HEALTH INSURANCE COVERAGE FOR VULNERABLE POPULATIONS: COMPARING ASIANS, LATINOS AND WHITES

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Note: material in Appendix 2 is not discussed in this paper, but will be covered in a subsequent paper proposing and measuring a formal definition of unfair differences in insurance coverage.

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Health Insurance Coverage for Vulnerable Populations: Comparing Asians, Latinos and Whites

Introduction

Reliance on public insurance or having no insurance of any form is more common among racial/ethnic minorities, particularly among recent immigrants, as compared to white, non-immigrant Americans. Vulnerable populations may face barriers to obtaining health insurance coverage and may consequently become uninsured or face discontinuities in their health coverage. Data for 2001 of the Current Population Survey show that 22% of the United States (U.S.)-born Latinos and 17% of Blacks lack health insurance, in comparison to 9% for Whites. Among all immigrants, the rate of uninsurance is 32% compared to 12% for U.S. born (see Crow et al. (2002) for review). According to the Commonwealth Fund's August 2004 estimates, there are 45 million uninsured Americans (http://www.cmwf.org); approximately 21% are non-citizen immigrants (Ku and Waidmann, 2003).

Furthermore, those with serious health problems, including mental illness, are less likely to be covered by private or public insurance plans. McAlpine and Mechanic (2000), using Health Care for Communities data, found that 20.4% of people with a disease classified as Serious Mental Illness (SMI) are uninsured, compared to only 11.4% for those without a mental disorder. Shi (2001) studied several waves of the Medical Expenditure Panel Survey data and found that the triple vulnerability of poor health, low income, and minority status increased the risk for uninsurance, accounting for geography and other factors. These findings regarding lack of insurance are consistent across numerous data sources. Vulnerabilities are correlated, and identification of the relative contribution of the sources of vulnerability to poor insurance outcomes has not been established, nor have the mechanisms explaining these differences.

Access to both public and private sources of health insurance is determined by numerous factors, ranging from those at the individual level (e.g., age, health and income status) to external and contextual factors (e.g., employer characteristics, public policy and regional characteristics). The pervasiveness of uninsurance among certain subgroups of the population indicates how important it is to understand how these factors interact and to assess the leverage points that may decrease uninsurance for the different minority groups.

This study evaluates the role of vulnerabilities in insurance outcomes using recently collected data with good measures of elements of vulnerability, and large numbers of respondents from subgroups within ethnic minorities. Vulnerability has been defined by minority status, immigrant status, and poor health and mental health (Crow, Harrington and McLaughlin, 2002). We follow the Economic Research Initiative on the Uninsured conceptual framework (Crow, Harrington and McLaughlin, 2002) that highlights race/ethnicity, immigration, and mental illness as placing individuals at risk for uninsurance (See also Pollack and Kronebusch, 2002). These vulnerabilities do not

reflect a deficiency of the individual but rather an at-risk status due to the interaction of multiple factors over which the individual has no or little control (Aday et al., 1999). Insurance outcomes are defined as private insurance, no insurance from any source, public insurance, and other insurance.

We focus on Asian Americans and Latinos, and compare their insurance outcomes to whites. Both groups are growing rapidly as a share of the US population. Latinos already account for more than half of the newborns in California (Murphy, 2003) and will soon account for one of every three persons born in the U.S. (Ginzberg, 1991). Asian Americans, the fastest growing ethnic category in the U.S., are estimated to triple in size to more than 20 million by the year 2025 (Lee, 1998). The two groups share the experiences of being a minority, recent immigration, and language and acculturation issues. At the same time, many of the insurance outcomes differ dramatically between the two, making the Asian/Latino comparison a potentially telling one.

Vulnerabilities and Insurance Status

The literature on insurance has identified several factors related to the association between ethnicity to uninsurance for Latinos and Asians: nativity, (U.S. born versus non-U.S. born) employment, citizenship, limited language proficiency, marital status, and geography.

Nativity
Immigrants' access to health insurance often depends upon many of the same factors as for U.S. born, including employment situation, financial resources, as well as workplace conditions. However, immigrants may experience barriers to securing coverage beyond those related to labor market and economic factors. For example, immigrants often find that the structure and financing mechanisms of the American health care system differ substantially from those in their home countries (Feld and Power, 2000). They may not be aware of the relative importance of having some form of coverage until faced with a need for medical care (Yu, Huang and Singh, 2004). Furthermore, depending on their country of origin, immigrants often differ in resources, including human and social capital (Ryu et al., 2002; de la Torre et al., 1996) both of which may shape the types of jobs they obtain as well as compensation and benefits provided by their employer.

Public policies, such as welfare reform, have also restricted many immigrants' access to public insurance programs and have resulted in declines in coverage through Medicaid (Wang and Holahan, 2003). Some of this loss of public insurance coverage was caused by restrictions on Medicaid eligibility for recent immigrants under the 1996 welfare reform law (Ellwood and Ku, 1998). The Personal Opportunity and Reconciliation Act of 1996 states that Federal benefits for non-emergency care are not offered to most legally-admitted immigrants for the first five years they are in the U.S, and requires that the income of recent immigrants' sponsors be "deemed" available to them in computing income eligibility for Medicaid even if the sponsor lives separately from the immigrant and does not contribute materially to the immigrant household. This stipulation may

render a majority of immigrants ineligible for Medicaid even after their five-year exclusion period expires.

Immigrant families also fear that enrolling in Medicaid might place their residency or citizenship in jeopardy. In the mid-1990s, some immigration officials began to require immigrants to repay the value of Medicaid benefits received if they wanted to stay in or return to the U.S. The Immigration and Naturalization Service later clarified that getting Medicaid benefits (except for long-term care) would not jeopardize immigrants' residency status. However, many immigrants continue to misunderstand these policies.

Employment
For more than fifty years, non-elderly adults have primarily secured health care coverage through the workplace. However, trends in insurance coverage are sensitive to both macro and micro-level factors, including the rising costs of health care and premiums for individual and family coverage as well as demographic changes in the population (Claxton et al., 2003; IOM, 2002). Employer characteristics continue to play an important role in shaping today's patterns of coverage among non-elderly adults. For example, unionized and large firms with more than 200 workers often offer coverage to their employees at higher rates than smaller and non-unionized firms. Hall and colleagues report that a non-citizen's odds of having employer-based health insurance is 0.59 that of a U.S.-born citizen and 0.92 of a naturalized citizen. While being connected to the labor market may increase an individual's chances for obtaining employer-sponsored insurance, there is no guarantee that the worker will be eligible for coverage. Additionally, some workers who are offered health benefits may reject that coverage due to high costs of premiums, low incomes, and competing family demands or because coverage is available through a spouse's employer (Claxton et al., 2003). The interaction between these many factors has important consequences for the nation's uninsured rate. Today, there are many individuals who are connected to the labor market yet lack health benefits (Mills and Bhandari, 2003).

It is generally agreed that employer-based insurance is not equally distributed and some subgroups of the population are disproportionately less likely to have this form of coverage. For example, among the nation's racial/ethnic groups, Latinos and African Americans have substantially lower rates of job-based insurance than their white counterparts (Zuvekas and Taliaferro, 2003; Fronstin et al., 1997). Limited data on Asian Americans' sources of coverage reflects great variations in the group's diversity as well as their patterns of insurance (Brown et al., 2000; Ryu et al., 2002). Differences in employer-based health insurance reflect not only variations in labor market distributions but also sociodemographic characteristics, especially education, income, citizenship status, and occupation – factors that all have important consequences for access to both private and public sources of coverage.

Citizenship
In the U.S., there are various citizenship and immigration categories, each of which confers different rights. Whereas refugees (e.g., Vietnamese and Cambodians) have options for health insurance coverage through public programs for seven years time post-

arrival with state options for eligibility after seven years, most other immigrants (e.g., undocumented, guest-workers, legal permanent residents, and other categories) do not and must either obtain insurance through an employer, purchase individual insurance, or go without insurance (Royer, 2003). Non-citizens are more likely to be uninsured even after statistically controlling for the influence of other factors such as income, employment, education and health status (Ku and Waidmann, 2003). Similarly, Schur and Feldman (2001) found that non-citizen Latinos had lower "offer rates" for employer-sponsored insurance than other groups. Social and economic factors both shape immigrants' access to coverage.

A key explanation for increasing uninsured rates among non-citizens is also the trouble they have obtaining private insurance. Non-citizen Latino workers were one half to two-thirds as likely to be offered insurance in the workplace as Latino citizen workers or white workers (Ku and Waidmann 2003). However, when offered insurance, non-citizen Latinos were about as likely to participate in job-based insurance plans as citizen workers. Findings from the 1999 National Survey of America's Families (NSAF) focusing on people in families with incomes below 200 percent of the poverty level provide evidence that Latino citizen adults are only slightly more likely to be uninsured than their white counterparts (34% vs. 28%) (Urban Institute, 1999). However, non-citizen Latino adults are more than twice as likely to lack coverage than white citizen adults (70% vs. 28%).

<u>Language</u>
Language barriers may compound the difficulties confronted by immigrants in securing health insurance. Immigrants who have limited English proficiency or non-English speakers often have lower rates of coverage (and higher uninsured rates) than those whose primary language is English (Perkins, 2003). This outcome may be a product of limited options for obtaining jobs that offer coverage and language barriers to navigating the health insurance and medical systems effectively. Ku and Waidmann (2003) found that among Latino citizen adults who speak English, 33% are uninsured in comparison to 28% of whites while among Latino citizen adults who primarily speak Spanish, 44% are uninsured. Citizenship status seems to interact with English language proficiency; among non-citizen Latinos who speak English, 55% are uninsured while among non-citizen Latinos who speak Spanish, 72% are uninsured, a rate more than three times higher that of white citizens.

