available to working-age non-disabled adults who are not mothers or expectant mothers (citation). Recently, some states have expanded eligibility for SCHIP or CHIP to both mothers and fathers of qualified children (citation). Here again, a family characteristic, parental status, is linked to eligibility for health insurance coverage.

       In addition to the links between family characteristics and categorical eligibility for health insurance coverage, there may be a behavioral element linking family characteristics and health insurance coverage. Women's employment levels are sensitive to their family characteristics; married women and mothers tend to work less than unmarried women and childless women (Cohen and Bianchi 1999), and this difference in employment may be related to differences in access to employer-sponsored health insurance. Family characteristics also are

associated with differences in men's behavior (Akerlof 1998; Eggebeen and Knoester 2001; Loughran and Zissimopoilos 2007; Lundberg and Rose 2000). Scholars find that unmarried men tend to make riskier choices and work less than married men or fathers. These differences in risk aversion and employment may affect men's access to or interest in obtaining health insurance coverage.

Previous research on the connection between family characteristics and health insurance coverage has been limited. There are a few papers that show differences in insurance rates among individuals who change marital status (Zimmer 2007). Other recent papers have compared insured rates for same-sex and different-sex couples or couples with different marital statuses (married couples versus unmarried cohabiting couples). These studies find that individuals who are part of a same-sex couple or an unmarried cohabiting couple (of any gender composition) have higher rates of uninsurance, both in descriptive statistics and in models with other controls (Ash and Badgett 2006; Buchmueller and Carpenter 2010; Ponce, Cochran, Pizer, and Mays 2010). Two papers address how family structure changes are associated with decreases in health insurance coverage among women over time (Glied 2008; Montez, Angel and Angel 2009), but I could not find any papers that consider the associations of family structure with health insurance coverage for men or for the total population.

Scholars unfamiliar with American family demography might surmise that the lack of research on the connection between family characteristics and health insurance is due to a lack of change in family characteristics of the working-age population over the past three decades. However, this is far from the case as American families have changed tremendously during this period. Age at first marriage and at first birth have increased rapidly (Fitch & Ruggles 2000; Matthews & Hamilton, 2009); today, far fewer young adults are married with children by age 25 than two or three decades ago. A higher percentage of women are expected to never marry (Goldstein and Kenney 2001), and divorce rates have held steady at a fairly high rate, resulting in fewer adult years spent married. Fertility rates have not changed much, but the context of childrearing has become much more varied with tremendous increases in unmarried childbearing; in 2007, four in ten births were to unmarried mothers (Ventura 2009). Thus, fewer working-age adults were married or married with children in the late 2000s than in the early 1980s, and more were unmarried with children.

How might we expect these changes in family demography to affect health insurance coverage rates among working-age adults? Three factors are at play: 1) the distribution of the population across family characteristics is changing (i.e. a smaller percentage are married or married with children, and a larger percentage are unmarried with children); 2) the characteristics of those who occupy each family status are changing (i.e. marriage is becoming less common among those without a college education and unmarried parenthood is no longer exclusively the province of very poor or uneducated individuals); 3) the employment behaviors of women are changing such that both married and unmarried mothers are working more, but the increase in employment is greater for unmarried mothers. This paper seeks to present the counterfactuals of how the percentage of working-age adults without health insurance would have changed if any one of these factors had remained unchanged or if all three of these factors remained unchanged. My hypotheses about the contributions of each of these factors are discussed in the following paragraphs.

H1: Decreases in the percentage married (both women and men) will be associated with higher percentages of working-age adults who are uninsured.

All else equal, we would expect that married couples in which both adults are working full-time year-round would have the highest rates of insurance coverage because these adults would have two opportunities for employer-provided insurance offers: one through each spouse. For married couples with only one full-time year-round worker, one might expect the opportunity for an offer of employer-provided insurance to be the same as for an unmarried full-time year-round worker, all else equal. However, previous research on behavioral changes related to marriage suggest that the married worker, particularly if he is a married man, might become more risk-averse after marriage and thus more likely to choose a job with health insurance coverage. Thus, we expect that all individuals in married-couple families, even those with just one full-time year-round worker, will have lower uninsurance rates than unmarried individuals.

H2: Changing selection into marriage will mean that all else equal, marriage should become more strongly associated with having insurance coverage in the later period (2008) than in the earlier period (1984).

Family demographers have documented considerable changes in marriage patterns over the past three decades with notable differences by education and race/ethnicity. More specifically, the percentage of individuals ever marrying has fallen most among women with less than a high school degree and with a high school degree while it has increased among women with a college education (Goldstein and Kenney, 2001). These changes mean that marriage has become more select of individuals who have more stable and better remunerated employment, the group most likely to have offers of employer-provided health insurance. Thus, we would expect that the association between marital status and insurance coverage would have increased over time because of the changing composition of the married population.

H3: Increases in the percentage of single mothers will be associated with higher uninsurance rates.

Regarding children, we would expect that unmarried women with children would have a greater opportunity for coverage through Medicaid than unmarried women without children or than men. However, all else equal, we also know that unmarried mothers with children are less likely to work full-time year-round than men or unmarried women without children (but are more likely than married mothers) and are more likely to be poor or low-income, factors associated with lacking health insurance coverage (citation). Although some single mothers will qualify for Medicaid, many single mothers are likely to have incomes just above the qualification level (citation) and may struggle to be able to afford insurance premiums, even if they have an offer of employer-provided insurance. Thus, we expect that increases in the share of the working-age women who are single mothers, either never married or divorced, will be associated with higher uninsurance rates among women.

H4: Increases in full-time employment and school enrollment among women and young adults will be associated with higher health insurance coverage rates.

