

Neighborhood Disorder and Binge Drinking: A Study of Young Adults in the San Francisco Bay Area

Allison Longo

Department of Geography, Binghamton University

Introduction

- Neighborhood disorder and disadvantage have been shown in many locations to be associated with poor health behavior
- People living in disadvantaged neighborhoods are more likely to demonstrate heavy alcohol use
- Alcohol outlets tend to be more densely located in disordered neighborhoods
- Young adults have higher rates of binge drinking than any other age group
- There is little research investigating the relationship between neighborhood disorder and alcohol use among young adults

Methods

2014 Bay Area Young Adult Health Survey (BAYAHS):

Probabilistic multimode (mail, phone, face-to-face) sample survey of 18-26 year old young adults in Alameda and San Francisco Counties in California, stratified by race/ethnicity (n=1,363).

Statistical Analyses: Descriptive analysis of BAYAHS and American Community Survey (ACS) data; Logistic and Geographically-weighted regression (GWR) analysis:

- Analyzed and mapped ACS data illustrating SF Bay Area neighborhood socioeconomic environments
- Developed and ran a GWR Model on the 787 block groups in which respondents lived
- 2014 BAYAHS data aggregated at the block group level (binge drinking, neighborhood and sociodemographic characteristics, health status and behavior)
- Linked to 2010-2014 American Community Survey block group-level data (n=787 block groups) from which we calculated aggregate measures such as: vacancy and homeownership rates, educational attainment and poverty.

Primary Explanatory Factors:

- Neighborhood disorder
- Neighborhood-level socioeconomic status

Other Factors:

- Age, sex, race/ethnicity, educational attainment, civic participation self-rated health, smoking, sleep quality

