

Migrant and Seasonal Farmworker Health

Risk Factors and Determinants

Introduction

The National Center for Farm Worker Health estimates that there are over 3 million migrant and seasonal farm workers providing temporary and seasonal labor for US farms. According to a 2011 report published by the Bureau of Labor Statistics, agriculture remains one of the most dangerous industries in the United States. Agricultural workers are exposed to pesticides, extreme sun, dust, mold, and infectious diseases. They also work with heavy machinery, are often engaged in repetitive motion and work long hours in the heat.

Common Injuries/ Illnesses Reported by Farmworkers	Cause(se)
Pesticide Exposure	Pesticide application common in specialty crop production
Heat and Sun Exposure	Crop production/ harvest activities
Infectious Diseases	Poor sanitation conditions, poor water quality
Musculoskeletal injuries	Constant bending, twisting, carrying heavy loads, repetitive motion
Respiratory Illness	Dust, mold, toxic gasses
Skin Disorders	Weather, chemicals, plants, dusts and fungi

specialty crop producers. Nearly half of fruit, vegetables and nuts grown in the United States are grown in California. Subsequently, California has one of the highest resident populations of migrant and seasonal farmworkers as well as non-farmworker household member. By examining the health resources and barriers available to migrant and seasonal farmworkers in California, it is possible to gain insights into the health quality of these workers throughout the United States.



Methodology

Much of the data used for this project was compiled from farmworker advocacy and state-level organizations. The data was cleaned, organized and formatted to reflect the standards of the US Census dataset. All data was entered into Excel and join in GIS with other California county data provided by the US Census. Migrant Health Center addresses obtained from the National Center for Farmworker Health were geocoded using the *10.0 American Address Locator*.

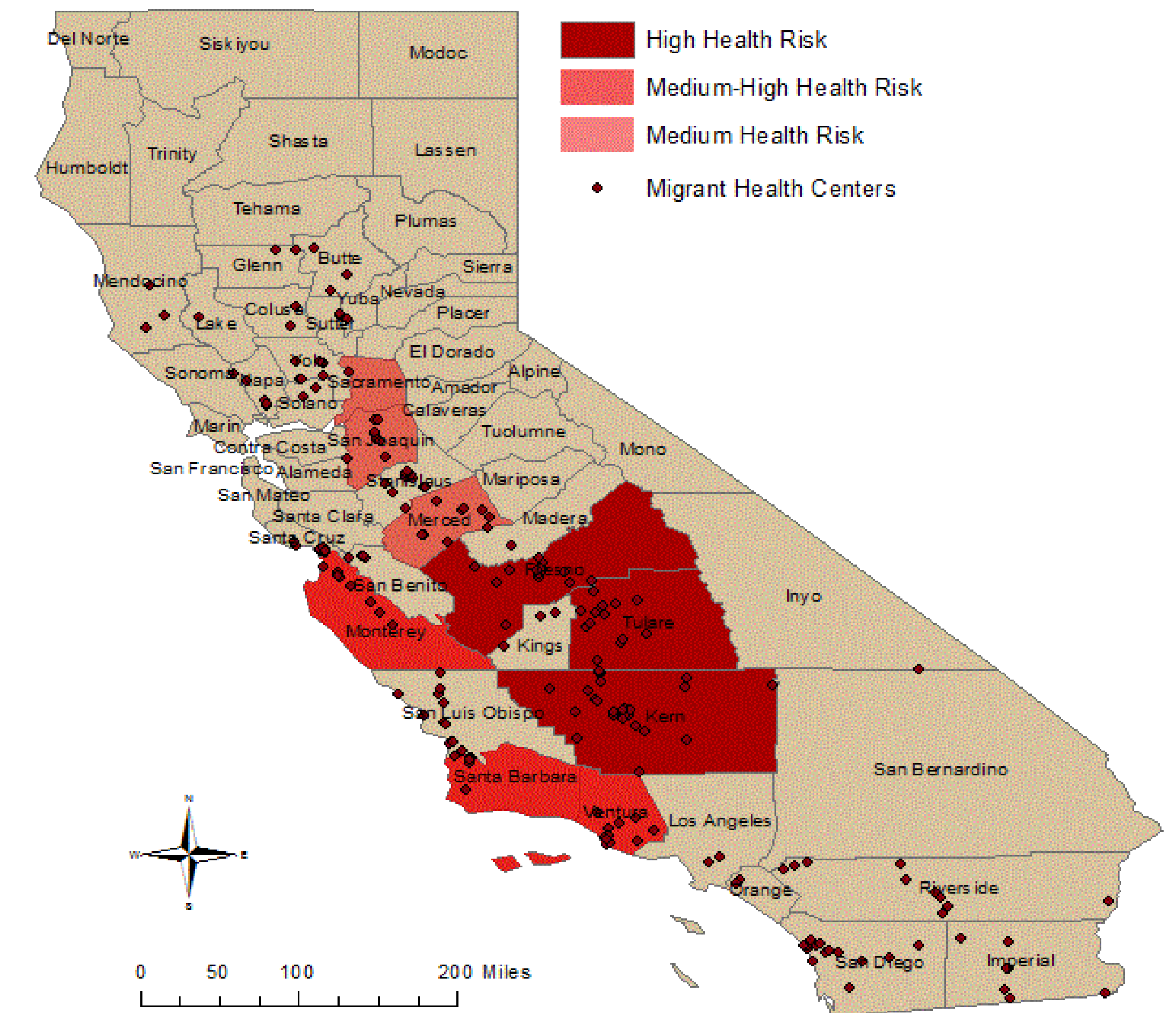
Once the data was joined, it was used to create choropleth maps indicating 1) the population concentration of MSFWs and their household members, 2) the concentration of migrant farmworkers, 3) the concentration of seasonal farmworkers, 4) the incidents of farmworker hospitalization due to pesticide exposure, 5) the percent of households burdened by cost of housing, and 6) the number of households lacking kitchen facilities.

