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The Institutional Determinants of Health Insurance: Moving away from Labor Market, Marriage, and Family Attachments under the ACA

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Abstract:	<p>For more than a century, the social welfare of working-age Americans depended on their linkages to employers, spouses, or children. Recent changes to the social provision of health care, however, provides a unique opportunity to examine the effects of policy reform on the historically constructed categories linking working-age Americans to social welfare benefits. Taking advantage of this fundamental shift in the country's system of public social provision, I use data from the National Survey on Drug Use and Health (NSDUH) to explore patterns of health insurance coverage from before and after the ACA became active in 2014. The results show that the salience of labor market, marriage, and family attachments as pathways to coverage significantly declined in the first three years following the passage of the ACA. By providing adults with a new route to coverage <i>decoupled from</i> their institutional attachments, the ACA helped to narrow health insurance inequalities across gender, race and ethnicity, and education. Given the strong association between health insurance and health outcomes, the results from this study raise important questions about the centrality of institutional attachments for our knowledge of health inequalities.</p>
<p>Note: The following files were submitted by the author for peer review, but cannot be converted to PDF. You must view these files (e.g. movies) online.</p>	
AppendixA	

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INTRODUCTION

For more than a century, the public provision of social benefits in the United States was restricted to only certain groups of citizens (Béland and Waddan 2017). Those deemed deserving of government assistance included veterans, mothers, children, the elderly, and the disabled (Katz 1986, 1989). Because they lacked a unified political consciousness, the broader class of working Americans never mobilized to establish social benefits through the welfare state (Skocpol 1992). Instead, workers organized locally and relied on their employers for the provision of social benefits. In an effort to avoid the public welfare system, workers also aimed to share these private benefits with their spouses and children whenever possible (ibid). Thus, the social welfare of working-age Americans has historically depended on their linkages to employers, spouses, or children.

In the absence of a universal system of welfare, adults who were unemployed, unmarried, and childless were left without social support. Once groups are classified as undeserving by the welfare state, their marginalized positions are rarely challenged (Soss 2005). Recent changes to the social provision of health care, however, provides a unique opportunity to examine the effects of policy reform on the historically constructed categories linking working-age Americans to social welfare benefits.

Implemented in 2014, the Patient Protection and Affordable Care Act (ACA) established a pathway for adults to access health insurance *decoupled from* their employers, spouses, and children. Taking advantage of this fundamental shift in the country's system of public social provision, I use data from the National Survey on Drug Use and Health (NSDUH) to explore patterns of health insurance coverage from before and after the ACA became active in 2014. To investigate the extent to which the historically constructed categories linking adults to social

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3 welfare benefits are dissolved by the ACA, I first compare whether and how the ACA
4 differentially affects health insurance coverage among adults with and without certain labor
5 market, marriage, and family attachments. Mapping these historically constructed linkages to
6 patterns of durable inequality (Tilly 1998), I then examine the extent to which changes in health
7 insurance varies across sociodemographic groups and test the extent to which the ACA
8 contributes to sociodemographic disparities in coverage.
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17 By exploring the effects of policy reform on socially embedded categories of worth, this
18 article draws attention to the evolving democratization of American citizens and raises important
19 questions about the role of citizenship in the formation of socially constructed inequalities,
20 especially in the domain of health. Health insurance is a significant determinant of health as
21 uninsured adults experience worse health outcomes and shorter life expectancies than do adults
22 with coverage (Institute of Medicine 2002). Expanding health insurance is expected to improve
23 the health disadvantages of uninsured adults by enabling access to more and higher-quality
24 health services (Hadley 2003; Levy and Meltzer 2008; McWilliams 2009; Freeman et al. 2014).
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35 From a policy perspective, this research also provides an important snapshot of the short-
36 term impacts of the ACA that may endure in the long-run. The analysis makes use of the most
37 recently available data, accounting for the first three years of change in the distribution of health
38 insurance coverage since the implementation of the ACA in 2014. By the end of this period
39 (December 2016), about 12% of adults remained uninsured (Current Population Survey (CPS)
40 2017). According to projections from the Congressional Budget Office (CBO), the share of
41 adults without health insurance is expected to stay at this level in the years ahead (CBO 2018).
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51 The current political climate, however, casts doubt over the ACA's future. Nonetheless,
52 uncovering how historically constructed categories produce inequalities in health insurance and
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3 identifying how policy changes modify these linkages remains critically important. As the ACA
4 builds on, rather than eliminates, the traditional structuring of health insurance, most people will
5 continue accessing health insurance through existing institutional pathways despite the passage
6 of the ACA (Rosenbaum 2011; Quadagno 2010). The extent to which adults will continue
7 qualifying for coverage through their employers, spouses, and children, however, is unclear
8 given how the transition to adulthood in the U.S. has become increasingly precarious and
9 prolonged in recent decades (Shanahan 2000; Mayer 2004; Kohli 2007). Understanding how the
10 ACA affects health insurance coverage among adults therefore has the capacity to deepen and
11 advance our knowledge of population disparities in health, and, in the context of a dramatic and
12 precarious shift in the U.S. healthcare system, has significant theoretical and policy relevance.
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26 **THE MAKING OF THE WELFARE STATE**

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28 The United States never came close to adopting a “modern welfare state” (Skocpol 1992).
29 Rather, the American welfare state developed unevenly both as a consequence of evolving
30 democratic rights and in response to the collective action of dominant groups (Quadagno 2005).
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35 America’s first program of public social provision was designed to address the needs of
36 Union soldiers who fought in the Civil War. The federal government initially designed Civil War
37 pensions to support Union veterans injured during the war as well as surviving dependents of
38 those killed in battle. Eventually, the terms of eligibility for Civil War pensions expanded to
39 include all Union veterans if they ever became disabled from manual labor. Old age alone then
40 became a sufficient justification for veterans to receive pensions as a result of disability from
41 labor (Skocpol 1992). These eligibility criteria established a particular sense of what is required
42 and who is deserving to receive social welfare in the United States (Katz 1986, 1989).
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3 As women remained excluded from the democratic process, elite and middle-class groups
4 of women formed highly organized political alliances in an effort to promote their domestic and
5 maternal values within national politics during the early 1900s. These reformers successfully
6 launched labor regulations for female workers, pensions for widowed wives and partners, as well
7 as benefits and services for mothers and children. These programs reflected maternalist values
8 and thus reached broader categories of women than would have otherwise been reached if these
9 policies had been oriented more exclusively around wage-earning men (Skocpol 1992).
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19 In stark contrast to other high-income nations, the United States never developed social
20 insurance for workingmen. Unlike their female counterparts, workingmen lacked a unified
21 political consciousness that was required to establish social benefits through the welfare state
22 (Skocpol 1992). Instead, workers organized locally and relied on a private system of welfare
23 benefits regulated through the labor contract. The failure to adopt an inclusive welfare system for
24 all workingmen is considered to be the predominant factor that prevented the United States from
25 expanding the public system of social provision and from evolving into a social democratic
26 welfare state (Skocpol 1992).
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37 Underlying the lack of mobilization among workingmen was the resistance of White
38 workers to unify with men of color, especially African-American men. Government stakeholders
39 also perpetuated a system of racially biased welfare throughout the history of social policy
40 development. The provision of social benefits to African Americans—especially wage-earning,
41 or, rather, sharecropping, men—was a threat to White supremacy (Quadagno 2005).
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49 **HEALTH CARE AND HEALTH: A GLOBAL PERSPECTIVE**

