Labor Market and Health Insurance Impacts Due to "Aging Out" of the Young Adult Provision of the Patient Protection and Affordable Care Act

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1   Introduction

In September of 2010 one of the first provisions of the Patient Protection and Affordable Care Act (ACA) went into effect, allowing young adults up to age 26 to remain on a parent's health insurance plan as a dependent, provided that they did not have an offer for health coverage through their own employer. The goal was straightforward— to expand health insurance to a group of individuals that historically had high rates of uninsurance. Since the predominant source of health insurance in the United States for working-age adults is through an employer,[1] this provision relaxed the tie between employment and insurance for young adults, allowing more flexibility in job choice and a potential reduction in job lock, or inability to leave a job for fear of losing health insurance benefits. For qualifying individuals seeking health insurance, the provision altered the employment/insurance choice set, leading to changes in labor market and health insurance outcomes. As eligibility for this program expires on an individual's 26th birthday, these changes are most prevalent on or around age 26. This paper estimates the impact of turning 26, or "aging out," on labor and health insurance market outcomes for young adults in the United States.

The provision has expanded health coverage to millions of young adults. In 2012, nearly 8 million adults between the ages of 19 and 25 were able to remain on their parents' plans.[2] Prior work has focused primarily on the resultant gains in health insurance coverage for this group as a whole (aged 19-25). Using different data sources, all find gains in health coverage of roughly 3 to 6 percentage points, showing unequivocally that the provision succeeded at expanding health insurance for the targeted group.[3-6] In terms of changes in labor market outcomes, studies have found no evidence of the provision changing the likelihood of a young adult being employed, but

small reductions in the probability of working full-time and the number of hours worked per week.[7]

Rather than comparing changes in coverage and employment for the entire targeted group (young adults aged 19-25) to changes in coverage for older adults (adults aged 26-30), this paper focuses on what happens to the young adults at or above the eligibility threshold, or those whom have aged out of the provision. The natural threshold that occurs at age 26 as a result of this provision leads to variation in characteristics of the marginally ineligible young adult, providing insights into the labor and insurance market choices that may result when the ACA is fully implemented.

2   Methods

2.1   Data

The National Health Interview Survey (NHIS) provides detailed information on health, health insurance, and employment for a representative sample of the overall civilian, non-institutionalized population of the United States. Data were drawn from a harmonized version of the NHIS, the Integrated Health Interview Series (IHIS), provided by the Minnesota Population Center.[8] The sample is restricted to the time period after implementation of the provision but before the ACA individual mandate and expansion of the dependent coverage provision,[9] years 2011-2013. Within the NHIS, labor and health insurance outcomes are asked of all individuals, with the exception of whether health coverage type was better/worse/the same as the previous year, which is limited to a randomly selected sample adult within the household.

There are several reasons why the analytic sample includes non-married individuals only.

Married men have higher labor market participation rates than their unmarried counterparts, whereas married women are less likely to be in the labor market than unmarried women.[10] Marital status is also associated with increases in health coverage and employer-sponsored insurance offer rates for women.[11] Also, since age 26.6 and 29.0 are the average ages of women and men, respectively, at their first marriage (in 2013),[12] it is plausible that the inclusion of married individuals in the sample would lead to a disproportionate amount of unmarried individuals to the left of the eligibility cut-off.[13] Prior work has found different effects based on gender,[3,6] so estimates are produced for the full sample as well as by gender.

An attractive feature the NHIS is that it contains respondents' exact date of birth and interview date for each survey year. This is used to create a precise definition of age in days at the time of the interview as well as the number of days that the respondent was younger or older than the young adult provision eligibility cut-off. Following studies using a similar methodology,[14,15] the selected age bandwidth includes respondents up to 2 years younger or older than the eligibility threshold occurring on the individual's 26th birthday. The series of questions regarding employment had a 2-week reference period, whereas the health insurance questions referred to the status at the time of survey. Since the empirical strategy compares young adults who are slightly younger than the young adult provision age cut-off to those who are slightly older, these short reference periods for outcome measures are ideal. The final analytic sample includes 10,463 unmarried individuals. Analyses are weighted using the survey estimation procedure (svy) in Stata 12.[16]

Outcomes focus on changes in employment, employment-related health coverage, coverage type, and plan satisfaction. The three labor market measures are employed, in the labor force, and employed full-time. Employer-sponsored insurance (ESI) and offer of ESI gauge

employment-related health coverage. Health coverage type is captured by public, private, or no insurance, with type of private insurance also measured by non-group directly purchased coverage. Lastly, an indicator of health plan quality (added to the NHIS in 2011 for sample adults only) is analyzed.