Finally, an index of farmworker risk was calculated by dividing counties with the highest prevalence of all five farmworker health risk variables into high, medium high and medium risk categories. These high risk counties can be compared to counties with large MSFW populations and against the number of Migrant Health Clinics in these counties.

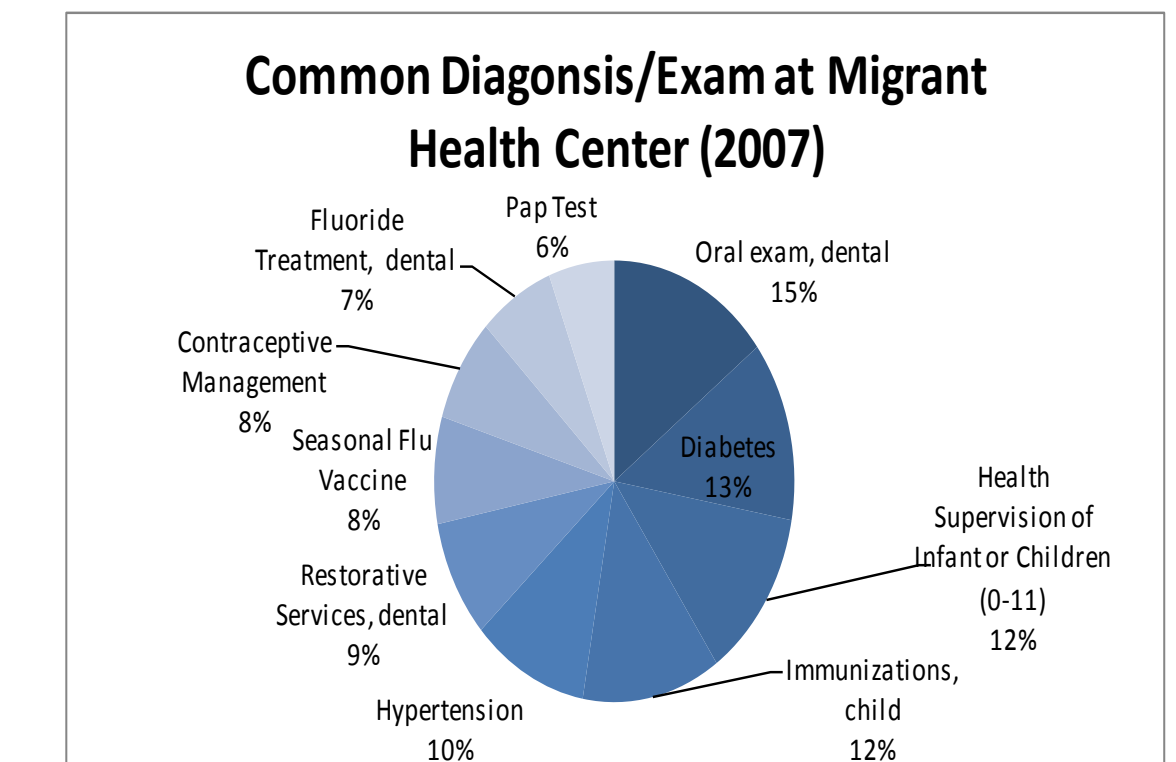
Results

Farmworkers living in Kern, Tulare and Fresno counties have the highest health risks when considering housing costs, access to kitchen facilities, pesticide exposure and farmworker density. While each of these counties

Counties in California that present high, medium-high and medium risk to farmworker health based on selection criteria



have several Migrant Health Centers, there are sections of each high-risk county that are notably much further away. Migrant Health Centers tend to be closely clustered together, rather than disbursed throughout the county. This might indicate that health centers are concentrated in cities or other population dense areas and therefore do not reach farmworkers in more rural parts of the county. Farmworkers in areas farther from health centers might be unlikely to seek medical attention due to the burden and cost of traveling further distances.



Data Sources:

The National Center for Farmworker Health: <http://www.ncfh.org/>

The California Department of Pesticide Regulation, California Pesticide Illness Query: <http://apps.cdpr.ca.gov/calpiq/index.cfm>

The U.S. Department of Commerce, US Census Bureau, US Census Data 2011: <http://www.census.gov/#>

The American Fact Finder: <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Photos: freshneasybuzz.blogspot.com

