

HEALTH CARE IN THE UNITED STATES: HOW THE DETERMINANTS OF HEALTH INSURANCE STATUS DIFFER ACROSS REGIONS

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ABSTRACT:

Using a nationally representative sample of individuals across all fifty United States from the 2016 American Community Survey (ACS), this research explores differences in the incidence and predictors of health insurance status across region (i.e. West, Midwest, South, and Northeast) for individuals age 18 and older. The data suggests that: 1) Individuals from the Northeast are the most likely to have some form of health insurance, while individuals from the South are the least likely; 2) The factors which influence health insurance status are relatively similar across all regions, though they often differ substantially in magnitude; 3) In some cases region can play a significant role in determining the type of insurance an individual has (i.e. Public versus Private). Policy makers will find these results useful to target specific factors within regions that may prove to increase the number of insured individuals. Furthermore, researchers may choose to use this paper as a current reference and starting point for further in-depth analysis on targeted factors within specific regions.

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I. INTRODUCTION

Health care is a highly debated and polarizing topic in the United States. Given the two-party system of Democratic versus Republican, agreement on how the health care system should operate is seldom found. Much of the disagreement emerges from differences in core values. Simply put, Democrats believe that health care is a human right; to ensure that everyone receives proper health care they seek to actualize that right by law. Republicans however do not believe health care is a human right; this free market perspective suggests that everyone should be responsible for their own private insurance plan. Regardless of an individual's position in the "political spectrum" everyone can agree that having some form of quality insurance (whether public or private) is essential. However according to a study conducted by the Center for Disease Control and Prevention (CDC) there were roughly 28 million Americans who were uninsured in 2016¹. While the uninsured rate is the lowest it has been in decades, the United States is still ranked amongst the lowest of the developed countries in terms of health insurance quality². With so many uninsured individuals its clear there exists a major flaw in the United States health care system. Investigating the determinants of insurance status for the average American and how they may change across regions may aid policy makers in finding future solutions to the issue.

When roughly ten percent of the United States population is uninsured many externalities arise. Firstly, physical externalities such as communicable diseases are more likely to spread; uninsured individuals are less likely to be able to afford vaccination, therefore spreading preventable diseases. There also exists a large financial burden that is associated with high uninsured rates. The problem arises from large numbers of uninsured individuals receiving uncompensated care; when uninsured individuals don't pay their medical bills the result is higher costs for other users of the medical system. Another externality not often considered is the labor market inefficiency resulting from partial-employer based insurance coverage. Rigidity in the labor market occurs when individuals are not willing to seek other jobs due to fear of losing their current employer health insurance coverage. This was shown in 1994, when Brigitte Madrian concluded in her paper "Employment-Based Health Insurance and Job Mobility: Is There Evidence of Job-Lock?" that indeed mobility may be reduced by as much as 25% due to partial-employer based insurance plans³. Madrian and Gruber (2002) later concluded that the job-lock phenomenon resulting from partial-employer based insurance coverage does yield significant welfare costs to the macro economy⁴. Clearly there are social and economic reasons for resolving the uninsured situation that the United States is facing. Even from a paternalistic perspective there does exist reason to be concerned about those who are uninsured. A study conducted by the Institute of Medicine (IOM) concluded that roughly 18,000 Americans aged between 25 and 64 years die annually because of lack of health insurance; furthermore, the risk of mortality is 25 percent higher for uninsured individuals⁵. These results suggest a major decrease in the quality of life for the uninsured population; which historically have been individuals belonging to low income groups.

Throughout U.S. history there have been many attempts to address the health care issue. After the advent of World War II and the Great Depression there was a large increase in the level of employer sponsored insurance plans. During WWII the Federal government had imposed wage controls on firms. Naturally firms began using other incentive packages such as health insurance plans to attract new workers. Yet even with the rise of employer sponsored health insurance plans many Americans were still left with large medical costs; especially those who were unemployed. As a result, in 1945 President Harry Truman proposed a public health care system to help cover the existing uninsured Americans. While there was large public support for the agenda, the Chamber of Commerce and the American Hospital Association opposed the idea labeling it as "socialism". For many years the political battle for a national health care system remained; as a sort of back door approach, labor unions began campaigning harder for more employer sponsored health insurance packages. Between 1940 and 1960, the total number of people enrolled in health insurance plans grew sevenfold, from 20,662,000 to 142,334,000⁶. Even with this large increase in the number of Americans insured many of the poor, the unemployed, and the elderly were left without coverage.

In 1965 Lyndon B. Johnson signed the Medicare and Medicaid bills in order to provide adequate coverage to those left without insurance, especially the senior citizens and the poor. While the number of insured Americans increased into the 1970's, there was still a push for a broader health care plan both from the Democrats and Republicans. Senator Ted Kennedy and the Democrats proposed a single payer health care system, while the Republicans and President Nixon proposed mandates for more employer-based insurance plans. As usual compromise between the democrats and republicans was never made and with the resignation of President Nixon along with a series of economic problems Congress lost attention on health care reform.

In 1993 President Bill Clinton started his term in office with a new plan for Universal health care. Like Nixon's plan, the system relied on mandates, both for individuals and insurers. The new plan also would create subsidies for people who couldn't afford insurance. However, the bill was largely opposed by the insurance industry, employers' groups, and the Republican Party. Even the democrats didn't give their full support, preferring a single payer system. Ultimately the bill failed after the republican take-over of Congress in 1994, leaving millions of Americans uninsured. Meanwhile heading into the 2000's, healthcare costs were rising rapidly, and efforts were under way to encourage insured individuals to pay more out-of-pocket using high-deductible health plans with tax-sheltered health savings accounts⁷. On the 23rd of March 2010 President Barack Obama along with a majority Democratic Senate and House of Representatives signed the Affordable Care Act (ACA). The new plan sought to mandate coverage, penalizing employers who failed to provide it and creating mechanisms for people to pool risk and buy insurance collectively. The ACA has been battled and ridiculed for years by the Republican Party, but after 6 years of its implementation "roughly 20 million formerly uninsured Americans had obtained affordable coverage; furthermore millions of Americans had won protections from now prohibited insurance practices such as rating consumers based on medical history and the number of uninsured Americans reached an all-time low."⁸ While the ACA was viewed as a success to many Americans, to others it was still largely opposed. In 2017 with the inauguration of Republican nominee Donald Trump and majority Republican House and Senate the number one agenda has been to "repeal and replace" the Affordable Care Act or "Obamacare". While the agenda is still in the early stages, the plan could "eliminate insurance for as many as 22 million Americans on low and moderate incomes."⁹ The extent to which this will affect the economy is out of the scope of this paper. Understanding which Americans are unlikely to be insured along with the key reasons determining insurance status will provide useful results for addressing potential problems in the future.

According to the United States Census Bureau's analysis of the 2016 American Community Survey data, 86.7 percent of uninsured individuals were between age 18 and 64. Over half of Americans without insurance were male (54.7 percent). The highest concentration of uninsured Americans resides in the South. Individuals who identify as White were the most likely to be insured, while Hispanic individuals were the least likely. In terms of socioeconomic factors such as education, it is observed that 28.6 percent of uninsured individuals did not complete a high school degree. As is expected those living below the poverty line are disproportionately prone to being uninsured. In terms of occupation, about 1 in 3 uninsured individuals work in a service industry¹⁰.

