Community Health Existing Conditions Report

For the
County of Santa Clara
General Plan Health Element

May 2013

Prepared for the County of Santa Clara, California
Department of Planning and Development Planning Office

Prepared by Raimi + Associates with support from
Brian Fulfrost and Associates, Nelson\Nygaard, & ChangeLab Solutions

This project was made possible by funding from the Health Trust, and from the Santa Clara County Public Health Department Communities Putting Prevention to Work grant from the Centers for Disease Control and Prevention

ACKNOWLEDGEMENTS

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The considerable talents and efforts of many individuals helped to assure the success of this report. Special thanks to members of the Wellness Advisory Committee, Staff Advisory Committee, stakeholder interviewees, the 2012 Quality of Life Survey respondents, and community health workshop participants.

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This Existing Conditions Report was developed and published in fulfillment of the Health Element, a proposed element of the Santa Clara County General Plan, pursuant to the policies and direction of the Santa Clara County Board of Supervisors:

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01 ~ INTRODUCTION

Like many jurisdictions across the country, Santa Clara County is taking proactive steps to improve its residents' health and wellness. While Santa Clara County is one of the healthiest counties in California, it also has significant health challenges and health inequities that the County, cities, and residents can work together to address. More than 55% of the County's adults and 25% of its middle school students are overweight or obese,[1] the proportion of adults with diabetes has increased from 5% to 8% in less than 10 years, and almost 14% of adults have asthma.[2]

Santa Clara County residents have high average incomes; however, many residents still face stark socioeconomic challenges that have a strong effect on their health and wellness. Over 8% of Santa Clara County residents are unemployed, while another 22% cannot find fulltime employment with benefits.[3] Nearly 1 in 7 children and 1 in 10 adults in the County lived in poverty in 2010, rising from 1 in 10 children and 1 in 12 adults in 2008.[4] Over one-third of adults 35 and younger lack health insurance; between 2000 and 2009, the percentage of adults (age 18-64 years old) without health insurance rose from 8% to about 20%.[5]

> *"The Board of Supervisors encourages the promotion of health awareness by all branches and levels of government, collaboration by interested communities, initiatives and policy by the Santa Clara County Office of Education and individual School Boards, development of workplace health and wellness policy and practice, and access to recreation and physical activity for all residents."*
>
> Resolution Regarding Health, passed and adopted on May 3, 2005 by the Board of Supervisors of the County of Santa Clara

Health conditions and health care costs directly impact the County's economic and fiscal stability. In fact, in the 2012 fiscal year, the Santa Clara Valley Health and Hospital System accounted for 44% of the County's entire budget.[6]

Despite these challenges, Santa Clara County has taken strides to address the root causes of disease and improve the health of its residents. The County Board of Supervisors acknowledged the health challenges facing the County and expressed their commitment to health when they adopted the 2005 Resolution Regarding Health.[7] The Resolution instructs all branches of County government to promote health awareness and undertake initiatives to address health and wellness through policy and practice. Since its passage, the County's health agencies (including the Public Health Department, the Santa Clara Valley Health and Hospitals System and the Santa Clara Valley Medical Center) have collaborated with many other County Departments to improve health in the County, with a focus on prevention, policy, systems change, health care efficiency, and excellent care.

This Existing Conditions Report, and the forthcoming County General Plan Health Element, continue the County's commitment to improving health and wellness Countywide. It is the first time that the County has explicitly incorporated public health

and wellness into its long-term planning efforts and its General Plan in a comprehensive manner.

What Is Healthy Community Planning?

A community's health and well-being is influenced by a wide variety of complex and inter-related factors, including the social, lifestyle, and genetic characteristics of individuals; the land use patterns and transportation systems that make up the physical environment; and the governmental policies and cultural norms of the social and economic environment. Together, all of these factors help shape the individual choices and behaviors that can influence health.

In recent years, many studies have examined the impact of various aspects of the physical environment on health. Evidence suggests that variations in land use patterns, urban design, transportation systems, housing, parks, natural open spaces, and access to healthy foods strongly impact a population's health behaviors and health status. For example, there is strong evidence that active transportation modes such as walking or bicycling increase physical fitness and improve health outcomes.[8] Other characteristics of the physical environment, the level of access to health care, and individual genetics and lifestyle also contribute to a population's overall health and lifestyle choices.

Socio-economic conditions can also have a significant impact on an individual's health and well-being. These "social determinants of health" include social status, race and ethnicity, income and wealth, and education. Such determinants often disproportionately affect vulnerable populations such as young children, the poor, and the elderly. Santa Clara County public health data suggests that significant health disparities exist between different racial/ethnic groups, income levels, and neighborhoods in the County. For nearly every measure of health, affluent residents in Santa Clara County tend to be healthier than residents living at or near the poverty level, and White populations have better health outcomes than Latinos, African Americans and Asian populations.[9] Health policies and practices around the world are beginning to address the social determinants of health by investing in "upstream" interventions that promote health and eliminate health disparities. Upstream solutions address these issues *before* they result in adverse health outcomes, whereas intervening at the health outcome (or disease stage) is considered a "downstream" intervention.

Figure 1-1 is a graphic prepared by the Santa Clara County Public Health Department that lists "risk behaviors", "disease and injury", and "mortality" as examples of downstream factors; whereas "social inequities", "institutional power", and "neighborhood conditions" are considered upstream factors.[10]

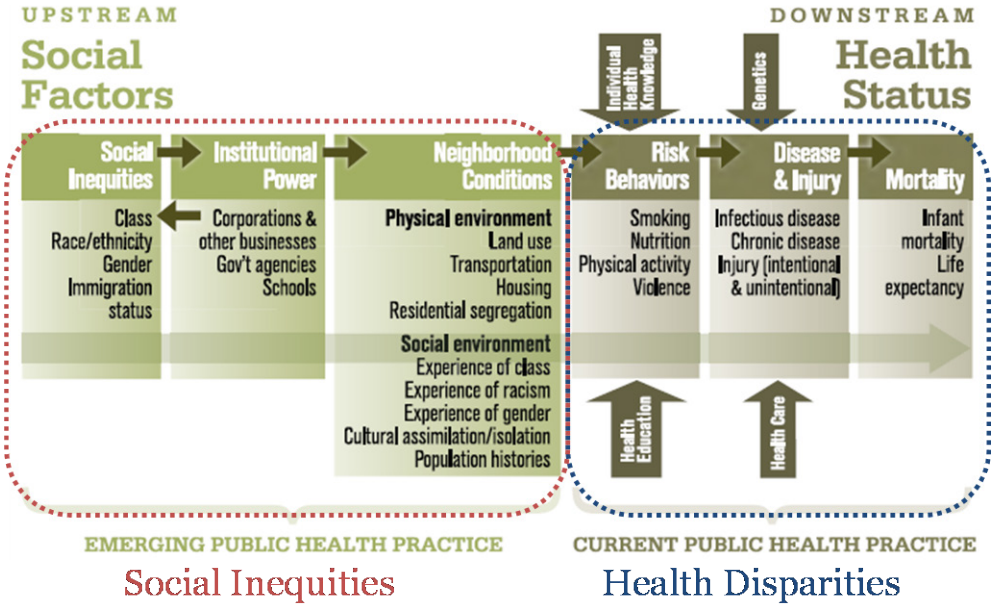

Figure 1-1: Social and Health Inequities Framework

Source: Santa Clara County Health Department

By focusing on systematic changes in policy, community design, and education we can start to address the conditions and decisions that create the inequities in the first place. Downstream solutions are often reactionary and address poor health, while upstream or preventive solutions invest resources into keeping people healthy. Shifting the focus from individual intervention to broader institutional change addresses the root cause of disease and can lead to improved health outcomes for all groups, and hopefully one day, the elimination of health disparities.

This report examines some of the County's health disparities and the upstream conditions that may influence them. Without preventative interventions, the downstream medical treatment costs will continue to increase and require a larger portion of the County's budget, taking away funds from other essential services such as public safety, education, and transportation.

About This Report

This Existing Conditions Report and the forthcoming Countywide Health Element of the General Plan are important steps toward improving the physical and social environment in the County. The overall purpose of this planning process is to identify existing health conditions in the County, and to take steps now to anticipate and prevent injuries and diseases before they occur. By focusing on systematic changes in policy, community design, and education, we can start to address the situations and decisions that have contributed to the community's health challenges over time. The subsequent chapters of this report present the following information:

- **Chapter 2: Demographic and Social Characteristics** *presents general information about the residents of Santa Clara County.*

- **Chapter 3: Health Conditions** *provides a snapshot of the most pressing health issues and risk factors among Santa Clara County residents.*
- **Chapter 4: Land Use, Walkability and Economic Development** *examines the influence of community design, land use, the physical environment, and employment patterns on the health of County residents.*
- **Chapter 5: Transportation and Mobility** *describes key transportation-related health factors, including travel mode, bicycle facilities, collisions and transportation safety, and transit.*
- **Chapter 6: Physical Activity and Recreation** *discusses the link between physical activity and access to parks and open space in Santa Clara County.*
- **Chapter 7: Food Systems** *describes the County's eating habits, food systems, access to healthy foods, levels of food insecurity, food assistance, and local food production.*
- **Chapter 8: Environmental Health** *addresses three key environmental health issues: air pollution, water fluoridation, and childhood lead poisoning.*
- **Chapter 9: Healthy Housing** *describes the link between housing characteristics and health, focusing on housing diversity, tenure, quality, availability, and affordability.*

Each chapter contains a series of topic-specific indicators that provide information about the County as a whole. Data about individual County cities and the unincorporated area is provided where available. The indicators were selected based on availability of data and known relationships to health behaviors and outcomes. Each indicator includes a brief description, a discussion of why it is important for health, and an overview of its status in the County, with supporting maps, tables, and figures.

This report describes existing conditions, and does not include recommended policies or programs. These will be included in the forthcoming Health Element of the General Plan.

01 ~ Introduction References

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02 ~ Demographic and Social Characteristics

Overview

Socio-economic conditions can significantly affect a population's health and well-being. Rising socio-economic status tends to improve health outcomes, while falling socio-economic status tends to decrease levels of health and wellness. Differences in social status, race and ethnicity, income and wealth, and opportunities for a quality education are often associated with health impacts that disproportionately affect certain populations, such as the poor, young children, and the elderly.

Since the purpose of the Health Element is to improve the health conditions, behaviors, and outcomes of all Santa Clara County residents, it is important to have an understanding of the characteristics of the population. As such, this section presents information on the following topics as they relate to County residents:

- Population, Age, and Sex
- Race/Ethnicity
- Income and Poverty
- Educational Attainment
- Linguistic Isolation
- Immigration

Key Findings

- As of 2010, 1.78 million people lived in Santa Clara County (see Figure 2-1, Figure 2-2, and Figure 2-3).
- Fifty-three percent of the County's population lives in San Jose.
- Countywide, 11% of the population is 65 years or older (as of 2010); but by 2030, more than one in four Santa Clara County residents will be over age 60.
- Thirty-five percent of County residents identify themselves as White, 32% as Asian, 27% as Hispanic/Latino, 2% as Black or African American, and 4% as "other race" or "multi-racial." Overall, 64.8% of County residents identify themselves as Non-White or Hispanic.
- In a quarter of the County's populated census blocks, over 70% of residents are non-White, especially in the Cities of San Jose, Milpitas, and Cupertino.
- Among workers over the age of 25, men earn more income than women.
- There are significant income disparities in the County; approximately one in five County residents live at or below 200% of the Federal Poverty Level, while more than two in five County households have an annual income at or above $100,000.
- Among County residents 25 years and older, 45.5% have earned a bachelor's degree or higher (30.2% Statewide), while 13.2% of County residents have not completed high school (19.2% Statewide). The unincorporated communities of Alum Rock and San Martin and the City of Gilroy have lower than average educational attainment levels.

- Linguistically isolated households are concentrated in the Cities of Milpitas, Cupertino, Gilroy, Mountain View, San Jose, Sunnyvale, and unincorporated Alum Rock.
- More than a third of County residents are immigrants, a majority of whom are from Asia or Latin America. Within the County's immigrant population there is large variation in education levels and health status.

Geographic Context

Santa Clara County is very large and geographically diverse, so when possible, data throughout this report is presented at various geographic scales. The following three figures will provide readers with geographic context as they read the report. Figure 2-1 shows Santa Clara County's location within California (the purple county). Figure 2-2 shows the boundaries of the County's 15 incorporated cities and towns, major roads, parks, and protected areas. Figure 2-3 shows the boundaries of the County's unincorporated communities that are recognized by the U.S. Census Bureau as "census designated places."

Figure 2-1: Santa Clara County's Location in California

Figure 2-2: Santa Clara County Context Map

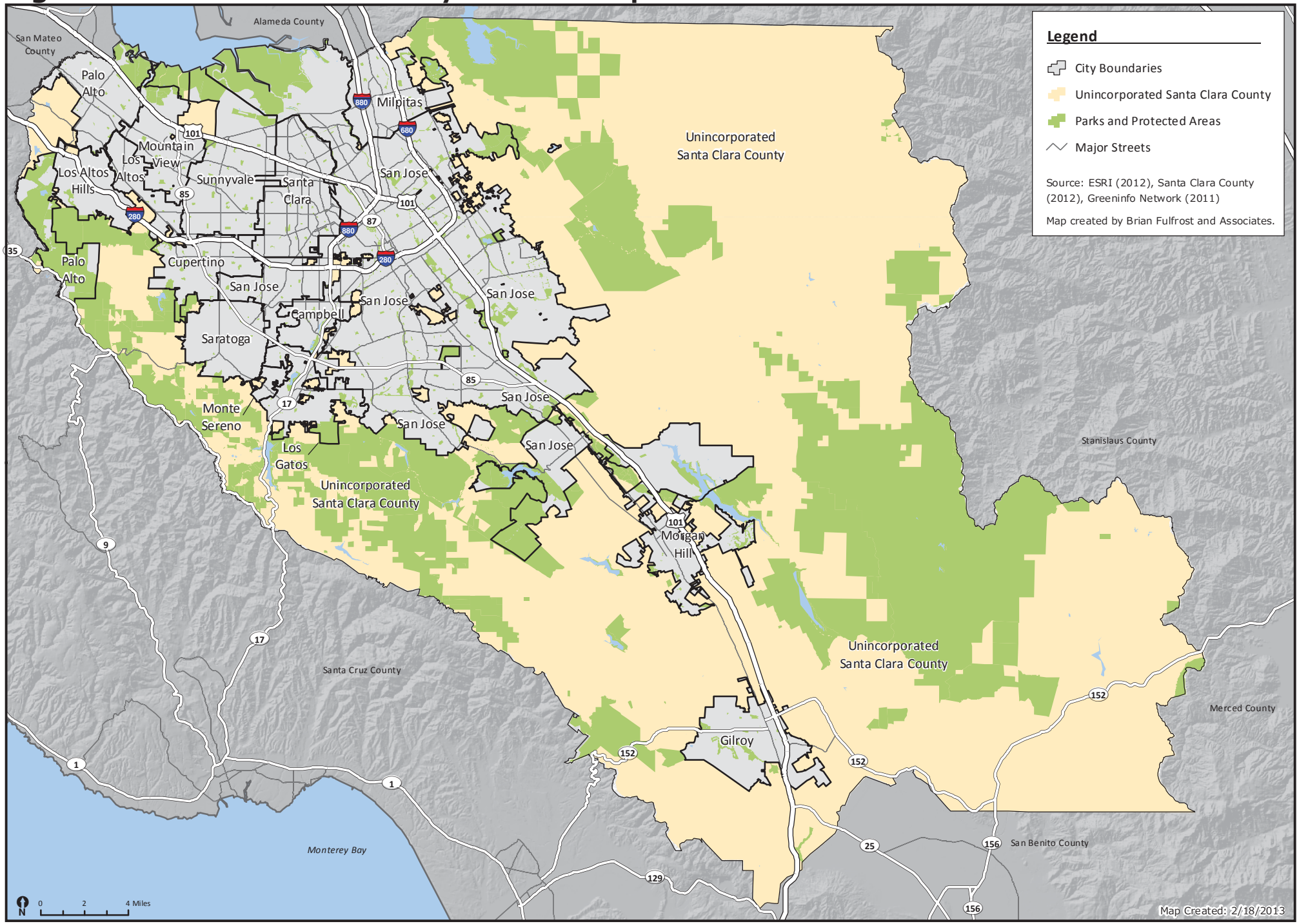
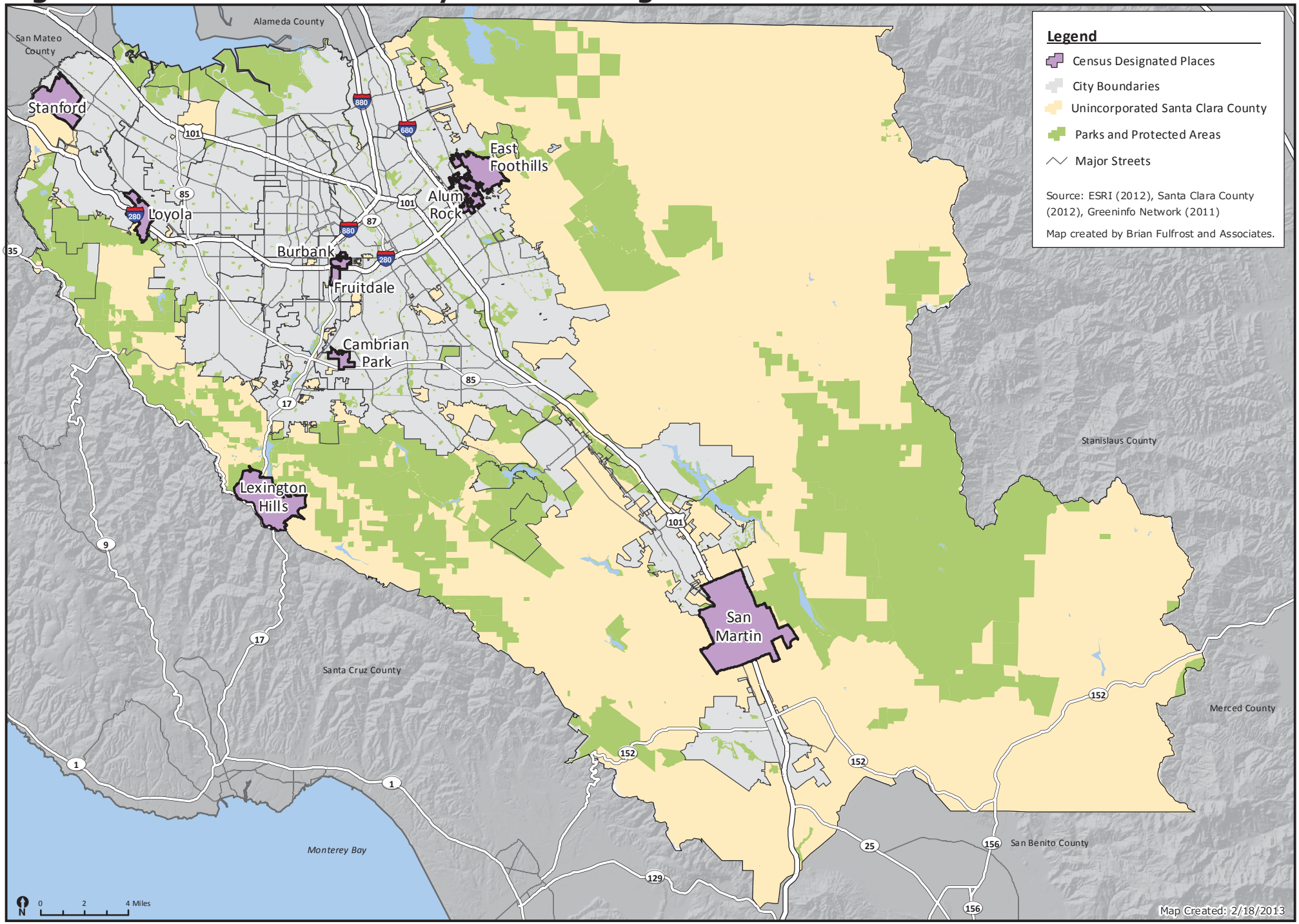


Figure 2-3: Santa Clara County Census Designated Places



Population, Age, and Sex

What is it?

This section describes the basic demographics of County residents including population, age, and sex distributions.

Why is it important?

Understanding a population's age and sex composition and change helps policy makers and public health professionals plan for and target appropriate services and programs. A five-year old has different health needs than a sixty-five year old; just as a female has different health care needs than a male.

Public health professionals consider younger residents (under 18 years of age) and older adults (65 years and older) to be more vulnerable to disease and poor health than adults (18 to 64 years old). Younger residents are considered vulnerable because their bodies are not yet fully developed and therefore, they are more susceptible to environmental risks factors. Older adults are considered more vulnerable because, on average, they have more existing chronic health problems than younger residents.[1]

Status in Santa Clara County

As of 2010, Santa Clara County had a population of 1.78 million residents. Table 2-1 presents the County's population by location, divided by sex and age.[2] As indicated, most of the County's population (53%) lives in San Jose. This means that health-related policies in San Jose will have a significant impact on the overall health of County residents. The City of San Jose is the third largest City in the State and the tenth largest City in the Country. The cities with the next largest share of the County's population are Sunnyvale (8%), Santa Clara (7%), and Mountain View (4%).[3]

As of the 2010 Census, Santa Clara County had 196,944 residents over the age of 65, which is equal to 11% of the population. Additionally, 16% of the population was over the age of 60. The map in Figure 2-4 displays where there are higher concentrations of older residents (census blocks where over 20% of the population is age 65 and older). The Cities of Los Altos, Los Altos Hills, Monte Sereno, Saratoga, the Town of Los Gatos, and selected parts of San Jose in the eastern foothills have the County's highest proportions of older residents.[4]

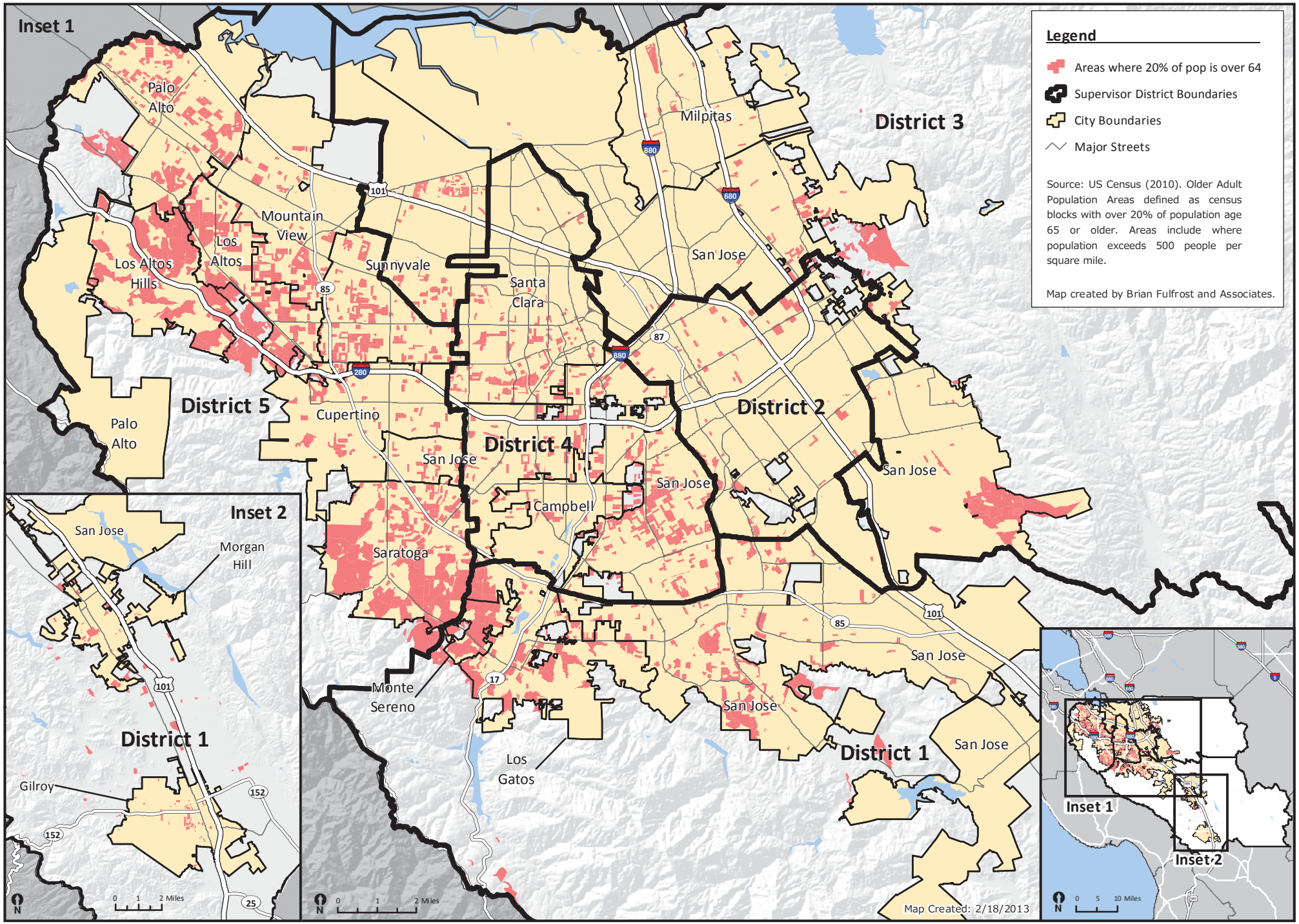
The proportion of females in Santa Clara County (49.8%) is slightly lower than in California (50.3%) and the U.S. (51%). In addition, men comprise a higher proportion of the County's population within every age group up to age 60 and older (see Figure 2-5).[5]

Population, Sex, and Age by Jurisdiction						
	Total Population	% of Total County Population	% Female	% Under 18 Years	% 18-64 Years	% 65 and Older
Santa Clara County, CA	**1,781,642**	**100.0**	**49.8**	**24.1**	**64.8**	**11.1**
Alum Rock CDP	**15,536**	**0.9**	**48.6**	**28.2**	**62.8**	**9.0**
Burbank CDP	**4,926**	**0.3**	**49.8**	**22.8**	**71.0**	**6.2**
Cambrian Park	**3,282**	**0.2**	**49.7**	**24.0**	**63.6**	**12.4**
Campbell City	**39,349**	**2.2**	**51.0**	**21.0**	**67.8**	**11.2**
Cupertino City	**58,302**	**3.3**	**50.7**	**27.6**	**59.9**	**12.5**
East Foothills CDP	**8,269**	**0.5**	**50.0**	**22.0**	**62.4**	**15.6**
Fruitdale CDP	**935**	**0.1**	**49.9**	**18.3**	**72.3**	**9.4**
Gilroy City	**48,821**	**2.7**	**50.4**	**30.7**	**60.9**	**8.4**
Lexington Hills	**2,421**	**0.1**	**48.6**	**22.3**	**67.2**	**10.5**
Los Altos City	**28,976**	**1.6**	**51.8**	**26.1**	**53.9**	**20.0**
Los Altos Hills	**7,922**	**0.4**	**50.6**	**22.9**	**53.9**	**23.2**
Los Gatos Town	**29,413**	**1.7**	**52.1**	**22.3**	**59.8**	**17.9**
Loyola CDP	**3,261**	**0.2**	**50.7**	**24.9**	**55.2**	**19.9**
Milpitas City	**66,790**	**3.7**	**48.9**	**22.9**	**67.6**	**9.5**
Monte Sereno City	**3,341**	**0.2**	**50.9**	**24.4**	**56.2**	**19.4**
Morgan Hill City	**37,882**	**2.1**	**50.5**	**28.6**	**61.9**	**9.5**
Mountain View	**74,066**	**4.2**	**49.1**	**19.7**	**69.7**	**10.6**
Palo Alto City	**64,403**	**3.6**	**51.1**	**23.4**	**59.5**	**17.1**
San Jose City	**945,942**	**53.1**	**49.7**	**24.8**	**65.1**	**10.1**
San Martin CDP	**7,027**	**0.4**	**49.0**	**25.3**	**63.0**	**11.7**
Santa Clara City	**116,468**	**6.5**	**49.5**	**21.3**	**68.7**	**10.0**
Saratoga City	**29,926**	**1.7**	**51.1**	**24.0**	**55.7**	**20.3**
Stanford CDP	**13,809**	**0.8**	**45.8**	**6.6**	**88.9**	**4.5**
Sunnyvale City	**140,081**	**7.9**	**49.6**	**22.4**	**66.4**	**11.2**

**CDP stands for "Census Designated Place," which is an unincorporated community recognized by the U.S. Census*
Source: 2010 US Census. Summary File 1 100% Data. Accessed from American Fact Finder. Compiled by Raimi + Associates

Table 2-1: Population, Sex, and Age by City or Unincorporated Community

Figure 2-4: Vulnerable Communities - High Proportions of Older Adults



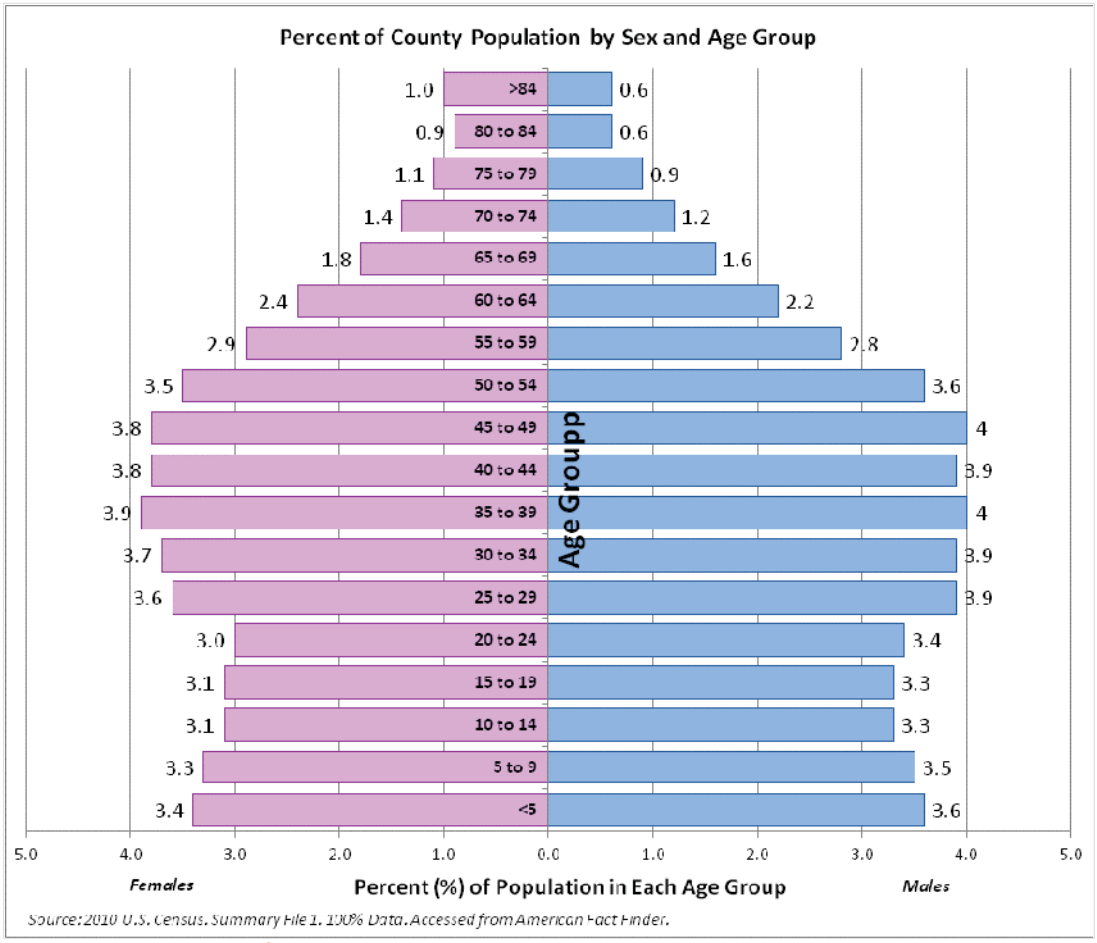


Figure 2-5: Percent of County Population by Sex and Age Group

The population of older adults will continue to grow over the next decade and beyond; by 2030 more than one in four Santa Clara County residents will be over age 60 (27.6%). This is a higher percentage than expected for either the State of California (23.3%) or the United States as a whole (24.7%).[6]

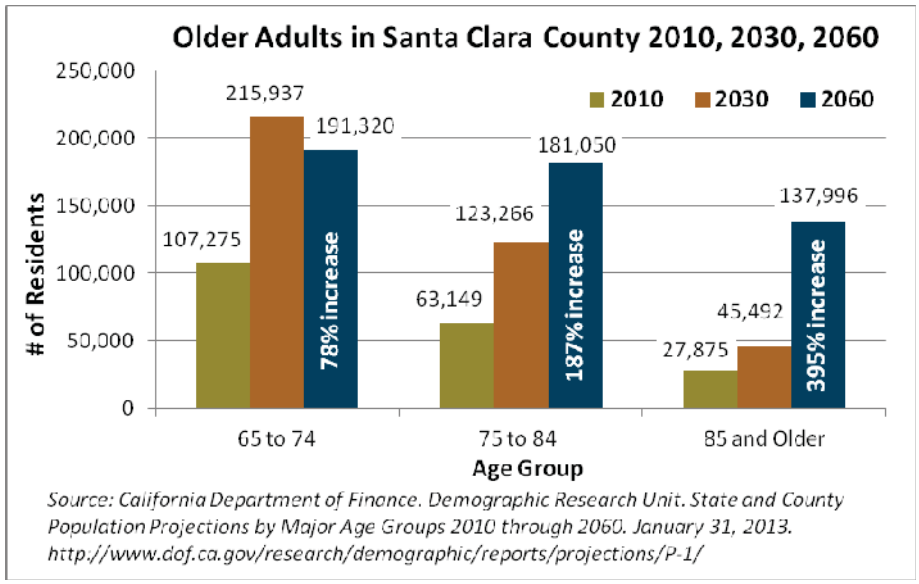


Figure 2-6: Older Adults in Santa Clara County 2010, 2030, 2060

Between the years 2010 and 2060, the number of residents age 85 and older will increase by 395% (see Figure 2-6).[7] This age group is the most intensive user of health care system resources. The County's Health and Hospital System will be faced with increasing needs and demands for older adult services, while advocating for "upstream" healthy behaviors and choices to minimize these demands.

Overall, the population age 65 and older will present health-related challenges for the County, in terms of health care costs and mobility. As seniors living in automobile dominated areas lose their ability to drive, they will become increasingly reliant on alternatives, such as public transportation and friends and family, to access the necessities of life (such as food and health care). [i]

Race/Ethnicity

What is it?

The term "race" refers to groups of people who have biological traits based on their genetic ancestry that are deemed socially significant. The U.S. Census Bureau uses the following categories to survey race: "White", "Black/African-American", "Asian", "American Indian/ Alaskan Native", "Hawaiian/Pacific Islander", and "Other".

Ethnicity refers to shared cultural practices, perspectives, and distinctions that set apart one group of people from another. That is, ethnicity is a shared cultural heritage. The most common characteristics distinguishing various ethnic groups are ancestry, history, language, and religion. Ethnic differences are not inherited; they are learned. "Hispanic/Latino" and "Not Hispanic/Latino" are the only "ethnicity" options provided by the U.S. Census.

Why is it important?

There is compelling evidence that race and ethnicity correlate with persistent and often increasing health disparities among U.S. populations.[8] Race is sometimes regarded as a proxy for income and perceived or real discrimination, and research has found that race-related stress can also influence health outcomes.[9] White residents generally have better health outcomes than most other racial and ethnic groups, especially American Indians, Latinos, African Americans, and some Asian subpopulations.[10] Groups currently experiencing poorer health outcomes are expected to grow as a proportion of the U.S. population.[11]

Differences in neighborhood conditions that contribute to health are often highly correlated with race. Consequently, communities with a high proportion of non-White residents often have less access to parks and healthy food, and are disproportionately exposed to pollution and poor housing.[12]

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[i] In this report, an area where over 20% of the residents are age 65 and older is defined as a "vulnerable community." On average, these communities are associated with a higher "risk" for or "susceptibility" to health issues.

Identifying areas with high concentrations of different racial/ethnic groups, will support the County's and community organizations' efforts to tailor policy and educational interventions based on cultural differences and contexts.

Status in Santa Clara County

Santa Clara County, as a whole, is racially and ethnically diverse. Specifically, 35% of the County's residents identify themselves as White, 32% as Asian, 27% percent as Hispanic/Latino, 2% as Black or African American, and 4% as "other race" or "multi-racial." Overall, almost two-thirds of County residents identify themselves as non-White or Hispanic/Latino, and only one-third identify themselves as White.

Table 2-2 presents the distribution of County residents by self-reported race/ethnicity and by jurisdiction. Most striking is that over half of the residents in the unincorporated communities of Burbank (51%) and Alum Rock (71%), and the City of Gilroy (58%) are Latino (of any race). Similarly, over half of the residents who live in the cities of Cupertino (63%) and Milpitas (62%) are Asian. Over two-thirds of the residents of the Town of Los Gatos (77%) and the Cities of Monte Sereno (77%), Los Altos (68%), and the unincorporated communities of Cambrian Park (68%) and Loyola (68%) identify themselves as Non-Hispanic White.[13]

The map in Figure 2-7 highlights census blocks where over 70% of residents identify themselves as non-White.[ii] Many census blocks in the Cities of San Jose, Milpitas, and Cupertino contain neighborhoods that are mostly non-White. Countywide, about 26% of populated blocks have 70% non-white residents. On average, research has found that communities with high concentrations of non-White residents are associated with a higher risk for or susceptibility to health issues.[14]

The demographics in the County are continually changing and will require responsive approaches to health care delivery, lifestyle choices, and education about healthy decision-making.

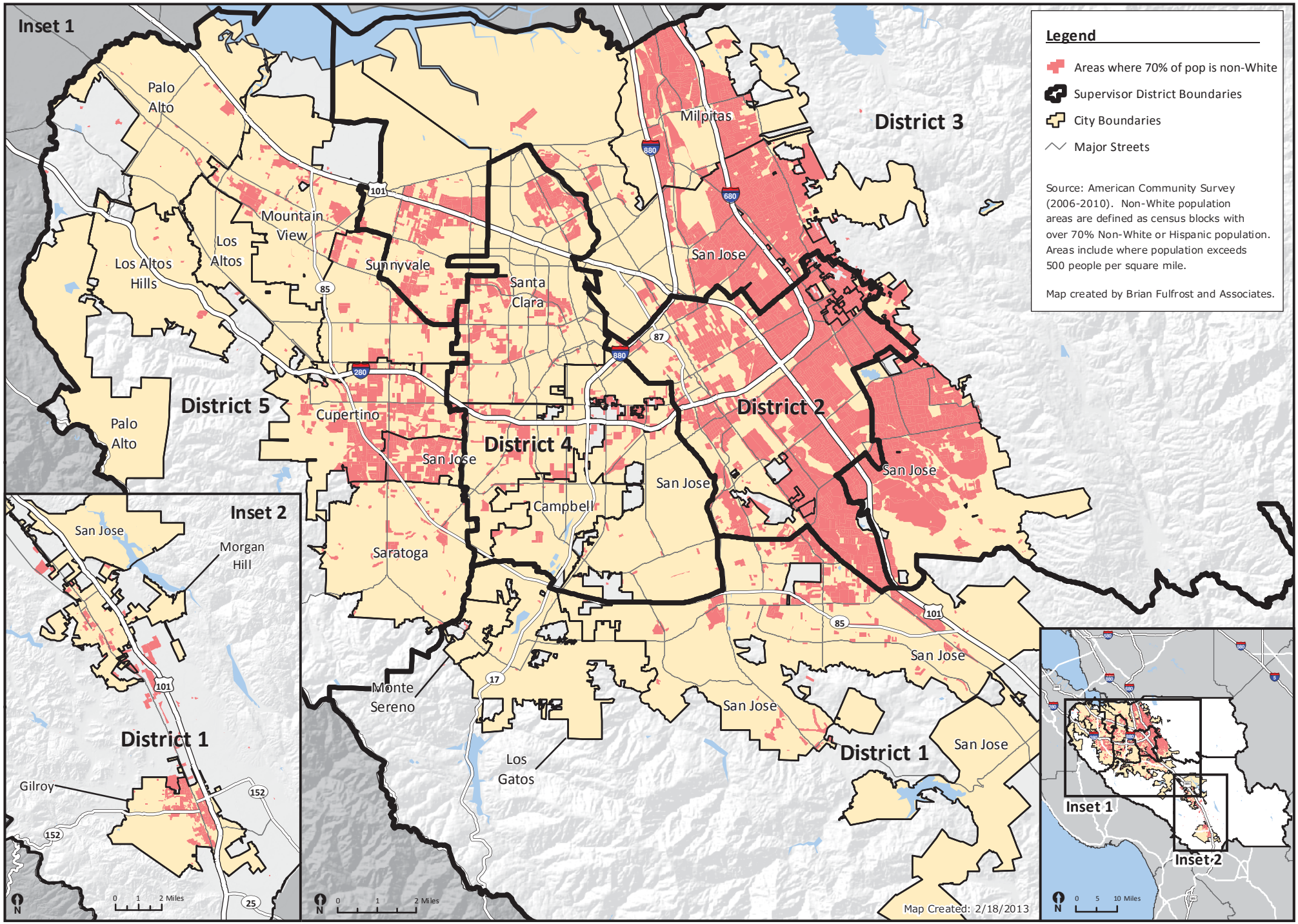
[ii] In this report, an area where over 70% of the residents identify themselves as "non-White" or "Hispanic" is defined as a "vulnerable community."

Race/Ethnicity in Santa Clara County Cities and Unincorporated Areas					
	% Hispanic or Latino (any race)	Non-Hispanic/Latino			
		% White	% Black or African American	% Asian	% Other Race or Multi-Racial
Santa Clara County, California	**26.9**	**35.2**	**2.4**	**31.7**	**3.8**
Alum Rock CDP	70.7	13.1	1.1	12.8	2.4
Burbank CDP	50.9	36.0	2.4	7.6	3.0
Cambrian Park CDP	18.0	69.7	0.6	6.4	5.3
Campbell City	18.4	58.1	2.8	15.8	4.8
Cupertino City	3.6	29.3	0.6	63.1	3.4
East Foothills CDP	37.7	39.7	2.3	16.8	3.4
Fruitdale CDP	26.1	55.2	2.7	11.8	4.3
Gilroy City	57.8	31.4	1.5	6.7	2.7
Lexington Hills CDP	8.0	83.5	0.4	3.7	4.4
Los Altos City	3.9	67.8	0.5	23.5	4.4
Los Altos Hills Town	2.7	66.1	0.5	26.6	4.1
Los Gatos Town	7.2	77.0	0.9	10.8	4.1
Loyola CDP	3.5	68.1	0.6	23.2	4.6
Milpitas City	16.8	14.6	2.7	61.8	4.0
Monte Sereno City	4.8	77.2	0.4	13.8	3.7
Morgan Hill City	34.0	50.3	1.8	9.8	4.1
Mountain View City	21.7	46.0	2.0	25.7	4.6
Palo Alto City	6.2	60.6	1.8	27.0	4.4
San Jose City	33.2	28.7	2.9	31.7	3.5
San Martin CDP	46.2	44.3	0.3	6.4	2.7
Santa Clara City	19.4	36.1	2.5	37.4	4.6
Saratoga City	3.5	51.6	0.3	41.2	3.5
Stanford CDP	10.4	50.2	4.5	27.1	7.7
Sunnyvale City	18.9	34.5	1.8	40.7	4.1

**CDP stands for "Census Designated Place," which is an unincorporated community recognized by the U.S. Census*
Source: 2010 US Census. Summary File 1 100% Data. Accessed from American Fact Finder.
Compiled by Raimi + Associates

Table 2-2: Race/Ethnicity in Santa Clara County Cities and Unincorporated Areas

Figure 2-7: Vulnerable Communities - High Proportions of Non-White Residents



Income and Poverty

What is it?

Income is the amount of money, or its equivalent, that an individual or household receives within a period of time in exchange for labor, services, or the sale of goods. Poverty is defined as the deprivation of food, clothing, shelter, and money that occurs when an individual or family cannot satisfy his/her basic needs. The Federal Government's primary measure of poverty is the "poverty threshold" or "Federal Poverty Level" (FPL). Because the cost of living is so much higher in California, and even more so in Santa Clara County, than the national average, this report defines households living at 200% of the FPL as living in poverty.[15] In 2010, an annual income of $44,100 equated to approximately 200% of the FPL for a family of four, nationwide.

The Family Economic Self-Sufficiency Standard (FESSS) is another measure of income. It is considered a more accurate calculation of income adequacy than the Federal Poverty Level (FPL), because it is based on the amount of money a family needs to meet their basic needs in a specific region.[16] For purposes of this measurement, basic needs include housing, food, and health care, and work related expenses such as transportation, childcare, and taxes. The estimated FESSS for two adults, an infant, and a school-aged child in Santa Clara County in 2008 was $67,213.[17]

Why is it important?

Income is one of the strongest predictors of health outcomes worldwide.[18] Health care access, outcomes, and life expectancy improve as income increases. [19] When households earn incomes much lower than the average cost of living, they tend to make sacrifices in other important areas. Those lifestyle compromises can include eating less food and/or more unhealthy food, living in substandard housing, and/or delaying medical care. Additionally, lacking resources to meet basic needs causes long-term stress, which makes the body less resistant to other health risks.[20] Like race, average-household income is strongly correlated with neighborhood condition.[21]

Status in Santa Clara County

In 2010, the average County household earned $113,161, and the median household income was $86,850. Approximately 44% of County households earned over $100,000, whereas about 29% of households earned under $50,000 (see Figure 2-8).[22]

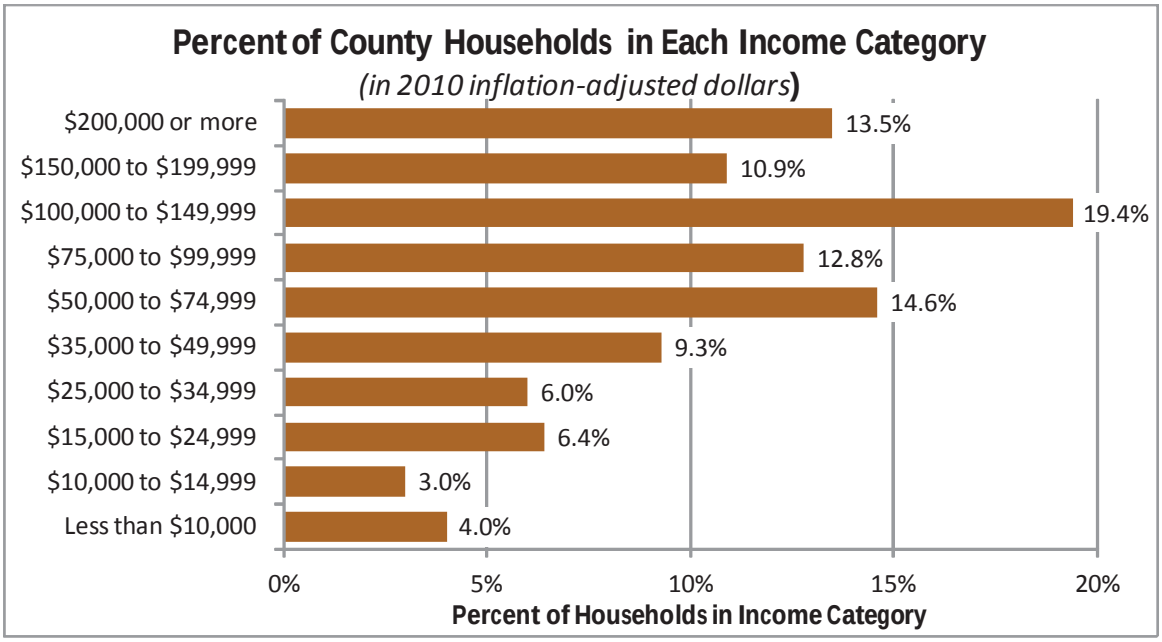


Figure 2-8: Percent of County Households in Each Income Category

U.S. Census Bureau. (2012). American Community Survey (2006-2010 5-Year Estimates)

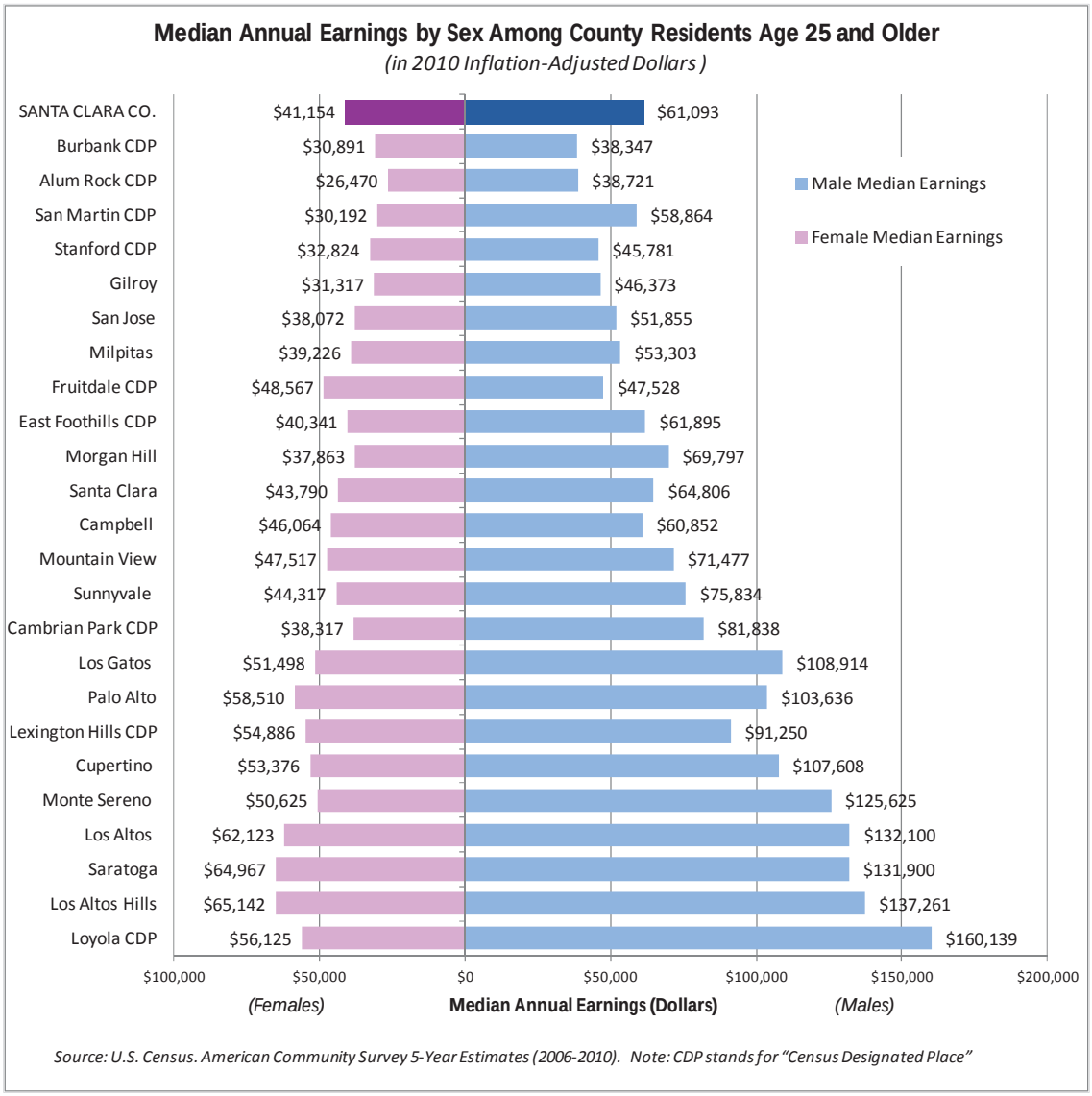
Figure 2-9 shows that there are major earning disparities between men and women, age 25 and older, in every County city and community. Specifically, female workers earn much less, on average, than their male counterparts do.[23]

Approximately one in five County residents (or 21.3%) are living at or below 200% of the Federal Poverty Level (FPL),[24] compared to 32.8% of all California residents.[25] Thus, using the Federal standard, the County has a smaller percentage of residents living in poverty than the State as a whole. However, as discussed above, this indicator may not tell the whole picture since the cost of living in the County exceeds most other areas of the State.