<u>Marital Status</u>
Findings in the literature evidence that married adults are more likely to be insured than are adults who are divorced, separated, living with a partner, or never married (Cohen et al., 2004; Prentice et al., 2004). A recent study found that immigrants are more likely to be young and single than are U.S. citizens, placing them at increased risk for being uninsured (Prentice et al., 2004). The restrictions enacted in the 1996 reform of the PWORA act to encourage marriage and lessen the formation of single-parent families may bear implications for single immigrant's access to public insurance.

<u>Geography</u>

Much less is known about the specific role of geography on access to insurance due to the multitude of factors that may influence coverage patterns in any given region. Studies that include geographic measures should likely consider composite effects such as the sociodemographic characteristics of the population of that region (e.g., proportion of low-income immigrants, or in poor health) as well as political and cultural climates. State variations in private and public coverage are due to several factors. For example, coverage through Medicaid, a public insurance program, has baseline eligibility criteria that are defined by the federal government though states may opt to expand the scope of their programs. Additionally, states may fund separate programs to provide insurance coverage to individuals who may be ineligible for other public programs. Access to employer-based insurance also may depend upon local labor markets. For example, certain industries may be more likely to offer health benefits to their workers.

Current data show that state uninsured rates vary from 8% in Minnesota to a high of 24% in Texas (Mills and Bhandari, 2003). In contrast, regionally, the South and West have high proportions of uninsured (as compared to the Midwest and Northeast (IOM, 2002)). Recent data of the Kaiser Commission on Medicaid and the Uninsured showed that among the four states with the greatest immigrant populations (California, Florida, New York, and Texas), Texas had the highest rates of uninsurance of non-citizens (56%) while California and New York had lower rates (46%).

 In summary, failure to consider the heterogeneity of the vulnerable groups in minority status, immigrant status and health profile may lead to inadequate strategies for addressing the challenges of uninsurance.

Data

This study compares insurance outcomes for Asian Americans and Latinos to whites. We use the recently completed National Latino and Asian American Study (NLAAS). The NLAAS design and sampling strategy are described in detail elsewhere (Alegria et al., in press a; Alegria et al., in press b; Heeringa et al., 2004), but we give some basic background information about the data here.   The NLAAS is a national sample of Latinos and Americans (and a white control group) interviewed in 2002 and 2003. The data contain extensive measures of vulnerability: minority status, immigration status, and mental health and health status. Data about insurance coverage includes information about the source of coverage, if any, and about the extent and nature of the coverage for health and mental health conditions.

NLAAS Sampling Design
The National Latina and Asian American Study (NLAAS) is based on a stratified area probability sample design. The sample consists of persons 18 years of age and older in the non-institutionalized population of the 50 states and Washington D.C. A four step probability sampling process was used: 1) primary stage sampling of US Metropolitan Statistical Areas (MSAs) and counties, 2) second stage sampling of area segments, 3) third stage sampling of housing units within the selected area segments, and 4) random selection of respondents from the sample housing units. Because the NLAAS sampling

strategy is designed to be nationally representative as well as to provide a robust sample of Latinos and Asians, the sample design includes two distinct components that distinguish it from other epidemiology studies. The first component is an NLAAS core sample, which is designed to provide a nationally representative sample of all national origin groups regardless of geographic residential patterns. The second consists of NLAAS-HD supplements, which are over samplings of geographic areas with a moderate to high density (5 %+) of targeted Latino and Asian American households. The supplements were added to the sample plan as a cost reduction strategy in order to obtain the desired sample of national origin groups not widely dispersed in the U.S. (e.g., Puerto Rican, Cuban, Chinese, Filipino, and Vietnamese). The Mexican subgroup did not require supplemental oversampling since sufficient eligible respondents from this subgroup were identified through the four step sampling strategy explained above. Individuals residing in the high-density areas had two chances for selection, one under the NLAAS Core sample and the other under the NLAAS-HD sample. This sample design requires weighting corrections for the joint probabilities of selection that have been integrated into the dataset. When the samples of targeted subgroups are combined and properly weighted, the pooled Core and HD samples provide sample-based coverage of the full national population. The NLAAS sample also geographically overlaps with the National Comorbidity Survey-Replication (NCS-R) to allow for comparisons between the NLAAS sample and the general U.S. population.

Procedures for Data Collection
The University of Michigan's Institute for Social Research (ISR) conducted data collection between May 2002 and November 2003. Professional lay interviewers administered the NLAAS battery averaging 2.6 hours. 275 interviewers were recruited across 38 states to provide coverage in 721 sample areas. Interviewers had language and cultural backgrounds to accommodate the varied language preferences of sample households. Language fluency for all bilingual interviewers was evaluated through a language testing service. Each interviewer attended extensive trainings, demonstrated proficiency with all translated materials, and completed a training certification. Interviews were administered using laptop computer-assisted software that included built-in skip logic, timing flags and consistency checks. As a measure of quality control, a 15% random sample of each interviewer's completed interviews was re-contacted for validation.

Recruitment into the initial NLAAS interview began with an introductory letter and study brochure mailed to the sample households. All study materials were translated into Spanish or Asian languages for the substantial proportion of non-English speaking respondents. Interviewers then conducted screening procedures, scheduled, and conducted interviews with eligible respondents. Interviewers explained the study procedures and obtained written informed consent in the respondents' preferred language, before conducting or tape recording the interviews. All interviews were originally planned as face-to-face; however, due to budget constraints, in March 2003, a interviewers was trained to administer the questionnaire over the telephone to a sample of respondents from households in which one adult had already been interviewed Second

respondent interviews were conducted with 547 Latino and 484 Asian American respondents.

Measures
The data contain extensive measures of vulnerability: minority status, immigration status, and mental health and health status. Data about insurance coverage are detailed, and include information about the source of coverage, if any, and about the extent and nature of the coverage for health and mental health conditions. Comprehensive information on the interviewees' demographic and social economic status (SES) is also collected, such as age, gender, marital status, household income, education level, region, family employment status, nativity, citizenship, English proficiency, percentage of life time spent in US, self-reported general health status, self-reported mental health status, prevalence of any lifetime and past year major mental disorder[1], number of chronic conditions[2,] and type of disabilities. (See Table 1 for the categories for those variables.)

Age was coded using four categories (18-34 years; 35-49 years; 50-64 years; 65 years or more) and gender was coded using dummy variables (1=male; 0=female). For single parent households or households in which only one adult resides, family employment was coded using three categories (1=employed, 2=retired, 3=unemployed). Using the same categories, family employment status for all other living arrangements was based on whether at least one spouse/caregiver was employed. Dummy variables were used to code nativity (0=U.S. born; 1 =immigrant). Marital status was classified using three categories (1=married; 2=single; 3=widowed, separated or divorced). English proficiency was coded as a dichotomous variable (1=poor/fair 2=good/excellent). Respondent's Household income is a continuous variable, composed of six questions which assess diverse sources of personal and family income using four categories (1= <$14,999; 2= $15,000-$34,999; 3= $35,000-$74,999; 4= >$75,000). The midpoint of the range for each distinct income source is summed to yield the final household income range estimate. Education was coded into four categories based on the number of years of education (1=0-11 years; 2=12 years; 3=13-16 years; 4=17 or more years). Region was determined based on the U.S. state in which respondents reside most of the time and coded into four categories (northeast, middle west, south, and west) using criteria from the U.S. Bureau of Labor, Department of Commerce.

Health status is determined by asking a series of questions about having any of the following chronic conditions: arthritis and rheumatism, chronic back pain or neck problems, frequent or severe headaches, other chronic pain, seasonal allergies, strokes, heart attack; or being told by a doctor that you had heart disease, high blood pressure, asthma, tuberculosis, chronic lung disease, diabetes, ulcer in stomach or intestine, HIV/AIDS, epilepsy or seizure disorder, or cancer. Diagnostic measures for lifetime and twelve-month prevalence of psychiatric disorders are determined from the World Mental

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[1] Any major mental disorder is defined as any of the following disorders is positive: major depressive episode, dysthymia, agoraphobia, panic disorder, general anxiety disorder, social phobia, PTSD, alcohol dependence, alcohol abuse, drug dependence, drug abuse, bulimia, anorexia.

[2] In NLAAS, questions are asked for the following chronic conditions: chronic back or neck problems, frequent or severe headaches, other chronic pain, seasonal allergies, stroke, heart attack, heart disease, high blood pressure, asthma, tuberculosis, chronic lung disease, diabetes or high blood sugar, ulcer in your stomach or intestine, HIV infection or AIDS, epilepsy or seizures, and cancer.

Health Survey Initiative version of the World Health Organization Composite International Diagnostic Interview (WMH-CIDI; Kessler and Ustun, in press). The WMH-CIDI is a fully structured diagnostic instrument administered by trained lay interviewers. WMH-CIDI diagnoses are based on criteria of the Diagnostic and Statistics Manual of Mental Disorders, Version 4 (DSM-IV) and ICD-10 symptom criteria. The validity of the earlier CIDI diagnostic assessments had been found to be consistent with those obtained independently by trained clinical interviewers (Wittchen, 1994).

