Children's health insurance coverage in the United States: The role of parents' ethnicity and immigration status

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Abstract. *This study explores whether parents' decision to carry health insurance for their children varies by race/ethnicity or immigration status. The results indicate that when compared to the reference group of native-born white parents, foreign-born, Hispanic, and black parents were less likely to have private health insurance coverage and more likely to have public health insurance coverage for their children. The likelihood of being uninsured increased with lower educational attainment, poverty, and status as a single parent, and the likelihood of having public health insurance coverage for children was positively associated with living in poverty, being female, and household size.*

Keywords: Health Insurance, Children's Health, Immigrants, Wealth, Risk Management.

JEL Classification: D12, D14, J24.

Introduction

One goal of the 2010 Affordable Care Act is to increase health insurance coverage in underserved communities and racial/ethnic groups (Selbin et al., 2013). Health insurance coverage of US residents and their children fell steadily from 1987 through 2012. The fall in children's health insurance coverage was considerably higher for parents living in poverty and among minority households (Moonesinghe et al., 2011), and parents' job tenure was positively associated with children's private health insurance coverage. The authors estimated that during the Great Recession more than 45% of the poorest and most vulnerable privately covered children became uninsured (Fairbrother et al., 2010). Immigrants in the US spent about 55% less in health care expenditures than Americans in 1990. Also, health care expenditures associated with immigrant children were lower than for US-born children; however, expenditures for emergency room visits for immigrant children were much higher than for US-born children (Mohanty et al., 2005). According to another study, immigrant Hispanic children were more likely to be uninsured and less likely to have private health insurance coverage. Interestingly, once the immigrant Hispanic group was separated from others, the study found no significant difference in the health insurance coverage of Hispanic and non-Hispanic white children (Avila & Bramlett, 2013). When compared to non-Hispanic whites, a higher percentage of other racial/ethnic groups delayed the treatment of their children because of cost-related issues. Other studies have found significant differences in the financial capabilities of immigrant coming from foreign cultures, and native-born Americans (Kim et al., 2012; Nicolini et al., 2013). This paper examines whether racial/ethnic differences and parents' immigration status are associated with health insurance coverage of their children. This paper also examines whether socio-economic resources, human capital, and parents' marital status are associated with the likelihood of health insurance coverage for their children. The paper explores the following research hypotheses:

H1: Racial and ethnic differences exist in health insurance coverage for dependent children after controlling for different socio-economic and demographic factors.

H2: Racial and ethnic differences exist in private health insurance coverage for dependent children after controlling for different socio-economic and demographic factors.

H3: Racial and ethnic differences exist in public health insurance coverage for dependent children after controlling for different socio-economic and demographic factors.

Methods

Data

To investigate the relationship between race or ethnicity and health insurance, this study used the National Longitudinal Survey of Youth 1979 (NLSY79). The NLSY is a nationally representative panel of 12,686 respondents. The NLSY data contain detailed information on children's health insurance coverage as well as information on respondents' immigration status and socio-economic and demographic characteristics. The 1979 wave is a national survey of individuals born between 1957 and 1964. For this study, we used the health insurance-related information from 2010 due to the availability of detailed health insurance-related data in this most recent NLSY survey.

Variables

Dependent variables

This study used three binary dependent variables to empirically examine the research hypotheses associated with race or ethnicity and immigrant status against children's health insurance coverage. The first dependent variable was constructed based on whether the child had health insurance coverage (1 = True; 0 = False), the second was constructed to include only those households in which the child had private health insurance coverage (1 = True; 0 = False), and the third was constructed to include those households in which the child was covered by public insurance (1 = True; 0 = False).

Independent variables

The key independent variables of interest were race or ethnicity and immigrant status. The immigrant variable was binary and coded as foreign-born (1 = True; 0 = False). The race or ethnicity variables were binary and constructed as follows: Hispanic (1 = True; 0 = False), black (1 = True; 0 = False), and non-Hispanic white (1 = True; 0 = False). Other control variables in the model were included due to their association with health insurance participation and financial decision making in prior literature. These control variables included age, gender, educational attainment, marital status, family income, net worth, job tenure, and poverty status.

