The Disparate Impact of the ACA-Dependent Expansion across Population Subgroups

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Objective. This study presents evidence on how the dependent provision in the Affordable Care Act (ACA) differentially affected coverage for young adults across states and population subgroups.

Study Design/Methods/Data. The data derive from the American Community Survey. Using a difference-in-difference design, we compare the target population (ages 19–25) with a control group (ages 26–29).

Principal Findings. Net private health insurance coverage increased by 4.6 percentage points and overall coverage increased by 4.2 percentage points for people aged 19–25; more for Whites than non-White subgroups.

Conclusions and Implications. Changes in coverage for states appear driven by demographics rather than the existence of prior dependent expansions by the state. Disparities in health care coverage remain, but the absolute level of coverage is improving.

Young adults are less likely to have insurance than other age groups; 29.7 percent of people aged 19–25 were uninsured in 2010 as compared with 16.3 percent of all people (DeNavas-Walt, Proctor, and Smith 2011). Also, young adults are at the least risk of needing medical services; compared with the population 25 years and older, young adults are healthier and do not consume as many medical services (O'Hara and Caswell 2012). Therefore, at least in some health reform scenarios, expanding employer-provided coverage to dependent young adults is not very costly (Cantor et al. 2012).

Thirty-seven states encouraged the expansion of private health insurance for younger adults before the national health insurance reform of 2010 for young adults. For instance, states regulated the private coverage market to increase dependents by using age caps, student status, or financial dependency (National Conference of State Legislatures 2010). Most of the studies that

examined the state expansions found no statistical evidence that uninsurance decreased (Long, Yemane, and Stockley 2010; Levine, McKnight, and Heep 2011; Monheit et al. 2011; Blum et al. 2012).

Section 2714 of the Patient Protection and Affordable Care Act of 2010 (ACA) targets this issue of insurance coverage among young adults aged 19–25 (P.L. 111-148 2010). The provision, which took effect on September 23, 2010, allows holders of private family plans to add children under the age of 26 to the policy, regardless of the child's circumstance. For example, a young adult can be in school, married, employed, or have his or her own children and also be on a parent's family plan (Kaiser Family Foundation 2010).

Consistent with the law, private insurance coverage increased for young adults in 2011. Different survey data sources show wide variation in estimates of the magnitude of the policy's effect. The Annual Social and Economic Supplement to the Current Population Survey (CPS ASEC) estimated that between 2009 and 2010, there were 400,000 newly insured young adults (DeNavas-Walt, Proctor, and Smith 2011). The American Community Survey (ACS) estimated 700,000 newly insured between 2009 and 2011 (Rodean 2012).

Turning to private insurance, research using the CPS ASEC data found that the change associated with the ACA was a 2.5 percentage point drop in own employer-sponsored coverage and a 4.3 percentage point gain in dependent employer-sponsored coverage for young adults aged 19–25 (Sommers and Kronick 2012). These changes amounted to a net 2.9 percentage point decrease in the uninsured rate and a 2.8 percentage point increase in private coverage. The National Health Interview Survey estimated 3 million newly insured young adults, comparing September 2010 versus December 2011 (Sommers 2012). Other research using the CPS ASEC found similar changes in dependent coverage, but slightly higher decreases in the uninsured rate (Cantor et al. 2012). This study also found greater impacts of the ACA in states with prior reforms. Prior research has also showed impacts for selected population subgroups, but sample size has limited the power to detect differences between groups (Sommers et al. 2013).

In addition to expanding coverage to young adults, the ACA set a goal of reducing disparities in health care through provisions aimed at improving coverage, access, and outcomes. With this in mind, this research

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looks at how subgroups were differentially affected by the changes in dependent coverage using data from the ACS; the ACS is a large sample survey with power to detect these differences. Following Sommers and Kronick (2012) and Cantor et al. (2012), we focus on the coverage rate between two different age groups (aged 19–25 and aged 26–29) before and after the dependent coverage took effect. This article adds to the literature by examining coverage rates by state, gender, race, Hispanic origin, English-speaking ability, and citizenship status. In doing so, we provide group-specific and state-specific estimates of the policy's impact. Results are presented as both tabular and regression-based difference-in-difference estimates.