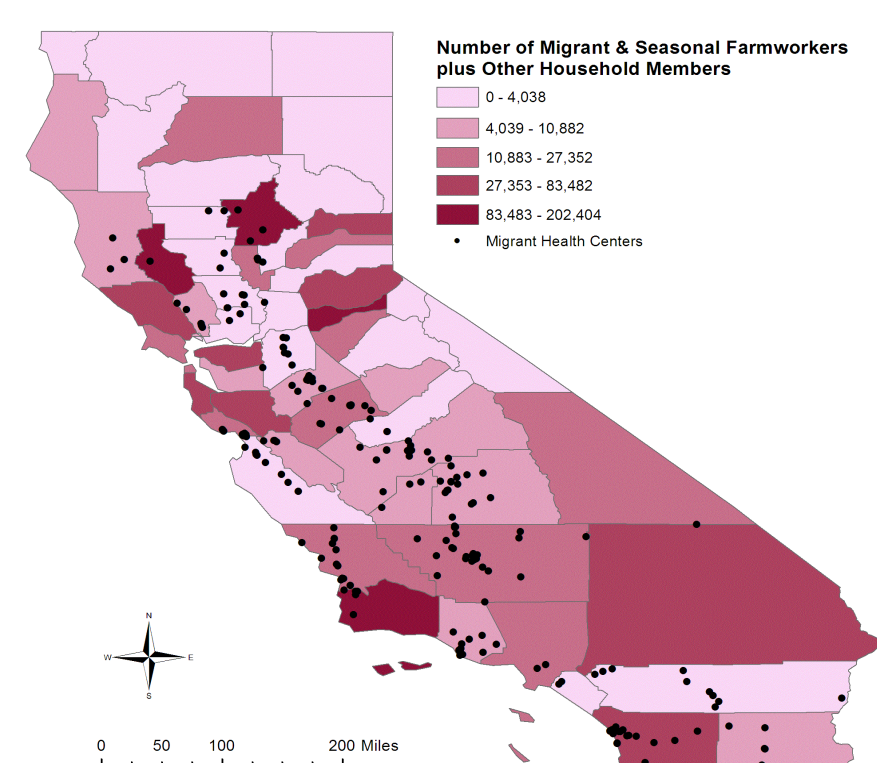
Cartographer: Mackenzie Sehlke

Projection System: GCS North American 1983, D North American 1983

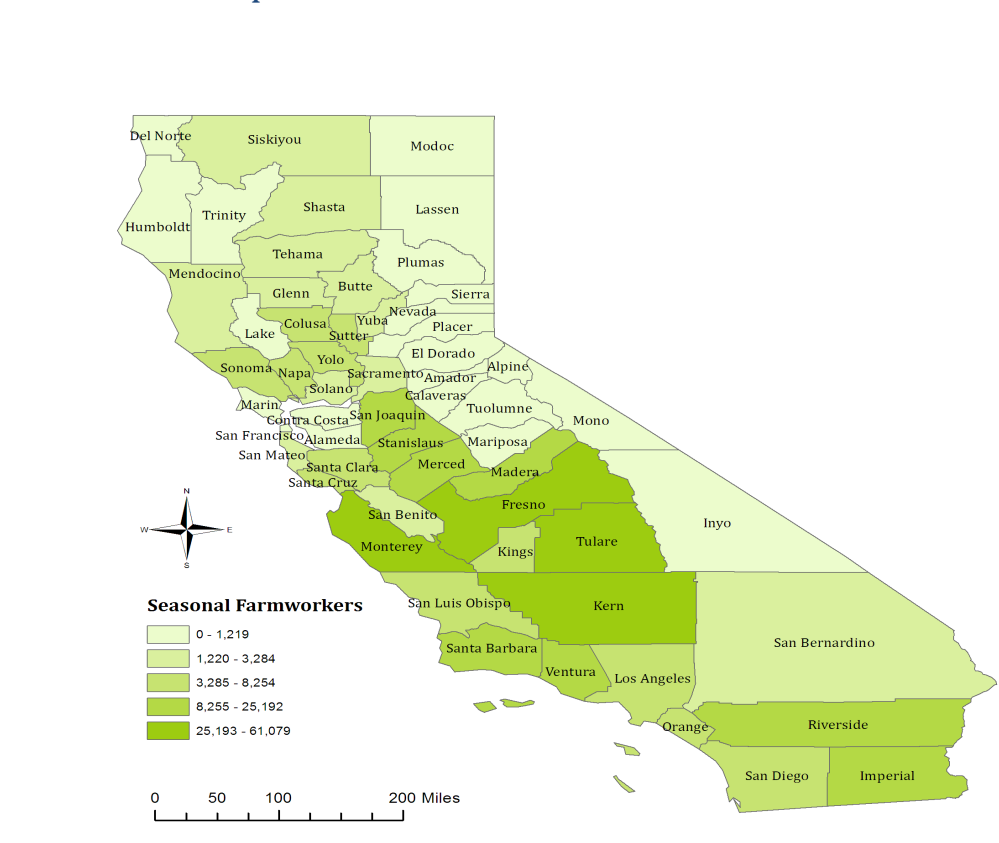