These are some of the main characteristics of uninsured individuals, but further analysis is required to understand relative likelihoods and the probabilities of having insurance given the region an individual belongs too. For example, how much more or less likely is an individual living in the Northeast, West, or Midwest region to have health insurance relative to an individual from the South? Answering this question will allow for a discussion regarding reasons why some regions are experiencing higher uninsured rates. Another outcome of this analysis will be how the impact of other determining factors of insurance status differ across region. For instance, how does educational attainment and employment status affect individuals from the Northeast compared to individuals from other regions? These results may allow policy makers to target specific factors within those regions to boost the number of insured individuals. Lastly questions such as which region of the United States is the most likely to have private insurance? And how big of an effect does region play in determining insurance type (i.e. public versus private) can also be answered. These questions are all answered with the use of estimates produced from a probability model such as a Logit or Probit, this type of

analysis is consistent with existing literature. A Multinomial Probit is also used to answer questions regarding insurance type.

The rest of the paper is structured as follows: section II is the literature review, section III presents the paper's data and methodology, section IV presents the empirical estimation, section V presents the results, section VI presents the paper's discussion, and lastly section VII provides concluding remarks.

II. LITERATURE REVIEW

The main contribution of this paper is to examine the relative likelihoods and the probabilities of having insurance, given the region an individual belongs too in the United States and in a manner consistent with the questions we have outlined above. Moreover, this paper uses 2016 American Community Survey (ACS) data. This paper differs to existing literature in many ways. Most of the existing research has looked at the determinants of insurance status for very specific sub groups of the population. For example, a notable paper written by Markowitz et al. (1991) evaluate the determinants of health insurance coverage in the 18-24-year-old United States population. This paper uses National Medical Care Utilization and Expenditure Survey data and puts emphasis on examining the characteristics of insured relative to uninsured individuals. The papers results suggest that "employment is the strongest predictor of insurance status in all age groups; furthermore, young adults with lower incomes, less education, rural residence, not married, Hispanic ethnicity, and Western geography are the least likely to be insured."¹¹

Another national study on health insurance in the United States done by Carrasquillo et al. (2000) use the Current Population Survey (CPS) to evaluate health insurance coverage among immigrants in the United States who are not citizens and among individuals from 16 countries with the largest number of immigrants living in the United States¹². Furthermore, Card et al. (2008) use the National Health Interview Survey (NHIS) data to examine changes in self-reported access to health care and the number of recent doctor visits along with hospital stays¹³. More recently, Zelaya and Nugent (2018) use National Health Interview Survey (NHIS) data on United States Military Veterans aged 18-64 years¹⁴. They examine the extent of insurance coverage and uninsured individuals in this in this group based on a relevant time dimension, income and state Medicaid expansion status.

Race is often not considered when one thinks of factors that influence health insurance status in the United States. Yet in their paper *Discrepancies in Employer-Sponsored Health Insurance Among Hispanics, Blacks, and Whites*; Seccombe et al. (1994) concluded that when it comes to race in the United States, Whites are the most likely to have employer sponsored health insurance and Hispanics the least likely. Furthermore, Whites are the most likely to have any type of insurance coverage, and Hispanics the most likely to be completely uninsured. Lastly the results concluded that while the factors which increase the likelihood of insurance coverage remain the same across racial groups, the magnitudes in which they increase the probability differ significantly¹⁵.

Region is often a key factor determining insurance status amongst Americans. Investigating how other determinants affects the likelihood of having insurance coverage within these different regions can be very interesting. This was the goal of Angel et al. (2005) who looked at the determinants of insurance coverage for low-income families from Boston, Chicago, and San Antonio¹⁶. The results of this paper concluded that region not only affects poor individuals significantly, but it affects individuals differently. For example, the odds of the average household in Boston or Chicago having all children insured are greater than the average household from San Antonio. Unfortunately, since marginal effects are not used in this paper it is difficult to understand how much more likely households from Boston or Chicago are to having insurance coverage when compared to households from San Antonio.

It may not be initially clear why region is such a significant factor in determining insurance status. Although there exist a multitude of reasons region is an important factor, the largest is due to specific State level requirements. It's common knowledge amongst Americans that certain states do a better job than others at getting their citizens insured. Even among states that expanded Medicaid, for example, they have different

administrative requirements and some states are more lenient on filling paperwork and documentation. Furthermore, some local state governments have pushed policy that makes health insurance coverage more accessible and affordable. Consider the State of Oregon, in 1993 the Oregon Health Plan was put into place by then state Senator and future Oregon Governor John Kitzhaber. The plan was intended to make health insurance more accessible to the working poor whilst rationing benefits. Initially the plan was not consistent with federal law and an executive waiver was needed which President Bill Clinton granted adding an amendment that guaranteed disabled people would have equal access. In 1994, the plan's first year of operation, “nearly 120,000 new members enrolled, and bad debts at Portland hospitals dropped 16 percent¹⁷”. During the 1990’s Oregon was considered a National leader in health care reform and is still amongst the top performing states in terms of health insurance coverage.

Another great example of a state that has improved their insurance coverage is Massachusetts. In 2006 the northeast state went through their own health care reform. The plan was designed to mandate nearly every resident to obtain a minimum level of insurance coverage. The plan would also provide free health insurance to residents earning less than 150 percent of the Federal Poverty Level. In addition, the state would mandate employer sponsored insurance coverage for employers with more than 10 full-time workers. Due to this active action Massachusetts now has the lowest uninsured rate (2.8 percent) and is ranked amongst the top states for the most affordable health care. Some other states which have provided quality and affordable insurance while keeping uninsured rates low include: Connecticut, Hawaii, Iowa, Maryland, Minnesota, New Hampshire, Rhode Island, Vermont and Washington.

Unfortunately, not all states have done a great job of reducing uninsured rates. Texas for example has an uninsured rate of 16.6 percent; double the national average and the highest of all fifty states. While this number is alarmingly high, it is an improvement from pre-Affordable Care Act when roughly a quarter of Texans were without insurance. The Lone Star State has historically always had high uninsured rates; partially a result of a large immigration population, limited Medicaid program and lower than average employee sponsored health insurance coverage. However, Texas is not the only southern state with high uninsured rates. Florida, Georgia, Mississippi, and Oklahoma all have uninsured rates in the double digits. All these states have strongly refused to expand Medicaid and public insurance policies. So strongly in fact that in Georgia it is illegal for state employees to advocate publicly for Medicaid expansion. A diagram produced by the United States Census Bureau indicating which states have the highest portion of uninsured individuals is shown in Figure One¹⁸. The lighter shaded states indicate low levels of uninsured residents while darker shades indicate higher levels.