Figure 2-10 shows the census block groups with concentrations of poverty - or where over 30% of a census block group's population earns less than 200% of the Federal Poverty Level.[iii] The Cities of Campbell, Gilroy, San Jose, Santa Clara, and Sunnyvale all have many census block groups, which meet this definition of poverty.[26]

While the County as a whole has lower poverty rates than other California counties, income disparities exist in Santa Clara County. In addition, the region's high cost of living impacts the resources needed to support the necessities of life, such as healthy housing, a balanced diet, and access to health care.

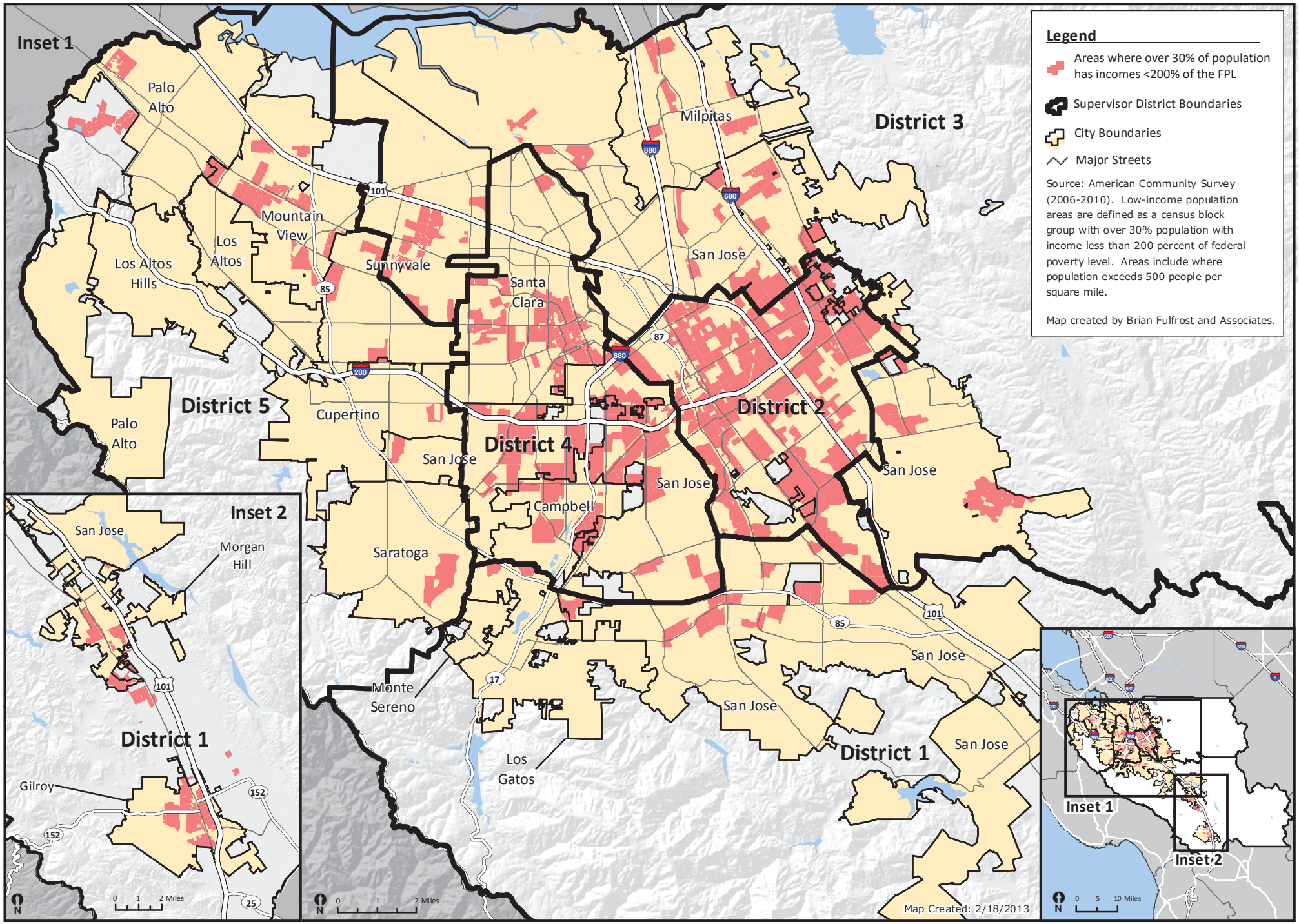
[iii] This report defines areas where over 30% of a Census block group's population earns less than 200% of the Federal Poverty Level as a "vulnerable community." On average, these communities are associated with higher "risk" for or "susceptibility" to health issues.



Source: U.S. Census. American Community Survey 5-Year Estimates (2006-2010). Note: CDP stands for "Census Designated Place"

Figure 2-9: Median Annual Earnings by Sex Among County Residents Age 25 and Older

Figure 2-10: Vulnerable Communities - High Proportions of Low-Income Residents



Educational Attainment

What is it?

Educational attainment refers to the highest level of education that a person has completed.

Why is it important?

Completing major educational milestones, such as graduating from high school or college, has demonstrated economic and health benefits. First, educational attainment is associated with work opportunities offering higher incomes (that allows for greater housing and healthy food options) and better working conditions (with lower exposure to hazards). Second, it enhances an individual's knowledge and literacy and influences one's behavior, which can lead to better nutrition, increased exercise, reduced use of drugs and alcohol, and better health management. Finally, people with higher education tend to possess more self-control, social standing, and social support networks, which when taken together, reduce overall stress and provide more social and economic resources.[27]

Status in Santa Clara County

Santa Clara County is one of the most highly educated areas in California. Almost twice as many people have graduate or professional degrees in the County (20%) than in California (11%). Additionally, 19% of California residents lack a high school education, compared to 14% in Santa Clara County (see Figure 2-11).[28]

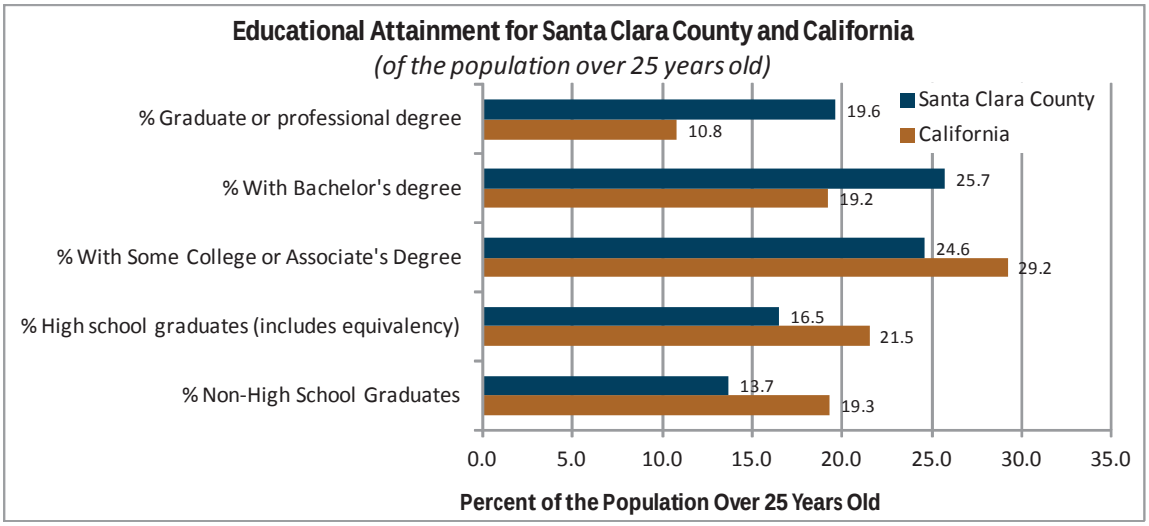


Figure 2-11: Educational Attainment for Santa Clara County and California

Source: US Census. American Community Survey 5-Year Estimates 2006-2010. Accessed from American Fact Finder.

The County's various communities have varying levels of education, as presented in Table 2-3. For example, 51% of Los Altos residents and 49% Palo Alto residents have a graduate or professional degree. The unincorporated areas of Alum Rock (34%) and San Martin (25%), and the City of Gilroy (24%) have the highest proportion of residents who have not graduated from high school.

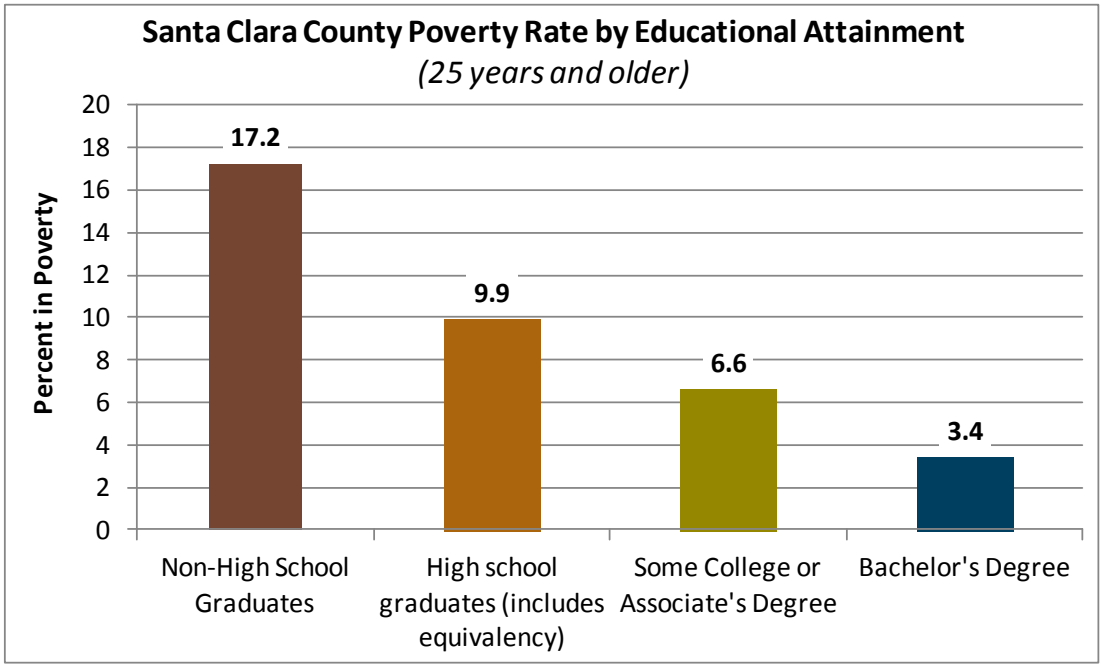
Santa Clara County Educational Attainment by Jurisdiction (of the population over 25 years old)	% Non-High School Graduates	% High School Graduates (includes equivalency)	% With Some College or Associate's Degree	% With Bachelor's degree	% With Graduate or Professional Degree
California	*19.3*	*21.5*	*29.2*	*19.2*	*10.8*
Santa Clara County, CA	**13.7**	**16.5**	**24.6**	**25.7**	**19.6**
Alum Rock CDP	33.7	31.0	22.5	10.5	2.3
Burbank CDP	23.7	19.1	34.3	15.0	7.8
Cambrian Park CDP	7.7	24.4	34.0	22.3	11.6
Campbell City	7.9	16.9	31.2	28.2	15.7
Cupertino City	3.0	6.8	15.5	35.0	39.8
East Foothills CDP	14.3	20.7	31.3	22.9	10.8
Fruitdale CDP	9.7	25.4	30.3	19.0	15.6
Gilroy City	24.1	21.3	29.9	17.0	7.6
Lexington Hills CDP	4.2	10.4	29.3	32.1	24.1
Los Altos City	1.5	6.0	14.2	35.9	42.3
Los Altos Hills Town	1.4	5.4	11.1	31.5	50.7
Los Gatos Town	2.4	8.8	24.3	37.6	26.9
Loyola CDP	1.9	7.4	13.5	32.7	44.5
Milpitas City	13.5	21.0	26.0	25.8	13.6
Monte Sereno City	0.9	9.0	18.7	39.5	31.9
Morgan Hill City	14.8	15.9	31.2	24.4	13.8
Mountain View City	9.6	11.7	20.0	28.3	30.4
Palo Alto City	2.4	5.4	12.8	30.6	48.7
San Jose City	17.6	19.4	26.4	23.0	13.5
San Martin CDP	25.1	17.1	29.3	23.1	5.4
Santa Clara City	9.1	16.2	25.9	27.8	21.0
Saratoga City	2.3	5.0	16.0	35.8	40.9
Stanford CDP	0.8	3.3	6.1	26.0	63.8
Sunnyvale City	9.1	12.6	22.1	29.8	26.4

**CDP stands for "Census Designated Place" which is an unincorporated community recognized by the U.S. Census.*
Source: US Census. American Community Survey 5-Year Estimates 2006-2010. Accessed from American Fact Finder.
Compiled by Raimi + Associates.

Table 2-3: Santa Clara County Educational Attainment by Jurisdiction

There are real financial consequences to lower levels of education. Figure 2-12 correlates the proportion of residents in poverty with educational attainment. It shows that as educational level increases, the percentage of residents age 25 and over in poverty falls. It also indicates that among residents, age 25 years and older, 17% with less than a high school education are in poverty compared to 3% with a bachelor's degree or higher.[29]

Overall, County residents are relatively well educated; however, disparities in educational attainment can result in negative health impacts for a portion of the County's population. Polices that directly or indirectly increase the educational attainment of County residents will likely yield health-related benefits in the future.



Source: US Census. American Community Survey 5-Year Estimates 2006-2010. Accessed from American Fact Finder. Compiled by Raimi + Associates.

Figure 2-12: Santa Clara County Poverty Rate by Educational Attainment

Linguistic Isolation

What is it?

According to the U.S. Census Bureau, linguistic isolation is a measure of English-speaking ability in a household. A linguistically isolated household is one in which no person age 14 or over speaks English "very well."

Why is it important?

Since most business and civic discourse is in English, the ability to communicate and comprehend English is a critical skill for County residents. While certain computer and high-tech industry jobs do not require fluency in English, linguistic isolation serves as a barrier to obtaining most jobs (especially higher wage jobs) and to obtaining quality medical and social services. In addition, identifying linguistically isolated households could assist public agencies and community groups in targeting emergency communication and support services.[30]

Status in Santa Clara County

In 2010, 12% of County households were linguistically isolated, compared to 10% in California. A higher than average proportion of the County's linguistically isolated households live in the Cities of Milpitas (19%), Cupertino (12%), Gilroy (13%), Mountain View (14%), San Jose (14%), Sunnyvale (13%), and the unincorporated community of

Alum Rock (16%) (see Table 2-4). Spanish is the most common language spoken by the County's linguistically isolated households.

Overall, the County contains pockets of linguistically isolated residents. Such residents may experience more barriers to obtaining jobs that provide a living wage and health benefits, and to higher quality education and health care.

Linguistically Isolated Households in Santa Clara County Cities, Towns, and Unincorporated Areas		
	Percent	**Rank** *(1st=Most Ling. Isolated)*
Santa Clara County	**12.2%**	--
Milpitas City	18.5%	1st
Alum Rock CDP	15.9%	2nd
San Jose City	14.2%	3rd
Mountain View City	13.6%	4th
Gilroy City	13.1%	5th
Sunnyvale City	13.0%	6th
Cupertino City	12.3%	7th
Burbank CDP	11.8%	8th
Santa Clara City	11.6%	9th
Stanford CDP	9.3%	10th
Campbell City	7.2%	11th
Palo Alto City	6.9%	12th
East Foothills CDP	5.5%	13th
Saratoga City	5.4%	14th
Loyola CDP	4.9%	15th
Morgan Hill City	4.8%	16th
Los Altos Hills Town	2.9%	17th
Los Altos City	2.8%	18th
Los Gatos Town	2.5%	19th
Fruitdale CDP	2.5%	20th
Cambrian Park CDP	1.1%	21st
Lexington Hills CDP	1.0%	22nd
San Martin CDP	0.6%	23rd
Monte Sereno City	0.0%	24th

** Linguistically isolated means that all members of the household 14 years and over have at least some difficulty with English.*

Source: U.S. Census. American Community Survey 5-Year Estimates 2006-2010. Accessed from American Fact Finder.

Table 2-4: Linguistically Isolated Households in Santa Clara County Cities, Towns, and Unincorporated Areas

Immigration

What is It?

According to the U.S. Census Bureau, the term foreign-born (or immigrant) refers to anyone who is not a U.S. citizen at birth. They further classify immigrants as naturalized citizens or non-citizens. Naturalized citizens are persons who were born abroad and became citizens after moving to the U.S. whereas non-citizens include foreign-born persons who are lawful permanent residents, temporary migrants (such as foreign students), humanitarian migrants (such as refugees), and undocumented migrants.

Why is it important?

Because the immigrant population is, by its very nature, a very diverse group of individuals, research has found many different pathways connecting immigration status to health outcomes. Foreign-born persons, or immigrants, often face poverty, social exclusion, and difficulty accessing health and social services, which all can have negative health impacts.[31] However, researchers have also identified the "healthy migrant effect," where first generation immigrants are often healthier than U.S. born residents of the same ethnic backgrounds. As migrants become more assimilated and cope with the stressors of being an immigrant, the migrant health advantage diminishes.[32]

Status in Santa Clara County

According to the 2009-2011 American Community Survey, 37% (or 660,142) of County residents were born in another country and almost half (48%) of foreign-born residents are not naturalized citizens. The majority (62%) of County immigrants are from Asia, especially Vietnam, China, India, and the Philippines. The next largest immigrant group is from the Americas (28.3%), primarily from Mexico (see Table 2-5).[33]

Place of Birth for the Foreign-Born Population in Santa Clara County	
Total-Foreign Born Residents	**660,142**
Oceania	0.4%
Africa	1.4%
Europe	7.8%
Americas	28.3%
Mexico	*22.1%*
Asia	62.0%
Vietnam	*14.0%*
China	*13.8%*
India	*12.6%*
Philippines	*9.1%*

Source: U.S. Census Bureau, 2009-2011 American Community Survey 3- year estimates.

Table 2-5: Place of Birth for the Foreign-Born Population

Two very distinct immigrant groups exist in the County; those that are highly educated and came to the U.S. as skilled professionals and those that have less education and work in lower-paying jobs. County immigrants have higher proportions than U.S. born citizens at both extremes of the educational attainment spectrum. Twenty-nine percent (29%) of non-citizen immigrants lack a high school education, compared to 14% of naturalized citizens and 7% of U.S. Born Citizens. Conversely, a higher proportion of naturalized citizens (24%) and non-citizens (22%) have a graduate or professional degree than U.S. born citizens (17%) (see Figure 2-13).[34]

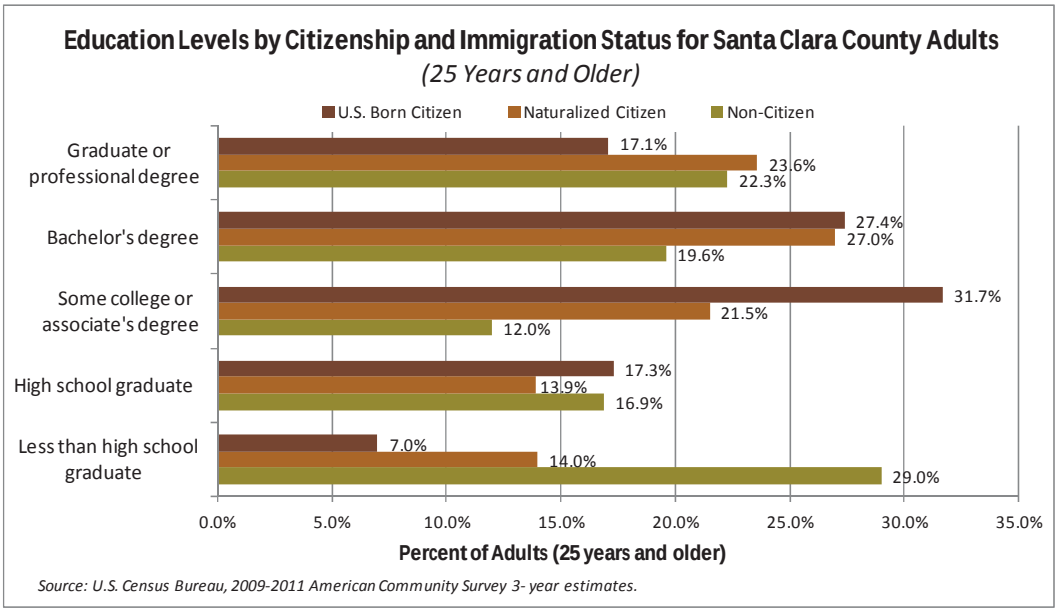


Figure 2-13: Education Levels by Citizenship and Immigration Status for Santa Clara County Adults

While higher education and income levels can strongly influence health status, on average both naturalized citizen and non-citizen immigrants report being less healthy than U.S. born citizens (see Figure 2-14). U.S. born citizens are almost twice as likely to report having "excellent" health compared to non-citizens, and naturalized citizens and non-citizens are more than twice as likely than U.S. born citizens to report having poor health.[35]

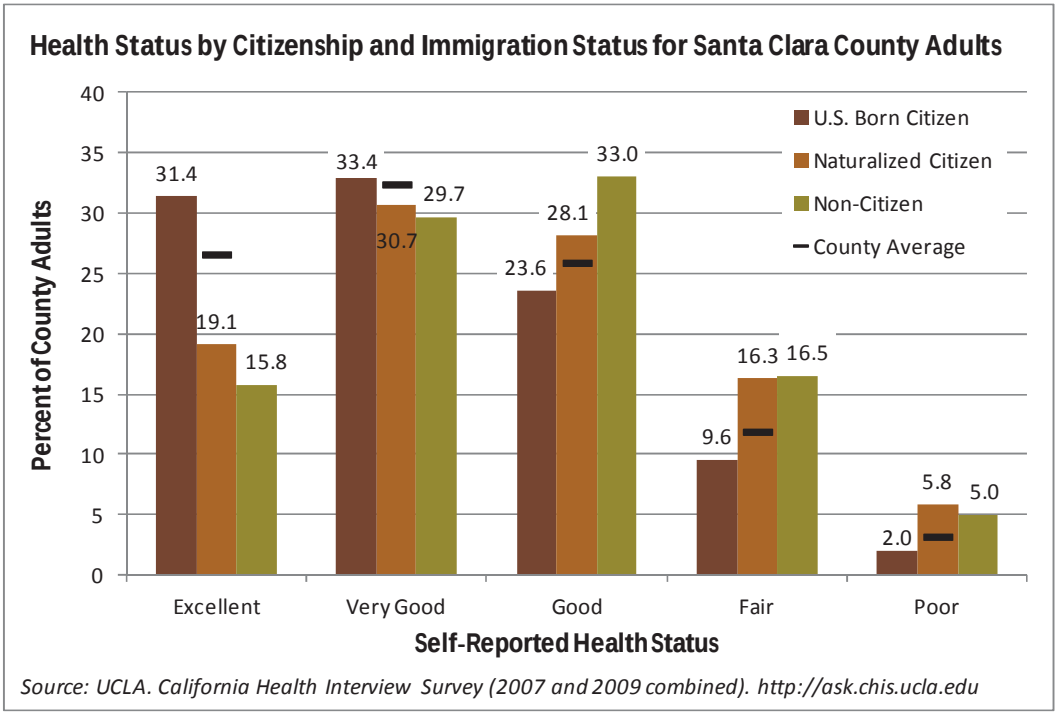


Figure 2-14: Health Status by Citizenship and Immigration Status for Santa Clara County Adults

02 ~ Demographic and Social Characteristics References

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03 ~ HEALTH CONDITIONS

Overview

Until the early-mid 20th century, the fields of public health and medicine primarily focused on preventing and treating communicable and infectious diseases, infant mortality, and famine. People did not live long enough to develop degenerative and man-made chronic diseases. With a rising standard of living and improved nutrition and sanitation, people now live longer, but are faced with a new set of risk factors due to industrialization, more sedentary lifestyles, and other factors. Since the mid-20th century, degenerative chronic diseases have become the Country's most pressing health problem. Over the last few decades, the medical and public health fields have begun to focus less on reducing these diseases among individuals and more heavily on improving community conditions and the other factors that contribute to these diseases.[1]

This section presents information on the most pressing health issues and risk factors in Santa Clara County. When possible, data is presented by sex, race/ethnicity, income, and/or geography to understand if specific communities have unique health issues or needs. Additional health information and reports are available on the Santa Clara County Department of Public Health's website.[i]

This section provides an overview of the following topics related to health conditions and risk factors in Santa Clara County:

- Life Expectancy
- Leading Causes of Death
- Risk Factors for Premature Death
- Overweight and Obese Populations
- Heart Disease
- Diabetes
- Asthma
- Smoking and Tobacco Use
- Substance Abuse
- Mental Health
- Health Insurance
- Proximity to Hospitals and Primary Care Clinics
- Older Adult Unintentional Falls
- Violent Crime Density

[i] Numerous health reports, fact sheets, and maps can be accessed on the Santa Clara County Department of Public Health's website: http://www.sccgov.org/sites/sccphd/en-us/Partners/Data/Pages/default.aspx

Key Findings

- As a whole, Santa Clara County residents are very healthy compared to the rest of the State and country. However, disparities do exist among income, racial/ethnic, and age groups.
- County residents live longer, on average, than those throughout the State or country; however, there are variations in life expectancy in different parts of the County. At the most extreme, residents of Midtown San Jose have an average life expectancy of 79.5 years, compared to 86.7 years for those from the Cities of Los Altos, Mountain View, and Palo Alto.
- Cancer and heart disease are the leading causes of death in the County and account for 50% of all deaths.
- In Santa Clara County, about 55% of adults and 25% of middle school students are considered overweight or obese.
- Economically disadvantaged students are 62% more likely to be overweight or obese, compared to non-disadvantaged students. Hispanic/Latino students are 55% more likely to be overweight or obese compared to White students.
- County residents with the highest obesity rates, in addition to racial and ethnic minorities and those with lower incomes, tend to have less education and be from a rural area.
- The highest rates of heart disease and diabetes occur in Midtown San Jose and the southern portion of the County in and around the Cities of Gilroy and Morgan Hill.
- The percentage of uninsured adults (age 18-64 years old) in Santa Clara County increased from 8% in 2000 to 18% in 2009.
- Approximately 35% of County adults under 35 years old lack health insurance.
- Unintentional falls are the leading cause of death and non-fatal hospitalizations among older adults in Santa Clara County.
- Low-income areas of the County have higher violent crime densities than the County as a whole; however, County residents as a whole perceive their neighborhoods to be safer than other Californians.

Life Expectancy

What is it?

Life expectancy measures the length of time the average person is expected to live, and thus can be an indicator of the overall health of a population.

Why is it important?

Life expectancy is a critical health indicator of a population. When coupled with the leading causes of death, life expectancy measures the risks to a population for disease and premature death. Public health researchers study life expectancy and other health and disease measures to identify health disparities across geographic and demographic subpopulations, and to devise appropriate policy and community health solutions.

Status in Santa Clara County

Santa Clara County residents have a higher average life expectancy (83.7 years) than those of the State (80.1 years) and the nation (78.6 years). This means that the environment in Santa Clara County is, in general, conducive to a longer life span than other places in the State and country. However, there is variation in the life expectancy among different geographic areas of the County (see Figure 3-1).

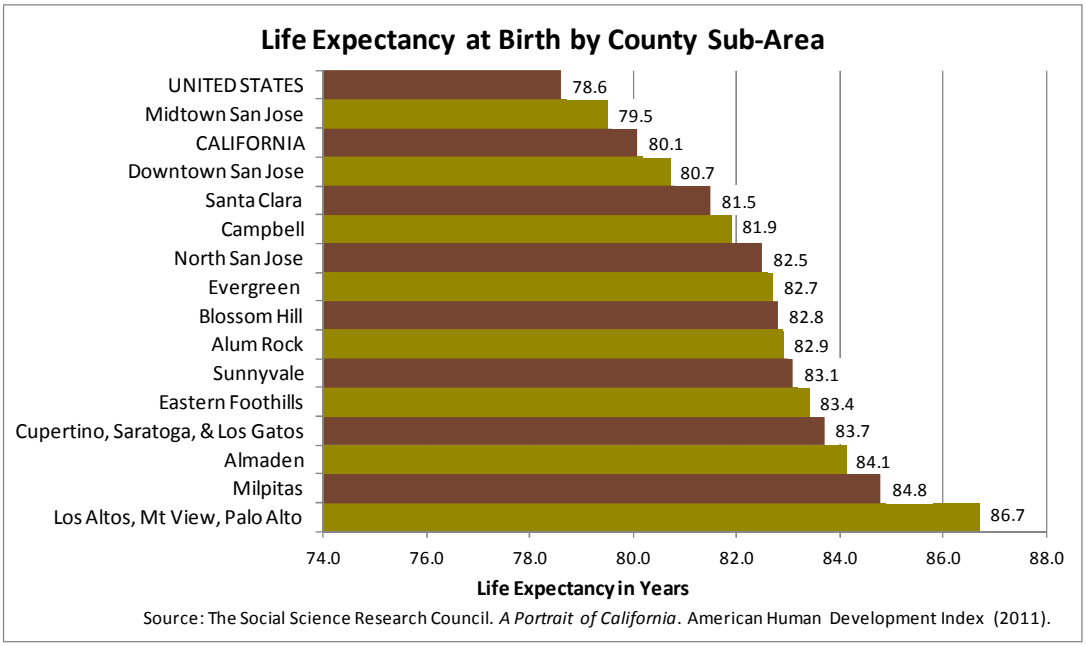


Figure 3-1: Life Expectancy at Birth by County Sub-Area

Figure 3-1 indicates that the area with the lowest life expectancy is Midtown San Jose (79.5 years); the areas with the highest life expectancy are the Cities of Los Altos, Mountain View, and Palo Alto (86.7 years). While this information is helpful, it does not provide insight into the cause of variation, except that areas with the highest life expectancy generally correlate with the County's highest income areas.[2]

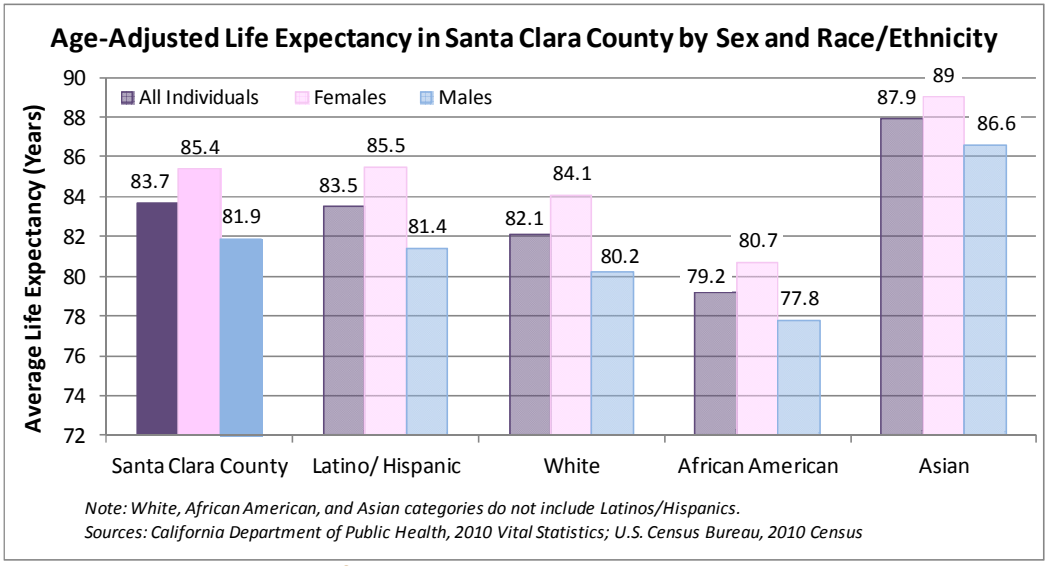
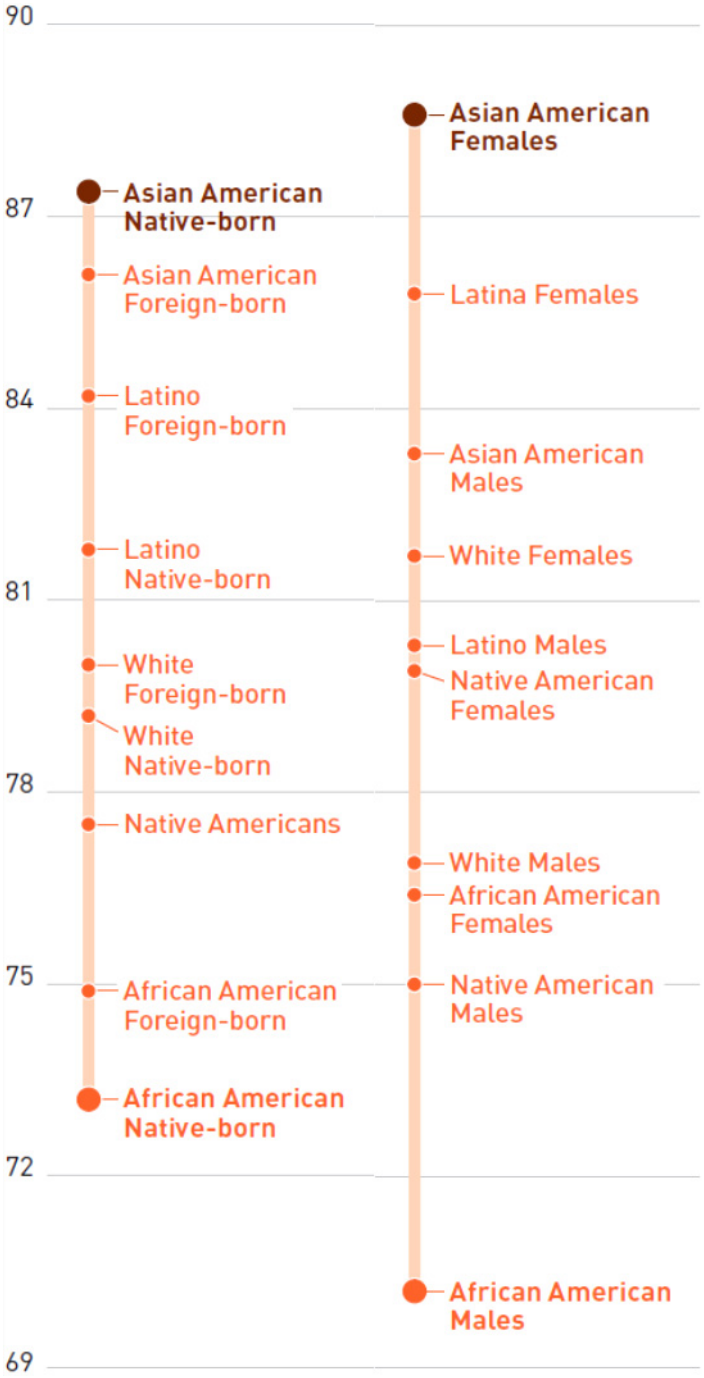


Figure 3-2: Age-Adjusted Life Expectancy in Santa Clara County by Sex and Race/Ethnicity

In addition to geographic variations in life expectancy, there are also variations across different racial and ethnic groups. Figure 3-2 shows life expectancy by sex and race/ethnicity for Santa Clara County residents. Among all groups, County females have higher expectancy than males, which is consistent with State, US, and global statistics. Asian female County residents have the highest life expectancy of any group (89 years) and Asian males have the second highest (86.6 years). While Latino residents have the next best average life expectancy, they experience the largest male-female disparity of all racial/ethnic groups; Latino women live an average of 4.1 years longer than Latino men compared to the County's average sex difference of 3.5 years). White residents have slightly shorter life expectancies than Latinos do, but African American residents live 4.5 years less than an average County resident. Finally, there is an 11.2-year life expectancy gap between Asian females and African American males.

These County race/ethnicity and sex patterns are consistent with California data (based on a study by the Social Science Research Council). In Figure 3-3, the line on the left compares race/ ethnicity and immigration status, while the line on the right shows race/ethnicity and sex. Among all studied groups (see the line on the right), females generally live longer than males. The left line shows that Latinos, Whites, and African Americans who are foreign-born live longer than their U.S.-born counterparts. However, Asian-Americans born in the U.S. live longer than any other group, including foreign-born Asian Americans.[3]



Source: Burd-Sharps, S., and Lewis, K. (2011, May). A Portrait of California: California Human Development Report 2011. American Human Development Project of the Social Science Research Council.

Figure 3-3: California Life Expectancy by Race/ Ethnicity, Sex, and Immigration Status

Leading Causes of Death and Risk Factors

What is it?

The leading causes of death refer to the most common causes of death, based on their frequency. A risk factor is something that is likely to increase the chances of a particular event, such as a specific disease or medical condition, to occur. Some lifestyle-related risk factors for the leading causes of death include an unhealthy diet, high blood pressure, smoking, insufficient physical activity, obesity/being overweight, and diabetes.[4]

Why is it important?

Knowing the leading causes of death can help local health departments identify pressing health issues, and prioritize the work of policy makers, public health departments, researchers, and others. Focusing resources on the leading causes is an efficient use of available health system resources and, most importantly, can save the greatest number of lives. Identifying and addressing which risk factors are associated with certain causes of death can help prevent disease and keep people healthier.

Status in Santa Clara County

Table 3-1 examines the leading causes of death in the County, compared to the United States. The two leading causes of death in both the United States and the County are cancer and heart disease. In the County, these two causes account for approximately 50% of all deaths.[5] Research indicates that medical and environmental improvements, and an increase in healthy behaviors, can help reduce the incidence of cancer and heart disease.[6]

Leading Causes of Death (2009)	
Santa Clara County[7]	United States[8]
1. Cancer	1. Heart Disease
2. Heart Disease	2. Cancer
3. Alzheimer's Disease	3. Chronic Lower Respiratory Diseases
4. Stroke	4. Stroke
5. Chronic Lower Respiratory Diseases	5. Accidents (unintentional injuries)
6. Accidents-unintentional injuries	6. Alzheimer's Disease
7. Diabetes	7. Diabetes
8. Influenza & Pneumonia	8. Influenza and Pneumonia
9. Chronic liver disease & cirrhosis	9. Nephritis, nephrotic syndrome, and kidney disease
10. Suicide	10. Suicide

Sources: California Department of Public Health. (2009). Leading Causes of Death, 2009: Number of Santa Clara County Resident Deaths for the 10 Leading Causes of Death in California.
Centers for Disease Control and Prevention. (2009). FastStats: Leading Causes of Death.

Table 3-1: Leading Causes of Death, Santa Clara County, and USA (2009)

Excluding cancer and heart disease, there are some variations between the County and the country as a whole. In Santa Clara County, Alzheimer's disease is the third leading cause of death compared to the sixth in the United States. This is likely due to the longer than average life expectancy for County residents, particularly among certain populations. Respiratory diseases are lower in Santa Clara County than for the U.S. as a whole, perhaps because of lower smoking rates and less industrial pollution in the

County compared to other areas of the Country. In addition, chronic liver disease and cirrhosis are among the top ten causes of death in Santa Clara County, but not in the United States.[9] Chronic liver disease is linked to Hepatitis, which is higher among Asian/ Pacific Islander (API) and immigrants from Latin America. The County's large number of API and Latino immigrants may relate to the County's higher liver disease rate.[10]

According to the Santa Clara County Public Health Department, the leading causes of death vary based on the age of the population and their race/ethnicity. In 2009, the leading causes of death in Santa Clara County for the major racial and ethnic groups are cancer followed by heart disease. In the County, however, the third and fourth leading causes of death for Whites were Alzheimer's disease and chronic lower respiratory disease; for African Americans, unintentional injuries and diabetes; for Asian and Pacific Islander, stroke and diabetes; and for Hispanic populations, diabetes and unintentional injuries. This variation underscores the need to provide more targeted interventions for different populations.[11]

For most cancers, the County's average rates mirror or are lower than California's. Lower lung cancer rates are likely due to the County's lower smoking rates. Breast and prostate are the most common types of cancer in the County, with rates comparable to those Statewide. Figure 3-4 shows the State and County Cancer Incidence Rates by Race/Ethnicity and Sex, while Figure 3-5 shows County and State Average Cancer Mortality Rates by Race/Ethnicity and Sex.[12] Non-Hispanic Whites and Blacks have the highest incidence and mortality rates for all cancers in the County, which is similar to State trends. Black males have the highest rate of mortality from cancer, which may be due to a host of factors, including lower rates of health insurance participation and for seeking preventive medical care.[13]

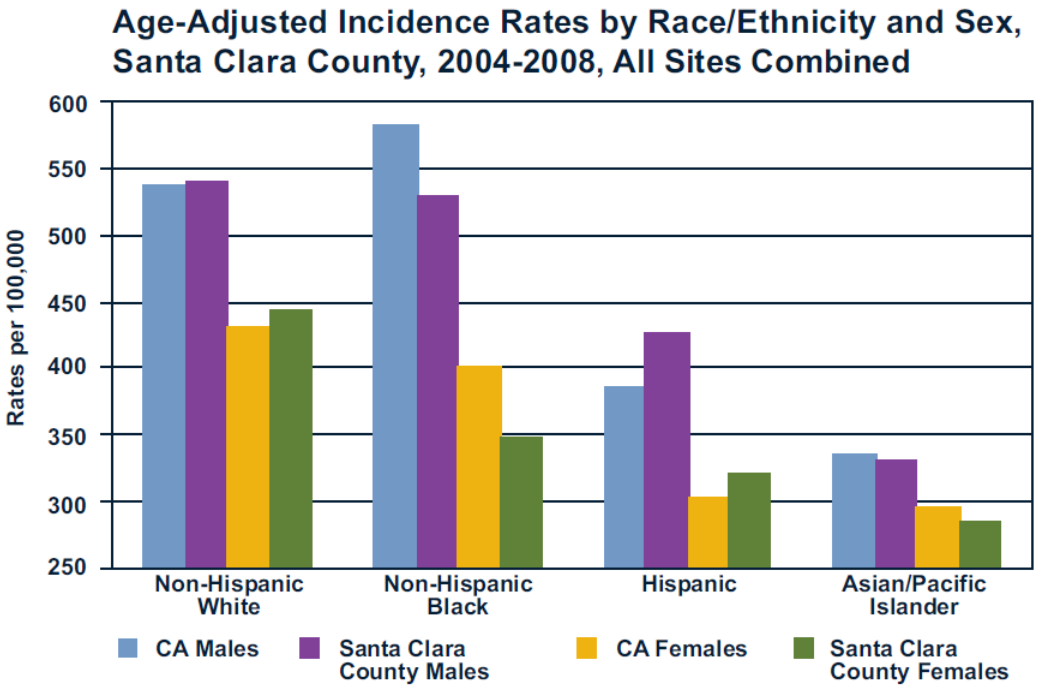


Figure 3-4: Santa Clara County and CA Cancer Incidence Rates by Race/Ethnicity and Sex

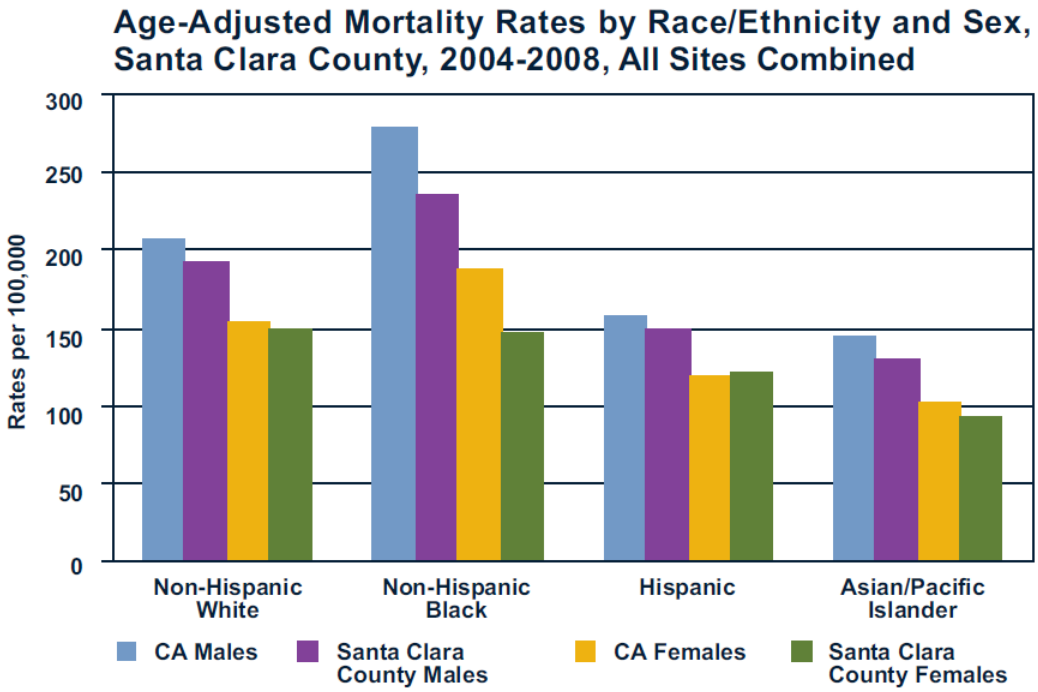


Figure 3-5: Santa Clara County and CA Cancer Mortality Rates by Race/Ethnicity and Sex

Source (for Figures 3-4 and 3-5): California Cancer Registry (CCR), Cancer Surveillance Section, Cancer Surveillance and Research Branch, California Department of Public Health (October 2011). Selected Cancer Facts – Santa Clara County. Retrieved from http://www.ccrcal.org/pdf/factsheets/counties/SantaClara_CountyFactsheets2011.pdf

Overweight and Obese Populations

What is it?

The terms "overweight" and "obese" describe weight ranges that are above what is medically accepted as healthy. The most common measure of healthy and unhealthy weight is the "Body Mass Index" (BMI), which is a function that takes into account both height and weight. Table 3-2 presents standard BMI score ranges and their definitions, including underweight, healthy weight, overweight, and obese.

BMI	Considered
Below 18.5	Underweight
18.5 to 24.9	Healthy Weight
25.0 to 29.9	Overweight
30 or Higher	Obese

Source: U.S. Centers for Disease Control and Prevention. (2011). "How is BMI Calculated and Interpreted?"

Table 3-2: Standard Body Mass Index (BMI) Categories

Why is it important?

Obesity is the most prevalent, fatal, chronic, relapsing disorder of the 21st century. It is a leading cause of the nation's mortality, morbidity, disability, healthcare utilization, and healthcare costs. The United States and California have witnessed a dramatic increase in obesity during the last several decades. In 1985, less than 10% of California's population was obese (defined as a body mass index (BMI) of 30 or higher). By 2010, over 20% of California's population was considered obese.[14]

People of all ethnic backgrounds, income, and education levels are affected by obesity. However, nationwide, childhood obesity is a major concern as well. When kids are overweight or obese at a young age, it puts them at risk for being overweight or obese as an adult. In addition, childhood obesity leads to a number of other, chronic adulthood diseases including diabetes and heart disease.