In many states, it is prohibitively expensive to buy health insurance on the individual market and much less expensive to buy insurance through an employer. Although not all employers offer health insurance coverage, full-time year-round employees are the most likely to be eligible for such offers. Thus, an increase in the percentage of young adults are employed full-time is likely to correspond to an increase in the percentage with health insurance coverage, all else equal. Similarly, most students enrolled full-time in higher education have an opportunity to purchase health insurance through their school, and many schools even require that students do so. Thus, an increase in the college attendance of young adults also should be associated with an increase in health insurance coverage.

This paper seeks to fill the gap in the literature connecting family changes with the rise in the percentage uninsured by using decomposition techniques. This paper addresses the counterfactual of how much lower (or higher) uninsurance rates would have been in 2008 had the family characteristics of working-age adults held stable between 1984 and 2008.

DATA AND METHOD

Data Source. The data for this analysis are from the March Current Population Survey (CPS) from 1985 and 2009 corresponding to the years 1984 and 2008, respectively. CPS data are often used to examine health insurance coverage changes across time because the data are nationally representative, the sample is large, and the health insurance items have been continuously collected for a long period.

The CPS has a few notable limitations in regard to analyzing health insurance coverage patterns over time. First, the estimates of uninsurance obtained from CPS data are higher than estimates from other sources such as the National Health Interview Survey (NHIS), Medical Expenditures Panel Survey (MEPS), or Survey of Income and Program Participation (SIPP). This difference is believed to arise from an underreporting of Medicaid coverage in CPS and because of the difference in reference periods across the surveys (e.g. the past year versus current status or status over the preceding month, etc.). Second, the CPS data used in this analysis are not longitudinal, and thus all comparisons of health insurance status across adults of different family structures should be understood as associational. They are the average differences across groups, not the expected change in an individual's insurance status if she or he were to change family structures. Third, information on several characteristics that previous research has shown to be associated with health insurance status, such as citizenship status, union membership, employer size, etc., were not collected by CPS in all the years for which health insurance coverage data are available. Thus, researchers must choose between incorporating these data into their analysis but restricting the analysis to a shorter time span or excluding examination of these characteristics in favor of examining a longer time span. Finally, CPS does not include institutionalized populations. Individuals in mental health institutions, prisons, or on military bases are not included. Although this excludes only a small proportion of the total population, for some subgroups, the percentage not covered by CPS is substantial. For example, between those excluded based on the non-institutionalized criteria and those undercounted because of loose affiliation with a household or other reasons, it is estimated that as many as one in four young black men may be missing from the decennial census, CPS, and other household surveys (Hernandez and Brandon 2002), and the representativeness of these surveys for young, less educated black men may be decreasing over time (Pettit, forthcoming). Although those in mental health hospitals, prisons, and the military are supposed to receive medical care, counting them as

"insured" and incorporating them into this analysis does not seem like a good solution. Thus, this analysis is limited to the non-institutionalized population. Despite these limitations, CPS is still considered one of the best sources of data for examining long-term trends in health insurance coverage.

Sample. The population of interest in this paper is working-age adults. I exclude adults age 65 and over because individuals of this age are almost universally covered by Medicare. I also exclude children from the analysis for several reasons including that the predictors of children's insurance coverage are quite different than those of adult coverage, and that the introduction and expansion of SCHIP and CHIP has substantially altered the rates of uninsurance among children and the characteristics of the uninsured child population. In this analysis, I define working-age adults to be individuals age 19 to 64, inclusive. For some analyses, I consider a subset of this population, "young adults," which I define as individuals ages 19 to 39, inclusive.

Variables

Health Insurance Coverage. Individuals are coded as uninsured if they do not report having any health insurance. If individuals report that they do not have Medicaid, Medicare, TRICARE, other government-provided health insurance, employer-sponsored private insurance, or other private insurance, they are considered uninsured.

Family Structure. I categorize all adults into one of seven family structures, which are based on a combination of the individual's marital status and whether he or she has children in the household. The seven family structures are as follows: married (either with spouse present or spouse absent), no children present; married with children present; divorced, no children present; divorced with children present; all widowed, including those with children present and with no children present; never married, no children present; never married with children present. Although the presence of children does not necessarily indicate parental status, previous research has shown that the number of children in the household is a good proxy for women's fertility and motherhood status (Rindfuss 1976). There is no such proxy for men, and CPS does not include an item specifically asking men if they have any biological children. Thus, readers should understand the presence of children in the household as an indicator that a man is probably a father, but the converse (that lack of children in the household means that a man is not a parent) should not be assumed.

CPS did not start collecting data on whether respondents were cohabiting with an unmarried partner until 1995. Although there are estimation techniques to identify potential cohabitors, these techniques are thought to underestimate the extent of cohabitation. Because of this data limitation and because cohabiting status is not linked to insurance eligibility in most cases, this analysis does not utilize non-marital cohabitation as a separate dimension of family structure.

Major Activity. Four *major activity* categories are used in the analysis to describe an individual's level of involvement in paid employment and schooling, which are related to eligibility categories for insurance. Employer-provided insurance is most often offered to employees working more than an employer-set minimum number of hours per week on a year-round basis (as opposed to seasonally or on short contracts). Employer minimums for the number of hours worked required to be considered "full-time" may vary, but under most definitions, an employee working 35 hours or more per week is considered "full-time." In most studies of employment, full-time year-round work is defined as being employed for 50 or more weeks per year for 35 hours or more per week, so I use this definition. If an individual reports employment

in the previous year but fewer than 35 hours per week or employment for less than 50 weeks in the previous year, I categorize him or her as a part-time or partial year worker.

