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Smoking and the Asian American workforce in the National Latino and Asian American Study

A. B. de Castro, PhD, MSN/MPH, RN[Assistant Professor],

University of Washington School of Nursing, Department of Psychosocial and Community Health, Box 357263, Seattle, WA 98195-7263, (206) 543-4436, (206) 685-9551 (fax), butchdec@u.washington.edu.

Gabriel Garcia, PhD, MA, MPH[Assistant Professor],

University of Alaska, Anchorage Department of Health Services, 3211 Providence Drive, DPL 404, Anchorage, AK 99508-4614, 907-786-6532, (907) 786-6572 (fax), gabrieljmgarcia@uaa.alaska.edu.

Gilbert C. Gee, PhD[Associate Professor],

University of California, Los Angeles School of Public Health, Department of Community Health Sciences, 41-269A CHS, 650 Charles E. Young Drive South, Los Angeles, CA 90095-1772, (310) 825-8838, (310) 794-1805 (fax), gilgee@ucla.edu.

Jenny Hsin-Chun Tsai, PhD, ARNP, CS[Assistant Professor],

University of Washington School of Nursing, Department of Psychosocial and Community Health, Box 357263, Seattle, WA 98195-7263, (206) 543-6079, (206) 685-9551 (fax), jennnyt@u.washington.edu.

Tessa Rue, MS[Research Scientist], and

University of Washington School of Public Health and Community Medicine, Department of Biostatistics, Box 357183, Seattle, WA 98195-7183, (206) 616-1635, (206) 685-2473 (fax), ruet@u.washington.edu.

David T. Takeuchi, PhD[Professor and Associate Dean]

Research with the University of Washington School of Social Work, Box 354900, Seattle WA 98105-6299, (206) 543-5133, dt5@u.washington.edu.

Abstract

BACKGROUND—Smoking among the Asian American workforce has not been extensively researched. This study examines smoking prevalence among a nationally-representative sample of Asian Americans with an emphasis on occupational classification.

METHODS—Cross-sectional data come from the National Latino and Asian American Study. Multivariate logistic regression analyses were used to determine smoking prevalence by occupation, gender, and nativity, among 1,528 participants self-identifying as in the labor force.

RESULTS—Blue collar workers reported the highest smoking prevalence (32%) followed by unemployed (19%), other (17%), service (14%), and white collar (10%). Among both employed males and females, blue collar workers had the highest prevalence (45% and 18%, respectively). By nativity, smoking was highest among blue collar workers for immigrants (25%) and highest among the unemployed for U.S. born (16%). Blue collar employment was significantly associated

The corresponding author is A. B. de Castro, University of Washington School of Nursing, Department of Psychosocial and Community Health, Box 357263, Seattle, WA 98195-7263, (206) 543-4436, (206) 685-9551 (fax), butchdec@u.washington.edu..

This study was conducted at the University of Washington School of Nursing.

with being a current smoker (OR=2.52; 95% CI: 1.23 - 5.16; $p < .05$) controlling for demographics (e.g., age, gender, ethnic group, nativity, etc.).

CONCLUSIONS—Findings reveal that smoking differs by occupation among Asian Americans. Future research should examine factors explaining differences while considering gender and nativity.

Keywords

Smoking; Asian Americans; Occupation; Immigrants; Gender

INTRODUCTION

Smoking rates have declined over the past decade, but, for some racial minority groups, the prevalence of smoking has been relatively high [Centers for Disease Control and Prevention (CDC), 2005, 2007]. The 2006 U.S. National Health Interview Survey (NHIS) reveals that non-Hispanic American Indian/Alaskan Natives have the highest smoking rates (32%), followed by non-Hispanic Blacks (23%), non-Hispanic Whites (21%), Hispanics (15%), and non-Hispanic Asians (10%) [CDC, 2007]. While Asian Americans collectively are reported to have the lowest smoking prevalence compared to other racial groups, considerable differences emerge when Asian Americans are disaggregated according to certain sociodemographic factors such as ethnicity, gender, region, nativity, and acculturation. For example, the current smoking prevalence among Koreans, Filipinos, Japanese, and Chinese is 22%, 15%, 12%, and 7%, respectively [Barnes et al., 2008].