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51 A key a prominent feature of all advanced industrialized welfare states is the provision of
52 health care (Bambra et al. 2010; Beckfield et al. 2015). In most of these “rich democracies”
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3 (Wilensky 2002), access to health care is equally distributed as a social right of citizenship
4 through universal health insurance programs (Esping-Andersen 1990, Bambra 2005). The
5 provision of health care in the U.S., by contrast, is distinctively unequal (Quadagno 2005).
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7 Without a universal system of health care, U.S. citizens do not share an entitlement to health
8 insurance coverage or a requirement to be covered (Hacker 2004). The lack of health insurance
9 coverage in the American population generates harmful consequences.
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17 Compared to their peers in other high-income countries, adults in the U.S. are found to
18 be more likely to delay or forego needed care and to experience financial debt from medical bills
19 (Schoen et al. 2010). American adults also receive fewer routine and preventive services,
20 experience worse continuity of care, and make greater use of care in emergency department
21 settings (Avendano et al. 2009; Schoen et al. 2010; Crimmins, Preston, and Cohen 2011;
22 Bezruchka 2012; Nolte and McKee 2006, 2012; Avendano and Kawachi 2014).
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31 With respect to measures of physical health, adults in the U.S. consistently rank at or near
32 the bottom across a broad range of outcomes (Korpi and Palme 1998; Navarro and Shi 2001;
33 Coburn 2004; Banks et al. 2006; Navarro et al. 2006; Chung and Muntaner 2007; Lundberg et al.
34 2008; Avendano et al. 2009; Kangas 2010; Woolf and Aron 2013). These gaps in health are
35 especially pronounced when comparing deaths amenable to medical care—suggesting that
36 differences in the availability of health insurance explain at least part of the health disadvantages
37 experienced by U.S. adults (Mackino, Starfield, and Shi 2003; Wolf-Maier et al. 2004; Banks et
38 al. 2006; Blackwell et al. 2009; Braveman et al. 2010; Nolte and McKee 2006, 2012).
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49 **HEALTH INSURANCE IN THE UNITED STATES**

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51 Consistent with the general organization of the welfare state, U.S. healthcare policies
52 traditionally required working-age Americans to access health insurance through their
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3 employers, spouses, or children. Access to health insurance in this system is therefore made
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5 available predominately through private sources and minimally through public programs.
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8 Accordingly, the primary way adults in the U.S. receive health insurance is by purchasing
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10 coverage in the private market through an employer-sponsored group plan (Fronstin 2007, 2012).
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12 In 2009, almost half (48%) of the adult population with health insurance received coverage
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14 through their own employer-sponsored plans. An additional 28% of insured adults received
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16 coverage from employer-sponsored plans as a dependent on the health insurance policy of a
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18 family member or a spouse. Together, employer-sponsored plans provided coverage to over 70%
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20 of insured adults (CPS 2010). Adults without access to employer-sponsored health insurance are
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22 able to purchase individual coverage in the private, “nongroup” market, but this coverage is both
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24 more expensive and more difficult to obtain than employer-sponsored coverage (Pauly and Percy
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26 2000). In 2009, only about 7% of adults were insured this way (CPS 2010).
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31 For individuals unable to obtain private coverage either through an employer or through
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33 an individually-purchased plan, access to public programs has historically been limited to only
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35 certain qualifying groups (Starr 2013). Non-disabled adults have been mostly prohibited from
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37 being covered through public health insurance except for under strict circumstances. Pregnant
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39 women and parents with dependent children have been eligible to qualify for Medicaid, but only
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41 by meeting very low income requirements—often below half the poverty level (Davidoff,
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43 Yemane, and Adams 2005)¹. Access to Medicaid for adults without dependent children has been
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45 even more limited. In 2009, childless adults with income below the poverty line were eligible to
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47 qualify for coverage comparable to Medicaid in only five states (Artiga and Schwartz 2009). As
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49 a result of such stringent eligibility criteria, only about 12% of adults received Medicaid
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51 coverage before the introduction of the ACA (CPS 2010; Cohen and Martinez 2012).
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3 The historically constructed linkages associated with health insurance provision in the
4 U.S. generates two additional empirical observations that are important for understanding
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6 disparities in coverage prior to the ACA. First, U.S. healthcare policies have guaranteed near-
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8 universal health insurance coverage for elderly adults (ages 65 and older) (Currie and Gruber
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10 1996) and children (under age 18) (Martinez and Cohen 2012) but have traditionally failed to
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12 protect working-age adults (ages 18-64) from the risk of being uninsured. As shown in Figure 1,
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14 health insurance coverage among adults peaked in the early 1980s and declined through the first
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16 decade of the 2000s, as employer contributions toward the cost of coverage declined, the nature
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18 of the employment contract became more tenuous, and the economy stagnated (Gruber 2000;
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20 Farber and Levy 2000; Currie and Yelowitz 1999; Buchmueller and Monheit 2009). Trends in
21
22 the insured rates of working-age adults who rely on employer-sponsored policies, spousal
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24 coverage, or programs targeting parents contrast sharply with those of groups guaranteed
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26 coverage through government-supported plans.
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33 Also shown in Figure 1, coverage rates among those over age 65 increased dramatically
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35 after amendments to the Social Security Act introduced Medicare in 1965 such that by 2009,
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37 99% of the elderly population had coverage (see also Cohen and Martinez 2012; Davis, Schoen,
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39 and Bandeali 2015). Similarly, children under age 18 witnessed increases in insurance coverage
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41 through the creation of the State Children's Health Insurance Program (SCHIP) that was signed
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43 into law as part of the 1997 Balanced Budget Act (LoSasso and Buchmueller 2002; Aizer 2007).
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45 Immediately prior to the passage of the ACA, over 90% of children under age 18 had some form
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47 of health insurance (see also Cohen and Martinez 2012).
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51 ---FIGURE 1 ABOUT HERE---
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3 Second, access to health insurance among adults in the U.S. is highly stratified. The
4 insured rates of adults by gender, race and ethnicity, and education prior to the passage of the
5 ACA are shown in Table 1. According to Table 1, 78% of adults living in U.S. households had
6 health insurance in 2009. While over 80% of women were insured, the same was true for only
7 three-quarters of men. More than 84% of Whites had coverage, compared to 73% of Blacks and
8 57% of Latinos. Health insurance coverage varied widely by education. Only 58% of those with
9 less than a high school diploma had health insurance in 2009 compared with insurance rates of
10 over 90% for those who completed college.
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21 ---TABLE 1 ABOUT HERE---

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24 Table 1 also shows the mechanisms by which adults across sociodemographic groups
25 received health insurance coverage prior to the implementation of the ACA. Just over 39% of
26 women with health insurance gained coverage through their employers compared with 57% of
27 insured men. Marriage is a greater source of coverage for women than for men (Levy 2007;
28 Patchias and Waxman 2007). Women are also more likely than men to be insured by Medicaid
29 due to their greater likelihood of qualifying for this source of coverage as parents of dependent
30 children (Davidoff et al. 2005). Employment is the primary source of coverage for all racial and
31 ethnic groups, although the relative importance of other sources varies. The sources of coverage
32 obtained by adults also vary substantially across levels of education. Higher levels of education
33 are positively correlated with accessing health insurance through employment or marriage, while
34 lower levels of formal schooling increase the chances of securing coverage through the state.
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49 **DECOUPLING HEALTH INSURANCE FROM HISTORICAL LINKAGES**

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51 The introduction of the ACA has fundamentally restructured the availability of health
52 insurance for U.S. adults. Unemployed, unmarried, childless adults—who are U.S. citizens or
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3 who otherwise have authorized residency—may now be eligible for coverage through two
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5 pathways newly established by the ACA (Fried, Pintor, Graven, and Blewett 2014). The first
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7 pathway is through the Medicaid expansion, which increased the eligibility criteria for Medicaid
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9 coverage to adults with annual household income levels up to 138% of the federal poverty line
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11 (FPL) (Wachino, Artiga, and Rudowitz 2014). The second pathway is through the creation of the
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13 Health Insurance Marketplace (Marketplace), which is a service that allows individuals to
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15 compare and purchase private insurance plans. To help individuals pay for health insurance
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17 purchased through the Marketplace, the ACA offers monthly subsidies to individuals with annual
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19 household income levels up to 400% of the FPL (Garfield, Licata, and Young 2014).
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24 Though policymakers intended to implement the ACA uniformly across the states, the
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26 U.S. Supreme Court ruled the federal mandate to expand Medicaid as unconstitutional—giving
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28 states the option to participate in the expansion (Shaw et al. 2014). Accordingly, when the ACA
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30 went into effect on January 1, 2014, an estimated 4.8 million adults fell into a “coverage gap,”
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32 wherein their income would have qualified them for Medicaid under the ACA’s new eligibility
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34 rules, but their state declined to expand Medicaid (Wachino et al. 2014). Nevertheless, the ACA
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36 qualified nearly 30 million uninsured adults for partially or completely subsidized health
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38 insurance on January 1, 2014 (Garfield et al. 2014)². The number of adults newly eligible for
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40 health insurance has also continued to grow since then, with many states adopting the Medicaid
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42 expansion after initially opting out. Recent reports estimate the number of adults left in the
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44 coverage gap at about 2.4 million (Garfield and Damico 2017).
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DATA, MEASURES, AND METHODS