I also identify individuals who report full-time enrollment in schooling or identify schooling as their major activity (other choices on this item include employment, looking for work, keeping house, etc.). Many students are eligible to purchase health insurance through the college or university that they are attending. Additionally, younger and unmarried students are often eligible to remain on their parents' health insurance plan. This inclusion of dependents enrolled full-time in school varies by state and has changed over time (citation).

Finally, I define a fourth category that identifies individuals who are neither working nor enrolled in school. This category includes individuals who were not employed for any weeks in the previous year for any reason including inability to find work, illness or disability, or because they were caring for dependents or "keeping house."

These four categories of major activity (full-time year-round employment, part-time or partial year employment, student, or not employed nor in school) are mutually exclusive. For example, individuals enrolled in school full-time but working a few hours per week or in the summer are classified as students. A mother who worked six months of the year, had a child, and quit her job would be classified a "part-time or partial year worker" whereas a mother who did no paid work nor was enrolled in school in the previous year would be categorized as "not employed nor in school."

Major Activity & Employment Sector For some of the analyses, a set of variables combining major activity and employment sector (when applicable) are used. Employed individuals are categorized as working in the private sector, public sector, or self-employed. Self-employed workers often have difficulty obtaining insurance or are charged very high premiums (citation). In contrast, government employees have very high rates of insurance coverage (citation). Eight mutually exclusive categories emerge from crossing major activity with employment sectors: FTYR worker, private sector; FTYR, public sector; FTYR, self-employed; part-time, private sector; part-time, public sector; part-time self-employed; student; not employed and not student.

Race/Ethnicity Four racial/ethnic groups are used in the analysis. They are white, non-Hispanic; black, non-Hispanic; Hispanic, any race; and all other races and responses.

Age Groups Six age groups are defined for this analysis. They are ages 19-24, 25-29, 30-39, 40-49, 50-59, and 60-64.

Education Individuals are classified by their highest level of educational attainment. Categories used in this analysis include less than high school, high school, some college, and college degree or higher degree.

Method

In order to examine how health insurance coverage rates have changed between 1984 and 2008, and how these changes in coverage rates are associated with changes in family structure, I use two decomposition methods.

The first type of decomposition is a shift/share method. I specify population subgroups and calculate the uninsurance rate for each subgroup in Time 1 (1984) and Time 2 (2008). I then calculate what the uninsurance rate for the total population would have been in 2008 under two scenarios: 1) if the uninsurance rates were as observed but the population characteristics had remained constant (i.e. using the subgroup uninsurance rates for Time 2 but with subgroup weights for Time 1); 2) if the uninsurance rates had stayed the same but the population

characteristics had changed as observed (i.e. using the subgroup uninsurance rates from Time 1 with the subgroup weights from Time 2). The population subgroups specified are defined by gender (2), age groups (6), race/ethnicity (4), education (4), family characteristics (7), and major activity (4).

The core of the analysis relies on a second type of decomposition, Oaxaca-Blinder decompositions. These types of models have been used in many previous papers examining change in insurance coverage over time (e.g. Acs 1995, Glied 2008). In brief, OLS regression models predicting the percentage uninsured are run separately for the two groups under examination (working-age individuals in 1984 and in 2008) and then the difference in predicted means for these two groups is decomposed into the part attributable to two components: endowments, or the difference in the characteristics of the groups (ie. the adult population in 1984 versus the adult population in 2008), and coefficients associated with these endowments or characteristics (this shows whether the returns or associations with uninsurance are different across groups). I run these Oaxaca-Blinder decompositions separately for women and men because the associations of family characteristics with insurance are expected to vary by gender. Four specifications of the regression models are fitted. The first includes only age, race/ethnicity, education, and family characteristics. The second model adds state dummy variables. The third model includes all the variables of the second model plus the major activity variable, and the fourth model substitutes the major activity/sector combined variable for the major activity (without sector) variable. In other analyses (available upon request), the education variables are excluded and replaced with variables indicating family income in relation to the poverty line; patterns of results for family structure variables were fairly similar, so these results are not included. Additional Oaxaca-Blinder decomposition models are run for young adults (19-39) in the sample. These models are run separately for white women, black women, white men, and black men. Hispanics are excluded from this analysis because the sample is small in 1984. Likewise, the state variables are excluded from the young adult analysis because some states had too few observations of young black men or young black women.

RESULTS

The percentage of working-age adults without health insurance increased from 16.6 in 1984 to 20.3 in 2008, a 22 percent increase. Increases in the percentage uninsured were larger for men than for women and were concentrated among younger adults, particularly among adults ages 25 to 39. A smaller percentage of older women (ages 50 – 64) were uninsured in the 2008 period than in the 1984 period. **Appendix 1** shows the percentage of working-age adults who were uninsured by gender and age group.

Health insurance coverage was not the only characteristic of the working age population that changed over time (see **Appendix 2**). The working-age population in 2008 was older, more educated, and included more Hispanics than that of 1984. These changes have mixed implications for changes in health insurance coverage. Older individuals and those with more education have lower rates of uninsurance whereas Hispanics have higher rates of uninsurance. Additionally, the distribution of working-age women across the four major activity categories changed substantially; the percentage of women working full-time year-round increased from approximately 31 percent to 39 percent. There was considerably less change in the distribution of men across major activities. The shift of more women into full-time year-round employment, all else equal, is expected to be associated with more offers of employer-sponsored insurance for women and thus higher rates of health insurance coverage.