2.2 Analysis

A regression discontinuity (RD) design is used to estimate how aging out of the dependent coverage provision impacts labor and health insurance outcomes among young adults. This methodology takes advantage of the sudden change in health coverage options that might result after an individual turns 26 and becomes ineligible for health insurance through a parent. The methodology of previous RD literature, visual data inspection,[14,15] was followed to ensure the smooth profile of age was correctly specified.[17] The model with the age profile fully interacted with the treatment is:

$$Y_i = B'X_i + \theta_1 Treat_i + \theta_2(age_i) + \theta_3(age_i{}^2) + \theta_4(Treat_i * age_i) + \theta_5(Treat_i * age_i{}^2) + \varphi_t + \gamma\varepsilon_{it} \qquad (1)$$

Y_i is a labor market or health insurance outcome for individual i. Vector X_i contains observable characteristics for individual i, including dummy variables to control for poverty status,[18] highest educational attainment, region of residence, health status, presence of a chronic health condition, citizenship, gender (for the models including both males and females), and race/ethnicity. Since the study design is over three years, year fixed effects (φ_t) are included. The treatment measure is captured by $Treat_i$, which is zero for all individuals younger than 26

and one for those 26 and older. For all models, age_i is the number of days before or after the individual's 26th birthday.

Logit models estimate θ_1 and control for the complex design of the sample survey using the survey estimation procedure (svy) in Stata 12. The results (Table 2) show the average marginal effect, or percentage point increase (decrease) in an outcome in response to turning 26. Several robustness checks for model fit and sample design are also performed (results found in Technical Appendix).

3   Study Results

Summary statistics suggest differences in outcomes at the eligibility threshold (Table 1). Overall and for males and females, being slightly older than the eligibility cutoff is associated with increases in having an offer of ESI coverage, being uninsured, having private health insurance, purchasing private insurance directly, and reporting that health insurance is worse than the prior year. Males to the right of the eligibility threshold are more likely to be employed and in the labor force than their slightly younger counterparts who had the option of health coverage through a parent.

Results report the coefficient on the treatment (θ_1) from estimating Equation (1) for each outcome. Regressions include the quadratic polynomial of age fully interacted with a dichotomous indicator of treatment, individual-level characteristics, and year fixed effects, with standard errors clustered at the individual level. Figures 1, 2, and 3 show the pre/post outcomes for each of the ten outcomes, plotting the quadratic fitted lines from the estimated parametric models (without controls) over the mean values of the share of individuals in 45-day age bins.

3.1   The effect of the young adult provision: overall

Aging out of the provision has differential impacts by gender, but for the full sample there are changes in labor-related insurance outcomes, directly-purchased private health insurance, and perceptions of health plan quality. At the threshold, the rates of employer-sponsored health insurance dropped (-6.8 percentage points) but shares of individuals with an offer of health insurance through an employer increased (+7.9 percentage points) (Table 2). Graphically, these jumps are confirmed in Panels (G) and (H) of Figure 1.

The reduction in ESI is not entirely unexpected, as firms that offered health insurance during this timeframe had an average waiting period of about 2 months (after hiring) before ESI coverage began,[19,20,21] and the NHIS question regarding ESI does not distinguish between coverage through the individual's *own* employer or a *parent's* employer.

While there are no significant changes in type of health coverage (public, private, or uninsured), the 5.1 percentage point uptick in directly-purchased private health insurance suggests an interest in remaining insured. Panel (I) of Figure 1 also shows this discrete change, and demonstrates that after the increase at age 26, the probability of purchasing non-group coverage initially rises and then begins to decline.

