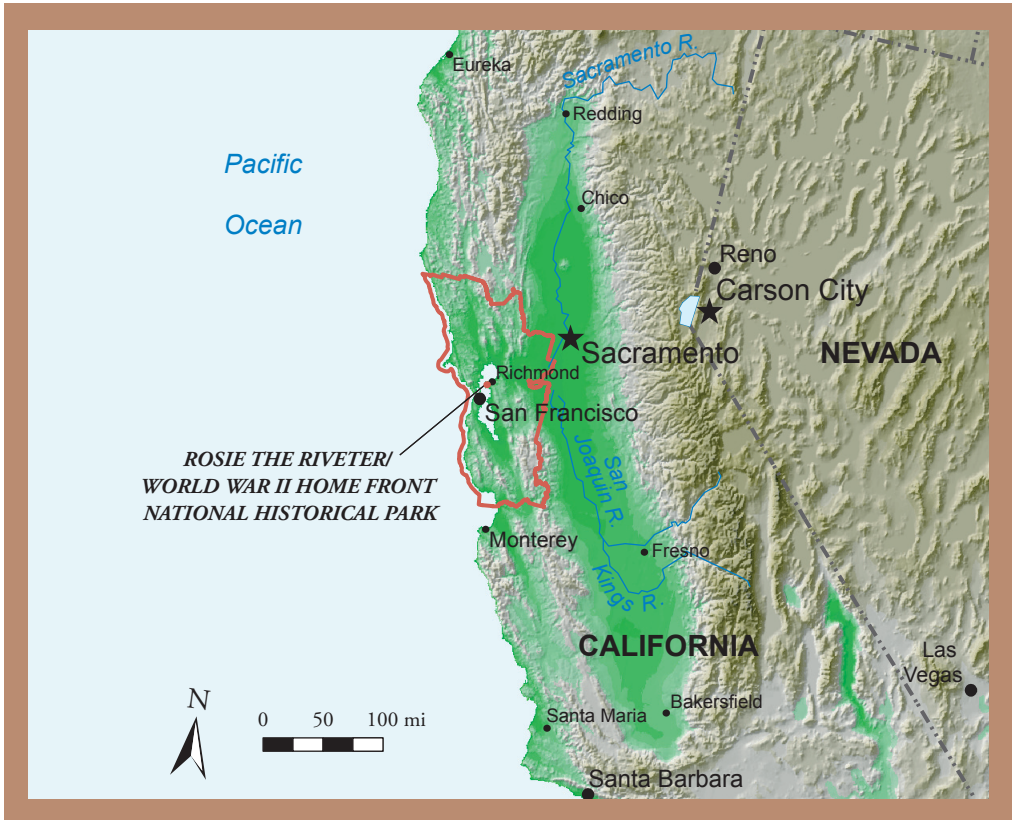
A Socioeconomic Atlas for



Rosie the Riveter/World War II Home Front National Historical Park and its Region

2004

A Socioeconomic Atlas for Rosie the Riveter/ World War II Home Front National Historical Park and its Region

by

Jean E. McKendry

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Acknowledgments

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About this Atlas

This atlas is one in a developing National Park Service atlas series. The purpose of the atlas series is to show socioeconomic trends for regions around individual national park units. Pilot atlases were completed for Harpers Ferry National Historical Park, Joshua Tree National Park, Mount Rainier National Park, and Wilson's Creek National Battlefield. The potential to link these atlases to park planning, e.g., updating the General Management Plan, is being explored with a second series of atlases that began with the Blue Ridge Parkway.

After NPS produced the Blue Ridge Parkway atlas, atlases in the second series have been created in collaboration with the Department of Geography at the Pennsylvania State University. John Day Fossil Beds National Monument is one of the atlases in the second series. For more information about the atlas series, contact Jean McKendry, National Park Service, 1849 C Street NW (3130), Washington, DC 20240 (jean_mckendry@partner.nps.gov).

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Preface

Protection of the National Park System requires active and scientifically informed management. If park resources – both natural and cultural – are to be protected for future generations, the NPS must develop efficient ways to monitor the condition and trends of natural and human systems. Such monitoring must provide usable knowledge that managers can apply to the preservation of resources. And the NPS must share this information with surrounding communities, stakeholders, and partners to help them make important choices about their future.

Because of these reasons and more, the NPS has embarked on a significant initiative – the Natural Resource Challenge, an action plan for preserving natural resources and our country's natural heritage within the complexities of modern landscapes (http://www1.nature.nps.gov/challenge/index.htm).

This atlas is one component in that effort. It is a tool for park managers, planners, community leaders, and others to use in addressing the challenge of preserving the natural and cultural resources of Rosie the Riveter/World War II Home Front National Historical Park. Part of that challenge involves understanding conditions outside park boundaries – conditions which can have significant impacts on park resources. Systematic study and monitoring of regional conditions involves, to a large degree, investigation of human activities. This atlas focuses on such human activities, characterizing them in terms of standardized measures known as socioeconomic indicators.

The atlas can currently serve as an aid to management and planning, as a training tool, and as a means to facilitate public participation. It can be of long-term benefit by establishing baseline data for monitoring changing conditions and trends in the region. Through these and other potential uses, the atlas supports the critical goal of improving park management through a greater reliance on usable scientific knowledge, and contributes to meeting the Natural Resource Challenge.

Gary E. Machlis
Visiting Senior Scientist
National Park Service

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Introduction

The purpose of this atlas is to provide park managers, planners, community leaders, and others with a better understanding of changing human activities and socioeconomic conditions in the region surrounding Rosie the Riveter/World War II Home Front National Historical Park. These changes outside a park's boundaries can create complex park management challenges. Information about regional trends and conditions is needed in order to manage and conserve park resources – both natural and cultural – more effectively. This atlas provides such information in a series of maps, complemented by tables, other graphics, and explanatory text.

Maps are effective ways of conveying information. A map can highlight geographical patterns in data by showing the relationship between what is happening and where it is happening. For example, a map that shows a park's road network and also shows the locations of traffic accidents may indicate that certain sections of park roadway are particularly hazardous. Or a map that plots where park visitors come from might show that the park is popular with residents from a particular part of the region or the nation.

The maps in this atlas combine *contextual* information (such as boundary lines, roads, and key towns) with *thematic* information (such as demographic or economic statistics). This combination of contextual and thematic information helps the reader observe general trends inherent in the distribution of data. For example, a map that shows the population growth rate for each county in the park region may reveal that all of the highest growth rates are concentrated in counties south of the park.

Each map is designed to allow for easy comparison, so readers can see how conditions and trends in their own counties compare with those in other counties and relate to larger regional patterns. The consistent map design allows readers to make useful comparisons among two or more maps. For example, comparing maps of federal expenditures per person and poverty rates might reveal that federal expenditures tend to be higher in a region's poorer counties.

There are many potential uses for this atlas. For example, park managers can share the atlas with new park staff, regional staff, the media, or policy makers as a way of orienting them to the basic facts about the region. Planners can use the atlas to examine emerging trends outside the park and to prioritize actions to mitigate any anticipated adverse impacts on park resources. Local and regional leaders can consult the atlas to develop environmental policies that support park management goals while remaining responsive to local needs. Researchers can use the atlas to design studies that have practical benefit to park and ecosystem management. Additional uses are discussed in the atlas' concluding section, pages 76 - 77. Regardless of how it is used, the atlas can serve as a useful reference tool that adds to the body of usable scientific knowledge about Rosie the Riveter/World War II Home Front National Historical Park and its surrounding region.

Socioeconomic Indicators: Valuable Management Tools

The Relevance of Human Activities to Park Resource Management

The management of park resources always requires attention to human behavior and activities. Protection of a threatened archaeological site can mean educating visitors about the Antiquities Act. Controlling non-native plant species can require close collaboration with park neighbors and volunteers. Preservation of scenic values can depend upon the monitoring of emissions from electrical generation plants several states away.

While there is an on-going and healthy debate about how to address this "human factor" in park management, a consensus has emerged about three basic principles:

- people are part of park ecosystems, and their needs and activities must be considered in management plans;
- park managers should be concerned with short and long-term trends, as well as the local, regional, and national consequences of actions; and
- where appropriate, decisions about park resources should be made collaboratively, including federal agencies, local governments, and citizens in the process.

Managing parks in accordance with these principles requires careful planning, for people have many competing needs.

Careful planning requires an accurate and objective assessment of current conditions as well as on-going trends. Hence, understanding the social, cultural, and economic characteristics of the park region is crucial for successful park management.

The Value of Socioeconomic Indicators

One approach to understanding social, cultural, and economic conditions and trends is to use *socioeconomic indicators*. Socioeconomic indicators are regularly collected economic or social statistics that describe or predict changes and trends in the general state of society. For example, the consumer price index (CPI) keeps track of changes in the price of a typical group of consumer goods. The CPI is used to monitor inflation, to compare the cost-of-living in one region of the country to another, and to support economic policy-making. Socioeconomic indicators can address historical trends, present conditions, or future projections.

An integrated set of socioeconomic indicators can be effective in presenting the "basic facts" about the people of a region. Such basic facts are important to park management, and can be used in many ways: assessing the potential impact of government policies, developing sound resource management strategies, designing effective interpretive programs, increasing public involvement in the planning process, and so forth. Like measures of water quality or wildlife populations, socioeconomic indicators enable managers and citizens to make scientifically informed decisions concerning public resources.

The Integrated Set of Indicators

The indicators in this atlas are not simply a collection of various statistics displayed in maps, but an integrated set of indicators organized around broad areas of human activity that are of particular relevance to park management. The selection of a broad range of relevant indicators is important because the dynamics of human interaction on a regional scale are complex. For example, the growth of a new industry can influence a rise in immigration, which in turn can influence other human activities such as housing development. While industry, immigration, and housing are categorically different indicators, each one could be important for a park manager trying to anticipate growth issues that might impact park visitation or ecological systems.

The integrated set of indicators displayed in this atlas encompasses six general categories:

- *General population* indicators measure how many people live in a given area, where those people are concentrated, their ages, patterns of migration, and so forth. General population indicators provide a profile of the people who are neighbors to the park and potential partners in park management.

- *Economy and commerce* indicators measure the flow and distribution of money, materials, and labor. Economy and commerce indicators provide an overview of the interdependent economic relationships among people, businesses, industries, and government within the park region.

- *Social and cultural* indicators measure aspects of personal and group identity such as cultural origin, political and religious beliefs, health, and language. Social and cultural indicators provide insights into the varying perceptions and expectations that people bring with them when they go to their place of work, participate in a public meeting, or visit a park interpretive site.

- *Recreation and tourism* indicators measure activities specifically related to the provision of accommodations, entertainment, and personal services. Recreation and tourism indicators provide a way to analyze the economic role that travelers, vacationers, and other recreationists play in the region surrounding the park, which is itself closely linked to the recreation/tourism sector.