For both women and men, family structure characteristics changed notably over time as shown in **Table 1**. Between 1984 and 2008, the percentages of the population in the categories of "married, with children" and "married without children" decreased. In contrast, the percentages in the categories of "never married with no children in the household" and "divorced with no children" increased somewhat. For women, the percentage widowed also decreased. **Table 1** also shows how these family characteristics were associated with health insurance coverage for women and men in both periods. Several patterns are notable. First, consistent with Hypothesis 1, married individuals with and without children are less likely to be uninsured than individuals in any other family structure. Thus, the shift in the population over time from married to divorced or never married is expected to increase the percentage of women and men who are uninsured in the later period. Second, the percentage uninsured increased across all family structures for men, and the increases were not notably larger for any one group. In contrast, the percentage of women uninsured increased for the three family structures with children in the household (married, divorced, and never married), but decreased for married women without children and for never married women without children. Because the percentage uninsured across family structures changed in different ways for women and men, the change in insurance coverage associated with family structure change is also expected to differ.

A simple shift/share decomposition [reported in Table 2] reveals that although most of the rise in uninsurance is attributable to rising percentages uninsured for all subgroups, the shift in population distribution was a non-negligible factor for men's insurance coverage rates. The percentage of men uninsured (as predicted by the decomposition) in 1984 was 17.1 compared with 22.3 for 2008. Had men's characteristics stayed the same across this period (but uninsurance rates changed as observed), the percentage predicted to be uninsured by the shift/share decomposition would have been 21.8. This predicted increase represents a 27.5% increase off the 1984 observed rate, in contrast to the observed 30.4% increase. Women's health insurance rates did not change as much across this period, but had women's characteristics remained stable across time (but insurance rates changed as observed), the percentage of women uninsured would have increased from the observed 1984 rate of 16.4 to a predicted rate of 20.0 for 2008 instead of the observed rate of 17.9. This simple shift/share decomposition suggests that the percentage of working-age women who were uninsured in 2008 would have been even higher had their characteristics not changed over time, but that if men's characteristics had not changed over time, the percentage of working-age uninsured men would have been lower. However, this simple decomposition does not tell us which of the characteristics (age, education, race/ethnicity, employment, family structure) are responsible for these differences.

Regression models that predict being uninsured (run separately by gender and with just basic demographic variables) show that family characteristics are associated with health insurance coverage rates in both time periods (see **Tables 3a** and **3b**). Controlling for other characteristics, compared to individuals who were married with children (the reference group), individuals in other family structures are more likely to be uninsured, as indicated by the positive and statistically significant coefficients on the family characteristic variables in all four models (from Table 5a: Women 2008, Women 1984; from Table 5b: Men 2008 and Men 1984). For example, in 2008 the difference in the percentage uninsured between married mothers and single mothers, all else equal, was 9.9 percentage points for divorced mothers and 6.8 percentage points for never married mothers. This is consistent with Hypothesis 1, which predicts lower uninsurance rates for married individuals. The difference in uninsurance between married individuals with children (the reference group) and never married individuals without children

did not change much between 1984 and 2008 for either women or men. For both women and men, differences in uninsurance for those never married with children compared with those married with children increased slightly. Notably, however, family structure characteristics are not the only or the strongest predictors of being uninsured; education and Hispanic ethnicity are strongly associated with uninsurance. Additionally, the coefficients associated with education and Hispanic ethnicity differed across the two time periods considered. For example, the difference in uninsurance between the reference category (high school graduates) and those with four years of college increased considerably for women (from -.059 to -.133) and men (from -.056 to -.139) across these periods.

Changes in the associations between family characteristics and being uninsured combined with the changing distribution of family structures to affect the percentage of adults uninsured. In order to better understand the extent to which family structure changes might have contributed to changes in uninsurance rates, I used Oaxaca-Blinder decompositions with four specifications of the regression models predicting uninsurance. **Table 3a and 3b** show the regression models upon which the full decomposition for the simplest model is based. A summary of this decomposition is presented in **Table 4.**

The decomposition shows that women's uninsurance rate as predicted by Model 1 changed by 2.5 percentage points across the two time periods and that changes in the characteristics (or endowments) of the population across time would have *decreased* the percentage uninsured by 38.6%. This decrease owes to the aging of the population and the increasing educational attainment of women over this period, with both older age and greater education associated with lower odds of being uninsured. These changes however were partially offset by changes in race/ethnicity (primarily in the percentage of Hispanics) and in family structures (increases in the percentage divorced and single mothers), which were associated with greater odds of being uninsured. This is consistent with Hypotheses 1 and 3 regarding the effects of compositional changes in the percentage of the adult population who are married and single mothers, respectively. However, changes in the coefficients associated with characteristics (or the returns to endowments) were much larger than changes in the characteristics themselves across time. As shown in **Table 4**, changes in the coefficients can account for 138.5% of the change in the percentage uninsured. Thus if the characteristics of the population had remained stable and only the coefficients had changed, the percentage of working-age women uninsured would have been approximately 39% higher than actually observed in 2008. Of the coefficients in the model, those associated with education and race/ethnicity changed substantially whereas those associated with family structure barely budged. This is evidence against Hypothesis 2, which predicts a widening difference in uninsurance rates between married individuals and others.

For men, the difference between the percentage uninsured in the earlier and the later period (4.8 percentage points) was greater than that for women (2.5 percentage points). For men, as for women, changes in coefficients substantially increased the percentage uninsured. However, unlike for women, changes in characteristics also contributed to the increase in uninsurance. The decomposition shows that 83.7% of the observed increase in uninsurance can be attributed to changes in coefficients and 16.3% to changes in characteristics. The increasing educational attainment of men decreased uninsurance, but all other population changes were associated with increased uninsurance, including changes in family structure. The coefficients for men changed in a similar way but in different magnitudes than those for women. Of note, the family structure coefficients showed change for men whereas they did not for women. This is

partial evidence for Hypothesis 2 concerning the widening difference between married individuals and those with other family structures.