Importantly, this study does not find that gains in insurance coverage resultant of the young adult provision erode when individuals turn 26, again suggesting young adults wish to remain insured after losing eligibility through a parent. However, there is a 15.4 percentage point increase in the probability of reporting that coverage was worse than one year prior. This finding is supported by the fact that directly purchased (i.e., non-ESI) health insurance typically provides less generous benefits than group (i.e., ESI) coverage[22] and this study shows an increase in

directly purchased coverage once individuals aged out of the dependent coverage provision. The jump in dissatisfaction with health insurance plan is shown graphically in Panel (J) of Figure 1. After the increase at age 26, the probability of reporting coverage is worse than it was one year prior declines.

When models are estimated for men and women separately, two different stories emerge. Both suggest that loss of eligibility for the young adult provision is associated with changes in labor and health coverage outcomes and increased reliance the employer as a means of health insurance, or the potential return of job lock. By relaxing the employment-insurance connection, results suggest there are subsequent changes in employment choices and indicate that any reduction in job lock during the eligibility phase erodes on the 26th birthday.

3.2   Aging out of the ACA dependent coverage provision: the impact on young men

For young men, turning 26 led to a 7.9 percentage point increase in employment and a nearly 10 percentage point increase in labor force participation (Table 2). Panels (A) and (B) of Figure 2 show the unadjusted pre and post age 26 jumps in these labor market outcomes and suggest that even 6 months, one year, 18 months, and 2 years past the eligibility threshold, employment and labor force participation rates are higher than they were during the eligibility period. These results imply that unmarried young men might have been using the ability to stay on a parent's insurance as a reason to (temporarily) not participate in the labor market, or a loosening of job lock during the eligibility phase.

3.3   Aging out of the ACA dependent coverage provision: the impact on young women

Whereas men reentered the work force after losing eligibility for health insurance through a parent, employment results for women were less direct. That is, while there are no measurable changes in employment or labor force participation rates at age 26, women reported an 11.4 percentage point increase in offers by employers of insurance after aging out of the provision (Table 2). Panel (H) in Figure 3 demonstrates a jump in ESI offer rates at 26 and suggests that after the jump these rates decline, but do not return to the pre-threshold levels, even 6 and 12 months after. There are no changes in the uninsurance rate, so the rise in ESI offers suggests women covered by parental insurance may have changed jobs at age 26 in order to remain insured.

When asked to compare current health coverage to that of one year prior, turning 26 is associated with a nearly 18 percentage point increase in the share of women responding that their coverage was worse in that year versus the prior year (Table 2). Again, this jump is supported by the graphical results (Panel (J) of Figure 3). As there are no significant changes in this measure for men, these results are possibly due to the fact that women are higher utilizers of health care[23] and may have had a health care experience under both types of insurance from which to judge coverage (e.g., annual pap and pelvic exam).

The Technical Appendix provides results from several sets of robustness tests. Models are estimates for different samples (wider age band, narrower age band, and inclusion of married individuals) and tested for model specification. Results from these tests suggest both appropriate model selection and accuracy of results.

3.4   Limitations

The NHIS is not without limitations. The public use data file does not contain state identifiers, so the study could not control for the fact that more than half of the states had already extended the age that young adults can remain on a parent's health insurance plan when the ACA provision went into effect.[24] However, Section 514 of the Employee Retirement Income Security Act of 1974 (ERISA)[25] preempts state laws for self-insured plans,[26] and during the study period nearly 60 percent of private-sector employees with ESI had self-insured plans.[27] Additionally, most of these state-sponsored plans had stringent eligibility requirements in order to qualify for state coverage (e.g., unmarried, financially dependent on the parent, living in the same states as the parent, full-time student, under age 25). For these reasons, it is plausible that the results found using national data are being driven by the federal law. Also, region of residence is used to control for geographic area, and other research found that most states did not experience a change in insurance coverage that was statistically different from the national change in insurance coverage as a result of the provision.[6]

Many colleges and universities mandate the purchase of health insurance[28] and thus these individuals are more likely to be insured than non-studentd. For example, in the 2009-2010 school year the overall rate of uninsurance for graduate and undergraduate students was 7.4%,[29] compared to rates of roughly 30% uninsured among the total population targeted by the dependent coverage provision.[30] However, the NHIS does not include an indicator for student status, and even though the ACA dependent coverage provision extended coverage to all students up to age 26, many of these individuals were already insured prior to implementation. Highest educational attainment is used to control for differences in education among young adults.