DATA

The estimates of uninsurance and private coverage for young adults come from the 2008 through 2011 1-year ACS restricted-access samples. The ACS is a nationwide survey designed to collect and produce economic, social, demographic, and housing information annually. It is conducted in all U.S. counties and Puerto Rico municipios. The sample from Puerto Rico was excluded for this analysis. About 3 million housing unit addresses are sampled annually, in addition to a sample of individuals in Group Quarters, such as college dormitories. ACS data are collected continuously using independent monthly samples through mail-out/mail-back questionnaires with telephone and personal interview nonresponse follow-up. In 2008, the ACS began asking questions about the health insurance status of respondents. People were uninsured if they were not covered by any type of private or government health insurance at the time they complete the questionnaire or interview. In general, ACS estimates of types of health insurance coverage by age are similar to those from other national survey (Turner, Boudreaux, and Lynch 2009).

For the purposes of the dependent coverage provision in ACA, the relevant date for health insurance outcomes is the implementation date (September 23, 2010 as measured by the respondent interview date, available to us on the restricted-access ACS data file) and forward. Insurance carriers were required to provide a special enrollment period in the 30 days following implementation; however, many insurers volunteered to extend coverage to graduating students about to lose coverage in May 2010 (U.S. Department of Labor 2010). Analysis from the Survey of Income and Program Participation

found that accounting for enrollment during the postenactment/preimplementation period increased the magnitude of the policy's effect (Antwi, Moriya, and Simon 2012). The data are pooled from 2008 through the implementation date as the "before" period, and the data from after the implementation date are pooled as the "after" period. The total of the pooled sample is about 2.3 million (65 percent are aged 19–25). The results are weighted estimates, and measures of variance take into account the complex sample design. More detailed information concerning the ACS sample design, confidentiality protection, sampling error, and nonsampling error of the ACS is in its Source and Accuracy document (U.S. Census Bureau 2011).

A model will be used to predict private coverage and uninsurance. The ACS does not identify whether respondents are policyholders or dependents on a family plan, so dependent coverage cannot be measured specifically. The main predictors for coverage are age (group = 19–25), an indicator for the postpolicy date, and a cross-effect; these three variables are explained in the methodology section. Separate models are run for populations by state, gender, race, Hispanic origin, citizenship, and English-speaking ability. Other characteristics included in the models are age, marital status, disability status, educational attainment, student enrollment status, program reciprocity (received Supplemental Security Income, other public assistance income, or Food stamps/Supplemental Nutrition Assistance Program), income-to-poverty ratio, metropolitan area, and indicators for whether respondents lived with their parents or had children of their own. Some states already had policies in place concerning dependent coverage for young adults prior to ACA (Monheit et al. 2011). Respondents in those states that were eligible to take advantage of those types of regulations were denoted with a dummy variable. Finally, the population living in college dormitories are included as part of the sample and controlled for in the model.

METHOD

For the sake of providing context to this research, the first figure is a time series. These tabular data emphasize the difference in the percent uninsured between the two age groups at the same time (t). The direct difference-in-difference (DD) estimate is the difference of the two consecutive time points; this estimate was not regression adjusted. The DD gives the treatment effect as long as the comparison group is valid and " t " is postimplementation of the policy.

$$DD_t = \text{Diff}_t - \text{Diff}_{t-1} \quad (1)$$

where Diff_t = the difference of the uninsured/private coverage rate for the treatment group (aged 19–25) and the comparison group (aged 26–29) at any given time t .

The DD method is sensitive to the comparison group. Ideally, it would be aged 26 because that is the age with the next highest uninsured rate. However, that sample size of ACS (aged 26 by insured status) will not support state estimates. In most cases, for the working age adult population, insured status increases with age (according to the 2009 ACS, the insurance rate declines from aged 19 to 23, and generally increases from aged 23 to 34). The implication is that the uninsured DD estimate for the population aged 19–25 will be higher as the comparison group becomes wider (includes more ages over 25). We chose the group aged 26–29 for the comparison group for two reasons: first, so that we had sufficient sample to get DD estimates for states, and second because it was used in an ACS report on this topic (Rodean 2012). In other studies using smaller datasets, such as Sommers and Kronick (2012) and Cantor et al. (2012), the comparison group was 26–34; we speculate that the wide age range used was primarily because of the sample size.