The insurance variable is constructed by assigning respondents to one of six types of insurance coverage: Medicare, private insurance from employer, private purchased, Medicaid, other insurance, and uninsurance. If a person reports multiple insurance plans, then he/she is assigned to Medicare as long as she/he is enrolled in Medicare. If she/he is not in Medicare but has private insurance from employer, then she/he is considered as privately insured through employer, regardless of what other plans she/he has. If the respondent has a private purchased plan but is not in Medicare or privately insured through an employer, she/he is assigned as private-purchased insurance. . The person is classified as uninsured if she/he does not have any type of insurance. For some analyses, we classify the types into 4 slightly more aggregated groups: uninsurance, public insurance (Medicare and Medicaid), private insurance (i.e., private through employer, privately purchased), and other insurance.

Methods

In NLAAS, the age and gender distribution vary across different racial/ethnic groups and contribute to part of the difference in insurance rates. For each of the 9 racial/ethnic group (White, Puerto Rican, Cuban, Mexican, other Latino, Vietnamese, Filipino, Chinese, and other Asian), we divide respondents into 8 age/gender groups: male aged 18-34, male aged 35-49, male aged 50-64, male aged 65+, female aged 18-34, female aged 35-49, female aged 50-64 and female aged 65+. We calculated the proportions of respondents in each of the 8 age and gender groups by race/ethnicity and adjusted the insurance rates by making the age and gender distribution the same as the Census proportions. Details on the weighting methodology are contained in an appendix.

Applying the new adjusted weights to the data, we obtain the age and gender adjusted insurance rates (uninsurance, public insurance, private insurance, Medicaid) for each of the 9 racial/ethnic groups. We then compare the insurance rates for each of the minority subgroups with those for Whites by conducting design-base adjusted F tests between Whites and each of the minority subgroups.

In addition to age and gender, other socio-economic characteristics including employment, marital status, nativity, citizenship, English proficiency and geography may also affect insurance outcomes. The difference in these factors is considered as part of racial/ethnic disparity by the IOM definition. We use a similar adjustment method to

check for the possible confounding effects of these factors[3]. Employing the method specified above, but instead of using the eight age and gender groups, we divide each racial/ethnic groups into 24 age, gender and employment status groups, 24 age, gender and marital status groups, 16 age, gender and immigration status groups, 16 age, gender, citizenship status groups, 16 age, gender and English proficiency, or 32 age, gender and region groups, respectively. We made a pair-wise comparison between the adjusted insurance rates for each minority subgroup and those for whites to determine the possible mediator effect of socio-economic factors.. Using these adjustments, we intend to study if the difference in insurance outcomes still exist once the socio-economic factors are "standardized" to the Census level and find evidence whether those socio-economic status variables are confounding factors to the racial/ethnic difference in insurance coverage.

Results

Comparison of unadjusted and age and gender adjusted insurance rates of ethnic minority groups with whites
Table 1 provides descriptive statistics on insurance status, demographics, socio-economic characteristics, and health conditions, by whites and Latino and Asian subgroup.

We checked the rates for uninsurance, public insurance, private insurance, and other insurance. The distribution of insurance rates between white and Latinos are strikingly different, with a higher uninsurance rates and lower private insurance rates for Cubans, Mexicans and other Latinos. The rate of uninsurance for Puerto Ricans is relatively closer to that of whites. Asians' insurance status are not very different from those of Whites, while the only exception is Vietnamese, who have higher uninsurance rates, higher public insurance rates, and lower private insurance rates.

Part of the racial/ethnic difference in insurance coverage may be caused by difference in demographic or socio-economic factors. As compared with whites, the Latinos and Asian samples come from a younger age distribution, yet the gender and marital status distributions are not very different across groups. Among the socio-demographic variables, minorities have lower household income than whites; Latinos have lower education while Asians have higher education than whites. Compared to whites, Latinos are more likely to reside in the South or West, while Asians are represented in the West. Unemployment rates for minorities are higher than for whites. The vast majority of whites were born in US or are US citizens, while more of the minorities were born in a foreign country and more likely to be non-citizens or naturalized citizens. Whites have the highest proportion of people who speak good or excellent English, followed by Asians and Latinos. Most of whites have spent 70% or more of life in U.S., while this rate is 52.2% for Latinos and 32.5% for Asians. Although the self-reported general and mental health status, number of chronic conditions and disability status do not vary

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[3] Although we have the age and gender distribution in Census data, no information is available on the joint distribution of age, gender and other SES in Census. In the adjustment by age, gender and SES, we use the proportion of the total NLAAS sample for each age, gender and SES group as the "standardized" proportion.

dramatically across racial/ethnic groups, the lifetime and past-year prevalence rate for any psychiatric disorder for Latinos is higher than those for whites and Asians.

Table 2 shows the age and gender adjusted insurance status. Design-base adjusted F tests were conducted between whites and each minority subgroups. Even after setting the age and gender distribution to the same as those found in the Census, we still find striking differences in insurance coverage between whites and Latinos with good/excellent health have significantly from whites in uninsurance rates. The Asians, as a total, do not differ significantly from the whites, except that they have a higher Medicaid enrollment rates. Among the four Asian subgroups, Vietnamese is the only group that has significantly higher uninsurance rate, public insurance rate, and Medicaid enrollment rates. They have a significantly lower private insurance rate, compared with whites.

We then stratify the age and gender adjusted insurance rates by immigration status in Table 3 to see if the rates differ between US-born whites versus US-born minorities, or between white immigrants vs. Latino/Asian immigrants. As we compare the insurance rates between US-born Whites and US-born Latinos, all the four type of insurance rates still show significant difference. However, the uninsurance and Medicaid rates are no longer significantly different between whites and total Latinos. As for US-born Cubans, the only significantly different rate is uninsurance status, while uninsurance and private insurance rates become insignificant. US-born Mexican is the only Latino group that still has significantly different uninsurance, public insurance, private insurance, and Medicaid rates in comparison to Us-born whites. For Asians, most of the rates remain insignificant, except that US-born Vietnamese no longer differ from the whites in any of the four insurance types, while Vietnamese immigrants still have significant public and Medicaid insurance rates relative to their white counterparts.

Tables 4 and 5 present the age and gender adjusted insurance status stratified by self-reported general health status and mental health status respectively. As shown in the tables, for those who have good or excellent general/mental health status, the pattern of racial/ethnic disparities are almost identical to the unstratified comparison in Table 3: Total Latinos with good/excellent health have significantly higher uninsurance, public insurance, and Medicaid rates, lower private insurance rate than the Whites with good/excellent general/mental health. A similar pattern can be observed for the Latino subgroups, except that Puerto Ricans' uninsurance rate is not significantly different from whites. Among the Asian subgroups, Vietnamese with good/excellent general/mental health have statistically significant difference in all four insurance indicators in comparison to whites. Among those who have fair/poor general or mental health, the difference between whites and minorities are not so significant, even for the Latino subgroups. A similar pattern is found in Table 6, which shows the insurance rates stratified by number of chronic conditions.

Comparison of adjusted insurance rates of ethnic minority groups with whites
Employment
In Table 7, we report the insurance coverage adjusted by age, gender, and employment status for the family. As shown in the table, adjusting for employment status did not

remove the difference in insurance coverage between whites and minorities. The only significant change compared with the unadjusted rates is that the uninsurance rate for Vietnamese is no longer significantly different from the Whites. Most of the racial/ethnic difference in insurance coverage remain significant even when we equalize the distribution of immigration status across all subgroups.

Citizenship
We adjust the insurance rates by age, gender and citizenship and report the results in Table 8. This adjustment does not change the significance of the racial/ethnic difference in insurance. This finding indicates that being a US citizen may not be a factor that would have significant effect on the insurance outcomes.

Nativity
Table 9 shows the insurance rates after adjusting for age, gender and immigration status. The adjusted uninsurance rates for total Latino, Puerto Rican, Cuban and other Latinos are no longer significantly different from Whites. Adding immigration status to the adjustment formula removes the significance in public and private insurance rates for Cuban, and uninsurance and private insurance rates for Vietnamese. The results indicate that immigrant may be an important factor that could cause difference in insurance coverage across ethnic groups.

English proficiency
In addition, we adjusted the insurance rates by age, gender and English proficiency and present the results in Table 10. The adjustment for English proficiency level takes away the white-minority difference in uninsurance rates and private insurance rates for all Latino subgroups, and Vietnamese, which indicates that the insurance coverage would have improved if those ethnic subgroups had a similar level of English proficiency compared to Whites. Noticeably, if the Filipino, Chinese and other Asians had the same level of English proficiency as the Whites, they would have even lower uninsurance rates than Whites. English proficiency, likely to be correlated with immigrant status, plays an important role in the racial/ethnic difference in insurance outcomes.

Marital status
Adjusting for marital status in addition to age and gender (as shown in Table 11) does not change the significance in insurance coverage, compared to what we found in Table 3 using only age and gender in the adjustment formula. However, after adjusting for marital status, we notice that Filipino and other Asian groups no longer have significantly higher Medicaid enrollment rates than Whites. While it is commonly believed that marital status may affect access to public and private insurance, our results show that its impact on racial/ethnic difference of insurance outcome is not that significant, except for the Medicaid enrollment for certain Asian subgroups.

Geography
In Table 12, we adjusted for age, gender and region. This adjustment removes the significance of uninsurance rates and public and private insurance rates for Puerto Ricans, uninsurance and public insurance rates for Cubans, and public insurance rates for

Mexicans, indicating that part of the racial/ethnic difference is caused by the different distribution of minority population across regions. The results for Asian groups are not significantly affected by the adjustment of regions. Moreover, after adjusting for region, we find that all the Asian groups except Vietnamese are no longer more likely to enroll in Medicaid compared to Whites, indicating that region may be an important factor of difference between Whites and the three Asian subgroups.