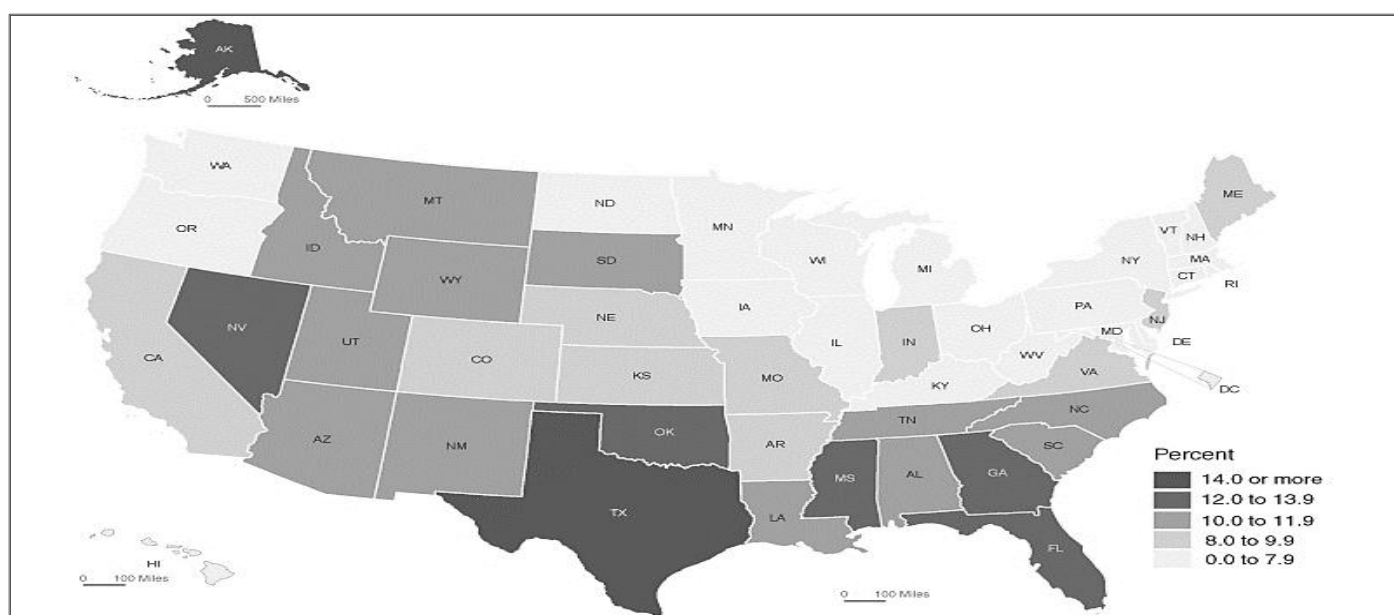


Figure 1: United States Census Bureau 2015 Analysis of Uninsured Rates Across states¹⁸.

III. DATA AND METHODOLOGY

Using the Integrated Public Use Microdata Series (IPUMS-USA) database, the 2016 American Community Survey (ACS) data was extracted¹⁹. This cross-sectional data is gathered by the United States Census Bureau which offers pertinent micro level characteristics that were only previously offered in the long form decennial census. Some examples include: educational attainment, income, language, migration, disability, employment status and many other detailed household and personal characteristics. The original ACS data set consists of roughly 1.4 million households and over 3 million individuals across all fifty states. Using the ten percent version of the data, a sub-sample of individuals 18 and older was used; since this is the largest demographic of uninsured individuals. This narrows the original sample down to 246,684 individuals. The IPUMS individual level survey weight was used to get all estimates in the analysis. Further subgroups were created using the “region” variable. This allows for cross-sectional comparisons of how the determinants of health insurance status can differ within different regions of the United States. For these subgroups there are were (n=44,417), (n=53,025), (n=91,980), (n=57,262) individuals aged 18 and older for the Northeast, Midwest, South, and the West respectively. In Table One, we can see that from the full sample 8.33 percent of individuals are uninsured. The Northeast appears to have the least number of people uninsured, where only 5.09 percent of the sample claims to be without insurance. The South has the highest number of uninsured individuals; in the Southern sample of individuals aged 18 and older 11.43 percent were uninsured. In all regions, more individuals had private insurance than public insurance.

TABLE ONE: *Percentage with insurance coverage across regions for individuals 18 and older*

	Region				
	Full Sample (n=246,684)	Northeast (n=44,417)	Midwest (n=53,025)	South (n=91,980)	West (n=57,262)
Noninsured	8.33	5.09	6.27	11.43	7.78
Insured					
i. Private	53.95	55.99	55.91	52.09	53.55
ii. Public	37.71	38.91	37.81	36.47	38.66
Total	100	100	100	100	100

Source: Results produced using the 2016 American Community Survey Data

Two sets of analysis were done in this paper. A binary choice model and a discrete choice model containing more than two outcomes. The same set of explanatory variables were used in both settings. In the first set of results the binary choice model has a dependent variable “insurance status” that is coded “one” if the individual has any form of insurance (public or private) and “zero” otherwise. Five different sets of regression were used in the binary choice setting. The first regressions were done on the full sample of individuals age 18 and older across the whole United States. The remaining regressions were done on subgroups of individuals from the four regions. The estimates from the five sets of regressions are then compared to see if the same explanatory variables affect health insurance status across regions, and if so, how their magnitudes differ.

The second set of results are more detailed; the dependent variable “insurance type” is coded “two” if the individual has public insurance, “one” if the individual has private insurance, and “zero” if the individual is uninsured. These results were estimated over the full sample and show how particular explanatory variables affect an individual’s choice (or likelihood) of having a given type of insurance relative to another. For example, how educational attainment would affect the likelihood of an individual having private insurance versus public insurance, or even no insurance at all. These relative comparisons can provide useful information to understanding the reasons an individual has the type of insurance that they do. In both cases the same set of explanatory variables are used.

The explanatory variables used in the analysis follow from what has been done in the existing literature as well as some others that made theoretical sense to include without hurting the model. The main variable of interest “region” divides the fifty states into four areas: The West, Midwest, South, and Northeast. These areas were defined by the United States Census Bureau (see appendix). A quadratic in age was included to find the turning point at which an individual is least/most likely to have health insurance. Household size was included. The household language dummy variable was included to see if individuals from English speaking households are more likely to be insured. An industry variable was included to control for workplace characteristics influencing insurance status. A dummy variable for individual disability is necessary since having a disability is often a criterion to qualify for many public health insurance options. Other sociodemographic characteristics such as race and ethnicity were classified as Hispanic, black, white (non-Hispanic), and other. Educational attainment was measured as no schooling, high school degree/GED equivalent, some college, Associates degree, Bachelor’s Degree, Professional degree, Master’s Degree, and Doctorate degree. A dummy variable for school enrolment status was also included in the model, since having health insurance is often an admission requirement. The variable for marital status is broken into three categories: married, widowed/separated/divorced, and single for the base category. A gender dummy is included for male and female differences. Employment status is included to see how full-time workers compare with part-time workers and unemployed individuals when it comes to having health insurance. A list of the expected signs for some of the main variables of interest are listed below.