The sample is limited to unmarried individuals for several reasons outlined in the data section but is important to point out that marital status is a predictor of both labor and health

insurance outcomes. To address this concern, models including married individuals and also controlling for marital status were estimated as part of the robustness checks (Technical Appendix) to demonstrate that the inclusion of such individuals did not change the general findings.

4   Discussion

Using the NHIS, which contains exact birth date and interview date, loss of eligibility for parental insurance is precisely identified and used to determine the immediate effects of aging out of the young adult provision of the ACA. While existing literature demonstrates that the provision has many positive effects for the target population while eligible, to the best of my knowledge, this is the first analysis of how loss of eligibility alters individuals' labor market and health coverage choices.

This paper finds that ineligibility for the young adult provision did not lead to increases in uninsurance rates, suggesting an interest in remaining insured, even in an era prior to the ACA's individual health insurance mandate being in place. Decisions made by young men and women on or around their 26th birthday demonstrate provision ineligibility is associated with a reliance on employment as a means of obtaining health insurance coverage, or the potential return of job lock.

From a policy perspective, the differences in outcomes based on gender are particularly important. Results show males appear to have been either more willing or more able (or both) to exit the labor force while eligible for the provision. This is supported by trends in living arrangements during the study period—in 2012, more than one in three young adults aged 18-31

resided at home with their parent(s), with men being more likely than women to do so.[31] Another explanation for the jump in employment and labor force participation rates among young men is that young women's skills may have been better matched with their employment choices when the provision went into effect, resulting in fewer of them leaving the labor force when becoming eligible. This may have been a carry-over from the Great Recession (December 2007-June 2009), which was harder on men in terms of job loss during the economic contraction and job growth in the subsequent recovery.[32]

To place the provision's impact on labor market outcomes in context with existing literature of the effect of labor supply decisions made to maintain health insurance status, it must be noted that it altered the employment/insurance choice set for eligible individuals. Prior to the provision, a young adult desiring to have health coverage had three primary options in his choice set: first, through an employer offering health insurance; second, through Medicaid or Medicaid-like program; and third, through directly-purchased non-group coverage. The provision gave individuals a fourth option—through a parent's insurance plan. The provision is different from ESI and non-group coverage, as key requirements to receiving health insurance coverage, employment and (own) income, are not present. However, it is somewhat similar to Medicaid coverage in that in order to receive health insurance, (own) employment is not required, but dissimilar in its lack of an income restriction. Under the provision, labor force participation and income barriers were reduced, the value of parental insurance increased, and job lock loosened. The findings of decreased labor force participation and employment by young men are similar to those from a Medicaid study that demonstrated how an increase in the value of Medicaid led to reductions in labor force participation by single mothers.[33]

The exogenous change that reduced the possibility of job lock for eligible young adults may have had positive or negative welfare implications worth exploring in future research. If the young adults that temporarily exited the labor force used eligibility to improve their labor market match then returned to the labor force in a career better suited to their job skill set, the provision could be viewed as welfare increasing. However, the provision may have been welfare decreasing if the individual simply exited the work force and returned to a job that required the same (or worse, fewer) skills as prior to exiting the market. In this case, the provision could be viewed as disrupting human capital formation, with longer-term effects potentially being observed over time (e.g., reduced lifetime earnings). While these data do not allow one to decipher if individuals were using the provision to return to school, the period of time was associated with declining enrollment rates in graduate school programs,[34] suggesting individuals were not substituting education for employment.

Although no statistically significant jumps in broad coverage type occurred at the threshold (public, private, or unnsured), changes within plan type (e.g.., from a parent's private insurance to their own private insurance) may have contributed to insurance coverage quality being perceived as worse than one year prior. For some, this might be a reflection of the first time that the young adult navigated the health care system on their own, and might not necessarily be a true indicator of plan quality.