Conclusions

Compared with whites, minorities are more likely to be uninsured, more reliant on public insurance, and less likely to be enrolled in private insurance plans. In particular, all Latino subgroups have a dramatically higher uninsurance rates (except for Puerto Ricans), and higher public insurance rates than whites. Although the Asians as a group do not differ much from whites in insurance coverage, Vietnamese is an exception, with higher uninsurance and public insurance rates than whites.

Most racial/ethnic differences are still significant after we adjust for age and gender in each subgroup. Stratification by immigration status, general and mental health status, and number of chronic conditions remove some of significance for immigrants, people with poor or fair general/mental health status, and people with two or more chronic conditions. However, this may be caused by the smaller sample sizes in the stratified analysis. In addition, our findings indicate that racial/ethnic differences in English proficiency, region, immigration status, citizenship, employment and marital status are possible underlying causes of disparities in coverage. However, even after controlling for these factors of vulnerability, we still find differences in insurance coverage between whites and minorities. Health or mental health status does not appear, on the basis of these comparisons, to be behind observed differences in insurance status.

Using a most up-to-date survey data which focus on the Latino and Asian population, we find evidence confirming the presence of extensive differences in insurance coverage between whites and minorities. These differences may be mediated but not eliminated by controlling for SES and geography. Latinos and Asians continue to be vulnerable in the current insurance system with limited access to insurance.

 Implications of findings for policy development, future research, to be added.

Table 1. Insurance, Health and Selected SES Indicators

	Total	White	Total Latino	Puerto Rican	Cuban	Mexican	Other Latino	Total Asian	Vietnamese	Filipino	Chinese	Other Asian
n=	4923	1000	2133	417	496	698	522	1790	434	429	517	410
Insurance												
uninsured	30.3%	12.3%	39.7%	17.3%	19.2%	46.9%	27.7%	13.7%	15.8%	13.3%	13.5%	13.4%
public insurance	20.6%	30.7%	20.0%	26.5%	28.5%	19.8%	17.6%	13.3%	19.4%	11.0%	9.7%	15.3%
private insurance	46.6%	54.5%	38.2%	53.2%	50.4%	31.5%	52.7%	68.5%	63.3%	70.9%	71.7%	66.6%
other insurance	2.5%	2.5%	2.0%	3.0%	1.9%	1.9%	2.0%	4.4%	1.6%	4.8%	5.0%	4.8%
Age												
18-34 years	46.1%	29.3%	52.3%	44.3%	28.9%	56.0%	46.3%	44.1%	32.6%	44.9%	33.3%	56.8%
35-49 years	29.5%	30.2%	29.5%	33.7%	29.5%	27.7%	33.5%	29.0%	26.9%	26.1%	37.6%	25.0%
50-64 years	15.3%	18.0%	13.1%	16.2%	25.2%	11.3%	16.1%	20.1%	32.3%	20.8%	21.2%	13.7%
65 years or more	9.0%	22.5%	5.1%	5.8%	16.4%	5.0%	4.1%	6.9%	8.2%	8.2%	7.9%	4.6%
Gender												
female	58.3%	60.3%	59.6%	55.9%	51.8%	59.3%	62.7%	51.5%	52.5%	52.8%	55.1%	47.5%
male	41.7%	39.7%	40.4%	44.1%	48.2%	40.7%	37.3%	48.5%	47.5%	47.2%	44.9%	52.5%
Family Employment												
employed	81.0%	70.9%	83.4%	81.2%	81.4%	83.1%	85.2%	82.4%	86.7%	76.2%	81.9%	85.5%
retired	5.7%	17.4%	2.5%	2.4%	7.0%	2.5%	2.2%	5.2%	4.3%	6.1%	6.0%	4.3%
Not Employed	13.4%	11.7%	14.1%	16.4%	11.6%	14.4%	12.6%	12.3%	9.0%	17.7%	12.1%	10.2%
Nativity												
US born	48.2%	93.6%	42.9%	58.5%	20.0%	41.3%	44.7%	24.0%	2.6%	32.5%	19.3%	30.7%
Non US born	51.8%	6.4%	57.1%	41.5%	80.0%	58.7%	55.3%	76.0%	97.4%	67.5%	80.7%	69.3%
English Proficiency												
poor/fair	36.2%	0.0%	49.5%	25.3%	52.4%	55.4%	39.9%	31.6%	63.8%	15.6%	49.0%	15.6%
good/excellent	63.8%	100.0%	50.5%	74.7%	47.6%	44.6%	60.1%	68.4%	36.2%	84.4%	51.0%	84.4%
General Health Status												
fair/poor general health	24.7%	17.9%	29.9%	25.6%	23.3%	32.8%	23.2%	14.6%	22.9%	9.0%	19.8%	10.8%
good/excellent general health	75.3%	82.1%	70.1%	74.4%	76.7%	67.2%	76.8%	85.4%	77.1%	91.0%	80.2%	89.2%
Mental Health Status												
fair/poor mental health	10.7%	8.6%	12.1%	10.6%	14.5%	12.8%	10.1%	8.6%	13.3%	7.5%	11.2%	5.3%
good/excellent mental health	89.3%	91.4%	87.9%	89.4%	85.5%	87.2%	89.9%	91.4%	86.7%	92.5%	88.8%	94.7%
Years in US												
0-3	5.6%	0.1%	6.5%	1.8%	13.6%	7.0%	5.8%	8.8%	6.4%	8.1%	12.3%	7.4%
4-10	12.4%	0.7%	14.2%	5.7%	14.4%	15.9%	12.4%	19.1%	38.6%	9.0%	21.4%	16.2%
11-20	20.8%	5.9%	22.0%	12.4%	8.5%	22.8%	24.7%	33.4%	25.2%	36.9%	34.5%	33.5%
21+	61.6%	95.2%	57.3%	80.2%	63.5%	54.3%	57.1%	38.7%	29.9%	46.0%	31.7%	42.9%
Household Income												
$0-$14,999	28.8%	36.2%	28.7%	20.7%	26.4%	31.8%	22.7%	19.4%	18.5%	18.2%	21.1%	19.2%
$15,000-$34,999	22.9%	17.1%	27.9%	22.9%	22.2%	29.3%	26.8%	13.0%	24.9%	9.1%	12.4%	11.7%
$35,000-$74,999	25.4%	23.1%	26.3%	28.0%	22.0%	25.9%	27.5%	25.4%	27.6%	27.7%	20.0%	27.3%
$75,000+	22.9%	23.6%	17.0%	29.5%	29.3%	12.9%	23.0%	42.2%	29.0%	45.0%	46.6%	41.8%
Education												
11 years or less	34.3%	14.8%	46.6%	27.9%	24.0%	54.2%	32.3%	14.3%	33.6%	8.9%	13.3%	10.8%
12 years	24.8%	31.6%	24.2%	31.2%	22.8%	22.8%	26.1%	19.2%	15.3%	21.6%	19.2%	19.3%
13-16 years	29.9%	29.5%	24.7%	36.4%	34.4%	19.7%	35.2%	48.2%	35.0%	62.1%	45.6%	46.1%
17 years or more	8.5%	12.2%	4.5%	4.5%	18.8%	3.3%	6.3%	18.3%	16.2%	7.4%	21.9%	23.8%
Region												
northeast	13.4%	23.3%	12.3%	55.5%	10.8%	1.7%	29.5%	17.3%	29.9%	12.1%	17.9%	15.1%
midwest	7.8%	31.1%	7.0%	12.7%	0.0%	7.3%	4.4%	10.5%	6.8%	6.0%	10.9%	14.9%
south	32.2%	32.3%	39.4%	25.1%	83.4%	42.3%	30.5%	7.5%	19.3%	5.3%	3.7%	7.1%
west	46.6%	13.3%	41.4%	6.7%	5.8%	48.7%	35.6%	64.7%	44.0%	76.6%	67.5%	62.9%

Table 2. Age and gender adjusted rates for insurance

	Uninsured		Public Insurance		Private Insurance		Medicaid(age<65 only)	
Total (not adjusted)	24.3%		20.0%		52.7%		3.0%	
White	12.8%		11.6%		71.8%		2.1%	
Total Latinos	34.3%		21.0%		42.4%		12.0%	
F Statistic	31.913	***	10.318	***	25.649	***	44.623	***
Puerto Rican	17.1%		30.7%		49.1%		18.3%	
White	12.8%		11.6%		71.8%		2.1%	
F Statistic	1.928		25.011	***	14.169	***	73.365	***
Cuban	28.0%		20.0%		49.1%		10.7%	
White	12.8%		11.6%		71.8%		2.1%	
F Statistic	13.646	***	6.411	**	14.264	***	28.205	***
Mexican	41.7%		19.9%		36.6%		11.2%	
White	12.8%		11.6%		71.8%		2.1%	
F Statistic	47.677	***	7.281	***	33.812	***	28.982	***
Other Latino	26.7%		19.8%		50.6%		11.7%	
White	12.8%		11.6%		71.8%		2.1%	
F Statistic	13.894	***	6.207	**	13.063	***	43.092	***
Total Asians	13.8%		13.7%		67.3%		5.2%	
White	12.8%		11.6%		71.8%		2.1%	
F Statistic	0.155		0.789		0.800		9.897	***
Vietnamese	21.6%		23.4%		52.5%		14.2%	
White	12.8%		11.6%		71.8%		2.1%	
F Statistic	7.303	***	10.618	***	9.065	***	40.683	***
Filipino	13.4%		11.7%		67.9%		2.9%	
White	12.8%		11.6%		71.8%		2.1%	
F Statistic	0.056		0.000		0.611		0.717	
Chinese	12.3%		12.7%		70.2%		5.0%	
White	12.8%		11.6%		71.8%		2.1%	
F Statistic	0.035		0.163		0.094		6.144	**
Other Asian	12.4%		12.1%		70.0%		3.6%	
White	12.8%		11.6%		71.8%		2.1%	
F Statistic	0.017		0.024		0.097		1.568	