TABLE TWO: *Expected Outcome of Explanatory Variables*

Variables	Expected Sign	Theory
AGE	Positive Quadratic	<i>The probability of having health insurance should be high to begin with but decreasing up until a turning point and then increase into adulthood.</i>
AGE^2		
INCOME	Positive	<i>As individuals move in higher income brackets the probability of having health insurance increases.</i>
REGION	Dependent	<i>Due to prior research we would expect the Western and Southern regions to be the least likely to be insured.</i>
EDUCATIONAL ATTAINMENT	Positive	<i>For higher levels of education the probability of having insurance should increase due to competence and eligibility requirements.</i>
RACE/ETHNICITY	Dependent	<i>Prior research would suggest that Hispanics are the least likely to be insured while White individuals are found to be the most likely.</i>
MARITAL STATUS	Positive	<i>Due to family insurance plans, we would expect married individuals to be more likely to have health insurance.</i>
EMPLOYMENT STATUS	Positive	<i>Since often times employed individuals receive insurance sponsored by their employer, it’s expected that employed individuals while have a greater likelihood of having insurance than part-time workers or unemployed workers.</i>

IV. EMPIRICAL ESTIMATION

Given the binary dependent variable “insurance status” we can make use of a Probit model, which measures the probability of an individual having health insurance or not. The best way to understand this particular probability model is with the aid of a latent variable formulation. First assume that the underlying discrete variable “ y_i ” has some underlying continuous propensity “ y_i^* ” that is “triggered” upon reaching a certain threshold. Following the work of Green 2012,

$$y_i^* = \mu + \mathbf{x}'\boldsymbol{\beta} + \varepsilon$$

Where we assume that the error term, ε , is normally distributed with mean zero and constant variance. We do not observe the actual point in which an individual gains health insurance, only whether that individual has insurance or not. Therefore, our observation is

$$\begin{aligned} y_i &= 1 \text{ if } y_i^* > \alpha \\ y_i &= 0 \text{ if } y_i^* \leq \alpha \end{aligned}$$

Therefore the probability that y_i equals one is

$$\text{Prob}(y_i^* > \alpha | \mathbf{x}) = \text{Prob}(\mu + \mathbf{x}'\boldsymbol{\beta} + \varepsilon > \alpha | \mathbf{x}) = \text{Prob}([\alpha - \mu] + \mathbf{x}'\boldsymbol{\beta} + \varepsilon > 0 | \mathbf{x})$$

Because $(\alpha - \mu)$ remains an unknown parameter, the end result is that the model contains a constant term and is unchanged by threshold α , therefore we can write

$$\text{Prob}(y_i^* > 0 | \mathbf{x}) = \text{Prob}(\varepsilon > -\mathbf{x}'\boldsymbol{\beta} | \mathbf{x})$$

With the specified assumption of the error term we use the normal CDF to write

$$\text{Prob}(y_i^* > 0 | \mathbf{x}) = \text{Prob}(\varepsilon < \mathbf{x}'\boldsymbol{\beta} | \mathbf{x}) = F(\mathbf{x}'\boldsymbol{\beta})$$

Using the fact that $\text{Prob}(y_i^* > 0 | \mathbf{x})$ is simply $\text{Prob}(y_i = 1 | \mathbf{x})$ and $F(\mathbf{x}'\boldsymbol{\beta})$ is calculated as $\int_{-\infty}^{\mathbf{x}'\boldsymbol{\beta}} \phi(t) dt = \Phi(\mathbf{x}'\boldsymbol{\beta})$ then we can write

$$\text{Prob}(y_i = 1 | \mathbf{x}) = \int_{-\infty}^{\mathbf{x}'\boldsymbol{\beta}} \phi(t) dt = \Phi(\mathbf{x}'\boldsymbol{\beta}) .$$

Estimating the Probit model makes use of the maximum likelihood procedure where each observations is treated as a single draw from a Bernoulli distribution. We can express the joint probability as

$$\text{Prob}(Y_1 = y_1, Y_2 = y_2, \dots, Y_n = y_n | \mathbf{X}) = \prod_{y=0} [1 - \Phi(\mathbf{x}'\boldsymbol{\beta})] \prod_{y=1} \Phi(\mathbf{x}'\boldsymbol{\beta})$$

For the sample of n observations the the likelihood function is

$$L(\boldsymbol{\beta} | \text{data}) = \prod_{i=0}^n [\Phi(\mathbf{x}'\boldsymbol{\beta})]^{y_i} [1 - \Phi(\mathbf{x}'\boldsymbol{\beta})]^{1-y_i}$$

Taking logs and maximizing the likelihood function with respect to our parameters $\boldsymbol{\beta}$ we obtain

$$\sum_{i=1}^n \frac{f(\mathbf{x}'\boldsymbol{\beta}) X_{ij} [y_i - F(\mathbf{x}'\boldsymbol{\beta})]}{F(\mathbf{x}'\boldsymbol{\beta}) [1 - F(\mathbf{x}'\boldsymbol{\beta})]}$$

The first order conditions are given for k equations

$$\sum_{i=1}^n \frac{y_i - F(\mathbf{x}'\hat{\boldsymbol{\beta}})}{F(\mathbf{x}'\hat{\boldsymbol{\beta}}) [1 - F(\mathbf{x}'\hat{\boldsymbol{\beta}})]} f(\mathbf{x}'\hat{\boldsymbol{\beta}}) X_{ij} \text{ for } j = 1, 2, \dots, k$$

Generally these probability models do not have closed form solutions since the likelihood equations will be nonlinear, therefore an iterative numerical method must be used to find optimal solutions. The interested reader can find a similar framework and estimation method for the Multinomial Probit model in Green.²⁰

V. RESULTS

Using maximum likelihood procedure estimates were produced for the probability of the average American having some form of health insurance coverage. To interpret the results, we first need to take the average partial affects or “marginal effects”. In general, this is done by evaluating the effect at every point within the data and then averaging out the marginal effects as follows,

$$\frac{1}{n} \sum_{i=1}^n \frac{\partial p_i}{\partial x_{ij}} = \frac{1}{n} \sum_{i=1}^n f(x_i \hat{\beta}) \hat{\beta}_j$$

Table Two of the following page reports the marginal effects calculated from the probability regression. Regressions over the full sample yield regional estimates that show how location can affect insurance status. We observe that on average individuals living outside the Northeast region are less likely to be insured. Individuals living in the South are the least likely to have health insurance; on average the probability of an individual living in the South having health insurance is 6.03 percentage points lower than the average individual from the Northeast, considering all other factors equal. The probability of individuals from the West and Midwest regions having health insurance coverage is on average .325 and 1.44 percentage points lower than individuals from the Northeastern region, considering all else equal.

For the average American the probability of having health insurance decreases with age; that is until age 39 at which point the probability begins to increase, all else equal (see appendix). On average the probability of having health insurance coverage increases as individuals move into higher income brackets; for individuals earning over one-hundred thousand per year the probability of being insured is 9.41 percentage points higher than individuals earning less than twenty-five thousand per year, all else equal (see footnote). As with income the probability of being insured increases proportionally with each year of higher education; on average completing a high school degree makes individuals 4.34 percentage points more likely to have insurance than individuals with no schooling at all. For individuals with advanced degrees such as a masters or doctorate, the probability is on average 10 percentage points higher than for individuals with no schooling at all, all else equal. When it comes to race/ethnicity Hispanics remain the least likely to be insured. Compared to White individuals, Hispanics are on average 3.23 percentage points less likely to be insured, considering all other factors unchanged. Marital status is another significant determinant of insurance status. On average adults who have never been married or have been divorced are respectfully 4.89 and 5.15 percentage points less likely to be insured than their married counterparts, all else equal. Considering the effects of employment status, part-time individuals are 1.74 percentage points less likely to be insured when compared to their full-time counterparts. For the average unemployed American the probability of being insured is 6.47 percentage points lower than full time employed workers, considering all other factors constant.