- *Administration and government* indicators measure the structure, resources, and actions of government organizations. Administration and government indicators provide an orientation to the role of government – local, state, and federal – in the park region.

- *Land use* indicators measure the interactions between people and terrestrial resources such as land, water supply, and vegetation. Land use indicators provide a way to gauge the impact of human activities such as farming, forestry, and urban development upon ecosystems within the park region.

Selecting Specific Indicators

Drawing from the six general categories of socioeconomic indicators described above, a menu of 67 socioeconomic indicators was developed. Each indicator was determined to be readily available and mappable at the county level. From this menu, 17 *core indicators* were selected that would be common to all atlases published in this series. The core indicators provide information useful to all park managers. Incorporating these core indicators throughout the series of atlases enables park managers to make comparisons among parks in different regions of the country. Rosie the Riveter/ World War II Home Front National Historical Park staff chose additional indicators from the menu described above. Park staff selected these indicators to customize the atlas so that it would target information relevant to their particular management needs. Figure 1 shows the six general categories and the specific indicators included in this atlas; for each category, indicators are listed in the order they appear in the atlas.

The maps in this atlas are based on county-level data wherever possible. County-level data have several advantages. Good quality data are available at this scale, consistently collected at regular intervals, and comparable across all U.S. counties. Also, counties are stable geographic units for monitoring trends, as little change in county boundaries occurs over time. Finally, as administrative and political units, counties significantly influence environmental change and can be important partners in park management.

Technical Notes

Appendix 1 provides the data sources for the indicators presented in this atlas. Appendix 2 provides technical information on the design of the maps. Appendix 3 includes endnotes and text that provide additional information on the measurement of selected indicators.

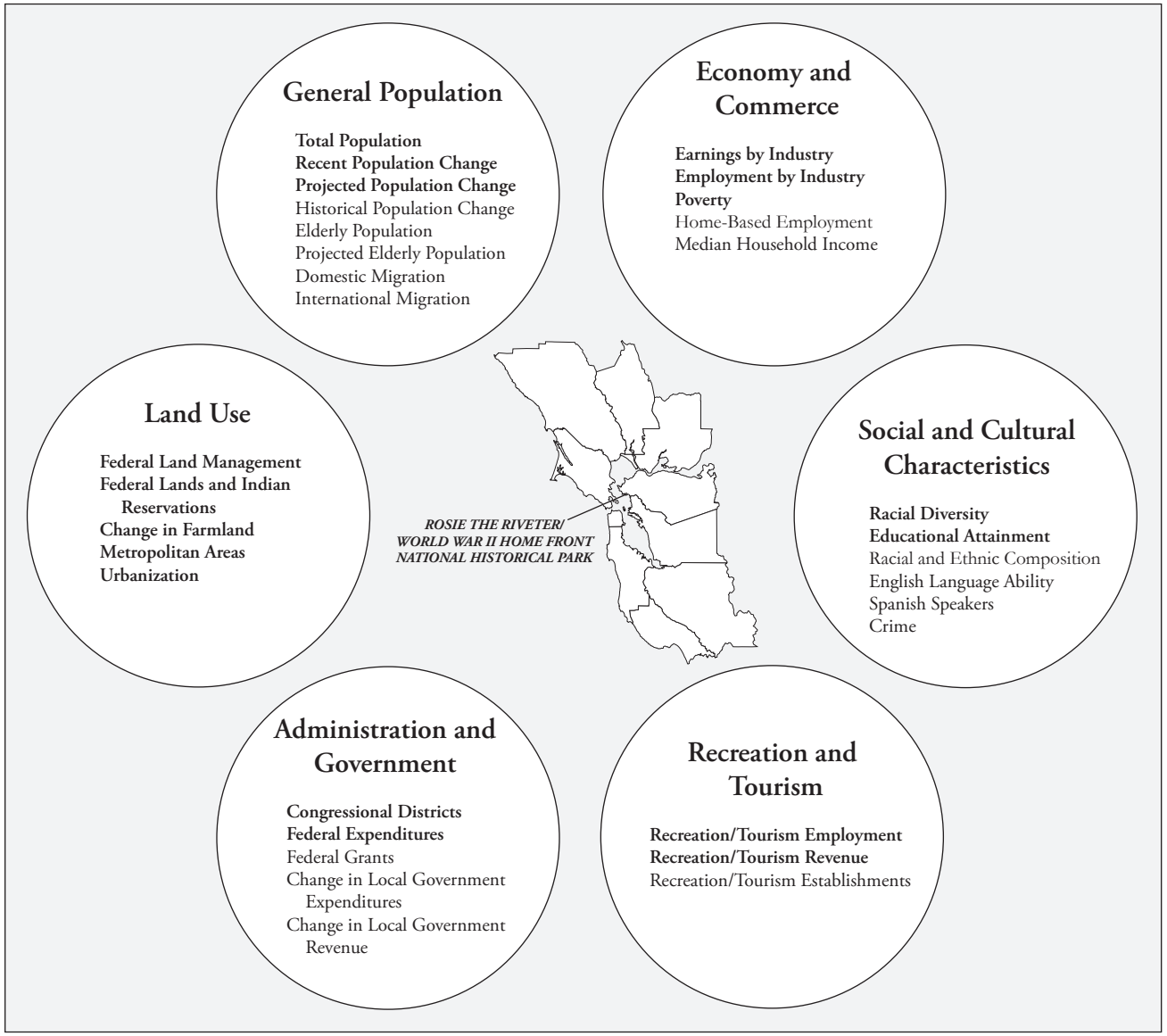


Figure 1. Indicators Included in this Atlas **core indicator** additional indicator

The Region

In selecting the boundaries of the region of interest covered by this atlas, Rosie the Riveter/WWII Home Front National Historical Park (NHP) staff were asked to define the geographic area that has the most significant impact on the park's management. Because the atlas relies on county-level socioeconomic data, the region of interest was restricted to entire counties, rather than parts of counties. The region selected includes ten counties in north central California, and is often referred to as the San Francisco Bay area. The map on the facing page depicts the region in its larger context.

Rosie the Riveter/WWII Home Front NHP is located in Richmond, California, less than 20 miles across the bay from San Francisco and 75 miles southwest of Sacramento. It is in the heart of the San Francisco Bay Area, a region covering over 7,000 square miles. The region consists of a metropolitan area that encircles the bay and is composed of numerous cities of various sizes, the three largest being San Francisco, Oakland, and San Jose. It ranks as the fifth largest metropolitan area in the country.

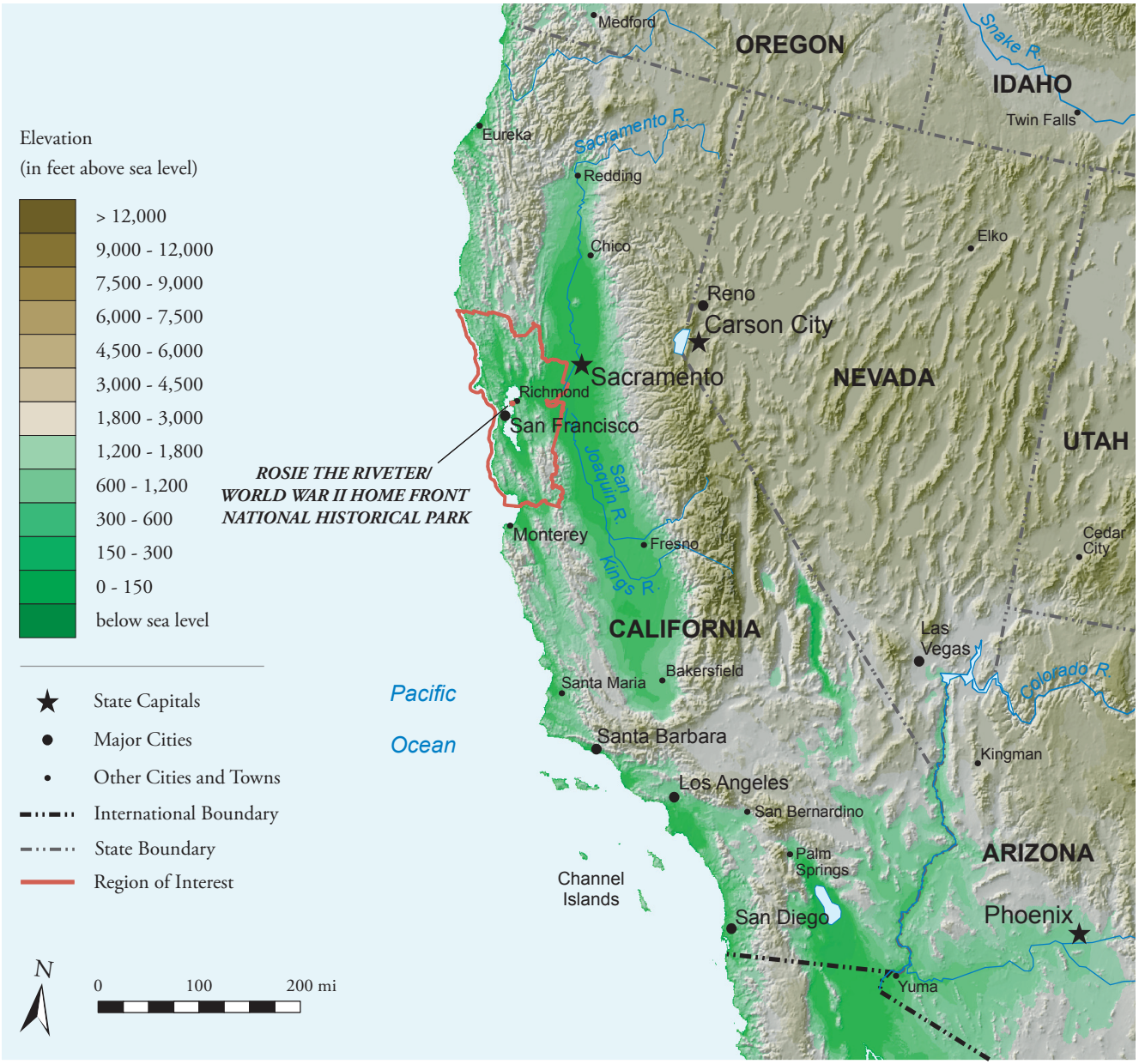
Extending inland from the Pacific coast, the region contains sandy beaches, rocky shorelines, tidal flats, river valleys, small mountains and the large San Francisco estuary. The San Andreas Fault also runs through the region. The region is ecologically diverse, containing coastal and inland forests and wetlands, grasslands, rivers, and lakes. The redwood forests contain some of the oldest and largest trees in the country. Some 750 species of fish, birds, and mammals live in, or migrate through, this human dominated landscape.