Data

In order to investigate the impact of the ACA on routes to and disparities in health insurance coverage, I use data from the National Survey on Drug Use and Health (NSDUH). The NSDUH is a nationally representative survey of the non-institutionalized population in the U.S., conducted annually by the Substance Abuse and Mental Health Services Administration (SAMHSA). Previous research on health insurance often makes use of other data sources, like the CPS, but data from the NSDUH are particularly useful for investigations on health insurance access in the context of the ACA because the survey identifies and oversamples populations who share traits with institutionally unattached and traditionally uninsured adults.

For example, through its use of an independent, multistage area probability sample of all states and the District of Columbia, the NSDUH was designed to oversample young adults ages 18 to 25, Blacks, Latinos, and residents of rural areas (Gfoerer, Larson, and Colliver 2007). To promote their inclusion in the survey and to accommodate the cultural and linguistic needs of the Latino population, interviews are available in both English and Spanish (Kennet and Gfoerer 2005). The NSDUH also prioritizes the inclusion of harder-to-reach populations by surveying individuals living in non-institutionalized group quarters and temporary housing including shelters, college dormitories, migratory worker camps, and halfway houses (SAMHSA 2017).

This study relies on samples of the adult population drawn from before and after access to health insurance was transformed by the ACA. The ACA mandated several major changes to the U.S. healthcare system, but the reforms related to this research include only the creation of the Health Insurance Marketplace and the Medicaid expansion. These policy changes are

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3 considered the most comprehensive reforms of the ACA and were intended to make health
4 insurance accessible for all U.S. citizen adults (Garfield et al. 2014).
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8 The ACA was enacted in 2010 and was designed to roll out its reforms on the U.S.
9 healthcare system over four years and beyond. The enrollment period for new insurance plans
10 through the Marketplace began in 2013, but the benefits of this coverage did not become active
11 until January 1, 2014. Likewise, individuals newly eligible for Medicaid could begin their
12 enrollment in 2013 but could not access their benefits until January 1, 2014 (Wachino et al.
13 2014). In view of this timing, I treat 2013 as a washout period that was excluded from analyses
14 and defined the period *after* adults' access to health insurance was transformed by the ACA as
15 January 2014 through December 2016 (*post-ACA* study period). To include the period before the
16 ACA was signed into law in 2010, and to appropriately compare years close together in time, I
17 defined the period *before* access to health insurance among adults was transformed by the ACA
18 as January 2009 through December 2012 (*pre-ACA* study period).
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33 The analytic sample consists of adults between 18 and 64 years of age who reported their
34 race and ethnicity as non-Hispanic White ("White"), non-Hispanic Black ("Black"), or Hispanic
35 or Latin origin of any race ("Latino"). In order to account for only those whose access to health
36 insurance was transformed by the ACA, the sample excludes adults who reported they were
37 currently disabled or pregnant. Respondents from the cross-sectional waves of the 2009-2012
38 NSDUH data make up the sample in the pre-ACA period, ($n = 130,989$) while those from the
39 2014-2016 waves comprise the sample in the post-ACA period ($n = 104,837$). Excluding adults
40 classified as disabled or pregnant, as well as those whose racial and ethnic identity was outside
41 of White, Black, and Latino categories, left out 9% ($n = 21,084$) of the total sample of adults
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3 between the ages of 18 and 64 ($n = 235,826$). Results including all respondents are substantively
4 identical to those presented here and are available upon request.
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7 **Measures**

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10 The outcome of interest is the likelihood of being *uninsured*, which I measure using a
11 single binary variable that indicates whether a person did (0) or did not (1) have health insurance
12 coverage in the past year. I classify individuals as being uninsured if they reported being without
13 coverage in the past year. I classify individuals as being uninsured if they reported being without
14 health insurance at the time of the interview, based on their responses to a set of questions asking
15 about their state of coverage across multiple different plans. Individuals are also classified as
16 uninsured if they answered affirmatively to a question asking: *during the past 12 months, was*
17 *there any time when you did not have any kind of health insurance or coverage?* The uninsured
18 measure is therefore representative of individuals in the study sample without year-long,
19 continuous coverage of any kind, and is based on information gathered from questions asked to
20 respondents in the same way each year of the study period.
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33 The key explanatory variable measures *institutional attachment*. I conceptualize
34 institutional attachment as connections to labor market, marriage, and family institutions that
35 provide opportunities to access to health insurance. I construct three dummy variables to measure
36 these concepts separately. Individuals are coded as attached to the *labor market* if they indicate
37 full-time employment in the study year. I also code those reporting full-time enrollment in school
38 and active duty military service as attached to the labor market to more carefully consider how
39 those connections provide institutional attachments that grant access to health insurance. Legally
40 recognized marriage confers unique benefits like access to health insurance provided through a
41 spouses' employer (Hatzenbuehler et al. 2012; Doan, Loehr, and Miller 2014; Gonzales and
42 Blewett 2014). Therefore, I construct a variable *marriage* to distinguish respondents who report
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3 being married from all other union statuses. The variable *family* measures if the respondent is a
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5 custodial parent of at least one child under age 18, a status that provides privileged access to
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7 state-supported health care (Holahan, Kenney, and Pelletier 2010; Huberfeld 2015). The *overall*
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9 institutional attachment variable is a single binary measure that estimates the effects of having
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11 any of these institutional connections: being employed or enrolled in school or in the military on
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13 a full-time basis, married, or a custodial parent of at least one of their own children under age 18.
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17 To control for the confounding effects of factors related to the outcome of interest, I also
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19 account for a battery of sociodemographic traits and health status measures in the analyses.
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21 These covariates include individual measures of gender, race and ethnicity, age, educational
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23 attainment, receipt of government assistance, household income, self-rated health (SRH), and the
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25 incidence of a chronic health condition. In addition to being included in the set of control
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27 variables for the analyses addressing how the ACA influences the relationship between
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29 institutional attachment and health insurance coverage, the variables measuring gender, race and
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31 ethnicity, and educational attainment are also used to examine the extent to which the ACA's
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33 influence on the effects of institutional attachment reduces sociodemographic disparities in
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35 coverage among adults. The qualitative descriptions and coding schemes for the
36
37 sociodemographic traits and health status measures mentioned here, as well as the weighted
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39 means of these variables in the pre- and post-ACA study periods are shown in Table 2.
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44 ---TABLE 2 ABOUT HERE---

45 46 47 **Methods**

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49 I begin my analysis by considering the extent to which labor market, marriage, and
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51 family outcomes historically linked to social welfare benefits are dissolved by the ACA. To do
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53 so, I leverage the timing of the ACA as a “natural experiment” using a “difference-in-
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differences” (DID) framework. The basic approach in a DID analysis is to compare the difference in outcomes between a treatment group and a control group at time points before (difference 1) and after (difference 2) a policy intervention. Average changes over time in the outcomes of the control group are then subtracted from average changes over time in the treatment group (difference 2 – difference 1). This double differencing technique removes the effect that could result from permanent differences between the two groups as well as the effect of changes over time in the treatment group unrelated to the intervention, thus substantially reducing the problems associated with omitted variables in cross-sectional analyses (Angrist and Pischke 2008).