Smoking rates also vary by occupation. Blue collar industries and blue collar occupations are among those with the highest prevalence of current smokers [Barbeau et al., 2004; Giovino et al., 2000]. Previous reports among the general U.S. population have shown that workers in blue collar occupations (e.g., construction workers, motor vehicle operators) have the greatest number of smokers while white collar occupations (e.g., teachers, engineers) have the lowest [Bang and Kim, 2001; Benowitz, 1997; Howard, 2004; Nelson et al., 1994]. High rates of smoking among blue collar workers may be attributable to characteristics associated with blue collar industries, such as stressful working conditions and job demands [Conway et al., 1981; Cunradi et al., 2007; Kouvonen et al., 2005; Schilling et al., 1985; Siapush and Carlin, 2006; Sorensen et al., 2004], less restrictive or enforced workplace anti-smoking policies [Brownson et al., 2002], less pressure and social support to quit smoking [Sorensen et al., 2002], stressors associated with socioeconomic environments [Sorensen et al., 2004; Graham et al., 2006], and targeted marketing of tobacco products [Davis, 1987; United States Department of Health and Human Services, 1989]. Previous studies of smoking among working populations, however, do not typically control for sociodemographic factors important among immigrant and minority groups, such as nativity, length of stay in the U.S., and region of residence, as well as age and gender. Hence, some differences in smoking between occupations especially among immigrants and minorities may be attributed to these immigrant-specific sociodemographic factors.

Smoking among different occupational groups in Asian American communities has not been extensively researched. One study of a small sample of Chinese American restaurant workers in Boston reported that 83.3% were current smokers and the remainder former smokers [Averbach et al., 2002]. Previous analyses using the National Latino and Asian American Study (NLAAS) reported considerable variation in smoking prevalence by nativity, ethnicity, age, education, poverty and gender [Chae et al., 2006]. However, these analyses did not examine variations by occupation. Delineation of high risk occupational

groupings and subgroups (e.g., gender, nativity) within occupations provides key information to assist in the development of tailored interventions.

MATERIALS AND METHODS

The present study utilizes data from the sample of Asian Americans in the NLAAS, a nationally representative household sample of Latino and Asian Americans. A detailed description of the NLAAS protocol and sampling methods has been reported elsewhere [Alegría et al., 2004; Pennell et al., 2004; Heeringa et al., 2004]. Following is a brief description of the NLAAS sampling design and study procedure.

Participants in the NLAAS were recruited using one of three sampling methods. First, participants in the core sample were recruited with a multistage stratified area probability sampling design. Primary sampling units, defined as metropolitan statistical areas (MSAs) or county units, and secondary sampling units, formed from contiguous grouping of Census blocks, were selected using probability proportionate to size, from which households were sampled. One member of the household was selected using standard Kish methods. Second, participants in the NLAAS high-density supplemental sample were recruited using a five percent density criterion, in which Latino or Asian target ancestry groups representing at least five percent of total households in a census block were over sampled. Individuals who were Latino or Asian and did not belong to the target ancestry group under which these geographical areas were classified were still eligible to participate. For example, Chinese individuals living in a Filipino high-density Census block were eligible for recruitment into the NLAAS. Therefore, individuals living in high-density areas had two opportunities for recruitment: first through the NLAAS core sampling strategy, and second through the NLAAS high-density sampling strategy. Third, in addition to core and high-density sampling methods, second respondents were recruited from households in which one participant had already been interviewed. Second respondent sampling was utilized in order to increase the total sample of participants and to reduce study expenses. The three components of the NLAAS sampling design resulted in the construction of weighting corrections to take into account joint probabilities of selection.

Interviewers with linguistic and cultural backgrounds concordant with those of the target population administered the NLAAS questionnaire. Participants were initially contacted with an introductory letter and study brochure, followed by screening, scheduling, and interviewing. Interviews were conducted in the preferred language indicated by the respondent using computer-assisted interviewing software. The questionnaire was administered face-to-face to participants in the NLAAS core and high-density samples, unless the respondent specifically requested a telephone interview or if a face-to-face interview was prohibitive. Interviews were conducted via telephone to second respondents.