The region has a rich cultural diversity, with a population of widely varied national and ethnic backgrounds. Spaniards from Mexico settled in former Native American lands by the early 1800s. Eventually settlers from the east and adventurers from Asia joined them. The gold rush of 1848/1849 saw the population increase 20 fold in less than a year, as prospectors and merchants from all over the world came in search of their fortunes. During World War II, the shipyards of the Bay Area attracted thousands of workers. After the war, this population was augmented by returning military personnel. The region became a magnet for people in search of jobs and interested in social change in the 1950s, 1960s and 1970s, and it has continued to attract new residents from all over the world.

The San Francisco Bay Area is renowned for its "knowledge-based" economy. The region hosts numerous high technology industries including: computers, telecommunications, multimedia, movie and television production, bioscience/health care, banking, financial services, and environmental technology. Four research universities and five national research laboratories are also located in the region. Other important industries include agriculture and food processing, petrochemicals, and tourism. The wines from the vineyards of the region are well known. The port of San Francisco is the second largest, in terms of commerce, on the west coast.

In addition to Rosie the Riveter/WWII Home Front NHP, the region contains eight other national park units including Eugene O'Neil NHS, Fort Point NHS, Golden Gate NRA, John Muir NHS, Muir Woods NM, Point Reyes NS, Port Chicago Naval Magazine NM, and San Francisco Maritime NHP.

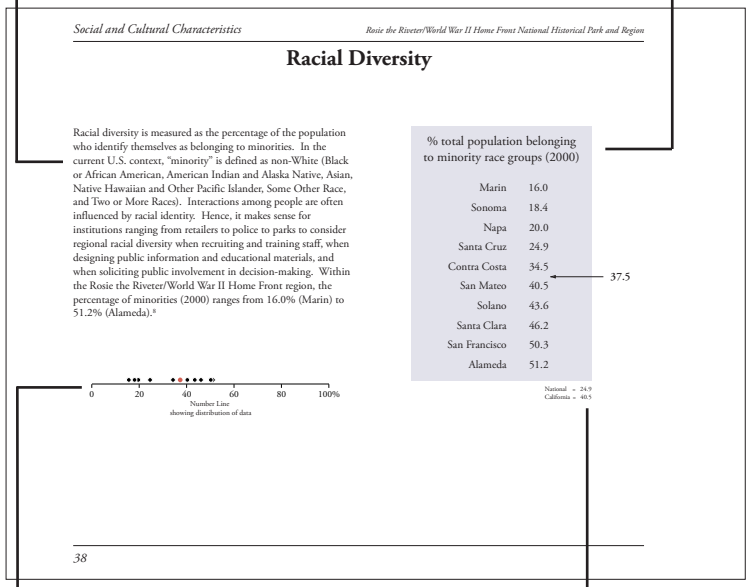
Rosie the Riveter/World War II Home Front National Historical Park and its Region



Using the Socioeconomic Indicators and Maps

The socioeconomic indicators for the Rosie the Riveter/World War II Home Front NHP region of interest are presented in a series of maps. The best available county-level data are presented for each indicator. The following information is provided for each indicator:

- a brief description of the socioeconomic indicator and an observation about the spatial variation in the data as displayed on the map.
- a table that shows the data and relative rank for each county. The median value is shown with an arrow and bold type. The table allows the reader to look up and compare specific indicator values for each county.
- a map legend describing how the indicator is measured, the year that the data were gathered, and the range of values for each quartile grouping.
- the name of the general category to which this particular indicator belongs (such as general population or land use). Maps in the same general category share similar sets of color symbols.



Social and Cultural Characteristics *Rosie the Riveter/World War II Home Front National Historical Park and Region*

Racial Diversity

Racial diversity is measured as the percentage of the population who identify themselves as belonging to minorities. In the current U.S. context, "minority" is defined as non-White (Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Some Other Race, and Two or More Races). Interactions among people are often influenced by racial identity. Hence, it makes sense for institutions ranging from retailers to police to parks to consider regional racial diversity when recruiting and training staff, when designing public information and educational materials, and when soliciting public involvement in decision-making. Within the Rosie the Riveter/World War II Home Front region, the percentage of minorities (2000) ranges from 16.0% (Marin) to 51.2% (Alameda).[8]

% total population belonging to minority race groups (2000)

Marin	16.0
Sonoma	18.4
Napa	20.0
Santa Cruz	24.9
Contra Costa	34.5
San Mateo	40.5
Solano	43.6
Santa Clara	46.2
San Francisco	50.3
Alameda	51.2

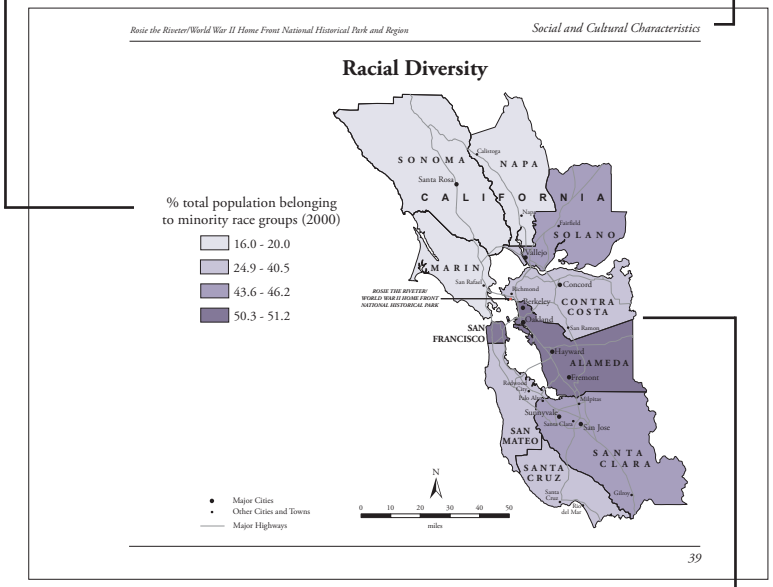
37.5

0 20 40 60 80 100%

Number Line showing distribution of data

National = 24.9
California = 40.5

38



Rosie the Riveter/World War II Home Front National Historical Park and Region *Social and Cultural Characteristics*

Racial Diversity

% total population belonging to minority race groups (2000)

16.0 - 20.0
24.9 - 40.5
43.6 - 46.2
50.3 - 51.2

SONOMA
NAPA
CALIFORNIA
SOLANO
MARIN
CONTRA COSTA
SAN FRANCISCO
ALAMEDA
SAN MATEO
SANTA CLARA
SANTA CRUZ
ROSIE THE RIVETER/ WORLD WAR II HOME FRONT NATIONAL HISTORICAL PARK

Major Cities
Other Cities and Towns
Major Highways

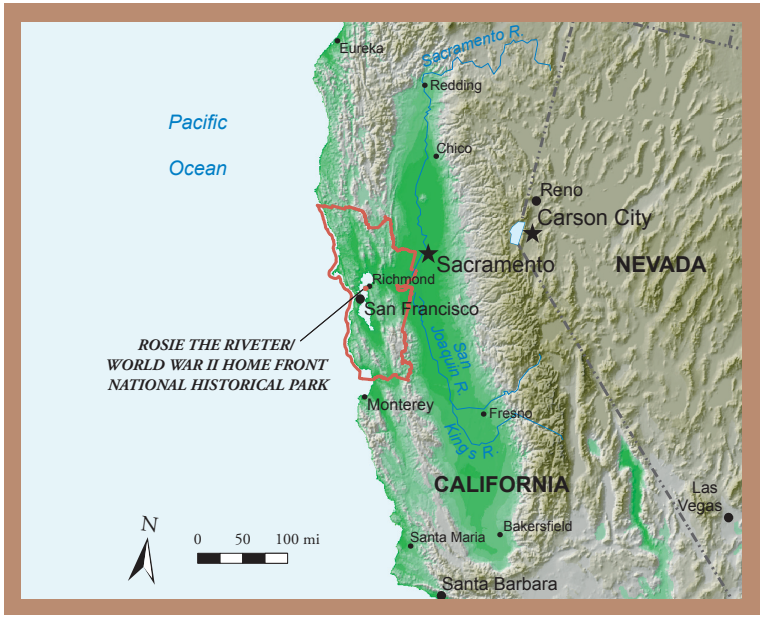
N

0 10 20 30 40 50
miles

39

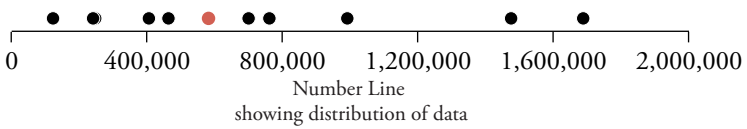
- a number line that shows the distribution of values for the indicator, useful in understanding patterns in the data. The median value is represented by a **red** dot.
- a section displaying national and state data that can be compared with regional county data.
- a map that displays general patterns inherent in the data. For most indicators, counties are grouped into four classes that correspond to four sub-ranges of data values. These groups are called quartiles. The highest-ranked quartile receives the darkest shading. For more information on quartile classification, see Appendix 2, page 83.

The Socioeconomic Indicators



Total Population

Population size is one of the most important influences on the character of human activities in a place, and a key influence on resource use. People bring labor, knowledge and economic activity to a place. At the same time, they generate demand for natural resources, goods and services ranging from food to recreational opportunities. Within the Rosie the Riveter/World War II Home Front NHP region, county population (2002) ranges from 130,268 (Napa) to 1,683,505 (Santa Clara).[1]