This study focuses on a period in time prior to the individual health insurance mandate being in effect, and so it would seem that moving forward there will be an increased interest in remaining insured at age 26. Many young adults will turn to state and federal health insurance marketplaces for information about health coverage. As more than half of young adults (aged 18-29) regularly use two or more social media sites,[35] marketplace education and outreach

coordinators could use these sites to advertise to individuals getting ready to celebrate a 26th birthday. This is especially important for young men, as this study demonstrates they are more rapidly reentering the labor market and not necessarily selecting employment based on the potential offer of health insurance.

Table 1: Definitions of outcome variables and summary statistics for unmarried young adults

Variable: Definition	All		Male		Female	
	Age < 26	Age >/= 26	Age < 26	Age >/= 26	Age < 26	Age >/= 26
Employed: Working for pay in the last two weeks.	73.7 [5596]	75.9 * [4812]	74.1 [2840]	78.1 ** [2411]	73.3 [2756]	73.4 [2401]
In the labor force: Working for pay or looking for work in the last 2 weeks.	84.7 [5596]	86.1 [4812]	85.6 [2840]	89.3 *** [2411]	83.7 [2756]	82.5 [2401]
Employed full-time: Working 32 or more hours for pay in the last two weeks.	74.0 [3992]	78.0 *** [3557]	76.4 [2072]	81.3 ** [1847]	71.2 [1920]	74.1 [1710]
Employer Sponsored Insurance: Of the privately insured, covered through employer.	88.4 [3015]	81.3 *** [2205]	87.4 [1608]	82.0 *** [1161]	89.6 [1407]	80.5 *** [1044]
ESI Offer: Of those employed, share working for an employer offering health coverage	59.8 [3983]	64.7 *** [3583]	59.9 [2066]	62.6 [1859]	59.7 [1917]	67.2 *** [1724]
Uninsured: Did not have health insurance coverage at the time of survey.	27.2 [5492]	36.1 *** [4730]	30.7 [2789]	41.7 *** [2376]	23.4 [2703]	29.8 *** [2354]
Public coverage: Medicaid, Medicare, or other public assistance/state sponsored plan.	13.3 [5492]	13.8 [4730]	7.6 [2789]	7.2 [2376]	19.7 [2703]	21.3 [2354]
Private coverage: Insurance provided in part or in full by an individual's employer or union, or purchased directly by a person.	59.4 [5492]	50.1 *** [4730]	61.7 [2789]	51.2 *** [2371]	56.9 [2703]	48.9 *** [2354]
Direct purchase: Private health coverage purchased directly, rather than through an employer or union.	5.4 [2896]	10.7 *** [2083]	6.2 [1538]	9.5 ** [1082]	4.5 [1082]	12.1 *** [1001]
Worse Insurance: Compared to one year ago, health insurance coverage is worse (rather than the same or better).	11.7 [2481]	16.9 *** [2358]	10.8 [1195]	15.1 * [1103]	12.6 [1286]	18.7 *** [1255]

Notes: Sample means are weighted. Sample sizes are in brackets. *p<0.05,**p<0.01,***p<0.001

Table 2: The effect of turning 26 on labor market and health coverage outcomes for unmarried young adults

	All	Male	Female
Labor market outcome and labor-related coverage measures			
Employed	5.4	7.9 *	3.3
In the labor force	3.0	9.7 **	-2.9
Employed full-time	-0.5	-2.0	1.9
Employer-sponsored insurance (ESI)	-6.8 *	-6.5	-6.2
ESI offered	7.9 *	5.3	11.4 *
Insurance coverage and insurance-related measures			
Uninsured	4.1	4.2	3.5
Public	0.5	-0.7	2.2
Private	-4.2	-3.7	-4.7
Directly purchased private insurance	5.1 *	5.2	5.2
Insurance coverage is worse	15.4 ***	13.3	17.7 ***

Notes: Estimates report the coefficient for T, a binary treatment variable equal to one if the respondent is at least 26 years old. In addition to the set of control variables, all regressions include age, age-squared, and their interactions with the treatment variable.