Outcome Measure

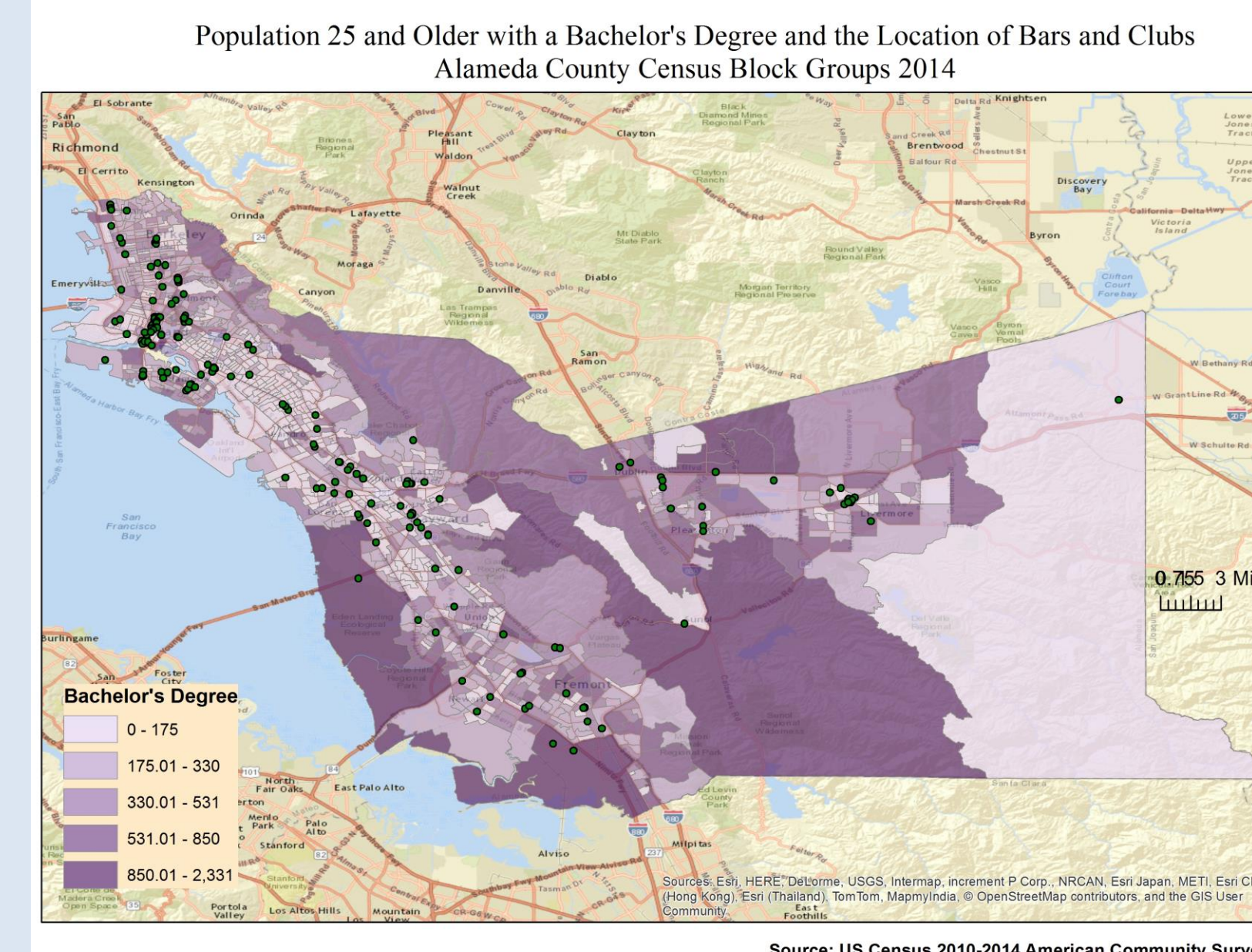
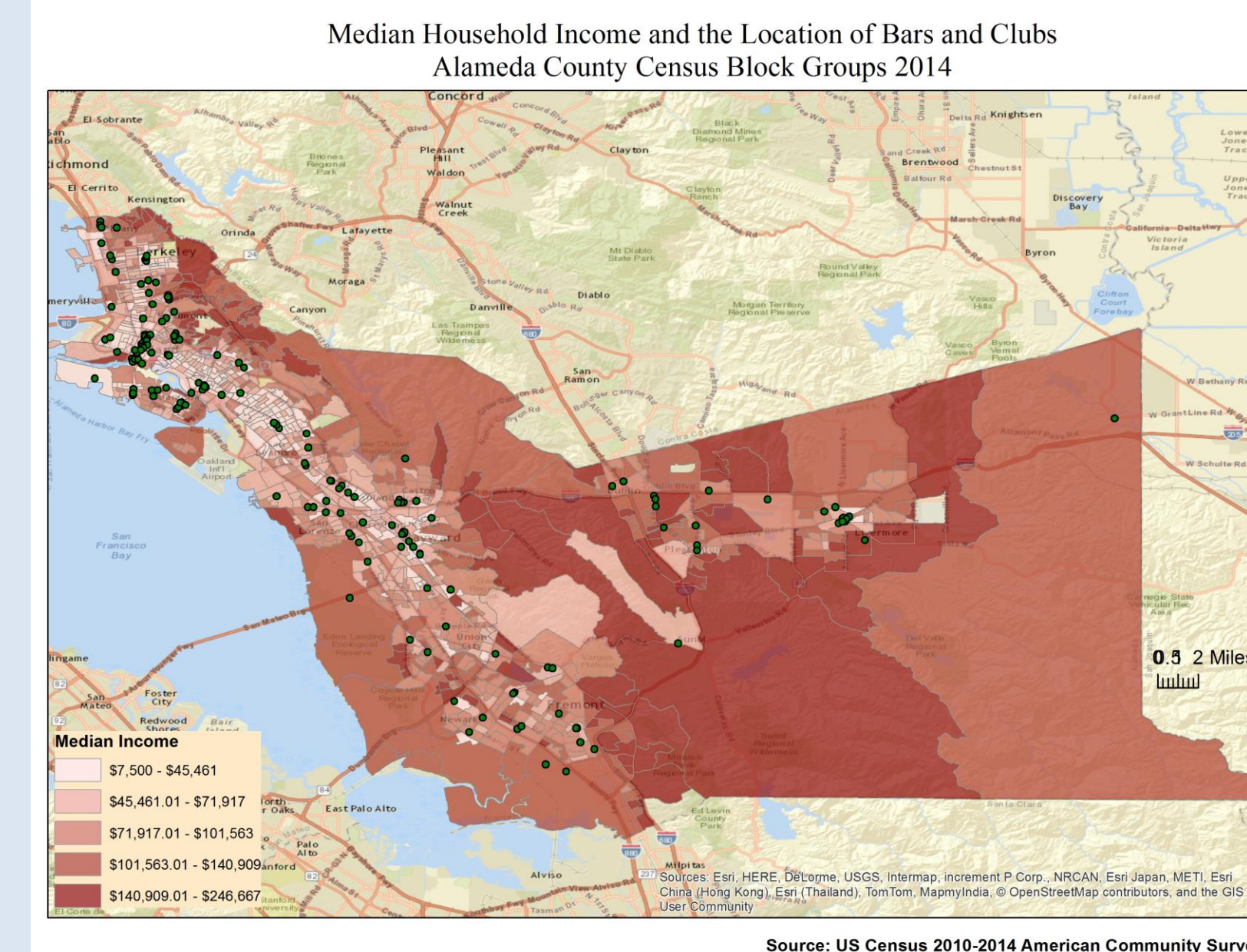