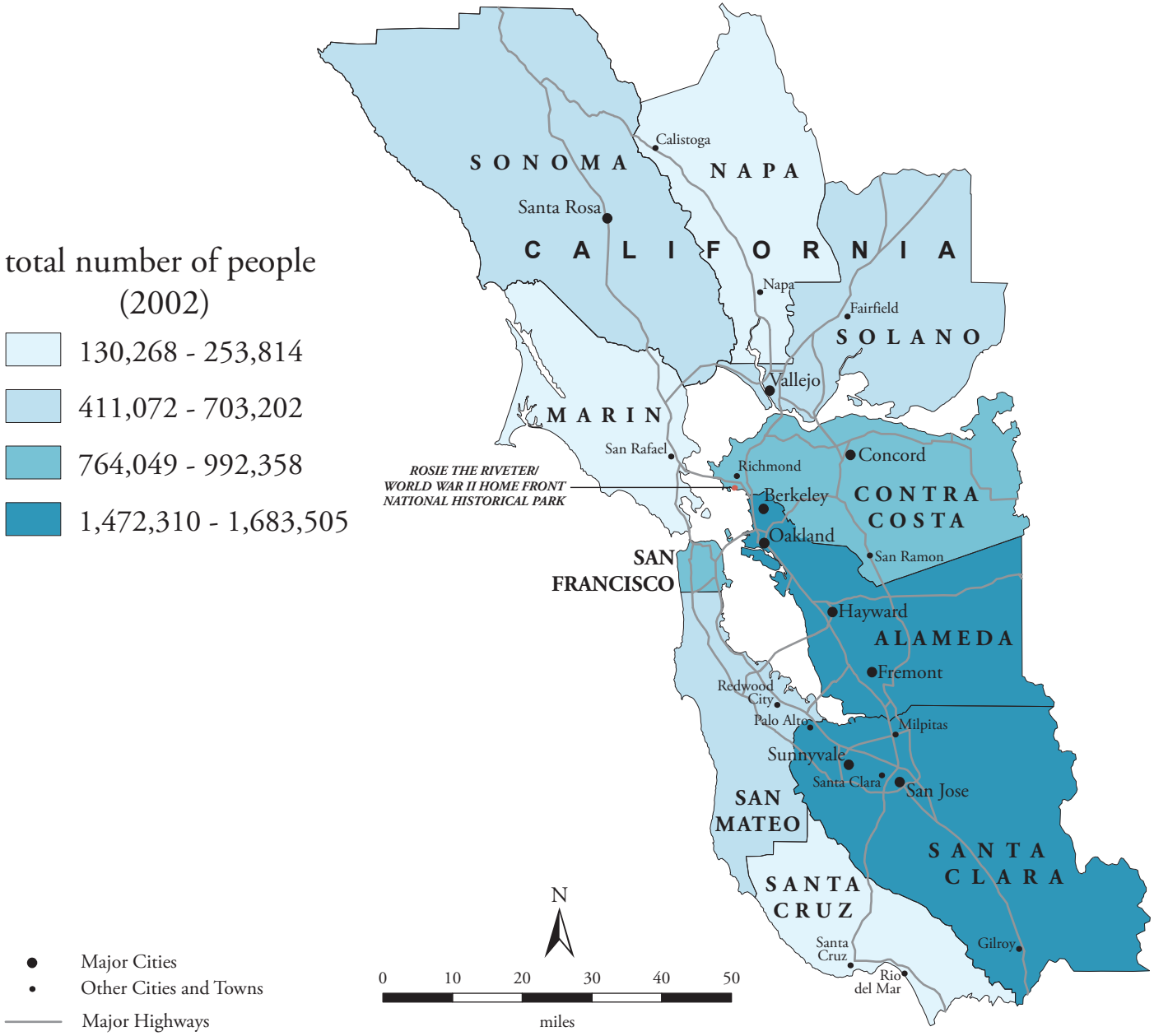


total number of people (2002)	
Napa	130,268
Marin	247,581
Santa Cruz	253,814
Solano	411,072
Sonoma	468,386
San Mateo	703,202
San Francisco	764,049
Contra Costa	992,358
Alameda	1,472,310
Santa Clara	1,683,505

585,794

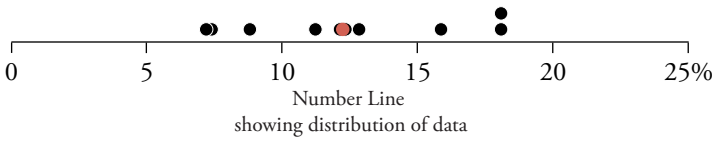
National = 291,890,213
California = 35,116,033

Total Population



Recent Population Change

Measuring recent population change provides an indication of the extent to which population change is influencing current local or regional priorities. For example, population growth changes the tax base, adds new voters, and can increase demand for services ranging from schools to transportation to outdoor recreation. Within the Rosie the Riveter/World War II Home Front NHP region, the recent increase in county population (1990 - 2000) ranges from 7.3% (San Francisco) to 18.1% (Contra Costa).

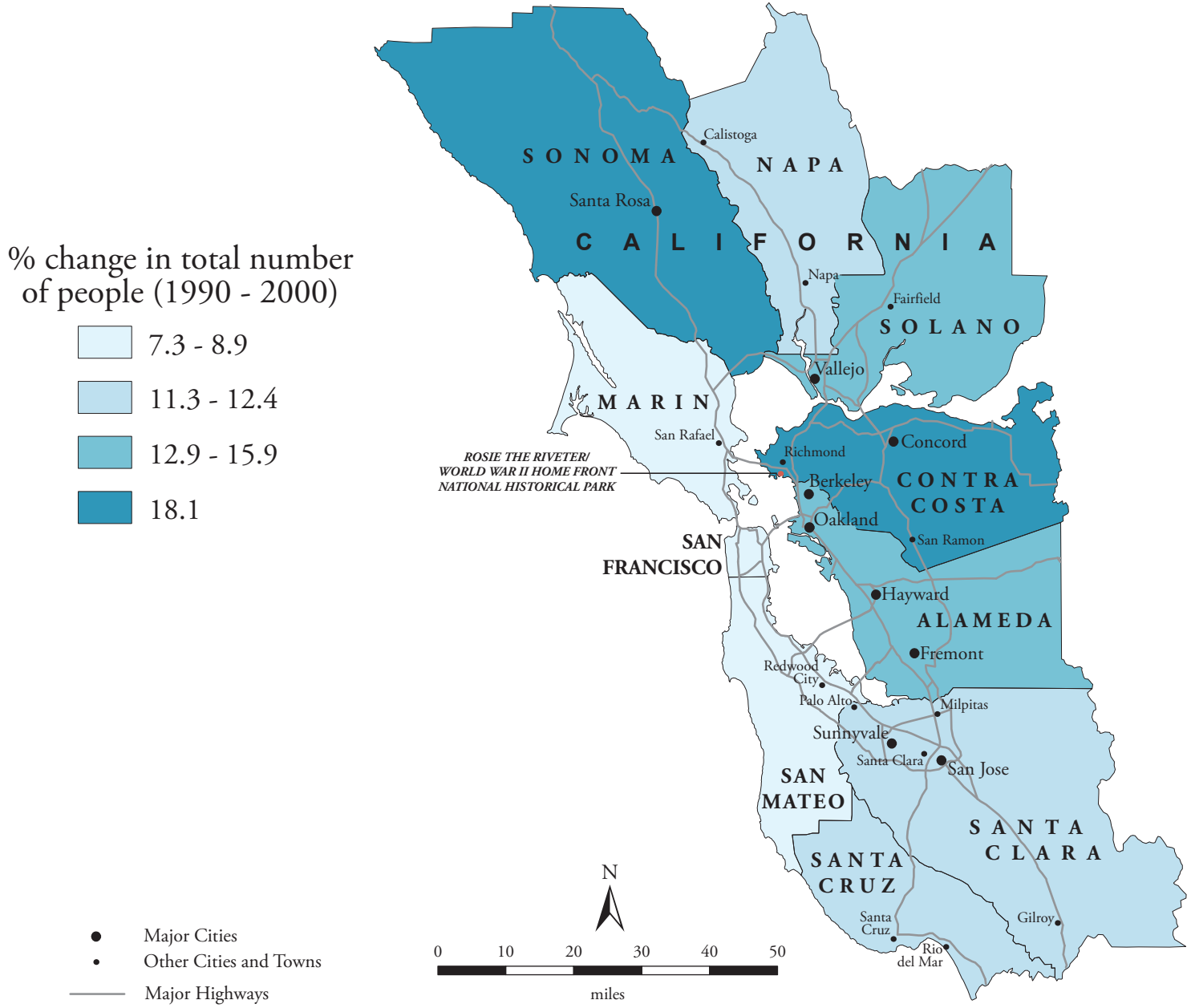


% change in total number of people (1990 - 2000)	
San Francisco	7.3
Marin	7.5
San Mateo	8.9
Santa Cruz	11.3
Napa	12.2
Santa Clara	12.4
Alameda	12.9
Solano	15.9
Sonoma	18.1
Contra Costa	18.1

12.3

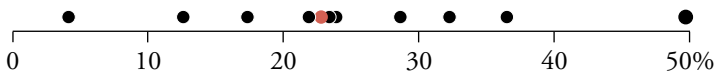
National = 13.2
California = 13.8

Recent Population Change



Projected Population Change

Population projections can be made with some accuracy for short and mid-range time spans. Projections can help planners anticipate potential impacts on park resources. For example, population growth can generate changes in land use and transportation, growth of new and existing communities, and increases in the demand for park experiences. Within the Rosie the Riveter/World War II Home Front NHP region, the projected increase in county population by the year 2020 ranges from 4.2% (San Francisco) to 49.4% (Solano).[2]



Number Line
showing distribution of data

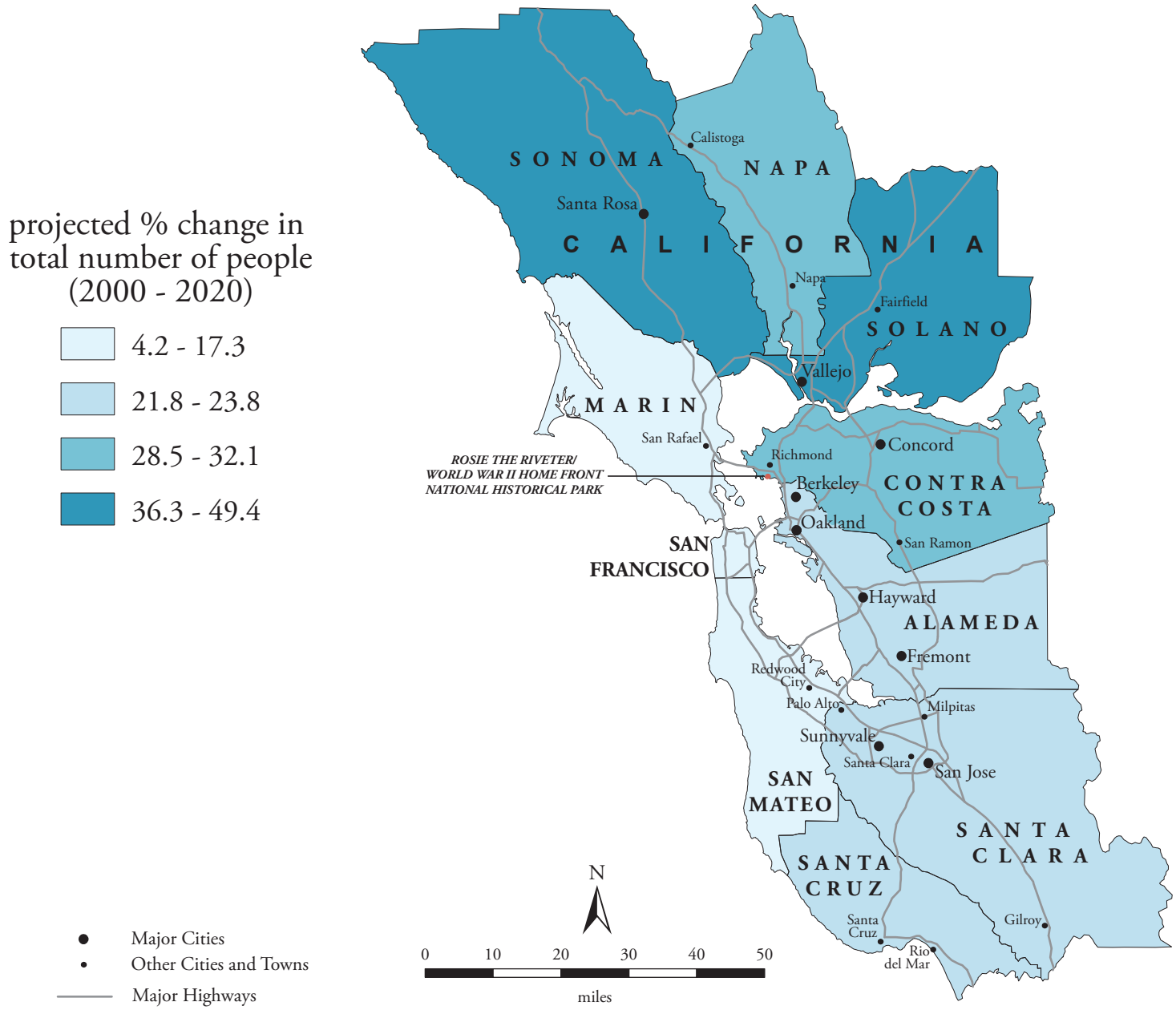
projected % change in total number of people (2000 - 2020)