Looking at the estimates across regions of the United States we can see how the significance and impact of these explanatory variables can differ in magnitude. For example, individuals coming from the West and Southern regions experience larger impacts on the probability of having insurance when given higher incomes and higher levels of education; that is when compared to individuals from the Northeast or Midwest. When it comes to race/ethnicity Hispanics are the least likely to be insured within all regions of the United States. Hispanics residing in the South have the lowest probability of being insured and are on average 5.69 percentage points less likely to have any form of insurance than Southern White individuals, all else equal. Marital Status is a highly significant determinant of insurance coverage across all regions of the United States. However, the impact seems to be the greatest in the South and the West. Lastly considering employment status we observe that being a part-time worker versus full-time worker does not always yield significant results in determining insurance status. However, individuals who are unemployed are consistently less likely to have insurance coverage than employed full-time workers across all regions. Being employed seems to be a very strong and large determinant of insurance coverage within the Southern region. In the South individuals who are employed are on average 10 percentage points more likely to have some form of health insurance coverage than unemployed individuals, *ceteris paribus*. In all other regions employed individuals are at most 4.3 percentage points more likely to be insured than unemployed individuals, all else equal.

TABLE THREE: *PROBIT REGRESSION PREDICTING HEALTH INSURANCE STATUS*

VARIABLES	(1)	(2)	(3)	(4)	(5)
	A.P.E. Full Sample	A.P.E. Northeast	A.P.E. Midwest	A.P.E. South	A.P.E. West
Age	-0.0117*** (0.000520)	-0.00783*** (0.00107)	-0.00904*** (0.00100)	-0.0159*** (0.000944)	-0.0101*** (0.00101)
Age^2	0.000150*** (5.86e-06)	9.78e-05*** (1.22e-05)	0.000118*** (1.12e-05)	0.000204*** (1.06e-05)	0.000129*** (1.15e-05)
2. Income					
(\$25,000-\$50,000)	0.0455*** (0.00296)	0.0256*** (0.00548)	0.0347*** (0.00540)	0.0596*** (0.00489)	0.0276*** (0.00507)
3. (\$50,000-\$75,000)	0.0743*** (0.00353)	0.0511*** (0.00763)	0.0601*** (0.00826)	0.0984*** (0.00780)	0.0746*** (0.00803)
4. (\$75,000-\$100,000)	0.0844*** (0.00432)	0.0688*** (0.0103)	0.0624*** (0.0131)	0.126*** (0.0118)	0.0855*** (0.0109)
5. (\$100,000+)	0.0941*** (0.00381)	0.0940*** (0.0108)	0.0889*** (0.0120)	0.119*** (0.0115)	0.121*** (0.0107)
2. Region					
(Midwest)	-0.0144*** (0.00311)	-	-	-	-
3. (South)	-0.0603*** (0.00285)	-	-	-	-
4. (West)	-0.00325 (0.00283)	-	-	-	-
1. Educational Attainment					
(Incomplete H.S.)	-0.0284*** (0.0106)	-0.0598*** (0.0144)	-0.0178 (0.0183)	-0.0272** (0.0137)	0.0103 (0.0114)
2. (H.S. Diploma/GED)	0.0434*** (0.00989)	-0.0145 (0.0136)	0.0244 (0.0176)	0.0315** (0.0131)	0.0609*** (0.0110)
3. (Some College)	0.0695*** (0.00996)	5.49e-07 (0.0139)	0.0420** (0.0179)	0.0677*** (0.0133)	0.0819*** (0.0113)
4. (Associates)	0.0830*** (0.0102)	0.0175 (0.0148)	0.0554*** (0.0184)	0.0865*** (0.0143)	0.0907*** (0.0127)
5. (Bachelors)	0.0960*** (0.0100)	0.0181 (0.0141)	0.0684*** (0.0183)	0.112*** (0.0138)	0.105*** (0.0121)
6. (Professional Degree)	0.102*** (0.0123)	0.0547** (0.0227)	0.0773*** (0.0284)	0.113*** (0.0239)	0.105*** (0.0199)
7. (Masters)	0.106*** (0.0104)	0.0266* (0.0156)	0.0657*** (0.0209)	0.141*** (0.0159)	0.117*** (0.0149)
8. (Doctorate)	0.109*** (0.0130)	0.0563** (0.0233)	0.102*** (0.0381)	0.138*** (0.0266)	0.0941*** (0.0283)
1. Race					
(Black)	-0.00430 (0.00324)	-0.0166** (0.00645)	-0.0114 (0.00698)	-0.00544 (0.00515)	0.0293*** (0.0110)
2. (Asian)	0.0215*** (0.00424)	-0.00218 (0.00813)	0.0361*** (0.0131)	0.0135 (0.0112)	0.0423*** (0.00817)
3. (Hispanic)	-0.0323*** (0.00377)	-0.0128** (0.00622)	-0.0249*** (0.00770)	-0.0569*** (0.00632)	-0.0162*** (0.00572)
2. Marital Status					
(Divorced)	-0.0516*** (0.00320)	-0.0270*** (0.00628)	-0.0375*** (0.00584)	-0.0705*** (0.00519)	-0.0527*** (0.00577)
3. (Single)	-0.0489*** (0.00284)	-0.0354*** (0.00553)	-0.0330*** (0.00573)	-0.0640*** (0.00521)	-0.0510*** (0.00494)
2. Employment Status					
(Part-Time)	-0.0174*** (0.00319)	-0.00342 (0.00621)	-0.00663 (0.00619)	-0.0381*** (0.00568)	-0.00791 (0.00560)
3. (Unemployed)	-0.0647*** (0.00550)	-0.0254*** (0.00851)	-0.0427*** (0.00846)	-0.100*** (0.00746)	-0.0216** (0.00866)
Observations	153,870	27,981	34,379	56,337	35,126

Standard errors in parentheses , *** p<0.01, ** p<0.05, * p<0.1

The second set of results present a more detailed look into the reasons individuals have private or public insurance relative to no insurance at all. Understanding not only what, but also how much key economic and sociodemographic factors influence private insurance coverage versus public insurance coverage may be very useful for policy. Looking at Table Four we observe region isn't always significant in distinguishing between private and public insurance options. It does appear however that individuals from the Western region are on average 7.95 percentage points less likely to have private insurance relative to no insurance when compared to individuals from the Northeast, *ceteris paribus*. Also, individuals from the Midwest and Southern region are on average less likely to have public insurance relative to no insurance when compared with individuals from the Northeast. In fact, the likelihood of having public insurance relative to no insurance for the average individual from the Midwest is 2.05 percentage points lower than a Northeastern individual, holding all else equal. When comparing Southern individuals to Northeastern individuals; Southern individuals are on average 6.06 percentage points more likely than Northeastern individuals to have no insurance versus public insurance, *ceteris paribus*.

Income and educational attainment are both highly significant factors in determining whether the average American has private or public insurance. The estimates suggest that as the average American moves into a higher income bracket they are more likely to receive private health insurance. Alternatively, the probability of having public insurance coverage decreases with higher income levels. For the average individual earning one-hundred thousand or more the probability of having private insurance versus no insurance is 15.57 percentage points higher than someone earning less than twenty-five thousand, *ceteris paribus*. But for the same individuals earning one-hundred thousand or more the probability of having public insurance relative to no insurance is only 6.85 percentage points lower than individuals earning twenty-five thousand or less, all else equal. Regarding education, the average individual is more likely to have private insurance relative to no insurance for each year of higher education. Similarly, as educational attainment increases the likelihood of having public insurance relative to no insurance decreases. The average high school graduate is 7.64 percentage points more likely than an individual with no schooling to have private insurance relative to no insurance; however, that same individual is only 2.53 percentage points less likely to have public insurance, all else equal. An advanced degree such as a masters or doctorate on average makes individuals 17 percentage points more likely to have private insurance rather than no insurance when compared with individuals with no schooling, *ceteris paribus*.