* significant from Whites at 10%; ** significant at 5%; *** significant at 1%

Table 3a. Age and gender adjusted rates for insurance by minority status by nativity

	Uninsured		Public Insurance		Private Insurance		Medicaid(age<65 only)	
Total (not adjusted)	24.3%		20.0%		52.7%		3.0%	
White US born	12.2%		12.1%		71.7%		2.3%	
White Immigrant	25.4%		10.1%		63.4%		0.0%	
Total Latinos US Born	22.9%		23.4%		50.0%		13.7%	
F Statistic	10.060	***	10.461	***	13.033	***	43.947	***
Total Latinos Immigrant	41.8%		19.9%		37.0%		11.2%	
White Immigrant	25.4%		10.1%		63.4%		0.0%	
F Statistic	1.604		4.977	**	4.784	**	2.735	
US Born Puerto Rican	17.0%		29.6%		50.5%		16.0%	
White US born	12.2%		12.1%		71.7%		2.3%	
F Statistic	1.751		12.896	***	8.242	***	43.730	***
Immigrant Puerto Rican	16.6%		32.4%		46.9%		20.2%	
White Immigrant	25.4%		10.1%		63.4%		0.0%	
F Statistic	0.728		14.618	***	1.644		24.724	***
US Born Cuban	28.5%		4.7%		63.7%		4.7%	
White US born	12.2%		12.1%		71.7%		2.3%	
F Statistic	5.940	**	2.543		0.721		1.251	
Immigrant Cuban	29.8%		23.0%		44.7%		13.3%	
White Immigrant	25.4%		10.1%		63.4%		0.0%	
F Statistic	0.120		6.881	**	2.143		17.270	***
US Born Mexican	26.0%		23.5%		47.6%		14.4%	
White US born	12.2%		12.1%		71.7%		2.3%	
F Statistic	13.931	***	10.697	***	17.521	***	36.867	***
Immigrant Mexican	52.7%		17.9%		28.4%		9.3%	
White Immigrant	25.4%		10.1%		63.4%		0.0%	
F Statistic	4.261	**	2.590		9.045	***	1.722	
US Born Other Latino	18.8%		21.0%		54.3%		11.3%	
White US born	12.2%		12.1%		71.7%		2.3%	
F Statistic	2.366		3.819	*	5.042	**	24.172	***
Immigrant Other Latino	31.0%		19.7%		48.5%		12.0%	
White Immigrant	25.4%		10.1%		63.4%		0.0%	
F Statistic	0.203		3.827	*	1.405		4.633	**

Table 3b. Age and gender adjusted rates for insurance by minority status by nativity (continued)

	Uninsured	Public Insurance		Private Insurance		Medicaid(age<65 only)	
Total US Born Asians	9.7%	13.3%		70.5%		4.5%	
White US born	12.2%	12.1%		71.7%		2.3%	
F Statistic	1.342	0.199		0.073		2.661	
Total Immigrant Asians	14.8%	13.9%		66.3%		5.5%	
White Immigrant	25.4%	10.1%		63.4%		0.0%	
F Statistic	1.273	1.049		0.068		2.707	
US Born Vietnamese	17.8%	4.1%		66.6%		4.1%	
White US born	12.2%	12.1%		71.7%		2.3%	
F Statistic	0.560	2.418		0.230		0.508	
Immigrant Vietnamese	21.7%	23.8%		52.1%		14.5%	
White Immigrant	25.4%	10.1%		63.4%		0.0%	
F Statistic	0.114	8.010	***	0.775		15.389	***
US Born Filipino	11.5%	14.4%		67.8%		3.1%	
White US born	12.2%	12.1%		71.7%		2.3%	
F Statistic	0.094	0.157		0.453		0.397	
Immigrant Filipino	13.3%	11.3%		68.3%		3.0%	
White Immigrant	25.4%	10.1%		63.4%		0.0%	
F Statistic	1.450	0.099		0.197		4.191	**
US Born Chinese	6.4%	13.9%		75.6%		5.6%	
White US born	12.2%	12.1%		71.7%		2.3%	
F Statistic	1.792	0.293		0.423		2.455	
Immigrant Chinese	13.8%	12.9%		68.3%		5.1%	
White Immigrant	25.4%	10.1%		63.4%		0.0%	
F Statistic	1.563	0.416		0.207		3.580	*
US Born Other Asian	10.0%	12.7%		69.9%		4.9%	
White US born	12.2%	12.1%		71.7%		2.3%	
F Statistic	0.456	0.019		0.102		1.572	
Immigrant Other Asian	13.3%	11.6%		70.3%		3.1%	
White Immigrant	25.4%	10.1%		63.4%		0.0%	
F Statistic	1.567	0.123		0.318		1.393	

Table 4a. Age and gender adjusted rates for insurance by minority status by general health status

	Uninsured		Public Insurance		Private Insurance		Medicaid(age<65 only)	
Total (not adjusted)	24.3%		20.0%		52.7%		3.0%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
Total Latinos Good/Excellent Health	31.5%		18.4%		47.4%		10.5%	
F Statistic	13.188	***	4.308	**	9.599	***	20.984	***
Total Latinos Fair/Poor Health	40.9%		26.6%		31.1%		15.3%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	0.171		0.413		0.952		0.698	
Good/Excellent Health Puerto Rican	18.1%		23.0%		55.8%		13.5%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
F Statistic	2.256		7.848	***	4.954	**	26.155	***
Fair/Poor Health Puerto Rican	14.8%		52.2%		31.4%		30.2%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	1.322		5.324	**	0.771		3.116	*
Good/Excellent Health Cuban	27.9%		18.8%		51.6%		10.4%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
F Statistic	9.238	***	4.657	**	7.249	***	21.500	***
Fair/Poor Health Cuban	26.8%		22.8%		35.1%		9.9%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	0.081		0.071		0.354		0.098	
Good/Excellent Health Mexican	38.0%		18.0%		41.6%		9.9%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
F Statistic	19.406	***	3.790	*	13.213	***	17.612	***
Fair/Poor Health Mexican	48.2%		22.3%		28.6%		12.8%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	0.589		0.058		1.424		0.380	
Good/Excellent Health Other Latino	25.7%		17.5%		53.6%		10.5%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
F Statistic	7.032	**	2.833	*	5.438	**	20.968	***
Fair/Poor Health Other Latino	32.3%		28.9%		38.3%		17.0%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	0.001		0.698		0.136		0.878	

Table 4b. Age and gender adjusted rates for insurance by minority status by general health status (continued)

	Uninsured		Public Insurance		Private Insurance		Medicaid(age<65 only)	
Total Good/Excellent Health Asians	12.8%		12.0%		69.4%		4.5%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
F Statistic	0.233		0.603		0.614		6.681	**
Total Fair/Poor Health Asians	18.2%		24.8%		55.5%		9.7%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	0.817		0.213		0.700		0.107	
Good/Excellent Health Vietnamese	20.3%		20.1%		57.4%		12.3%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
F Statistic	4.065	**	4.700	**	3.672	*	23.410	***
Fair/Poor Health Vietnamese	24.5%		36.4%		35.6%		24.2%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	0.185		1.699		0.274		2.019	
Good/Excellent Health Filipino	11.9%		9.8%		71.0%		2.1%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
F Statistic	0.074		0.013		0.385		1.439	
Fair/Poor Health Filipino	22.1%		29.2%		46.3%		11.0%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	0.381		0.559		0.023		0.166	
Good/Excellent Health Chinese	10.8%		11.9%		71.8%		5.3%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
F Statistic	0.004		0.512		0.226		8.462	***
Fair/Poor Health Chinese	18.3%		20.1%		61.3%		2.9%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	0.678		0.001		1.379		0.605	
Good/Excellent Health Other Asian	12.5%		11.0%		70.6%		3.0%	
White Good/Excellent Health	11.0%		9.4%		75.5%		0.8%	
F Statistic	0.114		0.130		0.345		2.525	
Fair/Poor Health Other Asian	9.7%		20.0%		68.9%		8.0%	
White Fair/poor health	32.7%		19.7%		43.9%		7.1%	
F Statistic	2.561		0.001		2.730		0.011	

Table 5a. Age and gender adjusted rates for insurance by minority status by mental health status