Nationwide, approximately 15% of the County's children and adolescents age 2 to 19 are obese. Since 1980, obesity prevalence among children and adolescents has almost tripled. There are significant racial and ethnic disparities in obesity prevalence among U.S. children and adolescents. Hispanic boys are significantly more likely to be obese than Non-Hispanic White boys, and non-Hispanic Black girls were significantly more likely to be obese than Non-Hispanic White girls.[15]

The costs of obesity currently strain our healthcare system. Adults and children who are obese are more like to develop a number of other problematic health conditions. These conditions include high blood pressure, high blood cholesterol, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea, cancer, nonalcoholic fatty liver disease, and a decreased quality of life (in both wellness and mental health).[16] For example, obese adults and children experience societal stigmas that are associated with low self-esteem. They are more likely to feel sad, lonely, and nervous. Obesity is also associated with some mental health conditions, including depression and binge-eating disorder.[17] Additionally, national studies have found that obesity limits a person's physical ability to accomplish basic daily tasks, interferes with social activities, and makes basic movements more difficult, such as standing up from a chair and walking moderate distances.[18]

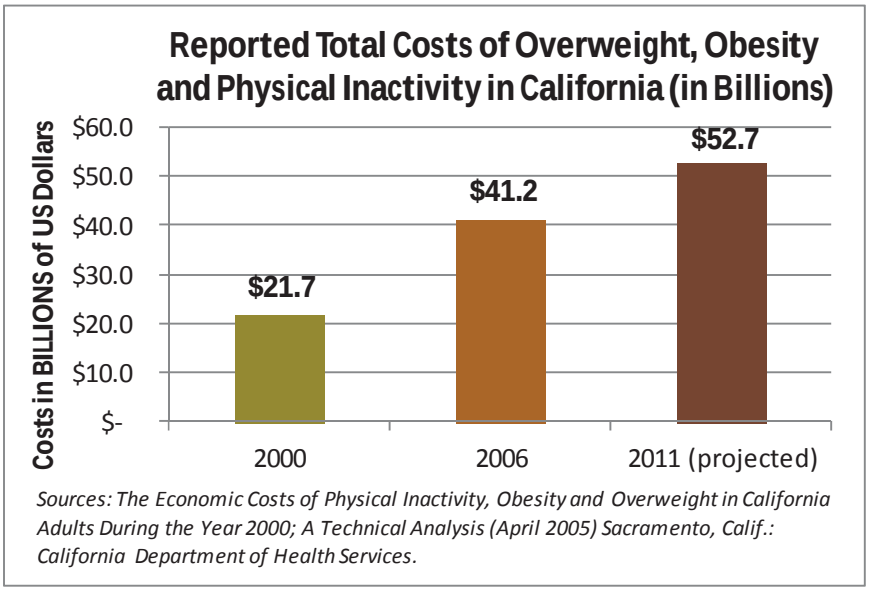


Figure 3-6: Reported Total Costs of Overweight, Obesity, and Physical Inactivity in California

Obesity involves significant financial costs in addition to direct health impacts. In California in 2006, the lost productivity and health care cost of people being obese, overweight, and physically inactive was $41.6 billion. In 2011, it was estimated that this figure increased to approximately $52.7 billion (see Figure 3-6).

Status in Santa Clara County

About 55% of Santa Clara County adults are considered overweight or obese compared to 62% of adults in California.[19] Children are also at risk, as a quarter of County middle and high school students are considered overweight or obese compared to 38% of middle and high school students Statewide (see Figure 3-7).[20]

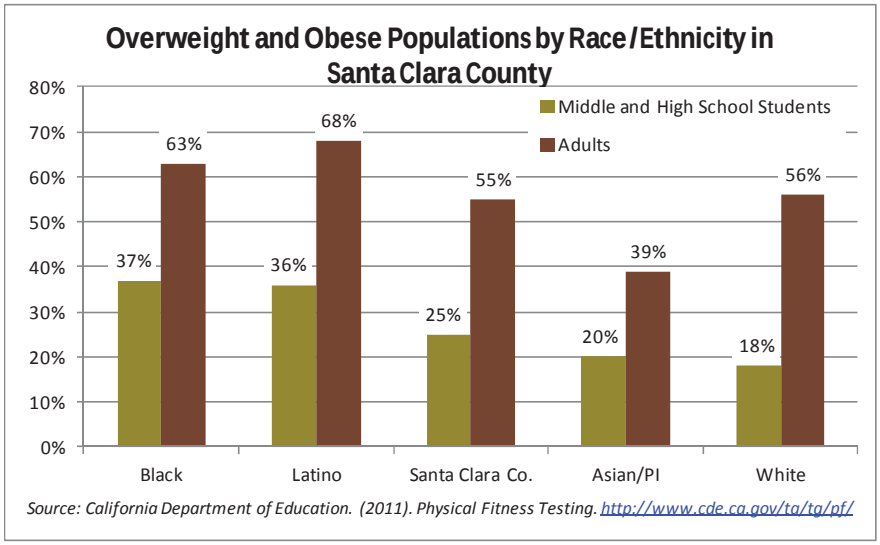


Figure 3-7: Overweight and Obese Populations by Race/Ethnicity in Santa Clara County

Overweight and Obese Students by Race/Ethnicity and Socio-Economic Status in Santa Clara County		
	% of Students who are Obese or Overweight	% of Students with a High Risk Body Composition
California	**44.4**	**22.9**
Santa Clara County	**40.0**	**20.5**
African American	46.7	26.0
American Indian	43.5	25.9
Asian	27.6	13.2
Filipino	41.2	20.9
Hispanic/Latino	54.5	28.3
Pacific Islander	58.7	35.4
White	30.5	16.2
Two or more races	34.0	16.5
Economically disadvantaged	*51.4*	*26.3*
Not economically disadvantaged	*32.0*	*16.6*

Source: CA Department of Education. DataQuest. California School Physical Fitness Test, 2011. FitnessGram. http://dq.cde.ca.gov/dataquest/ Compiled by Raimi + Associates.

**Students tested include 5th, 7th and 9th graders in public schools.*

***Student obesity or overweight status is determined by a professional, not based on self-reported data.*

****FitnessGram standards determine which students fall within the "healthy fitness zone" for their appropriate age, sex, and height. FitnessGram standards contain a "High Risk" Body Composition category to track students who are so far out of the healthy fitness zone that it poses a health risk to their well-being and development. The high-risk cut off varies by age, height, sex, and other measures.*

Table 3-3: Overweight and Obese Students by Race/Ethnicity and Socio-Economic Status in Santa Clara County

Certain racial and ethnic groups tend to have higher rates of obesity. Approximately two-thirds of Hispanic and African American adults in Santa Clara County are either overweight or obese, compared to 39% of Asian adults.[21]

Economically disadvantaged[ii] students are 61% more likely to be overweight or obese compared to non-economically disadvantaged students. Pacific Islander students and Latino students are 92% and 79%, respectively, more likely to be overweight or obese compared to White students (see Table 3-3).[22] [23]

Figure 3-8, Figure 3-9, and Figure 3-10 show the percentage of fifth, seventh, and ninth grade students, respectively, who have an unhealthy body mass index (BMI) by school; the larger red dots indicate schools with a higher percentage of obese and overweight

[ii] The 2011-2012 California Physical Fitness Test Coordinator Manual explains that the "Economically Disadvantaged" classification is based on the highest education level of a student's parents, and whether or not that student is eligible for the National School Lunch Program (which is based on the student's household income).

students. As illustrated, students with an unhealthy BMI are concentrated around downtown San Jose and in areas with lower incomes and greater ethnic and cultural diversity.

Overall, the high rate of overweight and obese residents is one of the most pressing health issues for the County. Of particular concern is the high number of children with an unhealthy BMI. Due to its many causes, a wide diversity of policy initiatives will be needed to stabilize and reduce this health challenge, particularly among school-age children and in lower income areas.

Figure 3-8: Unhealthy Body Mass Index (BMI) Among 5th Graders by School

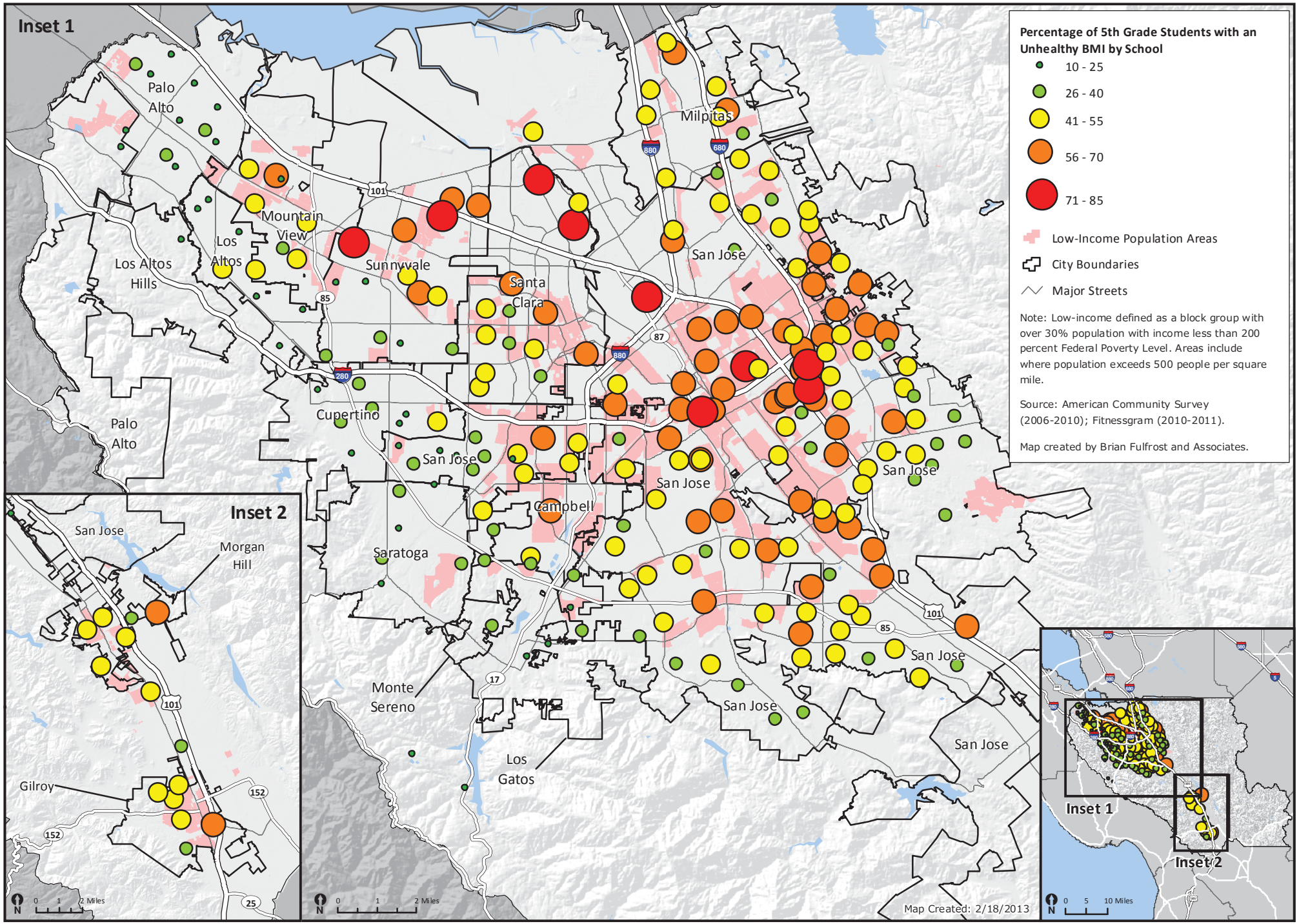


Figure 3-9: Unhealthy Body Mass Index (BMI) Among 7th Graders by School

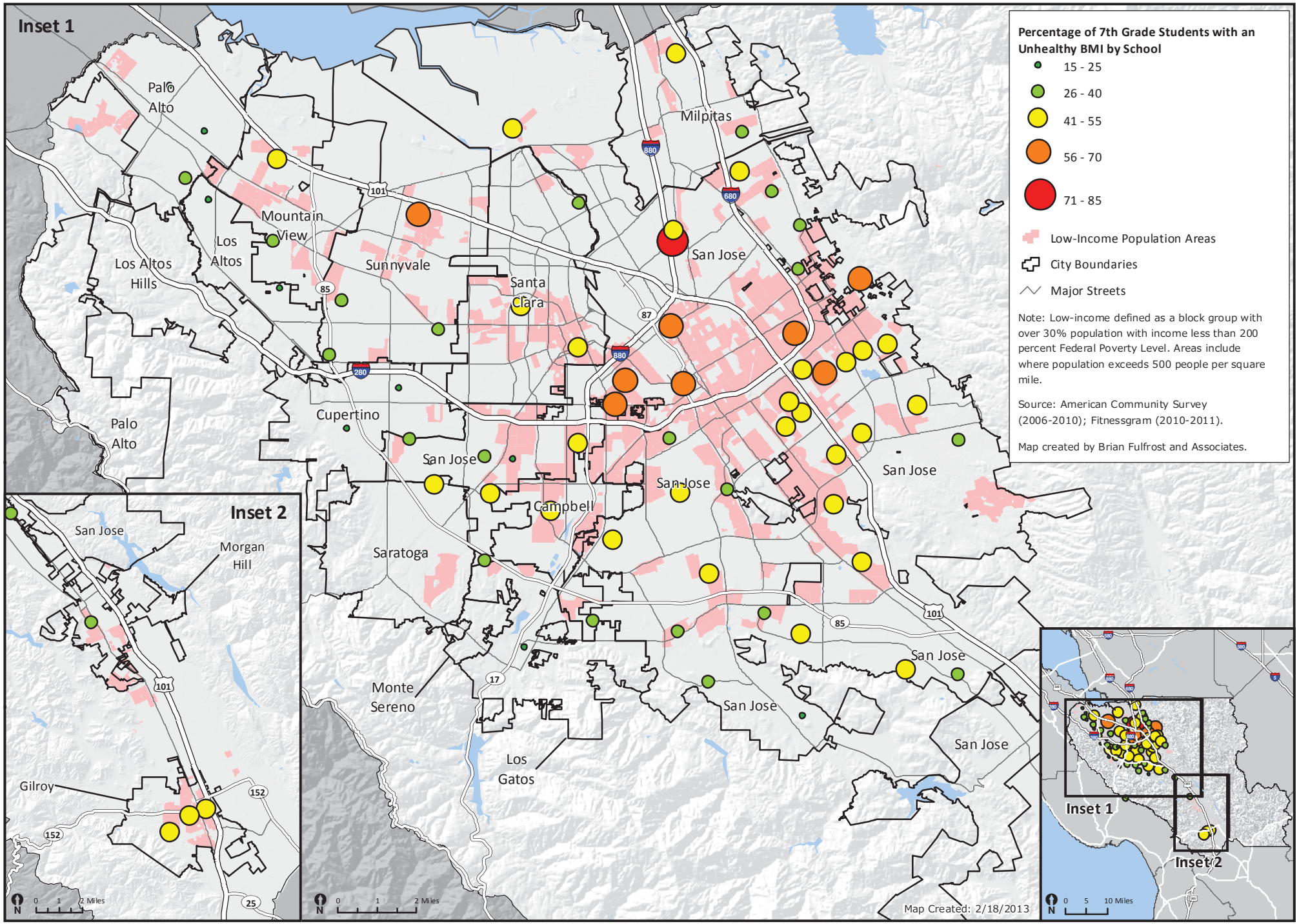
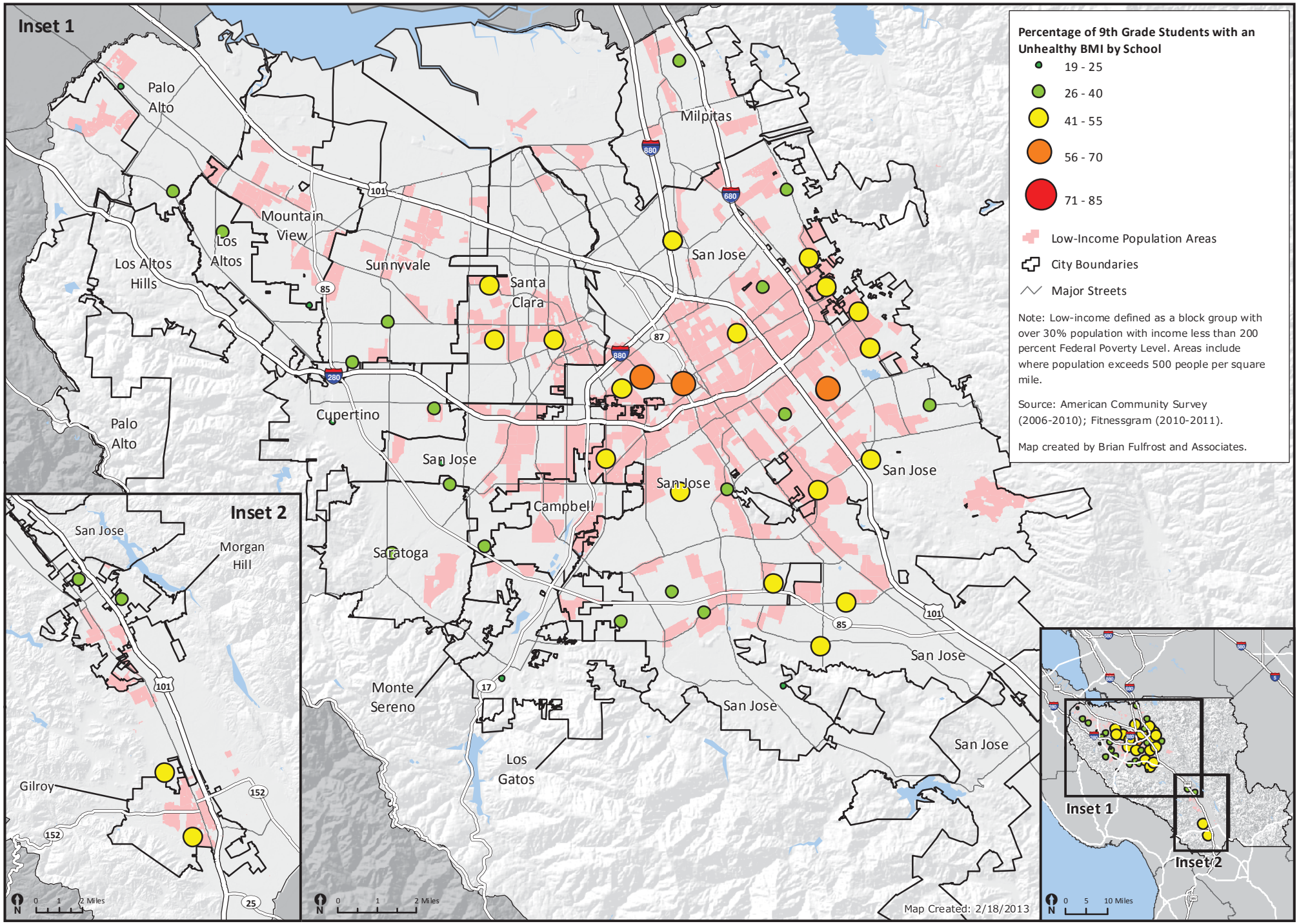


Figure 3-10: Unhealthy Body Mass Index (BMI) Among 9th Graders by School



Heart Disease

What is it?

Heart disease, also called cardiovascular disease, includes conditions that affect the heart and the blood vessels in the heart. Some common types of heart disease include coronary heart disease, heart attack (also called myocardial infarction), angina, congestive heart failure, ischemic heart disease, and congenital heart disease. Ischaemic or ischemic heart disease (IHD), or myocardial ischaemia, is the most common type of heart disease. The major risk factors for IHD include high blood pressure, high LDL cholesterol, and smoking. Other strong heart disease risk factors include diabetes, obesity, poor diet, physical inactivity, and excessive alcohol use.[24]

Why is it important?

As is often stated, heart disease is the leading cause of death and a large number of hospital admissions in the country. About 600,000 people die of heart disease in the United States every year–one in every four deaths. Nationally, coronary heart disease alone costs the United States $108.9 billion each year, (including the cost of related health care services, medications, and lost productivity).[25] This report looks specifically at IHD, because many cases can be prevented with lifestyle improvements.

Status in Santa Clara County

Heart disease is the second leading cause of death in Santa Clara County. In 2007, 23.5% of deaths in Santa Clara County were from heart disease, a rate that is consistent with but slightly lower than that for the Country as a whole.[26]

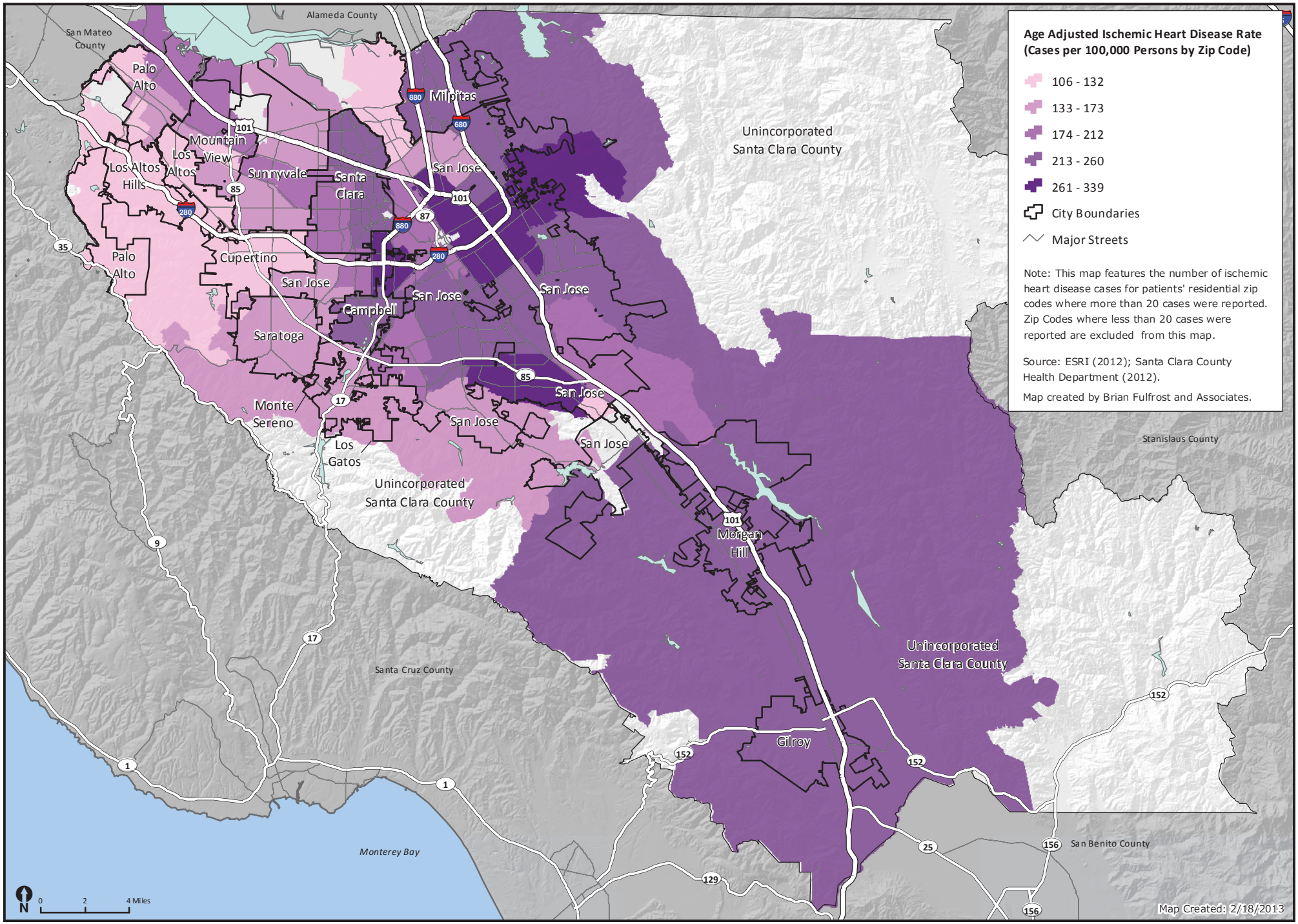
According to a Santa Clara County Public Health Department report in 2010, 2.7% of County adults reported that they had experienced a heart attack. This is lower than the nationwide (4.2%) and Statewide (3.2%) rates. Similar proportions of the population had reported that they had had angina or coronary heart disease (Santa Clara County (2.7%), California (3.3%), and the U.S. (4.3%)).[27]

The age-adjusted ischemic heart disease hospitalization rate in Santa Clara County is 212.6 cases per 100,000 residents compared to California's higher rate of 284.6 cases per 100,000 residents. The map in Figure 3-11 shows age-adjusted ischemic heart disease (IHD) hospitalization rates (cases per 100,000 residents) by zip code for Santa Clara County.[iii] As is evident from the map, there are variations in different parts of the County. The areas with the highest ischemic heart disease hospitalization rates are in Downtown San Jose, east San Jose, south San Jose, and an area near the intersection of Interstates 280 and 880. Areas with the lowest hospitalization rates are in the more affluent portions of the County, including the Cities of Palo Alto, Los Altos, Los Altos Hills, and Cupertino.

[iii] Zip codes with 20 or fewer cases are not included in the analysis, due to medical data confidentiality.

While the cause for this geographic difference is unknown, lower income areas may have higher IHD hospitalization rates than higher income areas because lower income residents are less likely to have access to preventive medical care. Additionally, residents in lower income areas are more likely to have one or more of the heart disease risk factors (overweight, diabetes, smoking, high blood pressure, etc.) and their neighborhoods may also provide fewer opportunities to reduce risk, such as purchasing and eating healthy foods, being physically active at a local park, or walking around a safe neighborhood.

Figure 3-11: Age-Adjusted Ischemic Heart Disease Hospitalization Rates by Zip Code, 2008-2010



Diabetes

What is it?

Diabetes is a condition in which the body improperly processes food for use as energy. The body breaks down food into a sugar (glucose) and a hormone (insulin) produced in the pancreas. Glucose is then turned into energy for the body to use. When a person has diabetes, either the body fails to make sufficient insulin or to use the insulin that it has. Diabetes is classified into two types: Type 1 (when the body is unable to produce insulin), and Type 2 (when the body improperly uses insulin).[28] Traditionally, Type 2 was referred to as "adult-onset diabetes"; however, it is increasingly diagnosed in children along with increased childhood obesity rates. Type 2 diabetes is now diagnosed as frequently as Type 1 diabetes in U.S. teenagers.[29]

Why is it important?

Diabetes is the seventh leading cause of death in the United States. It is a health problem that is growing in severity and concern. Since the 1970's, the risk of developing diabetes has increased by over 50% for American adults. Researchers have attributed this increased risk to higher rates of obesity, poorer diet, and reduced activity levels.[30] As of 2010, over 8% of the U.S. population has diabetes (25.8 million people); and of those, approximately 7 million people are undiagnosed.

Diabetes is the leading cause of numerous health problems, including kidney failure, non-traumatic lower limb amputations, and new cases of blindness among American adults. It is also a major cause of stroke and heart disease. People with diabetes incur medical expenses two times higher than those without diabetes of the same age. It was estimated that in 2007, diabetes cost the U.S $174 billion in direct medical costs and indirect costs (such as disability, work loss, and premature mortality).[31]

Status in Santa Clara County

The percentage of adults with diabetes in Santa Clara County grew from an estimated 5% in 2000 to 8% in 2009. Of those in 2009, half reported that they were age 10 or younger when first diagnosed.[32]

Figure 3-12 shows the percentage of County adults who have diabetes, are pre-diabetic/ borderline diabetic, or had gestational diabetes (during pregnancy). While the Asian/Pacific Islander diabetes rate is lower than the County's average (5%), 12% are pre-diabetic. If not addressed, these 12% could become fully diagnosed diabetics. Latinos have the highest diabetes rate in the County, at 10%.[33]

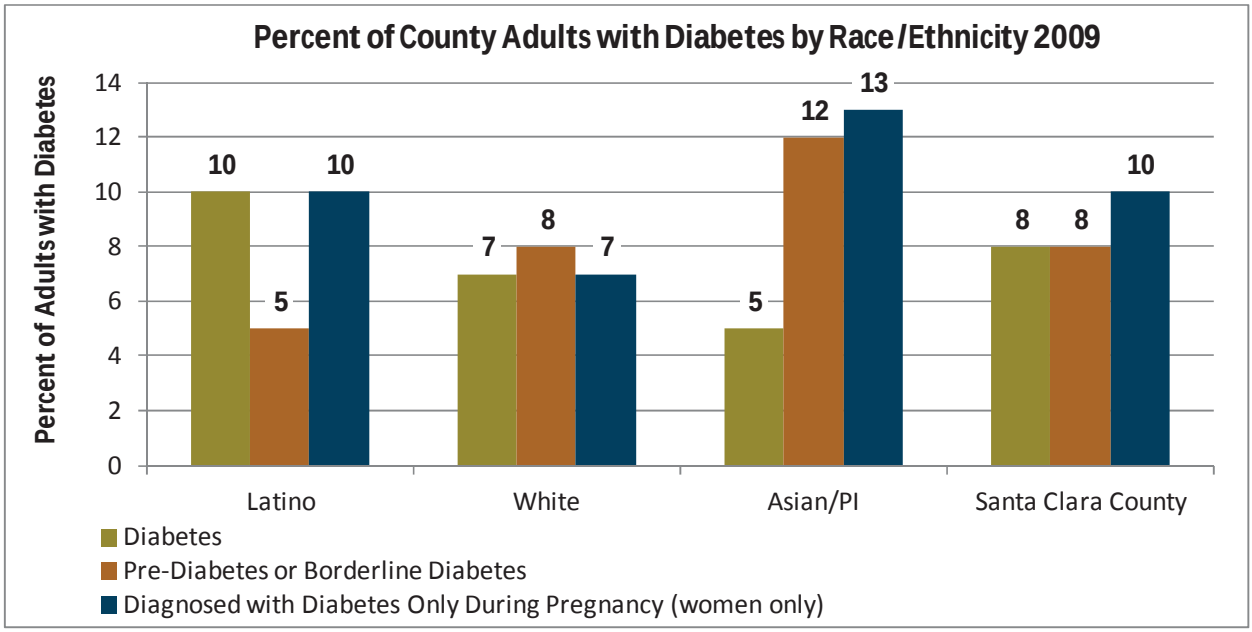


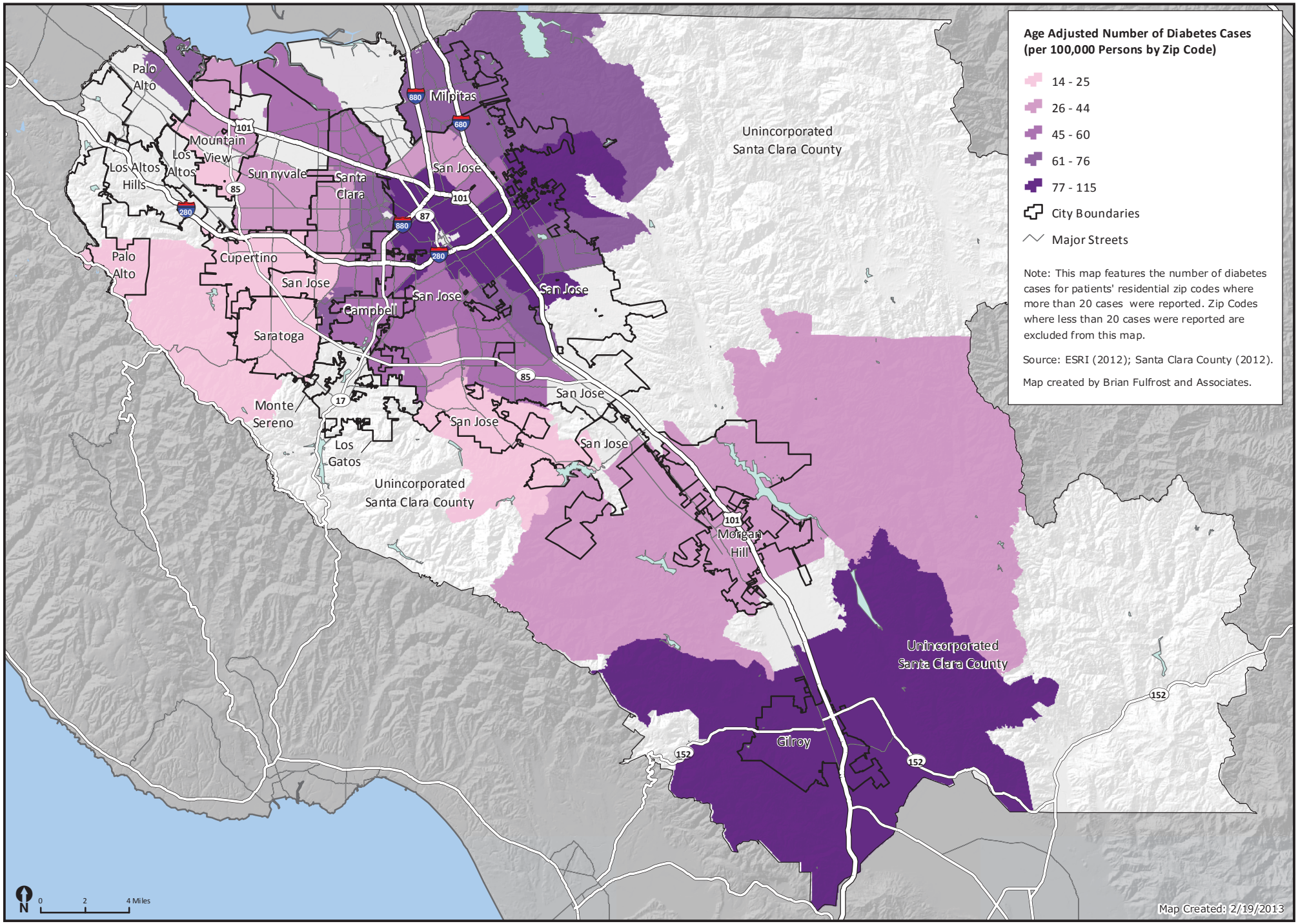
Figure 3-12: Percent of County Adults with Diabetes by Race/Ethnicity (2009)

Source: Santa Clara County Public Health Department (2009). Behavioral Risk Factor Survey.

When diabetes is untreated or uncontrolled, it is likely to require acute care and hospitalization. In California, the age-adjusted diabetes hospitalization rate is 78.8 cases per 100,000 compared to the much lower Santa Clara County rate of 53.5. The map in Figure 3-13 shows age-adjusted diabetes hospitalization rates by zip code in urbanized areas of the County for 2008 to 2010. Generally, midtown San Jose and the Cities of Gilroy and Milpitas have the highest rates of diabetes hospitalizations, whereas the lowest hospitalization rates are in portions of the Cities of Saratoga, Cupertino, and the southern part of San Jose. The areas of the County with a larger non-White population and lower incomes correspond to the areas with higher diabetes hospitalization rates.

Diabetes is a growing health problem in the County, and is linked through research to a lack of physical activity and a poor diet. It also contributes to the high overall health care costs in the County. As is evident from the data, higher rates of diabetes are associated with disparities in population characteristics and geographic areas. Addressing the causes through a variety of physical and social changes will be necessary to reverse this health trend.

Figure 3-13: Age-Adjusted Diabetes Hospitalization Rates by Zip Code, 2008-2010



Asthma

What is it?

Asthma is a chronic disease that affects the lungs by inflaming and narrowing the airways. Asthma can cause repeated episodes of wheezing, chest tightness, shortness of breath, and coughing. Asthma attacks are triggered by a number of factors, including smog, dust, pollen, and smoke. Although asthma cannot be cured, it can be controlled with appropriate treatment and medication.[34]

Why is it important?

Although people of all ages can have asthma, it is one of the most common chronic diseases among children. As of 2010, approximately 9.4% of children in the U.S. have asthma, and one in 12 people of all ages (about 8.2%) have asthma. Asthma is the most frequent cause of pediatric emergency room use and hospital admissions and the leading cause of school absences.[35] Females and African Americans are more likely to be diagnosed with asthma than males, Whites, or Hispanics.[36]

Status in Santa Clara County

According to the Santa Clara County Public Health Department, 14% of County adults have or have had asthma, which is similar to the rate in California and the country as a whole. About 8% of County middle and high school students reported that they had had an episode of asthma or an asthma attack in the past 12 months. A higher percentage of African-American (12%) and White (10%) students reported an asthma attack in the past 12 months than Hispanic (8%) and Asian/Pacific Islander (7%) students.[37]

Since there are many causes of asthma, the specific reason for the County's asthma rate is unknown. Regardless, changes to the physical environment – such as decreasing residential proximity to roadways – can mitigate some asthma triggers and improve respiratory health in the County.

Smoking and Tobacco Use

What is it?

Smoking harms nearly every organ in the body and causes death, cardiovascular disease, respiratory disease, and many types of cancers. Smoking increases the risk and severity of many other health issues, such as reproductive and early childhood effects, coronary heart disease, and strokes. Even brief exposure to secondhand smoke is dangerous, and can cause heart disease, lung cancer and serious health problems in children and others. Additionally, secondhand smoke can stay in the air long after a cigarette has been extinguished, and can be involuntarily inhaled by nonsmokers.[38]

Why is it important?

Tobacco use is the leading preventable cause of death and is responsible for one in five deaths annually. Tobacco use causes more deaths each year than all deaths from the Human Immunodeficiency Virus (HIV), illegal drug use, alcohol use, motor vehicle injuries, suicides, and murders combined. Each year in the U.S., cigarette smoking costs

more than $193 billion in lost productivity and healthcare expenditures. Nationally, secondhand smoke alone costs more than $10 billion in healthcare expenditures.[39]

Studies have found that people with mental illnesses consume almost half (44%) of all cigarettes sold in the U.S. It is estimated that 50 to 80% of people with a mental illness smoke and that they are much heavier smokers than are smokers without a mental illness.[40]

Status in Santa Clara County

Santa Clara County has lower overall rates of smoking (10%) than California (14%) and the United States (21%), as listed in Table 3-4. Disparities in smoking rates between income groups, educational levels, and race/ethnicities follow the pattern of national and State trends. People who are lower-income, have lower levels of educational attainment, and are African American have higher than average smoking rates.[41]

Smoking Rates in Santa Clara County, California, and the United States (2011)			
	Santa Clara County	California	United States
All Adults 18 Years and Older	10%	14%	21%
By Annual Income			
$15,000 or less per year *($20,000 or less for Santa Clara County)*	19%	19%	36%
$50,000 or more per year	10%	9%	13%
By Race/Ethnicity			
White	11%	15%	21%
Black or African American	19%	20%	26%
Hispanic or Latino	9%	12%	20%
Asian	8%	5.5%	9%
Multi Racial	N/A	24%	32.5%
Other	N/A	9%	20%
By Educational Attainment			
High School Diploma or GED	12%	18%	26%
Bachelor's Degree or Higher	6%	6%	9%

Source: Behavioral Risk Factor Surveillance System. Tobacco Use Prevalence and Trends. 2011.
Note: Data does not include institutionalized population in jails and hospitals.

Table 3-4: Smoking Rates in Santa Clara County, California, and the United States (2011)

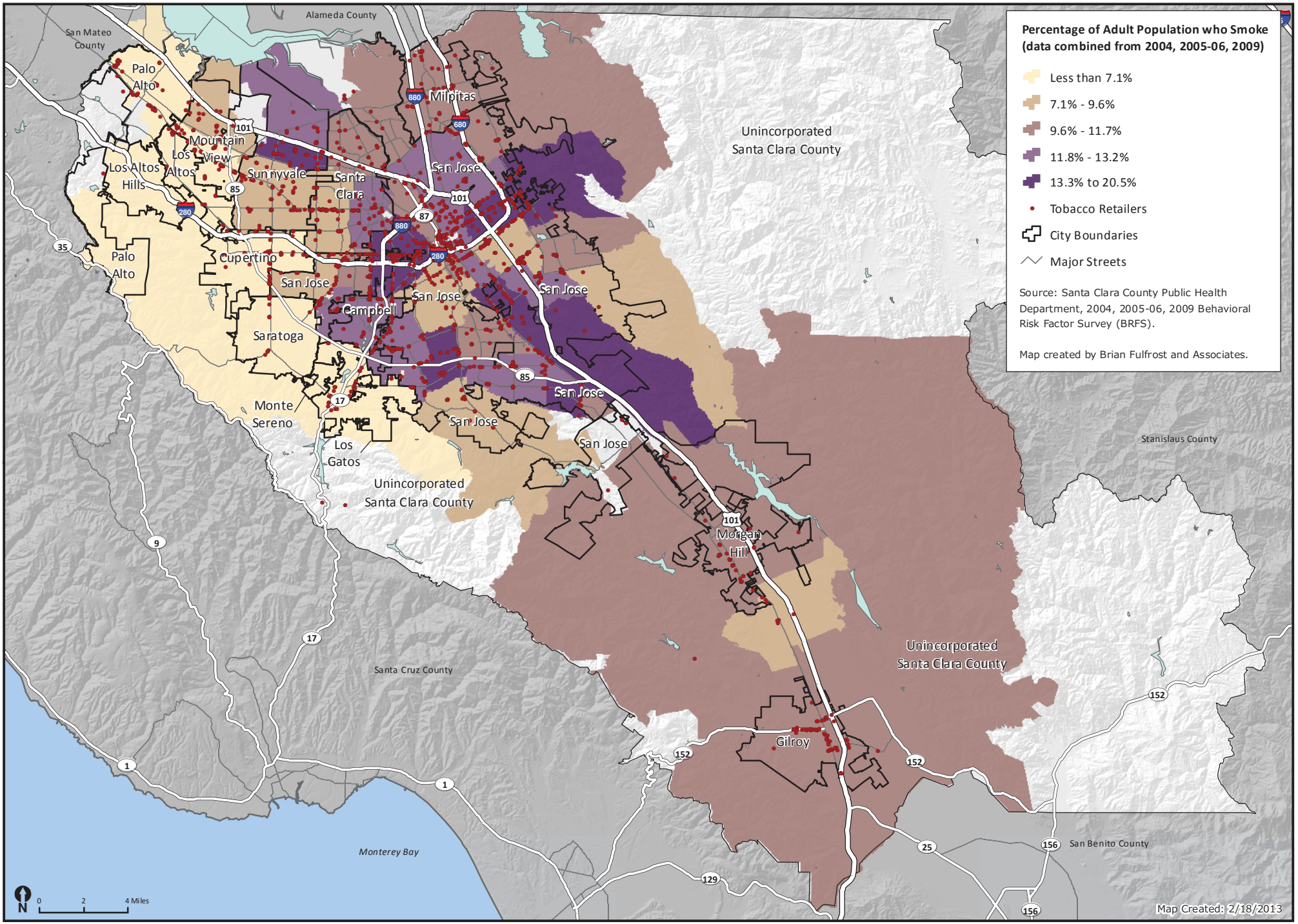
In surveys conducted during the 2009-2010 school year, 8% of Santa Clara County middle and high school students reported cigarette use in the past 30 days. Hispanic and African American students reported higher current cigarette use and lifetime cigarette use than White and Asian/Pacific Islander students, and students in the County overall. Since 2001-2002, the percentage of students who smoked cigarettes in the past 30 days among all County students and among most racial/ethnic groups remained relatively stable.[42] Because this is self-reported survey data, these numbers may underestimate the actual youth smoking rates in the County.

The map in Figure 3-14 shows the percentage of adult County smokers by zip code, as well as the location of tobacco retailers. The 'tobacco retailers' classification includes any business establishment that sells tobacco products. The map indicates that the Cities of

Campbell, San Jose, and Sunnyvale have higher smoking rates than the County as a whole. On the other hand, the wealthier and more outlying communities of Los Gatos, Monte Sereno, and Saratoga have very low smoking rates. Areas with a high concentration of elderly residents tend to have lower smoking rates, while areas with high concentrations of non-White residents and low-income households tend to have higher smoking rates. These socio-demographic patterns are typical of the U.S. overall. Not surprisingly, the map also shows that areas with higher smoking rates tend to have more tobacco retailers.

In conclusion, the County has lower rates of smoking than many other jurisdictions but these rates vary by sex, race, and ethnicity. Given these variations, there are opportunities for targeted policies and educational programs that can further reduce smoking rates and minimize the health effects of smoking and second-hand smoke.

Figure 3-14: Adult (age 18 and older) Smoking Rates by Zip Code and Tobacco Retailer Locations



Substance Abuse

What is it?

Substance abuse is the excessive use of a substance, such as alcohol, illicit drugs, or the misuse of prescription drugs.

Why is it important?

A variety of direct and indirect health problems are associated with alcohol and drug abuse. Alcohol abuse has been associated with unintentional injuries, violence, birth defects, acute alcohol poisoning, stroke, heart disease, cancer, and liver disease, among other health problems. Alcohol is a factor in approximately 41% of deaths from motor vehicle crashes.[43] Drug use is responsible for higher rates of diseases such as tuberculosis (TB) sexually transmitted diseases (STDs), HIV, and Hepatitis B and C.

Both alcohol and drug use can result in social difficulties such as strained relationships with families and friends, impaired judgment, and financial problems. It is estimated that 50% of the mentally ill population also has a substance abuse problem, which is commonly referred to as a "dual diagnosis."[44] Additionally, national estimates show that approximately 38% of homeless people are dependent on alcohol and 26% abuse other drugs.[45] These rates among the homeless and mentally ill populations are much higher than those for housed persons and those without a mental illness. Finally, the U.S. Department of Justice found that 61% of domestic violence offenders also have substance abuse problems, and that battering incidents coupled with alcohol abuse may be more severe and dangerous. Compounding the issue, domestic abuse increases the probability that victims will use drugs or alcohol to cope with the abuse.[46]

Status in Santa Clara County

Overall, Santa Clara County has lower rates of substance abuse than the State. About 8% of adults in Santa Clara County reported drug use in the past 12 months (based on the 2009 Behavioral Risk Factor Survey). Among adults using hard drugs (excluding marijuana or tobacco), 36% reported they received treatment or counseling in the past five years for substance abuse or addiction.[47]

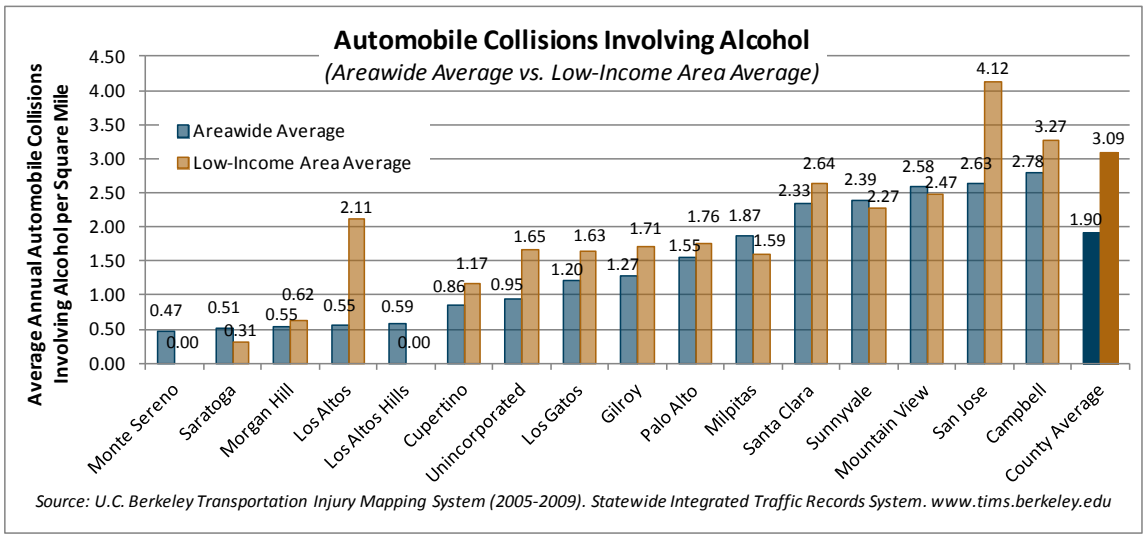
Although legal among persons over 21 years old, if abused, alcohol can cause major health impacts. County adults, age 18 and over, reported lower rates (11.8%) of binge drinking (five or more drinks for men and four or more drinks for women in a two-hour period), compared to the State (15.5%). The age-adjusted drug-induced death rate in the County (6.6 deaths per 100,000 residents) is much lower than the State (10.7). [48]

In 2007-08, 12% of middle and high school students in Santa Clara County reported using marijuana at least once in the past 30 days, compared to 11% in California. Comparatively, a much higher proportion of the County's middle and high school students have used alcohol (23.4%); however, this risk is still lower than the Statewide usage rate of 33.4%.[49]

The map in Figure 3-16 shows the average annual automobile collisions involving alcohol per square mile (from 2005 to 2009), while Figure 3-15 summarizes the data. On average, there were 1.9 alcohol related collisions per square mile per year in the

urbanized areas of the County. The Cities of Santa Clara (2.33), Sunnyvale (2.39), Mountain View (2.58), San Jose (2.63), and Campbell (2.78) all had higher than average collision densities per square mile than the County average.[50]

Collision densities involving alcohol are higher in areas with a higher proportion of low-income residents (3.09) and non-White residents (2.82), and much lower in areas with a higher proportion of elderly residents (1.2).[51] Figure 3-15 compares the alcohol collision density for each jurisdiction in the County to the alcohol collision density in each jurisdiction's low-income areas[iv]. It indicates that low-income areas have, on average, a 62% higher alcohol-related collision density than that of the entire County. This is likely because such areas have a higher density of roads and more vehicles trips per day, thus leading to higher vehicle collision rates per square mile.



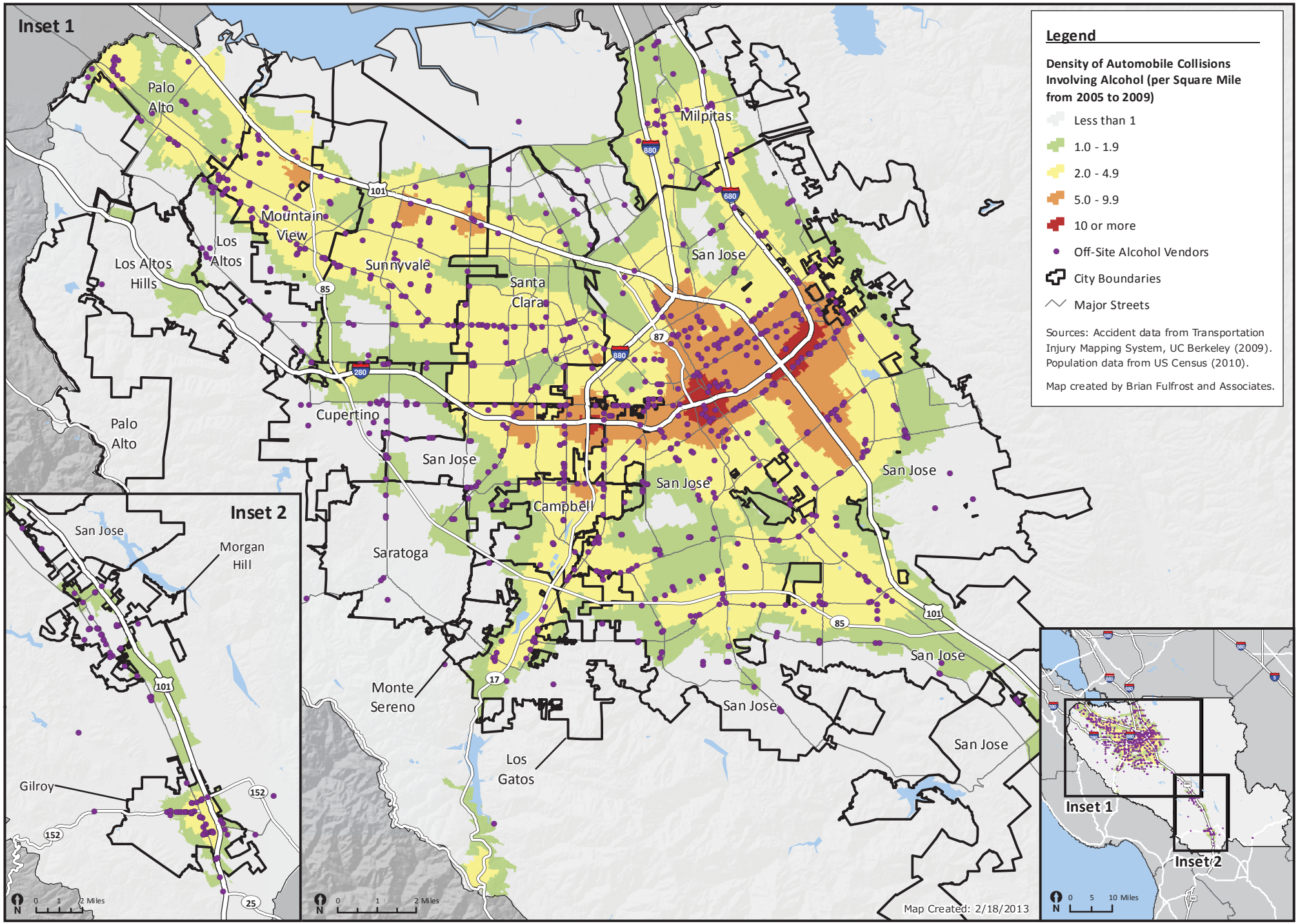
Source: U.C. Berkeley Transportation Injury Mapping System (2005-2009). Statewide Integrated Traffic Records System. www.tims.berkeley.edu

Figure 3-15: Automobile Collisions Involving Alcohol (Areawide Average vs. Low-Income Area Average)

Substance abuse can create health and social problems for the individual user, emotional challenges for their friends and family, and injuries and/or fatalities for victims of alcohol-related automobile collisions. Communities offering strong social support, education and services, as well as multiple transportation options, may see fewer negative impacts from substance abuse.