Considering race/ethnicity the estimates suggest that on average Hispanics and Blacks are less likely than Whites to have private insurance relative to no insurance; however more likely to have public insurance compared to no insurance. On average Hispanic individuals are 5.57 percentage points less likely to have private insurance relative to no insurance when compared to White individuals, *ceteris paribus*. Black individuals are on average 7.45 percentage points less likely than White individuals to have private insurance compared to no insurance; also, Black individuals are 7 percentage points more likely than White individuals to have Public insurance relative to no insurance, all else equal.

Marital status is another significant factor that influences both an individual's likelihood of having private or public insurance. On average individuals who have been divorced are 12.7 percentage points more likely than married individuals to have no insurance rather than private insurance. Also divorced individuals are 7.3 percentage points more likely than married individuals to have public insurance rather than no insurance, considering all else equal. The impact for single individuals seems to be less; the average single individual is 7.2 percentage points more likely than a married individual to have no insurance compared to private insurance. Furthermore, the average single individual is 2.2 percentage points more likely than married individuals to have public insurance compared to no insurance, *ceteris paribus*. This suggests that married individuals are on average more likely to have private insurance when compared to divorced and single individuals. Lastly, it's observed that employment status is a significant predictor of insurance type. When fulltime and part-time workers are compared, we observe that full-time workers are 11 percentage points more likely than part-time workers to have private insurance than no insurance at all; full-time workers are also 24 percentage points more likely than unemployed individuals to have private insurance compared to no insurance, *ceteris paribus*.

TABLE FOUR: *MULTINOMIAL PROBIT REGRESSION PREDICTING HEALTH INSURANCE TYPE*

Variables	(1) Noninsured (Base Category)	(2) A.P.E Private	(3) A.P.E Public
Age	-	0.0201964***	-0.028757***
	-	(0.0006568)	(-0.0005451)
Age^2	-	-0.000275***	0.000384***
	-	(7.01E-06)	(0.000006)
2. Income			
(\$25,000-\$50,000)	-	0.094914***	-0.054278***
	-	(0.0039279)	(0.003303)
3. (\$50,000-\$75,000)	-	0.1444908***	-0.076633***
	-	(0.0048063)	(0.003970)
4. (\$75,000-\$100,000)	-	0.1505893***	-0.072800***
	-	(0.0058779)	(0.004924)
5. (\$100,000+)	-	0.1557743***	-0.068530***
	-	(0.0054179)	(0.004606)
2. Region			
(Midwest)	-	0.0054017	-0.020508***
	-	(0.0041299)	(0.003720)
3. (South)	-	-0.001749	-0.060633***
	-	(0.0037071)	(0.003261)
4. (West)	-	-0.007953**	0.003857
	-	(0.0040116)	(0.003732)
1. Educational Attainment			
(Incomplete H.S.)	-	-0.045109***	0.016141
	-	(0.014534)	(0.012564)
2. (H.S. Diploma/GED)	-	0.0763328***	-0.025261**
	-	(0.0136084)	(0.011851)
3. (Some College)	-	0.1147962***	-0.037043***
	-	(0.0137051)	(0.011937)
4. (Associates)	-	0.1260056***	-0.035292***
	-	(0.0141055)	(0.012345)
5. (Bachelors)	-	0.172812***	-0.072211***
	-	(0.0137769)	(0.011977)
6. (Professional Degree)	-	0.1673015***	-0.058617***
	-	(0.0158271)	(0.013424)
7. (Masters)	-	0.1724979***	-0.061985***
	-	(0.0142123)	(0.012312)
8. (Doctorate)	-	0.1696338***	-0.056262***
	-	(0.0168223)	(0.013992)
1. Race			
(Black)	-	-0.074522***	0.070057***
	-	(0.0048098)	(0.004408)
2. (Asian)	-	0.0198225***	0.000479
	-	(0.0060797)	(0.005387)
3. (Hispanic)	-	-0.055756***	0.022504***
	-	(0.0053888)	(0.004710)
2. Marital Status			
(Divorced)	-	-0.12674***	0.073212***
	-	(0.0039341)	(0.003427)
3. (Single)	-	-0.071775***	0.022334***
	-	(0.0039296)	(0.003457)
2. Employment Status			
(Part-Time)	-	-0.110808***	0.092357***
	-	(0.0043878)	(0.003806)
3. (Unemployed)	-	-0.241731***	0.172155***
	-	(0.0078726)	(0.007260)
Observations	158,200	158,200	158,200

Standard errors in parentheses , *** p<0.01, ** p<0.05, * p<0.1

VI. DISCUSSION

In the absence of universal health coverage in the United States, many Americans are left uninsured for a variety of reasons. Analysis done on the 2016 American Community Survey data shed some light on the factors that influence reasons for being uninsured. Furthermore, dividing the full data set into regions provided cross sectional comparisons that revealed how the factors influencing health insurance status differ depending on which region an individual belongs to. The results suggest that region plays a significant role in determining insurance status and for some regions the type of insurance an individual receives. Policy makers will find these results useful to give attention to those regions that are more likely to have high uninsured rates. More specifically to those demographics within each region who have a greater probability of being uninsured due to both their economic and social characteristics.

Individuals from the Northeast are undoubtedly the most likely to be insured, while individuals from the Midwest and South are the least likely. Northeastern individuals are significantly more likely than all other regions to have private insurance relative to no insurance at all. When it comes to how other factors influencing insurance status differed across regions, the following was observed. Across all regions the probability of having health insurance is high in early adulthood but decreasing until roughly age 39, at which point the probability is the lowest; after age 39 the probability then increases. Income plays the strongest role in determining insurance coverage in the South compared to any other region. In all regions, as individuals move into higher income brackets the probability of having insurance increases. Increasing educational attainment proved to have the largest impact determining insurance coverage for individuals in the South; and the smallest impact for individuals in the Northeast. Socioeconomic factors such as race/ethnicity were also found to be significant; the most notable were Hispanics who across all regions were the least likely to be insured. The effect of being Hispanic in the Southern and Midwest regions seemed to be the strongest; in those regions the probability of Hispanics being insured were far less than White individuals from the same region. Marital status was highly significant across all regions. Divorced and single individuals were always less likely to be insured when compared to their married counterparts. Interestingly being a part-time worker compared to fulltime worker only made a significant difference in the South where part-time workers were less likely to be insured. Across all regions unemployed individuals were significantly less likely to be insured than full-time employed workers.

Overall the main results are in line with what was expected. While prior research has provided a much narrower analysis explaining why certain demographics are uninsured; this paper took a broader approach with a much more recent data set. This provided an up to date analysis of the factors influencing uninsured rates in the United States and how those may differ based on region. These results are very useful; however, it should be acknowledged that the author does believe that there exist some factors that theoretically influence insurance status that were omitted from the model's specification. Due to incomplete data there were two important factors that were left out, namely insurance price and health status. Ideally this data could have been captured in the survey if individuals were asked how much they are paying for their insurance plans and what their current health status was. Unfortunately, because of the omitted variables some of the estimates may be suffering from bias; the amount of bias is not alarming given the fact that the estimates have their anticipated signs and major factors were controlled for.