	Uninsured		Public Insurance		Private Insurance		Medicaid(age<65 only)	
Total (not adjusted)	24.3%		20.0%		52.7%		3.0%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
Total Latinos Good/Excellent Mental Health	33.2%		19.8%		44.6%		11.1%	
F Statistic	13.530	***	4.196	**	9.573	***	23.290	***
Total Latinos Fair/Poor Mental Health	39.7%		29.7%		28.6%		20.0%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	1.191		1.305		6.227	**	0.306	
Good/Excellent Mental Health Puerto Rican	17.9%		26.8%		52.3%		15.7%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
F Statistic	1.864		9.107	***	5.368	**	32.532	***
Fair/Poor Mental Health Puerto Rican	11.2%		62.4%		24.5%		34.5%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	0.385		5.766	**	5.781	**	1.867	
Good/Excellent Mental Health Cuban	29.1%		17.9%		50.0%		9.0%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
F Statistic	9.335	***	2.757		6.722	**	19.749	***
Fair/Poor Mental Health Cuban	7.0%		34.3%		57.8%		19.4%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	1.698		1.357		0.055		0.182	
Good/Excellent Mental Health Mexican	39.9%		19.2%		38.7%		10.3%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
F Statistic	19.497	***	3.521	*	12.614	***	19.096	***
Fair/Poor Mental Health Mexican	50.4%		24.2%		25.4%		19.2%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	2.505		0.668		7.273	**	0.247	
Good/Excellent Mental Health Other Latino	26.6%		18.9%		52.0%		11.3%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
F Statistic	7.137	***	3.175	*	5.421	**	23.945	***
Fair/Poor Mental Health Other Latino	28.0%		29.6%		33.7%		15.3%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	0.224		1.149		3.256	*	0.039	

Table 5b. Age and gender adjusted rates for insurance by minority status by mental health status (continued)

	Uninsured		Public Insurance		Private Insurance		Medicaid(age<65 only)	
Total Good/Excellent Mental Health Asians	13.0%		12.7%		68.8%		5.0%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
F Statistic	0.175		0.449		0.438		8.104	***
Total Fair/Poor Mental Health Asians	22.3%		21.2%		55.2%		6.7%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	0.015		0.342		0.173		0.515	
Good/Excellent Mental Health Vietnamese	20.7%		22.6%		54.3%		14.3%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
F Statistic	3.854	*	5.267	**	4.014	*	29.016	***
Fair/Poor Mental Health Vietnamese	21.5%		26.0%		51.7%		12.9%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	0.006		0.464		0.241		0.000	
Good/Excellent Mental Health Filipino	12.7%		10.7%		69.6%		2.7%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
F Statistic	0.157		0.016		0.348		2.700	
Fair/Poor Mental Health Filipino	26.1%		25.4%		42.0%		8.6%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	0.073		0.716		1.142		0.138	
Good/Excellent Mental Health Chinese	10.5%		11.5%		72.7%		5.4%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
F Statistic	0.055		0.125		0.037		9.030	***
Fair/Poor Mental Health Chinese	26.5%		20.0%		53.5%		1.6%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	0.129		0.214		0.268		4.554	**
Good/Excellent Mental Health Other Asian	12.3%		11.5%		70.4%		3.0%	
White Good/Excellent Mental Health	11.4%		10.2%		74.3%		0.8%	
F Statistic	0.041		0.092		0.198		2.789	
Fair/Poor Mental Health Other Asian	8.2%		15.1%		76.7%		11.8%	
White Fair/poor mental health	20.2%		12.9%		62.4%		12.9%	
F Statistic	0.556		0.037		0.606		0.012	

Table 6a. Age and gender adjusted rates for insurance by minority status by number of chronic conditions

	Uninsured		Public Insurance		Private Insurance		Medicaid(age<65 only)	
Total (not adjusted)	24.3%		20.0%		52.7%		3.0%	
White 0	16.7%		6.8%		70.7%		2.5%	
White 1	10.1%		9.2%		79.5%		1.4%	
White 2+	11.7%		13.7%		68.6%		3.0%	
Total Latinos 0	43.7%		16.1%		38.9%		9.6%	
F Statistic	30.566	***	5.336	**	31.442	***	4.828	**
Total Latinos 1	31.7%		17.8%		48.0%		10.6%	
White 1	10.1%		9.2%		79.5%		1.4%	
F Statistic	20.046	***	4.162	**	30.725	***	8.304	***
2+ Total Latinos	24.5%		26.9%		46.1%		15.5%	
White 2+	11.7%		13.7%		68.6%		3.0%	
F Statistic	9.530	***	15.545	***	6.977	**	29.506	***
0 Puerto Rican	25.5%		23.0%		48.9%		13.3%	
White 0	16.7%		6.8%		70.7%		2.5%	
F Statistic	2.810	*	13.174	***	10.525	***	7.648	***
1 Puerto Rican	15.1%		25.2%		54.0%		15.7%	
White 1	10.1%		9.2%		79.5%		1.4%	
F Statistic	1.050		7.563	***	10.371	***	12.508	***
2+ Puerto Ricans	12.7%		37.9%		47.7%		21.3%	
White 2+	11.7%		13.7%		68.6%		3.0%	
F Statistic	0.049		28.314	***	4.389	**	46.061	***
0 Cuban	32.3%		25.7%		42.0%		16.4%	
White 0	16.7%		6.8%		70.7%		2.5%	
F Statistic	7.452	**	15.478	***	21.564	***	9.441	***
1 Cuban	21.4%		17.8%		58.2%		9.0%	
White 1	10.1%		9.2%		79.5%		1.4%	
F Statistic	5.269	**	3.519	*	10.765	***	5.366	**
2+ Cubans	26.5%		13.5%		51.2%		4.2%	
White 2+	11.7%		13.7%		68.6%		3.0%	
F Statistic	9.248	***	0.005		3.979		0.420	*
0 Mexican	50.1%		15.6%		33.0%		9.2%	
White 0	16.7%		6.8%		70.7%		2.5%	
F Statistic	41.273	***	4.844	**	44.274	***	4.098	**
1 Mexican	37.2%		18.2%		43.2%		10.5%	
White 1	10.1%		9.2%		79.5%		1.4%	
F Statistic	23.889	***	3.479	*	32.235	***	7.618	***
2+ Mexican	31.9%		25.5%		40.7%		15.0%	
White 2+	11.7%		13.7%		68.6%		3.0%	
F Statistic	15.982	***	10.901	***	11.065	***	24.828	***
0 Other Latino	35.8%		14.2%		48.9%		8.8%	
White 0	16.7%		6.8%		70.7%		2.5%	
F Statistic	13.577	***	2.114		9.168	***	4.041	**
1 Other Latino	27.4%		14.4%		54.3%		9.5%	
White 1	10.1%		9.2%		79.5%		1.4%	
F Statistic	12.364	***	1.332		15.443	***	6.228	**
2+ Other Latino	17.4%		26.5%		53.4%		15.9%	
White 2+	11.7%		13.7%		68.6%		3.0%	
F Statistic	1.955		9.706	***	2.605		23.011	***

Table 6b. Age and gender adjusted rates for insurance by minority status by number of chronic conditions (continued)

	Uninsured	Public Insurance	Private Insurance	Medicaid(age<65 only)
Total 0 Asians	14.2%	9.9%	69.8%	4.6%
White 0	16.7%	6.8%	70.7%	2.5%
F Statistic	0.588	1.139	0.033	0.817
Total 1 Asians	14.4%	11.5%	68.8%	4.0%
White 1	10.1%	9.2%	79.5%	1.4%
F Statistic	1.308	0.596	4.748 **	1.684
2+ Total Asian	13.3%	15.1%	67.7%	6.2%
White 2+	11.7%	13.7%	68.6%	3.0%
F Statistic	0.219	0.238	0.011	3.532 *
0 Vietnamese	29.5%	13.1%	56.5%	9.5%
White 0	16.7%	6.8%	70.7%	2.5%
F Statistic	8.239 ***	2.060	5.859 **	2.964 *
1 Vietnamese	20.3%	22.0%	53.1%	14.1%
White 1	10.1%	9.2%	79.5%	1.4%
F Statistic	4.625 **	8.139 ***	17.042 ***	11.234 ***
2+ Vietnamese	12.6%	34.1%	51.4%	21.6%
White 2+	11.7%	13.7%	68.6%	3.0%
F Statistic	0.023	10.489 ***	1.455	26.488 ***
0 Filipino	13.9%	8.1%	66.4%	2.9%
White 0	16.7%	6.8%	70.7%	2.5%
F Statistic	0.278	0.181	0.516	0.046
1 Filipino	13.8%	10.4%	72.0%	2.2%
White 1	10.1%	9.2%	79.5%	1.4%
F Statistic	0.981	0.131	1.617	0.227
2+ Filipino	17.9%	12.2%	63.9%	3.1%
White 2+	11.7%	13.7%	68.6%	3.0%
F Statistic	3.306 *	0.158	0.419	0.011
0 Chinese	13.5%	13.0%	68.8%	4.9%
White 0	16.7%	6.8%	70.7%	2.5%
F Statistic	0.550	2.313	0.080	0.792
1 Chinese	13.9%	13.7%	66.2%	4.1%
White 1	10.1%	9.2%	79.5%	1.4%
F Statistic	0.643	0.990	4.141 **	1.528
2+ Chinese	7.6%	11.2%	78.6%	3.5%
White 2+	11.7%	13.7%	68.6%	3.0%
F Statistic	1.234	0.701	1.427	0.094
0 Other Asian	10.3%	7.7%	75.7%	3.7%
White 0	16.7%	6.8%	70.7%	2.5%
F Statistic	1.756	0.069	0.642	0.274
1 Other Asian	12.7%	5.9%	75.8%	0.6%
White 1	10.1%	9.2%	79.5%	1.4%
F Statistic	0.238	0.499	0.354	0.491
2+ Other Asian	15.4%	14.8%	65.8%	6.3%
White 2+	11.7%	13.7%	68.6%	3.0%
F Statistic	0.400	0.074	0.088	1.498