San Francisco	4.2
Marin	12.6
San Mateo	17.3
Alameda	21.8
Santa Cruz	22.7
Santa Clara	23.8
Napa	28.5
Contra Costa	32.1
Sonoma	36.3
Solano	49.4

23.3

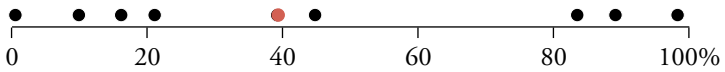
National = 21.1
California = 24.0

Projected Population Change



Historical Population Change

Population change is due to birth, deaths, and migration. Trends in historical population change (1970 - 1990) provide a context from which to view recent population change (1990 - 2000). The direction and rate of population change are important socioeconomic trends. For example, population growth increases the size of the economy and can generate changes in land use that affect natural ecosystems. Within the Rosie the Riveter/World War II Home Front NHP region, county growth rates (1970 - 1990) ranged from 1.2% (San Francisco) to 98.2% (Solano).

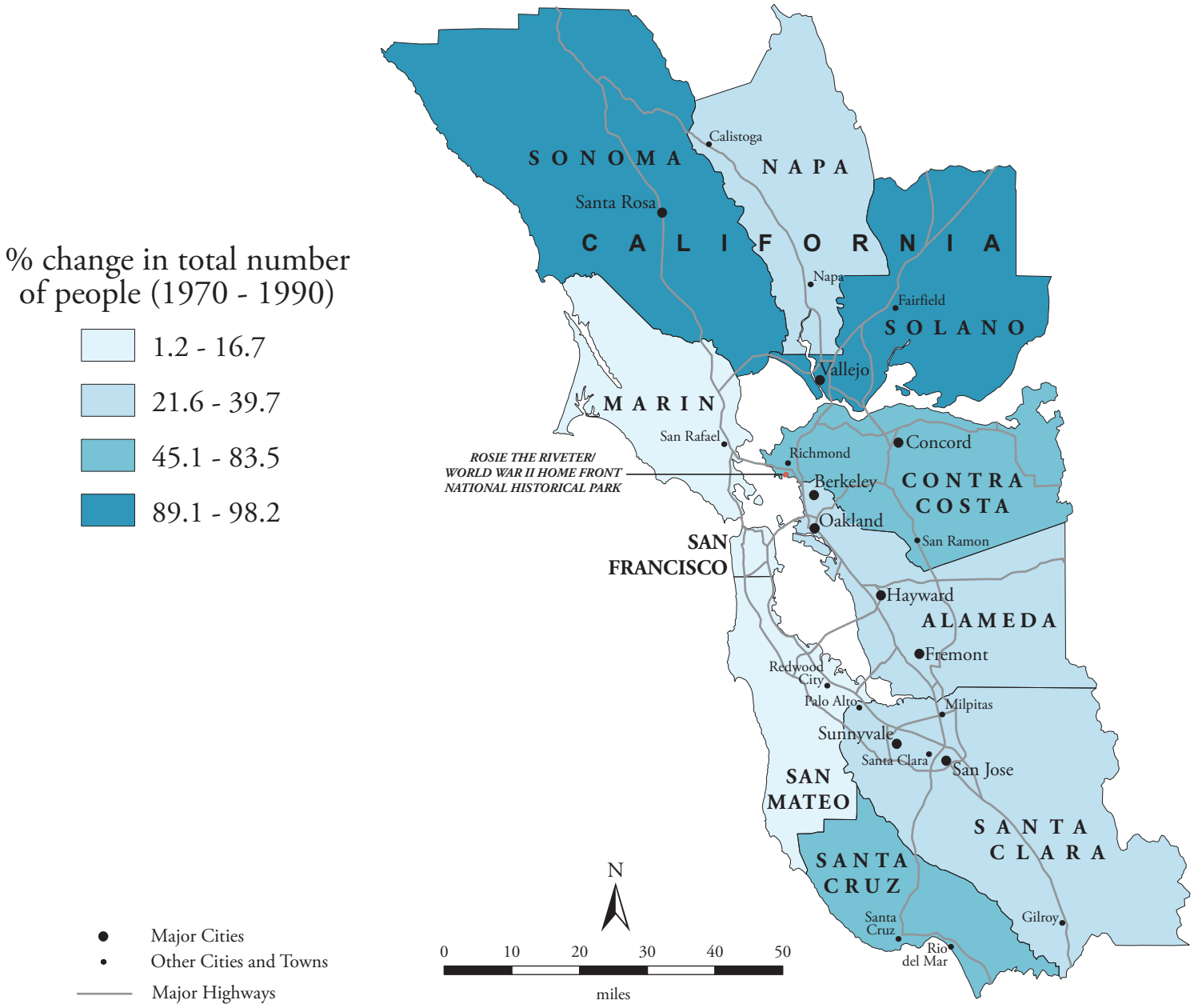


Number Line
showing distribution of data

% change in total number of people (1970 - 1990)	
San Francisco	1.2
Marin	10.5
San Mateo	16.7
Alameda	21.6
Napa	39.6
Santa Clara	**39.7**
Contra Costa	45.1
Santa Cruz	83.5
Sonoma	89.1
Solano	98.2

National = 22.3
California = 49.4

Historical Population Change



Elderly Population

The size of a county's elderly population is measured as the percentage of its residents who are 65 years old and over. In counties with a higher percentage of older people, there may be a higher demand for health care and recreational activities more suited to the elderly. There may also be a net inflow of dollars into the local economy in the form of medical, retirement, and disability payments. Aspects of civic life ranging from volunteerism to political participation may also be influenced by the size of the elderly population. The needs and interests of the regional elderly population can influence park management in many ways, including design of facilities, development of interpretive programs, recruitment of volunteers, and visitor use schedules and preferences. Within the Rosie the Riveter/World War II Home Front NHP region, the percentage of county residents 65 years old and over (2000) ranges from 9.5% (Santa Clara and Solano) to 15.4% (Napa).

% total population 65 years old and over (2000)

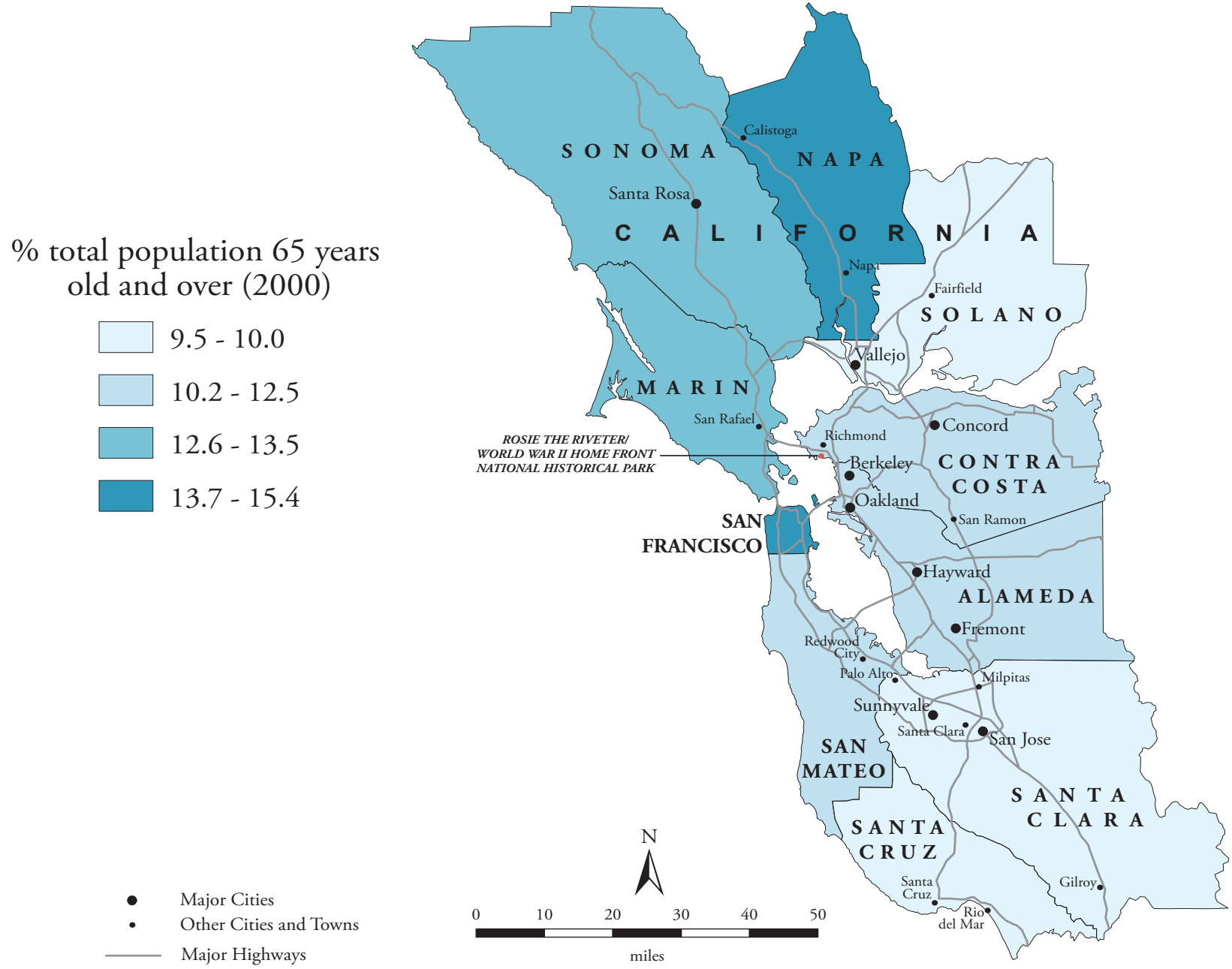
Santa Clara	9.5
Solano	9.5
Santa Cruz	10.0
Alameda	10.2
Contra Costa	11.3
San Mateo	12.5
Sonoma	12.6
Marin	13.5
San Francisco	13.7
Napa	15.4