In a regression framework, there are controls for confounders, such as student enrollment status, state-specific effects, etc., that are separate from the policy but influence whether a person had private coverage (or was uninsured). Formula 2 uses private coverage as the dependent variable because the ACA provision specifically targeted private coverage expansion.

$$\begin{aligned} Pr(\text{PRIV}|\text{AGE}, \text{AFTER}, X) = & \alpha + \beta_1\text{AGE} + \beta_2\text{AFTER} + \beta_3\text{AGE} \\ & \times \text{AFTER} + \beta X + \varepsilon \end{aligned} \quad (2)$$

where PRIV is an indicator for private insurance coverage, AGE is an indicator for the person being aged 19–25, AFTER is an indicator for whether the year/month is after the policy change, and X is a vector of covariates that are controlled for in the model, including the state effects. The implementation period (AFTER) began on September 23, 2010. We also present estimates from a second model that replaces private coverage with an indicator for uninsured. The regression model coefficients are available from the authors.

RESULTS

Figure 1 shows the changes in the ACS uninsured rate from 2008 to 2011 for both respondents aged 19–25 and those aged 26–29. In 2008, the uninsured

Figure 1: Differences in the Uninsured Rate, by Age

Source: U.S. Census Bureau, 2008 to 2011 1-year American Community Survey

rate was 30.5 percent for people aged 19–25 and 27.5 percent for those aged 26–29. The difference between the uninsured rates for the two age groups was 2.8 percentage points. In 2011, the gap between the age groups reversed, and the uninsured rate was –1.5 percentage points. This implies that the decrease in the uninsurance rate for 19- to 25-year-olds was greater than the increase in the rate for 26- to 29-year-olds. The net change between 2010 (after implementation) and 2011 was a 2.6 percentage point decline in the uninsured rate. The net private coverage estimates were similar to the net uninsured estimates. The net change preimplementation 2010 time period versus net change in 2011 may be the effects of open enrollment for health insurance plans; most employers allow one policy change a year.

Table 1 shows the private coverage/uninsured percentage difference for the pre/post date of the implementation. Direct estimates of the policy were associated with a net increase in private insurance coverage of 4.1 percentage points (or a net decrease of 3.9 percentage points in the uninsured rate). When controlling for confounders, the net increase in private insurance coverage was 4.6 percentage points. This estimate implies an increase in net private coverage by 1.4 million and a decrease in net uninsurance by 1.3 million people aged 19–25 (based upon the 2011 population and the net coverage modeled estimates from the ACS); if we restrict our analysis to the period immediately

Table 1: Net Change in the Uninsured and Private Coverage Rates, Direct and Modeled Estimates

Independent Models For...	Sample Size	Direct Estimate			LPM, with Controls		
		Uninsured	Private Health Insurance	Uninsured	Uninsured	Private Health Insurance	Private Health Insurance
Total	2,269,092	-0.039** (0.002)	0.041** (0.002)	-0.042** (0.002)		0.046** (0.002)	
Gender							
Male	1,162,627	-0.044** (0.003)	0.043** (0.002)	-0.046** (0.002)		0.049** (0.002)	
Female	1,106,465	-0.036** (0.002)	0.040** (0.003)	-0.037** (0.002)		0.043** (0.002)	
Race							
White, not Hispanic	1,479,213	-0.046** (0.002)	0.050** (0.003)	-0.046** (0.002)		0.054** (0.002)	
Black, not Hispanic	231,954	-0.048** (0.006)	0.050** (0.006)	-0.047** (0.005)		0.048** (0.005)	
American Indian or Alaskan Native (AIAN), not Hispanic	22,135	-0.004 (0.020)	-0.006 (0.017)	0.000 (0.020)		-0.002 (0.014)	
Asian, not Hispanic	117,983	-0.026** (0.008)	0.036** (0.008)	-0.025** (0.007)		0.036** (0.007)	
Native Hawaiian or Pacific Islander (NHPI), not Hispanic	3,969	0.060* (0.034)	-0.057 (0.040)	0.040 (0.034)		-0.029 (0.038)	
Residual (some other race and two or more races, not Hispanic)	51,473	-0.043** (0.010)	0.048** (0.011)	-0.044** (0.009)		0.051** (0.010)	
Hispanic or Latino	362,365	-0.037** (0.004)	0.038** (0.004)	-0.035** (0.004)		0.033** (0.004)	
Citizenship							
Citizen	2,067,988	-0.041** (0.002)	0.044** (0.002)	-0.044** (0.002)		0.050** (0.002)	
Noncitizen	201,104	-0.021** (0.006)	0.019** (0.005)	-0.015** (0.005)		0.012** (0.004)	
English proficiency							
No English-speaking ability	2,111,851	-0.040** (0.002)	0.043** (0.002)	-0.043** (0.002)		0.049** (0.002)	
Limited English-speaking ability	157,241	-0.033** (0.007)	0.023** (0.006)	-0.024** (0.006)		0.016** (0.005)	