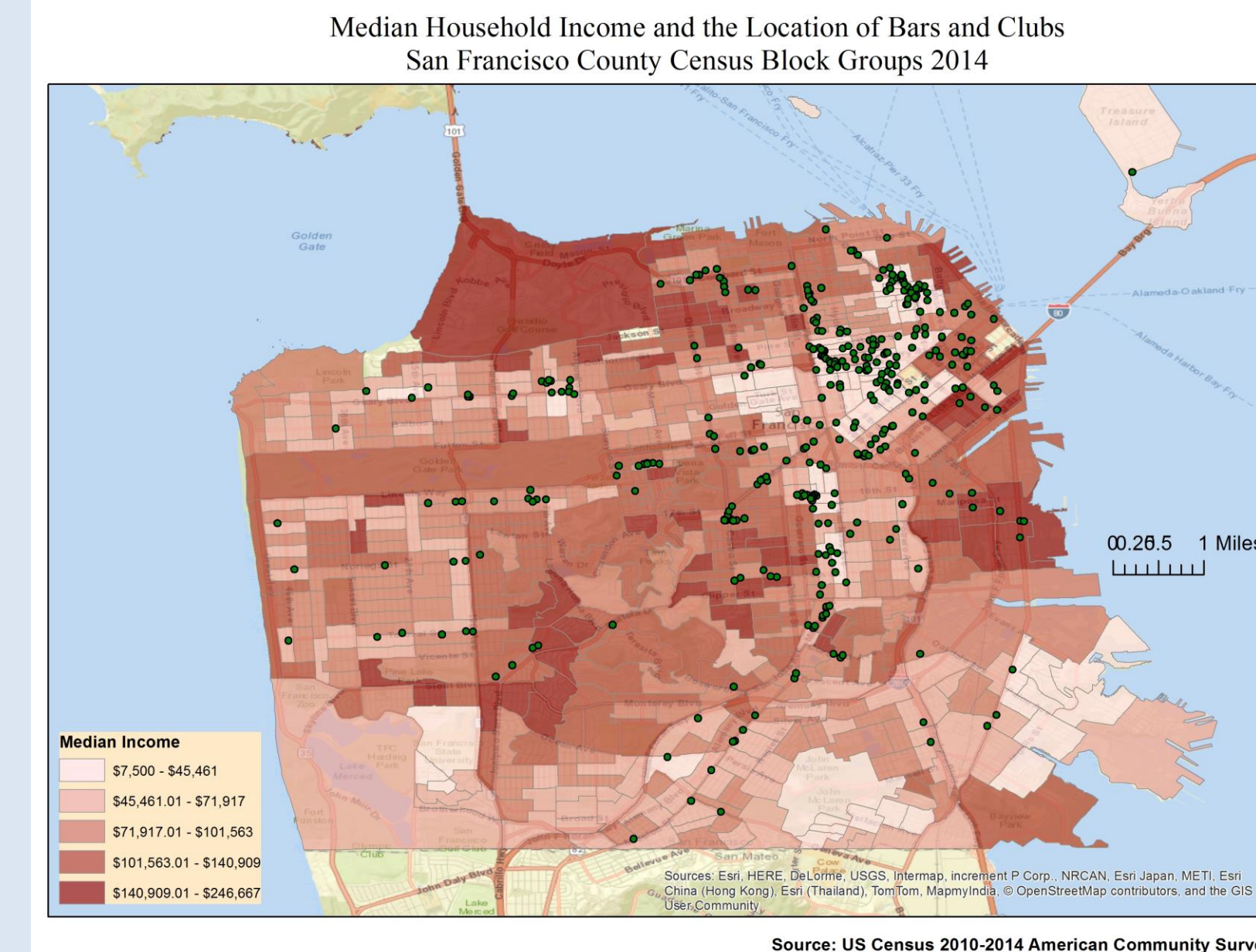
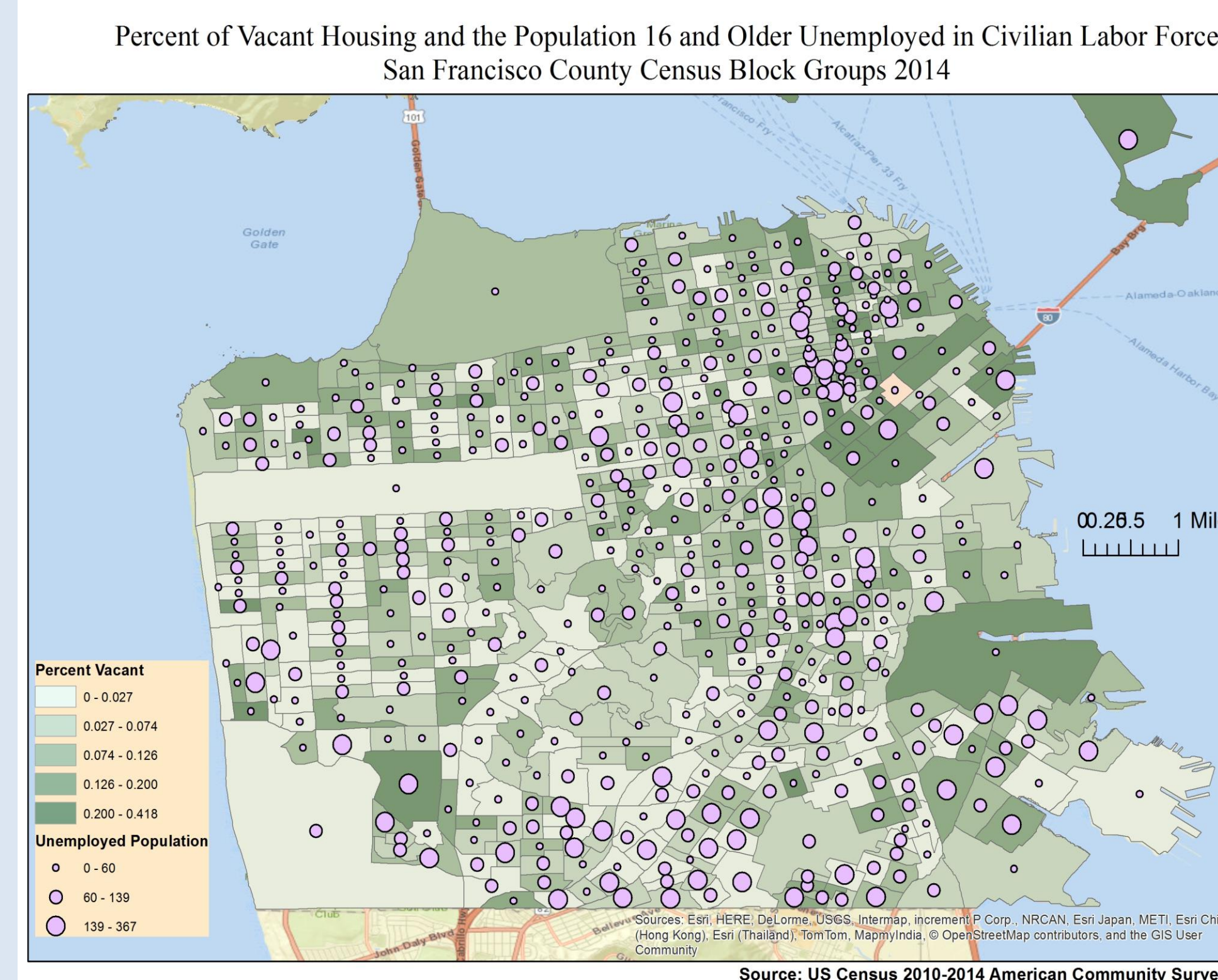