Four model specifications, including the simple model discussed above, were run for both women and men. **Table 5** shows the results from these decompositions. The regression models showed improved model fits with the additions of state dummies, major activity, and employment sector, but estimates of the amount of the uninsurance increase associated with family structure change stayed fairly stable across models; they are slightly greater for women and slightly smaller for men in the models with more variables. Similar to the simple model summarized in **Table 4**, in the additional specifications shown in **Table 5**, we also see that the coefficients associated with family characteristics did not change much for women but changed somewhat for men. To summarize across models, changes in the family structure characteristics can account for .6 to .8 percentage points of the 2.5 percentage point increase in uninsurance for women and between 1.1 and 1.3 of the 4.8 percentage point increase for men. However, for women, the increase in uninsurance that would have resulted from family structure changes was more than completely offset by changes in women's major activity, primarily increases in full-time employment. This offsetting effect of changes in employment is consistent with Hypothesis 4. This scenario was unique to women, however; changes in men's school attendance and employment were modest and thus did not offset the increased risk of uninsurance associated with more unmarried men.

Young adults, in particular young men, experienced the greatest increases in uninsurance between the two periods examined in this paper, and family changes were also concentrated in this group. In **Appendix 3**, I show how the distribution of family characteristics shifted across four groups of young adults (ages 19-39): white women, black women, white men, and black men. Readers will note that the differences *between* groups, especially in married parenthood versus single parenthood, are much greater than the shift across time *within* groups. Additionally, the percentage uninsured varies substantially across these groups, ranging from 15.3 (white women) to 31.8 (black men) in 1984 and 16.5 (white women) to 36.9 (black men) in 2008. I reran regression models predicting uninsurance for each of these groups of young adults including age, education, family structure, and major activity and again decomposed differences in the predicted means. Results are shown in **Table 6**. The increases attributed to shifts in family structure are larger for each of these young adult groups than they were for the full working-age population. For all four groups, family structure shifts alone would have raised uninsurance rates by over 1 percentage point, consistent with Hypotheses 1 and 3. However, for white women, black women, and black men, this predicted increase in uninsurance from family structure change was offset entirely by shifts in education and major activity, consistent with Hypothesis 4. White young men had smaller distributional changes across education and activity, and thus, their changes in family structure were not mitigated by a shift into groups associated with greater insurance coverage rates.

Taken together, these analyses suggest that changes in marital status and family characteristics may explain as much as 27% of the increase for all working-age men and 57% of the increase for young white men (Tables 4 and 6). How plausible is it that changes in marital status affected health insurance coverage considerably for men, especially young white men? I argue that these are plausible estimates given the gender difference in sector and industry of employment and the resulting difference in the availability of employer-sponsored insurance.

Of those who are childless and never married, men have higher uninsurance rates than women (see Table 1). Supplemental analyses (available upon request) show that this difference

between women and men's uninsurance rate remains large (4.8 percentage points) even once differences in age, race/ethnicity, education, and major activity have been taken into account. Additional regression analyses suggest that unmarried childless women who are employed full-time are more likely to have insurance coverage than similarly employed unmarried childless men at least partially because of differences in employment sectors. Among similar full-time public sector workers who are unmarried and without kids, there is no gender difference in uninsurance. However, there are gender differences in uninsurance among full-time private sector worker. (My findings regarding the gender differences in uninsurance and employment sector and industry are consistent with those of CITATION.) Women and men are concentrated across different industries in the private sector and some of the industries in which men are most heavily concentrated, such as construction, have low rates of employer-provided insurance. Further analysis of CPS data for 2008 by population subgroups (defined by race/ethnicity and education) show very large absolute differences in uninsurance rates among employed men by marital status among black and white men without a college degree. For example, the absolute difference in the percentage uninsured by marriage for men with some college was 19.3 percentage points for white men and 28.0 percentage points for black men.

Consider the following hypothetical example that illustrates my main findings. Imagine two individuals in a couple, a high school educated man in his mid-twenties in construction work and a woman of similar age with some college who works for the government. In 1984, she almost certainly had a health insurance offer, while his access to health insurance depended on whether he was a union worker. By 2008, she still had access to health insurance through her employer, but he was less likely to be unionized and less likely to have an offer of employer-provided insurance. In 1984, this couple was probably married and both individuals had health insurance. But in 2008, a similar couple was more likely to be unmarried but cohabiting or dating and living in separate households, following the trend of delayed marriage. In this scenario, she would have health insurance through her employer, but he could not take advantage of her insurance offer because they were not legally married. In contrast, if this couple were married as most similar couples were in 1984, both he and she could rely on her insurance offer and his reduced access to employer-provided insurance would not have mattered as much.

CONCLUSION

Compositional changes in the population, including changes in family structure, were not the main driver of increases in the percentage uninsured among working-age adults, but they were a non-trivial factor, especially for men. Married individuals with children have higher insurance coverage rates than other individuals, and the population shifts between 1984 and 2008 toward later marriage, more divorce, and more non-marital births decreased the percentage of the population that were married with children, especially among young adults. For women, the increase in the percentage of single childless women and single mothers was accompanied by an increase in full-time employment, which is associated with greater access to employer-provided health insurance. Among men, changes in employment were small and thus there were no changes to offset the loss of an opportunity for health insurance coverage through a wife's employer-provided coverage.