[iv] This report defines low-income areas as census block groups where over 30% of the population earns less than 200% of the Federal Poverty Level.

Figure 3-16: Density of Automobile Collisions Involving Alcohol and Off-Site Alcohol Retailers



Mental Health

What is it?

Mental health describes a person's overall psychological and emotional condition. Good mental health is a state of well-being in which a person is able to cope with everyday events, think clearly, be responsible, meet challenges, and have good relationships with others.

The U.S. Surgeon General defines mental illness as "collectively all diagnosable mental disorders" or "health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning." Depression is the most common type of mental illness, with more than 26% of the U.S. adult population having reported an episode of depression. It is estimated that by the year 2020, depression will be the second leading cause of disability throughout the world, trailing only ischemic heart disease. Other serious mental illnesses include schizophrenia, bipolar disorder, obsessive compulsive disorder (OCD), panic disorder, posttraumatic stress disorder (PTSD), and borderline personality disorder. Mental illness is often associated with substance abuse. Nationally, 75% of mental illnesses appear by the age of 24, yet less than half of the children with diagnosable mental health problems receive treatment.[52] Mental illness can affect persons of any age, race, ethnicity, or income and is treatable.[53]

Why is it important?

Psychological distress and mental illness can affect relationships, physical health, and the ability to maintain regular responsibilities. When people do not have access to professional mental health treatment and/or sufficient social support, various mental health problems can ensue and escalate.

Status in Santa Clara County

As with substance abuse, it appears that the County has lower incidences of reported mental health issues compared to the State. On average, County residents, age 18 and over, reported 2.7 "mentally unhealthy days"[v] in the past 30 days compared to 3.7 "mentally unhealthy days" Statewide in 2009. Obtaining effective treatment for potential psychological issues before they become serious is critical in addressing mental health problems. Among County adults who needed mental health care in the past year, just less than half (49.9%) received assistance. Statewide, 55.5% of people who needed mental health care received help during the same period.

In extreme circumstances, psychological or emotional distress can lead to suicide. The County's age-adjusted death rate per 100,000 residents due to suicide is 8.1 compared to

[v] The County assesses "Mentally unhealthy days" through a question on the Behavioral Risk Factor Survey that asks, "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?"

9.6 Statewide. Suicide is a preventable death as long as those in need can be identified and receive professional, effective treatment.[54]

Many mental health issues seen in the County's population are unreported, and available information may not account for the stresses of modern life. Research links stress-induced mental health problems to social isolation, long commutes, lack of stable employment, and the need to maintain a certain quality of life. Certain causes of stress are associated with characteristics of the built environment, such as the presence of physical disorder, overcrowding, community violence, street noise, job insecurity, lack of exposure to green spaces, and other factors.[55] [56] Among County adults, 78.9% of residents felt that they received sufficient emotional/social support when they needed it, compared to 75.6% of California residents.[57] People who have social support are less likely to get depressed and more likely to obtain treatment if and when necessary.

Health Insurance

What is it?

Health insurance is the primary means of obtaining needed medical care and for reimbursing providers who deliver that care. Health insurance coverage reduces the financial risk for individuals when medical expenses are incurred. While health insurance encourages people to obtain preventive care, insurance coverage does not guarantee health.

Why is it important?

Access to health care and mental health services is an important determinant of health and disease prevention, and increasing the number of people with health insurance will very likely improve public health. Preventive measures and screenings reduce the incidence and severity of illnesses, and are often less expensive than the costs of care once someone has become sick.[58] In other words, prevention is less expensive than treatment. People with health insurance are more likely to take steps to prevent an illness than individuals without health insurance.

Access to quality health care includes more than just being able to visit a health care provider. In addition, a person needs knowledge about the system, the skills to obtain an appointment with the right kind of provider, health insurance, money to cover health care costs, transportation to the appointment, and time off from work or school to see the provider. Once at the appointment, proper diagnosis and treatment can only occur if the provider and patient understand one another.

Status in Santa Clara County

While most County residents, age 18-64, have health insurance coverage (79.2%), the County fails to meet the federal Healthy People 2020 target of 100% health insurance coverage. Healthy People 2020 is a science-based, 10-year national objective for improving the health of all Americans prepared by the U.S. Department of Health and Human Services. Additionally, there is variation among different racial/ethnic groups in the County. County Latino residents have the lowest rate of insurance coverage (60%, compared to 90% for Whites) (see Figure 3-17). About one-third (35%) of young adults (18-35 years old) in the County are uninsured.

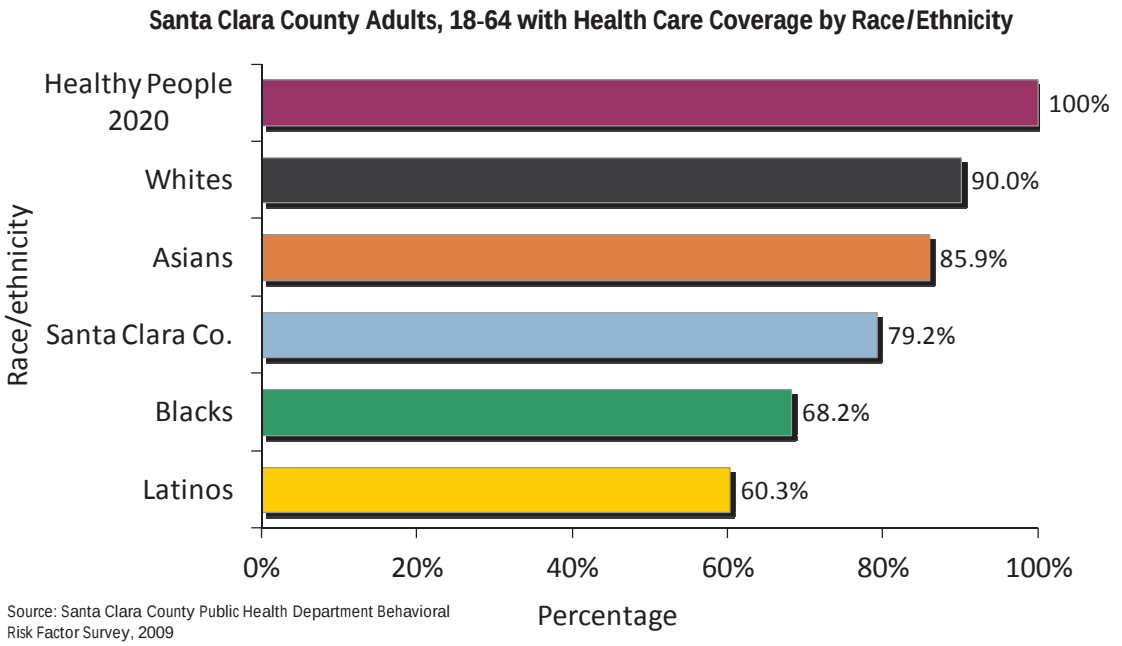


Figure 3-17: Santa Clara County Adults, 18-64 with Health Care Coverage by Race/Ethnicity

The economic recession of the late 2000s negatively affected the health insurance status of many County residents. The percentage of uninsured adults, age 18-64 years old, in Santa Clara County more than doubled from 2000 to 2009. In 2000, only 8% of adult residents were uninsured compared to 18% in 2009. This higher percentage more closely reflected the Statewide rates in 2009. Among Californians, the proportion of uninsured adults decreased during this period (from 21.3% in 2000 to 19.6% in 2009).[59]

Overall, the County has a relatively high number of residents with health insurance. However, health insurance coverage rates are closely tied to the local economy and vary by race/ethnicity. As the economy improves and residents move into full time positions with benefits, the percentage of insured residents will likely increase. Nevertheless, strategies are still needed to increase the percentage of insured residents among the lower income and minority populations in the County.

Proximity to Hospitals and Primary Care Clinics

What it is?

This indicator assesses the number of people within one mile of a hospital or primary care clinic. One mile (as the crow flies) was used as a rough estimation of proximity. In Santa Clara County, primary care clinics include both community and free clinics.

Why is it important

The distance and access to transportation and health care facilities can influence health care utilization, particularly in rural areas and among the elderly, poor, and non-white populations.[60] [61] Further, the distance to hospitals in central-city areas has a significant effect on whether children and the elderly receive preventive care.[62]

Status in Santa Clara County

Thirty-eight percent of Santa Clara County residents live within one mile of the 44 hospitals or primary care clinics in Santa Clara County. The map in Figure 3-18 shows the population density of census blocks within one mile of a hospital or primary care clinic. The Town of Los Altos Hills and the Cities of Morgan Hill, Saratoga, Milpitas, Monte Sereno, and Cupertino lack hospitals or primary care clinics. As a result, a very low proportion of residents within these jurisdictions live within a mile of a hospital or primary care clinic.

Many residents in the Cities of Mountain View (82%) and Gilroy (74%) live within one mile of a hospital or primary care clinic, due to the high number of facilities in these areas. There are five hospitals and primary care clinics in Mountain View and four health care facilities in Gilroy. Twenty-one (or 47.7%) of the health care facilities in the County are located in San Jose. The communities that are farther from health care facilities tend to have higher proportions of older adults. As these residents continue to age, they will become heavier users of medical care. Over the next 20-40 years, the location and concentration of older adults in the County may likely change.

Another approach to understanding access to health care facilities is to consider the rate of hospitals and primary care clinics per 10,000 residents. The map in Figure 3-19 shows hospital and primary care clinic rates per 10,000 residents for each jurisdiction in Santa Clara County. The City of Gilroy has the highest rate (0.82 per 10,000), followed by the Cities of Mountain View (0.68) and Palo Alto (0.62), and the Town of Los Gatos (0.68). Despite having two health care facilities, the City of Sunnyvale has a relatively low rate of 0.14 facilities per 10,000 residents because it has a larger population. Gilroy has such a high rate because the hospital serving the entire south County population is located in Gilroy.

Overall, a relatively high proportion of County residents live within one mile of a hospital or primary care clinic. However, the location of these facilities needs to be examined with other factors of health care access – such as the availability of health insurance, transit, and culturally appropriate care – to ensure that residents are able to get to the health care facility, and afford care once there.

Figure 3-18: Population Density of Census Blocks within a Half-Mile of a Hospital or Primary Care Clinic

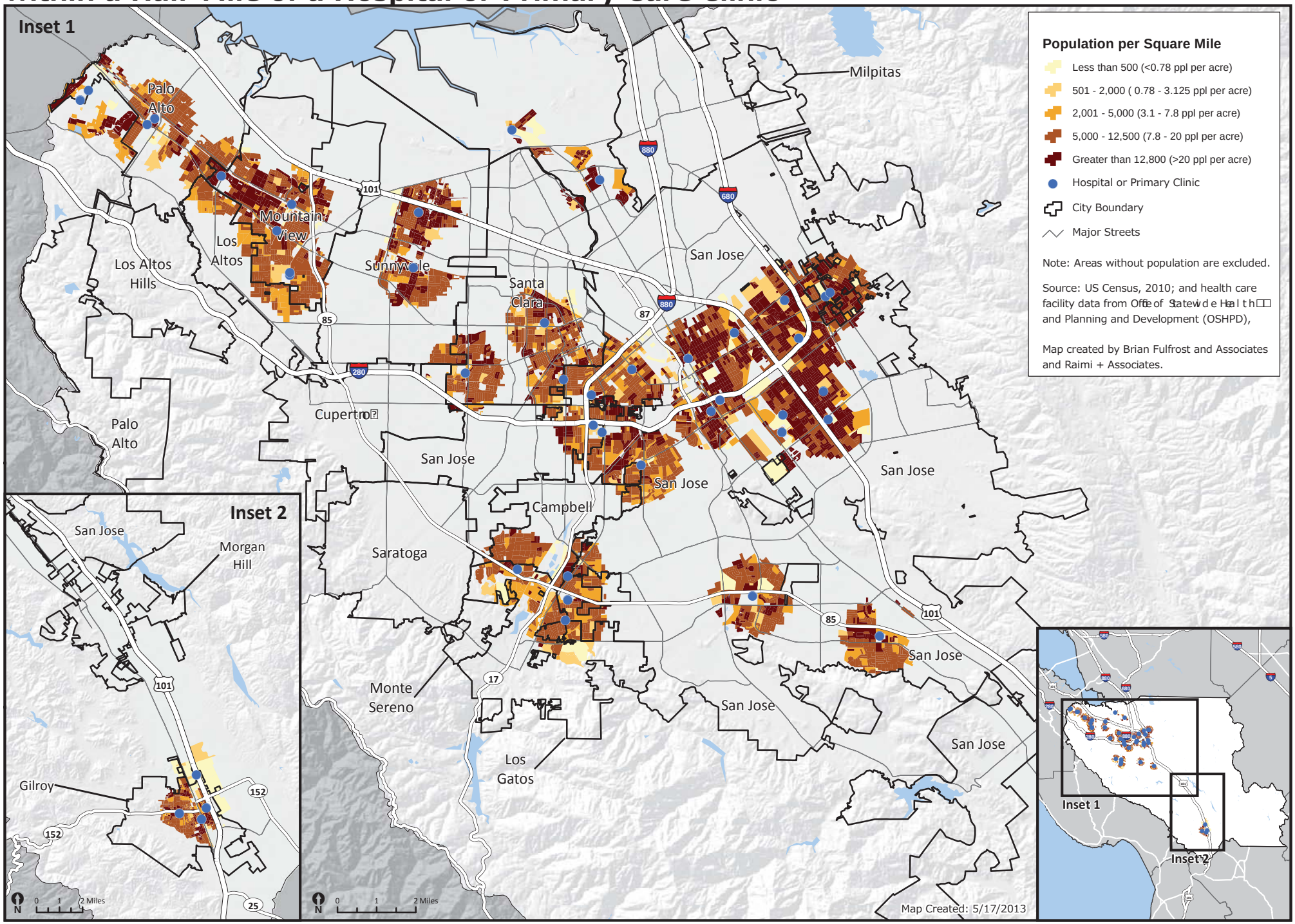
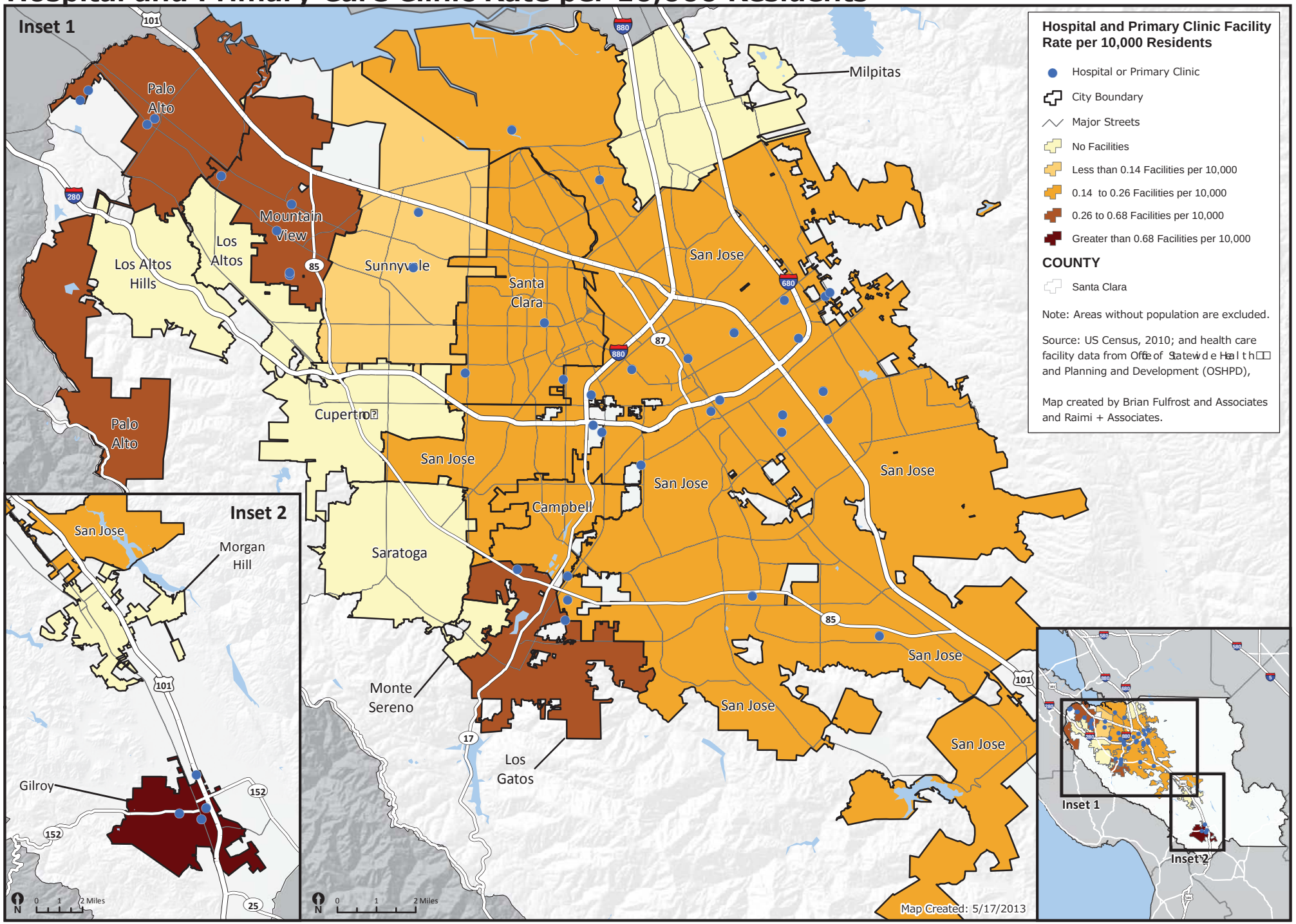


Figure 3-19:
Hospital and Primary Care Clinic Rate per 10,000 Residents



Older Adult Unintentional Falls

What is it?

A fall is defined as an unintentional event where a person loses balance and contacts the ground or an object, such as a chair or table. Falls can cause injuries or death and are more common in older adults than in younger adults.

Why is it important?

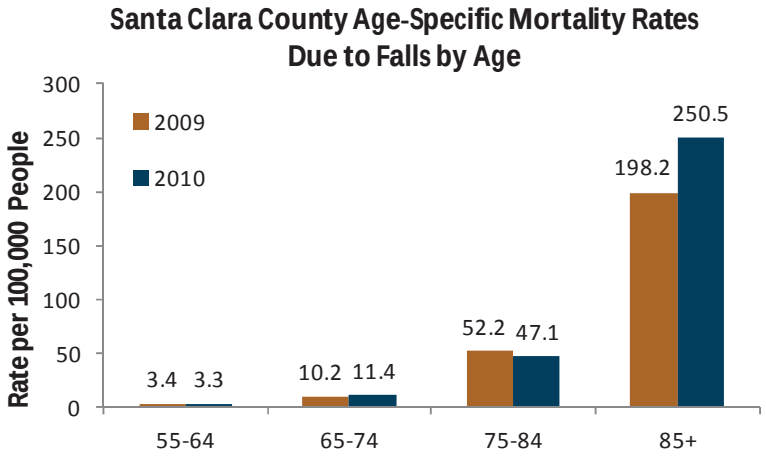
Unintentional falls in older adults are a major public health concern in terms of morbidity, mortality and the cost to health care and social services. Unintentional falls can cause moderate to severe injuries, such as hip fractures and head injuries, which can impair a person's ability to live independently. Falls can also increase the risk of early death. More than one-third of seniors fall each year in the United States and these falls are the leading cause of injury-related deaths in this age group. In 2010, the direct medical cost of falls, adjusted for inflation, was $30.0 billion.[63]

Status in Santa Clara County

According to the 2010 Santa Clara County Health Profile Report, the leading cause of death for older adults (65 and older) is unintentional falls, and the County's 2007 age-adjusted mortality rate due to falls was six deaths per 100,000 people. This is almost twice the federal Healthy People 2010 objective of 3.3 unintentional fall deaths per 100,000.

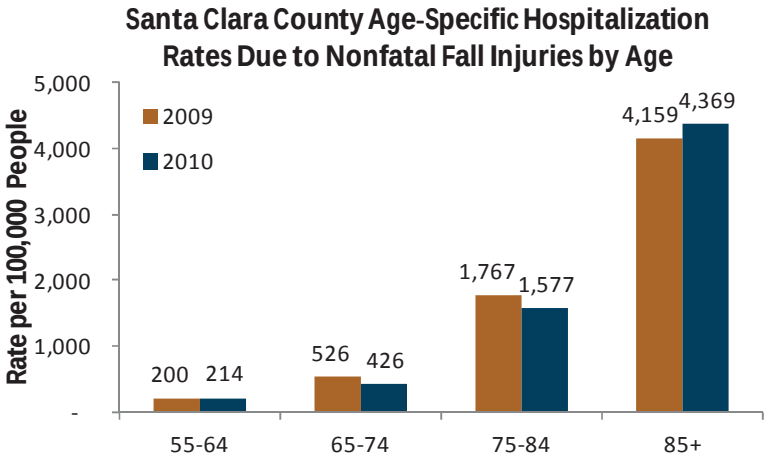
Figure 3-20 and Figure 3-21 present the age-specific mortality and hospitalization rates for falls by age in Santa Clara County for 2009 and 2010. The data shows that mortality and hospitalization increases significantly as age increases. For example, the unintentional falls mortality rate among residents 85 years and older is 76 times the rate of residents who are age 55 to 64 years old and 22 times the rate for residents who are 65 to 74 years old. Hospitalization rates for falls between age groups are also dramatic. As is shown in Figure 3-21, the hospitalization rate among residents 85 years and older is 20 times the rate of residents who are 55 to 64 years old. [64]

Unintentional falls are a critical health issue for Santa Clara County due to the aging population. Currently in Santa Clara County, more than 10% of the residents are age 65 and older. By the year 2020, more than one in six County residents will 65 and older. As the population continues to age, these residents will require more resources in the area of falls among older adults.[65]



Source: California Department of Public Health, EpiCenter, 2010 California Injury Data Online

Figure 3-20: Age-Specific Mortality Rates Due to Falls by Age



Source: California Department of Public Health, EpiCenter, 2010 California Injury Data Online

Figure 3-21: Age Specific Hospitalization Rates Due to Nonfatal Fall Injuries by Age

Violent Crime Density

What is it?

Violent crime density (the number of violent crimes per square mile) is a common measure of public safety. Violent crime includes murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault.[66] This report focuses on violent crime, as opposed to property or other crime types, since violent crime strongly influences people's perceptions of public safety.[67]

Why is it important?

Violent crime has health, economic, and emotional impacts on victims and their families. Homicides, physical assaults, rapes, and sexual assaults result in direct and adverse health outcomes for a community.

Violent crime also can have a broad impact on the rest of the community. Research has documented a spectrum of physical and psychological health impacts associated with community violence levels. Fear about safety at home and in the community can lead to chronic stress.[68] Witnessing and experiencing community violence causes longer-term behavioral and emotional problems in youth.[69] When children or adolescents are victims of violence, the experience can affect their scholastic achievement,[70] and it can limit their overall success as an adult.[71]

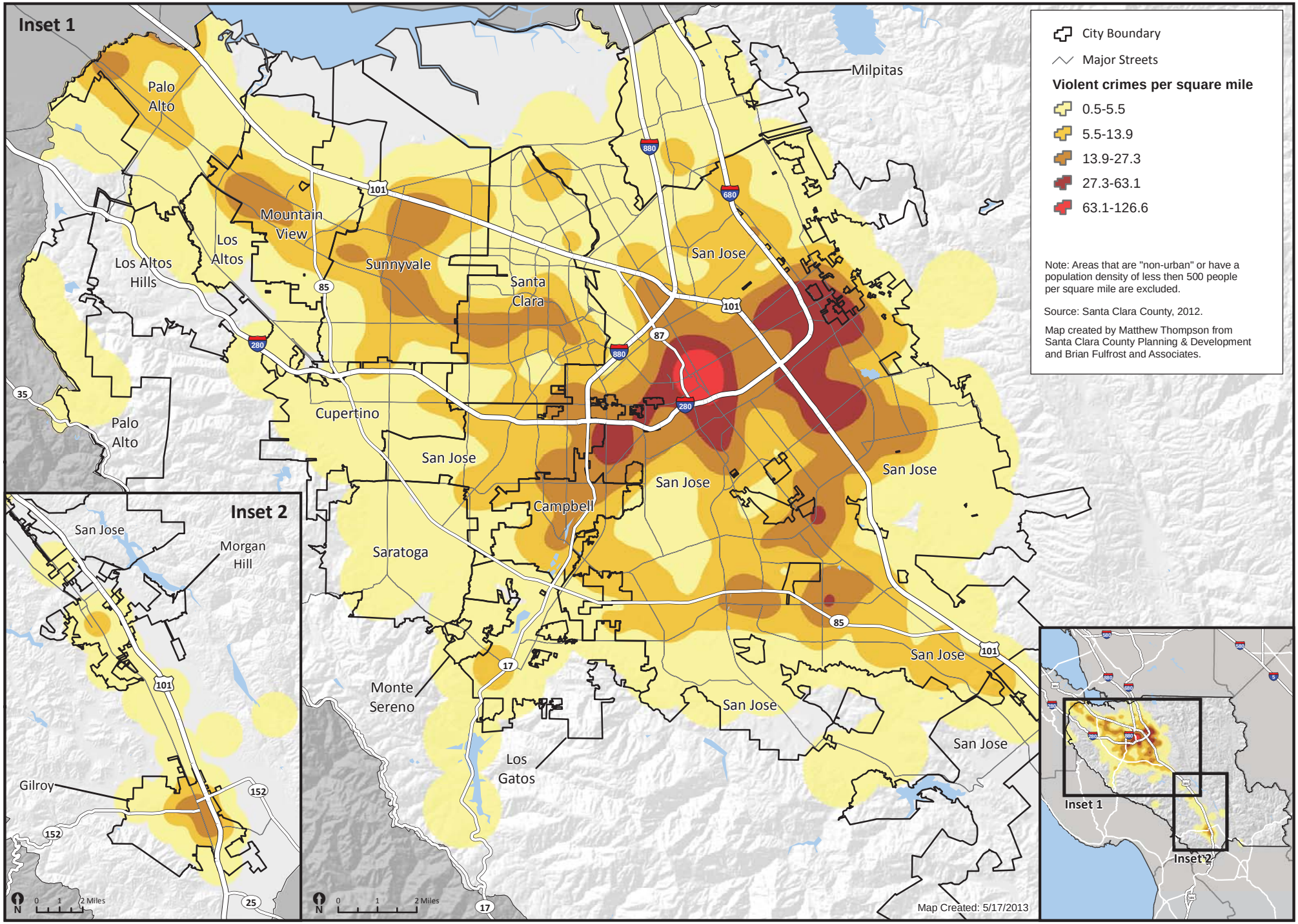
Additionally, fear of crime can modify people's behavior. An individual's perception of neighborhood safety can be a disincentive to engage in physical activity outdoors. Parents who are afraid of neighborhood crime may keep their children indoors, which limits opportunities for children to be physically active and develop support networks.[72]

Status in Santa Clara County

From August 1, 2010 through July 31, 2011, there were 8.9 violent crimes per square mile in the urbanized areas of the County. As shown in Figure 3-23 the Cities of Sunnyvale (9.3), Gilroy (9.5), Campbell (12.0), and San Jose (13.8) had higher than average violent crime densities, while all the other jurisdictions had lower average violent crime densities. Midtown San Jose had much higher average violent crime densities than any other area in the County. The areas surrounding the El Camino Real corridor (Highway 82) have higher than average violent crime densities, while the outskirts of the County have lower crime densities (see the map in Figure 3-22).

Figure 3-23 compares the disparities between each jurisdiction's total crime density and the crime density in identified low-income areas. Overall, the average violent crime density in low-income areas is about 80% higher than the County's average violent crime density. The low-income areas of the Cities of Los Altos, Cupertino, Palo Alto, Gilroy, Campbell, and San Jose and the unincorporated areas have much higher violent crime densities in low-income areas compared to each jurisdiction's average rate.

Figure 3-22: Violent Crime Density (Violent Crimes per Square Mile)



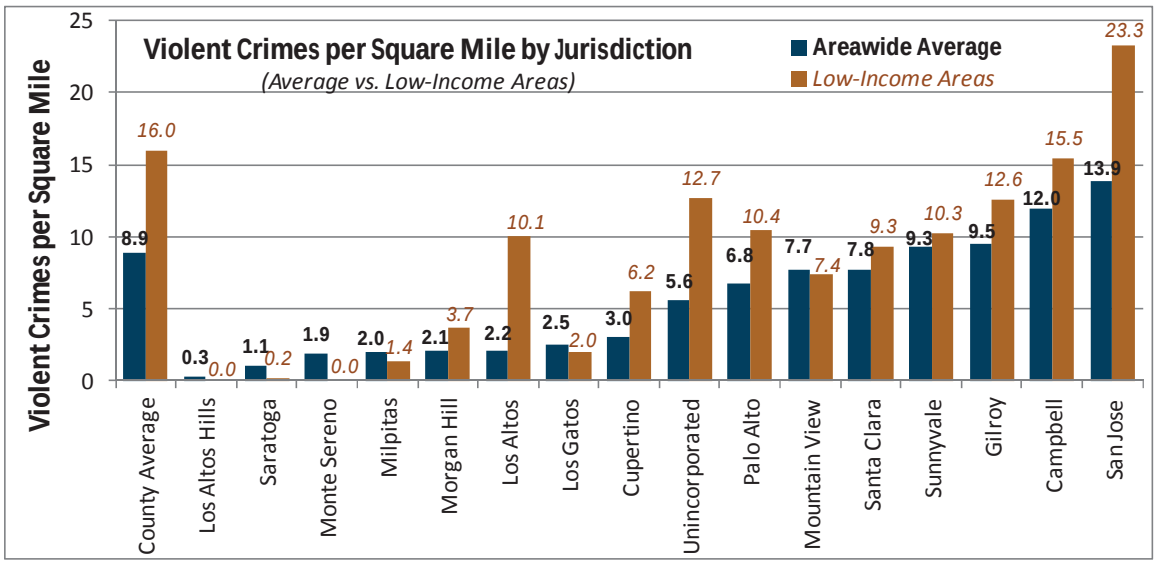


Figure 3-23: Violent Crimes per Square Mile by Jurisdiction (Areawide Average vs. Low-Income Areas) - August 1, 2010 - July 31, 2011

Source: Santa Clara County Planning Office and Public Health Department. 2012.

In addition to geographic variation, selected vulnerable communities had higher violent crime rates than the average. Specifically, as indicated by Figure 3-24, areas with a higher proportion of households without access to a private vehicle, low-income residents, and communities of color all had much higher than average violent crime densities. Areas with a higher percentage of elderly residents had a lower than average violent crime density.

In general, land use patterns and building designs that encourage neighborhood interaction and a sense of community can help to reduce crime and create a sense of safety and security.[73]

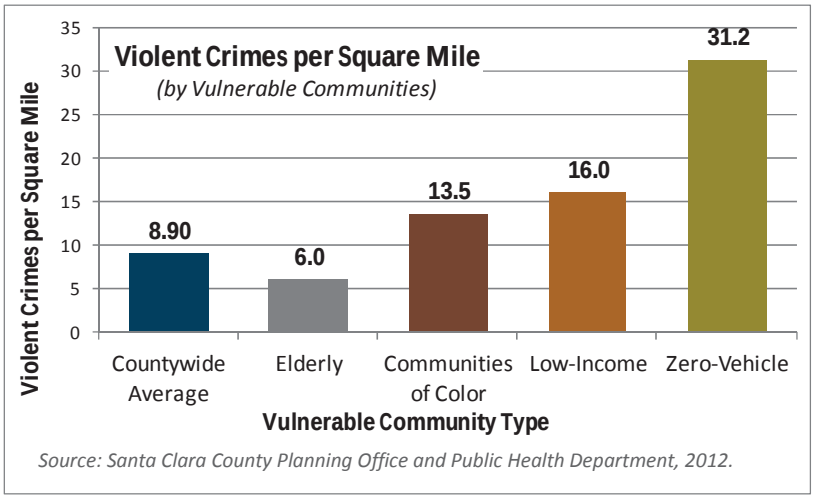


Figure 3-24: Violent Crimes per Square Mile by Vulnerable Communities - August 1, 2010 - July 31, 2011

Perception of neighborhood safety is also important for healthy outcomes. While being a victim of a crime is rare, many more people may experience unnecessary stress and anxiety about safety, which can have long-term chronic physical and emotional health impacts. Overall, residents of Santa Clara County feel safer in their neighborhood compared to residents in the Bay Area and the State as a whole. According to the 2007 California Health Interview Survey (CHIS), more than two-thirds (70.5%) of adults in Santa Clara County feel safe all of the time in their neighborhood (see Figure 3-25). This perception of safety indicator is higher than both the Bay Area and the State of California averages. For residents that feel safe all of the time, older adults (65-79 years old) and younger adults (18-24 years old) account for the highest percentage of the population that feels safe (76% and 73% respectively). Additionally, a higher proportion of men reported feeling safer all of time (73%) than women (68%) did. Conversely, very few adults in Santa Clara County reported feeling safe in their neighborhood some of the time (2.5%) and none of the time (0.3%).[74]

Perceptions of Safety for Santa Clara County Adults - 2007			
Feel Safe in Neighborhood...	Santa Clara County	9 County SF Bay Area	California
All the Time	70.5%	65.8%	63.8%
Most of the Time	26.7%	28.3%	28.6%
Some of the Time	2.5%	5.2%	6.5%
None of the Time	0.3%	0.7%	1.1%

Source: California Health Interview Survey, 2007 http://ask.chis.ucla.edu/

Figure 3-25: Perceptions of Safety for Santa Clara County Adults - 2007

03 ~ Health Conditions References

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04 ~ Land Use, Walkability, and Economic Development

Overview

How land uses are arranged, and how the urban environment is developed, is critical to the health and well-being of residents. Also known as land use patterns, these community characteristics affect such things as a resident's level of physical activity, access to nutritious foods, and exposure to pollutants. Residents of communities with an auto-dependent lifestyle tend to have a greater chance of health problems, including obesity, diabetes, and social isolation. Research indicates that certain land use and urban design characteristics can encourage and facilitate healthier behaviors. These characteristics can include:

- Walkable areas with a diverse mix of uses (i.e., homes and jobs are closer together and within walking distance of goods and services, schools, parks and other destinations);
- Attractive streetscapes and short block lengths with safe crossings;
- Higher population and employment densities in strategic areas; and
- Job concentrations that make transit use more viable and create a balance of employment within each jurisdiction.

Together, these land use and design characteristics can reduce the need to drive, and increase a resident's opportunity to walk and bike for transportation and recreation.

There is also a strong relationship between the economic condition of a community and the health of its residents. Economic stability is often tied to variables such as access to nutritious foods, health care and medication, education, jobs, transportation, and other goods and services, all of which can reduce employee and employer costs and contribute to overall health and wellbeing.

Understanding the influence of land use, walkability, and economic development decisions on health will be important, given the level of growth expected in Santa Clara County over the next several decades. From 2010 to 2040, regional forecasts expect Santa Clara County to add approximately 303,530 jobs (a 33% increase) and 211,190 new housing units (a 36% increase)[i]. These projections represent the largest amount of growth expected from any of the nine Bay Area counties.[1] It is critical that the County contain an appropriate mix of housing types and a concentration of jobs and retail uses to meet the needs of existing and future residents and employees. Doing so will reduce travel distances and times, reduce land use conflicts, and encourage physical activity, among other benefits.

[i] For more information on housing growth, see the County of Santa Clara's Housing Element and those of the incorporated cities.

This section examines a number of indicators for land use, walkability (the pedestrian-friendly attributes of an area), and economic development that are known to have a relationship to health behaviors and outcomes. Additionally, these indicators were also chosen due to the general availability of data at the County and local level. Indicators discussed in this section include:

- Walkability Index
- Population density
- Employment density
- Jobs to population balance
- Unemployment rate
- Lower and higher wage employment density
- Access to Elementary Schools
- Access to Licensed Child Care Facilities

Key Findings

- The more urbanized parts of Santa Clara County are more walkable. Most County cities show a similar pattern of high walkability in their downtowns and medium to low walkability in surrounding residential neighborhoods.
- The highest density areas are in and around the downtowns of the County's cities; the lowest density urbanized areas are along the eastern and western edges of these jurisdictions.
- Jobs are not evenly distributed throughout the County. The Cities of Santa Clara, Palo Alto, Mountain View, and Sunnyvale have the greatest concentration of jobs, while the Town of Los Altos Hills, the Cities of Saratoga, Monte Sereno, and Morgan Hill, and unincorporated Santa Clara County have the lowest concentration of jobs.
- Higher wage jobs are concentrated in certain areas of the County; the lower wage jobs are more evenly spread throughout the County and typically located in commercial areas along major roadways.
- The County's unemployment rate fell from 11% in 2010 to 8.6% in June 2012. This is lower than the Statewide rate, but still higher than in recent years.
- Sixty-four percent of Santa Clara County residents live within a half-mile of a public elementary school.
- The City of San Jose has a relatively low rate of child care facility capacity, but the largest number of children under age 5, and the highest number of child care spaces.

Walkability Index

What is it?

This report uses a “Walkability Index” to understand variations in walkability across the County. Many factors influence a person’s decision to walk. The Walkability Index selects and assembles factors to create a picture of the County’s walking environment. The metrics used in the Walkability Index include:

- the number of street intersections within an area (a measure of street connectivity);
- traffic volume and speed;
- mix of land uses;
- proximity to bike lanes, transit lines, and transit stops;
- access to healthy food; and
- access to open space and parks, health care facilities, child care, and schools.

Why is it important?

Walking is one of the easiest and least costly means of maintaining and/or increasing one's level of physical activity and improving one's health. Walkable areas can provide safe, appealing, and comfortable environments for pedestrians that encourage physical activity and reduce pedestrian injuries. Health benefits include reduced illness and death associated with heart disease, diabetes, obesity, and some cancers; reduced incidence of respiratory illnesses; and improved traffic safety.[2] [3] [4] Studies have found that more walkable areas facilitate higher levels of physical activity and positive health benefits.[5] The Walkability Index is an effective quantifiable tool that assess and measures an area's walkability.

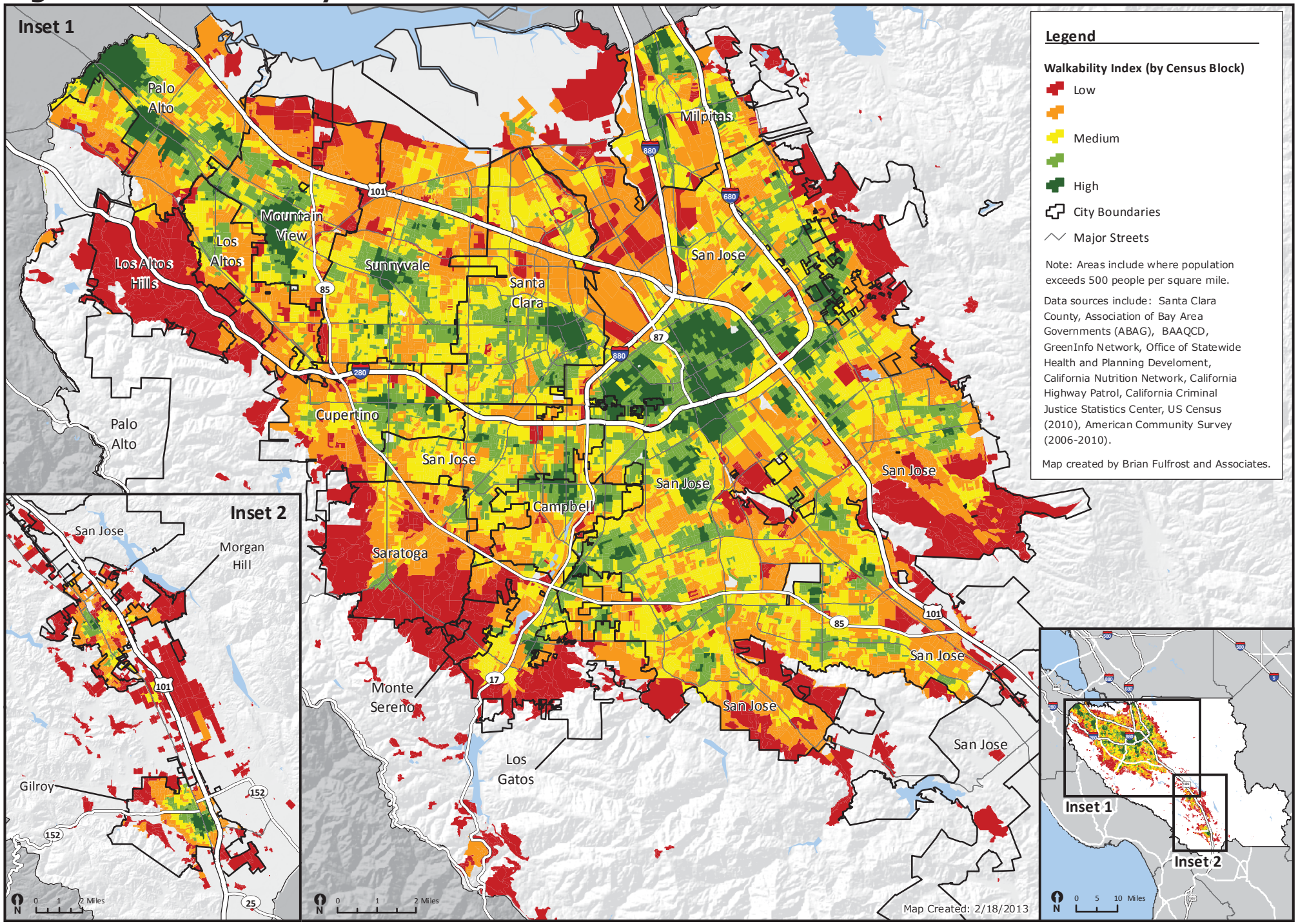
Status in Santa Clara County

Figure 4-1 indicates that the level of walkability varies greatly across the County. It shows that the more urbanized areas of the County, including the downtowns and mixed-use neighborhoods, are more walkable than the lower density residential areas and office parks prevalent in many parts of the County. Rural County areas are the least walkable in terms of meeting daily transportation needs; however, many rural areas offer wonderful leisure walking benefits.

The Cities of Palo Alto, Campbell, and Santa Clara scored the highest on the Walkability Index, making them some of the most walkable cities in the County. The Town of Los Altos Hills, and the Cities of Monte Sereno, and Saratoga scored as the least walkable. These less-walkable areas have a semi-rural nature that many residents have preferred over the years. While these jurisdictions have nice areas for recreational walking, they are not designed for walking as a form of transportation. This is likely due to the segregation of land uses and lack of adequate transit, bicycle, and pedestrian facilities in those areas.

While robust, the Walkability Index used in this analysis does not quantify and account for other qualitative aspects of walkability. For example, topography plays an important role in whether people will walk; hilly areas can challenge walkers more than flatter areas. Additionally, the presence, maintenance, and design of sidewalks and trails support more walking as do traffic signals, pedestrian-scaled lighting, shading, landscaping, and overall aesthetics. Street width, the number of travel lanes, presence of parking lanes, and the speed of automobile traffic also impacts the usability, appeal, and safety of the pedestrian environment. Finally, older adults, children, residents with disabilities, and parents with strollers require better pedestrian infrastructure than other pedestrians do.[6]

Figure 4-1: Walkability Index



Population Density

What is it?

Population density is a measure of the number of people living in a certain area. It is calculated by dividing the number of people living within a geographic area (e.g., county, city, neighborhood, or census block) by the land area of that specific geography (measured in square miles or acres).

Why is it important?

Areas with higher population densities tend to be more walkable and support better transit service, which can facilitate physical activity and result in positive health benefits.[7] Research shows that as residential and commercial density increase, transit ridership rises, rates of walking increase, and rates of obesity fall. However, to be truly sustainable, areas with higher residential densities must also contain a diverse mix of walkable uses, safe pedestrian facilities, and high quality transit.[8] [9]

Status in Santa Clara County

Figure 4-2 shows the average population density for the urbanized areas of each County jurisdiction. The figures range from very low (2.7 persons per acre) to moderate (21.9 persons per acre) population density. The Cities of Milpitas, Santa Clara, Sunnyvale, Cupertino, and San Jose have the highest average density, whereas the Cities of Los Altos Hills, Monte Sereno, and Saratoga have the lowest average density. These figures are all relatively low, which is to be expected at this geographic scale. Even though these figures exclude blocks with a population density less than 0.78 persons per acre, the average population density still includes large areas of employment uses, which may add to the vibrancy and activity in an area.

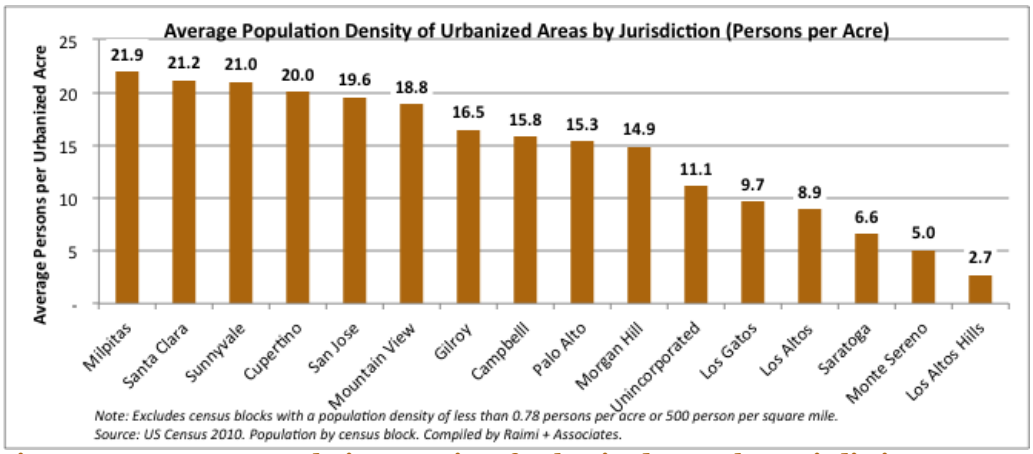
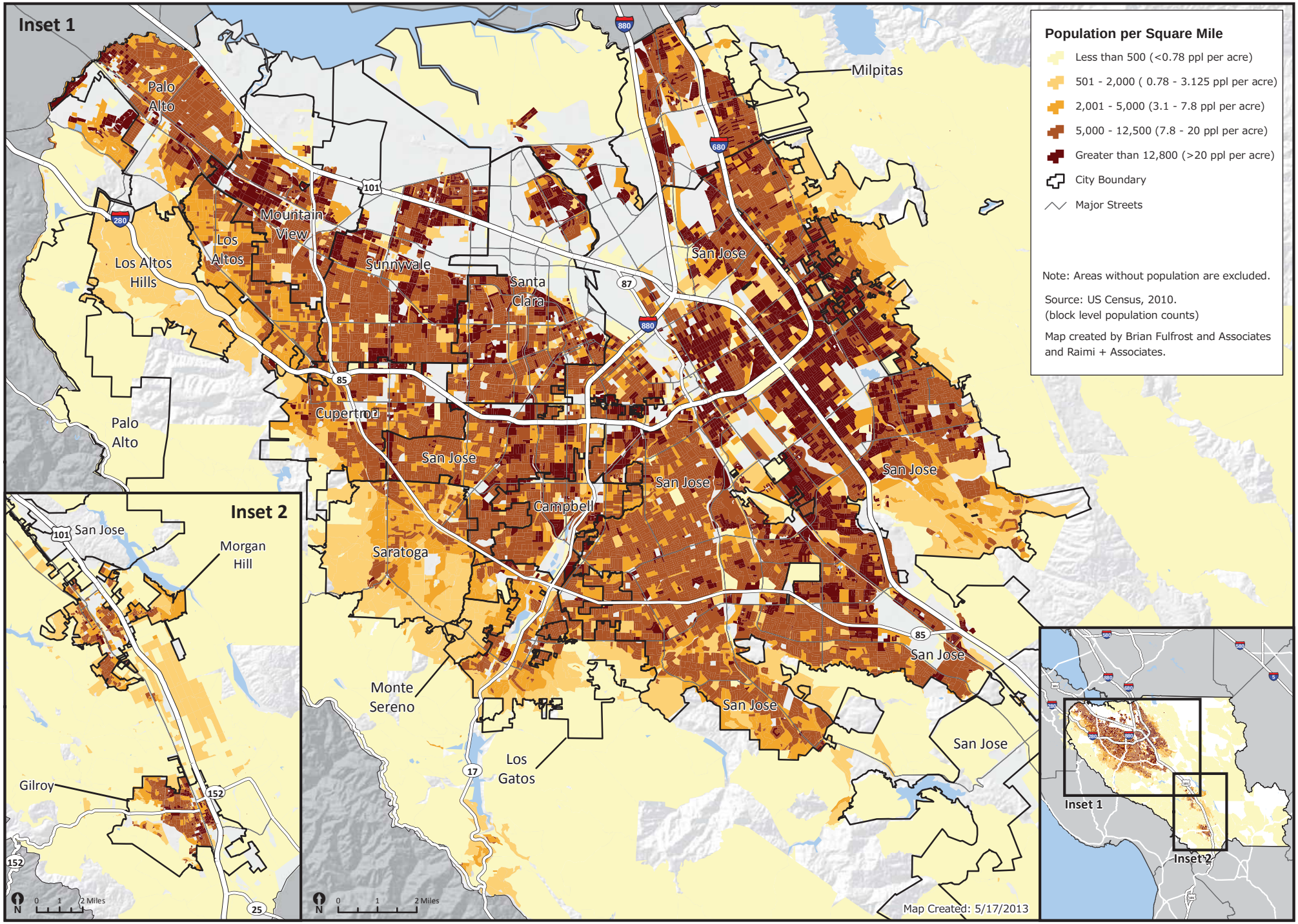


Figure 4-2: Average Population Density of Urbanized Areas by Jurisdiction

Another useful measure of population density is at the census block level (shown in Figure 4-3). The highest density areas are typically around the downtown areas, and the lowest density areas are along the eastern and western edges of the jurisdictions. Overall, the County has many areas with a low population density, which influences the viability of high frequency transit service and the mix of uses within walking distance of homes. The conclusion that lower density areas have higher driving rates and lower transit use is further discussed in the Transportation and Mobility Chapter of this report.