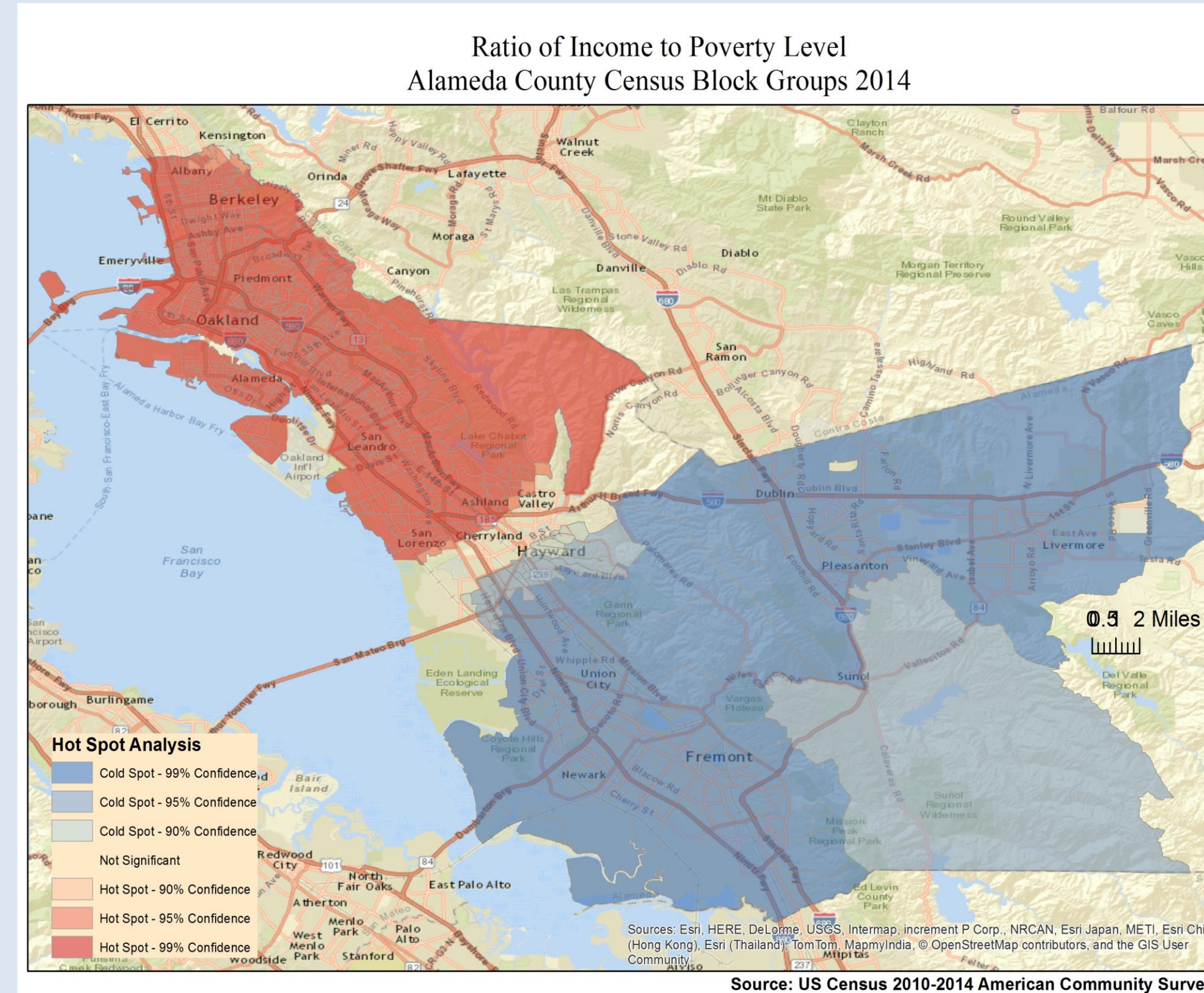
- Binge drinking: respondent reported drinking 5 or more alcoholic beverages "within a few hours" at least once in the prior 30 days