Table 7. Age, gender and Employment adjusted rates for Insurance

	Total (not adjusted)	White	Total Latinos		Puerto Rican		Cuban		Mexican		Other Latino		Total Asians		Vietnamese		Filipino		Chinese		Other Asian	
Uninsured	24.29%	12.6%	32.9%	***	16.2%		26.4%	**	40.4%	***	25.2%	**	13.6%		20.6%		12.9%		12.0%		11.6%	
Public Insurance	19.98%	9.2%	23.5%	***	29.4%	***	22.8%	***	22.1%	***	23.8%	***	17.3%	**	26.0%	***	14.6%		14.6%		14.1%	
Private Insurance	52.70%	74.3%	41.4%	***	51.2%	**	48.0%	***	35.9%	***	48.7%	***	64.0%		51.2%	**	66.1%		69.3%		67.7%	
Medicaid(age<65 only)	3.03%	0.9%	11.5%	***	15.9%	***	9.6%	***	10.9%	***	12.3%	***	5.6%	***	13.6%	***	2.7%	*	4.4%	***	3.8%	**

Table 8. Age, gender and citizen adjusted rates for Insurance

	Total (not adjusted)	White	Total Latinos		Puerto Rican		Cuban		Mexican		Other Latino		Total Asians		Vietnamese		Filipino		Chinese		Other Asian	
Uninsured	24.29%	8.5%	30.0%	***	23.4%	**	23.7%	***	35.2%	***	22.7%	***	13.0%		20.1%	***	12.1%		11.9%		10.5%	
Public Insurance	19.98%	10.6%	24.5%	***	26.7%	**	21.2%	**	23.7%	**	23.3%	**	16.6%		26.1%	***	15.7%		15.7%		13.9%	
Private Insurance	52.70%	78.0%	43.1%	***	47.7%	***	51.9%	***	39.2%	***	50.8%	***	65.5%	*	51.4%	***	66.2%		68.3%		70.0%	
Medicaid(age<65 only)	3.03%	0.9%	12.1%	***	12.9%	***	8.4%	***	11.9%	***	11.6%	***	5.2%	***	14.3%	***	2.9%	*	4.8%	***	3.4%	**

Table 9. Age, gender and immgrant adjusted rates for Insurance

	Total (not adjusted)	White	Total Latinos		Puerto Rican		Cuban		Mexican		Other Latino		Total Asians		Vietnamese		Filipino		Chinese		Other Asian	
Uninsured	24.29%	17.6%	31.5%		15.5%		29.3%		37.6%	*	23.4%		11.4%		19.1%		11.2%		9.9%		10.2%	
Public Insurance	19.98%	10.5%	23.6%	***	33.6%	***	13.8%		23.2%	***	22.8%	**	16.2%		17.9%	*	15.9%		15.7%		14.6%	
Private Insurance	52.70%	69.8%	42.4%	**	47.6%	**	54.4%		37.3%	***	50.3%	*	67.2%		55.9%		66.8%		70.2%		69.3%	
Medicaid(age<65 only)	3.03%	0.7%	11.9%	***	17.5%	***	8.5%	***	11.7%	***	11.5%	***	5.1%	***	11.5%	***	2.9%	**	5.3%	***	3.7%	**

Table 10. Age, gender and English proficiency adjusted rates for Insurance

	Total (not adjusted)	White	Total Latinos		Puerto Rican		Cuban		Mexican		Other Latino		Total Asians		Vietnamese		Filipino		Chinese		Other Asian	
Uninsured	24.29%	28.0%	28.1%		16.5%		24.5%		32.8%		23.5%		13.1%	*	19.3%		11.5%	**	10.6%	**	11.9%	*
Public Insurance	19.98%	10.5%	23.9%	**	33.8%	***	21.8%	**	24.7%	***	21.6%	*	16.3%		19.9%	*	16.0%		15.6%		15.2%	
Private Insurance	52.70%	58.4%	45.2%		46.7%		51.1%		40.4%		51.4%		65.6%		58.7%		67.1%		69.4%		67.8%	
Medicaid(age<65 only)	3.03%	1.0%	11.6%	***	17.8%	***	9.4%	***	12.2%	***	10.8%	***	5.0%	***	12.0%	***	4.3%	**	4.4%	***	3.0%	*

Table 11. Age, gender and marial status adjusted rates for Insurance

	Total (not adjusted)	White	Total Latinos		Puerto Rican		Cuban		Mexican		Other Latino		Total Asians		Vietnamese		Filipino		Chinese		Other Asian	
Uninsured	24.29%	11.2%	32.9%	***	15.1%		27.2%	***	40.4%	***	24.7%	**	14.0%		19.6%	*	12.9%		12.2%		11.5%	
Public Insurance	19.98%	10.5%	23.5%	**	30.6%	***	22.8%	**	22.4%	**	21.7%	**	16.8%		28.6%	***	14.4%		16.0%		14.5%	
Private Insurance	52.70%	74.3%	41.4%	***	50.8%	**	47.1%	***	35.5%	***	50.9%	**	64.3%		49.3%	**	66.6%		67.5%		68.6%	
Medicaid(age<65 only)	3.03%	1.4%	11.5%	***	15.9%	***	10.4%	***	11.0%	***	10.8%	***	5.6%	**	14.9%	***	2.8%		5.1%	**	3.3%	

Table 12. Age, gender and Region adjusted rates for Insurance

	Total (not adjusted)	White	Total Latinos		Puerto Rican		Cuban		Mexican		Other Latino		Total Asians		Vietnamese		Filipino	Chinese	Other Asian
Uninsured	24.29%	12.3%	33.0%	***	12.0%		21.1%		42.1%	***	23.5%	**	14.7%		22.6%	**	13.9%	11.3%	9.6%
Public Insurance	19.98%	11.7%	22.1%	**	20.3%		14.2%		18.3%		20.0%	*	14.0%		21.9%	**	11.5%	10.5%	10.3%
Private Insurance	52.70%	72.0%	42.5%	***	62.6%		55.0%	*	38.0%	***	53.3%	**	65.1%		53.2%	**	66.4%	71.9%	73.7%
Medicaid(age<65 only)	3.03%	1.3%	12.3%	***	11.7%	***	7.9%	***	10.0%	***	11.2%	***	5.1%	**	12.9%	***	1.8%	3.1%	4.0%

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Appendix 1.
Age and gender adjustment

To explain how we adjust the insurance rates by age and gender, suppose the unadjusted insurance rate for each race/ethnic group is

$$r_{unadj} = \frac{1}{\sum_{g=1}^{G}\sum_{i=1}^{N_g} w_{gi}} \sum_{g=1}^{G}\sum_{i=1}^{N_g} w_{gi} d_{gi}$$

where r_{unadj} denotes the weighted insurance rates without any age and gender adjustment; w_{gi} is the weight for ith individual in gth age and gender group; d_{gi} is a dichotomous variable indicating the insurance enrollment status for ith individual in age and gender group g; g is the index for age and gender group, $g=1, \ldots, G$, and i is the index for individuals in the age and gender group, $i=1,\ldots, N_g$.

To adjust age and gender distribution for each ethnic group by Census age and gender distribution, for each individual in the racial/ethnic group, we define a new weight as $w'_{gi} \equiv w_{gi} \dfrac{p^c_{g}}{p_g}$, we can write the adjustment formula to

$$r_{adj} = \frac{1}{\sum_{g=1}^{G}\sum_{i=1}^{N_g} w'_{gi}} \sum_{g=1}^{G}\sum_{i=1}^{N_g} w'_{gi} d_{gi}$$

where r_{unadj} denotes the weighted insurance rates with age and gender adjustment; p^c_{g} is the proportion of respondents in age and gender group g for the whole Census population; p_g is the proportion of respondents in age and gender group g for the a specific race/ethnicity in NLAAS, $p_g = \dfrac{\sum_{i=1}^{N_g} w_{gi}}{\sum_{g=1}^{G}\sum_{i=1}^{N_g} w_{gi}}$.

Using the new weights, for each racial/ethnic group, the new proportion of age and gender group g is

$$p_g = \frac{\sum_{i=1}^{N_g} w'_{gi}}{\sum_{g=1}^{G}\sum_{i=1}^{N_g} w'_{gi}} = \frac{\sum_{i=1}^{N_g} w_{gi}\frac{p_g}{p^c_g}}{\sum_{g=1}^{G}\sum_{i=1}^{N_g} w_{gi}\frac{p_g}{p^c_g}} = \frac{p^c_g \sum_{i=1}^{N_g} w_{gi}\frac{\sum_{g=1}^{G}\sum_{i=1}^{N_g} w_{gi}}{\sum_{i=1}^{N_g} w_{gi}}}{\sum_{g=1}^{G} p^c_g \sum_{i=1}^{N_g} w_{gi}\frac{\sum_{g=1}^{G}\sum_{i=1}^{N_g} w_{gi}}{\sum_{i=1}^{N_g} w_{gi}}} = \frac{p^c_g}{\sum_{g}^{G} p^c_g} = \frac{p^c_g}{1} = p^c_g$$

That is, the proportion of age and gender group g is equivalent to the Census proportion of group g using the new weight

Appendix 2.