Figure 4-3: Population Density (Residents per Square Mile)



Employment Density and Employee Access to Transit

What it is?

Employment density is a measure of the number of jobs within a given area. It is calculated by dividing the number of jobs within a geographic area (e.g., county, city, neighborhood, or census block) by the land area of that specific geography (measured in square miles, acres, or occasionally square feet of commercial real estate). In addition to employment density, job location data from the U.S. Census Longitudinal Employer-Household Dynamics Program (LEHD)[10] is used to study employee access to transit (e.g., which jobs are located within a ½ mile of rail stops or a ¼ mile of bus stops).

Why is it important?

Similar to population density, higher levels of employment densities, particularly retail job densities, are associated with more walking trips.[11] When businesses are clustered together, supportive businesses such as cafes, restaurants, copy shops, mail centers, and other specialty services locate nearby to enrich the convenience and effectiveness of the business districts. Additionally, higher density employment areas allow for more frequent and comprehensive transit service. Locating transit near jobs (and vice versa) makes employment more accessible to people who lack private vehicle transportation. Denser employment districts rich in transit service typically result in more walking and transit use, which has positive health benefits (such as lower rates of diabetes and increased physical activity),[12] [13] in addition to making jobs (and higher incomes) more accessible to all residents.

Status in Santa Clara County

The Cities of Santa Clara, Palo Alto, Mountain View, and Sunnyvale have the highest number of jobs per square mile of jurisdictions in Santa Clara County. Each of these cities has a job density greater than 4,200 jobs per square mile. The Town of Los Altos Hills, and the Cities of Saratoga, Monte Sereno, and Morgan Hill, and unincorporated Santa Clara County all have less than 1,000 jobs per square mile. Figure 4-4 shows the number of jobs per square mile for each County jurisdiction, as well as the countywide average[14]

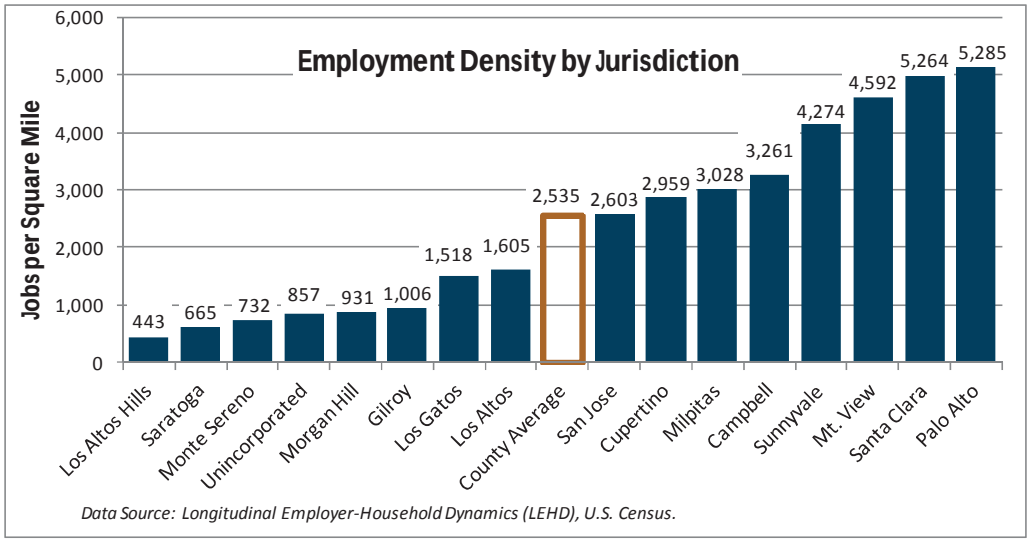


Figure 4-4: Employment Density by Jurisdiction

To better understand the location quality of employment in Santa Clara County, this report overlays employment density data with the Walkability Index (shown in Figure 4-1) to obtain employment density by walkability level (summarized in Figure 4-5). Areas of the County with the lowest walkability levels have the lowest employment density, while those with the highest walkability levels have the highest employment densities. While this pattern holds for most County jurisdictions, employment densities for the Cities of Campbell, Milpitas, Mountain View, Santa Clara, and Sunnyvale show either a negative correlation or no correlation with walkability. This is likely due to the large suburban-style office parks and corporate campuses in those areas.

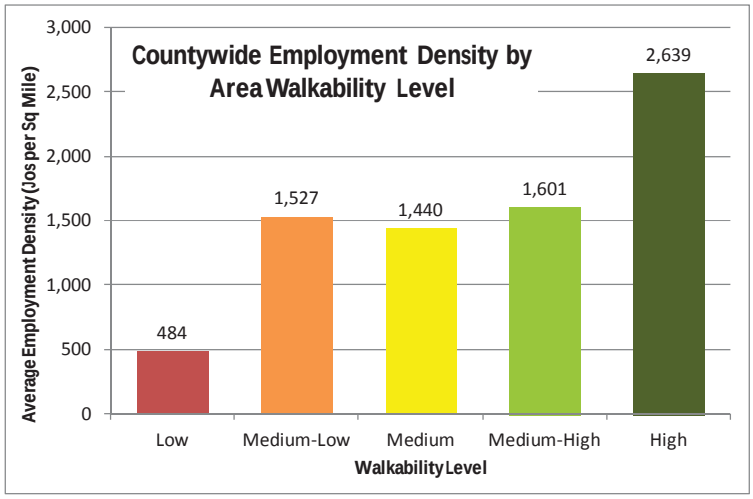


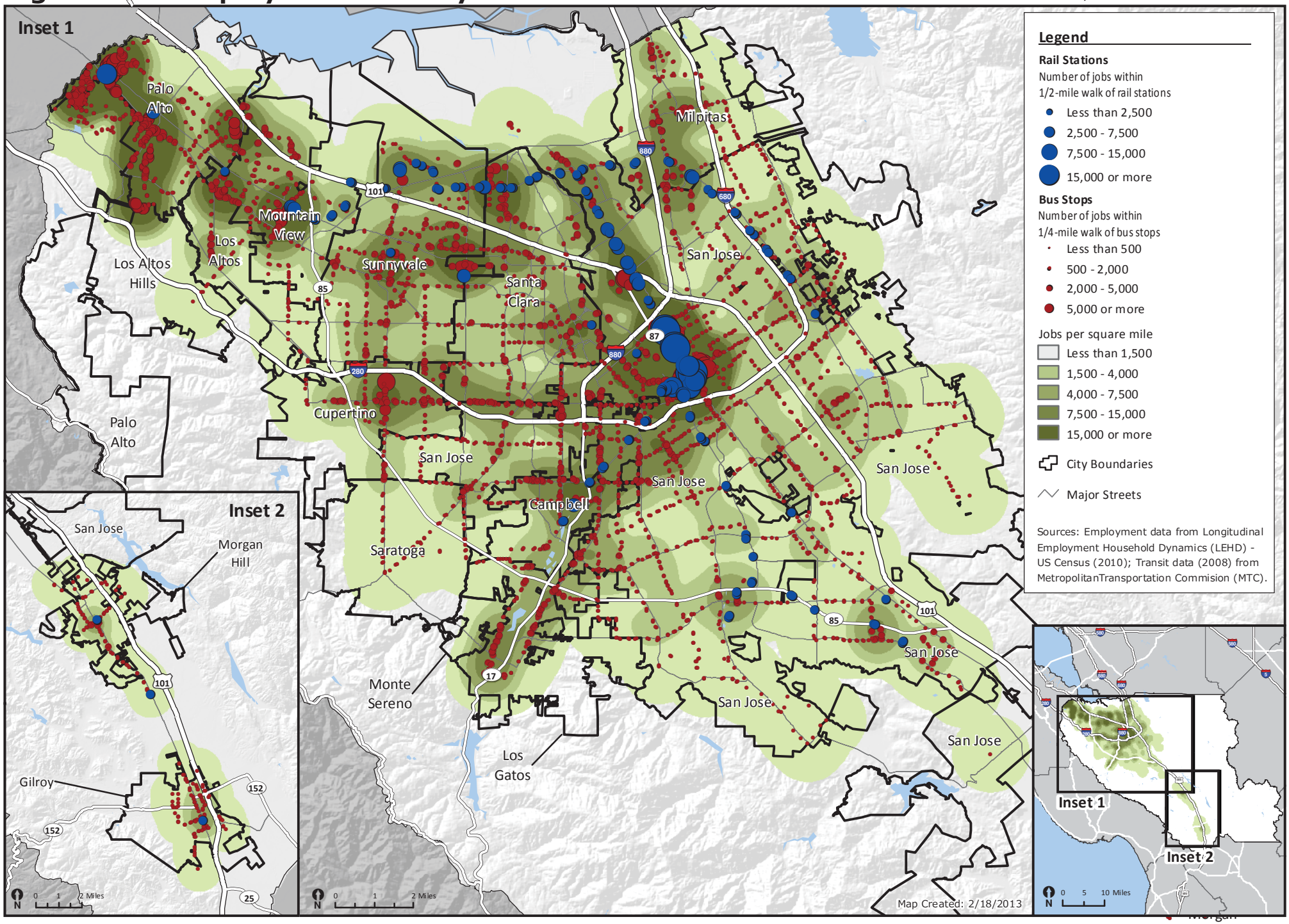
Figure 4-5: Countywide Employment Density by Area Walkability Level

Source: Brian Fulfrost & Associates and Raimi + Associates. 2012

The majority of jobs in the County are located in areas with medium-low, medium, and medium-high walkability levels. With some policy, design, and programmatic improvements, these areas could be made safer and more enjoyable for walking, bicycling, and taking transit.

Figure 4-6 shows the geographic distribution of jobs with access to transit service in the County. Employment density is shown in green, with denser areas a darker shade of green than less dense areas. Figure 4-6 also displays the number of jobs within a quarter-mile walk of a bus stop (red dots), and a half-mile walk of a rail stop (blue dots). Jobs are concentrated along major commercial corridors and in the densest areas, such as the downtowns of San Jose, Palo Alto, and Mountain View. Employment is more concentrated in the following areas: north of Highway 101 in major business parks (particularly in the Cities of Santa Clara, Mountain View, Cupertino and parts of San Jose); in downtowns (particularly in Downtown San Jose); along major transportation corridors (such as El Camino Real); and along the VTA light rail line (particularly north of Downtown San Jose).

Figure 4-6: Employment Density Near Transit



Jobs-to-Population Balance

What is it?

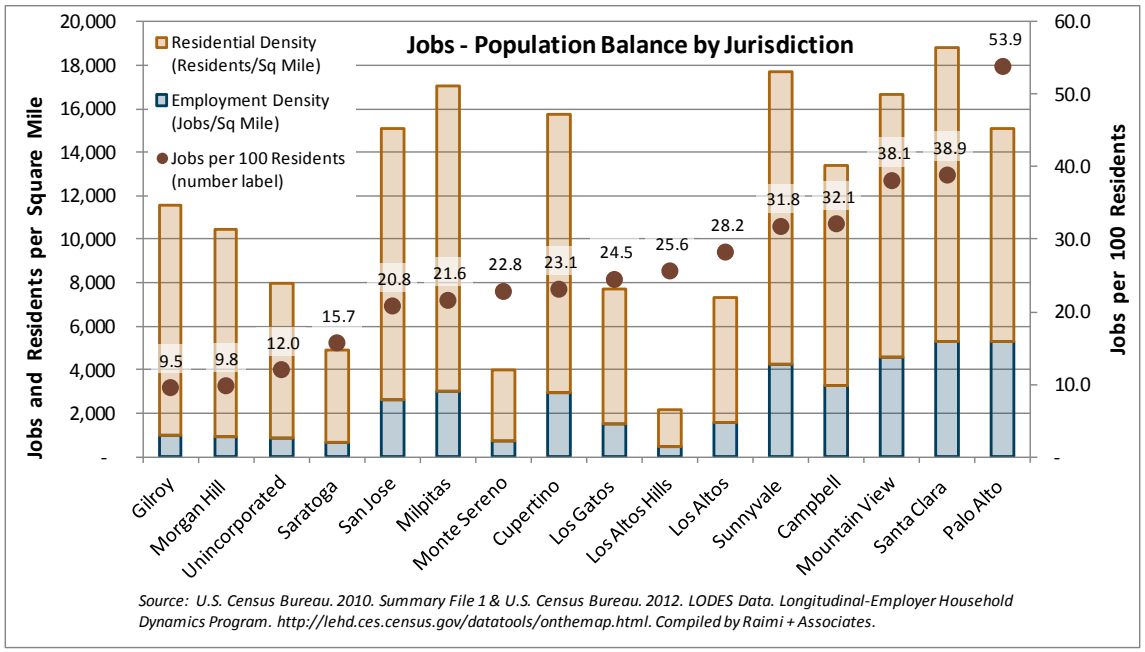
The jobs-to-population balance indicator is a measure that assesses the ratio of jobs to population within a jurisdiction (jobs per 100 residents). This is an indicator of a complete community, and it illustrates whether there are employment opportunities near the places where people live. There is no generally accepted jobs-to-population balance ratio, but most communities tend to strive to have a mix of jobs and housing within their community.

Why is it important?

Bringing jobs and people closer together can reduce vehicle miles traveled, decrease travel times, and provide more opportunities for individuals to use active forms of transportation.[15] This could result in positive health benefits such as increased physical activity, decreased social isolation,[16] reduced stress in commuting,[17] and improved air quality if individuals switch to non-auto modes of transportation.

Status in Santa Clara County

The County is rich in jobs, but the location and type of available jobs does not always match the availability and mix of housing. Figure 4-7 shows the jobs-to-population balance by jurisdiction. The blue bar represents employment density, the orange bar represents residential density, and the maroon dot represents the number of jobs per 100 residents. The City of Palo Alto, by far, has the highest jobs-to-population ratio (53.9 jobs per 100 residents) followed by the Cities of Santa Clara (38.9), Mountain View (38.1), Campbell (32.1), and Sunnyvale (31.8). Areas with the lowest ratio of jobs-to-population include the Cities of Gilroy and Morgan Hill (fewer than 10 jobs per 100 residents), the unincorporated areas of the County (12.0), and the City of Saratoga (15.7).



Source: U.S. Census Bureau. 2010. Summary File 1 & U.S. Census Bureau. 2012. LODES Data. Longitudinal-Employer Household Dynamics Program. http://lehd.ces.census.gov/datatools/onthemap.html. Compiled by Raimi + Associates.

Figure 4-7: Jobs - Population Balance by Jurisdiction

In areas with a low jobs-to-population ratio, employed residents must travel outside of their home jurisdiction to find employment. This dynamic can result in longer commute times and more money spent on transportation, as well as other impacts. On a regional level, Santa Clara County is a net importer of jobs. Sixty-one percent (519,445 workers) of those who work in Santa Clara County also live in the County. The remaining 39% (327,393 workers) live in neighboring counties, such as Alameda, Santa Cruz, San Mateo, and San Francisco and commute into the County for work. Conversely, 29% of all employed residents in the County (or 279,807 persons) commute to another County.[18]

Unemployment Rate

What is it?

The unemployment rate measures the percentage of residents who are actively looking for employment and are unable to find a job. The unemployment rate is calculated by dividing the number of unemployed by the total labor force and then multiplying by 100. It is a broad measure of the economic conditions of an area. It does not account for underemployment.

Why is it important?

At its most fundamental level, employment is necessary to generate purchase power for the necessities of life, including a safe place to live, healthy foods, and health insurance. Being unemployed, underemployed, or concerned about job security are common contributors to adverse health effects. Unemployed people may have sleep disorders, anxiety disorders, and substance addictions, that in turn, cause increased demands on the health care system and higher societal costs.[19] Additionally, unemployed men have been found to have increased mortality rates, particularly from suicide and lung cancer.[20]

Status in Santa Clara County

While overall unemployment has steadily increased since 1990, the rate has fallen from 11% in 2010 to 8.6% in June 2012 (see Figure 4-8). This is lower than the unemployment rate in California, which is still above 10%.[21]

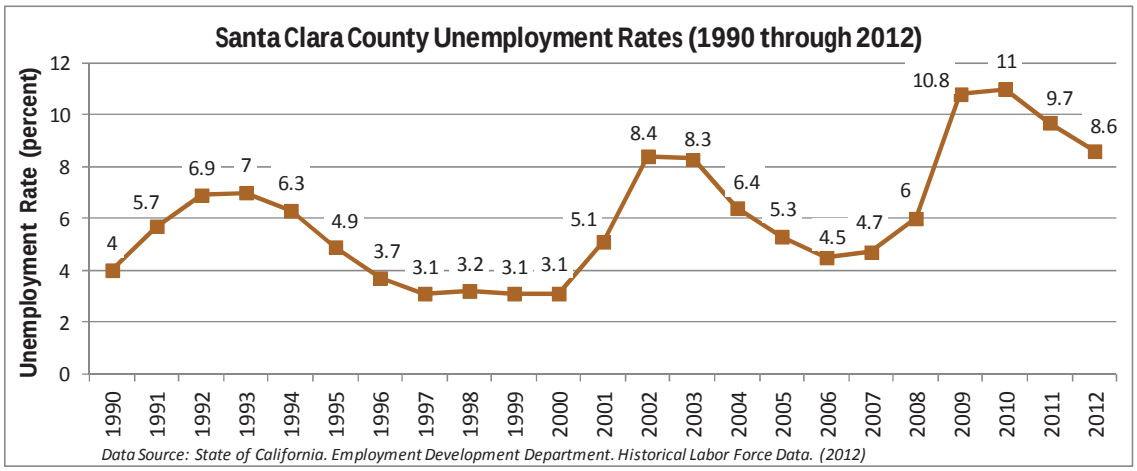


Figure 4-8: Santa Clara Unemployment Rates (1990-2012)

Additionally, workers who lost their job during the recession are now reentering the work force. Many of those workers have found positions, such as part-time or contract employment that does not provide benefits or job security. Such individuals are not receiving the same level of benefits as full-time employees; they are considered "underused," often leaving them without medical insurance or sick days. Other workers reentering the work force are in positions for which they are overqualified. These individuals are considered "underutilized" since they are not in positions that match their job qualifications. In Santa Clara County, the number of underused workers was estimated to be 22.4% of the labor force in September 2012, while the number of underutilized workers was estimated to be between 29.4% and 36.9% of the labor force.[22]

Overall, the percentage of those with health insurance is tied to the unemployment rate. As more residents move into full time jobs with benefits, their health insurance coverage will likely increase. Health insurance coverage rates are also projected to increase due to the federal Affordable Care Act. In addition, higher employment rates are tied to a healthier lifestyle, as employed residents can afford healthier foods and safer places to live and have lower rates of substance abuse.[23]

Access to Elementary Schools

What it is?

For purposes of this report, access to elementary schools is defined as a measure of the number of people living within a half mile of a public elementary school.

Why is it important?

The distance between home and school significantly determines whether a child walks or bikes to school.[24] Nationally, less than 15% of students age 5 to 14 walk to school.[25] A long distance from home to school is the most frequently reported barrier to walking, followed by other variables such as perceptions of crime and public safety, traffic related danger, inclement weather, the presence or absence of safe sidewalks and crosswalks, and infrastructure barriers such as major roadways and freeways.[26]

Status in Santa Clara County

Overall, 64% of Santa Clara County residents live within a half-mile of a public elementary school (see Figure 4-9). The Cities of Cupertino, San Jose, Milpitas, Santa Clara, Palo Alto, and Los Altos have a higher proportion of residents living near public elementary schools than the Countywide average. The Cities of Monte Sereno, Saratoga, Morgan Hill, Gilroy, Campbell, Sunnyvale, and Mountain View, the Towns of Los Altos Hills and Los Gatos, and the unincorporated County have a lower proportion of residents living near public elementary schools than the Countywide average.

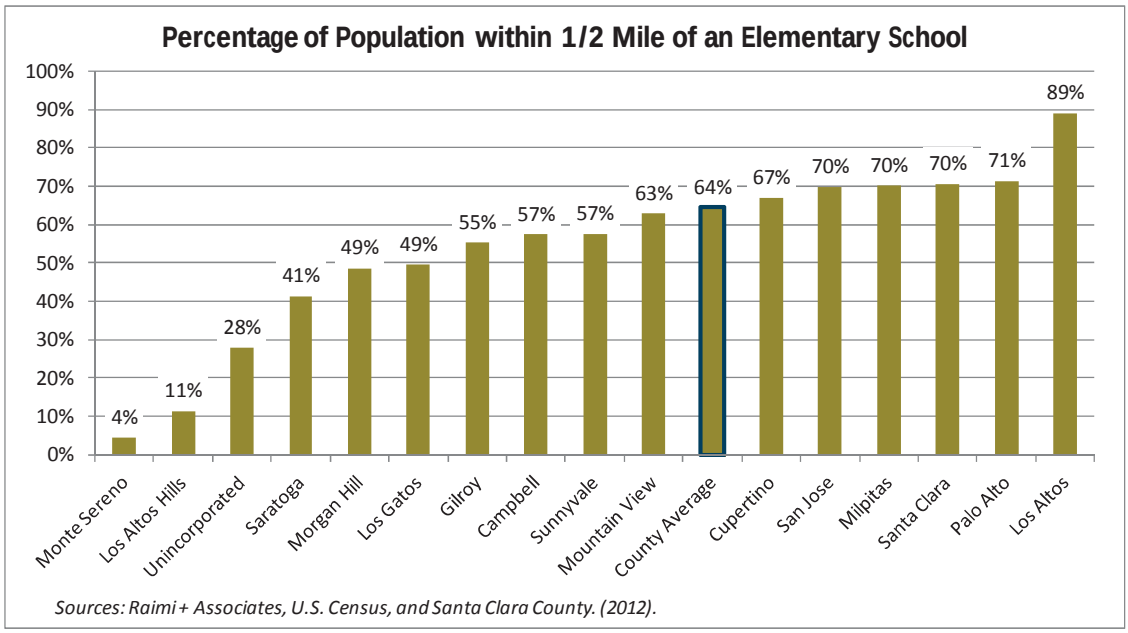
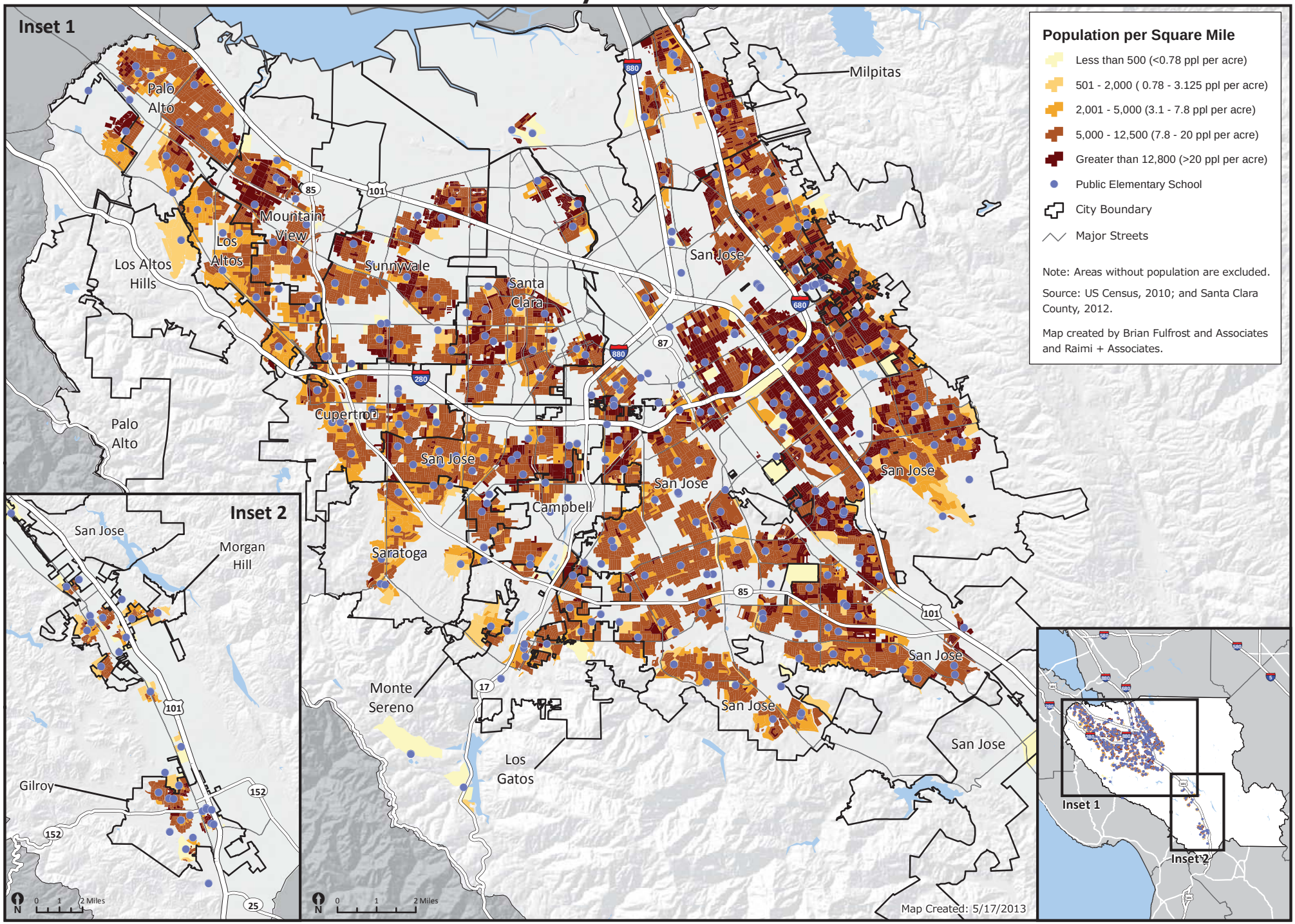


Figure 4-9: Percentage of Population within 1/2 Mile of an Elementary School

The map in Figure 4-10 shows the relationship between the population densities of census blocks within a half mile of public elementary schools. In general, public elementary schools are located in the more urbanized portions of the County, and serve the highest density areas (such as the neighborhoods in the City of San Jose near the junction of Highway 101 and Interstate 680). Gray areas in the Figure indicate areas in the County beyond a half-mile of a public elementary school.

Figure 4-10: Population Density of Census Blocks within a Half-Mile of a Public Elementary School



Access to Licensed Child Care Facilities

What it is?

This indicator assesses the licensed child care facility capacity for each jurisdiction in Santa Clara County. It summarizes the total number of children that can be cared for by licensed childcare facilities per jurisdiction, as a rate per 1,000 children under age 5 within the jurisdiction. It is calculated by dividing child care facility capacity per jurisdiction by the number of children under age 5, and then dividing that number by 1,000.

For purposes of this report, child care centers are defined as facilities that provide care for infant to school-age children in a group setting for periods less than 24 hours. The California Department of Social Services licenses child care centers within the State.[27]

Why is it important

By facilitating learning opportunities and cognitive development, high-quality child care provides significant short- and long-term benefits for children, particularly disadvantaged children.[28] Often quality child care is unavailable in low-income communities, requiring individuals to travel greater distances to access child care centers.[29] The location of child care facilities can also add travel time and transportation costs, exacerbating the stress and income burden on parents. One study estimated that working parents travel an additional five to six miles daily (more than 1,300 extra miles annually) to drop-off and pick-up their children from child care.[30]

Status in Santa Clara County

The chart in Figure 4-11 and the map in Figure 4-12 show the licensed child care facility capacity (the number of licensed child care spaces) and licensed child care facility capacity rate (spaces per 1,000 children under age 5) for each County jurisdiction. The Cities of Palo Alto and Saratoga, and the Town of Los Gatos have the highest licensed child care facility capacity rates. The City of Palo Alto has a large capacity of child care spaces to match its relatively larger proportion of children under age 5, whereas the Town of Los Gatos and the City of Saratoga have relatively low child care center capacity and few children under 5. Notably, the City of San Jose has a relatively low child care facility capacity rate, but the largest number of children under age 5 (69,054) and the highest number of child care spaces (13,671). Other jurisdictions with low capacity rates include the unincorporated County, Los Altos Hills, and Gilroy.

Overall, there are far more children under the age of 5 than there is capacity in existing licensed child care facilities, and the location of these facilities does not match where the households with young children are located. However, this indicator may not provide a complete picture of the supply and demand of child care in the County. Since this indicator only includes State licensed child care facilities, it does not account for the many home-based day care facilities and informal arrangements with grandparents, other family members, nannies, or neighbors who care for children.

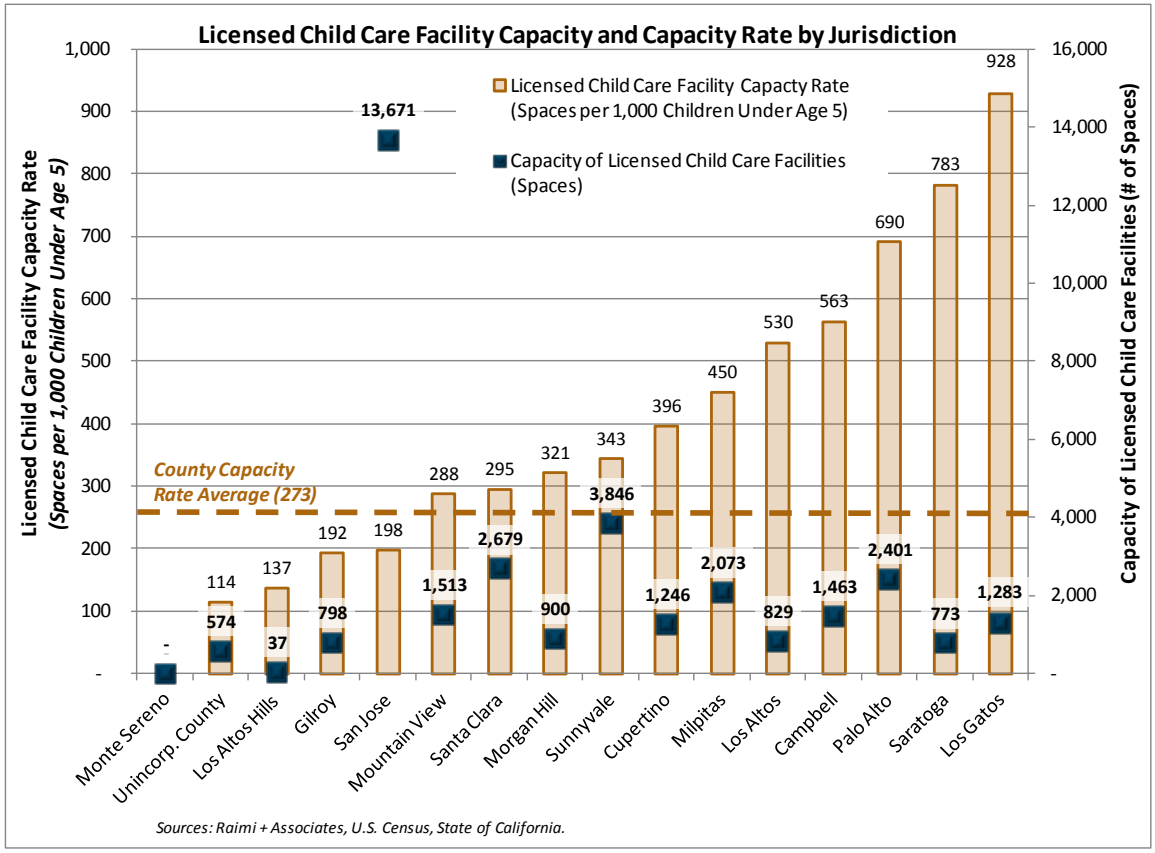
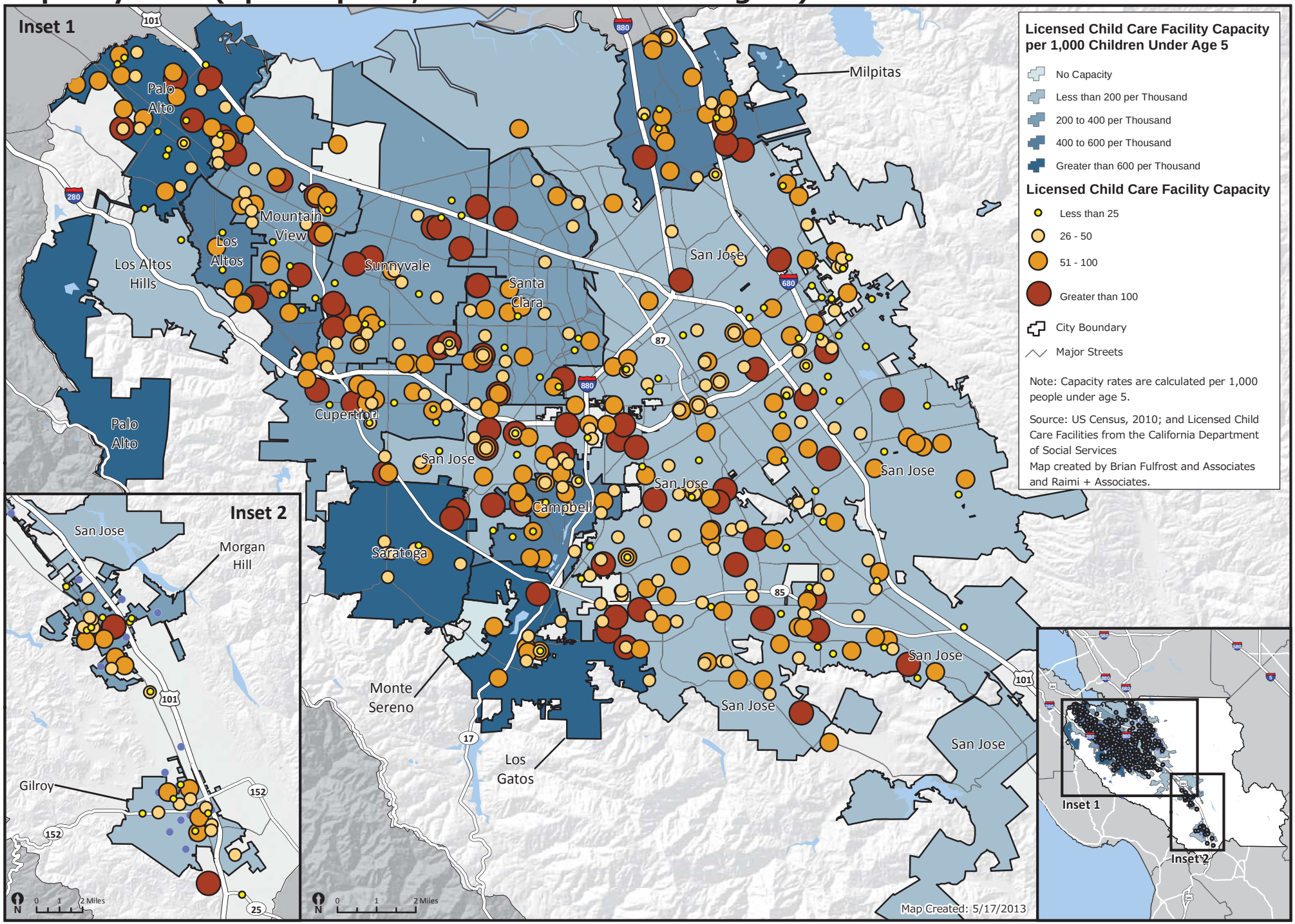


Figure 4-11: Licensed Child Care Facility Capacity and Capacity Rate by Jurisdiction

Figure 4-12: Licensed Child Care Facility Capacity and Capacity Rate (Spaces per 1,000 Children Under Age 5)



04 ~ Land Use, Walkability, and Economic Development References

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05 ~ TRANSPORTATION AND MOBILITY

Overview

Transportation patterns, habits, and decisions affect both an individual's and a community's general health. Every day, people in Santa Clara County use highways, roads, sidewalks, bike lanes, trails, and transit to commute to work, go to school, shop, run errands, and complete numerous other daily activities. Due to the way in which our communities have evolved, many people have limited transportation alternatives, particularly active transportation options such as walking and bicycling.[1] However, these active transportation options are less appropriate for some situations and users than other modes of travel, because of age, disability, and/or other factors.

The way we travel has significant positive and negative effects on health and wellness. An over-reliance on private cars contributes to higher rates of air pollution and respiratory illness.[2] Streets that are not built for or that do not accommodate pedestrians and cyclists encourage higher vehicle speeds,[3] which in turn contributes to more severe collisions, and resultant injuries and fatalities.[4] Streets that accommodate all modes of travel tend to be safer streets, while also encouraging physical activity and reducing air pollution and greenhouse gas emissions.[5]

Santa Clara County's transportation system was primarily developed between 1950 and 1980. During this period of history, the transportation system was chiefly designed for automobiles with limited consideration given to other modes of travel such as walking, biking, and public transit. More recently, there has been a greater emphasis on renovating the transportation system so that it accommodates all modes of travel.

During the next several decades, the County and cities within the County will make significant decisions about investing in transportation infrastructure. Santa Clara County has an opportunity to improve the conditions of the existing infrastructure to accommodate all users, and to design future infrastructure to promote active transportation. The changes that occur to the transportation system will likely improve conditions for pedestrians, cyclists, and transit users. This is in part due to a State law that requires more multi-modal street design. Specifically, in September 2008, Governor Arnold Schwarzenegger signed into law Assembly Bill 1358: The California Complete Streets Act of 2008. As of January 1, 2011, the law requires California cities and counties to plan for multimodal transportation networks that serve all roadway users, (including cars, trucks, rail, transit, pedestrians, and cyclists), when substantively revising a local general plan's circulation element or any other section that addresses roadways and traffic flows.[6]

This report examines transportation and mobility topics in Santa Clara County that relate to health and wellness. They include:

- Commute mode share (such as drive alone, carpool, transit, walk, and/or bike)
- Travel time to work
- Zero vehicle households

- Collisions
- Bicycle facilities
- Bicycle amenities
- Bike sharing
- Private employee shuttles
- Paratransit and disabled access

Key Findings

- While a high percentage of roads in Santa Clara County include bikeways, additional high-quality infrastructure is needed to encourage inexperienced and more vulnerable riders to bicycle.
- Auto, pedestrian, and bicycle collisions are concentrated in more urban areas of Santa Clara County, along major arterials, and in high walkability areas. Jurisdictions with high rates of pedestrian collisions include the Cities of Palo Alto, Mountain View, and San Jose. Jurisdictions with high rates of bicycle collisions include the Cities of Palo Alto, Mountain View, and Cupertino.
- In general, Santa Clara County has less sustainable and less healthy mode splits than the greater Bay Area. County commuters drive more frequently, carpool and take transit less often, and walk less than commuters in the greater Bay Area.
- Transit riders in Santa Clara County have longer average commutes than transit riders in the greater Bay Area, and longer commutes than commuters using other modes in the County.
- Neighborhoods with high concentrations of elderly residents tend to be less walkable and have fewer transit-accessible jobs.

Mode Share (Means of Transportation to Work)

What is it?

Mode share is defined as the percentage of community members who travel via a particular type of transportation for work. The Census collects data for working at home, driving alone, carpooling, using public transportation, bicycling, walking, and other transportation modes.

Why is it important?

Mode share is an important indicator of a community's health, due to the connections between transit use, active transportation, and general health and wellness. Also significant are the relationships between mode share and its impacts on air quality, and the subsequent negative health impacts of smog and air pollution. Research has found that air pollution contributes to chronic respiratory disease, lung cancer, heart disease, and can even cause damage to the brain, nerves, liver, or kidneys.[7]

Status in Santa Clara County

In general, Santa Clara County has less environmentally sustainable and less healthy mode splits than the Bay Area as a whole. Figure 5-1 shows that compared to the average Bay Area commuter, employed Santa Clara County residents are more likely to drive and less likely to carpool, take transit, and walk. Transit use by commuters in Santa Clara County is a full seven percentage points lower than the Bay Area average. These transportation and other patterns contribute to traffic congestion and worsening air quality.

Journey to Work Mode Splits (Santa Clara County and San Francisco Bay Area)

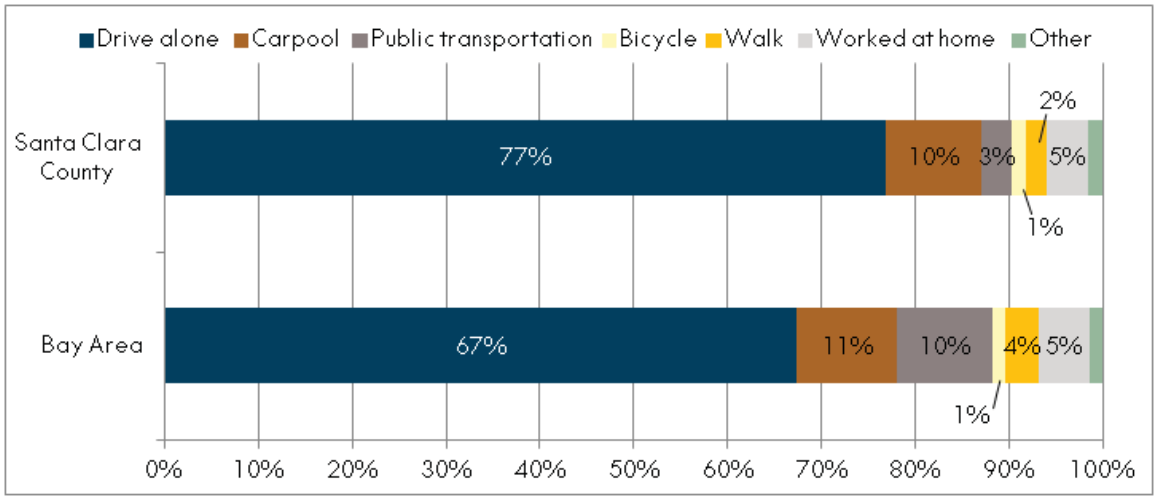


Figure 5-1: Journey to Work Mode Splits (Santa Clara County and SF Bay Area)

Source: U.S. Census Bureau. American Community Survey. American Community Survey 3- year estimates. 2006-2008.

Table 5-1 displays journey to work mode splits for Santa Clara County and the County's cities. The City of Palo Alto has some of the most sustainable and healthy mode splits in the County. It exhibits the lowest drive alone mode share, and the highest percentage of residents taking transit, bicycling, or walking to work. Conversely, the Cities of Milpitas,

Monte Sereno, Saratoga, Campbell, and Los Altos have some of the least sustainable and least healthy mode splits in the County. They exhibits low rates of carpooling, transit use, and walking, most likely due to the automobile-oriented suburban design and a lack of widespread transit service and pedestrian infrastructure.[8]

A high proportion of County workers and residents commute by private automobile. This is likely due to the fact that Santa Clara County has relatively low residential and employment densities compared to other Bay Area jurisdictions. Except for Downtown San Jose and a few other areas, the County lacks concentrations of jobs in a dense and walkable environment. Most employment is located in large areas with dispersed destinations lacking in efficient and extensive transit service. Without increases in density and transit, it is difficult to justify using transit over driving alone.

Journey to Work Mode Splits

(The San Francisco Bay Area and Santa Clara County Jurisdictions)

	Drive Alone	Carpool	Transit	Bicycle	Walk	Work at Home	Other
Bay Area	**67%**	**11%**	**10%**	**1%**	**4%**	**5%**	**1%**
Santa Clara County	**77%**	**10%**	**3%**	**1%**	**2%**	**5%**	**2%**
Campbell	84%	6%	2%	2%	1%	4%	1%
Cupertino	78%	11%	2%	1%	2%	6%	1%
Gilroy	72%	17%	3%	1%	2%	4%	2%
Los Altos	80%	4%	1%	1%	1%	12%	1%
Los Altos Hills	79%	6%	1%	1%	2%	11%	0%
Los Gatos	83%	5%	1%	1%	3%	6%	1%
Milpitas	80%	12%	2%	0%	1%	3%	2%
Monte Sereno	82%	4%	0%	1%	0%	13%	0%
Morgan Hill	74%	13%	2%	0%	3%	6%	1%
Mountain View	72%	10%	5%	3%	3%	5%	3%
Palo Alto	67%	6%	5%	7%	5%	9%	1%
San Jose	78%	11%	4%	1%	2%	4%	2%
Santa Clara	79%	9%	3%	1%	3%	4%	1%
Saratoga	85%	6%	0%	1%	1%	7%	0%
Sunnyvale	77%	10%	5%	1%	2%	4%	1%
Unincorporated	71%	10%	2%	4%	3%	7%	3%

Table 5-1: Journey to Work Mode Splits (The San Francisco Bay Area and Santa Clara County Jurisdictions)

Source: U.S. Census Bureau. American Community Survey. American Community Survey 3- year estimates. 2006-2008.

Travel Time to Work

Why it is?

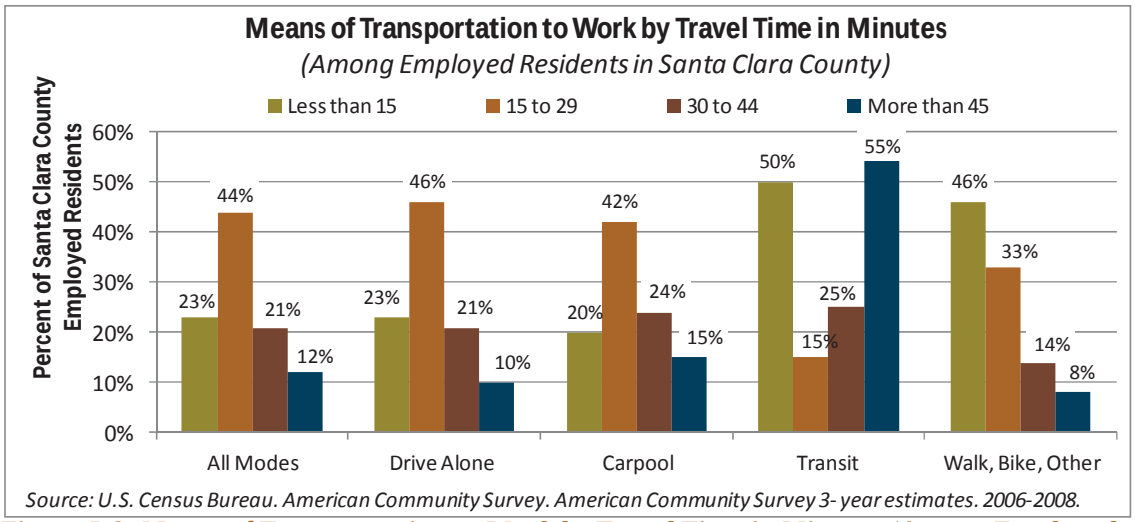
Collected by the U.S. Census Bureau, travel time to work is the total number of minutes that it takes a person to get from home to work each day of the week. Along with the time traveling to work, it also includes the time waiting for transit to arrive or for a carpool pick-up.

Why is it important?

The amount of time spent traveling to work is another important health indicator. Current research suggests that longer commutes are one of the most robust predictors of social isolation. Approximately every 10 minutes of commuting results in 10% fewer social connections, leading to general unhappiness and depression.[9]

Status in Santa Clara County

Among the nine San Francisco Bay Area region counties, Santa Clara County residents have the second lowest average travel time to work at 24.3 minutes. Napa County has the shortest average travel time of the Bay Area counties (23.9 minutes), while Contra Costa County (32.2) and San Francisco County (29.6) commuters have the longest average travel time.[10]



Source: U.S. Census Bureau. American Community Survey. American Community Survey 3- year estimates. 2006-2008.

Figure 5-2: Means of Transportation to Work by Travel Time in Minutes (Among Employed Residents in Santa Clara County)

Similar to trends seen nationwide, in Santa Clara County, commuters traveling via transit have drastically longer travel times to work. As shown in Figure 5-2, 55% of transit riders in Santa Clara County report a commute of greater than 45 minutes, while only 12% of total commuters across all modes report a commute of the same length.[11] These longer commute times for transit riders are likely due to the quality of transit service and the potentially long commute distances that some transit commuters travel to get to work. Despite these longer travel times, compared to driving, taking transit to work has a lower risk of collision, can be less stressful, and can be more productive (e.g., the rider can multitask, socialize, relax, etc.).

Figure 5-3 displays the average commute time by travel mode by place of residence. Workers who live in Santa Clara County have shorter than average commute times for all modes of transportation than both California and the Bay Area at large. Among modes, taking public transportation takes longer than driving alone or carpooling.