The analyses presented in this paper are decompositions, one way of estimating counterfactual scenarios. The analyses are at the population level and do not purport to show how an individual's access to insurance offers or acceptance of these offers changes as they change marital or parental statuses. Rather, the analyses present one possibility of what the

uninsurance rate might have been had family characteristics not changed. The results suggest that changes in family characteristics may have increased the percentage of working-age adults without health insurance coverage, but they are far from the gold standard for proving causal effects. The causal arrows likely run in both directions; decreases in marriage caused higher levels of uninsurance, but uninsurance may have also caused delays in marriage. Indeed, considerable evidence suggests that the lack of employment opportunities with high wages (and presumably health insurance) may be a factor in the decline in marriage among young adults, especially among those without a college degree (citation). [1]

The above limitations aside, this analysis makes two contributions to the literature. First, it suggests that changes in family characteristics across time and differences in family characteristics across population groups should not be ignored in analyses of uninsurance. This may seem obvious, but several recent studies do not include marital status as a predictor of insurance coverage and most do not include parental status (although some include number of children). Second, changes in family characteristics may have affected men and not just women as is often assumed in the literature. Zimmer (2007) finds bigger impacts of divorce on women, but the impact of *not marrying* may be different from that of having been married and subsequently divorcing. The analysis presented in this paper suggests that, in the realm of health insurance coverage, men may have been more disadvantaged than women by the shift over time to not marrying or marrying later. This finding of a greater negative impact of family change for men than for women is in sharp contrast to findings in other domains, such as poverty risk (citation), where women have greater risks. It also suggests that we may be greatly underestimating employed wives' contributions to family resources if we do not include health insurance benefits in our calculations. Thus, this finding is likely to be of interest to both scholars of health insurance and health policy and those concerned with family demography and inequality within families.

---

[1] Scholars may wish to investigate the extent to which insurance availability affects marriage and parenthood by exploiting recent changes in the availability and cost of health insurance in Massachusetts following their health care reform which reduced uninsurance rates to below 2%.

REFERENCES

Acs, G. 1995. "Explaining Trends in Health Insurance Coverage between 1988 and 1991." *Inquiry* 32: 102-110.

Akerlof GA. 1998. "Men without children." *Economics Journal*. 108:287–309.

Ash, M. and L. Badgett. 2006. "Separate and Unequal: The Effect of Unequal Access to Employer-Based Health Insurance on Same-Sex and Unmarried Different-Sex Couples." *Contemporary Economic Policy* 24(4): 582-599.

Cawley, J., Schroeder, M., and K.I. Simon. 2006. "How did welfare reform affect the health insurance coverage of women and children?" *Health Services Research* 41(2): 486-506.

Cohen, Philip N. and Suzanne M. Bianchi. 1999. "Marriage, Children, and Women's Employment: What Do We Know?" *Monthly Labor Review* 122(12):22–31.

Eggebeen, David, and Chris Knoester. 2001. ''Does Fatherhood Matter for Men?'' Journal of Marriage and Family 63:381–93.

Fairlie, R. 2005. "An extension of the Blinder-Oaxaca decomposition technique to logit and probit models." *Journal of Economic and Social Measurement* 30:305-316.

Fitch, C. and S. Ruggles. 2000. "Historical Trends in Marriage Formation: The United States 1850-1990." In *The Ties that Bind: Perspectives on Marriage and Cohabitation*. Ed. Linda Waite.

Glied, S., K. Jack, and J. Rachlin. 2008. "Women's Health Insurance Coverage, 1980-2005." *Women's Health Issues* 18: 7-16.

Goldstein JR, Kenney CT. 2001. Marriage delayed or marriage forgone? New cohort forecasts of first marriage for U.S. women. *American Sociological Review* 66:506-19.

Hernandez, Donald, and Peter Brandon. 2002. ''Who Are the Fathers of Today?'' Pp. 33–62 in Catherine Tamis-LeMonda and Natasha Cabrera, eds., *Handbook of Father Involvement: Multidisciplinary Perspectives*. Mahwah, NJ: Lawrence Erlbaum Associates.

Loughran, David, and Julie Zissimopoulos. 2007. "Why Wait? The Effect of Marriage and Childbearing on the Wage Growth of Men and Women." Rand Working Paper WR-482. Santa Monica, CA: Rand.

Lundberg, Shelly, and Elaina Rose. 2000. ''Parenthood and the Earnings of Married Men and Women.'' *Labour Economics* 7:689–710.

Matthews, T.J. and B.E. Hamilton. 2009. "Delayed Childbearing: More Women are Having Their First Child Later in Life." *NCHS Data Brief, No. 21.* Hyattsville, MD: National Center for Health Statistics.

Montez, J., Angel, J., and R. Angel. 2009. "Employment, Marriage, and Inequality in Health Insurance for Mexican-Origin Women." *Journal of Health and Social Behavior* 50: 132-148.

Rindfuss, Ronald. 1976. "Annual Fertility Rates from Census Data on Own Children: Comparisons with Vital Statistics Data for the United States." *Demography* 13(2):235–49.

Ventura SJ. 2009. Changing patterns of nonmarital childbearing in the United States. *NCHS Data Brief 18.* Hyattsville, MD: National Center for Health Statistics.

Zimmer, D. 2007. "Asymmetric effects of marital separation on health insurance among men and women." *Contemporary Economic Policy* 25(1): 92-106.

Appendix 1. Percentage uninsured by age group, gender, and year.