Sample

Participants in the current study were non-institutionalized persons of Asian ancestry who were 18 years of age or older, and resided in any of the 50 states and Washington D.C. Three Asian national origin groups targeted for the Asian American sample were Chinese, Filipino, or Vietnamese, in addition to individuals of “other” Asian ancestry (including Japanese, Korean, Cambodian, Laotian, and Indian). A total of 2095 Asian American participants were surveyed from May 2002 to November 2003. The final weighted response rate for the NLAAS Asian American sample was 69.3% for first respondents and 73.6% for second respondents. The combined weighted response rate for Asian American participants was 65.6%. Detailed characteristics of the entire NLAAS sample are reported by others [Alegría et al., 2004; Pennell et al., 2004]. Our analysis is based on 1,528 participants who self-identified as being in the labor force and were either currently employed or

unemployed. We exclude those who were not currently in the labor force such as those who self-identified as being retired, homemakers, students, disabled, and those who never worked.

Measures

Study participants were categorized as current smoker or non-smoker per the classification utilized by the Centers for Disease Control and Prevention [National Center for Health Statistics, 1992].

For occupation, participants were asked “What kind of work do you normally do? That is, what is your job called?” Using the International Standard Classification of Occupations-88 (ISCO-88) code list developed by the International Labor Organization (1987), responses were categorized into one of the following eleven occupational categories: professional, technical and related; executive, administrative and managerial; sales; administrative support, including clerical; precision production, craft and repair; machine operators, assemblers and inspectors; transportation and material moving occupations; handlers, equipment cleaners, helpers and laborers; service occupations, except private household; armed forces; and others. These occupational categories were subsequently collapsed into broader occupational groupings: (1) white collar (professional, technical and related; executive, administrative and managerial; sales; and administrative support, including clerical); (2) blue collar (precision production, craft and repair; machine operators, assemblers and inspectors; transportation and material moving occupations; and handlers, equipment cleaners, helpers and laborers); (3) service (service occupations, except private household); (4) other (armed forces and others); and, (5) unemployed (currently unemployed but in the labor force).

Additional demographic variables include: ethnic group (Vietnamese, Filipino, Chinese, and other Asian); gender (male, female); age in six categories (18 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and older); education in four categories (< 11 years, 12 years, 13 to 15 years, 16 or more years); marital status (married, never married, separated/divorced/widowed); annual personal income in four categories (0 to \$14,999; \$15,000 to \$34,999; \$35,000 to \$74,999; \$75,000 and higher); nativity (immigrant, U.S. born); years in the U.S. for immigrants; and region of residence (Northeast, Midwest, South, and West).

Data Analysis

Descriptive statistics, including prevalence of smoking, were obtained for each occupational group and for all occupations combined. Adjusted smoking prevalence by occupational class was estimated using logistic regression. Separate models were fit for males, females, immigrants and U.S. born participants, in order to determine specific prevalence for each of these strata across all occupational categories. For the male and female models, adjustment was made for ethnicity, age, nativity, education, marital status, income and U.S. region. For the immigrants and U.S. born models, the adjustment variables were the same except gender replaced nativity. Years in the U.S. was also included in the immigrant model. Fixing adjustment variables at their overall weighted means, the fitted logistic models were used to estimate the adjusted probability of being a smoker for each occupational class. Logistic regression was also used to assess the impact of the stepwise addition of demographic variables, nativity, years in the U.S., and occupational classification on smoking prevalence. Analysis was performed with STATA software version 10.0 (College Station, Texas). Approval to conduct this study was granted by the University of Washington Human Subjects Division.

RESULTS

Table I shows descriptive statistics for the sample by occupational classification. For the entire sample, 15% are smokers. Examining occupational classifications, blue collar workers had the greatest number of smokers (32%) overall followed by the unemployed (19%), other (17%), service (14%), and white collar (10%).

Table II shows smoking prevalence by occupational classification, gender, and nativity, controlling for other demographic factors (e.g., age, education, income, and region). Comparing between genders, smoking prevalence among males was higher than that for females across all occupational classifications. Among both employed males and employed females, blue collar workers had the highest prevalence for both groups (45% and 18%, respectively). Unemployed males had the highest overall prevalence of smoking at 30%. Smoking prevalence across nativity groups was highest among blue collar workers for immigrants (25%) and highest among the unemployed for those born in the U.S.