11.9

National = 12.4
California = 10.6

Number Line
showing distribution of data

Elderly Population



Projected Elderly Population

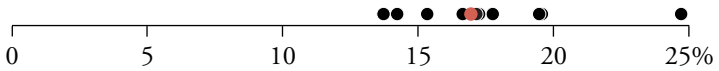
Changes in the percent of the population who are 65 years old and over are projected from recent population data. A variety of factors can lead to increases in the population of elderly residents, including increased longevity due to changes in health care, out-migration by younger people for employment or education, or in-migration by retirees. Planning for increases in an elderly population may include changes in facility design and an expansion of programs that suit the needs and interests of elderly visitors and volunteers.Within the Rosie the Riveter/World War II Home Front NHP region, the projected percentage of county residents 65 years old and over (2020) ranges from 13.8% (Santa Clara) to 24.7% (Marin).

projected % total population 65 years old and over (2020)

Santa Clara	13.8
Alameda	14.3
Solano	15.4
Contra Costa	16.7
San Mateo	17.0
Santa Cruz	17.3
San Francisco	17.8
Sonoma	19.5
Napa	19.6
Marin	24.7

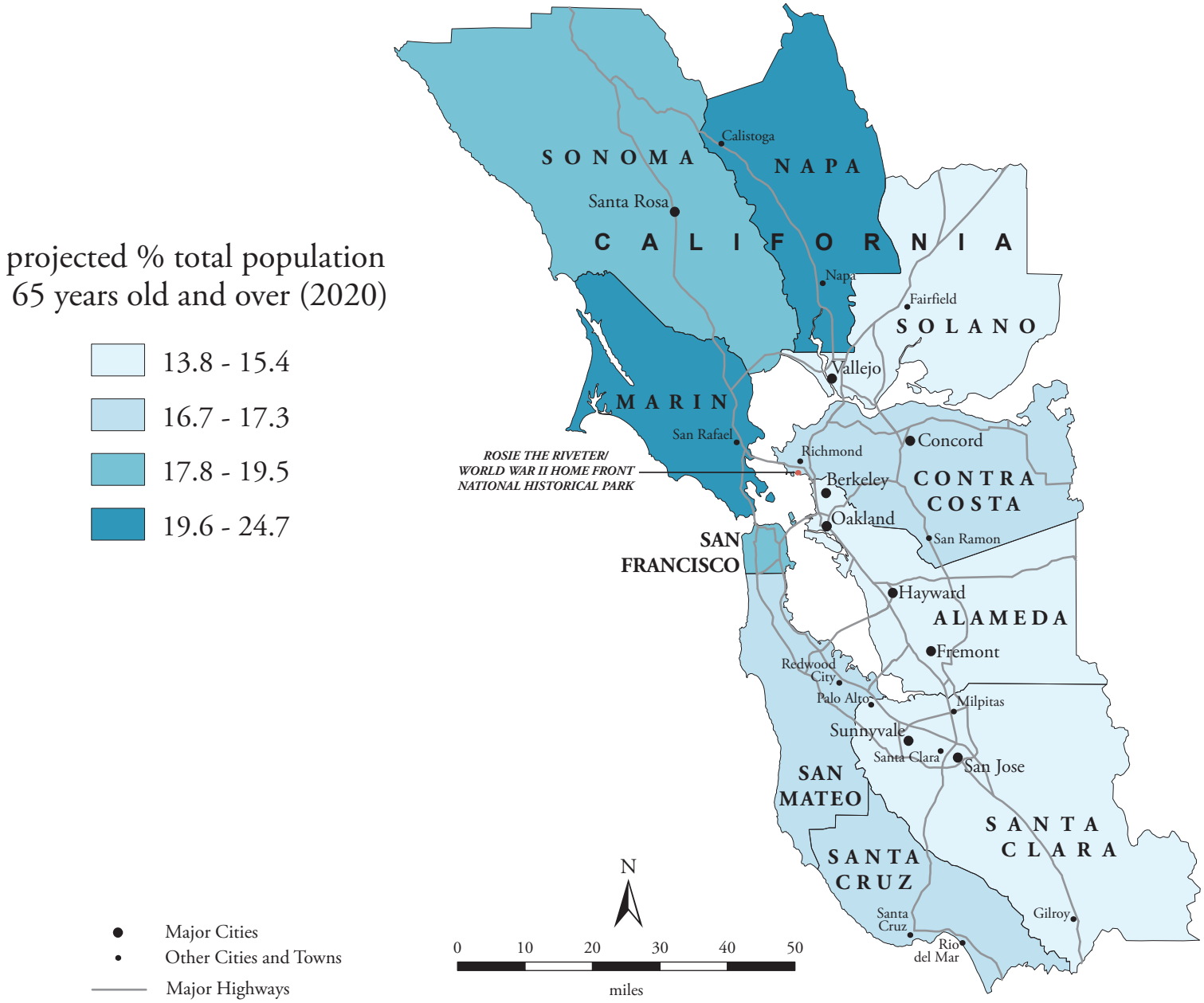
17.2

National = 16.0
California = 14.3



Number Line
showing distribution of data

Projected Elderly Population



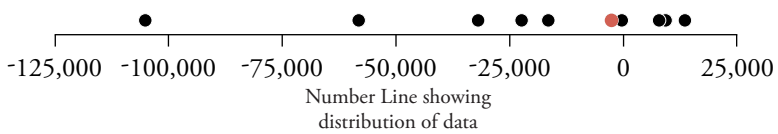
Domestic Migration

Domestic migration measures the net movement of U.S. residents into or out of a county. These indicators provide a way of monitoring whether a county is attracting new residents or losing current residents. Factors that can encourage migration into a county include new industry, recreation or retirement offerings, and suburban development. Out-migration may occur when employment opportunities in an area are reduced or when opportunities elsewhere are more attractive. Domestic migration into the park region can have significant impacts for park management, such as increased visitor use, development pressure on adjacent lands, and new challenges for protecting thematically-related cultural landmarks or natural resources in the park region. Out-migration may reduce demands on park resources. Within the Rosie the Riveter/World War II Home Front NHP region (1995 - 2000), 7 counties experienced net out-migration, and 3 counties experienced net in-migration. These changes ranged from a loss of 105,088 people (Santa Clara) to a gain of 13,481 people (Contra Costa).[3]

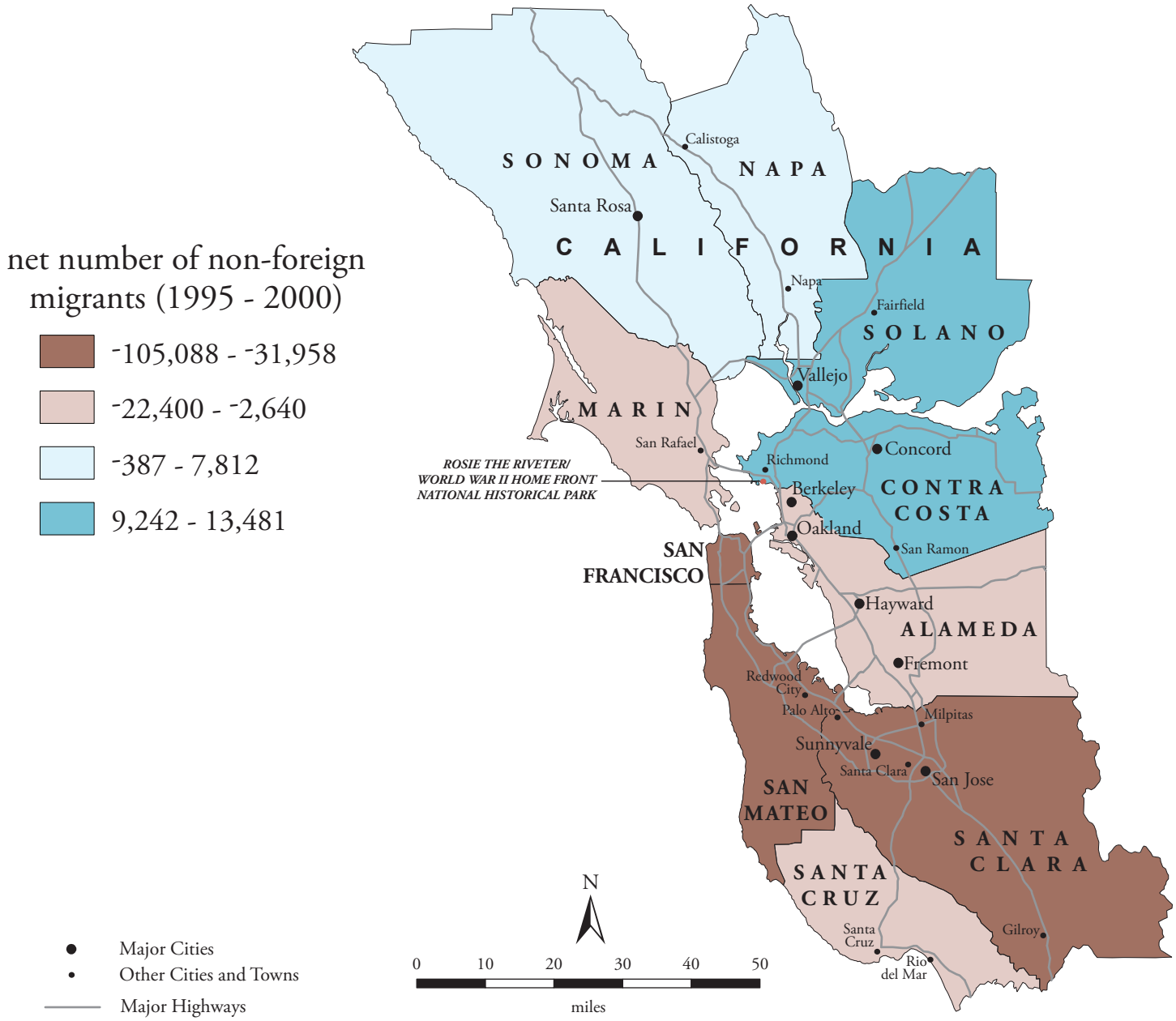
net number of non-foreign migrants (1995 - 2000)	
Santa Clara	-105,088
San Francisco	-58,197
San Mateo	-31,958
Santa Cruz	-22,400
Alameda	-16,535
Marin	-2,640
Napa	-387
Sonoma	7,812
Solano	9,242
Contra Costa	13,481