Note. ** $p < .01$, * $p < .1$. LPM estimates are coefficients. Standard errors in parentheses. Additional controls include age; marital status; disability status; school enrollment (student status); educational attainment; poverty status; receipt of food stamps, SSI benefits, or cash public assistance; whether the respondent lived with a parent; whether the respondent had a child; and whether the respondent was eligible for dependent coverage under a state expansion. Source: U.S. Census Bureau, 2008–2011 1-year American Community Surveys.

before the policy change (September 2010) and the most recent data available (December 2011), our results show an increase of 1.4 million people insured. Hereafter, the focus is the modeled estimates.

The impact of the ACA-dependent expansion was not felt equally across population subgroups. Young men experienced a greater change in coverage than their female counterparts did; private coverage increased 4.9 percentage points for males and 4.3 percentage points for females. The net increase in private insurance coverage for non-Hispanic whites was 5.4 percentage points compared with 3.3 percentage points for Hispanics. Noncitizens and people with limited English-speaking ability had the lowest net increase compared with other groups (given sufficient sample size).

The dependent policy was not felt equally across the states. While there was variation in magnitudes of net changes, most states were not statistically different from the national estimate (4.8 percentage points). According to Figure 2, the net change in private coverage ranged from -3.0 (Alaska) to 12.9 (Wyoming) with 37 states experiencing statistically significant increases. Both states with mandate laws (Massachusetts for individuals and Hawaii for employers) did not experience statistically significant changes in private coverage. Twenty-eight of the 37 states with pre-ACA-expanded eligibility had significant net increases in private coverage (Florida, Idaho, Maine, Massachusetts, Montana, New Mexico, North Dakota, Rhode Island, and South Dakota were not statistically different from zero). Of the 13 states and District of Columbia that did not have pre-ACA expansions,¹⁹ 9 experienced significant increases in private coverage (Alaska, Arizona, Hawaii, Vermont, and the District of Columbia were not statistically different from zero).

CONCLUSION

The ACA intended to increase health insurance coverage and reduce disparities in the health care system, among other goals. On the first goal, our research provides evidence that the dependent coverage expansion increased private and overall coverage for most groups, including both men and women, for most race and ethnic groups, for citizens and noncitizens, and for people with limited English proficiency. On the second goal, however, the expansion did little to help to reduce disparities in health care coverage. While the gap in coverage by gender appears to have shrunk, the gaps in coverage by race and ethnicity have not. Net gains in coverage for non-Hispanic whites exceeded net gains in coverage for non-Hispanic blacks,

Figure 2: Net Change in Private Coverage for All States and the District of Columbia

Asians, and Hispanics. Although the dependent expansion did not reduce disparities in health coverage, additional provisions of the ACA, including the establishment of state exchanges and the requirement for employers to offer insurance, may reduce disparities in the future.

The state estimates presented here do not show conclusively that federal policy has filled the gaps where state policies were lacking. Rather, the demographics of states may be a greater driver of the policy's effect. The change in coverage experienced among Hispanic and Native American populations likely impacted the level of change in states like Arizona (with no prior state-based dependent eligibility) and New Mexico (with state-based eligibility for those under 25). Efforts that minimize disparity in race and ethnicity groups would appear to address much of the state variability.

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NOTE

1. The states that did not have dependent expansions were AL, AK, AZ, AR, CA, HI, KS, MI, MS, NE, NC, OK, and VT.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

Appendix SA1: Author Matrix.