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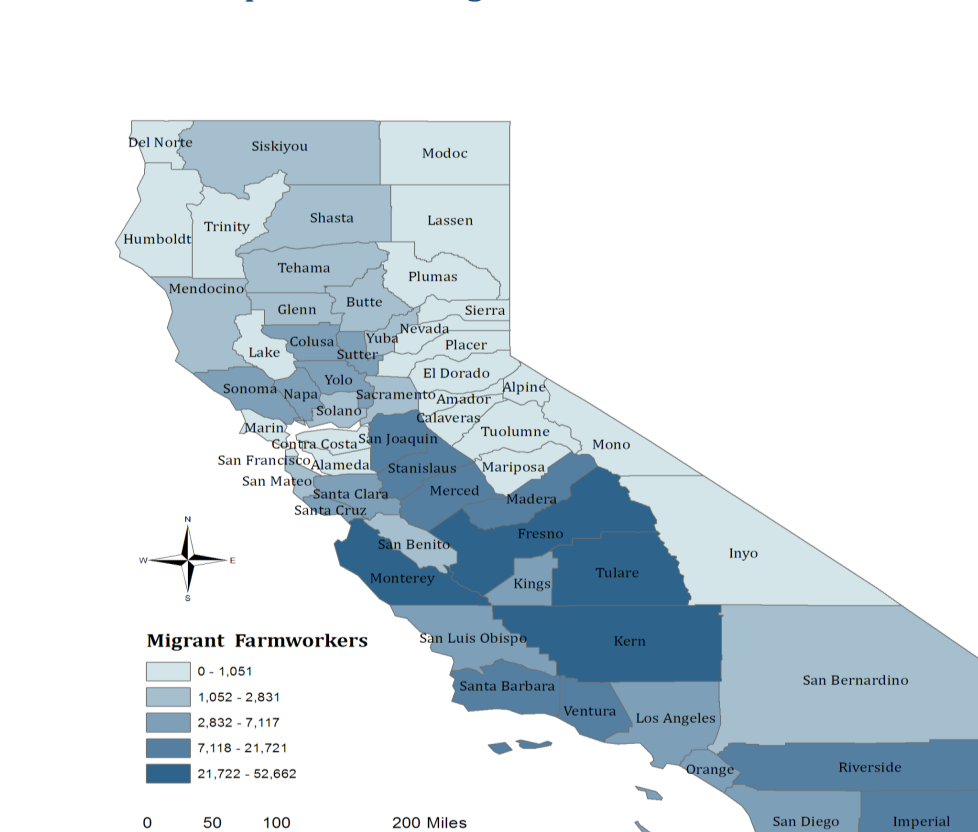
Estimated Population of Migrant and Seasonal Farmworkers plus non-farmworker household members in California