	All			Women			Men		
	1984	**2008**	**% change**	**1984**	**2008**	**% change**	**1984**	**2008**	**% change**
All ages	16.6	20.3	22	15.5	18	16	17.8	22.7	28
19-24	27.2	26.2	-4	27.2	26.2	-4	34.6	34.7	.3
25-29	14.8	24.8	68	14.8	24.8	68	21.0	33.4	59
30-39	11.5	18.9	64	11.5	18.9	64	14.0	24.7	76
40-49	12.5	16.2	30	12.5	16.2	30	13.1	19.5	49
50-59	13.9	13.3	-4	13.9	13.3	-4	11.3	14.9	32
60-64	14.6	12.3	-16	14.6	12.3	-16	11.1	11.9	7

Notes: Weighted data from 1985 and 2009 releases of the March Current Population Survey corresponding to years 1984 and 2008. All individuals over age 18 and under age 65 are included. Standard errors are less than .7 for all groups.

Appendix 2. Descriptive statistics for all working-age adults by gender and year.

	Women		Men	
	1984	**2008**	**1984**	**2008**
	n=49,634	*n*=63,525	*n*=45,754	*n*=58,820
Age				
19-24	16.6	11.7	16.7	12.4
25-29	14.6	10.6	15.0	10.4
30-39	26.6	23.5	26.9	22.7
40-49	18.1	26.0	18.1	25.6
50-59	14.7	19.1	14.3	19.6
60-64	9.4	9.1	8.9	9.2
Education				
Less than high school	19.9	10.7	20.1	12.4
High School	43.9	27.9	37.8	31.3
Some college	19.9	31.7	20.0	28.1
College or more	16.2	29.7	22.1	28.2
Race/ethnicity				
White, non-Hispanic	75.3	63.3	77.5	65.1
Black, non-Hispanic	10.0	11.9	8.2	9.9
Hispanic	6.4	16.2	6.0	16.8
Other	8.3	8.6	8.3	8.2
Family Structure				
Married, no kids	28.4	24.7	28.0	24.7
Married, with kids	35.4	34.4	38.2	36.5
Divorced, no kids	6.2	8.4	7.2	8.5
Divorced, with kids	6.8	6.2	1.2	1.9
Widowed	4.5	2.6	0.9	0.7
Never married, no kids	13.0	15.4	20.0	22.6
Never married, with kids	5.5	8.2	4.5	5.1
Primary Activity				
Not in school or working	27.9	22.7	10.0	11.0
Working full-time, year-round	30.9	38.7	56.0	54.9
Working part-time or less than 50 weeks/year	36.3	32.9	28.8	29.0
In school	4.9	5.7	5.2	5.0
Primary Activity & Employment Sector				
Not in school or working	28.1	22.7	10.0	11.0
Working FTYR, private sector	22.9	29.2	41.6	43.9
Working FTYR, public sector	6.6	8.1	8.6	7.6
Working FTYR, self-employed	1.4	1.5	5.7	3.4
Working part-time, private sector	27.4	24.9	22.4	22.7
Working part-time, public sector	6.1	5.5	3.0	3.3
Working part-time, self-employed	2.6	2.4	3.4	3.1
In School	4.9	5.7	5.2	5.0

Table 1. Percentage of working-age adults who are uninsured by family structure & year.

	1984	2008	% change in percentage uninsured	% change in percentage with this family structure
WOMEN				
All	15.5	18.0	16%	
Married, no kids	11.4	11.3	-1	- 13
Married, kids	10.7	14.3	34	- 3
Divorced, no kids	20.9	22.9	10	36
Divorced, kids	20.4	26.1	28	- 9
Widowed	21.6	21.6	0	- 42
Never Married, no kids	25.5	24.8	-3	19
Never Married, kids	23.8	28.4	19	49
MEN				
All	17.8	22.7	28%	
Married, no kids	10.6	12.9	22	- 12
Married, kids	10.4	14.2	37	- 5
Divorced, no kids	26.1	29.1	12	+ 18
Divorced, kids	22.9	27.9	22	+ 58
Widowed	18.6	21.7	17	- 22
Never Married, no kids	32.6	35.7	10	13
Never Married, kids	33.1	37.8	14	13

Table 2. Results from shift/share decomposition of uninsurance among working-age adults

	Predicted, 1984	Predicted, 2008
Women		
Characteristics as observed	16.4	17.9
Holding characteristics constant & allowing rates to change		20.0
Holding rates constant & allowing characteristics to change		16.2
Men		
Characteristics as observed	17.1	22.3
Holding characteristics constant & allowing rates to change		21.8
Holding rates constant & allowing characteristics to change		18.2

Table 3a. Results from regression models predicting uninsurance for all working-age WOMEN by year. (Model 1 Specification).

	2008 (n=63,525)			1984 (n=49,634)		
	Coefficient	Robust Standard Errors		Coefficient	Robust Standard Errors	
19-24	.044	.008	***	.113	.007	***
25-29	.068	.007	***	.021	.006	***
30-39	.027	.005	***	.003	.005	
40-49	Reference			Reference		
50-59	-.031	.005	***	-.002	.006	
60-64	-.042	.006	***	-.008	.007	
White, non-Hispanic	Reference			Reference		
Black, non-Hispanic	.041	.006	***	.018	.007	**
Hispanic	.159	.006	***	.075	.009	***
Other	.076	.007	***	.065	.007	***
Less than high school	.108	.008	***	.095	.006	***
High School	Reference			Reference		
Some college	-.075	.005	***	-.013	.005	**
College or more	-.133	.004	***	-.059	.004	***
Married, no kids	.012	.005	*	.011	.005	*
Married, with kids	Reference			Reference		
Divorced, no kids	.114	.007	***	.106	.009	***
Divorced, with kids	.099	.008	***	.079	.008	***
Widowed	.091	.013	***	.095	.011	***
Never married, no kids	.100	.006	***	.117	.007	***
Never married, with kids	.068	.008	***	.047	.010	***
Constant	.146	.005		.079	.005	
R-squared	.1044			.0606		

Note: All analyses use weighted data. Statistical significance levels are as follows:
*** p<.001 ** p<.01 * p<.05

Table 3b. Results from regression models predicting uninsurance for all working-age MEN (Model 1 Specification).