In this case, I apply a DID framework to estimate changes in the likelihood of being uninsured among adults without institutional attachments (treatment group) from the pre- to post-ACA study period, relative to changes among adults with institutional attachments (control group). These contrasts are made through a series of multivariate logistic regression models designed to identify the effects of (1) *overall* institutional attachment, and then separately for attachments to (2) *labor market*, (3) *marriage*, and (4) *family* institutions on health insurance status before and after the introduction of the ACA. Regression models for each measure of institutional attachment are specified as follows:

$$\text{logit}(p_i) = \beta_0 + \beta_1 I_i + \gamma_0 T_i + \gamma_1 T_i \times I_i + \beta_2 X_{it} \quad (1)$$

$$\text{logit}(p_i) = \beta_0 + \beta_1 I_{LM_i} + \gamma_0 T_i + \gamma_1 T_i \times I_{LM_i} + \beta_2 X_{it} \quad (2)$$

$$\text{logit}(p_i) = \beta_0 + \beta_1 I_{Mar_i} + \gamma_0 T_i + \gamma_1 T_i \times I_{Mar_i} + \beta_2 X_{it} \quad (3)$$

$$\text{logit}(p_i) = \beta_0 + \beta_1 I_{Fam_i} + \gamma_0 T_i + \gamma_1 T_i \times I_{Fam_i} + \beta_2 X_{it} \quad (4)$$

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3 where p_i represents the dichotomous outcome variable ($y = 1$ if uninsured, and $y = 0$ otherwise)
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5 for individual i at time T ($T = 1$ for the post-ACA study period, $T = 0$ for the pre-ACA study
6
7 period). γ_1 is the treatment effect, reflecting the average changes over the study period in the
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9 attached group's likelihood of being uninsured, subtracted by these changes in the unattached
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11 group. X is a vector of the control variables.
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16 The models differ by the measures capturing institutional attachment: I represents overall
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18 institutional attachment, while I_{LM} , I_{Mar} , and I_{Fam} measure attachments to labor market,
19
20 marriage, and family institutions, respectively. As indicated by their unique specifications, the
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22 sorting of the treatment (unattached) and control (attached) groups varies across models to
23
24 account for the particular differences in the pathways connecting adults to health insurance.
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28 Important to note is that the DID approach is only valid if the trends in the outcome
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30 between the treatment and control groups are similar in the pre-intervention period. If this
31
32 assumption is met, then we may reasonably assume that these parallel trends would continue for
33
34 both groups if the policy had not been implemented. If one group's outcomes is already
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36 improving relative to another group before the policy, however, then using a pre-post analysis
37
38 would lead to the biased conclusion that the policy was associated with better outcomes. Because
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40 I found no significant differences between the coverage trends between my designated treatment
41
42 and control groups, I assume that outcomes in health insurance would have trended similarly for
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44 my designated groups in the absence of the policy and will thus move on with my results³.
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48 To explore how changes in the relationship between institutional attachment and health
49
50 insurance coverage varies across sociodemographic groups, I first compare whether and how the
51
52 ACA differentially affects health insurance coverage for adults across gender, race and ethnicity,
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54 and education. I use the logistic regression coefficients from the DID models described in
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3 Equations 2, 3, and 4 to estimate the predicted probabilities of being uninsured for the four levels
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5 of the interaction terms measuring the joint effects of the ACA and institutional attachment,
6
7 specified for each combination of gender, race and ethnicity, and education. This procedure
8
9 allows me to compare the average probability of being uninsured for each group of adults with
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11 and without labor market, marriage, and family attachments across all sociodemographic groups.
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14 The estimated values for these probabilities are shown in Table 5.
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16

17 I then perform a four-factor decomposition analysis to more closely illustrate the extent
18
19 to which the ACA's influence on shifts in coverage contributes to sociodemographic disparities
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21 in health insurance (Kitagawa 1955; Das Gupta 1993). This method, used widely in demographic
22
23 and health studies (Boyd and Norris 2000; Wang et al. 2000) allows me to partition the total
24
25 change in health insurance inequality between sociodemographic groups by changes in coverage
26
27 observed among those with and without institutional attachments, while adjusting for differences
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29 in specific rates (Li and Kinfu 2015). For example, a comparison of Black-White disparities in
30
31 coverage associated with marriage will yield the percent of the narrowing of the gap in health
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33 insurance caused by increases in coverage among married Whites, unmarried Whites, married
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35 Blacks, and unmarried Blacks. The results from this analysis are displayed in Figure 2 and the
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37 corresponding estimates used to produce these findings are provided in Appendix Table B.
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42 **RESULTS**

43

44 The share of adults living in the U.S. without health insurance dramatically declined in
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46 the years following the passage of the ACA. Table 3 shows that nearly 1 in 5 adults (19.7%)
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48 were uninsured in the pre-ACA study period. The share of adults without health insurance fell to
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50 13.6% in the period following the implementation of the ACA, signifying a 31% decline in the
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52 uninsured rate for the total population of adults in the study sample. Table 3 further reveals that
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3 the decline in the rate of adults without coverage—or, the greatest increases in coverage—took
4 place among the institutionally unattached. While adults unattached to labor market, marriage,
5 and family institutions all saw increases in coverage, coverage gains were largest among
6 individuals unattached to the labor market. The uninsured rate of adults unattached to the labor
7 market dropped by nearly 35% (from 27.7% to 18.1%). To test how these results withstand
8 further scrutiny, I turn to the results in Table 4.
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17 ---TABLE 3 ABOUT HERE---

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19 Consistent with the descriptive results shown in Table 3, findings presented in Table 4
20 show that the ACA significantly reduced the size of the relationship between institutional
21 attachment and health insurance coverage. Table 4 reports the differences in the log odds of
22 being uninsured between adults with and without institutional attachments. The first column
23 reports this difference in the pre-ACA study period, the second column reports this difference in
24 the post-ACA study period, and the third column reports the difference between the differences
25 observed in the pre- and post-ACA study periods (the “differences-in-difference” or, “treatment
26 effect”). Model 1 estimates these differences as they relate to the effect of *overall* institutional
27 attachment. The results show that the odds of being uninsured were nearly 2.4 times ($e^{.888}$)
28 greater among adults without any institutional attachments than among adults with one or more
29 of the measured attachments to labor market, marriage, and family institutions in the pre-ACA
30 study period. In the post-ACA study period, the odds of being uninsured were 60% ($e^{.462}$) greater
31 among institutionally unattached adults. The ratio of the odds of being uninsured between adults
32 with and without institutional attachments therefore fell by nearly 40% ($e^{-.425}$) from the pre- to
33 post-ACA study period.
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54 ---TABLE 4 ABOUT HERE---

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3 Models 2-4 estimate the differences in the log odds of being uninsured for adults with
4 and without attachments to *labor market*, *marriage*, and *family* institutions, separately. These
5 results provide evidence to identify *how* the ACA modifies the link between institutional
6 attachment and health insurance coverage among adults. The results from Model 2 show that,
7 relative to their attached counterparts, adults unattached to the *labor market* had 90% ($e^{.643}$)
8 greater odds of being uninsured in the pre-ACA period and 47% ($e^{.382}$) greater odds of being
9 uninsured in the post-ACA study period, suggesting that the ACA decreased the effect of *labor*
10 *market* attachment on health insurance coverage by 23% ($e^{-.261}$). Models 3 and 4 similarly
11 provide evidence that the odds of being uninsured were greater for adults unattached to *marriage*
12 and *family* institutions than for adults with such attachments, and that the uninsured gap between
13 these groups narrowed substantially from the pre- to the post-ACA study period. As shown in
14 Models 3 and 4 (Table 4), the ACA decreased the effects of attachments to *marriage* and *family*
15 institutions on health insurance coverage by 10% ($e^{-.106}$) and 15% ($e^{-.158}$), respectively. Together
16 with the descriptive results reported in Table 3, the results in Table 4 suggest that changes in the
17 relationship between institutional attachment and health insurance coverage were largest among
18 adults unattached to the labor market.