Table III shows results of multivariate analyses examining associations between demographic factors with being a current smoker. Model 1 includes demographic variables as covariates of interest. Models 2 and 3 add nativity and years in the U.S., respectively. Model 3 shows that being an immigrant is significantly associated with being a current smoker (OR=2.11; 95% CI: 1.15 - 3.89; $p < .05$) and that years in the U.S. (OR=1.03; 95% CI: 1.01 - 1.05; $p < .01$) is positively associated with being a current smoker. In model 4, all variables including occupational classification are included. Working in a blue collar job (OR=2.52; 95% CI: 1.23 - 5.16; $p < .05$) is significantly associated with being a current smoker, controlling for all other covariates (age, gender, ethnic group, marital status, nativity, duration in the U.S., education, income, and region of residence).

DISCUSSION

Using NLAAS data, we report smoking prevalence among a nationally-representative sample of the Asian American workforce. Among those employed, we find that smoking prevalence is highest among Asian American blue collar workers, then followed by other, service, and white collar workers. Multivariate analysis also confirms that working in a blue collar job is associated with being a current smoker, even after controlling for a variety of important demographic factors, such as gender, nativity, and years in the U.S.

Our findings are consistent with previous reports using the National Health and Nutrition Examination Survey (NHANES III) [Bang and Kim, 2001] and the NHIS [Nelson, 1994; NIOSH, 2000] noting that blue collar workers have higher percentages of smokers compared to other types of occupations even among other populations. Barbeau and colleagues (2004), utilizing 2000 NHIS data, reported smoking prevalence by racial groups, and, for Asian Americans, found that 29% of blue collar workers, 18% of service workers, and 15% of white collar workers were current smokers.

Smoking among blue collar workers is particularly concerning. These workers are typically exposed to a variety of workplace exposures (i.e., dusts, fumes, chemicals) that may have synergistic effects with smoking increasing the risk for occupational lung diseases [Benowitz, 1997; Sorensen et al., 2004]. For example, studies of workers exposed to asbestos and silica have shown significantly increased risk of lung cancer among smokers [Erren et al., 1999; Gustavsson et al., 2002; Kurihara and Wada, 2004; Reid et al., 2005]. Among Asian Americans, cancer is the leading cause of death [National Center for Health Statistics, 2006]. While a recent study suggests that cancer deaths among Asians are mostly attributable to smoking cigarettes [Leistikow et al., 2006], the interaction between smoking and hazardous agents in the workplace among Asian Americans has not been systematically

investigated. Thus, a key area for future research is the examination of cumulative risk from exposures to both tobacco smoke and occupational hazards [Chen, 2005; Fagan et al., 2004].

Accordingly, workplaces and industries associated with blue collar occupations should be sure to target Asian American workers for smoking cessation programs, despite having lower overall smoking rates compared to other racial/ethnic groups. A call from NIOSH in 1984 for an integrated health protection and promotion approach has stimulated efforts to develop and test integrated worksite-based programs to enhance blue collar workers' health [Barbeau et al., 2006; NIOSH, 1984; Sorensen et al., 1998]. These studies have demonstrated the potential to decrease tobacco use among blue collar workers. Additional research should focus more attention on developing culturally specific and linguistically appropriate smoking cessation programs for racial/ethnic minority blue collar workers. This is especially critical for Asian Americans, a population that spans multiple ethnic cultures and languages and has varying degrees of acculturation and English language proficiency [Ghosh, 2003], yet has typically been classified as one homogenous group.

Further, we note that when disaggregating by gender and nativity, smoking rates among employed Asian Americans are highest for men and immigrants working in blue collar jobs. Across all occupational classifications, smoking prevalence was higher for men compared to women, which is consistent with previous national and regional reports [CDC, 2007; Tang et al., 2005], as well as higher for immigrants compared to the U.S. born. Other studies have noted that smoking rates among Asian immigrant men are much higher than immigrant women [Baluja et al., 2003; Taylor et al., 2007]. This difference might be explained by the notion that in Asian countries, smoking is more socially acceptable for men than for women and is considered as a means to be sociable [Chen et al., 1993; Spigner et al., 2005]. Future studies could explore whether our results are replicable, and if so, the underlying reasons for these differences.

We also found that among those unemployed, but in the labor force, smoking prevalence overall was 19%. This is much lower than that reported by Bang and Kim [2001] and Nelson et al. [1994] which were 43% and 41%, respectively. This difference might be explained by lower overall percent of smokers among Asian Americans compared to other racial groups (e.g., white, African American). However, Bang and Kim [2001] report smoking prevalence only for whites and African Americans and Nelson et al. [1994] do not report racial characteristics of their sample. We note that NLAAS data were collected at a more recent historical time period when overall smoking might have declined significantly among the general population. Fagan and colleagues [2007] using data from the 1998-1999 and 2000-2001 Current Population Surveys reported that 20% of Asian/Pacific Islanders that were unemployed (though available for and seeking work) were current smokers, more closely matching our figure of 19%. Additional research that examines more current smoking patterns among unemployed Asian Americans as well as other racial/ethnic minorities is needed.