Analyses

Three separate probit regression models were used to empirically analyze the research hypotheses. Probit was chosen for the analyses because the dependent variables were binary (Wooldridge, 2012). The econometric model for this study was constructed as shown below:

$$H^*_i = \alpha\tau + \beta \mid C_i + \delta \mid F_i + \gamma \mid W_i, + \Phi \mid T_i + \sum,$$
where:
$H_i = 1$ if $P^*_i > 0$
and $H_i = 0$ if otherwise for $i = \{1, 2, \ldots, I\}$

In the first model, H_i is a discrete dependent variable equal to 1 for the ith participant where the child in the household has health insurance coverage, and zero otherwise. H_i is determined, in this case, by H_i^*, which is a latent continuous variable indicating whether the marginal utility of having health insurance coverage for the child is greater than the marginal cost of doing so. The error term ε is distributed normally with a mean of zero and variance of 1. C_i is the vector of the race- and ethnicity-related variables, F_i is the vector for the immigrant status variable, W_i is the vector of the income- and resource-related variables, and T_i is the vector for the demographic variables controlled in our model. Similarly, two more probit models were used to examine the likelihood of having private or public health insurance coverage for children. The first model estimated the predictors of having health insurance coverage. The second model estimated the predictors of having private health insurance coverage for children. The third model

estimated the predictors of having public health insurance coverage for children. Each model controlled for the same set of variables as the first model.

Empirical Results

Descriptive Statistics

The descriptive statistics for this study are shown in Table 1. The descriptive statistics indicate that overall a lower percentage of children of immigrant parents have insurance coverage (70%) when compared with the children of native-born US parents (75%). A higher percentage of children of white parents had health insurance coverage (79%) as opposed to children of non-white parents. Only 38% of the parents with educational attainment of lower than high school reported health insurance coverage for their children, whereas more than 90% of parents with educational attainment of college or higher reported health insurance coverage for their children. Health insurance coverage was highest among children of married parents (80%) and lowest among children of single parents (62%). Only 58% of the children of parents who lived in poverty had health insurance coverage.

Table 1. *Descriptive Statistics*

Variables	Children have health insurance coverage	Children's coverage through private insurance	Children's coverage through gov. insurance
Foreign-born	70%	80%	20%
Native-born	75%	82%	18%
Primary Male Respondents	73%	84%	16%
Primary Female Respondents	76%	80%	20%
White	79%	87%	13%
Hispanic	69%	77%	23%
Black	70%	72%	28%
Age	46	46	46
HH size	3.3	3.3	3.3
Education			
Less than High School	38%	51%	49%
High School	75%	77%	23%
Some College	83%	86%	14%
College	92%	93%	7%
Graduate	96%	96%	4%
Marital status			
Married	80%	89%	11%
Single	62%	55%	45%
Divorced	67%	73%	27%
Widowed	70%	68%	32%
Income			
Mean Family Income	$82,692	$93,606	$39,000
Median Family Income	$66,000	$73,000	$26,000
Job tenure (In years)	6	9	5
Networth			
Mean Networth	$333,454	$382,267	$93,000
Median Networth	$148,000	$188,850	$21,000
Live in Poverty	58%	44%	56%

Predictors of having health insurance coverage for children
The first four columns in Table 2 show the factors associated with parents who reported having health insurance coverage for their children. The results indicate that the probability of having health insurance coverage was positively associated with the parent being female and with larger household size. The likelihood of children being insured also increased with being married, educational attainment, greater income, net worth, and job tenure. Conversely, the likelihood of having children's insurance coverage was negatively associated with living in poverty and being Hispanic.