19
20 All sociodemographic groups experienced a significant decline in their risk of being
21 uninsured after the passage of the ACA. The top panel of Table 5 shows that in *absolute* terms
22 men exhibited greater increases in coverage than women, Latinos witnessed greater increases
23 than other racial and groups, and those with less than a high school diploma experienced greater
24 increases in coverage than those with higher levels of formal schooling. *Relative* to coverage
25 rates prior to the passage of the ACA, however, women experienced greater gains than men
26 (34.1% decrease compared with 28.3% decrease), Black experienced comparatively large
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3 decreases (33.6%), and adults who completed college exhibited the largest increase in coverage
4 of all education groups. Taken together, these results provide evidence suggesting that the
5 passage of the ACA will reduce previously observed sociodemographic disparities in coverage.
6
7 The bottom panel of Table 5 shows that the gender gap in insurance declined nearly 5%, racial
8 and ethnic differences in coverage declined roughly one-third, and educational gaps in coverage
9 declined between 16% and 30%.

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17 ---TABLE 5 ABOUT HERE---

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19 The passage of the ACA reduced the importance of labor market, marriage, and family
20 attachments for stratifying access to health insurance. Table 6 demonstrates how the ACA
21 impacted sociodemographic groups differently based on inequalities in institutional attachments.
22 For example, Table 6 shows that the gender gap in insurance coverage declined in relation to all
23 measured institutional attachments. The gender gap in coverage associated with institutional
24 attachment fell by 19.2% in relation to the labor market, and declined similarly, from 36.5% to
25 38.1%, across marriage and family domains. Taken together, these findings emphasize the
26 centrality of the intersection of gender and the labor market for stratifying access to health
27 insurance coverage. Declines in the gender gap in coverage after the implementation of the ACA
28 highlights men's historical dependence on labor market attachment as a route to coverage and a
29 more diverse set of pathways to coverage for women rooted in the social acceptability of women
30 as dependents and thus worthy of care (Skocpol 1986).

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47 Reductions to racial and ethnic disparities in insurance coverage following the ACA were
48 found in relation to all types of measured institutional connections as well. The declining
49 significance of marriage for stratifying access to health insurance was particularly important for
50 the narrowing of the Black-White gap in coverage. Prior to the passage of the ACA, Blacks
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3 experienced a lower likelihood of gaining coverage through marriage, relative to Whites
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5 (Montez, Angel, and Angel 2009). The racial gap in coverage was cut in half after the passage of
6
7 the ACA, suggesting the declines in the health insurance privilege marriage provides to Whites.
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10 The ACA was associated with comparatively large absolute declines in Latino-White gaps in
11
12 coverage across institutional domains. However, a high risk of being uninsured persists among
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14 Latinos, possibly because approximately one-third of these adults in the U.S. are not citizens
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16 who face unique barriers to health insurance as they are disproportionately less likely to work in
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18 jobs that offer employer-sponsored insurance, to qualify for Medicaid, and to take on coverage
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20 when eligible (Buchmueller, LoSasso, and Wong 2008; Bustamante et al. 2009; Bustamante and
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22 Chen 2012).
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26 ---TABLE 6 ABOUT HERE---
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29 The ACA's expansion of health insurance access decoupled from the labor market
30
31 substantially reduced disparities in coverage between adults with lower and higher levels of
32
33 schooling. As shown in Table 6, education differences in health insurance associated with the
34
35 labor market fell between 17.1% and 30.0% across comparison groups. The salience of marriage
36
37 and family attachments for education differences in health insurance coverage also declined
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39 following the passage of the ACA. These results emphasize the ways that access to health
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41 insurance was more tightly coupled with status markers like high levels of education and the
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43 benefits derived from associated institutional attachments prior to the ACA. Observed changes in
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45 the relationship between education and health insurance coverage after the passage of the ACA
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47 may reduce inequality in access to health care, and health inequalities, in ways that are more
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49 comparable to other advanced industrial democratic countries with more generous welfare states
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51 (Bambra 2005, 2013; Olafsdottir 2007; Beckfield and Krieger 2009).
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3 Sociodemographic differences in the relationship between health insurance and
4 institutional attachment are produced by inequalities in the group-specific level of coverage
5 among adults *with* attachments, as well as by inequalities in the group-specific level of coverage
6 among adults *without* attachments. Figure 2 illustrates how group-specific changes in coverage
7 contribute to health insurance disparities across sociodemographic and institutional categories
8 generated by a two-factor decomposition analysis (Kitagawa 1955; Das Gupta 1993). The values
9 in Figure 2 signify the percent of the narrowing of the gap in health insurance coverage
10 associated with increased health insurance for each sociodemographic group.
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21 ---FIGURE 2 ABOUT HERE---
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24 Declines in sociodemographic disparities in health insurance coverage after the ACA are
25 disproportionately caused by increases in coverage among those who lacked institutional
26 attachments associated with coverage. For example, although the passage of the ACA was
27 associated with increased coverage rates among employed *and* unemployed men and women,
28 increases in health insurance coverage among unemployed men are responsible for the largest
29 portion (32%) of the decline in the gender gap in health insurance coverage associated with the
30 labor market. Coverage increases among unattached men are similarly large in marriage and
31 family domains (34% and 37%, respectively). Increases in coverage among married and
32 parenting men contributed to the narrowing of the gender gap in health insurance coverage to a
33 similar extent (34% and 35%, respectively). These results provide further evidence of the ways
34 that the ACA has helped increase coverage among men by giving them a new route to coverage,
35 outside of pathways characterized by dependency.
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51 Results indicate similar patterns for Black adults who lack institutional attachments
52 historically important for the provision of health insurance. Between 36% and 46% of the decline
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3 in the Black-White gap in healthcare coverage is the result of insurance gains of unattached
4 Blacks. Figure 2 also shows that the smoothing of the education gradient in health insurance is
5 attributable to gains in coverage among those with the lowest levels of formal schooling
6 regardless of institutional attachment. These results highlight the ways that institutional
7 attachment may be a particularly important pathway, or barrier, to health insurance for some
8 groups in comparison with others. Nonetheless, these results reinforce the centrality of
9 institutional attachments for understanding differential access to health insurance in the context
10 of radical changes in health care policy in the United States.
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21 **DISCUSSION & CONCLUSION**

22
23 For more than a century, unemployed, unmarried, and childless adults were excluded
24 from the public provision of social welfare. Exclusion from the welfare state is consequential.
25 Social groups left out of the welfare state are deemed as undeserving and rendered an underclass
26 of marginalized and disadvantaged people. Marginalized people become alienated from society
27 and from one another. They often lack coherence and fail to realize political power. Once groups
28 are excluded from the welfare state, their marginalized positions as undeserving are rarely
29 changed. Recent changes to the social provision of health care, however, provides a new
30 opportunity to examine the effects of policy reform on the historically constructed categories
31 linking working-age Americans to the welfare state.
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44 Consistent with the general organization of the welfare state, U.S. healthcare policies
45 traditionally required working-age Americans to access health insurance through their
46 employers, spouses, or children (Secombe 1993; Meyer and Pavalko 1996; Currie and Madrian
47 1999). These policy arrangements created obvious disadvantages for unemployed, unmarried,
48 and childless adults and left a substantial share of the adult population uninsured. In 2009, more
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3 than one in five adults in the United States lacked health insurance at any given time and thereby
4 vulnerable to health disadvantages (Levy and Meltzer 2008; Martinez and Cohen 2012).

7 Implementation of the ACA, however, extended health insurance access to adults in ways
8 unrelated to their linkages to employers, spouses, and children.

12 This unprecedented change in U.S. healthcare policy qualified nearly 30 million
13 uninsured adults—approximately 75% of all adults without health insurance—as eligible for
14 partially or completed subsidized health insurance, as of January 1, 2014 (Garfield et al. 2014).
18 In doing so, the ACA transformed the relationship between institutional stratification and health
19 insurance access among adults. This study showed that the ACA reduced the association between
20 institutional attachment and health insurance among adults by nearly 40% and decreased the
21 effects of attachments to the labor market, marriage, and family on health insurance coverage by
22 23%, 10%, and 15%, in that order. For unemployed, unmarried, and childless adults, the
23 probability of being uninsured was cut in half as a result.