Another decision that was made in the paper was to use the individual data rather than household data. This made it necessary to apply an age restriction on the data. Looking at individuals age 18 and older was necessary because in most cases individuals under 18 years belong to a family insurance plan; therefore, the determinants of their insurance status doesn't depend on their own individual characteristics, but rather their parents. Although this would make the analysis slightly more complicated, future research could be done providing results that show how family dynamics can impact insurance status. The main findings of this paper can serve as a starting point to resolving one of the United States biggest challenges. Given that the results thus far have been presented in a strictly factual sense, the interested reader may enjoy the conclusion for a more normative economic discussion on the future of healthcare in the United States.

VII. CONCLUSION

The United States has been consistently ranked among the lowest of the developed countries in terms of health care. Despite spending the most on health care (as a portion of GDP) among developed countries, the United States still finds themselves unable to provide adequate and affordable coverage to many of its inhabitants. What are some things the United States can learn from other developed countries? Countries that are ranked the best in terms of health system performance typically all provide some form of universal coverage. While the likes of which can vary, the structures of these systems can typically be broken down into three categories: Single-payers systems, Multi-payer systems, and/or a Beveridge system.

Australia is a prime example of a functioning single-payer tax system. In Australia every citizen is covered under a public insurance plan which is funded through tax revenue. These public options are not binding; there still exist private care facilities and private insurance options. It is estimated that over half of the Australian population purchases private insurance to access care outside of the public system. In terms of health outcomes of the population that take into consideration outcomes such as infant mortality and life expectancy at age 60; Australia is a top performer among developed countries.

The Multi-payer system of the Netherlands has consistently made the Dutch a leader in universal health care initiatives. Inspiring the Affordable Care Act in 2010, the Dutch system relies on private insurers to fund the health system. These private insurers are typically financed through community rated premiums and payroll taxes; after employee risk has been pooled they are then distributed to insurers. Furthermore, all plans include a standard benefits package; subsidies are awarded for low-income individuals; mandates require all adults to enroll in a plan or are subject to fine. In terms of equity the Netherlands, along with Sweden and the United Kingdom are leaders among the developed nations. In these countries there are relatively small differences in the quality and accessibility of health care between low-income and high-income adults.

Named after William Beveridge, the Beveridge system in United Kingdom provides health care that is paid through general tax revenue. Beyond that, the government plays an active role in organizing and facilitating health care. For instance, most hospitals in the United Kingdom are publicly owned, and the specialists who operate them are often government employees. The Beveridge system has been adopted by several other countries including: Hong Kong, New Zealand, Spain, and most of Scandinavia. This system has made the United Kingdom a leader among developed countries in terms of the health care process which takes into consideration subdomains such as prevention, safe care, coordination, and patient engagement²¹.

These are some of the main initiatives that developed countries have chosen to resolve their own health care issues. As with most economic policy, there exists no single health system which any given country can adopt that will remedy their own specific problem. Rather countries must choose policy based on feasibility with the intent to meet targeted goals. While the recent lack of initiative and strong opposition to resolving the health care issue in the United States may seem hopeless, it may not be. The United States sits in a fortunate position with the opportunity to learn from the Affordable Care Act of 2010 and from other developed nations health care systems. Rather than venturing into the unknown, future policy makers of the United States should have a better understanding of how it resolves the health care issue. Regardless of policy choice, some action must be taken to resolve a growing issue. Targeting under performing regions of the United States could be a start to addressing the problem.

APPENDIX

FULL PROBIT REGRESSION PREDICTING HEALTH INSURANCE STATUS

VARIABLES	(1) A.P.E. Full Sample	(2) A.P.E. Northeast	(3) A.P.E. Midwest	(4) A.P.E. South	(5) A.P.E. West
age	-0.0117*** (0.000520)	-0.00783*** (0.00107)	-0.00904*** (0.00100)	-0.0159*** (0.000944)	-0.0101*** (0.00101)
age2	0.000150*** (5.86e-06)	9.78e-05*** (1.22e-05)	0.000118*** (1.12e-05)	0.000204*** (1.06e-05)	0.000129*** (1.15e-05)
hhsiz	0.00136** (0.000665)	0.00345*** (0.00130)	0.000821 (0.00139)	-0.000467 (0.00128)	0.00218* (0.00117)
2.incomebracket	0.0455*** (0.00296)	0.0256*** (0.00548)	0.0347*** (0.00540)	0.0596*** (0.00489)	0.0276*** (0.00507)
3.incomebracket	0.0743*** (0.00353)	0.0511*** (0.00763)	0.0601*** (0.00826)	0.0984*** (0.00780)	0.0746*** (0.00803)
4.incomebracket	0.0844*** (0.00432)	0.0688*** (0.0103)	0.0624*** (0.0131)	0.126*** (0.0118)	0.0855*** (0.0109)
5.incomebracket	0.0941*** (0.00381)	0.0940*** (0.0108)	0.0889*** (0.0120)	0.119*** (0.0115)	0.121*** (0.0107)
2.region	-0.0144*** (0.00311)	-	-	-	-
3.region	-0.0603*** (0.00285)	-	-	-	-
4.region	-0.00325 (0.00283)	-	-	-	-
1.educ	-0.0284*** (0.0106)	-0.0598*** (0.0144)	-0.0178 (0.0183)	-0.0272** (0.0137)	0.0103 (0.0114)
2.educ	0.0434*** (0.00989)	-0.0145 (0.0136)	0.0244 (0.0176)	0.0315** (0.0131)	0.0609*** (0.0110)
3.educ	0.0695*** (0.00996)	5.49e-07 (0.0139)	0.0420** (0.0179)	0.0677*** (0.0133)	0.0819*** (0.0113)
4.educ	0.0830*** (0.0102)	0.0175 (0.0148)	0.0554*** (0.0184)	0.0865*** (0.0143)	0.0907*** (0.0127)
5.educ	0.0960*** (0.0100)	0.0181 (0.0141)	0.0684*** (0.0183)	0.112*** (0.0138)	0.105*** (0.0121)
6.educ	0.102*** (0.0123)	0.0547** (0.0227)	0.0773*** (0.0284)	0.113*** (0.0239)	0.105*** (0.0199)
7.educ	0.106*** (0.0104)	0.0266* (0.0156)	0.0657*** (0.0209)	0.141*** (0.0159)	0.117*** (0.0149)
8.educ	0.109*** (0.0130)	0.0563** (0.0233)	0.102*** (0.0381)	0.138*** (0.0266)	0.0941*** (0.0283)
1.industry	0.0722*** (0.0127)	0.0810** (0.0321)	0.0328 (0.0275)	0.0863*** (0.0216)	0.0516* (0.0266)
2.industry	0.0795*** (0.0161)	0.144*** (0.0381)	0.0282 (0.0311)	0.0765** (0.0341)	0.0915*** (0.0354)
4.industry	0.0410*** (0.00884)	0.0487*** (0.0142)	0.0288** (0.0116)	0.0354** (0.0147)	0.0307*** (0.0106)
5.industry	0.0715*** (0.0102)	0.0755*** (0.0188)	0.0376** (0.0172)	0.0725*** (0.0186)	0.0765*** (0.0145)
6.industry	0.0504*** (0.00902)	0.0583*** (0.0145)	0.0215* (0.0122)	0.0459*** (0.0150)	0.0547*** (0.0112)