-9,588

National = 0
California = -755,536

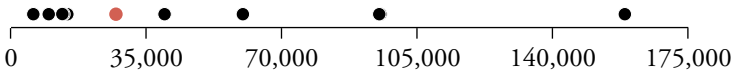


Domestic Migration



International Migration

International migration indicators measure the net movement of immigrants into or out of a county. Such migration can have impacts on park management similar to domestic migration, with the addition of possible cultural and language barriers. Factors that can contribute to an increased number of immigrants within a county are a strong economy or an established community of immigrants. Within the Rosie the Riveter/World War II Home Front NHP region (1990 - 1999), all of the counties experienced net in-migration, with a range of 5,625 (Napa) to 159,055 (Santa Clara).[4]



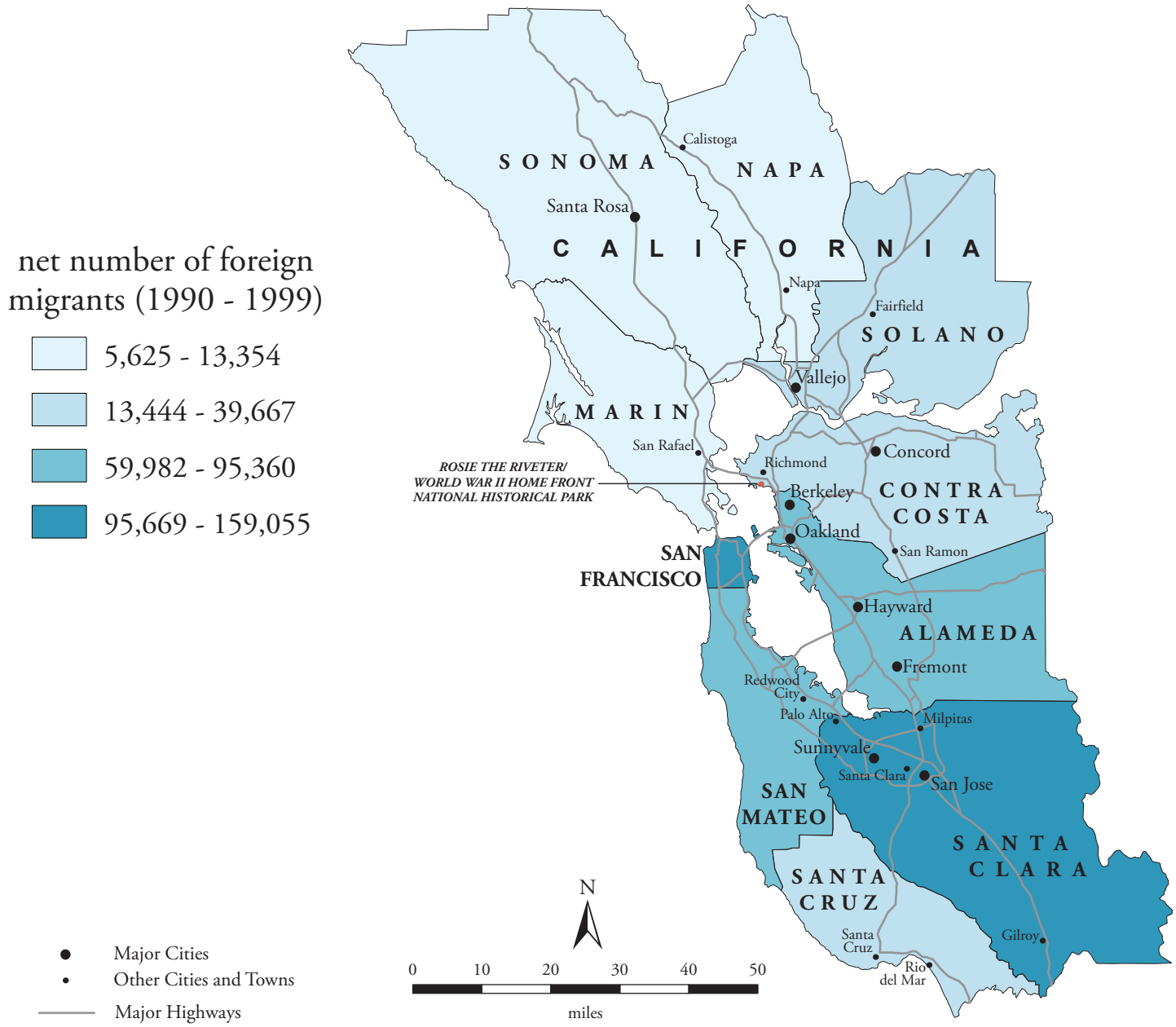
Number Line
showing distribution of data

net number of foreign migrants (1990 - 1999)	
Napa	5,625
Marin	9,623
Sonoma	13,354
Santa Cruz	13,444
Solano	14,447
Contra Costa	39,667
San Mateo	59,982
Alameda	95,360
San Francisco	95,669
Santa Clara	159,055

27,057

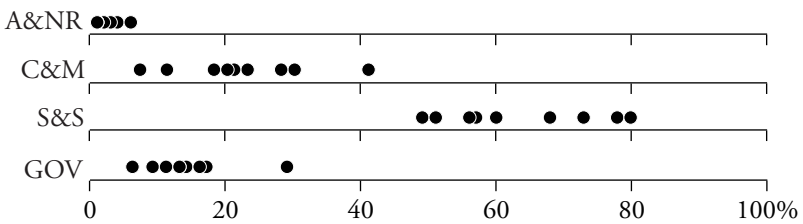
National = 7,478,078
California = 2,280,354

International Migration



Earnings by Industry

Industry earnings are indicative of the overall size of a local economy as well as the relative importance of each major industrial sector within that economy. The diversity of economic activities in the region presents an array of challenges to park management. For example, relatively mobile industries such as light manufacturing or financial services may be concerned with land costs and tax rates, whereas natural resource dependent industries such as farming or mining may be concerned with land use regulations and other environmental policies. Within the Rosie the Riveter/ World War II Home Front NHP region (1999), the leading sector of earnings in all 10 counties is sales and services.[5]



Number Line
showing distribution of data

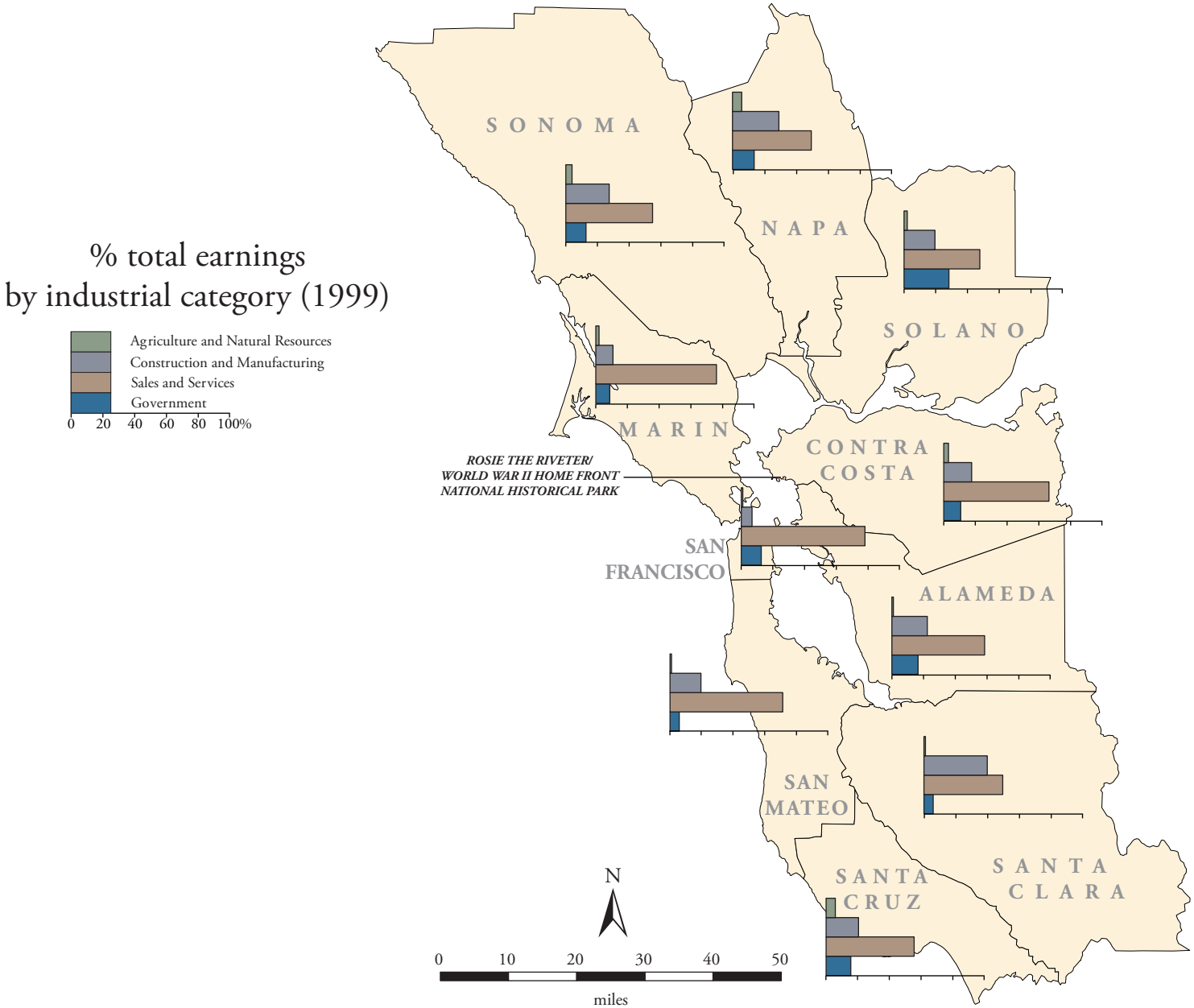
% total earnings
by industrial category (1999)

	A&NR	C&M	S&S	GOV
Alameda	1	23	60	17
Contra Costa	3	18	68	11
Marin	2	11	78	9
Napa	6	30	51	14
San Francisco	1	7	80	13
San Mateo	1	20	73	6
Santa Clara	1	41	51	6
Santa Cruz	6	21	57	16
Solano	2	20	49	29
Sonoma	4	28	56	13
National	2	22	60	16
California	3	41	62	15

A&NR = Agriculture and Natural Resources
C&M = Construction and Manufacturing
S&S = Sales and Services
GOV = Government

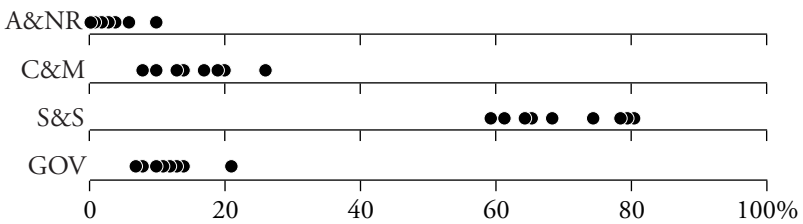
Percentages may not add to one hundred due to rounding.