Our data show a considerable difference in smoking between unemployed men (30%) versus unemployed women (2%). While some studies find that the unemployed smoke more than those who are employed, disaggregating by gender is not often considered. Although our data do not directly examine the reasons for this, it is possible that unemployment is more stressful for men than women, and that men are more likely to smoke as a way to cope with unemployment. Or, this finding may merely reflect the higher smoking rates for men compared to women regardless of employment status. Additionally, unemployed immigrants smoke more than U.S. born unemployed. It is unclear why this pattern exists, but, similar to unemployed males, unemployment for immigrant Asians may be more stressful than for the U.S. born, potentially as a function of fewer job opportunities and fewer supportive network

resources. Or, as with gender, this finding may reflect higher overall smoking rates for immigrants compared to the U.S. born, also regardless of employment status. Reasons for these differences require further investigation.

Limitations

Our findings should be viewed as preliminary. Because NLAAS was a community-based study rather than a worksite study, it is comprised of individuals with a wide range of occupational titles. Therefore, we are unable to examine smoking prevalence among specific groups of workers with more detailed occupational titles (and hence more similar job tasks) or employed within a specific worksite (as occupational studies conventionally do). Research with a sample of workers from a specific type of job or workplace may provide some commonalities of occupation-related factors that contribute to smoking. However, collapsing occupational titles into broad occupational classifications does provide a useful means to investigate smoking prevalence among a workforce population obtained through community settings rather than work settings. Additionally, NLAAS data did not capture information related to workplace experiences that could account for smoking behaviors among workers (e.g., workplace smoking policies, occupational stress, job insecurity, workplace discrimination). Despite this, we recommend continued use of community-based samples to investigate health issues among minority and immigrant worker populations. Recruitment of a large enough sample of minorities and immigrants through workplaces may be quite burdensome and yield small numbers depending on the worksites utilized. Finally, this study is based on cross-sectional data. Longitudinal data that captures smoking behaviors in relation to employment transitions, both between types of jobs (white collar to blue collar) and between employment and unemployment, among Asian Americans would be an important next step.

CONCLUSION

This study shows that smoking prevalence differs by occupational classification among Asian Americans. In particular, we find that Asian Americans in blue collar occupations have the highest prevalence of being smokers. Future work should examine the mechanisms that may explain these differences and pay particular attention to differences by nativity and gender. Additionally, smoking cessation interventions for Asian American blue collar workers that are culturally specific and linguistically appropriate should be developed and instituted in work settings.

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Table 1

Descriptive statistics by occupational classification (data are weighted percents, unless otherwise noted).

		Total	White collar	Blue collar	Service	Other	Unemployed
Current smokers		14.9	9.7	32.0	14.0	16.6	19.1
Ethnic group:							
	Vietnamese	13.2	7.3	30.1	25.2	14.0	17.3
	Filipino	22.2	23.2	22.7	26.2	20.5	19.3
	Chinese	28.2	29.6	15.8	22.4	32.0	26.2
	Other Asian	36.3	39.9	31.4	26.3	33.4	37.3
Gender:							
	Male	52.6	50.3	77.8	47.2	53.0	38.9
Age:							
	18-24 years	12.3	10.8	9.1	8.6	14.5	18.9
	25-34 years	27.2	29.0	17.9	13.6	26.8	36.6
	35-44 years	26.6	30.1	28.9	17.7	24.2	17.9
	45-54 years	22.7	20.5	34.2	22.3	22.5	22.7
	55-64 years	8.6	7.1	8.4	25.9	10.1	2.9
	65 years and older	2.6	2.6	1.6	11.9	1.9	1.0
Education:							
	≤ 11 years	12.8	6.0	32.2	28.8	15.6	9.7
	12 years	16.9	6.8	35.8	30.3	22.7	24.7
	13-15 years	25.2	24.0	20.3	23.1	27.3	32.4
	≥ 16 years	45.1	63.2	11.7	17.8	34.4	33.2
Marital status:							
	Married	66.0	64.9	82.0	68.4	66.8	50.7
	Never married	25.3	27.0	12.3	13.5	25.1	37.6
	Separated/divorced/widowed	8.7	8.1	5.7	18.1	8.1	11.7
Annual personal income:							
	\$0-\$14,999	23.5	16.7	12.7	37.9	25.2	58.0
	\$15,000-\$34,999	32.8	26.8	55.2	48.6	35.5	23.2
	\$35,000-\$74,999	32.6	40.0	27.7	13.4	29.9	18.0
	\$75,000 and higher	11.1	16.5	4.4	0.0	9.4	0.8
Immigrant		76.0	71.8	84.1	84.9	78.3	77.7
Years in U.S. ^{a,†}		15.9; 0.6	15.7; 0.9	18.8; 1.6	14.6; 2.7	15.9; 0.6	13.5; 1.1
U.S. region of residence:							
	Northeast	15.1	15.5	11.3	14.5	14.2	19.9
	Midwest	9.3	8.6	16.2	5.5	9.1	8.8