33 Results from this study provides an important snapshot view of the distribution of health
34 insurance coverage among adults in the first three years following the ACA's implementation
35 because the observed changes in health insurance coverage might endure in the years ahead as
36 the uninsured rate of adults is expected to remain stable thereafter (CBO 2018). Even as the
37 current political climate casts uncertainty over the ACA's future, results from this study remain
38 critically important because the ACA builds on, rather than eliminates, the traditional structuring
39 of health insurance. This study emphasized how most health insurance obtained by adults is still
40 closely coupled to the labor market, despite the passage of the ACA. The extent to which adults
41 maintain these attachments in the future, and the future availability of health insurance outside
42 these attachments, however, remains uncertain.

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3 Recent reports have begun emphasizing the potential consequences of the ACA's partial
4 or full repeal (Blumberg, Buettgens, and Holahan 2016; Obama 2017), but no research has yet
5 focused on the structuring of the health insurance system to highlight who might be most
6 vulnerable without the law. In light of the deteriorating conditions of and the increasingly
7 tenuous attachments to labor market, marriage, and family domains in both the U.S. and other
8 high-income countries (Shanahan 2000; Mayer 2004; Arnet et al. 2011), the framing and results
9 of this study have significant implications for our future understanding of health insurance
10 provision on a global scale. Understanding how the ACA reaches institutionally unattached
11 adults is therefore important and informative for our future creation of social policies in countries
12 within and outside of the United States.
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26 Due to the unequal risks associated with being unemployed, unmarried, and childless,
27 such changes in the patterns of adults with coverage led to significant reductions in the health
28 insurance inequalities between many sociodemographic groups. For example, those between
29 gender, race-ethnic, and education groups all declined. Adults who experienced the greatest
30 benefits from the ACA included men, Blacks and Latinos, and those with lower levels of
31 education (i.e., groups with less than high school and high school levels of education). Though
32 disparities in coverage between sociodemographic groups still exist, there are important
33 theoretical reasons to expect that these findings have significant implications for our future
34 understanding of overall health inequalities.
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47 Scholars across disciplines have long puzzled over whether improvements in health
48 insurance among underserved groups could reduce health disparities in the population (e.g.,
49 Card, Dobkin, and Maestas 2004; Currie and Gruber 1996; Hadley 2003; Finkelstein 2007;
50 House 2015). Some argue that such improvements will have little impact on health inequalities,
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3 because expanding the supply of health insurance neglects to change the unequal distribution of
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5 its demand, which is shaped by other social, economic, and environmental determinants (e.g.,
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7 House 2015). Our existing understanding of health inequalities, however, has been developed in
8
9 a fundamentally different historical context. Under the previous structuring of the U.S.
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11 healthcare system, health insurance was largely concentrated among adults selected into labor
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13 market, marriage, and family institutions, who gained coverage through their institutional
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15 attachments. An individual's health insurance status was therefore "almost always determined by
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17 at least some of the same factors that determine health status" (Levy and Meltzer 2008:401).
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21 This study makes an important contribution to sociological research on health that
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23 commonly points to proximate, horizontal mechanisms to explain how different groups
24
25 experience varying levels of illness and disease by drawing attention to the ways that these social
26
27 determinants of health are shaped by more distal, organizational properties of society. By
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29 shifting the object of inquiry from the socioeconomic positions and material conditions of
30
31 individuals and groups to the institutional processes of society, this work has the capacity to
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33 improve the translation of research into policy actions, especially considering the lack of
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35 government policymaking in response to the wealth of studies on the social determinants of
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37 health (Raphael 2006).
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42 This is not to say, however, that having health insurance guarantees better health. The
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44 health benefits associated with health insurance are mediated by increased use of higher-quality
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46 medical services (Hadley 2003; Levy and Meltzer 2008; McWilliams 2009; Freeman et al.
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48 2014), but improved access to health care is not guaranteed by health insurance. Individuals may
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50 still encounter significant barriers to accessing health care left unresolved by health insurance
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52 coverage, including: lack of a nearby provider, limited hours of medical clinics, difficulty finding
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3 available physicians, inability to get a referral for a provider, and lack of translation services
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5 (Betancourt, Green, and Carrillo 2002; Bierman et al. 2002; Starfield and Shi 2004; Cooper and
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7 Powe 2004). Even if patients gain health insurance, their ability to pay for treatments and
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9 services may still not improve (DeVoe et al. 2007).
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12 Nevertheless, having health insurance is considered a key determinant for access to and
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14 use of recommended and needed medical care (Institute of Medicine 2002; Hadley 2003; Levy
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16 and Meltzer 2008; McWilliams 2009; Freeman et al. 2014). By separating access to health
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18 insurance from institutional attachment, the ACA provides a new source of coverage exogenous
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20 to the typical underlying determinants of health. This new provision of health insurance extends
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22 coverage to certain adults characterized by poor health, including men, people of color, and
23
24 groups with less education (Wachino et al. 2014). Given the ways the distribution of coverage
25
26 under the ACA aligns with the concentration of poor health among adults, researchers should
27
28 expect to eventually observe significant improvements in health inequalities.
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33 The results from this study therefore suggest that government interventions can reshape
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35 the inequality landscape by reducing disparities along institutional attachment lines, which map
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37 well on to standard stratification lines, such as gender, race and ethnicity, and education.
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39 Reducing inequalities therefore requires redistribution of the benefits derived from institutional
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41 attachment to include unattached individuals, such as those who are unemployed, unmarried, and
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43 childless. Interventions that fail to deliver resources to individuals through pathways unrelated to
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45 their preexisting institutional positions may otherwise generate unintended consequences.
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Table 1. The sociodemographic distribution of health insurance coverage and the corresponding sources through which the insured population received coverage in 2009. Adults (18-64), CPS 2010.

	Share of the Total	Share of the Insured Population ^a			
	Insured	Employer	Spousal	Medicaid	Other
Total	78.1	47.5	28.3	15.6	8.7
Gender					
Female	80.3	39.1	34.9	17.4	8.5
Male	75.9	56.7	20.8	13.4	9.0
Race/Ethnicity					
White	84.1	48.6	30.1	11.7	9.6
Black	73.1	47.2	19.3	28.3	5.2
Latino	57.2	43.9	23.8	26.2	6.1
Education					
Less than HS	58.2	23.2	24.9	45.9	6.0
HS	72.4	45.7	26.1	20.7	7.5
Some college	80.6	45.8	32.4	13.0	8.9
College +	90.3	57.5	27.0	5.0	10.4

^a These values represent the share of insured adults across observed sources of health insurance. Estimated values sum to 100 percent per sociodemographic group.

TABLE 2. Descriptive statistics of control variables in the pre- and post-ACA study periods.
Adults (18-64), NSDUH 2009-2012, 2014-2016.