While Figure 5-3 looks at workers who live in Santa Clara County, Figure 5-4 shows the mean commute time for workers commuting into the Cities of Palo Alto, Santa Clara, and Sunnyvale from the Counties of San Mateo, Alameda, and San Francisco who drive alone or use public transit. In all scenarios, public transit commuters have longer travel times than drivers. Among San Francisco and San Mateo County residents who drive to Palo Alto, switching to public transit would only increase their average commute times by five minutes or less. Commute combinations where transit takes at least 20 minutes longer than driving include Alameda County to the Cities of Palo Alto or Sunnyvale, and San Francisco County to the Cities of Santa Clara or Sunnyvale. Reducing the time differential between transit and driving for these commutes would improve equity for workers who do not have access to a car and entice drivers to switch modes.

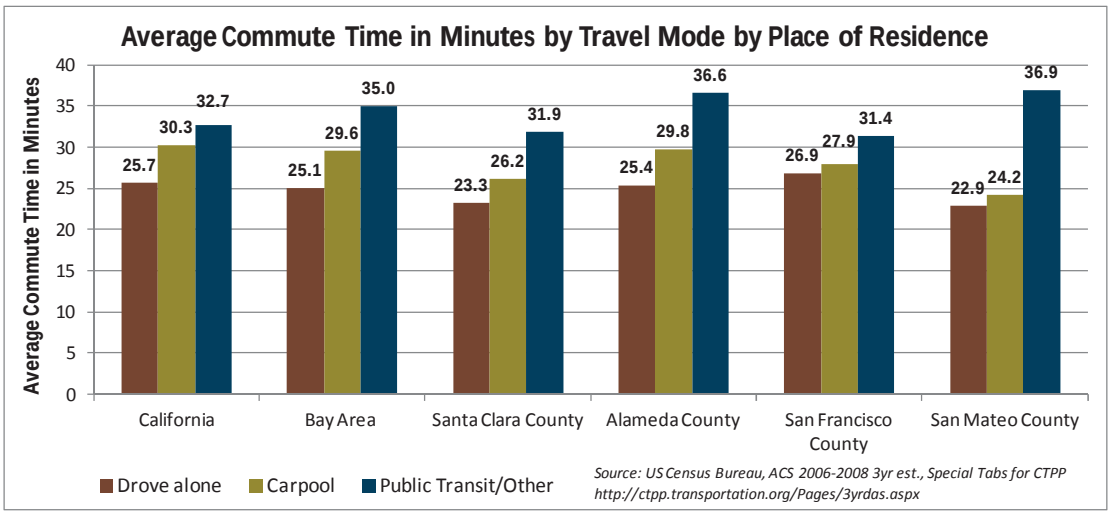


Figure 5-3: Average Commute Time in Minutes by Travel Mode by Place of Residence

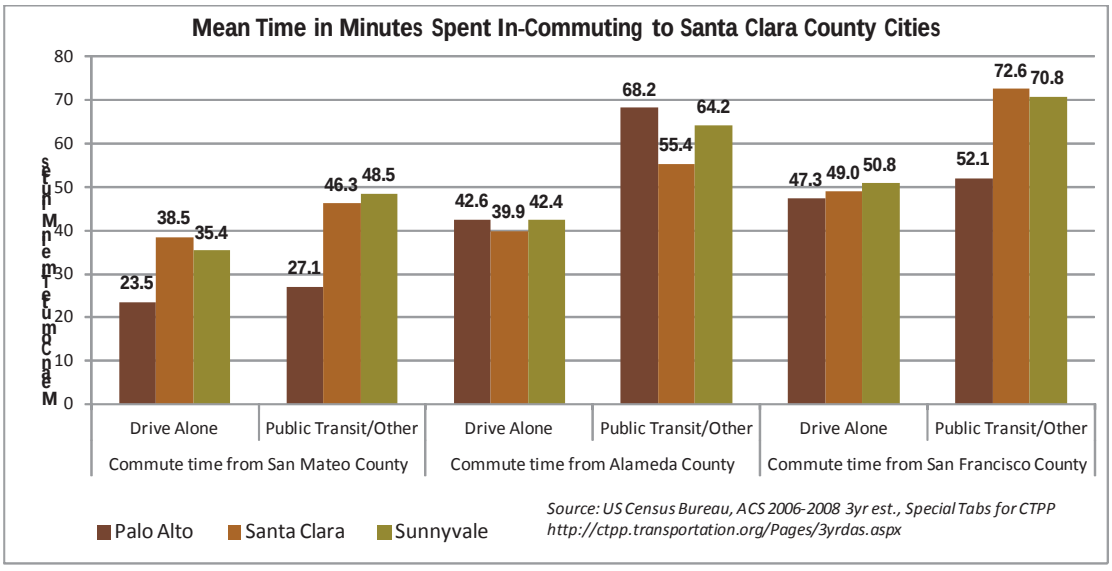


Figure 5-4: Mean Time in Minutes Spent In-Commuting to Santa Clara County Cities

Zero-Vehicle Households

What is it?

Zero-vehicle households are households that do not own or have regular access to an automobile. This report locates zero-vehicle households in census block groups where over 25% or more of the households do not own a vehicle (based on the American Community Survey 5-year estimates, 2006-2010).

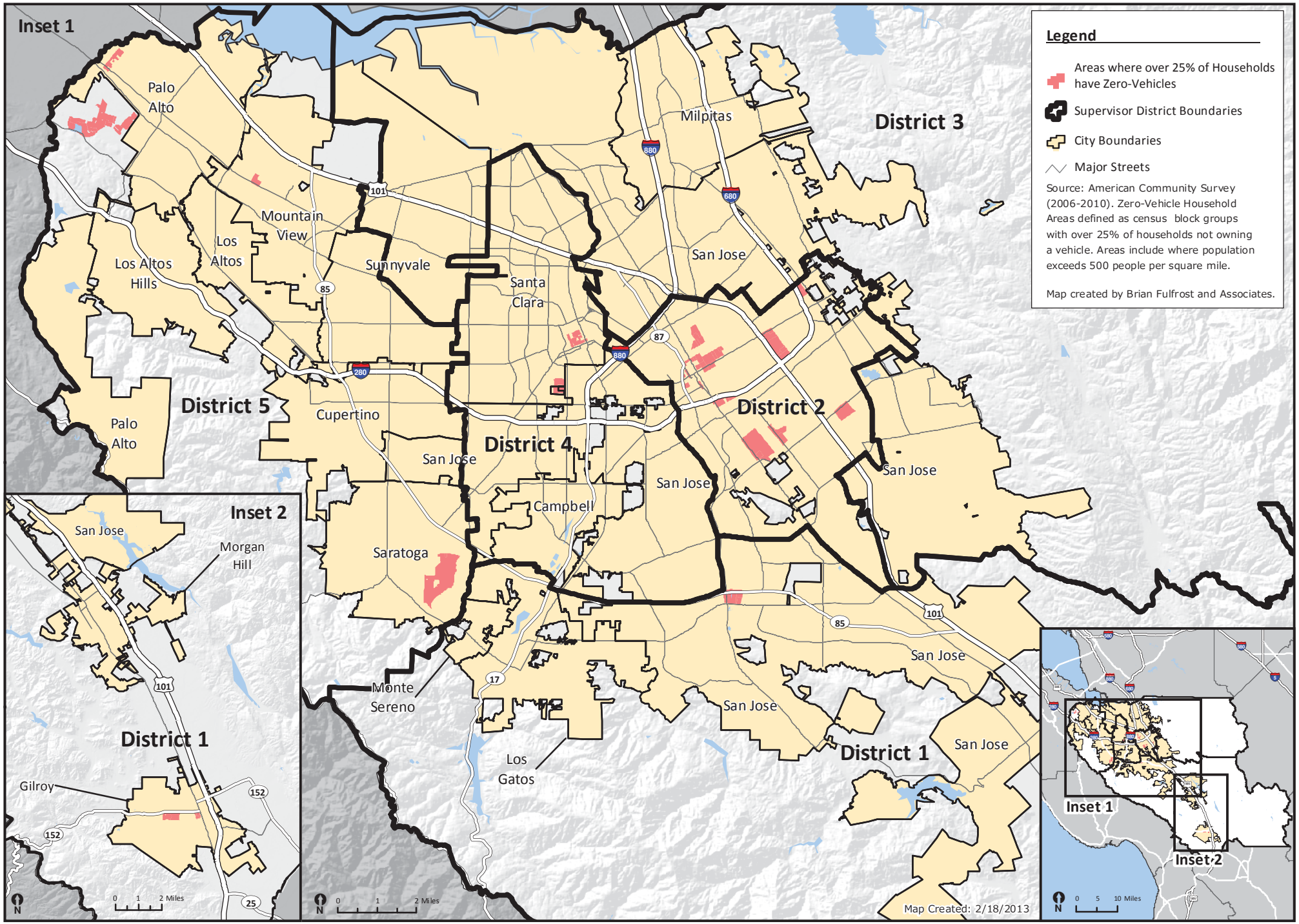
Why is it important?

When an entire household lacks a vehicle, access to jobs, school, shopping areas and medical care is more difficult. This is particularly true in lower density areas, since households must rely on transit, walking, biking, or carpooling. Knowing where such households exist can help cities, the County, and others in their planning decisions.

Status in Santa Clara County

Approximately 5% of County households do not own a vehicle. As is shown in Figure 5-5, there are a few areas in the Cities of San Jose, Santa Clara, Saratoga (near West Valley College), Gilroy, Stanford University and some unincorporated communities with census block groups, where more than 25% of households lack a vehicle. Some of these areas correspond to low-income neighborhoods where it is likely that households cannot afford a vehicle. However, in other areas, such as near Stanford and San Jose State Universities, concentrations of zero-vehicle households may be due to large numbers of students who live on or near campus, and thus do not need a vehicle. While some of these areas are near a Caltrain station or other frequent transit service, many destinations are not similarly served.

Figure 5-5: Vulnerable Communities - High Proportions of Zero-Vehicle Households



Collisions

What is it?

This indicator shows the number of collisions involving motor vehicles with other motor vehicles, pedestrians and cyclists.

Why is it important?

Transportation safety is an important indicator of public health. Automobile collisions result in significant health, economic, and transportation burdens on families and on our society as a whole. In 2010, there were over 2,520 fatal collisions and 161,094 injury collisions recorded in the State. The resulting cost of these collisions was estimated to be over $20 billion dollars.[12]

Further, the health care costs imposed by pedestrian and bicycle collisions are often far greater than the cost of preventative safety measures, such as investments in pedestrian facilities and amenities. In many cases, it is more cost-effective to improve public health outcomes through planning interventions than to continue to treat the negative effects caused by unhealthy environments.[13]

Status in Santa Clara County

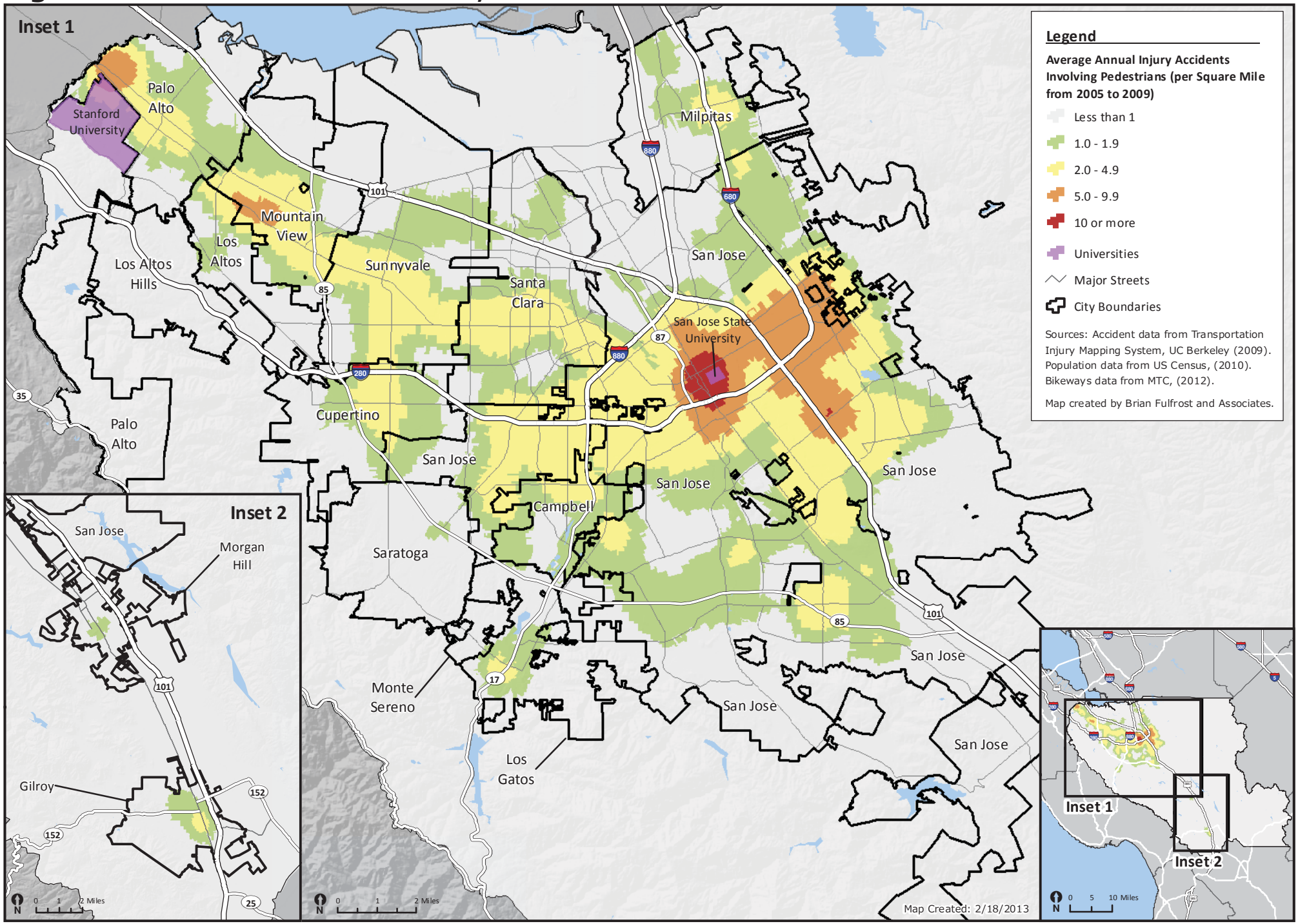
This section examines two types of automobile collisions – those between vehicles and pedestrians and those between vehicles and bicyclists.

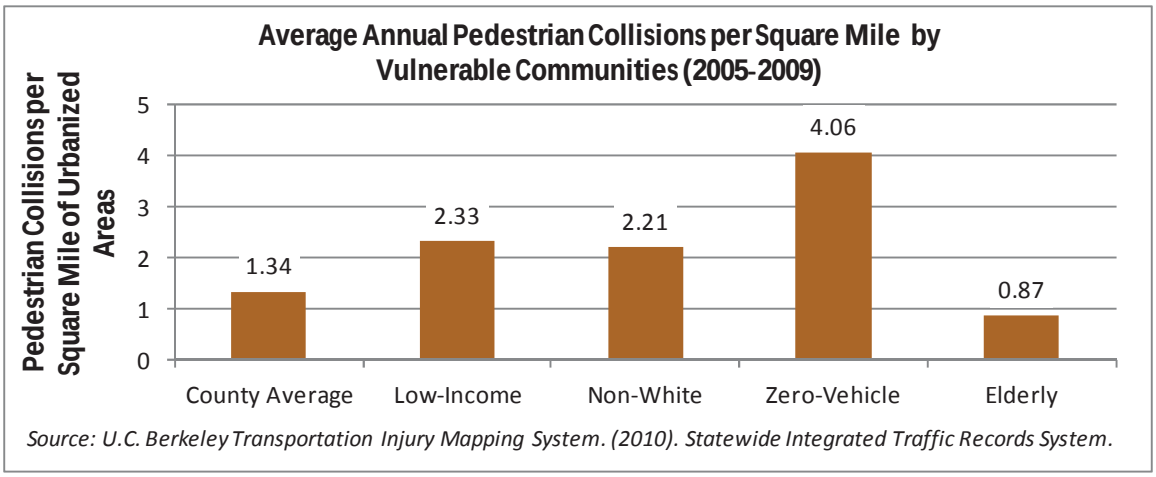
Pedestrian Collisions

There were 498 reported automobile collisions with pedestrians in 2010 in Santa Clara County, which was approximately 7% of the County's reported collisions. These collisions resulted in 19 fatalities and 64 severe injuries.[14] Figure 5-6 maps the annual average rate of collisions involving pedestrians from 2005 through 2009 per 1,000 people, and shows that the urbanized areas of Santa Clara County exhibit higher rates of pedestrian collisions. This is not surprising considering there are more people walking in those denser areas. Countywide, an average of 1.34 collisions involving pedestrians occur every year per square mile, probably due to higher walking rates. County jurisdictions with high rates of pedestrian collisions include the Cities of San Jose (1.96), Mountain View (1.85), and Palo Alto (1.66). Jurisdictions with low rates of pedestrian collisions include the Town of Los Altos Hills (0.10), and the Cities of Morgan Hill (0.24) and Monte Sereno (0.25), probably due to their lower walking rates.[15]

Figure 5-7, shows Countywide annual pedestrian collision rates in vulnerable community areas (areas with high concentrations of low-income residents, non-White residents, zero vehicle households, or older adults). Low-income areas and non-White areas have higher rates of pedestrian collisions (2.33 and 2.21, respectively) than the County as a whole (4.06). This is likely due to a variety of factors, including people walking more in more walkable areas, and low-income and minority populations being disproportionately located in the most walkable areas of the County. [16]

Figure 5-6: Pedestrian Collisions, 2005-2009





Source: U.C. Berkeley Transportation Injury Mapping System. (2010). Statewide Integrated Traffic Records System.

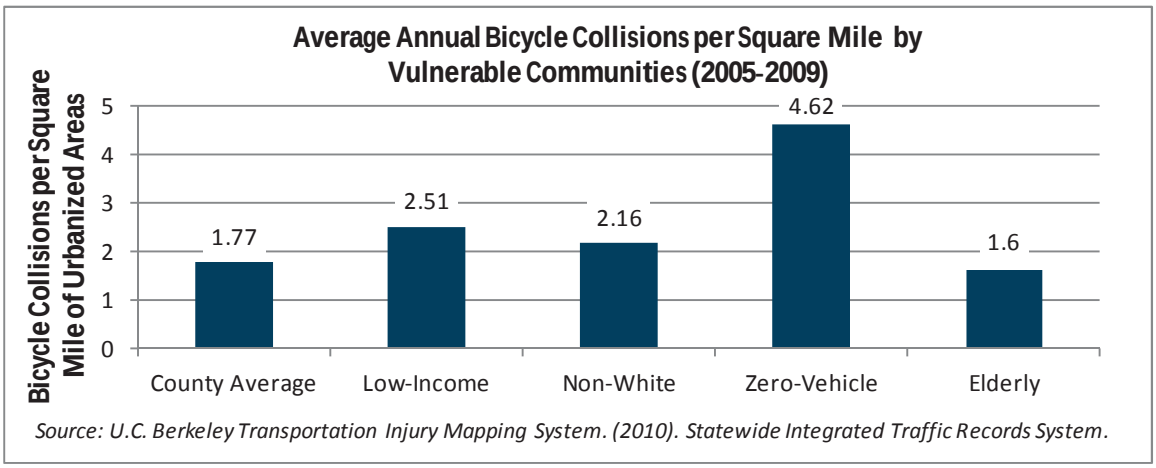
Figure 5-7: Average Annual Pedestrian Collisions per Square Mile by Vulnerable Communities

Bicycle Collisions

In 2010 alone, there were 790 reported collisions with bicyclists. This accounts for 11% of the collisions in Santa Clara County. These collisions resulted in 6 fatalities and 52 severe injuries. In particular, children are at an increased risk for bicycle-related collisions, with 35% of the collisions involving people age 18 and under.[17]

Most bicycle collisions are concentrated in the more urbanized areas of Santa Clara County and along major arterials, as is shown on the map in Figure 5-9. Each year there is an average of 1.77 bicycle collisions per square mile in Santa Clara County. Areas with higher rates of bicycle collisions include the Cities of Palo Alto and San Jose. Jurisdictions with low rates of bicycle collisions include those of Morgan Hill, Los Altos Hills, and Saratoga. As with pedestrian collisions, the highest density areas, which include locations where universities are located, have the highest rates of collisions. This is likely because more people in these areas ride their bikes to work or to run errands. To address this trend, more investments in bicycle infrastructure, such as bike lanes and other safety measures, may be needed in these more urbanized areas.

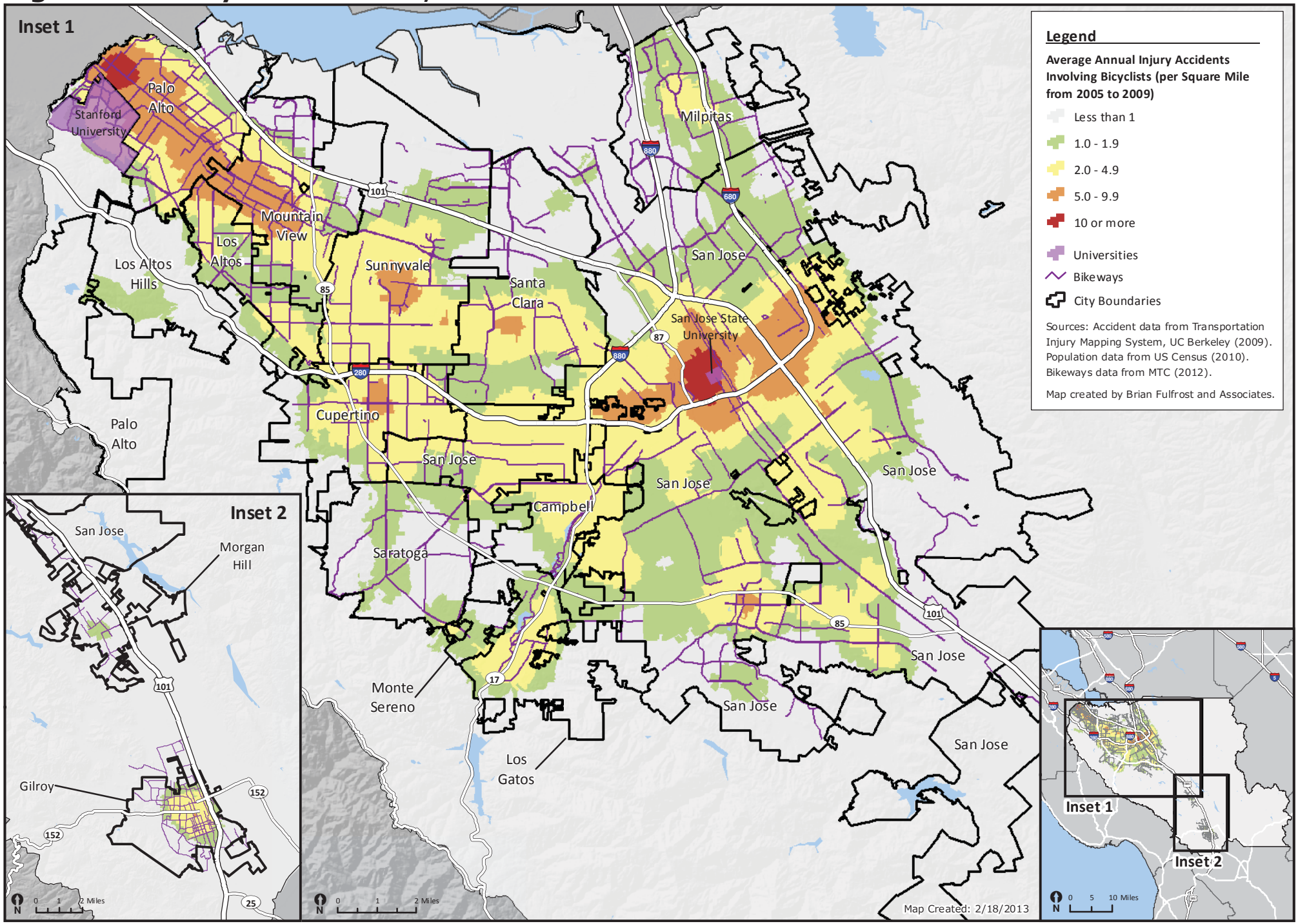
Further, as shown in Figure 5-8, the low-income (2.51), non-White (2.16), and zero-vehicle (4.62) areas have higher bicycle collision rates than the County's average (1.77).



Source: U.C. Berkeley Transportation Injury Mapping System. (2010). Statewide Integrated Traffic Records System.

Figure 5-8: Average Annual Bicycle Collisions per Square Mile by Vulnerable Communities

Figure 5-9: Bicycle Collisions, 2005-2009



Bicycle Facilities

What is it?

Bicycle facilities are defined and classified as follows:

- Class I Bikeway – bike paths within an exclusive right-of-way that is sometimes shared with pedestrians, such as off-road, multi-use trails;
- Class II Bikeway – bike lanes for bicycle use only that are striped within the paved area of roadways; and
- Class III Bikeway – bike routes shared with motor vehicles on the street. They may also be defined by a wide curb lane and/or a shared use arrow stencil marking on the pavement, known as a "sharrow."

Why is it important?

Research suggests that the strongest incentive for bicycle use is the presence of high-quality bikeways, such as off-street paths or separated lanes within a low-trafficked, low-speed roadway.[18] In addition and very importantly, increased cycling can provide significant health benefits. They include increased physical activity and stress reduction, respiratory fitness in children, lower cancer mortality and morbidity rates in middle-age and elderly populations, and better cardiovascular fitness and cardiovascular risk factors among working-age adults.[19] Additionally, when more people bicycle for transportation, car emissions decrease. This can improve air quality (and respiratory health) and reduce carbon emissions that contribute to climate change. Finally, cycling is a no- or low-cost transportation option, which saves the cyclist money that he or she would otherwise spend on fuel and car expenses.[20]

Status in Santa Clara County

According to 2008 data from the Metropolitan Transportation Commission, Santa Clara County has a total of 714 miles of bikeways, including:

- 95 miles of Class I bikeways;
- 511 miles of Class II bikeways; and
- 108 miles of Class III bikeways.[21]

There are approximately 7,216 miles of roadways in the County. Accordingly, bikeways exist along 9.9% of total road miles in Santa Clara County.[i] By comparison, 3.3% of the roadways in the City of Richmond, California and 20% of roadways in San Francisco include bikeways.[22] [23]

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[i] For a complete picture of existing bikeways in Santa Clara County, please see the Santa Clara County Bikeways Map produced by the Santa Clara Valley Transportation Authority (VTA): http://www.vta.org/schedules/VTA_Bike_Map.pdf. Note that total roadway miles may include some private roads, as well as freeways and on and off ramps.

From a health perspective, Class I bikeways are the most successful in increasing bicycle usage, particularly for novice riders and more vulnerable populations such as children and the elderly.[24] Existing bicycle infrastructure in Santa Clara County consists predominately of striped Class II lanes along wide, heavily trafficked high-speed arterials, and Class III routes. Most bicyclists and would-be bicyclists are not comfortable bicycling along such routes, preferring Class I facilities, or Class II facilities on more narrow, less-traveled low-speed streets.

Between the 1950s through the 1970s, the County invested heavily in a Countywide road system, designed to move cars quickly and efficiently throughout the County. At the time, construction of bikeways was not a priority. Consequently, the County lacks many of these facilities. However, given the recent passage of The California Complete Streets Act of 2008 (discussed earlier in this report) and the prevalence of relatively flat terrain in the County's urbanized areas, the County has the opportunity to create world class cycling facilities for both transportation and recreational use.

Bicycle Amenities

What is it?

Bicycle amenities, also referred to as "end of trip facilities" or "support facilities," are an important component of a bicycle-friendly transportation system. Various bicycle amenities include:

- Bicycle parking (racks, lockers, bike stations, etc.)
- Shower facilities
- Changing rooms
- Lockers
- Repair stations/equipment
- Safe access (in buildings, on transit vehicles, etc.)

Why is it important?

Increasing the ease, safety, and convenience of bicycling as a mode of travel helps encourage individuals to bicycle. The lack of such facilities can often be the determining factor when individuals are deciding whether to bike or use another mode of travel.[25]

Status in Santa Clara County

Currently, many cities within Santa Clara County (including San Jose, Palo Alto, Mountain View, and Cupertino) require bicycle amenities (e.g., bicycle parking, showers, and lockers) for certain types of new development, such as commercial and multifamily buildings.

Some cities (including San Jose, Palo Alto, and Sunnyvale) have adopted policies to increase bicycle parking facilities at transit stations. Such facilities create a convenient alternative to driving alone. Indeed, the potential travel impacts of encouraging bicycling are greater if bicycling is integrated with transit. Currently, Valley Transportation Authority (VTA) provides 350 bike lockers at light rail stations, Caltrain stations, Park &

Ride lots, and transit centers. Caltrain provides bicycle racks and/or lockers at all but two of its stations (College Park and San Martin).

All VTA buses are equipped with an exterior bicycle rack that holds two bicycles. When full, VTA policy states that two additional bicycles are allowed on-board a bus. Light rail vehicles are equipped with interior racks that fit four total bicycles. Two additional bicycles are allowed in each light rail vehicle when racks are full. Caltrain trains also have dedicated bike cars with approximately 32 bike spaces.

While a number of County jurisdictions do have policies or requirements for bicycle amenities, they are not consistent across the County.

Bike Sharing

What is it?

Bicycle sharing systems are programs that make bikes available to people who lack them. Bike sharing systems include a bicycle fleet, a network of stations where bikes are stored and returned, and bike maintenance programs. Bikes may be rented at one station and returned to another.

Why is it important?

Bike sharing allows users to access bikes for short trips, typically in urban or campus areas, which may reduce traffic congestion and related air pollution and encourage physical activity. Successful bike sharing programs have resulted in a range of a 5% to 8% shift from drivers to cyclists.[26]

Status in Santa Clara County

The Bay Area Air Quality Management District (BAAQMD), in partnership with the City and County of San Francisco, San Mateo County Transit District, City of Redwood City, County of San Mateo, and VTA, is developing a Bay Area Regional Bicycle Sharing Pilot program, which will include bicycle sharing pods in three Santa Clara County cities, including:

1. Palo Alto: 10 stations, 100 bikes;
2. San Jose: 20 stations, 200 bikes; and
3. Mountain View: 10 stations, 100 bikes.

Pods will be located within close proximity to Caltrain stations and city centers, beginning in the fall of 2012, and will run for one to two years. Upon completion of the pilot and program evaluation, expansion to additional cities and locations is likely.[27]

Private Employee Shuttles

What is it?

Employee shuttles are a flexible mode of passenger transportation that fills a gap between traditional fixed-route transit service and the automobile. Employee shuttles often connect transit stations and park-and-ride lots to the workplace or hospitals and medical services. Shuttle service may share some features with transit, but it maintains route and schedule flexibility like the automobile. Many private employers provide these as a benefit for their employees.

Why is it important?

As transit agencies face revenue shortfalls, feeder bus services are often eliminated. Private employee shuttles are an innovative way to address the transportation gap. These shuttles allow employees to travel to their destination without a car, reducing traffic congestion and local emissions, encouraging walking and biking to the transit station, and offsetting social isolation resulting from long commutes. Private employee shuttles may also play an important role in getting people to the medical services they need.[28]

Status in Santa Clara County

Many large Santa Clara County employers provide shuttle service for employees, such as Google in the City of Mountain View, Apple in the City of Cupertino, and Yahoo in the City of Sunnyvale. The provision of shuttles is completely optional for large employers; however, many times the commitment to shuttle service can be included as part of a development agreement for a new campus, and as mitigation for potential traffic impacts of large employment centers.

Additional shuttle services provided by public agencies and/or participating employers, serve many transit stations throughout Santa Clara County. While shuttle service can reduce rates of driving, it is only part of a larger transportation and land use solution. Concentrating jobs near transit will likely have a much greater impact on driving rates than using shuttle services to connect suburban-style office parks to existing transit service.[29]

Shuttles serving Caltrain stations:

- ✓ East Palo Alto Community Shuttle (serves Palo Alto Caltrain station)
- ✓ Deer Creek Shuttle
- ✓ Embarcadero and Crosstown Shuttles
- ✓ Stanford Marguerite Shuttle
- ✓ California Avenue Caltrain Station
- ✓ Duane Avenue Shuttle
- ✓ Mary - Moffett Shuttle
- ✓ North Bayshore Shuttle
- ✓ Shoreline Shuttle
- ✓ Bowers - Walsh Shuttle
- ✓ Duane Ave. Shuttle
- ✓ Mission Shuttle
- ✓ Airport Flyer
- ✓ Downtown Area Shuttle (DASH)
- ✓ Tamien/S.J. Diridon Weekend Shuttle
- ✓ IBM Shuttle (VTA light rail shuttle)
- ✓ San Benito County Transit Caltrain Shuttle (Hollister/Gilroy/Caltrain)

Shuttles serving VTA light rail stations:

- ✓ Downtown Area Shuttle (DASH)
- ✓ Hitachi Shuttle
- ✓ IBM Shuttle

Shuttles serving Altamont Commuter Express (ACE) stations:

- ✓ 822 Gray Line - South Sunnyvale
- ✓ 823 Green Line - North Santa Clara
- ✓ 824 Orange Line - Mountain View/Palo Alto
- ✓ 825 Purple Line - West Milpitas
- ✓ 826 Red Line - North Sunnyvale
- ✓ 827 Yellow Line - South Santa Clara
- ✓ 828 Brown Line - North San Jose
- ✓ 831 Violet Line - East Milpitas

Paratransit and Disabled Access

What is it?

Paratransit is an alternative mode of passenger transportation that may not follow fixed routes or fixed schedules. Some paratransit service has features similar to transit (shared ride and fares), but it maintains convenience and flexibility akin to the automobile. Paratransit fills a gap between traditional fixed route transit service and automobile service, often providing on-demand service for the elderly and disabled.

Why is it important?

Paratransit services are a vital service for elderly populations and individuals with disabilities. Paratransit accommodates those members of society who do not, cannot, or do not wish to drive, including the elderly, disabled, and people with injuries.[30]

Status in Santa Clara County

Provided by VTA, Santa Clara County's Paratransit Program provides low-cost transportation services to persons with disabilities. The paratransit service area includes all areas within three-quarters of a mile of VTA bus routes and light rail station. This includes most areas of Santa Clara County and small portions of adjacent counties. The service operates between 5:00 AM and 2:00 AM, seven days a week. Individuals who are unable to board, ride, or disembark from transit vehicles without the assistance of another person, who need the assistance of a lift ramp where an accommodating vehicle is not available, or who have a specific impairment that prevents them from traveling to a transit stop, are eligible for paratransit service. Eligibility is not based upon age, economic condition, or inability to drive a private vehicle.[31]

Paratransit service is effective by providing increased mobility options for some County residents in need of transportation assistance. However, the program will not be able to serve the County's growing older population effectively in its current format. This is this is chiefly due to the prevalence of low density areas and the large geographic area of the County.

05 ~ Transportation and Mobility References

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06 ~ Physical Activity and Recreation

Overview

Physical activity, whether for transportation, exercise, or recreation, is a key ingredient to maintaining health and preventing disease. Researchers have found that physical activity helps control weight, reduces the risk of disease, strengthens bones, improves mental health and mood, prevents falls among older adults, and increases chances for a longer life.[1] These benefits occur for healthy people, people at risk for chronic diseases, and people with chronic diseases or disabilities.[2]

Built environment characteristics (such as land use patterns, urban design, and transportation systems), social environment characteristics (including societal values and preferences, market forces, and public policy), and individual behaviors and characteristics (such as demographics, lifestyles, preferences, and culture) are all important contributors to physical activity levels and patterns.

Understanding the differences among physical activities is complex; it requires consideration of both social and individual contexts and the connections between specific community design elements. For example, neighborhoods can be designed to increase opportunities for physical activity through improved accessibility to and quality of parks. Additionally, communities can restructure the physical environment to remove barriers to physical activity, by building or improving sidewalks or multi-use trails that connect residences, neighborhoods, schools, and parks.[3] These improvements can contribute to increased physical activity levels and improved health and well-being of all residents.

This section includes information on the County's status related to:

- Physical Activity Levels
- Students Who are Physically Fit
- Park Access
- Park Level of Service

Key Findings

- Only one-third of Santa Clara County adults engage in “vigorous physical activity” (such as running), and the percentage of adults who engage in vigorous physical activity varies by race and ethnicity, age, and gender.
- Approximately 70% of middle school students engage in vigorous physical activity, and this percentage varies by race/ethnicity and gender.
- The percentage of students that meet all six physical fitness standards of the California Physical Fitness Report increases with grade level. Hispanic/ Latino

and Black students are the least likely to meet all of the physical fitness standards.

- The average walking distance to the nearest park is 1,071 feet (or just under a quarter of a mile) within the urbanized areas of the County.[i] Southeast San Jose, western Palo Alto, and portions of the Cities of Morgan Hill and Gilroy lie further than a mile from the nearest park.
- The average park level of service in urbanized areas of the County (defined as acres of parks per 1,000 residents) is 32 acres per 1,000 residents. However, the Cities of Los Altos, Morgan Hill, and Santa Clara all have a level of service of less than 3 acres per 1,000 residents.
- Low-income areas tend to have fewer acres of parkland per 1,000 residents than higher-income areas.
- A high-level of park access (i.e., distance to a park) does not correlate to a high level of park service (and vice versa).

Physical Activity Levels

What it is?

Physical activity is any bodily activity that enhances or maintains physical fitness and overall health and wellness. According to the *2008 Physical Activity Guidelines for Americans*, adults should participate in at least 150 minutes a week of moderate-intensity physical activity (such as walking), or 75 minutes a week of vigorous-intensity aerobic physical activity (such as running). Children and adolescents should engage in 60 minutes or more of moderate or vigorous physical activity daily.[4]

Why is it important?

Physical activity is important in maintaining health and preventing disease. Regular physical activity can help control weight, reduce the risk of cardiovascular disease, Type 2 diabetes, and some cancers, strengthen bones and muscles, improve mental health and mood, prevent falls among older adults, and increase chances for a longer life.[5]

Status in Santa Clara County

Among Santa Clara County adults, only one-third engages in vigorous physical activity, and that percentage varies by race/ethnicity, age, and gender.[ii] A higher percentage of adult males preform vigorous physical activity compared to women (40% versus 23%). As a percentage, Hispanic adults engage in vigorous physical activity at the highest reported rate (42%), while Asian and Pacific Islanders report performing vigorous

[i] Urbanized areas are defined as having a population density of 500 persons per square mile or higher.

[ii] Vigorous physical activity is defined as 20 or more minutes per day three or more days per week (e.g., 6o minutes per week). This amount of activity differs from the *2008 Physical Activity Guidelines for Americans* recommendation of 75 minutes a week of vigorous activity.

physical activity at the lowest rate (25%). Adults, age 55 and over, have the lowest rate of vigorous physical activity.[6]

Overall, only a relatively small number of County adults exercise regularly. This likely contributes to higher rates of overweight and obese adults and other diseases associated with a lack of exercise, such as diabetes, cardiovascular disease, and some cancers.

Approximately 70% of middle school students engage in vigorous physical activity, and this percentage varies by race/ethnicity and gender. Of those, a higher percentage of female students (65%) report engaging in physical activity than male students (55%). Seventy-seven percent of White students participate in vigorous physical activity, while only 68% of Asian and Pacific Islanders and Hispanics report doing so. In general, the percentage of students who report engaging in vigorous activity declines with age.[7]

Students who are Physically Fit

What it is?

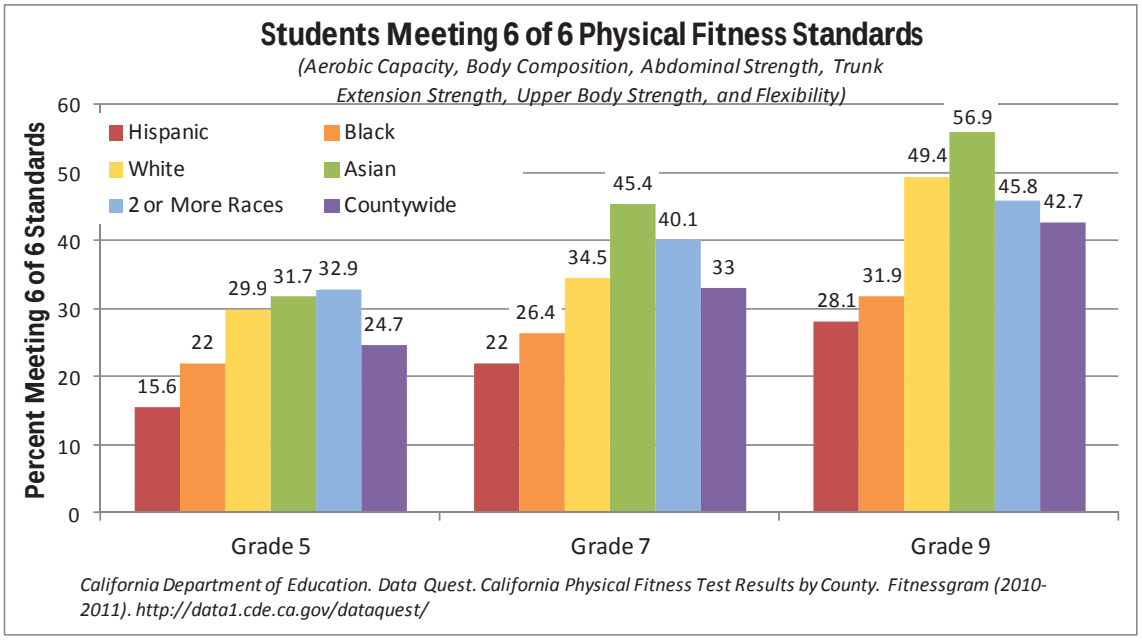
The California Physical Fitness Report evaluates the number of fifth, seventh, and ninth grade students who meet the six physical fitness standards. These standards include aerobic capacity, body composition (healthy body mass index), abdominal strength, trunk extensor strength, upper body strength, and flexibility.

Why is it important?

Among children and adolescents, physical activity is associated with improved bone health, improved cardiorespiratory and muscular fitness, decreased levels of body fat, and lower levels of depression.[8] Being physically fit helps children develop a long-term interest in physical activity, which can reduce the likelihood of chronic diseases and improve mental health, among other benefits.[9]

Status in Santa Clara County

During the 2010-11 school year, 25% of fifth graders, 33% of seventh graders, and 43% of ninth graders in Santa Clara County met all six physical fitness standards. Figure 6-1 shows the percentage of students by race and ethnicity who met all of the standards. It illustrates that Hispanic/Latino and Black students were the least likely and Asian, Multi-Racial, and White students were the most likely to meet all six of these standards. It also shows that racial and ethnic disparities increase as students become older.[10]



California Department of Education. Data Quest. California Physical Fitness Test Results by County. Fitnessgram (2010-2011). http://data1.cde.ca.gov/dataquest/

Figure 6-1: Santa Clara County Student Physical Fitness (2010-2011)

Increasing the percentage of students who are physically fit could yield valuable long-term benefits. These include potentially reducing obesity and other diseases associated with a lack of exercise (such as diabetes and cardiovascular disease) and some cancers.

Park Access

What it is?

For purposes of this report, park access is defined as the average walking distance from a residence to the nearest park. Parks are defined as State, County, regional, and municipal parks and open space, but excluding restricted open spaces and golf courses.

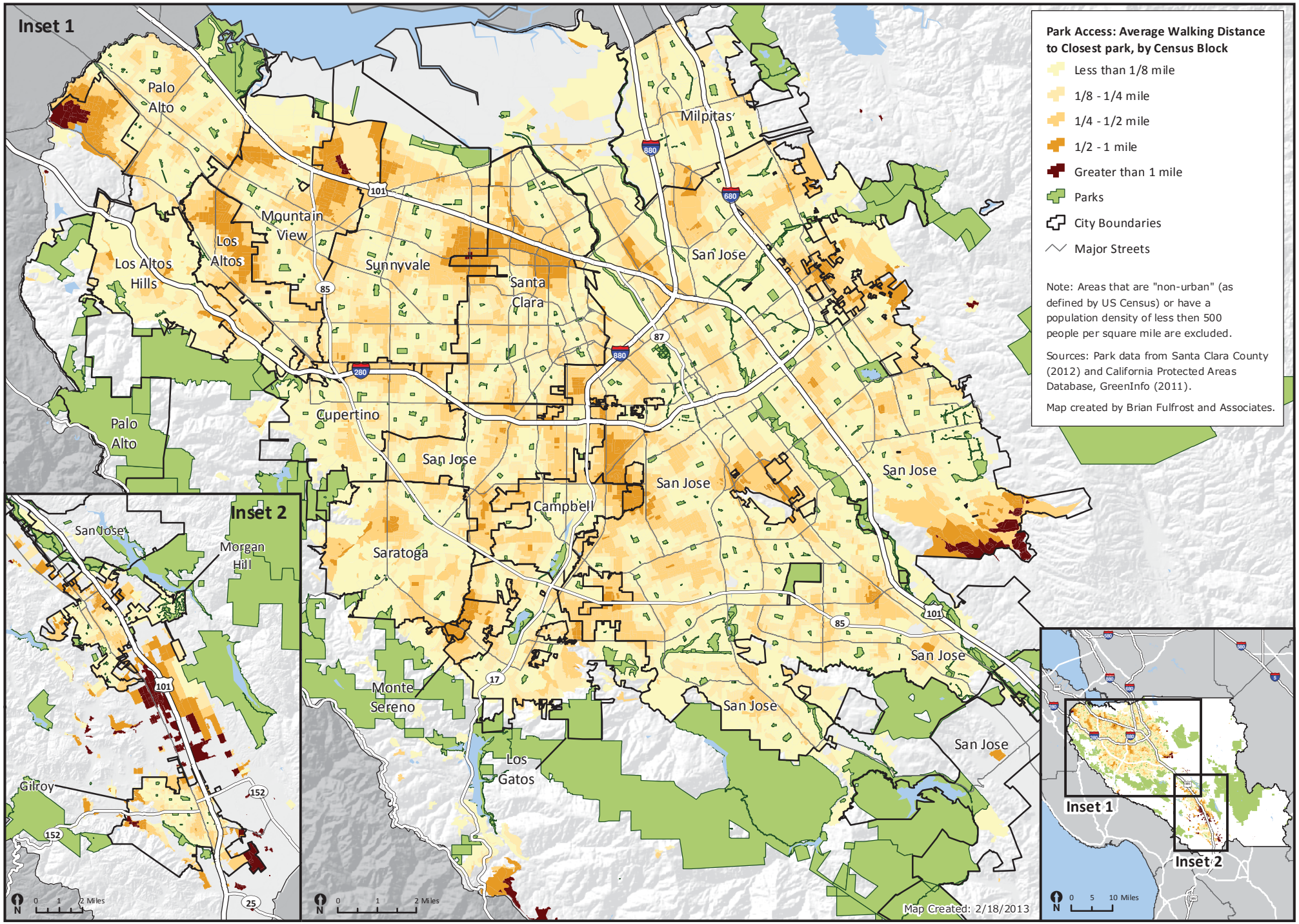
Why is it important?

Proximity to parks is associated with increased park usage, physical activity, and better overall health. Improving access to parks can increase the amount of time children exercise, decrease their risk of chronic diseases, and even reduce juvenile delinquency.[10] [15] Adults who live closer to parks and green spaces report reduced stress and fatigue,[16] improved mental health, and better self-rated health.[13]

Status in Santa Clara County

Figure 6-2 displays the average walking distance to the nearest park by census block. Among all urbanized census blocks in the County, the average walking distance to the nearest park is 1,071 feet (or just under a quarter of a mile). In general, most of Santa Clara County is within a half-mile of a park. However, several areas in the County exceed this half-mile metric. They include southeast San Jose, western Palo Alto and the unincorporated community of San Martin.

Figure 6-2: Park Access
Average Walking Distance to Closest Park, by Census Block



Park Level of Service

What it is?

Park level of service is defined here as the acres of parkland per 1,000 residents. This level of service indicator includes State, County, regional, and municipal parks, but excludes restricted open spaces, such as golf courses. The Quimby Act, a State of California law, allows jurisdictions to charge a development impact fee, equivalent to providing a minimum of 3 acres of parkland per 1,000 residents for new development. As a result, this standard is often used to determine park level of service.

Why is it important?

Along with access to parks, the quantity of parks is associated with increased usage and physical activity and better overall health. Increasing the quantity and quality[11] of parks can increase the amount of time children exercise, decrease their risk of chronic diseases, and even reduce juvenile delinquency.[15] Adults who live closer to open spaces report reduced stress and fatigue,[16] improved mental health, and higher self-rated health.[13]

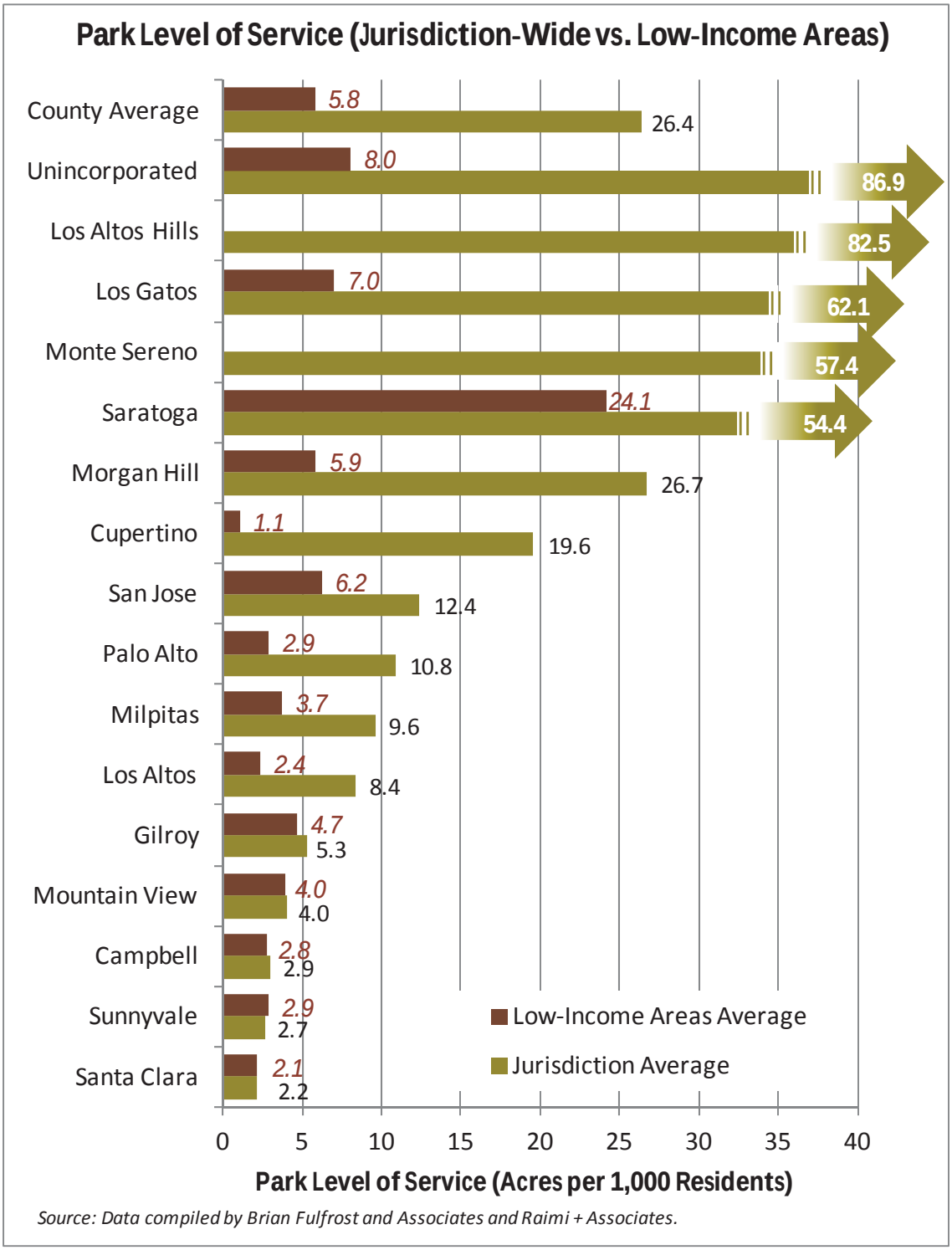
Status in Santa Clara County

Countywide, the park level of service is 32 acres per 1,000 residents. Among urbanized areas[iii] of the County, the park level of service is 26.4 acres per 1,000 residents. Both of these figures are extremely high, because they includes State, County, and regional open spaces.[iv] The City of Palo Alto and the unincorporated County all have levels of service greater than the County average, whereas the Cities of Los Altos, Morgan Hill, and Santa Clara all have levels of service less than 3 acres per 1,000 residents. Figure 6-4 maps park level of service per 1,000 residents in Santa Clara County.