	2008 (n=58,820)			1984 (n=45,754)		
	Coefficient	Robust Standard Errors		Coefficient	Robust Standard Errors	
19-24	.032	.009	***	.118	.009	***
25-29	.064	.008	***	.043	.007	***
30-39	.033	.006	***	.013	.006	*
40-49	Reference			Reference		
50-59	-.034	.006	***	-.027	.006	***
60-64	-.048	.007	***	-.036	.008	***
White, non-Hispanic	Reference			Reference		
Black, non-Hispanic	.060	.007	***	.054	.008	***
Hispanic	.193	.007	***	.135	.011	***
Other	.082	.008	***	.065	.008	***
Less than high school	.125	.008	***	.105	.006	***
High School	Reference			Reference		
Some college	-.086	.005	***	-.013	.005	*
College or more	-.139	.005	***	-.056	.005	***
Married, no kids	.030	.005	***	.019	.005	***
Married, with kids	Reference			Reference		
Divorced, no kids	.155	.008	***	.153	.009	***
Divorced, with kids	.120	.016	***	.116	.020	***
Widowed	.105	.024	***	.069	.023	**
Never married, no kids	.181	.006	***	.169	.007	***
Never married, with kids	.147	.012	***	.112	.014	***
Constant	.140	.005	***	.071	.005	***
R-squared	.158			.110		

Note: All analyses use weighted data. Statistical significance levels are as follows:
*** p<.001 ** p<.01 * p<.05

Table 4. Results from Oaxaca-Blinder decompositions of changes in percentage uninsured among working-age adults by gender (Model 1 specification).

	Women				Men			
	Characteristics		Coefficients		Characteristics		Coefficients	
	coef.	%	coef.	%	Coef.	%	coef.	%
Change attributable:								
All variables	-.0098	-38.6%	.0352	138.5%	.0079	16.3%	.0404	83.7%
Age	-.0056	-22.2	-.0080	-32.4	-.0085	-31.2	-.0072	-14.9
Education	-.0178	-70.2	-.0403	-158.8	-.0117	-24.3	-.0409	-84.7
Race/Ethnicity	.0074	29.0	.0156	61.3	.0151	31.2	.0110	22.7
Family Structure	.0063	24.8	.0004	1.6	.0131	27.1	.0084	17.4
Constant			.0675	265.9			.069	143.3
Total change in coverage		.0254				.0483		

Table 5. Summary of results from Oaxaca-Blinder decompositions of changes in the percentage uninsured among working-age adults by gender.

	Women				Men			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Model Specifications								
Includes State variables		x	x	x		x	x	x
Includes Major Activity			x				x	
Includes Major Activity & Sector				x				X
R2 model for 1984	.061	.069	.086	.092	.11	.118	.143	.161
R2 model for 2008	.104	.115	.127	.134	.158	.165	.181	.197
Decomposition of change								
Change associated with characteristics	-.010	-.007	-.011	-.104	.008	.010	.014	.010
Family structure	.006	.007	.008	.008	.013	.013	.011	.011
Major activity / Activity & Sector	--	--	-.007	-.008	--	--	.003	0
Other variables				add				
Change associated with coefficients	.035	.033	.037	.036	.040	.038	.035	.038
Family structure coefficients	.000	-.001	-.005	-.006	.008	.008	.015	.014
Other variables				add				
Constant/intercept	.068	.081	.090	.094	.069	.064	.049	.056

Appendix 3. Percent of each race and gender subgroups with each family characteristic for White, non-Hispanic and Black, non-Hispanics young adults (ages 19-39).

	White Women		Black Women		White Men		Black Men	
	1984	2008	1984	2008	1984	2008	1984	2008
Family Characteristics								
Married, no kids	15.0	9.5	6.2	5.7	14.4	9.7	8.7	7.4
Married, with kids	46.9	45.0	25.4	19.4	41.6	39.9	29.2	22.7
Divorced, no kids	3.9	2.9	2.8	3.0	6.3	4.2	7.3	5.4
Divorced, with kids	7.3	6.5	15.1	7.7	1.2	1.8	1.8	1.3
Widowed	.6	.5	1.2	.8	.1	.08	.2	.04
Never married, no kids	20.2	23.8	21.3	30.2	29.8	34.9	39.7	51.7
Never married, with kids	6.1	11.7	28.0	33.1	6.4	9.3	13.0	11.5
Percent Uninsured	15.3	16.5	20.0	25.6	18.6	21.6	31.8	36.9

Table 6. Summary of results from Oaxaca-Blinder decompositions of the change in percentage uninsured among YOUNG ADULTS by gender and race (Model 4 Specification).

	White Women		Black Women		White Men		Black Men	
Model Specifications								
R2 model for 1984	.092		.088		.143		.147	
R2 model for 2008	.097		.070		.140		.131	
Difference in predicted means	.012		.057		.030		.051	
Decomposition of change	Coeff.	%	Coeff.	%	Coeff.	%	Coeff.	%
Change associated with endowments	-.003	-25%	.008	14%	.013	43%	.008	16%
Family structure	.014	116	.013	23	.017	57	.019	37
Activity & sector	-.004	-33	.003	5	.003	10	-.001	-2
Other variables								
Change associated with coefficients	.015	125%	.048	84%	.017	57%	.042	82%
Family structure	.003	25	.003	5	.019	63	.026	51
Other variables								
Constant/intercept	.127		.117	205	.089	297	.042	82