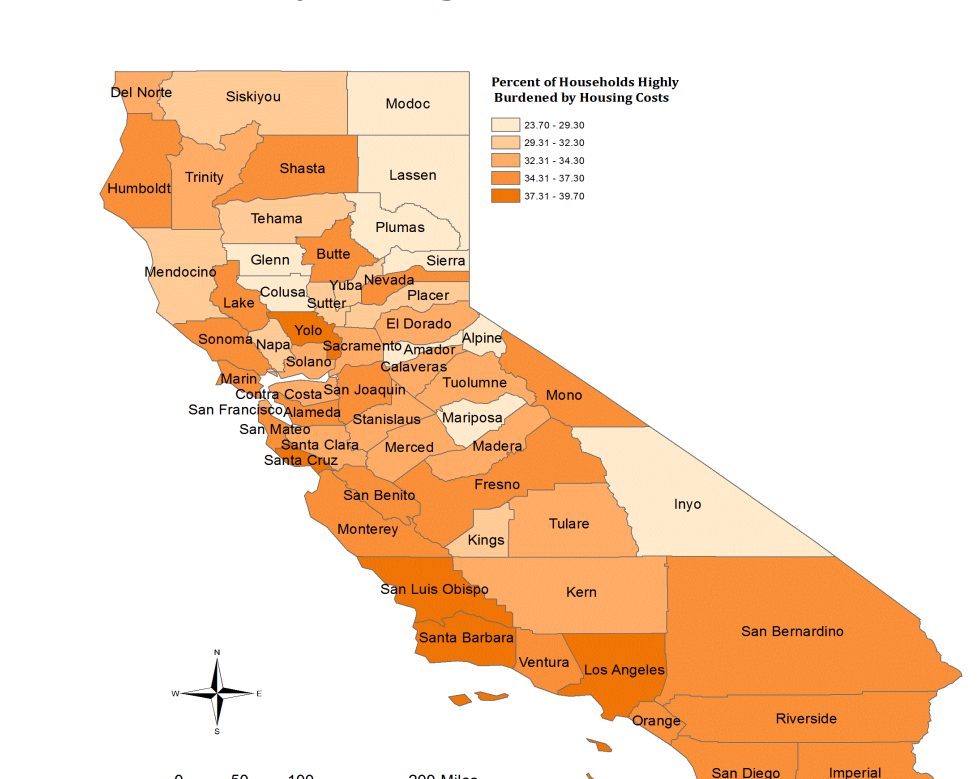
Estimated Population of Seasonal Farmworkers in California