*p<0.05,**p<0.01,***p<0.001

Technical Appendix

In regression discontinuity (RD) design, it is important to ensure that the discontinuities observed for the outcomes at the threshold are not also occurring with other covariates in the model (the right-hand side measures). Appendix 1 shows the results from testing the smoothness of the observable characteristics for unmarried young adults around the Young Adult Provision eligibility cutoff (age 26). This test demonstrates a lack of significance at age 26 for gender, highest educational status, citizenship, poverty status, residential region, race/ethnicity, and health status, suggesting that the jumps in the insurance and labor market outcomes occurring at age 26 are from individuals aging out of the young adult provision.

Also key to RD design is that the respondent does not not have any control over the measure that has the known cutoff, or the forcing variable. Since age is the forcing variable, this condition is satisfied. Additionally, nonrandom sorting of young adults to one side of the threshold should not occur. The NHIS survey was conducted monthly to individuals of all ages, so while this occurrence would have been unlikely, Appendix 2 shows the distribution of young adults around the eligibility threshold. It suggests nonrandom sorting around age 26 did not occur.

Another concern with RD design is selecting the appropriate sample of individuals. For reasons outlined in the paper, the analysis focused on unmarried individuals aged 24-28. However, it is worth investigating to test if the main results from the paper dissipate when the sample narrows, widens, or includes married individuals. Estimates using a narrower band of individuals are less precise (Appendix 3, Panel (A)) and those using a wider band are including individuals further removed from the threshold and have thus had more time to adjust to losing

eligibility (Appendix 3, Panel (B)). Despite less precise estimates and inclusion of individuals further from the threshold, the same general pattern is evident as in the main findings-- there is a jump in the rate of ESI offers, increase in directly purchased private coverage, and double-digit increases in the rate of individuals stating their health coverage is worse than it was in the prior year. Men are also more likely to increase employment as a result of aging out of the provision, but the labor force participation rate increase is only significant with the wider band. For women, these models suggest the finding of ESI offer rates increasing is less robust.

Although married individuals have different labor market and coverage choices than their unmarried counterparts, Equation (1) with a control for marital status is estimated. Appendix 3, Panel (C) demonstrates that there is still a large jump in labor force participation for males, ESI offers for females, and increases in directly purchased private insurance and reports of worse health coverage overall. However, having married men are in the sample, there is no longer a significant increase in employment at the eligibility threshold, but there is a significant increase in the purchase of non-group private coverage.

Taken together, these robustness checks using alternative samples suggest that men reacted to aging out of the young adult provision by increasing labor force participation and overall employment levels while women are more likely to seek employment at establishments offering health coverage and report worse health coverage than one year prior. Overall, the findings from these robustness checks using alternative samples generally mirror the main study findings.

In addition to testing the effect of alternative samples on the results, Appendix 3 presents the results from testing RD model fit under three alternative scenarios. Panel (A) shows the

results from estimating Equation (1) using a sample of individuals aged 24 up to 28 but in 2004-2006, a period of time several years prior to implementation the dependent coverage provision. There are no significant jumps at the threshold (age 26), supporting the notion that the discontinuities found (Appendix 4) are being driven by aging out of the young adult provision and not simply from turning 26.

The remaining two panels in Appendix 4 present results from models that use the same years of data (2011-2013) and data source (NHIS) as the primary models, but use artificial eligibility thresholds and samples involving only young adults to the right or left of age 26. The lack of significant results from these model specification tests (Appendix 4, Panels (B) and (C)) reinforces confidence in both appropriateness and accuracy of the RD model used to address this research topic.

Appendix 1. Testing the smoothness of observable characteristics for unmarried young adults around the Young Adult Provision eligibility cutoff

Outcome	All	Males	Females
Male	-1.5	*n/a*	*n/a*
Highest educational level completed			
Less than high school	2.7	1.5	4.1
High school graduate (or equivalent)	-4.4	-4.5	-4.0
Some college or college degree	1.3	5.6	-3.4
Graduate degree or beyond	0.2	-2.5	3.2
US citizen	-0.9	0.2	-2.4
Income </= 138 FPG	1.5	3.6	-0.8
Region of residence			
South	-0.4	-4.2	3.6
Northeast	-0.5	0.4	-1.8
Midwest	-1.5	0.5	-3.6
West	-1.9	-1.9	-2.0
Race/ethnicity			
White	-1.9	-1.9	-2.0
Black	5.0	4.9	5.1
Hispanic	-2.7	-3.4	-1.9
Other	-0.4	0.3	-1.4
Health			
In fair or poor health	-2.6	-5.4	-0.7
Has a chronic health condition	-4.5	-8.5	-0.1