	Total	White collar	Blue collar	Service	Other	Unemployed
South	8.2	7.2	12.2	8.4	7.5	11.7
West	67.4	68.8	60.4	71.5	69.2	59.6

* Calculated for immigrants only.

[†] Mean and S.E.

Table II

Smoking prevalence (%) by occupational classification, gender, and nativity (data are weighted percents)

	Males[*]	Females[*]	Immigrants[†]	U.S. born[#]
White collar	13.7	4.8	9.0	7.3
Blue collar	26.9	18.2	24.8	10.1
Service	13.8	10.2	10.2	6.1
Other	23.7	5.4	14.5	12.5
Unemployed	30.3	2.6	12.6	16.3

^{*} Adjusted for ethnic group, age, nativity, education, marital status, income, and region.

[†] Adjusted for ethnic group, age, gender, education, marital status, income, region, and years in the U.S.

[#] Adjusted for ethnic group, age, gender, education, marital status, income, and region.

Table III

Multivariate logistic regression models for smoking status.

		Model 1	Model 2	Model 3	Model 4
		OR [95% CI]	OR [95% CI]	OR [95% CI]	OR [95% CI]
Ethnic group:	Vietnamese (reference)				
	Filipino	1.04	1.09	1.03	1.14
		[.66 - 1.63]	[.70 - 1.69]	[.67 - 1.58]	[.75 - 1.73]
	Chinese	.63	.65	.63	.71
		[.39 - 1.01]	[.41 - 1.05]	[.39 - 1.02]	[.46 - 1.12]
Gender:	Other Asian	.92	.96	.88	.98
		[.53 - 1.59]	[.54 - 1.72]	[.52 - 1.50]	[.57 - 1.69]
	Male	2.96	2.97	3.02	2.71
		[1.43 - 6.12]**	[1.43 - 6.17]**	[1.48 - 6.15]**	[1.27 - 5.78]*
	18-24 years (reference)				
Age:	25-34 years	1.11	1.11	1.04	1.04
		[.46 - 2.69]	[.46 - 2.71]	[.41 - 2.65]	[.40 - 2.68]
	35-44 years	1.11	1.11	.87	.89
		[.40 - 3.11]	[.40 - 3.10]	[.28 - 2.73]	[.29 - 2.73]
	45-54 years	1.3	1.28	.85	.83
		[.50 - 3.40]	[.50 - 3.28]	[.29 - 2.48]	[.28 - 2.47]
	55-64 years	.45	.45	.26	.27
		[.16 - 1.28]	[.15 - 1.29]	[.07 - 1.04]	[.07 - 1.04]
	65 years and older	.29	.29	.13	.14
		[.05 - 1.63]	[.05 - 1.68]	[.02 - .76]*	[.02 - .80]*
Education:	≤ 11 years (reference)				
	12 years	.98	1.02	1.01	1.01
		[.43 - 2.24]	[.45 - 2.31]	[.45 - 2.27]	[.45 - 2.27]
	13-15 years	.59	.61	.59	.67
		[.32 - 1.08]	[.33 - 1.15]	[.32 - 1.09]	[.35 - 1.31]