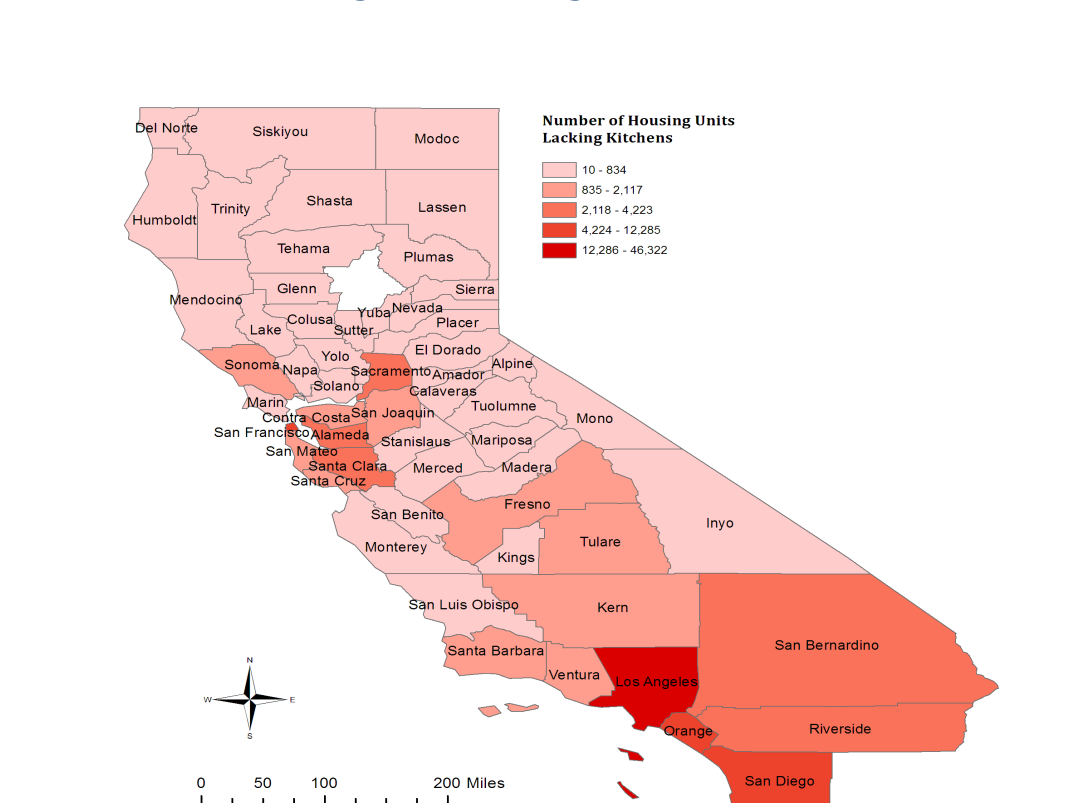
Estimated Population of Migrant Farmworkers in California



Number of Households that Report being Highly Burdened by Housing Costs in California



Number of Housing Units lacking Kitchen Facilities in California



Number of Farmworker Hospitalizations in California

