

# Investigating the Heterogeneous Difference of Health Insurance Coverage among Racial Groups

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## Abstract:

Although many researches have discussed the disparities of insurance health coverage between ethnical groups, we want to see from a different perspective, which is people's own reason for choosing not to enroll in any health care plan. This paper tried to find the possible correlation between demographic features and reason for not covered by health insurance. To accomplish this goal, we built a two-step multinomial regression model using data from NHIS (National Healthcare Interview Survey).

### **Motivation:**

Motivation: according to NHIS, about 10% (2887) of interviewed sample considered themselves not covered by any type of health insurance. While most people may think that this is because they could not afford health insurance, the NHIS showed that there is a variety of reasons why people do not enroll in any insurance plan. In this study, we try to find the possible correlation between demographic features and reason for not covered by health insurance. For example, are some ethnic groups more likely to be left out by health insurance than other groups because they are not eligible for signing up? By studying this question, we hope to see through the simple statement of “not covered by health insurance” and discover more in-depth social problems reflected by their reasons for doing so.

### **Literature review:**

Multiple researches have discussed the disparities in the quality of medical care exist between ethnic groups and possible underlying reasons and history background for causing this phenomenon (Lillie-Blanton & Hoffman, 2005; Kaiser Commission on Medicaid and the Uninsured, 2005; Smedley, Stith, and Nelson et al, 2002). Most of them, however, are predictions and assumptions, instead of people’s real intention.

### **Research Design:**

Step 1: We first will run basic multinomial regression to check if there exists heterogeneous difference of health insurance coverage among different racial groups.

Step 2: We will use multinomial regressions to analyze the reasons for no insurance coverage of different racial groups. By the responses of NHIS, we categorize reasons into 5 models: model 1 (coverage is not affordable), model 2 (do not need or want coverage), model 3 (not eligible for

coverage), model 4 (signing up too difficult or confusing), model 5 (cannot find a plan that meets the needs).

**Dependent variables:**

Step 1: Health insurance coverage status in the United States. The responses of each status will be divided as covered (0), not covered (1), and don't know (2).

Step 2: The responses of reasons for uninsured choice. For example, in model 1, coverage is not affordable. The responses will be divided as yes (0), no (1) and not ascertained (2).

**Independent Variables:** Racial/ethnic groups: White/Black or African American/Asian/American-Indian/Hispanic origin.

**Covariates:** demographic characteristics (marital status, gender, age), socioeconomic characteristics (high degree completion, employment status).

**Identification Strategy:** We introduce covariates as controlling variables to mitigate the effect of omitted variable bias.

**Outline:** Introduction and Literature Review (March 37), Data work and empirical strategy (April 10), Estimation and Result (April 17), Finish Write up (April 24)

**Reference:**

Hoffman, C. (2005). Health insurance coverage in America: 2004 data update. Washington,

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Smedley, B. D., Stith, A. Y., & Nelson, A. R. (Eds.). (2003). Unequal Treatment: Confronting

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Lillie-Blanton, M., & Hoffman, C. (2005). The role of Health Insurance Coverage in Reducing

Racial/Ethnic Disparities in Health Care. Health Affairs, 24(2), 398-408.