Notes: Estimates report the coefficient for T, a binary treatment variable equal to one if the respondent is at least 26 years old. All regressions include age, age-squared, and their interactions with the treatment variable. FPG stands for federal poverty guidelines.
 $*p<0.05, **p<0.01, ***p<0.001$

Appendix 2. Distribution of the number of observations around age 26.
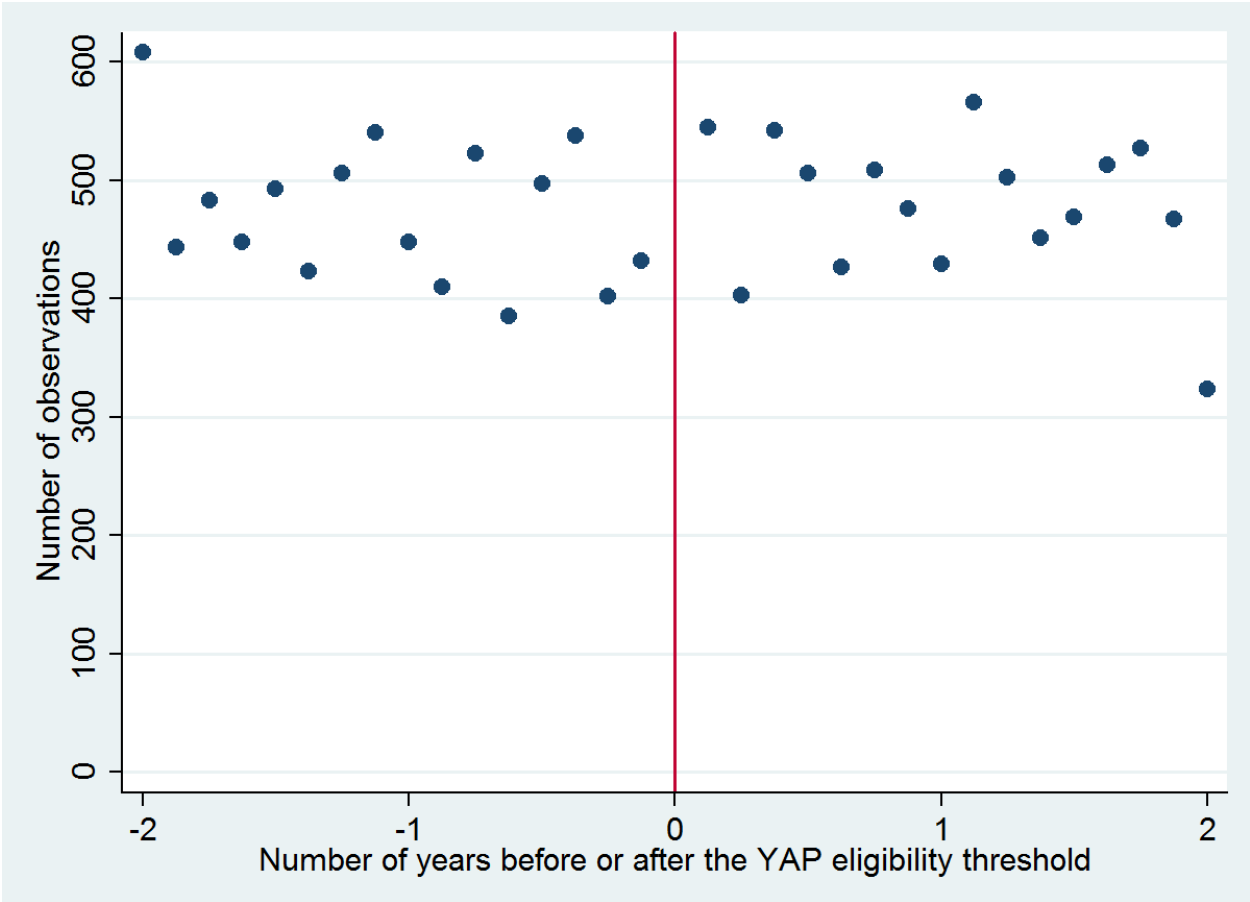
Appendix 3. Robustness checks: alternative samples modeling the effect of turning 26 on labor market and health coverage outcomes for unmarried young adults