		Model 1 OR [95% CI]	Model 2 OR [95% CI]	Model 3 OR [95% CI]	Model 4 OR [95% CI]
	≥ 16 years	.36	.37	.37	.49
		[.16 - .85]*	[.16 - .86]*	[.16 - .87]*	[.18 - 1.31]
Marital status:	Married (reference)				
	Never married	1.44	1.50	1.45	1.53
		[.81 - 2.56]	[.83 - 2.69]	[.79 - 2.65]	[.84 - 2.78]
	Separated/divorced/widowed	1.96	2.00	1.88	1.92
		[1.17 - 3.27]*	[1.20 - 3.33]**	[1.12 - 3.17]*	[1.19 - 3.12]**
Annual personal income:	\$0-\$14,999 (reference)				
	\$15,000-\$34,999	1.13	1.11	1.06	1.01
		[.59 - 2.16]	[.57 - 2.15]	[.56 - 2.02]	[.54 - 1.90]
	\$35,000-\$74,999	.62	.61	.53	.55
		[.36 - 1.07]	[.35 - 1.08]	[.30 - .93]*	[.32 - .93]*
	\$75,000 and higher	1.33	1.32	1.14	1.25
		[.56 - 3.14]	[.56 - 3.14]	[.48 - 2.72]	[.51 - 3.11]
Region of residence:	Northeast (reference)				
	Midwest	.50	.53	.48	.44
		[.21 - 1.17]	[.22 - 1.25]	[.19 - 1.22]	[.17 - 1.13]
	South	.73	.75	.68	.69
		[.31 - 1.75]	[.31 - 1.80]	[.29 - 1.59]	[.31 - 1.55]
	West	.66	.68	.63	.63
		[.39 - 1.11]	[.41 - 1.13]	[.36 - 1.11]	[.37 - 1.10]
Nativity:	Immigrant		1.21	2.11	1.97
			[.81 - 1.79]	[1.15 - 3.89]*	[1.09 - 3.56]*
Years in U.S.:				1.03	1.03
				[1.01 - 1.05]**	[1.01 - 1.05]*
Occupational classification:	White collar (reference)				
	Blue collar				2.52

	Model 1 OR [95% CI]	Model 2 OR [95% CI]	Model 3 OR [95% CI]	Model 4 OR [95% CI]
				[1.23 - 5.16] *
Service				1.36
				[.56 - 3.28]
Other				1.53
				[.77 - 3.04]
Unemployed				1.72
				[.89 - 3.33]

Model 1: Ethnic group (Vietnamese, Filipino, Chinese, and other Asian); gender (male); age (18 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and older); education (≤ 11 years, 12 years, 13 to 15 years, 16 or more years); marital status (married, never married, separated/divorced/ widowed); annual personal income (0 to \$14,999; \$15,000 to \$34,999; \$35,000 to \$74,999; \$75,000 and higher); and region of residence (Northeast, Midwest, South, and West).

Model 2: Ethnic group (Vietnamese, Filipino, Chinese, and other Asian); gender (male); age (18 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and older); education (≤ 11 years, 12 years, 13 to 15 years, 16 or more years); marital status (married, never married, separated/divorced/ widowed); annual personal income (0 to \$14,999; \$15,000 to \$34,999; \$35,000 to \$74,999; \$75,000 and higher); region of residence (Northeast, Midwest, South, and West); and nativity (immigrant, U.S. born).

Model 3: Ethnic group (Vietnamese, Filipino, Chinese, and other Asian); gender (male); age (18 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and older); education (≤ 11 years, 12 years, 13 to 15 years, 16 or more years); marital status (married, never married, separated/divorced/ widowed); annual personal income (0 to \$14,999; \$15,000 to \$34,999; \$35,000 to \$74,999; \$75,000 and higher); region of residence (Northeast, Midwest, South, and West); nativity (immigrant, U.S. born); and years in the U.S. for immigrants.

Model 4: Ethnic group (Vietnamese, Filipino, Chinese, and other Asian); gender (male); age (18 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and older); education (≤ 11 years, 12 years, 13 to 15 years, 16 or more years); marital status (married, never married, separated/divorced/ widowed); annual personal income (0 to \$14,999; \$15,000 to \$34,999; \$35,000 to \$74,999; \$75,000 and higher); region of residence (Northeast, Midwest, South, and West); nativity (immigrant, U.S. born); years in the U.S. for immigrants; and occupation.

* $p < .05$

** $p < .01$