Table 1. Descriptive Table for insurance status by age categories and ethnic groups

Uninsured	Total	Whites	Puerto Rican	Cuban	Mexican	Other Latino	Vietnamese	Filipino	Chinese	Other Asian
age 18-24	33.67%	14.32%	23.79%	30.17%	50.18%	37.16%	27.34%	23.34%	5.94%	27.29%
age 25-34	28.94%	17.67%	17.65%	30.93%	48.70%	27.67%	29.60%	13.48%	13.02%	12.64%
age 35-44	22.80%	11.59%	17.79%	28.44%	43.13%	24.04%	13.23%	7.93%	13.91%	10.10%
age 45-54	18.42%	7.66%	13.92%	25.40%	33.86%	24.68%	15.72%	4.69%	18.73%	8.38%
age 55-64	22.08%	19.34%	6.60%	40.34%	34.72%	22.71%	21.90%	17.16%	19.09%	1.15%
Total	25.40%	13.10%	16.70%	31.36%	44.58%	27.71%	20.46%	12.83%	14.52%	13.12%

Private Insurance	Total	Whites	Puerto Rican	Cuban	Mexican	Other Latino	Vietnamese	Filipino	Chinese	Other Asian
age 18-24	43.92%	72.37%	39.20%	38.31%	30.12%	39.96%	55.54%	59.41%	60.05%	47.58%
age 25-34	58.48%	76.99%	58.07%	55.51%	38.81%	55.56%	54.94%	74.34%	80.21%	76.44%
age 35-44	61.48%	76.32%	58.60%	58.35%	36.92%	59.64%	61.39%	77.68%	78.86%	84.11%
age 45-54	68.81%	86.14%	57.66%	61.21%	56.03%	58.31%	56.23%	83.09%	70.67%	84.14%
age 55-64	53.83%	61.10%	33.96%	43.00%	30.31%	55.80%	55.41%	68.54%	71.31%	84.09%
Total	58.40%	76.80%	51.83%	52.63%	38.85%	53.99%	57.12%	73.22%	74.09%	74.83%

Public Insurance	Total	Whites	Puerto Rican	Cuban	Mexican	Other Latino	Vietnamese	Filipino	Chinese	Other Asian
age 18-24	14.84%	2.17%	32.22%	24.40%	14.79%	19.60%	15.24%	2.69%	20.17%	7.51%
age 25-34	10.27%	4.49%	23.15%	11.67%	11.85%	13.09%	10.98%	7.88%	1.01%	7.23%
age 35-44	12.96%	7.48%	19.13%	10.32%	19.16%	14.43%	21.79%	7.97%	6.06%	3.34%
age 45-54	10.73%	5.00%	26.78%	12.10%	7.26%	17.01%	28.05%	7.15%	7.38%	3.02%
age 55-64	20.94%	18.58%	52.49%	13.91%	34.97%	18.55%	17.24%	7.25%	6.72%	10.47%
Total	12.87%	6.92%	27.96%	13.24%	14.66%	15.81%	19.54%	6.72%	6.87%	6.07%

Table 2. Transformed Age distribution by Subgroup (weighted)

Before Transformation

Age Group	Whites	Puerto Rican	Cuban	Mexican	Other Latino	Vietnamese	Filipino	Chinese	Other Asian
age 18-24	10.76	12.47	10.53	17.12	14.65	10.65	14.31	10.97	15.61
age 25-34	22.51	23.82	21.49	28.92	26.95	22.72	23.85	23.32	33.52
age 35-44	28.72	29.01	26.58	28.76	28.86	28.5	26.37	29.14	24.41
age 45-54	24.93	21.63	19.83	19.22	19.53	25.31	21.91	25.04	17.84
age 55-64	13.09	13.08	21.57	5.992	10.01	12.82	13.55	11.54	8.616

After Transformation

Age Group	Whites*	Puerto Rican	Cuban	Mexican	Other Latino	Vietnamese	Filipino	Chinese	Other Asian
age 18-24	10.76	10.64	10.74	10.99	11.01	10.65	11.76	10.88	10.78
age 25-34	22.51	22.81	22.19	22.46	22.65	22.72	22.39	22.84	22.99
age 35-44	28.72	28.61	28.65	28.66	28.61	28.5	28.31	28.73	28.59
age 45-54	24.93	24.86	24.85	24.85	24.67	25.31	24.64	24.58	24.68
age 55-64	13.09	13.08	13.58	13.04	13.05	12.82	12.9	12.97	12.96

*Not transformed

Table 3. Logit Regression Results Uninsurance on Race and age only

with transformed age categories

uninsured	Coef.		Std. Err.	t	P>t	[95% Conf.	Interval]
Race / Ethnicity							
Puerto Rican	0.420	*	0.233	1.800	0.075	-0.044	0.885
Cuban	1.253	***	0.216	5.810	0.000	0.823	1.683
Mexican	1.757	***	0.189	9.300	0.000	1.380	2.134
Other Latinos	1.039	***	0.211	4.920	0.000	0.618	1.460
Vietnamese	0.687	***	0.202	3.400	0.001	0.285	1.090
Filipino	-0.001		0.247	-0.010	0.995	-0.494	0.491
Chinese	0.298		0.226	1.320	0.190	-0.152	0.748
Other Asians	0.122		0.267	0.460	0.650	-0.411	0.654
White(NSHS white+NLAAS white,reference)							
Age							
age 18-24	0.606	**	0.255	2.370	0.020	0.097	1.115
age 25-34	0.344	*	0.183	1.880	0.064	-0.021	0.709
age 35-44	0.099		0.191	0.520	0.607	-0.283	0.480
age 45-54	-0.132		0.170	-0.780	0.440	-0.472	0.208
age 55-64(reference)							
Constant	-2.204	***	0.177	-12.420	0.000	-2.558	-1.850

*significant at 10% level, ** significant at 5% level, *** significant at 1% level.

Average Predicted probability of uninsurance using transformed age

white	0.112
Puerto Rican	0.164
Cuban	0.309
Mexican	0.425
Other Latinos	0.267
Vietnamese	0.204
Filipino	0.115
Chinese	0.149
Other Asians	0.128

Table 4 Logit Regression Results Uninsurance on Race, age, and other variables.

with transformed age categories

uninsured	Coef.		Std. Err. t		P>t	[95% Conf.	Interval]
Race / Ethnicity							
Puerto Rican	-0.607	*	0.359	-1.690	0.096	-1.324	0.110
Cuban	-0.201		0.381	-0.530	0.599	-0.960	0.558
Mexican	0.472		0.343	1.380	0.173	-0.211	1.155
Other Latinos	-0.136		0.366	-0.370	0.711	-0.867	0.595
Vietnamese	-0.551		0.400	-1.380	0.172	-1.348	0.246
Filipino	-0.350		0.371	-0.940	0.349	-1.089	0.390
Chinese	-0.416		0.381	-1.090	0.278	-1.176	0.343
Other Asians	-0.368		0.427	-0.860	0.392	-1.220	0.484
White(NSHS white+NLAAS white,reference)							
Age							
age 18-24	0.836	***	0.305	2.740	0.008	0.227	1.445
age 25-34	0.390	*	0.211	1.850	0.069	-0.031	0.812
age 35-44	0.176		0.223	0.790	0.433	-0.269	0.621
age 45-54	-0.065		0.203	-0.320	0.748	-0.470	0.339
age 55-64(reference)							
Gender							
Male (reference)							
Female	-1.257	***	0.347	-3.630	0.001	-1.949	-0.565
Marital and Employment Status							
married & employed	-0.928	***	0.256	-3.630	0.001	-1.439	-0.418
married & unemployed	-1.186	***	0.369	-3.210	0.002	-1.922	-0.449
single & employed	-0.404		0.252	-1.600	0.113	-0.906	0.098
single & unemployed(reference)							
femaleXmarried & employed	1.072	***	0.379	2.830	0.006	0.316	1.829
femaleXmarried & unemployed	1.565	***	0.478	3.270	0.002	0.611	2.519
femaleXsingle & employed	0.784	**	0.382	2.060	0.044	0.023	1.546
femaleXsingle & unemployed(reference)							
Nativity							
Immigrant	0.171		0.137	1.240	0.218	-0.103	0.444
Born in US(reference)							
English Proficiency							
poor	1.110	***	0.197	5.640	0.000	0.718	1.502
fair	0.828	***	0.146	5.660	0.000	0.536	1.120
good	0.162		0.119	1.360	0.179	-0.076	0.399
excellent(reference)							
General health Status							
excellent	-0.235		0.342	-0.690	0.493	-0.916	0.446
very good	0.035		0.336	0.100	0.917	-0.636	0.706
good	0.053		0.345	0.150	0.879	-0.635	0.741
fair	0.120		0.307	0.390	0.697	-0.493	0.734
poor(reference)							
Household Income(imputed)							
0-14,999	0.825	***	0.161	5.110	0.000	0.503	1.147
15,000-34,999	0.689	***	0.181	3.820	0.000	0.329	1.050
34,999-74,999	0.354	**	0.177	2.000	0.050	0.000	0.707
75,000+(reference)							
Socio-economic Status							
years of education(continuous)	-0.045	**	0.020	-2.200	0.031	-0.085	-0.004
Region							
Northeast	0.334	*	0.199	1.670	0.099	-0.064	0.732
Midwest	-0.190		0.245	-0.770	0.442	-0.679	0.299
South	0.576	***	0.132	4.370	0.000	0.312	0.839
West(reference)							
Any Mental Disorder	0.037		0.143	0.260	0.794	-0.248	0.323
constant	-1.149	*	0.669	-1.720	0.090	-2.484	0.185

*significant at 10% level, ** significant at 5% level, *** significant at 1% level.

Table 4 Logit Regression Results Uninsurance on Race, age, and other variables (continued)

Average Predicted probability of uninsurance using transformed age

white	0.135
Puerto Rican	0.171
Cuban	0.308
Mexican	0.425
Other Latinos	0.269
Vietnamese	0.202
Filipino	0.113
Chinese	0.156
Other Asians	0.124