	Panel (A) Models using a narrower age band (ages 25 up to 27)			Panel (B) Models using a wider age band (ages 23 up to 29)			Panel (C) Models including married individuals		
	All	Male	Female	All	Male	Female	All	Male	Female
Labor market outcome and labor-related coverage measures									
Employed	7.2	12.1 *	1.0	5.6 *	7.9 *	3.1	5.3 *	5.3	4.8
In the labor force	3.1	7.6	-1.3	2.9	8.6 **	-3.0	3.6	7.6 **	0.1
Employed full-time	5.6	6.5	5.7	0.4	0.3	0.7	2.4	-1.2	5.9
Employer-sponsored insurance (ESI)	-8.6	-7.3	-9.5	-5.1 *	-4.5	-4.9	-4.9	-5.1	-4.6
ESI offered	13.0 *	13.0	13.3	6.1 *	4.6	8.0	6.0	3.7	8.6 *
Insurance coverage and insurance-related measures									
Uninsured	3.3	-0.2	6.0	6.3 **	6.2	6.5 *	3.1	3.5	2.6
Public	0.0	-1.2	1.9	-0.6	-2.5	1.5	-0.6	-1.3	0.2
Private	-2.8	1.3	-7.3	-5.8 *	-4.3	-7.5 *	-2.5	-2.4	-2.2
Directly purchased private insurance	10.0 *	14.0 *	7.4	4.0 *	2.9	4.6	4.8 *	5.4 *	4.6
Insurance coverage is worse	16.3 **	14.9	19.6 *	10.8 ***	9.3 *	12.2 ***	11.6 ***	6.7	15.6 ***

Notes: Estimates report the coefficient for T, a binary treatment variable equal to one if the respondent is at least 26 years old. In addition to the set of control variables, all regressions include age, age-squared, and their interactions with the treatment variable.
 *p<0.05,**p<0.01,***p<0.001

Appendix 4. Robustness checks: model specification testing for unmarried young adults

	Panel (A) Ages 24 up to 28 for years 2004-2006 Threshold: age 26			Panel (B) Ages 26.5 up to 30.5 for years 2011-2013 Threshold: age 27.5			Panel (C) Ages 21.5 up to 25.5 for years 2011-2013 Threshold: age 23.5		
	All	Male	Female	All	Male	Female	All	Male	Female
Labor market outcome and labor-related coverage measures									
Employed	-0.5	1.0	-1.5	0.1	-1.9	0.0	3.3	2.0	4.0
In the labor force	-0.7	2.4	-3.0	0.2	-2.7	0.2	1.7	2.8	-0.1
Employed full-time	1.4	2.9	0.0	-0.3	-2.2	0.2	-6.3	-6.6	-6.0
Employer-sponsored insurance (ESI)	-2.7	-3.8	-0.8	-0.5	2.6	-4.1	-3.1	-3.1	-3.3
ESI offered	0.5	1.0	-0.6	0.9	1.6	1.3	3.0	0.9	5.6
Insurance coverage and insurance-related measures									
Uninsured	-2.0	-1.0	-2.1	0.2	1.5	-1.6	-1.9	-6.0	1.8
Public	-1.6	-3.2	1.1	0.6	0.0	1.8	0.4	-0.9	1.9
Private	2.7	4.3	1.1	0.7	-1.6	3.2	1.9	6.7	-3.3
Directly purchased private insurance	3.1	4.1	1.3	2.5	-1.1	-4.1	1.7	3.0	0.4
Insurance coverage is worse	*n/a*	*n/a*	*n/a*	-3.0	5.7	-4.4	-3.1	-4.5	-2.1

Notes: Estimates report the coefficient for T, a binary treatment variable equal to one if the respondent is at least 26 years old. In addition to the set of control variables, all regressions include age, age-squared, and their interactions with the treatment variable.
 *p<0.05,**p<0.01,***p<0.001

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