Concept	Variable	Description	Coding scheme	Pre-ACA	Post-ACA	
Gender	Female	Is the respondent female?	0 = no	50.8	50.9	
			1 = yes (Ref)			
Race/Ethnicity	White	Is the respondent non-Hispanic White?	0 = no	69.9	67.4	***
			1 = yes (Ref)			
	Black	Is the respondent non-Hispanic Black?	0 = no	13.1	13.6	
			1 = yes			
Age	18 to 25	Is the respondent 18-25 years old?	0 = no	17.0	19.0	***
			1 = yes			
	26 to 34	Is the respondent 26-34 years old?	0 = no	17.8	17.6	
			1 = yes			
	50 to 64	Is the respondent 50-64 years old?	0 = no	32.4	30.7	***
1 = yes						
1 = yes (Ref)						
Education	Less than HS	Is the respondent's highest level of education less than high school?	0 = no	13.8	12.9	**
			1 = yes			
	HS	Is the respondent's highest level of education high school or GED equivalent?	0 = no	30.3	26.7	***
			1 = yes			
Some college	Is the respondent's highest level of education some college?	0 = no	27.3	31.3	***	
		1 = yes				
Income	< 100% FPL	Is the respondent's household income below the Federal Poverty Line (FPL)?	0 = no	14.9	16.5	***
			1 = yes			
	100 - 199% FPL	Is the respondent's household income greater than 100% of the FPL and less than 199% of the FPL?	0 = no	19.7	19.3	
			1 = yes			
	Welfare	Did the respondent participate in any of the following programs in the past year: welfare or Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), or Supplemental Nutrition Assistance Program (SNAP) (food stamps)?	0 = no	65.4	64.2	*
1 = yes						
Health status	SRH	Did the respondent report their general health status as fair or poor, rather than as excellent, very good, or good?	0 = no	11.5	12.3	**
			1 = yes			
Chronic illness	Did the respondent report having any of the following health conditions in their lifetime: asthma, chronic bronchitis, cirrhosis of the liver, diabetes, heart disease, hepatitis, hypertension, or HIV?	0 = no	31.4	31.6		
		1 = yes				

Two-tailed adjusted t-test (Probability > t): * p<.05, ** p<.01, *** p<.001

Note: the numbers and percentages reported are based on sample weights.

TABLE 3. Percent uninsured in the pre- and post-ACA study periods for the total population and across groups with and without institutional attachments.
Adults (18-64), NSDUH 2009-12 and 2014-16.

	% Uninsured			
	Attached vs. Unattached		Pre vs. Post	
	Pre	Post	%-pt. Δ	% Δ
Total	19.7	13.6 ***	-6.1	-31.0
Institutional Attachment				
Overall ^a				
Attached	17.1	12.1 ***	-5.0	-29.2
Unattached	37.8	22.3 ***	-15.5	-41.0
Labor Market ^b				
Attached	15.5	11.1 ***	-4.4	-28.4
Unattached	27.7	18.1 ***	-9.6	-34.7
Marriage ^c				
Attached	13.3	9.3 ***	-4.0	-30.1
Unattached	26.7	17.9 ***	-8.8	-33.0
Family ^d				
Attached	18.1	13.3 ***	-4.8	-26.5
Unattached	20.6	13.7 ***	-6.9	-33.5

Two-tailed adjusted t-test (Probability > t): * p<.05, ** p<.01, *** p<.001

^a Indicates any institutional attachment (full-time employment, full-time school or military enrollment, married, or custodial parent) versus none.

^b Individuals who reported they were employed full-time, enrolled full time in higher education institutions, or that they were enrolled full time in the military versus those who reported otherwise, including part-time employed, unemployed, part-time students and those completely unenrolled in both school and the military.

^c Individuals who reported they were married versus those who reported other marital statuses, including: separated, divorced, widowed, and never married.

^d Individuals who reported they lived with at least one of their own children who were under 18 years old versus those who reported other living arrangements, including parents who did not live with their children and individuals without children altogether.

Note: the numbers and percentages reported are based on sample weights.

TABLE 4. Regression coefficients for models predicting the log odds of being uninsured. Adults (18-64), NSDUH 2009-12 and 2014-16.

	Pre-ACA Difference ^a	Post-ACA Difference ^a	Pre- vs. Post- ACA Differences ^b
Institutional Attachment			
Model 1			
Overall	.888 *** (.018)	.462 *** (.050)	-.425 *** (.032)
Model 2			
Labor Market	.643 *** (.015)	.382 *** (.042)	-.261 *** (.027)
Model 3			
Marriage	.367 *** (.019)	.262 *** (.049)	-.106 *** (.030)
Model 4			
Family	.382 *** (.018)	.224 *** (.046)	-.158 *** (.028)

* p<.05, ** p<.01, *** p<.001 (two-tailed tests)

^a Comparing differences in the log odds of being uninsured between adults with (control group) and without (treatment group) institutional attachments for the pre- and post-ACA study periods.

^b Difference-in-differences: comparing differences in outcomes for the pre- and post-ACA study periods among adults with and without institutional attachments.

TABLE 5. Percent uninsured in the pre- and post-ACA study periods across sociodemographic groups. Adults (18-64), NSDUH 2009-12 and 2014-16.Panel A. *within-group differences*

	% Uninsured			
	Attached vs. Unattached		Pre vs. Post	
	Pre	Post	%-pt. Δ	% Δ
Gender				
Female	17.6	11.6 ***	-6.0	-34.1
Male	21.9	15.7 ***	-6.2	-28.3
Race/Ethnicity				
White	14.7	9.8 ***	-4.9	-33.3
Black	22.9	15.2 ***	-7.7	-33.6
Latino	37.9	25.9 ***	-12.0	-31.7
Education				
Less than HS	41.6	29.9 ***	-11.7	-28.1
HS	23.6	18.1 ***	-5.5	-23.3
Some college	16.9	11.2 ***	-5.7	-33.7
College +	7.6	4.7 ***	-2.9	-38.2

Panel B. *between-group differences*

	% Uninsured			
	Attached vs. Unattached		Pre vs. Post	
	Pre	Post	%-pt. Δ	% Δ
Gender				
Male - Female	4.3	4.1 *	-0.2	-4.7
Race/Ethnicity				
Black - White	8.2	5.4 ***	-2.8	-34.1
Latino - White	23.2	16.1 ***	-7.1	-30.6
Education				
Less than HS - College +	34.0	25.2 ***	-8.8	-25.9
HS - College +	16.0	13.4 ***	-2.6	-16.3
Some college - College +	9.3	6.5 ***	-2.8	-30.1

Two-tailed adjusted t-test (Probability > t): * p<.05, ** p<.01, *** p<.001

Note: the numbers and percentages reported are based on sample weights.

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TABLE 6. Regression-adjusted difference in the estimated risk of being uninsured by institutional attachment. Adults (18-64), NSDUH 2009-2012 and 2014-2016.

	Labor Market			Marriage			Family					
	Attached vs. Unattached	Pre vs. Post Δ	%-pt. %	Attached vs. Unattached	Pre vs. Post Δ	%-pt. %	Attached vs. Unattached	Pre vs. Post Δ	%-pt. %			
	Pre Post	Pre Post	Pre Post	Pre Post	Pre Post	Pre Post	Pre Post	Pre Post	Pre Post			
Gender												
Men - Women	2.6***	2.1***	-0.5	-19.2	12.6***	8.0***	-4.6	-36.5	12.6***	7.8***	-4.8	-38.1
Race/Ethnicity												
Black - White	0.7***	0.5***	-0.2	-28.6	0.4***	0.2***	-0.2	-50.0	0.4***	0.3***	-0.1	-25.0
Latino - White	4.7***	4.4***	-0.3	-6.4	2.8***	2.4***	-0.4	-14.3	3.0***	2.6***	-0.4	-13.3
Education												
Less than HS - College +	7.0***	5.8***	-1.2	-17.1	3.9***	3.1***	-0.8	-20.5	4.2***	3.3***	-0.9	-21.4
HS - College +	5.3***	3.9***	-1.4	-26.4	2.9***	2.1***	-0.8	-27.6	2.8***	2.2***	-0.6	-21.4
Some college - College +	3.0***	2.1***	-0.9	-30.0	1.6***	1.2***	-0.4	-25.0	1.7***	1.2***	-0.5	-29.4