Table 2. *Determinants of having health insurance coverage for children*

Variables	Insurance Coverage for children				Private Insurance Coverage for children				Public Insurance Coverage for children			
	Coef	Odds	St. Error	Sig	Coef	Odds	St. Error	Sig	Coef	Odds	St. Error	Sig
Foreignborn (Ref: NB)	-0.047	1.063	0.156		-0.178	0.761	0.147	*	0.318	1.291	0.139	**
Age	-0.009	0.991	0.019		0.015	1.0148	0.018		-0.030	0.952	0.024	
Race (Ref: White)												
Hispanic	-0.217	0.805	0.089	**	-0.301	0.736	0.081	***	0.197	1.217	0.088	**
Black	-0.081	0.922	0.106		-0.173	0.841	0.079	**	0.213	1.238	0.099	**
Female	0.096	1.103	0.046	*	0.049	1.052	0.079		0.467	1.477	0.109	***
HH size	0.274	1.323	0.037	***	0.124	1.142	0.832		0.244	1.298	0.039	***
Education (Ref: <High school)												
High school	1.815	6.032	0.114	***	1.911	6.585	0.126	***	0.226	1.271	0.156	
Some College	2.143	8.401	0.131	***	2.424	11.035	0.138	***	-0.195	0.235	0.178	
College	2.906	17.740	0.206	***	2.997	19.202	0.183	***	-0.576	0.835	0.241	**
Graduate	3.113	19.384	0.300	***	3.589	34.679	0.239	***	-1.101	0.593	0.312	**
Marital Status(Ref: Single)												
Married	0.219	1.002	0.843	**	0.359	1.399	0.151	**	-0.459	0.732	0.190	**
Divorced/sep	0.427	1.230	0.354		0.349	1.408	0.246		0.015	1.012	0.174	
Widowed	0.028	1.499	0.034		0.554	1.709	0.338		0.141	1.022	0.375	
Log Fam Income	0.058	1.030	0.016	***	0.097	1.103	0.049	**	0.012	0.161	0.036	
Log Networth	0.019	1.057	0.006	***	0.132	1.139	0.017	***	-0.094	0.912	0.018	***
Job tenure	0.019	1.019	0.006	***	0.036	1.036	0.005	***	-0.049	0.923	0.008	***
Live in poverty	-2.034	0.852	0.980	**	-0.455	0.634	0.185	**	0.458	1.047	0.190	**
Intercept	0.144		0.053	**	-5.447		0.943	***	-0.168		1.183	
N = 4215												
Pseudo R-Squared	0.463				0.321				0.293			
*p<.1, ** p<.05, *** p<.01												

The next four columns in Table 2 show the factors associated with parents who reported having private health insurance coverage for their children. The results indicate that higher educational attainment, being married, having higher income and net worth, and job tenure were positively associated with having private health insurance coverage for children. The results also indicate that being foreign born, being non-white, and living in poverty reduced the likelihood of respondents having private health insurance coverage for their children.

The last four columns in Table 2 show the factors associated with parents who reported having public health insurance coverage for their children. The results indicate that (a) being foreign-born, black, or Hispanic (when compared with white respondents), (b) having a larger household size, (c) being a woman (as compared to men), and (d) living in poverty were positively associated with having public health insurance coverage for

children. In contrast, educational attainment of college or higher and being married were negatively associated with having public health insurance coverage for children.

Conclusions

The findings from this study have implications for the Affordable Healthcare Act. The results indicate that approximately one-fourth of parents do not currently carry health insurance coverage for their children. The percentage of parents carrying health insurance coverage for children is even lower among foreign-born and non-white households. Families with foreign-born parents were more likely to depend on public insurance coverage than the native-born families. Policies and programs that focus on educating minorities and foreign-born households on health insurance coverage for their children and families might be necessary as the individual mandate makes it mandatory for parents to carry health insurance coverage for themselves and their children. Futures studies should focus on underserved groups (e.g., households living in poverty, new immigrants, ethnic minorities) to examine whether the Affordable Healthcare Act has succeeded in increasing the health insurance participation among children of single parents. An alarmingly low percentage of parents with educational attainment of less than high school carry health insurance coverage for their children. More policy research is essential to determine the best way to increase children's coverage within this group.

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