In many of the County's cities with low-income areas (i.e., areas where 30% or more of the area has an income of less than 200% of the Federal Poverty Level), the low-income areas have fewer acres of parkland per 1,000 residents than the city as a whole (see Figure 6-3). The low-income areas in the jurisdictions of Campbell, Cupertino, Los Altos, Los Gatos, Milpitas, Mountain View, San Jose, and Saratoga have fewer parks acres per 1,000 residents than the jurisdiction wide average. Vicinities with higher concentrations of non-white residents in these areas also exhibit a similar pattern of fewer parks acres per 1,000 residents than the average.

[iii] Urbanized areas (as defined by the U.S. Census) have a population density of 500 or more persons per square mile.

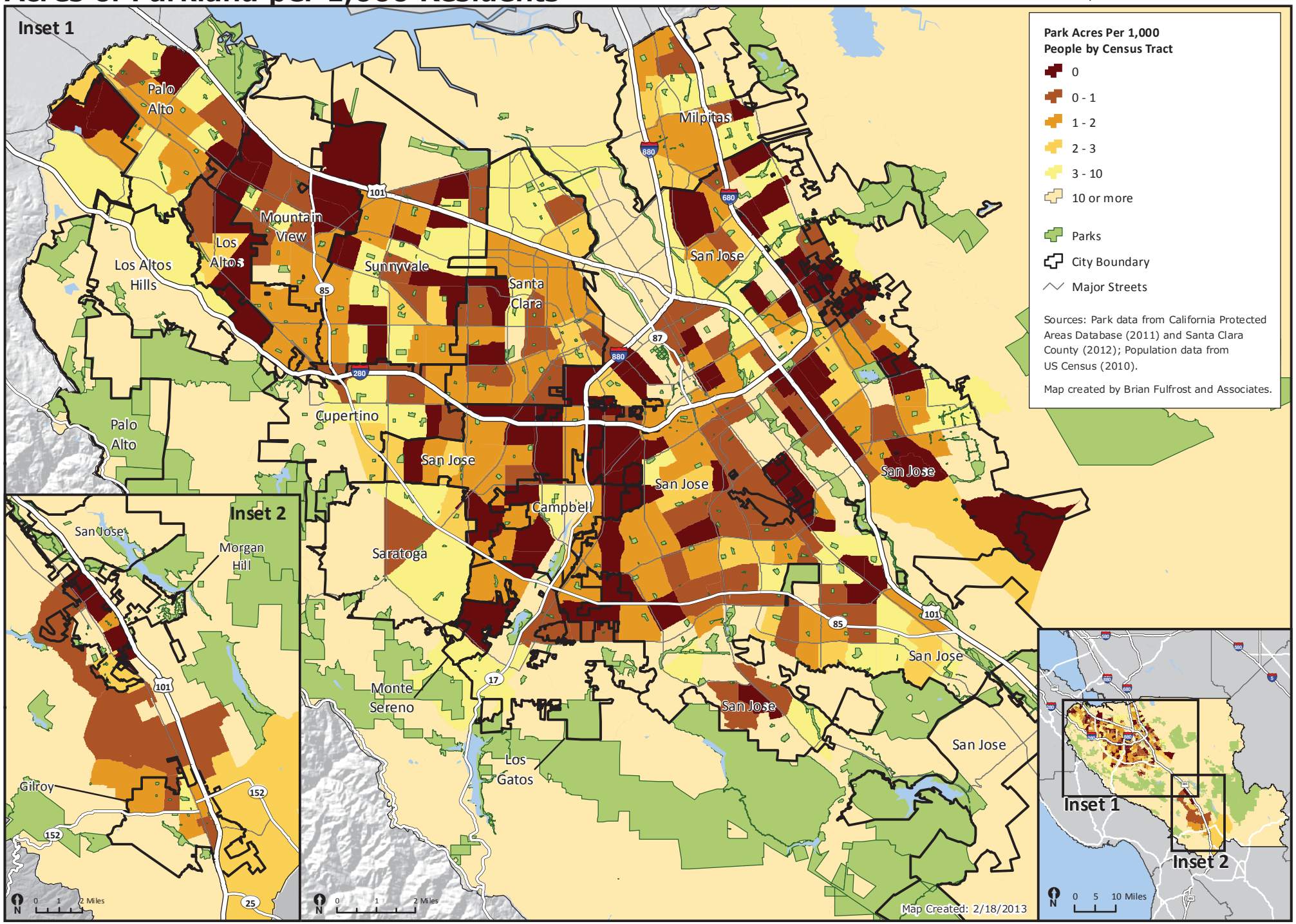
[iv] Generally, when jurisdictions calculate a park level of service, they do not include open spaces. However, since Santa Clara County residents frequently utilize open spaces for physical activity, they were included in this analysis. To provide a sense of scale, the City of Roseville, CA is known to have one of the highest urbanized park level of service standards in the State at 9 acres per 1,000 residents. However, this figure does not include any regional or state parks.



Source: Data compiled by Brian Fulfrost and Associates and Raimi + Associates.

Figure 6-3: Park Level of Service (Jurisdiction-Wide vs. Low-Income Areas)

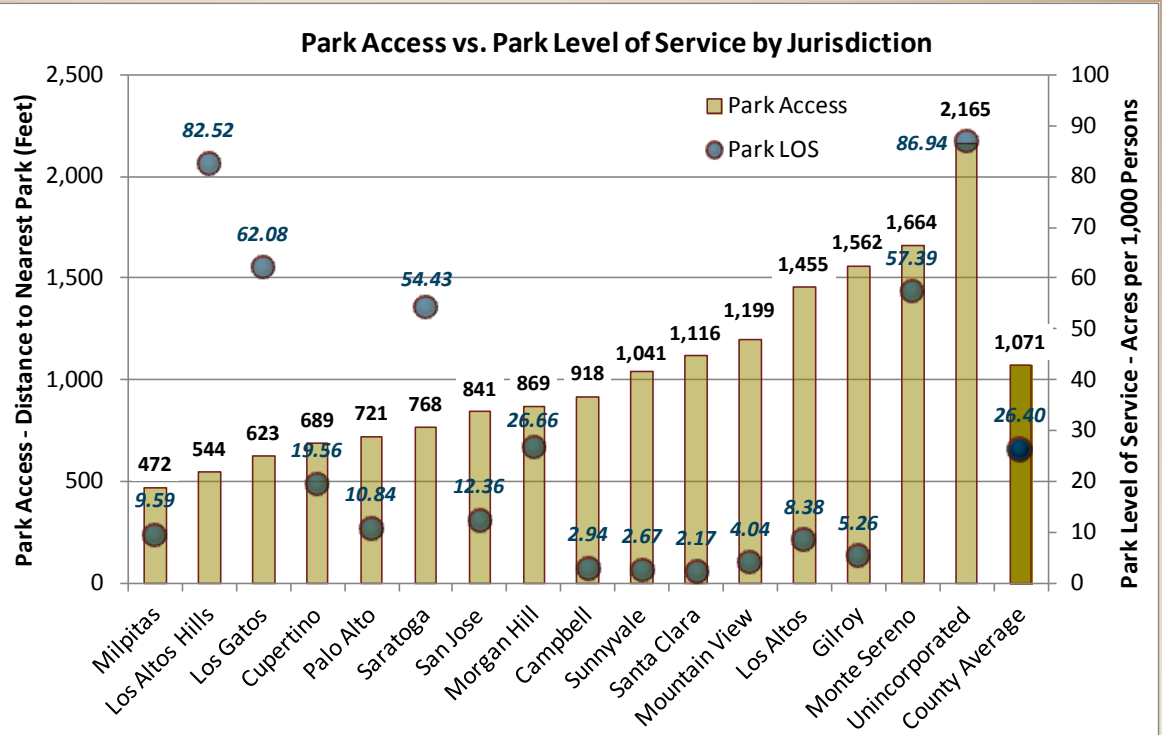
Figure 6-4: Park Level of Service
Acres of Parkland per 1,000 Residents



Park Access Compared to Park Level of Service (LOS)

Overall, there are areas of the County with a high park level of service without adequate access to parks (and vice versa). The two indicators must be looked at in tandem, since both relate to positive health outcomes and healthy communities.

Parts of Morgan Hill, Santa Clara, and Los Altos have good park access (most people are in walking distance of a park), but low park service (there are not enough acres of park for the high number of residents) (see Figure 6-5). Some areas – such as the areas just east of downtown San Jose (on both sides of Highway 101) – have a good level of service and good access.



Source: Data compiled by Brian Fulfrost and Associates and Raimi + Associates

Figure 6-5: Park Access vs. Park Level of Service by Jurisdiction

06 ~ Physical Activity and Recreation References

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07 ~ Food Systems

Overview

Unhealthy eating habits are a primary risk factor for many leading causes of death in California. They also contribute to the number of obese and overweight Americans. Given the growing national concern around the obesity epidemic and other food-related chronic diseases, such as diabetes and heart disease, improving a person's access to and knowledge about nutritious foods is paramount. In addition, creating a healthy food system is critical to improving these health outcomes.

Personal eating habits are shaped by a broad spectrum of influences – from international trade, federal agricultural policies and advertising at the macro scale, to family traditions, cultural norms, and personal nutrition knowledge at the micro scale. While cities and counties cannot force people to eat healthier or change federal policy, they can create policies and programs at the local level that can improve people's access to healthier food options and help make healthy food options the easier or default choice.

This section examines a number of key topics that contribute to eating habits and food systems, including:

- Access to Healthy Foods
- Food Security and Food Assistance
- Local Food Production

Key Findings

- Only 16% of all food retailers in the County are "healthy." Jurisdictions offering the highest percentage of healthy retail food include the Cities of Los Altos (32%), Milpitas (28%), Saratoga (29%), Palo Alto (22%), Cupertino (21%), and Mountain View (18%).
- In general, low-income areas have unhealthier retail food environments than high-income areas. The low-income areas within the City of Palo Alto, Milpitas, and Los Altos contain fewer healthy food stores than other parts of these Cities.
- About one-third of County adults and over half of Latino adults live in "food-insecure" households.
- A sizable proportion of residents experience "food insecurity," while government programs that supplement food resources for families, such as Women, Infants, and Children (WIC) and CalFresh, are undersubscribed.
- There are over 30 active community gardens, 27 farmers' markets, and 22 community-supported agriculture (CSA) programs in the County. Participation in these resources affects thousands of County residents.
- The most walkable areas in the County have the most sources of local foods.
- There are over 63,400 acres of land Countywide, including agricultural land, at risk for development.

Access to Healthy Foods

What is it?

Access to healthy foods addresses a population's proximity to stores offering such foods. To measure healthy food access, this report uses a tool called the "modified Retail Food Environment Index" (mRFEI).[i] The mRFEI examines food stores within a half-mile of each census block and measures the percentage of healthy food stores out of all (healthy and unhealthy) food stores. The mRFEI defines "healthy" food retailers as food co-ops, fruit and vegetable markets, chain grocery stores, ethnic and independent grocery stores (including small stores), and warehouse club stores. These stores are considered healthy because they primarily offer healthy products or a mix of products that could meet the nutrition needs of a family. "Unhealthy" food retailers are defined as fast food restaurants (including pizza and sandwich stores), convenience stores, and liquor stores. These stores are classified as unhealthy because they have very limited or no healthy menu options.[ii]

Why is it important?

Residents of communities with access to a full service grocery store or supermarket tend to eat fruits and vegetables, have lower body weights, and lower rates of chronic diseases.[1] [2] [3] [4] Conversely, those in communities without access to supermarkets generally have higher body weights (on average) and suffer from higher rates of premature death and chronic disease.[5] [6] In addition, areas with more fast food restaurants and convenience stores than grocery stores experience higher rates of obesity and chronic disease across all income groups.[7]

Consumers at different income levels and of different racial and ethnic groups have differing levels of access to healthy food sources. Food deserts, or geographic areas that lack affordable and nutritious food options, are disproportionately found in neighborhoods with a high proportion of low-income residents, Non-White, or Hispanic residents.[8] [9] [10]

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[i] The mRFEI analyzes the number of healthy and less healthy food retailers within a given geographic area. mRFEI is calculated for a designated geographic area as follows:
mRFEI = (healthy retailers) / (healthy retailers + unhealthy retailers), and is expressed as a percentage.

Non-modified RFEI methodologies use a ratio (resulting in a number 0 or greater) to represent the concentration of unhealthy retailers in a defined geographic area. For example, the average RFEI score for California is 4.5, meaning there are 4.5 times as many unhealthy retailers (fast-food restaurants and convenience stores) as there are healthy retailers (grocery stores, including supermarkets, and produce vendors, including produce stores and farmers' markets).

[ii] Categorizing food retailers is an imprecise science. For this study, stores of less than 3,000 square feet that were identifiable as ethnic markets or small grocery stores were categorized as "healthy." The exception is that stores less than 3,000 square feet that were identified as liquor stores or mini-markets were categorized as "unhealthy."

Status in Santa Clara County

The Countywide average mRFEI score is 16% – meaning that only 16% of all food retailers in the County can be categorized as "healthy", or conversely, 84% of food retailers in the County are "unhealthy." Of the total retailers included in the mRFEI score, over half of them (approximately 57%) are fast food restaurants.[11] While the County's average mRFEI score of 16% seems low, it is still higher than the State's average (11%).

Local jurisdictions with an average mRFEI score that is higher than the County's include the Cities of Los Altos (32%), Milpitas (28%), Saratoga (29%), Palo Alto (22%), Cupertino (21%) and Mountain View (18%), as well as the unincorporated County (22%). Jurisdictions with an average mRFEI score that is lower than the County's include Los Altos Hills (4%), Gilroy (9%), Santa Clara (10%), Campbell (10%), Los Gatos (11%), Morgan Hill (11%), Sunnyvale (13%), and San Jose (15%). The City of Monte Sereno has no healthy or unhealthy food stores within their City limits, so it has an mRFEI score of 0%.

This mRFEI analysis also examined food access in low-income communities. In general, lower-income areas have unhealthier retail food environments than higher-income areas. This is evidenced by the fact that mRFEI scores for low-income communities are somewhat lower than the corresponding average mRFEI scores for the same areas. The low-income areas of the Cities of Palo Alto, Milpitas, and Los Altos have a significantly lower proportion of healthy food stores than the jurisdictions as a whole (see Figure 7-1).

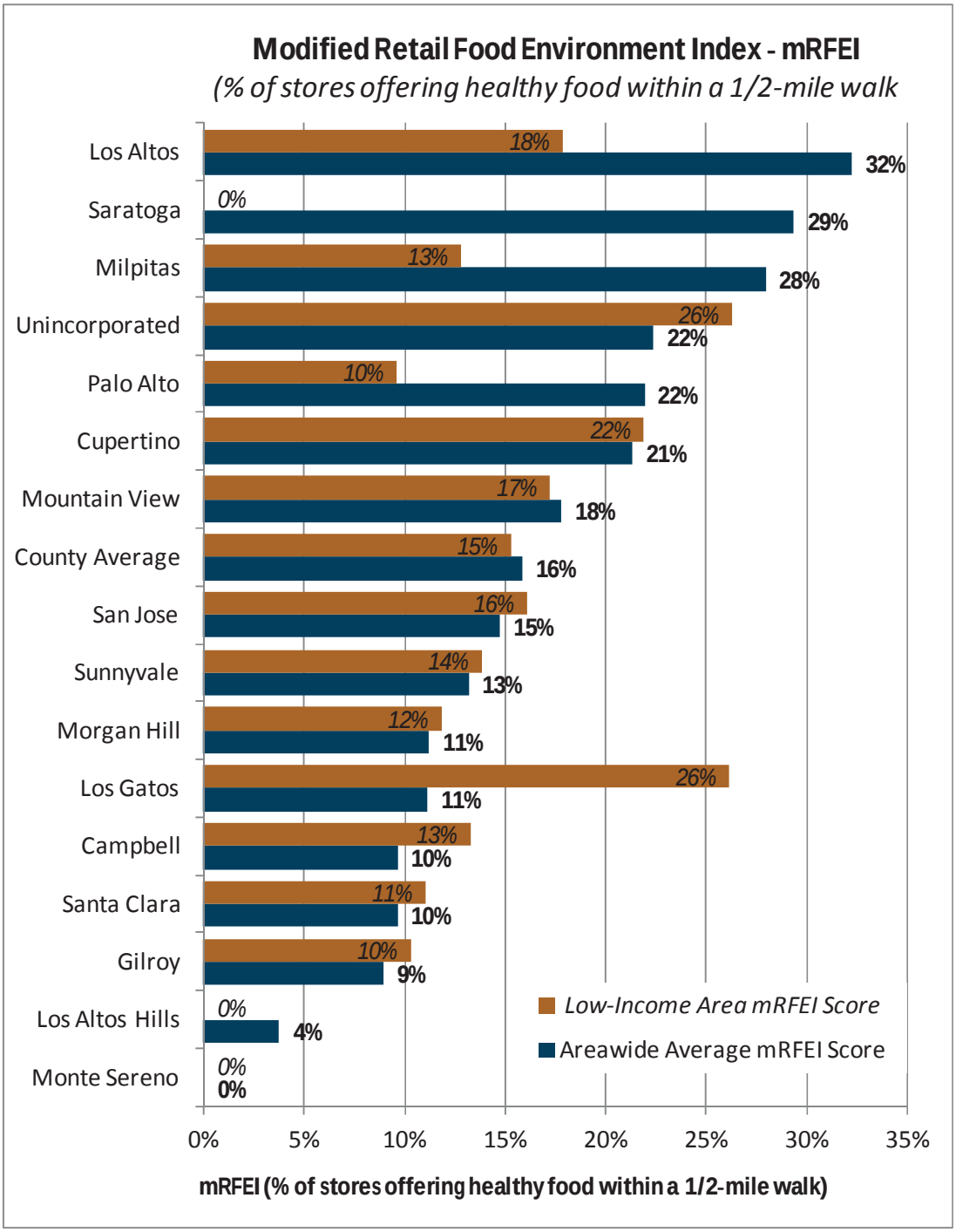
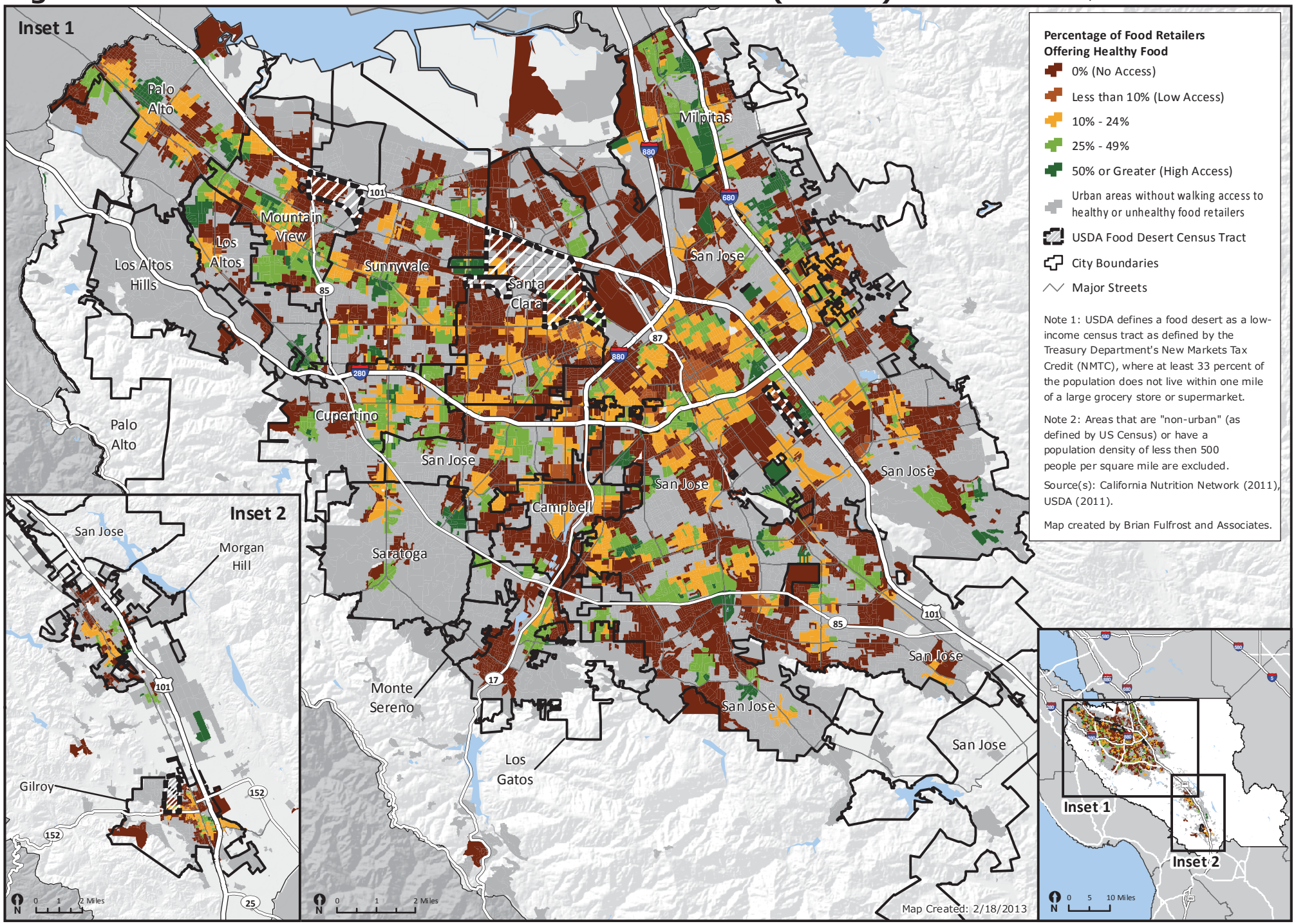


Figure 7-1: Modified Retail Food Environment Index - mRFEI by Jurisdiction

Source: Brian Fulfrost and Associates, ChangeLab Solutions, and Raimi + Associates (2012).

Figure 7-2: Modified Retail Food Environment Index (mRFEI)



The mRFEI map in Figure 7-2 shows areas with high mRFEI scores in green (higher percentage of food retailers offering healthy food) and lower scores in brown, with dark brown indicating there are no healthy food stores within a half mile of that census block. In addition to the mRFEI scores, U.S. Department of Agriculture (USDA) "food desert" census tracts were also mapped. The USDA defines "food deserts" as low-income areas where at least 33% of people live at least one mile from a large supermarket or grocery store. As shown on the map, there are three USDA designated “food desert” census tracts located in Santa Clara County. Those tracts are in the Cities of Mountain View, Santa Clara, and Gilroy. For the most part, these tracts also show lower mRFEI scores.

Areas with a high proportion of older adults in the Cities of Gilroy, Morgan Hill, Santa Clara, and Sunnyvale have poorer access to healthy food than reflected by the overall County average and each respective citywide average.

mRFEI by Jurisdiction and Areas with Older Adults

(% of stores offering healthy food within a 1/2-mile walk)

	Areawide Average	Elderly Areas Average
Santa Clara County	**16%**	**19%**
Campbell	10%	15%
Cupertino	21%	23%
Gilroy	9%	6%
Los Altos	32%	36%
Los Altos Hills	4%	3%
Los Gatos	11%	8%
Milpitas	28%	32%
Monte Sereno	0%	0%
Morgan Hill	11%	12%
Mountain View	18%	28%
Palo Alto	22%	28%
San Jose	15%	17%
Santa Clara	10%	7%
Saratoga	29%	29%
Sunnyvale	13%	12%
Unincorporated	22%	16%

Source: Brian Fulfrost and Associates, ChangeLab Solutions, and Raimi + Associates (2012).

Table 7-1: mRFEI by Jurisdiction and Areas with Older Adults

Food Security and Food Assistance

What is it?

"Food security" is defined as having access to enough food for an active, healthy life for all people at all times.[12] Households that lack "food security" are typically low-income households. These households can obtain supplemental assistance from government programs. These programs are the Women Infants and Children (WIC) Program and the Supplemental Nutrition Assistance Program (SNAP, formally known as the Food Stamp Program) which is called CalFresh in California.

CalFresh/SNAP is a federally-mandated, State-supervised, and County-operated government program designed to eliminate hunger in the United States. Household eligibility is based on income and other financial resources, and enrollees receive funds each month to spend on food from USDA authorized SNAP/CalFresh vendors. Authorized vendors meet requirements for authorization by selling specified healthy food staples.

The WIC Program provides supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are at nutritional risk. The USDA has a separate and stricter set of criteria to authorize vendors who accept WIC funds.

Why is it important?

Food insecurity can lead to undernourishment and malnutrition, which coincide with fatigue, stunting of child growth, and other health issues. Undernourished pregnant women are more likely to bear babies with low birth weight, and the babies are then more likely to experience developmental delays that can lead to learning problems.[13] Hunger and food insecurity can also accelerate the development of or worsen existing diseases. Ironically, food insecurity and obesity co-exist in some households where people eat foods that are inexpensive, and high in fat and sugar, but low in nutritional quality. Finally, food insecurity causes anxiety and stress, which weakens immune systems and decreases overall quality of life.[14]

Status in Santa Clara County

According to the County's Behavioral Risk Factor Survey, about one-third of adults in Santa Clara County live in "food insecure households," due to a lack of income or other access issues. Among adults living in poverty in Santa Clara County, Latinos have higher food insecurity than average (55.3%), whereas Asians have lower food insecurity (26.3%).[iii] [15]

[iii] *The survey interviewed adults whose incomes are below 200 percent of the Federal Poverty Level (FPL) on food insecurity and hunger status. Data about African Americans and Whites was not available due to statistical instability. Information about food security status for children was not included in the County's Behavioral Risk Factor Survey.*

In this report, two indicators are used to analyze food insecurity – the number of people who are eligible for the SNAP/CalFresh program and the number of WIC participants.

SNAP / CalFresh Program

Countywide, 101,729 residents, or 6% of the County's total population, are eligible to participate in the CalFresh Program based on the program's income requirements. Countywide, however, only about 58% of income-eligible residents are currently enrolled. This participation rate ranks Santa Clara County 37th out of all 58 counties in California. Full participation would direct an additional $164 million in Federal benefits to County residents to spend at local businesses, and could provide added health benefits to families.[16]

The map in Figure 7-3 shows the percentage of eligible population enrolled in the CalFresh/SNAP Program by zip code and the locations of authorized CalFresh/SNAP vendors. The City of Gilroy and the unincorporated area of San Martin have some of the highest CalFresh utilization rates in the County and 43 authorized CalFresh vendors. The northwestern part of the County has some of the lowest utilization rates, but fewer eligible persons.

Despite these lower enrollment numbers, the U.S. Department of Agriculture (USDA) and the California Department of Social Services (CDSS) presented the County of Santa Clara Department of Employment and Benefit Services with awards in 2011 and 2012 for the County's exceptional administration of the CalFresh Program. The County's program has an accuracy rate of 99.17 % in certifying that the right applicant households are participating and receiving the correct benefits. The County's rate is the best in California and better than any other state in the country.[17]

Women, Infants, and Children (WIC) Program

In 2012, there were 25,581 WIC Program participants in Santa Clara County. As shown in Figure 7-4, the location of high and low WIC participation mirrors the patterns displayed on the CalFresh map. Fewer food stores are authorized WIC program vendors (142) compared to CalFresh vendors (759), potentially creating a barrier for WIC enrollees who do not have reliable transportation.

Among all County zip codes, there is a strong correlation between poverty and enrollment rates in the WIC and CalFresh programs. Figure 7-5 presents a chart of County zip codes with the most CalFresh and/or WIC Program participants. Those with the most enrollees are primarily located in the San Jose neighborhoods around the I-280/I-101/I-680 freeway interchange, the Alum Rock area, and in the Cities of Gilroy and Milpitas.

Figure 7-3: Percentage of Eligible Population Enrolled in the CalFresh/SNAP Program

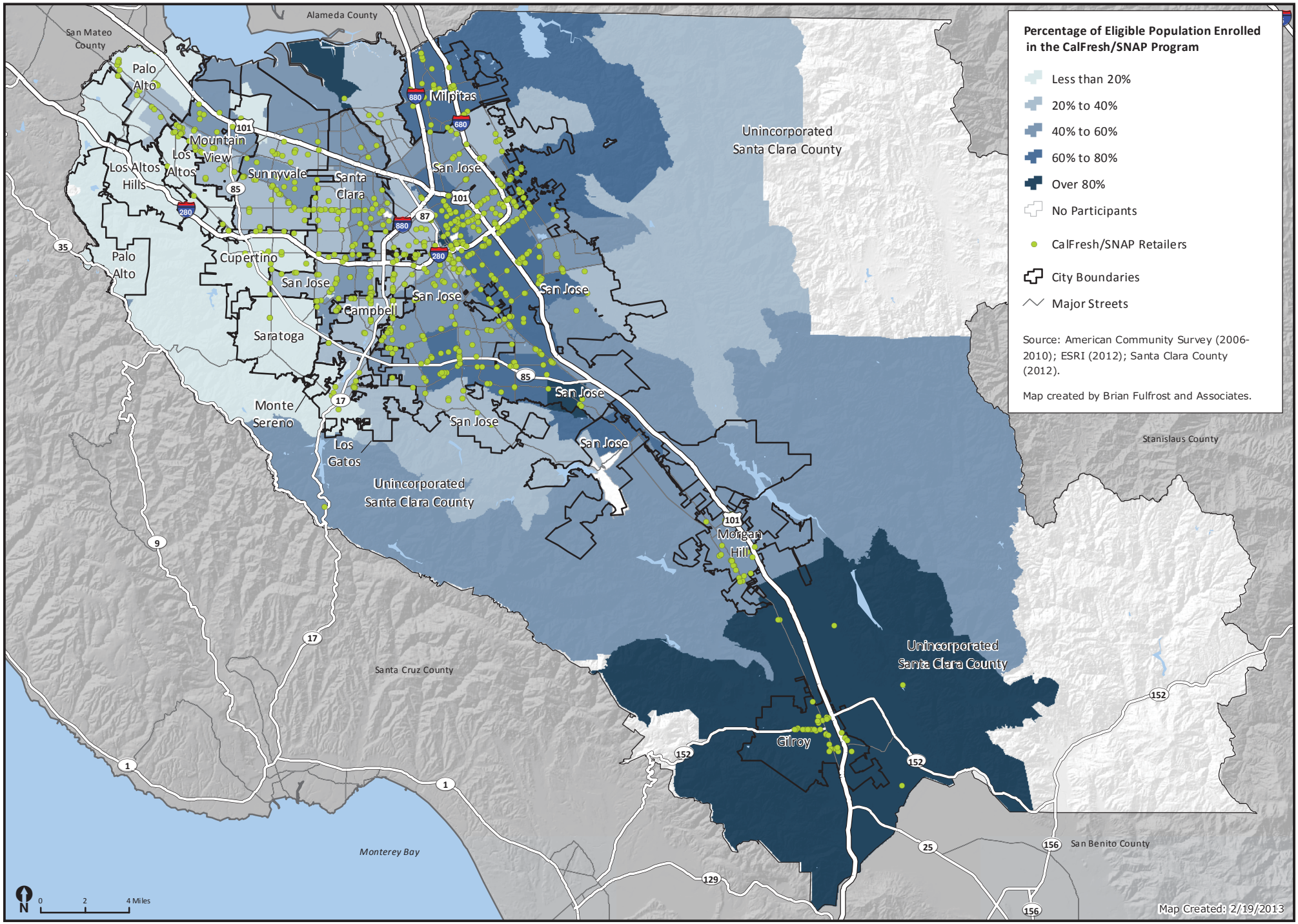
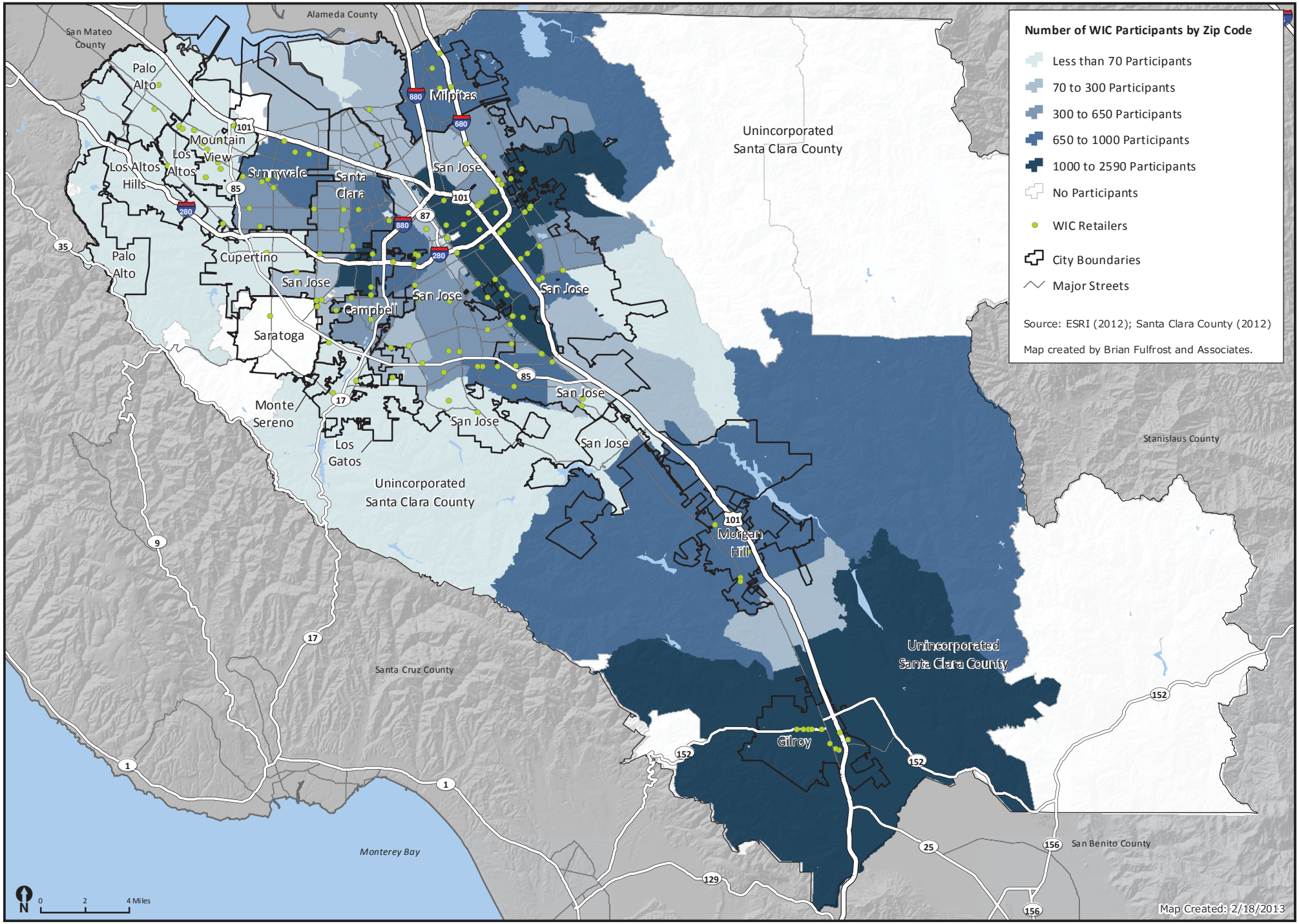
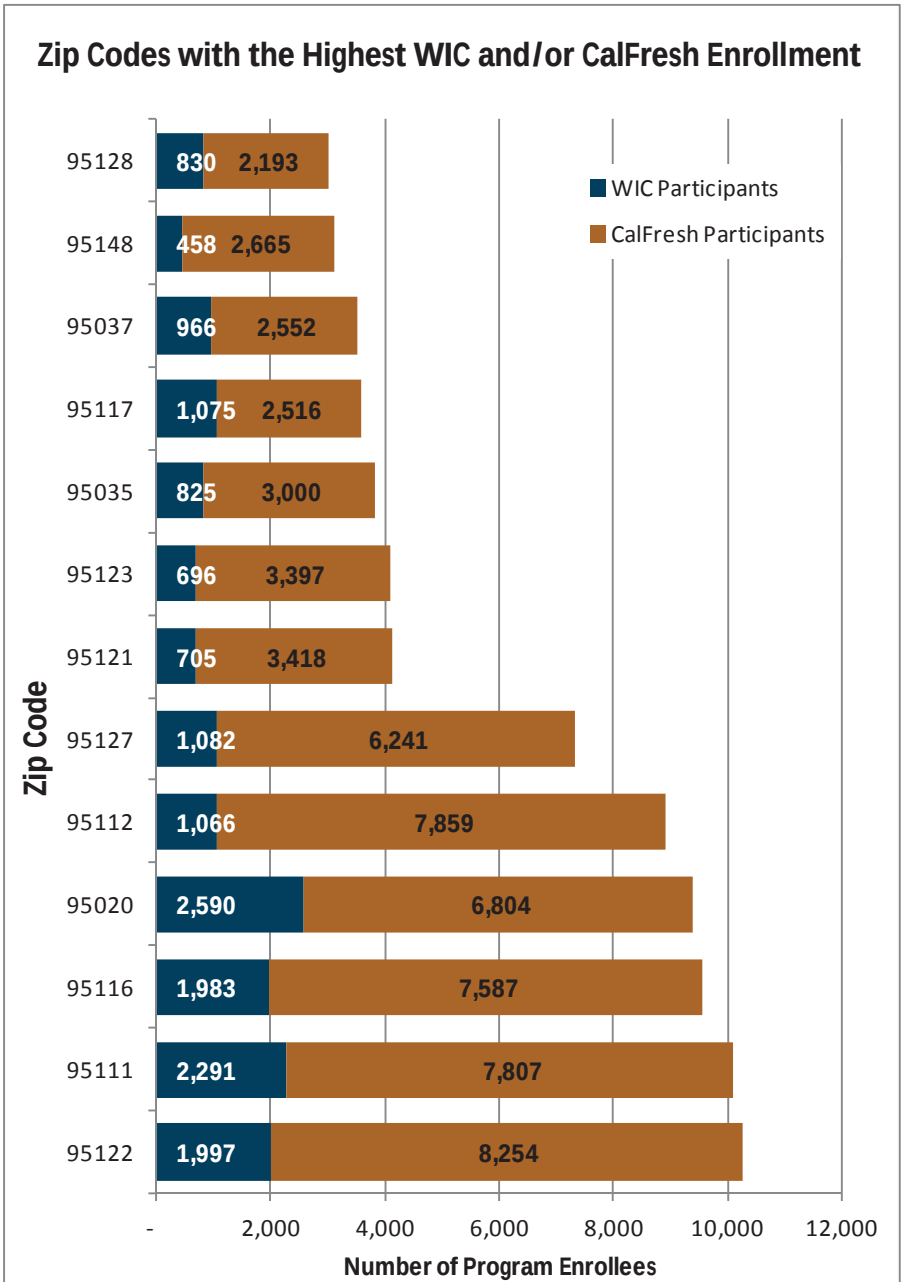


Figure 7-4: Women, Infants, and Children (WIC) Participants by Zip Code





NOTE: To select the above zip codes, the 10 zip codes with the highest enrollement for each program were selected. Seven of the zip codes were in the top 10 for both WIC and CalFresh. The remaining 6 were only in the top 10 for WIC or CalFresh.
SOURCE: County of Santa Clara. Department of Public Health. 2012

Figure 7-5: Zip Codes with the Highest WIC and/or CalFresh Enrollment

Local Food Production

What is it?

A healthy, complete food system supports local food production, both in urban areas as well as on rural farms and ranches. Local food resources are defined as community gardens, farmers' markets, and community-supported agriculture (CSA). In addition, local food production means food that is produced in Santa Clara County.

Why is it important?

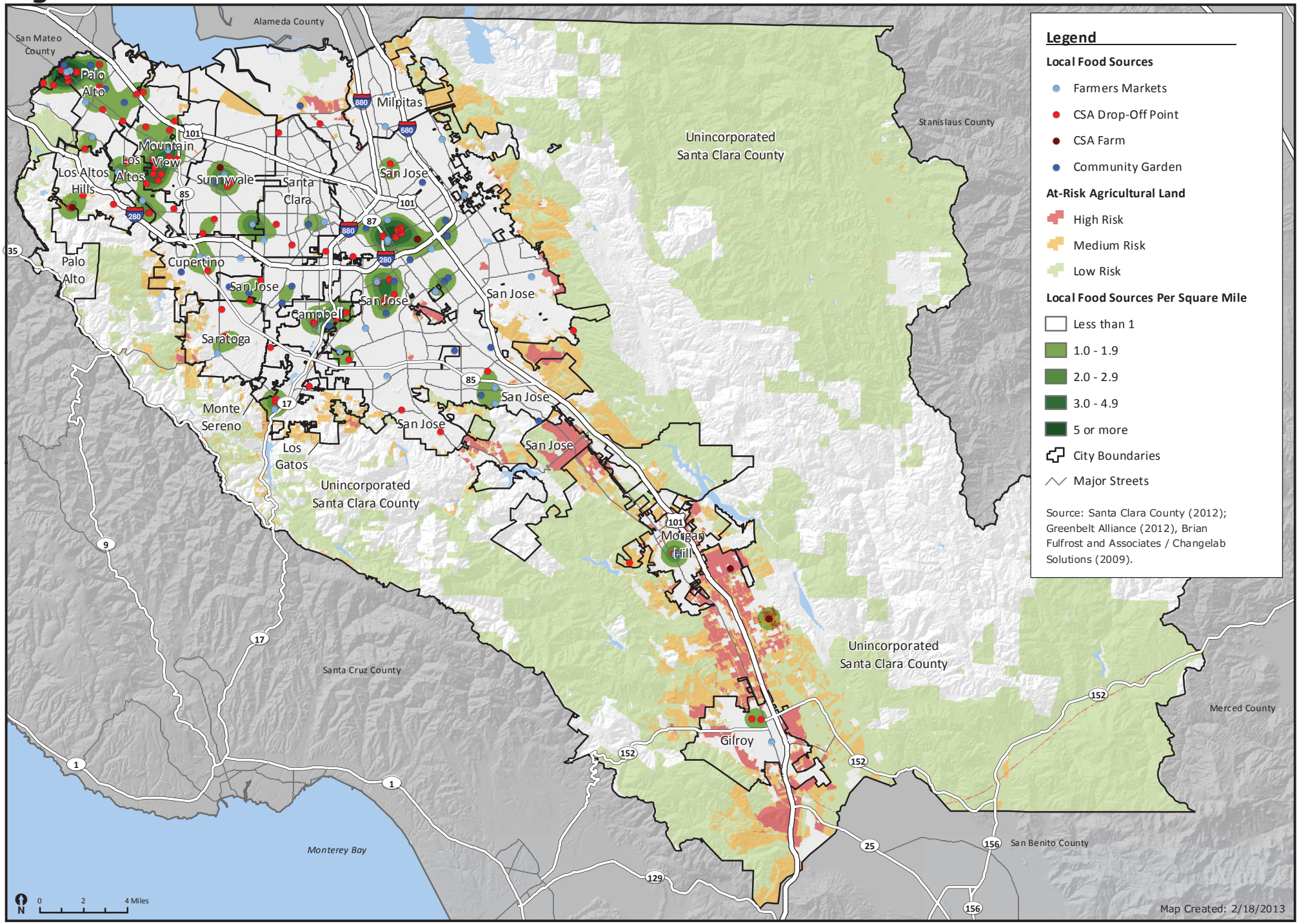
While the research has yet to decide if locally grown produce is more nutritious than produce from another region, locally grown produce may have many indirect health benefits. First, purchasing locally grown food strengthens the local economy, and bolsters jobs and income for local residents. Second, locally grown foods provide a small reduction in greenhouse gas emissions by decreasing the distance food must travel. Finally, farmers' markets and community gardens increase social cohesion, and access to and education about healthy foods and nutrition.[18]

Status in Santa Clara County

Currently, there are over 30 active community gardens, 27 farmers' markets, and 22 CSA programs in Santa Clara County, as shown on the map in Figure 7-6. Thousands of local residents utilize these local-food resources. On average, over 1,000 shoppers visit each farmers' market in Santa Clara County on each market day, over 1,200 people participate in community gardens, and close to 6,000 people are members of a local CSA program.[19] As is shown in Figure 7-7, the County as a whole has 0.48 food resources per square mile. Cities with higher than average local food resources are the Cities of Sunnyvale, Cupertino, Los Altos, Campbell, Mountain View, and Palo Alto. These Cities are concentrated in the northwest portion of the County. The areas with the lowest density of local food resources are the Cities of Milpitas, Monte Sereno, Gilroy, Santa Clara, and Morgan Hill, and the urbanized areas of the unincorporated County.

Figure 7-7 compares the density of local food resources for each city or County area as a whole with the average of local food density for low-income areas in that jurisdiction. Four of the five cities that have the highest density of local food sources (the Cities of Cupertino, Los Altos, Campbell, and Palo Alto) have higher than average local food density in their low-income areas. However, many low-income areas have fewer local food resources than the County as a whole. These low-income areas are in the Cities of Milpitas, Gilroy, Santa Clara, and the unincorporated County.

Figure 7-6: Local Food Sources



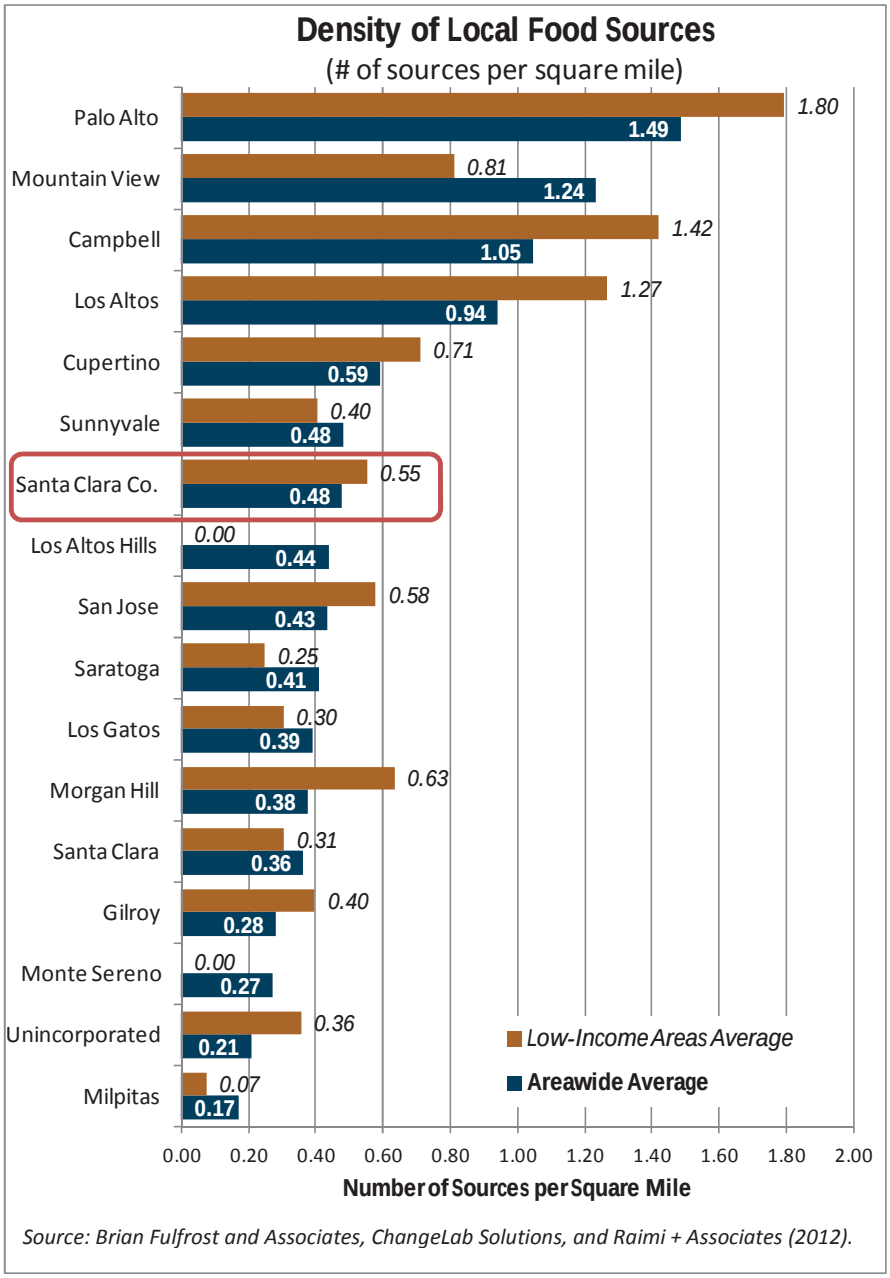
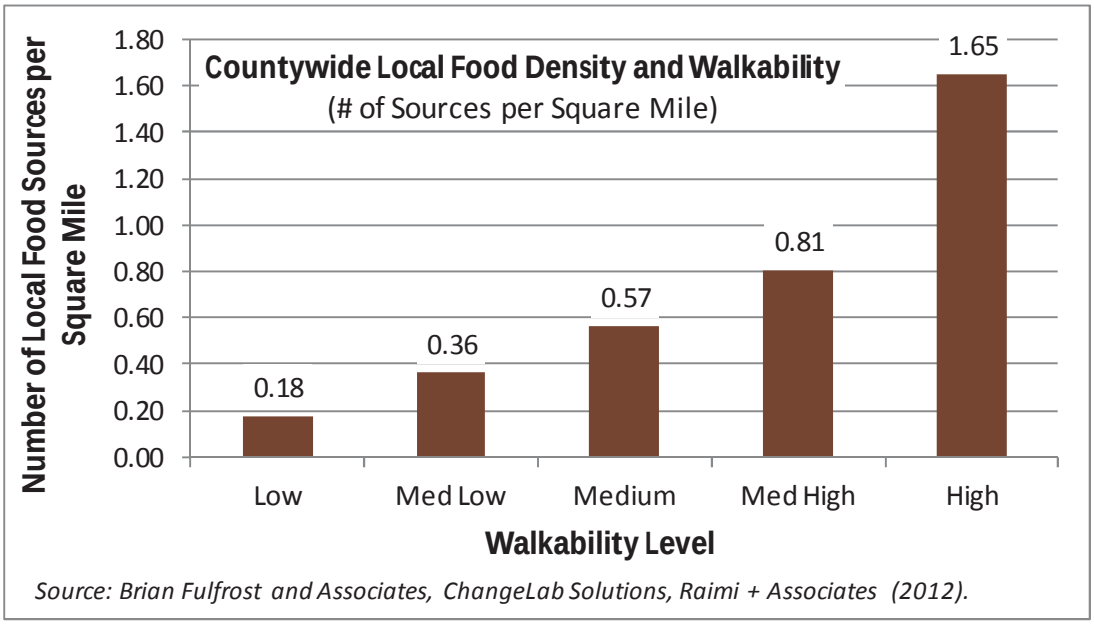


Figure 7-7: Density of Local Food Sources by Jurisdiction (Average vs. Low-Income Areas)

The most walkable areas of the County have the highest number of local food sources per square mile. The graph in Figure 7-8 illustrates that the most walkable areas have 1.65 compared with 0.18 local food sources per square mile in the least walkable areas. This is a positive trend, since it brings more people within walking distance of local food sources.