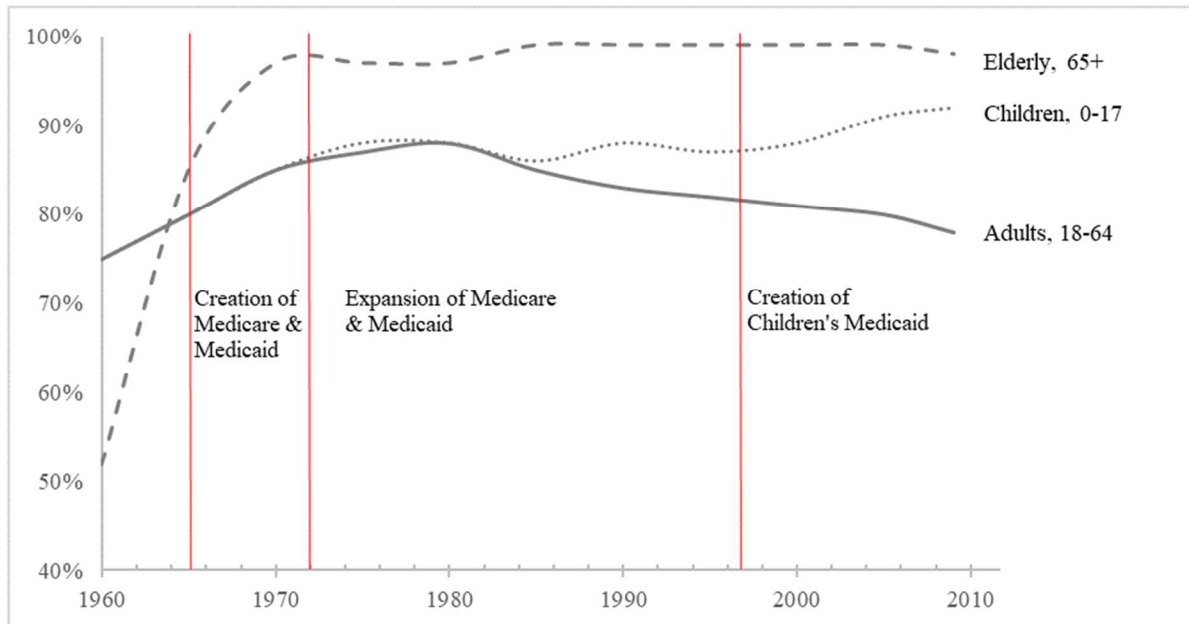


FIGURE 1. Rates of health insurance coverage in the U.S. population by age groups, 1960-2009. *Source:* National Center for Health Statistics (NCHS), National Health Interview Survey (NHIS). *Note:* The 1960-1974 estimates are derived from a NCHS report, "Health Insurance Coverage Trends, 1959-2007: Estimates from the National Health Interview Survey" (Cohen et al. 2009). The NHIS estimates observed thereafter are based on the author's calculations.

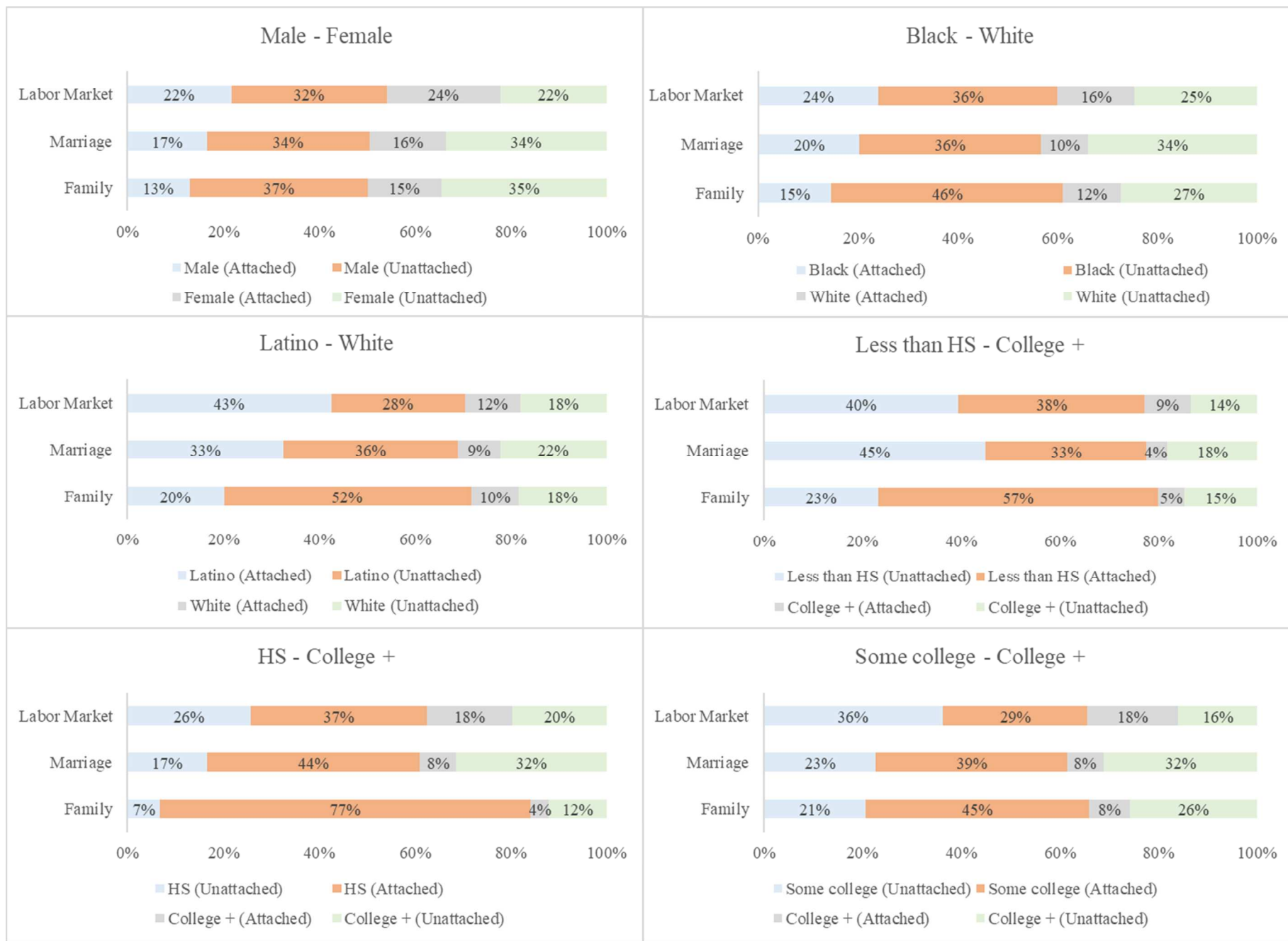


FIGURE 2. Decomposition of the changes in health insurance disparities between sociodemographic groups.
Note: The stacked bars reflect the share of the change in the between-group gap in health insurance coverage that is attributed to adults across institutional attachment categories.
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ENDNOTES

¹ In 2009, 14 states limited eligibility to parents with incomes less than 50% of the FPL (or, about \$9,000 for a family of three), while 34 states expanded eligibility to parents with incomes less than 100% of the FPL and 17 states allowed parents with incomes above 100% of the FPL to qualify for Medicaid (Artiga and Schwartz 2009).

² There were 39.5 million adults without health insurance in 2013 (CPS 2014; American Community Survey (ACS) 2013). Of these adults, 23 million met income requirements (household income greater than 100% FPL and less than 400% FPL) to qualify for federal subsidies in the Marketplace, while about 16 million met income requirements (less than 138% FPL) to qualify for expanded Medicaid (ACS 2013; CPS 2014; Garfield et al. 2014). Excluding the overlap of adults with income greater than 100% of the FPL and less than 138% of the FPL, the total number of uninsured adults with income below 400% of the FPL was about 34.3 million (87% of the total population of uninsured adults) in 2013. Of these 34.3 million adults, 4.8 million fell into the coverage gap (Wachino et al. 2014). The total number of adults who qualified for partially (health insurance with subsidies through the Marketplace) or completely (Medicaid) subsidized health insurance on January 1, 2014 was thus about 29.5 million (ACS 2013; CPS 2014; Garfield et al. 2014).

³ To further test the sensitivity and robustness of my results, I also estimated models using linear probability regression. Important to note is that a drawback of using linear probability modeling with a binary outcome is that it can produce predicted probabilities that lie outside the [0-1] interval. However, in my case, the true probabilities were in a range where linear approximation generally performs well as no predicted probabilities fell outside the [0-1] interval. Thus, the

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3 results estimated from the logit model and linear model were comparable. I also computed robust
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5 standard errors to correct for heteroskedastic variance present under the linear model.
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