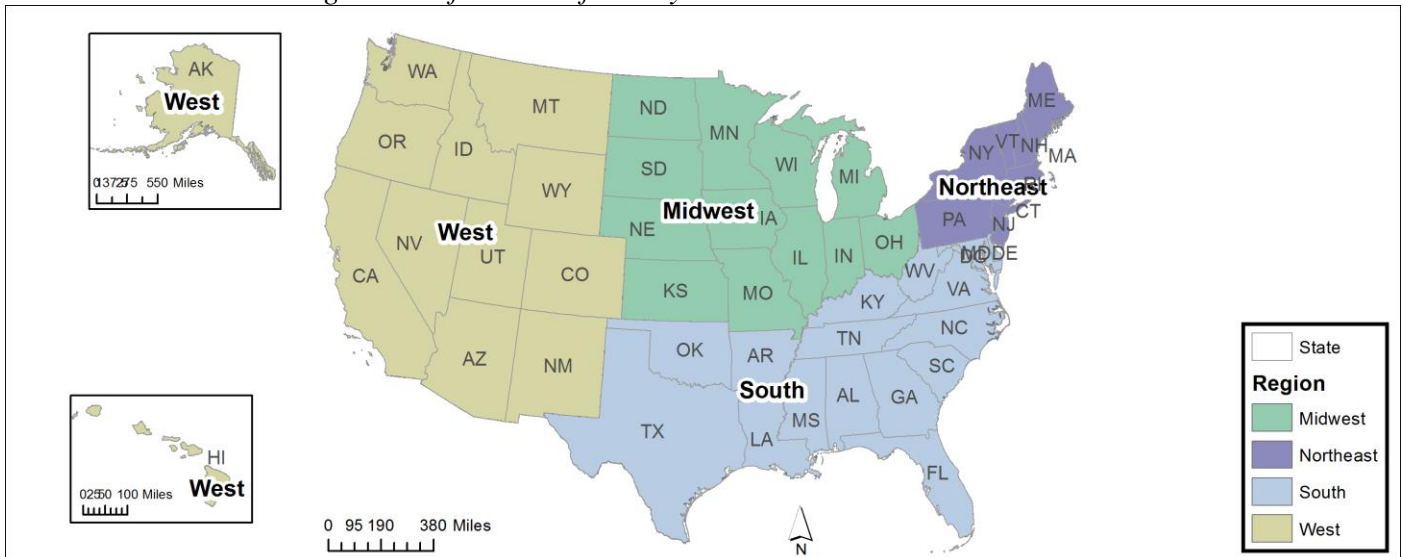
7.industry	0.0504*** (0.00981)	0.0672*** (0.0158)	0.0125 (0.0141)	0.0590*** (0.0166)	0.0376*** (0.0135)
8.industry	0.0675*** (0.0118)	0.0785*** (0.0193)	0.0165 (0.0239)	0.0929*** (0.0209)	0.0547*** (0.0165)
9.industry	0.0697*** (0.00957)	0.0917*** (0.0162)	0.0514*** (0.0145)	0.0554*** (0.0167)	0.0737*** (0.0139)
10.industry	0.0456*** (0.00910)	0.0563*** (0.0148)	0.0278** (0.0124)	0.0413*** (0.0151)	0.0375*** (0.0113)
11.industry	0.0919*** (0.00909)	0.0846*** (0.0156)	0.0628*** (0.0139)	0.111*** (0.0162)	0.0961*** (0.0127)
12.industry	0.0631*** (0.00920)	0.0813*** (0.0151)	0.0373*** (0.0128)	0.0547*** (0.0155)	0.0605*** (0.0125)
13.industry	0.0492*** (0.0107)	0.0665*** (0.0169)	0.0296* (0.0170)	0.0287 (0.0186)	0.0554*** (0.0154)
14.industry	0.0189** (0.00922)	0.0347** (0.0146)	-0.0130 (0.0123)	0.0168 (0.0151)	0.0333*** (0.0111)
15.industry	0.0268*** (0.00965)	0.0374** (0.0157)	0.0215 (0.0135)	0.0182 (0.0156)	0.0246** (0.0120)
16.industry	0.107*** (0.00951)	0.123*** (0.0206)	0.0951*** (0.0188)	0.139*** (0.0190)	0.0917*** (0.0168)
17.industry	0.139*** (0.0101)	- -	0.167*** (0.0453)	0.234*** (0.0439)	0.218*** (0.0359)
1.Race1	-0.00430 (0.00324)	-0.0166** (0.00645)	-0.0114 (0.00698)	-0.00544 (0.00515)	0.0293*** (0.0110)
2.Race1	0.0215*** (0.00424)	-0.00218 (0.00813)	0.0361*** (0.0131)	0.0135 (0.0112)	0.0423*** (0.00817)
3.Race1	-0.0323*** (0.00377)	-0.0128** (0.00622)	-0.0249*** (0.00770)	-0.0569*** (0.00632)	-0.0162*** (0.00572)
2.maritalstatus	-0.0516*** (0.00320)	-0.0270*** (0.00628)	-0.0375*** (0.00584)	-0.0705*** (0.00519)	-0.0527*** (0.00577)
3.maritalstatus	-0.0489*** (0.00284)	-0.0354*** (0.00553)	-0.0330*** (0.00573)	-0.0640*** (0.00521)	-0.0510*** (0.00494)
1.schoolenrollment	0.0303*** (0.00321)	0.0223*** (0.00788)	0.0425*** (0.00794)	0.0399*** (0.00725)	0.0204*** (0.00712)
2.employmentstatus	-0.0174*** (0.00319)	-0.00342 (0.00621)	-0.00663 (0.00619)	-0.0381*** (0.00568)	-0.00791 (0.00560)
3.employmentstatus	-0.0647*** (0.00550)	-0.0254*** (0.00851)	-0.0427*** (0.00846)	-0.100*** (0.00746)	-0.0216** (0.00866)
4.employmentstatus	-0.0116*** (0.00348)	0.0111 (0.00690)	-0.00575 (0.00695)	-0.0293*** (0.00617)	-0.00702 (0.00666)
2.disabled	-0.0190*** (0.00344)	-0.0191** (0.00866)	-0.0186** (0.00783)	-0.0211*** (0.00674)	-0.0232*** (0.00795)
1.hhlang	-0.0529*** (0.00359)	-0.0430*** (0.00517)	-0.0483*** (0.00655)	-0.0558*** (0.00595)	-0.0347*** (0.00551)
2.gender	0.0320*** (0.00217)	0.0282*** (0.00428)	0.0257*** (0.00411)	0.0416*** (0.00410)	0.0269*** (0.00416)

Observations	153,870	27,981	34,379	56,337	35,126
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Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Regional Definition defined by the United States Census Bureau



Explanation of the turning point in age:

The likelihood of having insurance decreasing as you move farther away from childhood is explained by the fact that children lose their health insurance coverage provided by their parents' policies as the age. The turning point of 39 suggests that on average individuals are the most likely to have some form of health insurance at this age, likely due to the peak in job security. Moving away from age 39 the likelihood begins to decrease which could be a result of individuals leaving employer sponsored plans as they move closer to retirement.

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