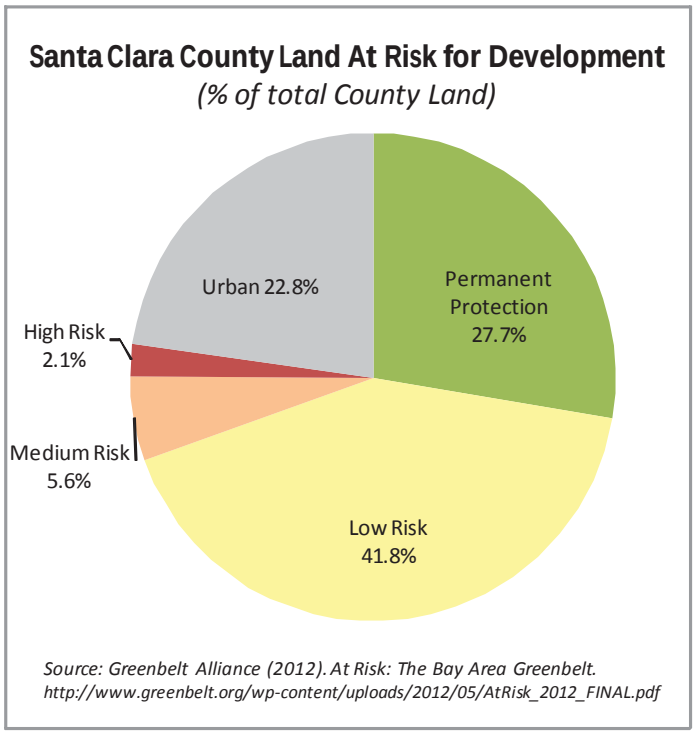


Source: Brian Fulfrost and Associates, ChangeLab Solutions, Raimi + Associates (2012).

Figure 7-8: Countywide Local Food Density and Walkability

The County is home to over 31,000 acres of important agricultural lands located on 1,048 farms and ranches. In 2008, the County produced over $247 million dollars worth of agricultural products. At the same time, only 2% of the County's agriculture products were sold through direct sales to consumers (rather than selling through a wholesale distributor or retail store).[20]

There are also open space lands (including agricultural lands) at risk for development in the County. Such areas are defined as those where there is nearby urban development and potential urbanization pressure. According to a study by the Greenbelt Alliance, a San Francisco Bay Area advocacy organization, 63,400 acres of County land is at medium and high risk for development (see Figure 7-9), especially along Highway 101 between the Cities of San Jose, Morgan Hill, and Gilroy. This is not surprising, given that these areas are well served by freeways and have experienced development pressure over the last decade.



Source: Greenbelt Alliance (2012). At Risk: The Bay Area Greenbelt. http://www.greenbelt.org/wp-content/uploads/2012/05/AtRisk_2012_FINAL.pdf

Figure 7-9: Santa Clara County Land at Risk for Development

07 ~ Food Systems References

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08 ~ Environmental Health

Overview

Environmental health covers a wide range of topics that include the physical, chemical, and biological factors external to a person that impact overall human health. The subject includes air pollution, the materials in drinking water, exposure to chemicals in building and cleaning materials, exposure to soils containing toxic substances, and other similar exposures.

Understanding environmental health conditions is critical, since there are tens of thousands of potentially hazardous substances in our environment. Some of these substances may be harmless, while others are highly toxic; some may cause short-term health issues while exposure to others may cause long-term, chronic health impacts that could lead to death. Indeed, about eight percent of all deaths worldwide are due to acute- and long-term exposure to environmental risks.[1]

Given the large number of toxic substances each person is exposed to on a regular basis, it is important to understand how the most prevalent of these substances is affecting the health of Santa Clara County residents. As such, this section discusses a few of the most critical environmental health topics affecting the County today. The topics discussed in this section are:

- Air pollution
- Water fluoridation
- Childhood lead poisoning

Other environmental health topics of concern not addressed here include indoor air quality, climate change, hazardous materials and toxic sites, occupational health, soil quality, water quality, wastewater treatment, and noise pollution. These topics were not addressed either because data was not readily available or because it is outside of the scope of this report. Additionally, some of these topics are already discussed in other County documents or addressed elsewhere in the General Plan.

Key Findings

- Some areas near major roadways (such as the freeways) have elevated air quality emissions related hazards or cancer risks.
- Only 21% of County residents receive the optimal level of fluoridation compared with 27% in California and 69% nationally.
- Hispanic children in the County comprise 79% of all new lead poisoning cases among children younger than six years old.

Air Pollution

What is it?

Air pollution occurs when chemical and biological materials contaminate the air. Materials in both indoor and outdoor air can be inhaled and cause both short- and long-term health impacts. The most common air pollutants are called “criteria pollutants.” The State and Federal government use health-based standards to regulate six criteria air pollutants including ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter (PM10), and fine particulate matter (PM2.5). When a region exceeds the State or Federal standards on a regular basis, the region is considered “nonattainment” for that particular pollutant. When a region is in conformance with the standards on a regular basis, the area is considered “in attainment” for that particular pollutant. California air quality standards are generally more stringent than Federal standards. Continuous air quality monitoring by the Bay Area Air Quality Management District (BAAQMD) ensures that air quality standards are being addressed and hopefully exceeded.

While all State and Federal air quality standards are based on health and medical data and are designed to protect public health, PM2.5 poses the most serious health threat. Particulate matter, or PM, is the term for suspended particles found in the air, including dust, dirt, soot, smoke, and liquid droplets. Particles can be suspended in the air for long periods of time. Some particles are large or dark enough to be seen, such as soot or smoke. Others are so small that individually, they can only be detected with an electron microscope. Many manmade and natural sources emit PM directly, or emit other pollutants that react in the atmosphere to form PM.

Particles less than 10 micrometers in diameter (PM10) pose a health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter (PM2.5) are referred to as "fine" particles, and are believed to pose the greatest health risks. Because of their small size (approximately 1/30th the average width of a human hair), fine particles can lodge deeply into the lungs and cause chronic health problems.[2]

Why is it important?

The smallest particles in air pollutants generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can cause serious health effects. Numerous scientific studies have linked ozone and particle pollution to lung cancer, asthma attacks, heart attacks, strokes, and early death, as well as increased hospitalizations for breathing problems.[3][4][5][6]

Those most at risk when air pollution occurs are children, the elderly, pregnant women, and people with asthma, emphysema, bronchitis, and heart disease. Research has shown that ozone air pollution may actually cause asthma in otherwise healthy children. Carbon monoxide can cause breathing difficulties or coughing and can harm the eyes. It can also cause sudden illness and death.

Status in Santa Clara County

This section on air pollution focuses on exposure to and risk from PM2.5 and the County's "attainment status" for criteria pollutants. Information on the attainment status of various criteria pollutants can be found in Table 8-1. This information was obtained from the U. S. Environmental Protection Agency and is for the year 2011.[7] According to the data, Santa Clara County is in attainment for all criteria pollutants. However, the Bay Area as a whole is in State non-attainment status for ozone (8-hour and 1-hour), PM 10 (annual arithmetic mean and 24-hour) and PM 2.5 (annual arithmetic mean) and is in Federal non-attainment status for ozone (8-hour) and PM 2.5 (24-hour).[8]

Criteria Air Pollutant Standards Across Federal, State, and Santa Clara Jurisdictions

Criteria Air Pollutant	EPA (Federal) Air Quality Standards	CA Air Quality Standards	Santa Clara County Air Quality Report	Meets EPA Air Quality Standard?	Meets CA Air Quality Standard?
Carbon Monoxide	9.0 ppm (8-hour avg)	9.0 ppm (8-hour avg)	2 ppm	yes	yes
Nitrogen Dioxide	0.18 ppm (1-hour)	0.100 ppm (1-hour)	0.049 ppm	yes	yes
Sulfur Dioxide	0.14 ppm	0.04 ppm	0.005 ppm	yes	yes
Ozone	0.075 ppm (8-hour avg)	0.070 ppm (8-hour avg)	0.068 ppm	yes	yes
PM 2.5	15 µg/m^3 (annual mean)	12 µg /m^3 (annual mean)	9.9 µg /m^3	yes	yes
PM 10	50 µg /m^3 (24-hour)	150 µg /m^3 (annual mean)	40 µg /m^3	yes	yes

Sources: California Air Resources Board. "Ambient Air Quality Standards" http://www.arb.ca.gov/research/aaqs/aaqs2.pdf; U.S. EPA Air Quality Statistics Report. http://www.epa.gov/airdata/ad_rep_con.html

Table 8-1: Criteria Air Pollutant Standards Across Federal, State, and Santa Clara Jurisdictions

Every year, the American Lung Association publishes a "State of the Air" database, which grades every county and metropolitan area in the nation. Although the County is in attainment for all of the criteria air pollutants and its air quality has improved over time, the "State of the Air Report" gives Santa Clara County an "F" grade for ozone and 24-hour particle pollution and a "Pass" for annual particle pollution.[9]

One of the greatest health risks associated with air pollution from PM 2.5 is living near freeways and "high volume roadways." High volume roadways are defined as Federal or State roads used by more than 10,000 annual average vehicles per day. Traffic volumes of 10,000 annual average vehicles per day is the recommended traffic volume by BAAQMD's Roadway and Highway Screening Tool and thus is used in this report. The tool is used to determine emissions hazards and cancer risk associated with PM2.5.

Figure 8-1 identifies areas near major roadways that have a low, medium, or high health hazard from PM2.5. This is based on a "threshold" for a safe level of emissions in an area. Figure 8-2, identifies areas with elevated risks of cancer due to PM2.5. Essentially, this Figure translates the source pollution into cancer risk. This is consistent with guidance from the California Air Resources Board and other studies that show that there are measurable health impacts within 1,000 feet of major roadways.[1011] Both Figures include only parcels within 1,000 feet of major roadways.

The maps in Figure 8-1 and Figure 8-2 indicate that not all areas near major roadways have elevated emissions related hazards or cancer risks; however, there are some specific roadways with higher emissions and cancer rates than others. In terms of particulate emissions, a significant number of parcels within 1,000 feet of major roadways do not exceed the individual source thresholds. Figure 8-2 indicates that there are some areas where PM2.5 levels are between the individual and cumulative source thresholds (as shown in orange) and there are small pockets where the levels exceeds the cumulative threshold (as shown in red). The roadways with the greatest PM2.5 emissions hazards are Highway 101, Interstate 880, and Route 237.

The analysis of cancer risk from PM2.5 (Figure 8-2) shows a different picture of the County, as there are more areas between the individual and cumulative source threshold and more areas over the cumulative source threshold. All of the areas over the cumulative source threshold (which is defined as greater than 100 cases of cancer in a million) are along Highway 101 and Interstate 880. The parcels with between 10 and 100 cases in a million are primarily along Highway 101, Interstate 880, Interstate 680, and Interstate 280.

Figure 8-1: Particulate Emission Hazards (PM 2.5) from Air Pollutants

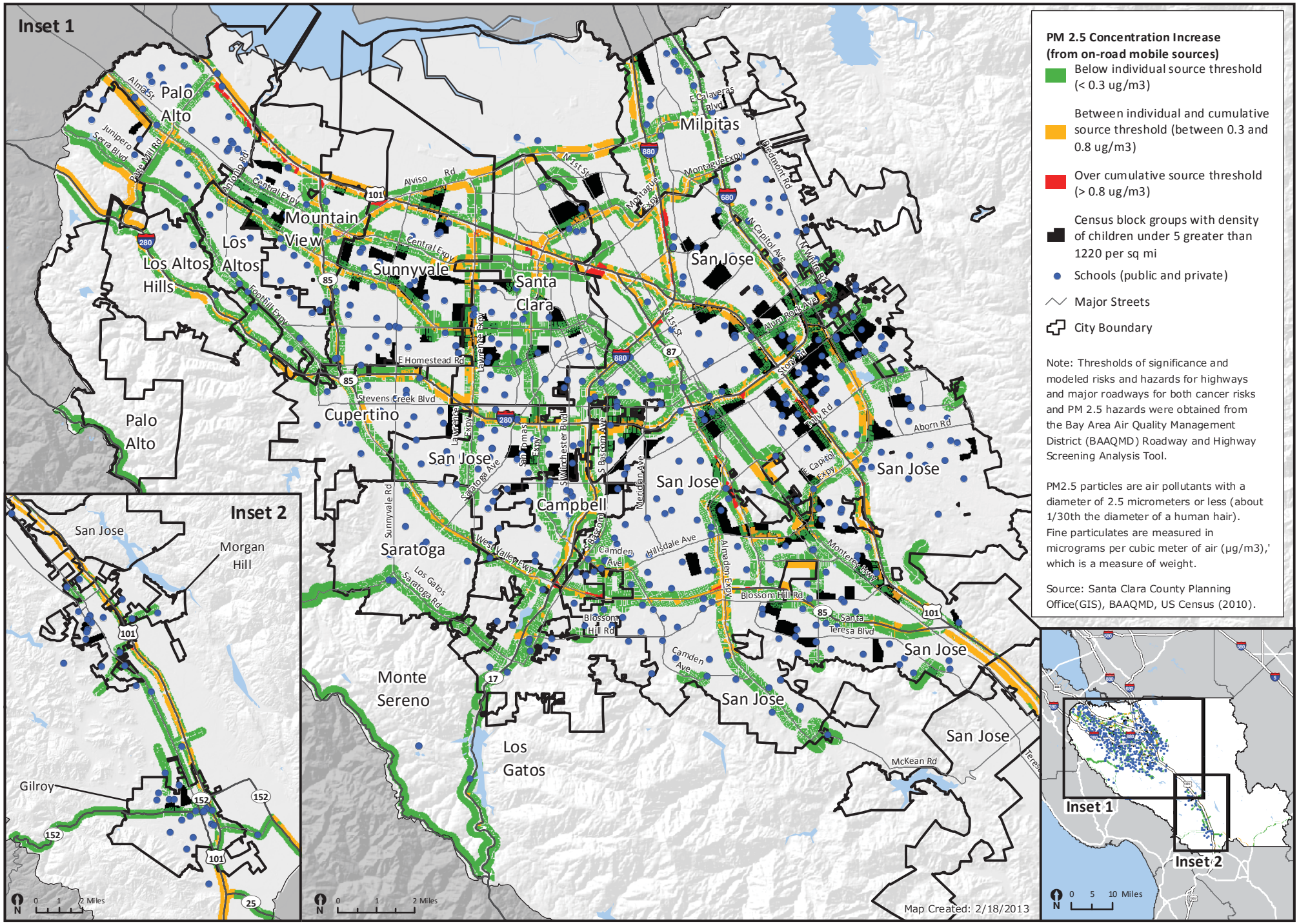
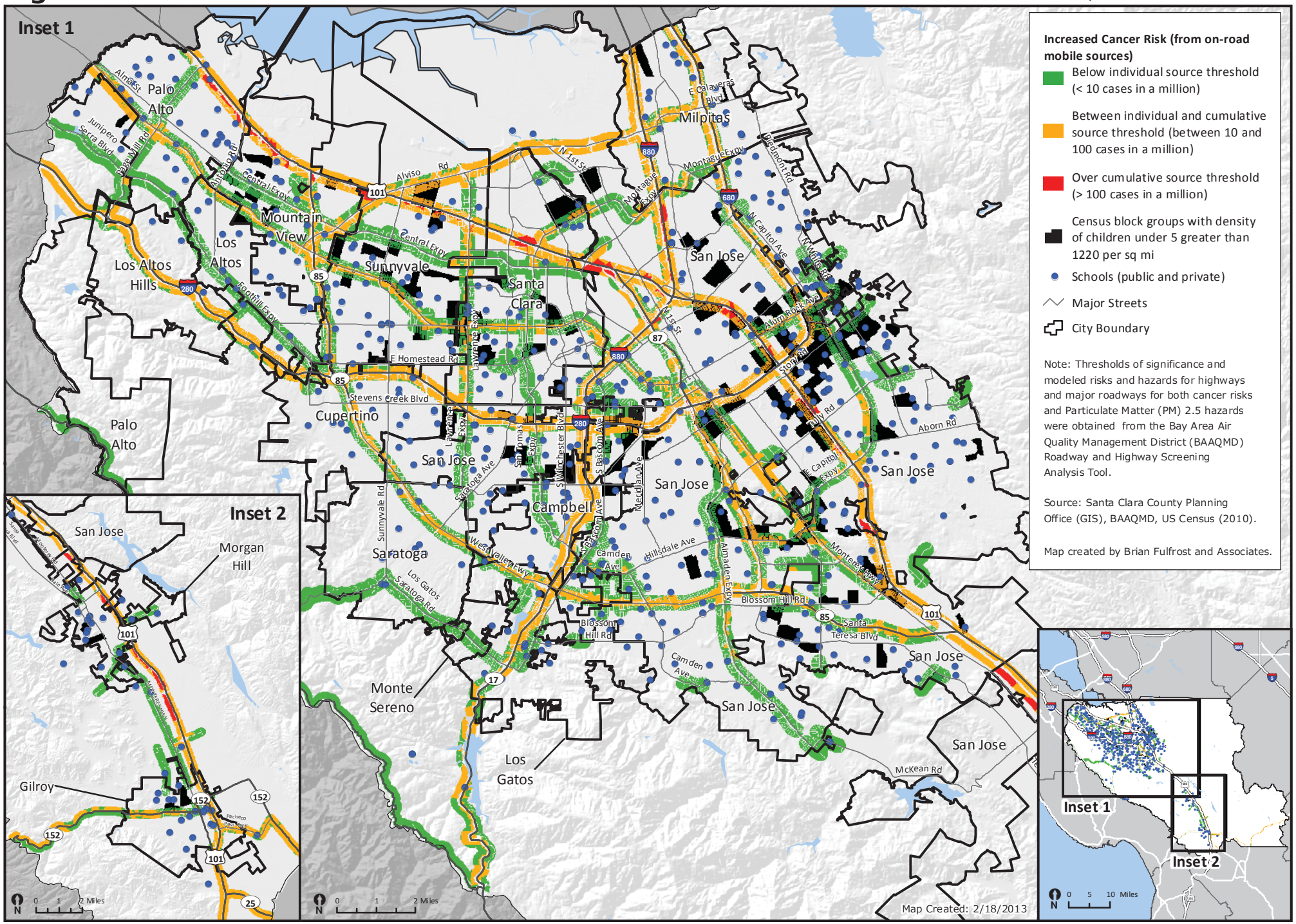


Figure 8-2: Cancer Risk from PM2.5



Fluoridation

What is it?

Fluoride is a naturally occurring substance that helps prevent and even reverse tooth decay. Water fluoridation is the process of adding fluoride to drinking water to a level that improves oral health and fights against tooth decay.

Why is it important?

Water fluoridation is an inexpensive and effective way to improve the oral health of a population. This is important because 72% of third graders in the County have a history of tooth decay.[12] Since most County residents use the municipal water supply for drinking water, adding fluoride could improve health with limited effort and at a low cost.[13]

Status in Santa Clara County

According to the US Centers for Disease Control and Prevention, only 21% of County residents receive the optimal level of fluoridation compared with 27% in California and 69% nationally (see Table 8-2).[14] Figure 8-3 graphically shows the large geographic area of the County where water is not fluoridated. Specifically, the City of San Jose is the largest city in the United States that does not have completely fluoridated water.[15] Adding fluoride to the water supply, especially in the City of San Jose, would be an effective way to address oral health in the County.

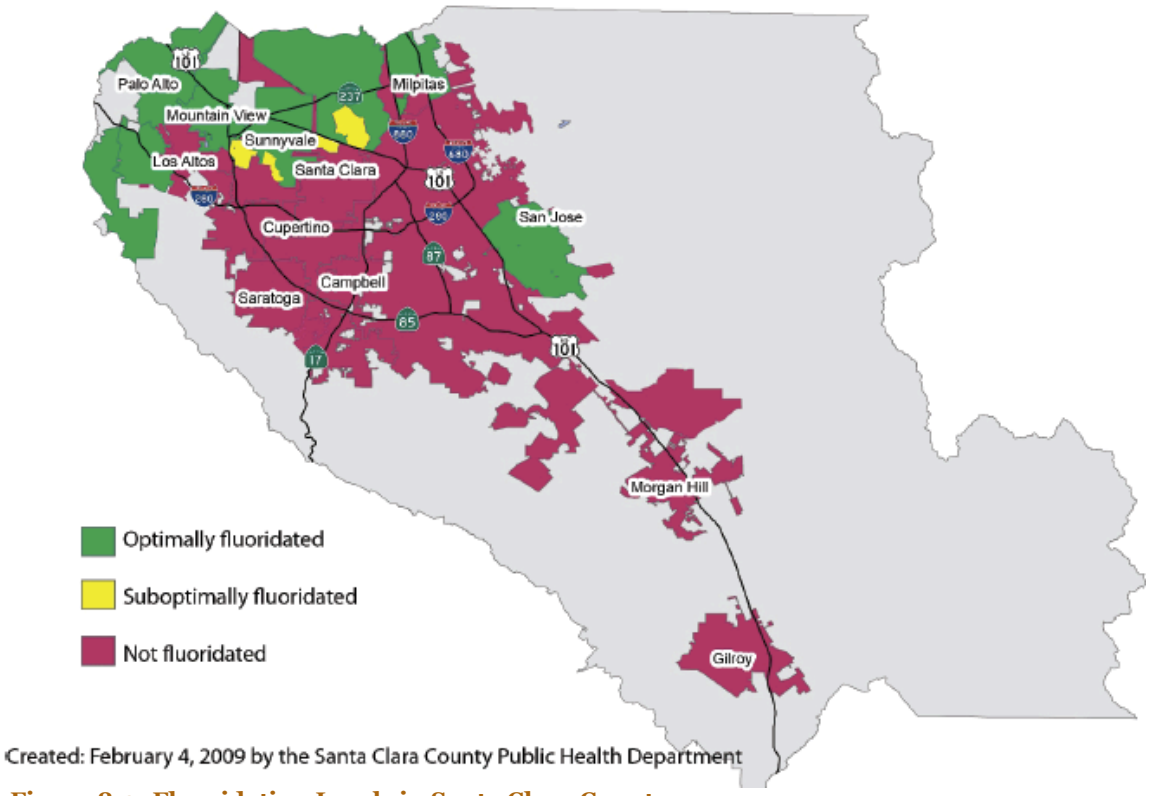


Figure 8-3: Fluoridation Levels in Santa Clara County

Proportion of Public Water Systems with Fluoride

Place	Proportion of people on public water systems receiving optimum level of fluoride
Santa Clara County (2009)	21%
California (2006)	27%
United States (2006)	69%

Source: Santa Clara County Health Profile Report (2010).

Table 8-2: Fluoridation by Place

Childhood Lead Poisoning

What is it?

Lead is a heavy metal that was commonly used in fuel, paints and building materials. While lead has been banned in paints for many years, many homes still contain lead based paint. Due the lack of regular upkeep or because of construction activity (for example, sanding lead based paints before repainting), the lead becomes airborne or chips off walls. This lead can be inhaled and/or eaten by small children. Other sources of lead poisoning include contaminated air, water, and soil.

Lead poisoning occurs when lead builds up in the body over a period of months or years. Even small amounts of lead can cause serious health problems. Children under the age of six are especially vulnerable to lead poisoning, which can severely affect mental and physical development. At very high levels, lead poisoning can be fatal.

Why is it important?

According to the Centers for Disease Control and Prevention, at least 4 million households have children living in them that are being exposed to lead. There are approximately half a million U.S. children ages 1-5 with blood lead levels above 5 micrograms per deciliter (µg/dL), the reference level at which the CDC recommends public health actions be initiated.[16] Lead exposure can affect nearly every system in the body and can damage the reproductive, cardiovascular, and nervous systems. Because lead exposure often occurs with no obvious symptoms, it frequently goes unrecognized.

Status in Santa Clara County

Although lead poisoning is entirely preventable, there were 228 cases of childhood lead poisoning in Santa Clara County between 2005 and 2009. Hispanic children comprised 79% of new cases of children younger than six years old. Sixty percent of new cases were children under three years old.[17]

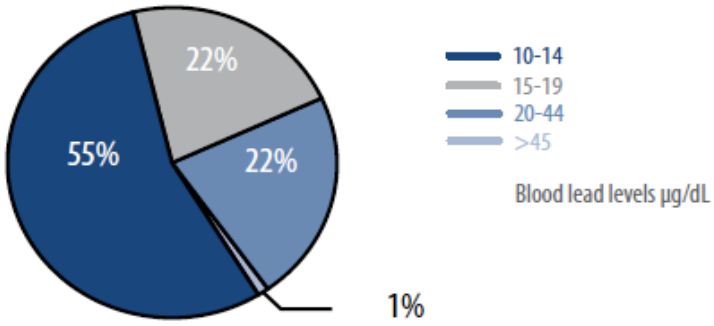


Figure 8-4: Blood Lead Levels in New Cases among Children Aged 5 and Younger

Source: Santa Clara County Health Profile Report (2010).

Figure 8-4 shows that 55% of Santa Clara County children who tested positive for elevated blood lead levels had 10-14 micrograms per deciliter. Medical treatment is only recommended for child blood lead levels greater than 45 micrograms per deciliter and only 1% of children with elevated levels were above this threshold.

The cases of lead poisoning may be due to lead-based paints in older housing units. This information points to the need to further improve education around the causes and symptoms of lead poisoning.

08 ~ Environmental Health References

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09 ~ HOUSING

Overview

The place we live is at the very center of our lives, as it represents safety, security, shelter, and family and friends. It also represents the single largest expenditure for most families, and is an important source of wealth. The conditions within a home, housing affordability, and the neighborhood surrounding a home all affect the health of our families. Substandard and inadequate housing contributes to lead exposure and poisoning; respiratory conditions, such as asthma; exposure to carcinogenic air pollutants, such as radon and tobacco smoke; injuries resulting from poor construction or maintenance; and other health-related issues.[1] A scarcity of affordable housing limits a family's choice about where they live, often prompting families to move into inadequate or substandard housing in neighborhoods with higher crime and violence.[2] Housing affordability also affects a household's stability and ability to afford health insurance and other necessities.[3]

Understanding the County's housing situation is particularly important, given the growth expected over the next several generations. From 2010 to 2040, regional forecasts project Santa Clara County to add approximately 201,000 new housing units. This is 28% of the total projected growth in the nine-county San Francisco Bay Area region (see Figure 9-1), and the largest amount of growth expected from any Bay Area county. [4]

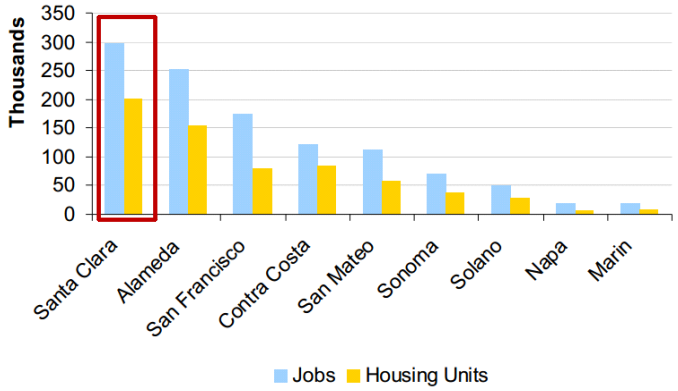

Figure 9-1: Growth of Jobs and Housing Units among Counties in the San Francisco Bay Area Region (2010-2040)

Source: Urban Habitat and Non-Profit Housing Association of Northern California. (2012). Moving Silicon Valley Forward: Housing, Transit & Traffic at a Crossroads.

Given this anticipated growth, Santa Clara County has an opportunity to affect new housing to ensure that it promotes the health of its residents.

To understand the role housing plays in a healthy community, this section presents County-specific indicators on:

- Housing diversity
- Housing tenure
- Substandard housing
- Overcrowded housing
- Housing affordability
- Homelessness

Key Findings

- The County's population is projected to grow significantly during the next 30 years, creating an increased demand for housing. This presents an opportunity to create an inventory of new healthy housing with a diversity of housing types.
- Some cities within the County contain large geographic areas of low-density, single family housing.
- A diverse housing mix (i.e., areas with a variety of housing types and at different densities) supports those who choose to age in place in the same community. Many communities have a relatively poor mix of housing types, such as the Cities of Los Altos, Monte Sereno, and Sunnyvale, and the Town of Los Altos Hills.
- Fifty-eight percent of Santa Clara County housing units are owner-occupied and 42% are renter-occupied, but the proportion of owner- and renter-occupied housing units varies significantly by jurisdiction.
- Housing in most areas of the County is not considered overcrowded; however, there are pockets where overcrowding does exist, such as Alum Rock.
- Substandard housing units are clustered in certain areas of the County. The Cities of San Jose and Santa Clara have a higher than average percentage of housing units without heat, and the Cities of Palo Alto, Sunnyvale, and Los Altos have a higher than average percentage of housing units without complete kitchens.
- Over 43% of County households are housing cost-burdened, in that they spend 30% or more of their net income on housing. Low-income households and households with residents of color are more affected than the average household and households with White residents.
- Over 18,000 people are considered homeless in Santa Clara County.

Housing Diversity

What is it?

Housing diversity addresses the mix of housing types in a neighborhood or community. While there are a number of methodologies to assess housing diversity, particularly at the neighborhood scale,[5] this indicator examines the extent of housing diversity compared to the number of single-family homes, buildings with 2 to 4 units, buildings with 5 or more units, and mobile homes, for each jurisdiction in Santa Clara County.

Why is it important?

A diverse housing mix supports housing affordability and a diverse population. In addition, a mix of housing types supports those who choose to age in place in the same community throughout their different life stages. It facilitates life transitions, such as renting an apartment as a young adult, purchasing a home as a new family, and finding accessible and safe housing in one's later years.[6]

While many people prefer the privacy and lifestyle of living in a suburban single-family home neighborhood, they are generally located farther from goods and services than higher-density, mixed-use areas. Without the critical mass of both residences and jobs, these suburban areas are less likely to support frequent, high-quality transit service. Compact suburban and urban areas typically support neighborhood-serving uses within walking and biking distance of homes; furthermore, they have more potential customers (neighborhood residents) in a smaller service area. Similarly, as residential density and non-residential intensity increase, transit ridership and walking rates increase and rates of obesity decrease.[7] [8] [9]

Status in Santa Clara County

Overall, the County's housing mix resembles that of the State, in that approximately 65% of the housing units are single family (one unit detached or attached), 8% are multi-family buildings (two to four units), and 25% are in buildings of five or more units.[10]

Table 9-1 reflects housing diversity by jurisdiction. The Cities of Monte Sereno, Sunnyvale, and Los Altos and the Town of Los Altos Hills are almost exclusively single-family home communities (98.6%, 90.9%, 88.6%, and 98.6%, respectively). In contrast, the Cities of Mountain View, Saratoga, and Santa Clara contain a lower than average percentage of single-family homes (42.2%, 47.2%, and 52% respectively). It is also worth noting that Saratoga and Morgan Hill have the highest percentage (6.9% and 9.5%, respectively) of non-traditional housing units, which include mobile homes, boats, Vans, or RVs.[11]

While not captured in the housing unit data, universal design is an important concept that recognizes that housing and other products should be designed for all people without the need for adaptation or specialized design. Several key principles of Universal Design include equitable, simple, and flexible use and low physical effort. It promotes design characteristics that make it easier for people to age in place, regardless of the housing unit type.[12]

Number of Units in Each Housing Structure by Jurisdiction

	Total Housing Units	1 Unit Detached or Attached	2-4 Units	5+ Units	Mobile Home, Boat, Van, RV
California	**13,552,624**	**65.2%**	**8.2%**	**22.5%**	**4.0%**
Santa Clara County	**626,325**	**64.3%**	**7.7%**	**25.1%**	**3.1%**
Campbell	17,058	58.1%	11.9%	28.1%	1.9%
Cupertino	20,670	69.6%	9.4%	21.0%	0.0%
Gilroy	14,772	73.3%	11.2%	13.5%	2.1%
Los Altos	11,097	88.6%	1.9%	9.4%	0.0%
Los Altos Hills	2,839	98.6%	0.0%	0.5%	0.9%
Los Gatos	12,819	71.5%	9.3%	18.7%	0.5%
Milpitas	19,832	75.8%	7.0%	15.2%	2.0%
Monte Sereno	1,217	98.6%	0.0%	1.5%	0.0%
Morgan Hill	12,795	76.1%	6.2%	8.1%	9.5%
Mountain View	32,646	42.2%	9.4%	45.2%	3.3%
Palo Alto	26,990	62.3%	6.4%	30.9%	0.4%
San Jose	313,944	65.6%	7.3%	23.6%	3.5%
Santa Clara	44,598	52.0%	10.9%	36.9%	0.1%
Saratoga	55,838	47.2%	8.9%	37.0%	6.9%
Sunnyvale	10,858	90.9%	3.2%	5.8%	0.0%

Source: American Community Survey 5-year estimates. 2006-10.

Table 9-1: Number of Units in Each Housing Structure by Jurisdiction

Housing Tenure

What is it?

Housing tenure describes whether a home is renter- or owner-occupied.

Why is it important?

In national studies, homeowners tend to have better physical and mental health outcomes relative to renters.[13] [14] Additionally, homeowners tend to have a stake in maintaining and improving their neighborhoods' quality and stability.[15] [16]

Status in Santa Clara County

In 2010, 58% of Santa Clara County housing units were owner-occupied and 42% were renter-occupied (see Table 9-2). These averages were similar to the Statewide percentages, which were 56% and 44% respectively. The Cities of Mountain View, Santa Clara, and Sunnyvale all have significantly smaller proportions of owner-occupied housing units than the Countywide or Statewide averages, but higher percentages of renter-occupied housing. The Cities of Los Altos, Monte Sereno, and Saratoga and the Town of Los Altos Hills all have significantly more owner-occupied housing units than the County or State, but these jurisdictions have very little renter-occupied housing units.[17]

Number of Owner- and Renter-Occupied Housing Units by Jurisdiction

Jurisdiction	Total Occupied Housing Units	Owner-Occupied Housing Units	% Owner-Occupied Housing Units	Renter-Occupied Housing Units	% Renter-Occupied Housing Units
California	**12,577,498**	**7,035,371**	**56%**	**5,542,127**	**44%**
Santa Clara County	**604,204**	**348,298**	**58%**	**255,906**	**42%**
Campbell	16,163	8,093	50%	8,070	50%
Cupertino	20,181	12,627	63%	7,554	37%
Gilroy	14,175	8,624	61%	5,551	39%
Los Altos	10,745	9,002	84%	1,743	16%
Los Altos Hills	2,829	2,582	91%	247	9%
Los Gatos	12,355	7,778	63%	4,577	37%
Milpitas	19,184	12,825	67%	6,359	33%
Monte Sereno	1,211	1,090	90%	121	10%
Morgan Hill	12,326	8,793	71%	3,533	29%
Mountain View	31,957	13,332	42%	18,625	58%
Palo Alto	26,493	14,766	56%	11,727	44%
San Jose	301,366	176,216	59%	125,150	42%
Santa Clara	43,021	19,747	46%	23,274	54%
Saratoga	10,734	9,258	86%	1,476	14%
Sunnyvale	53,384	25,623	48%	27,761	52%

U.S. Census Bureau. (2010). American Community Survey 5-Year Estimates.

Table 9-2: Number of Owner- and Renter-Occupied Housing Units by Jurisdiction

Substandard Housing

What is it?

This report categorizes substandard housing as follows:

- Housing units without heating fuel or equipment;
- Housing units without complete plumbing facilities, including hot and cold running water, a flush toilet, and a bathtub or shower; and
- Housing units without complete kitchen facilities, including a sink with a faucet, stove or range, and a refrigerator.[18]

Why is it important?

Substandard housing can lead to a number of health-related issues. A lack of heat during the winter may increase the risk of cardiovascular disease or mortality in vulnerable populations.[19] A lack of plumbing and kitchen facilities is a barrier to good hygiene and sanitation levels, and limits people's access to clean water for bathing, drinking, meal preparation, home maintenance, and other purposes.[20] Substandard housing also contributes to lead exposure and poisoning (see the Environmental Health section); respiratory conditions, (including asthma, due in part to indoor allergens); exposure to

carcinogenic air pollutants (such as radon and tobacco smoke) and injuries resulting from poor construction or maintenance.[21]

Status in Santa Clara County

Most housing units in Santa Clara County have heat and contain complete plumbing and kitchen facilities (Table 9-3). The County has a smaller proportion of housing units without heating, complete plumbing, and complete kitchen facilities than the Statewide averages. Despite having averages lower than the State, there are approximately 5,147 housing units lacking heat, 2,360 units lacking complete plumbing facilities, and 4,353 units lacking complete kitchen facilities in Santa Clara County.[22]

These substandard housing units are disproportionately clustered in specific areas of the County. The Cities of San Jose and Santa Clara have a higher than average percentage of housing units without heat, and the Cities of Palo Alto, Sunnyvale, and Los Altos have a higher than average percentage of housing units without complete kitchens. All the housing units in the jurisdictions of Monte Sereno and Los Altos Hills have heating and complete plumbing and kitchen facilities.[23]

Substandard Housing Facilities by Jurisdiction

Jurisdiction	Housing Units No Heating Fuel Used	% of Housing Units with No Heating Fuel	Housing Units Lacking Complete Plumbing Facilities	% of Housing Units Lacking Complete Plumbing Facilities	Housing Units Lacking Complete Kitchen Facilities	% of Housing Units Lacking Complete Kitchen Facilities
California	**364,747**	**2.9%**	**62,887**	**0.5%**	**138,352**	**1.1%**
Santa Clara County	**5,147**	**0.9%**	**2,360**	**0.4%**	**4,353**	**0.7%**
Campbell	66	0.4%	28	0.2%	58	0.3%
Cupertino	55	0.3%	101	0.5%	126	0.6%
Gilroy	113	0.8%	24	0.2%	40	0.3%
Los Altos	10	0.1%	-	0.0%	85	0.8%
Los Altos Hills	-	0.0%	-	0.0%	-	0.0%
Los Gatos	51	0.4%	27	0.2%	57	0.4%
Milpitas	91	0.5%	25	0.1%	75	0.4%
Monte Sereno	-	0.0%	-	0.0%	-	0.0%
Morgan Hill	61	0.5%	46	0.4%	12	0.1%
Mountain View	204	0.6%	82	0.3%	102	0.3%
Palo Alto	37	0.1%	32	0.1%	420	1.6%
San Jose	3,122	1.0%	1,284	0.4%	2,144	0.7%
Santa Clara	647	1.5%	78	0.2%	239	0.5%
Saratoga	-	0.0%	57	0.5%	67	0.6%
Sunnyvale	515	0.9%	292	0.5%	618	1.1%

U.S. Census Bureau. (2010). American Community Survey 5-Year Estimates.

Table 9-3: Substandard Housing Facilities by Jurisdiction

Overcrowded Housing

What is it?

The U.S. Census Bureau defines overcrowded housing as housing with more than one person per room, including the living room in the housing unit. Having more than 1.5 persons per room is considered severe overcrowding.[24]

Why is it important?

Overcrowding can directly influence one's physical and mental health, childhood development, and education. Studies have found a relationship between overcrowding and respiratory health, meningitis, and tuberculosis in children. For adults, a relationship exists between overcrowding and some forms of cancer and respiratory disease. [25] Evidence also suggests that overcrowding is associated with mental health issues in women and racial and ethnic minorities. Overcrowding is also associated with child mistreatment and domestic violence.[26] In addition, overcrowding can increase noise, which increases overall chronic stress and decreases the amount and quality of sleep.[27] [28]

Status in Santa Clara County

The County, as a whole, has less overcrowded housing than the State. However, there are a few County areas where overcrowding is an issue. As shown in Table 9-4, unincorporated Alum Rock has the highest level of overcrowded housing in the County (approximately 17.2% of Alum Rock housing units have more than one person per room). The Cities of Gilroy, Morgan Hill, San Jose, and Sunnyvale also have higher levels of overcrowding, but not as significant as Alum Rock. However, it is important to note that these overcrowding statistics may reflect, to some extent, a cultural preference for and practice of multi-generational housing. [29]

Overcrowded Housing Units by Jurisdiction

	Occupied Housing Units	People per Room		
		1.00 or less	1.01 to 1.50	1.51 or more
California	**12,392,852**	**92.0%**	**5.3%**	**2.7%**
Santa Clara County	**596,747**	**93.0%**	**4.8%**	**2.1%**
Cities and Towns				
Campbell	16,308	96.1%	3.4%	0.5%
Cupertino	19,575	94.2%	4.9%	0.9%
Gilroy	14,147	93.3%	4.5%	2.2%
Los Altos	10,701	99.1%	0.6%	0.3%
Los Altos Hills	2,738	100.0%	0.0%	0.0%
Los Gatos	12,064	99.0%	0.5%	0.5%
Milpitas	18,687	94.2%	4.0%	1.7%
Monte Sereno	1,217	99.3%	0.7%	0.0%
Morgan Hill	12,046	93.9%	4.1%	2.1%
Mountain View	31,035	93.4%	4.8%	1.8%
Palo Alto	25,486	97.4%	2.0%	0.5%
San Jose	300,111	91.2%	5.9%	2.8%
Santa Clara	42,323	94.2%	4.3%	1.4%
Saratoga	10,468	99.8%	0.0%	0.2%
Sunnyvale	53,428	92.6%	4.7%	2.7%
Census Designated Places	*26,413*	*93.0%*	*4.8%*	*2.1%*
Alum Rock	3,963	82.8%	14.5%	2.8%
Burbank	1,964	93.1%	5.5%	1.4%
Cambrian Park	1,084	94.8%	4.0%	1.2%
East Foothills	2,759	95.9%	4.1%	0.0%
Fruitdale	413	97.1%	2.9%	0.0%
Lexington Hills	928	100.0%	0.0%	0.0%
Llagas-Uvas	1,473	99.6%	0.0%	0.4%
Loyola	1,115	100.0%	0.0%	0.0%
San Martin	1,820	99.0%	1.0%	0.0%
Stanford	3,040	98.0%	0.5%	1.5%

Source: American Community Survey 5-year estimates. 2006-10.

Table 9-4: Overcrowded Housing Units by Jurisdiction

Housing Affordability

What is it?

Housing affordability is defined as the cost of housing (rent or mortgage) relative to household income. Housing is considered affordable if it costs less than 30% of a household budget, while households that pay more than 30% of their net income for housing are considered "cost-burdened."[30]

Why is it important?

Housing affordability may lead to better health outcomes for residents. Higher rents or mortgage payments, especially for low- and moderate-income families, limit the amount available for other necessities, such as healthy food, heating fuels, and health care.[31] Families with access to affordable housing are also less likely to move frequently. Residential stability, in turn, can reduce emotional and behavioral problems among children, and lower the risk of pregnancy, drug use, and depression during adolescence.[32]

An adequate supply of affordable housing may also improve the health of the elderly and those with disabilities and chronic disease, by creating a stable platform for health care and services.[33] Scarce affordable housing also limits a household's choice about where they live, often forcing a move into inadequate or substandard housing in neighborhoods with higher crime and violence.[34] In addition, high housing costs force many with lower incomes to live far from their jobs and commute long distances. This contributes to problems of stress, increased levels of traffic congestion on area roadways, and increased levels of air pollution.[35]

Status in Santa Clara County

According to the Housing + Transportation Affordability Index by the Center for Neighborhood Technology, 43.2% of households in Santa Clara County spend more than 30% of their income on housing (and are thus considered "cost-burdened"). Among low-income households, the percentage of renters and owners paying more than 30% of their income on housing is 68% and 56% respectively.[36] Eight percent of households in Santa Clara County are paying more than 45% of their income on housing (and are thus considered "extremely cost-burdened"). Table 9-5 further describes the levels of housing cost-burden experienced by Santa Clara County residents.[37]

Renters of color in Santa Clara County are more likely to be rent-burdened, because on average, they have lower household incomes than White residents do.[i] About 30% of the County's African-American and Latino renter households spend more than 50% of their income on rent, compared to approximately 22% of White renters. These disparities are mirrored in the homeowner population as well. Approximately one-third of Latino

[i] The average annual household income for Santa Clara County residents by race/ethnicity is equal to $53,998 for White, $27,963 for Black or African American, $38,736 for Asian, and $17,341 for Hispanic/Latino residents.[i]

homeowners and nearly a quarter of African-American homeowners pay over 50% of their income on homeownership, compared with 17% of White residents.[38]

Compared to housing demand, the San Francisco Bay Area region suffers from low levels of housing production at all income levels. This mismatch between supply and demand contributes to regional and local housing affordability issues.[39] Like other Bay Area counties, Santa Clara County has a very high unmet demand for very low-, low-, and even moderate-income housing for renters and owners.[40]

Santa Clara County Housing Cost Burden

(% of Household Income Spent on Housing)

Housing Cost Burden	Population	% of Population
< 20 %	283,617	16.5%
20 to 30 %	690,446	40.2%
30 to 40 %	511,243	29.7%
40 to 45 %	93,076	5.4%
45 + %	141,141	8.2%
Total	**1,719,523**	**100.0%**

Center for Neighborhood Technology. (2012). Housing + Transportation Affordability Index. http://htaindex.cnt.org/.

Table 9-5: Housing Costs as a Percentage of Income

Homelessness

What is it?

Homeless individuals and families are classified into four broad categories:

- Individuals and families who lack a fixed, regular, and adequate nighttime residence;
- Individuals and families who will imminently lose their primary nighttime residence;
- Unaccompanied youth (meaning those under the age of 18 without an adult guardian present) and families with children; and
- Individuals and families who are fleeing, or are attempting to flee from, domestic violence or life-threatening conditions.[41]

Why is it important?

Poor health and homelessness are closely related. The rates of chronic and acute diseases are high among the homeless population, and diseases such as tuberculosis, HIV/AIDS, diabetes, hypertension, addiction, and mental disorders are difficult to treat when individuals lack permanent housing.[42] Studies have found that homeless people experience illness and injury three to six times more frequently than housed individuals, and die 30 years earlier.[43] Furthermore, homeless individuals and families are exposed to violent crime more frequently and have less access to healthy food, and personal hygiene. Homeless individuals who are mentally ill may use drugs and/or alcohol to self-

medicate, placing them at risk for dependency or addiction, as well communicable and other diseases.[44]

Poor health may also cause homelessness. Individuals with a mental illness may be unable to provide effective self-care. They also may have difficulty forming and retaining stable relationships and push away caregivers, resulting in a smaller group of people who ensure the individual does not become homeless. People with mental disorders are more likely to become homeless, particularly those with schizophrenia or bipolar disorder.[45]

Status in Santa Clara County

According to the 2011 Countywide Homeless Census and Survey, the County's estimated annual homeless population is 18,329 persons, where 73% are unsheltered and 27% are sheltered on any given day. Not all population subgroups experience homelessness at the same rates. African Americans comprise 20% of the County's total homeless population, yet are only 2.4% of the County's population, whereas Asians represent 31.7% of the County's population, but are only 6% of the homeless population. Survey repondants reported that the most common factors preventing them from securing permanent housing were a lack of affordable housing, transportation, jobs, regular income, money for moving costs, and bad credit.

According to a Los Angeles study, the average monthly public cost for persons in supportive housing[ii] vs. being homeless is $605 compared to $2,897. Most of the costs associated with homelessness relate to providing healthcare, and could be mitigated though preventive care.[46]

[ii] Supportive housing includes housing in combination with services that assist people live more stable and productive lives. Such services often include job training, substance abuse assistance, childcare, and other programs. For more information on supportive housing, visit ihttp://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/homeless/programs/shp

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