GIS Analysis: The 2010-2014 American Community Survey was used at the block group level to gather spatial patterns of the SF Bay Area as shown on the maps

Hypotheses

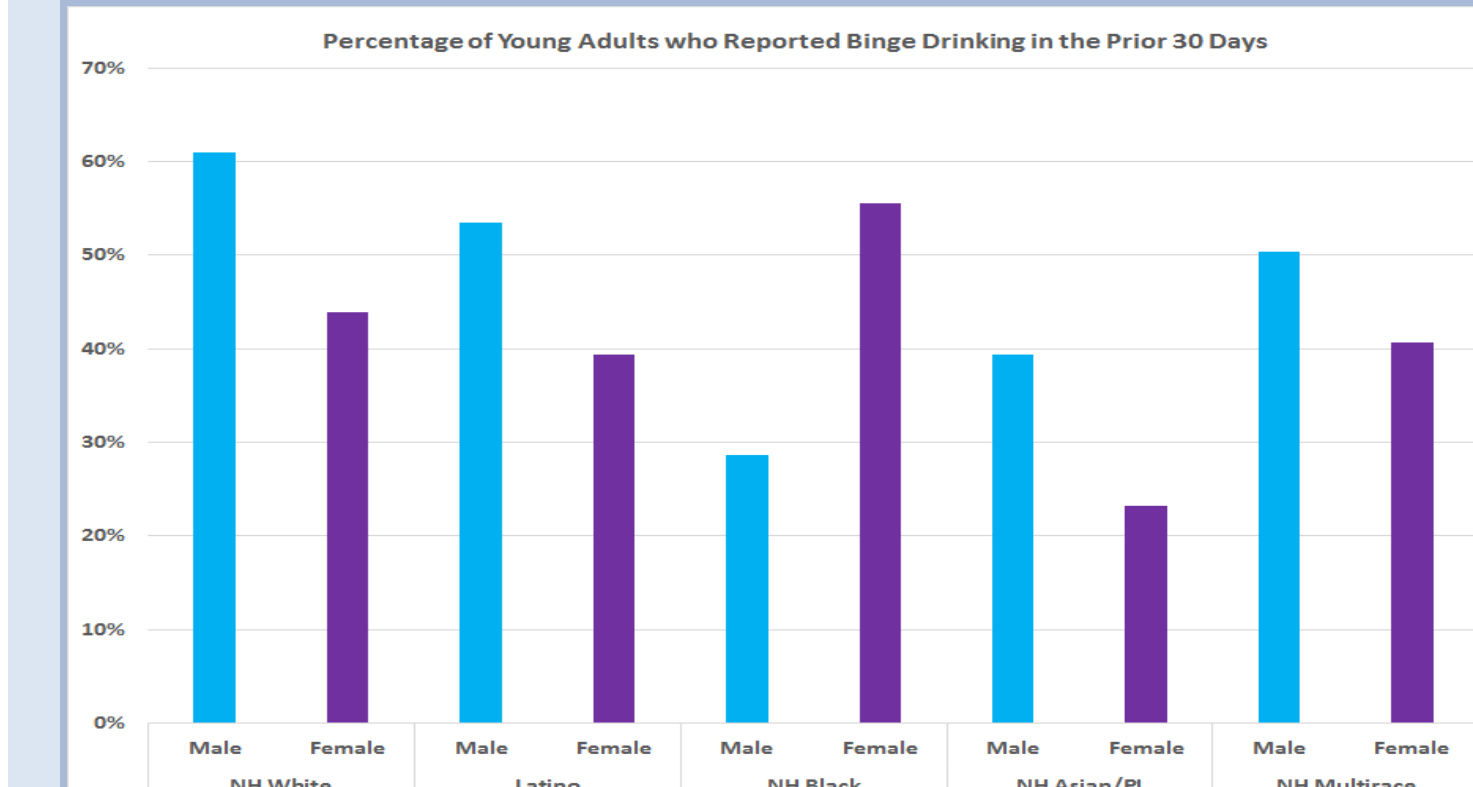
- Binge drinking will be positively associated with perceived neighborhood disorder
- Binge drinking will be inversely associated with socioeconomic status

Study Area: San Francisco County and Alameda County, CA



Results

- Consistent with our first hypothesis, perceived neighborhood disorder was positively associated with binge drinking
- In preliminary analyses, men were more likely to binge drink and Non-Hispanic Asian/Pacific Islanders were less likely to do so than Non-Hispanic Whites
- The relationship between binge drinking and neighborhood-level socioeconomic status is complicated:
 - Young adults residing in neighborhoods with higher rates of homeownership and a higher proportion of residents with at least a bachelor's degree were more likely to binge drink
 - Young adults residing in neighborhoods with a higher proportion of single female headed households and residents on Medi-Cal were also more likely to binge drink
- Young adults who smoked were more likely to binge drink as were those who reported poor sleep quality



Discussion

- Problem alcohol use among young adults varies spatially and is associated with neighborhood-specific factors
- Spatial analysis can be useful for distinguishing local patterns of health behavior and risk factors among young adults and other populations
- The relationship between area-level and socioeconomic factors and binge drinking is not straightforward; while some more traditional measures of low SES are associated with alcohol use in the expected direction, young adults living in areas of higher SES were also shown to binge drink at higher rates
- Poor health behaviors travel together (e.g. smoking, drinking, poor sleep)

Acknowledgements:

Dr. Louisa Holmes

Funding: National Cancer Institute U01-CA 154240 and National Institute on Minority Health and Health Disparities P60MD000923