Earnings by Industry



Employment by Industry

One indicator of the way a particular county's job market is structured is the percentage of workers employed in each of the four major industrial sectors. This employment distribution is indicative of the kinds of skills, knowledge, and concerns that are most prevalent among workers. Occupational patterns can influence people's priorities and actions with regard to parks and resource protection. For example, construction workers might welcome the prospect of rapid growth, whereas government workers such as teachers and police might worry that rapid growth would stress existing government resources. Within the Rosie the Riveter/ World War II Home Front NHP and region (1999), the leading sector of employment in all 10 counties is sales and services.[6]



Number Line
showing distribution of data

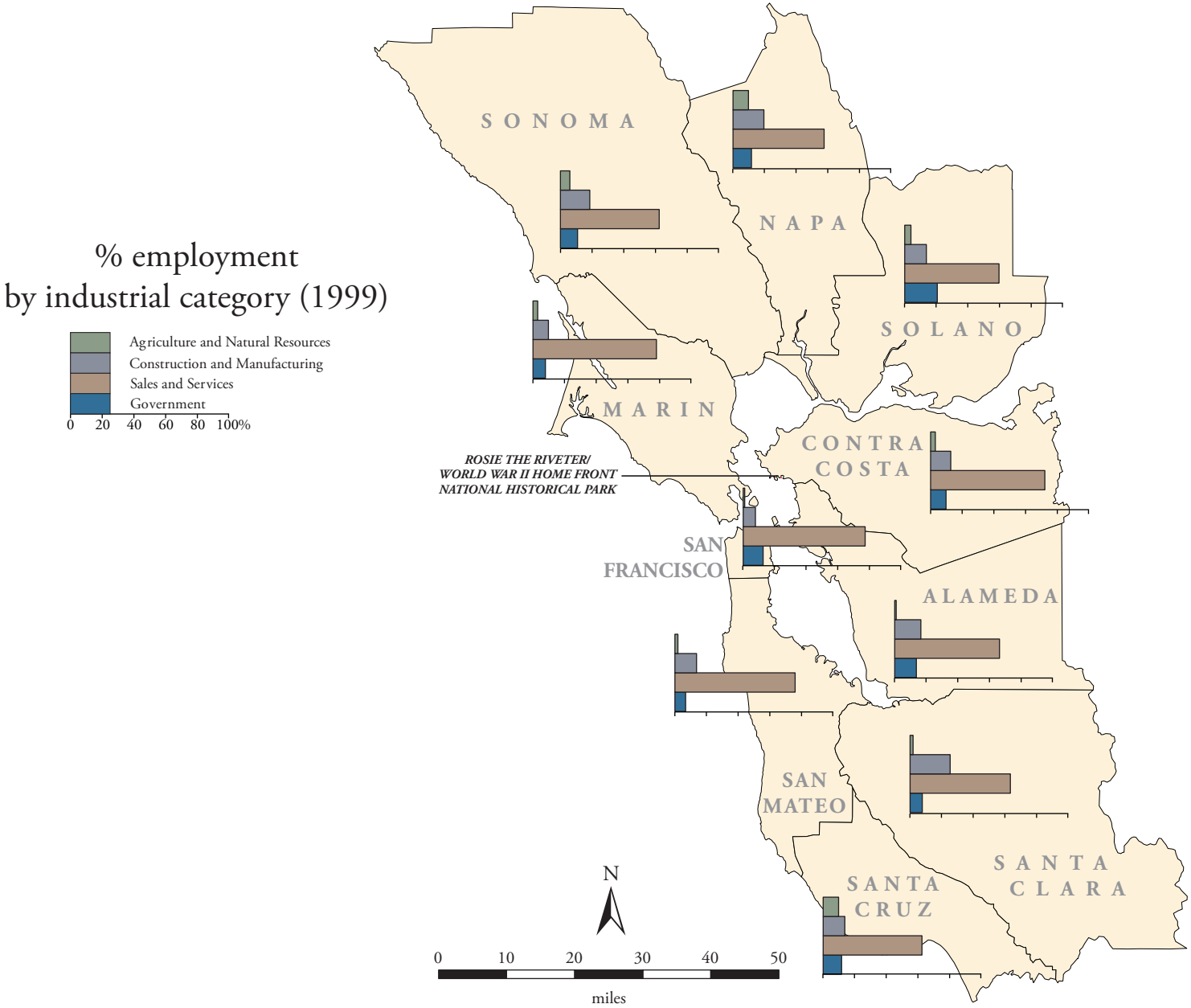
% employment
by industrial category (1999)

	A&NR	C&M	S&S	GOV
Alameda	1	17	68	14
Contra Costa	3	13	74	10
Marin	3	10	80	8
Napa	10	20	59	12
San Francisco	1	8	79	13
San Mateo	2	14	78	7
Santa Clara	2	26	65	8
Santa Cruz	10	14	64	12
Solano	4	14	61	21
Sonoma	6	19	64	11
National	4	17	65	14
California	4	16	67	13

A&NR = Agriculture and Natural Resources
C&M = Construction and Manufacturing
S&S = Sales and Services
GOV = Government

Percentages may not add to one hundred due to rounding.

Employment by Industry



Poverty

Poverty is officially defined as the condition of living in a household with income below the federally-determined poverty threshold ($17,029 in 1999 for a family unit of four people). The extent of poverty can be measured as the percentage of the total population living below that threshold. Those living in poverty can face such difficulties as finding adequate housing and health care, getting enough food, and reaching job sites and government services, including parks. The level of poverty in the park region necessarily becomes significant to park management decisions and priorities. Within the Rosie the Riveter/World War II Home Front NHP region, the incidence of poverty (1999) ranges from 5.8% (San Mateo) to 11.9% (Santa Cruz).[7]

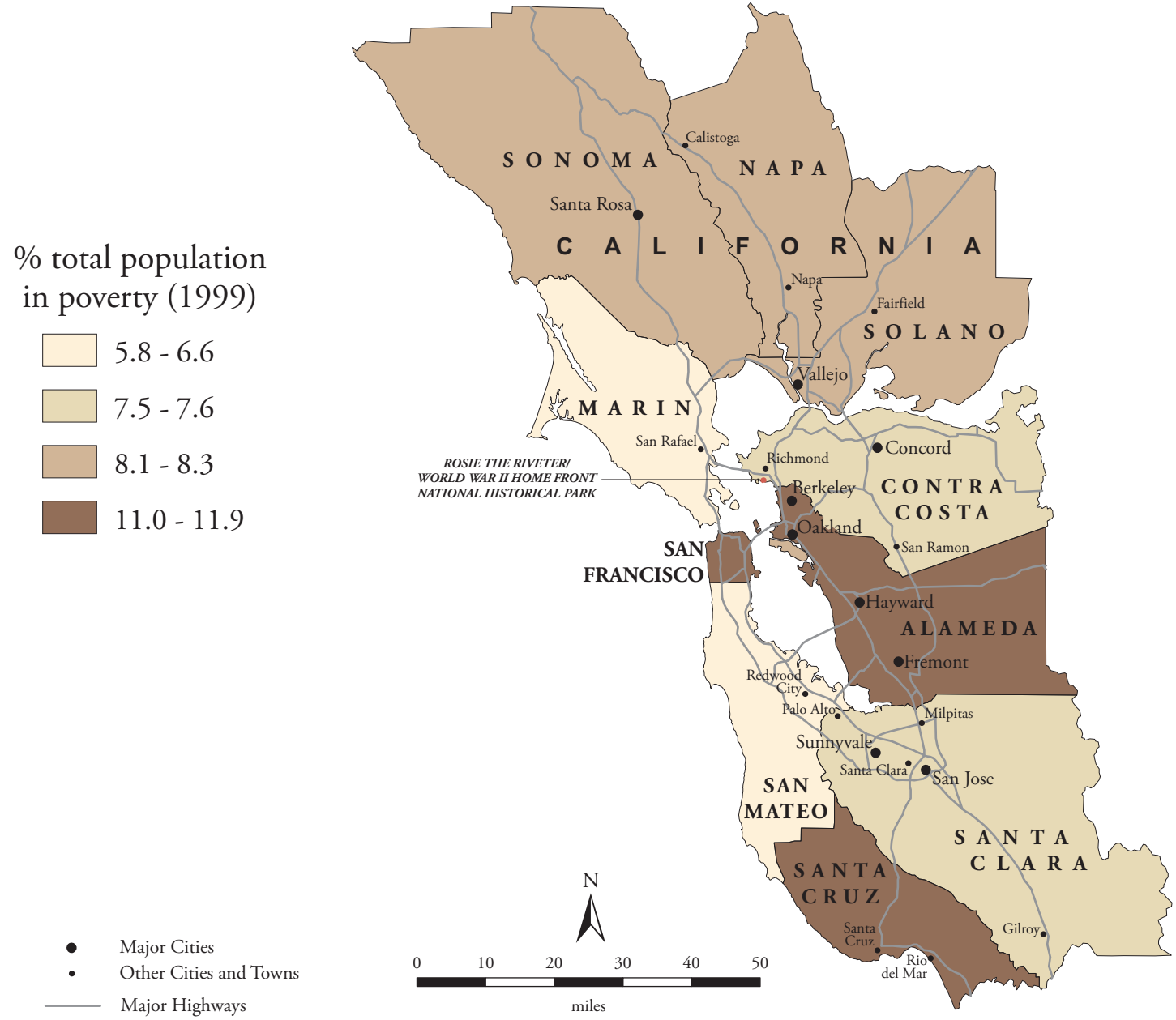
Number Line
showing distribution of data

% total population in poverty (1999)	
San Mateo	5.8
Marin	6.6
Santa Clara	7.5
Contra Costa	7.6
Sonoma	8.1
Napa	8.3
Solano	8.3
Alameda	11.0
San Francisco	11.3
Santa Cruz	11.9

8.2

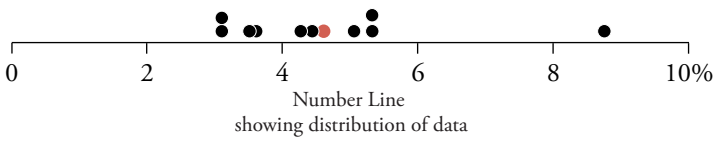
National = 12.4
California = 14.2

Poverty


% total population in poverty (1999)
5.8 - 6.6
7.5 - 7.6
8.1 - 8.3
11.0 - 11.9
SONOMA
NAPA
CALIFORNIA
SOLANO
MARIN
CONTRA COSTA
SAN FRANCISCO
ALAMEDA
SAN MATEO
SANTA CLARA
SANTA CRUZ
Calistoga
Santa Rosa
Napa
Fairfield
Vallejo
San Rafael
Richmond
Concord
Berkeley
Oakland
San Ramon
Hayward
Fremont
Redwood City
Palo Alto
Milpitas
Sunnyvale
Santa Clara
San Jose
Gilroy
Santa Cruz
Rio del Mar
ROSIE THE RIVETER/ WORLD WAR II HOME FRONT NATIONAL HISTORICAL PARK
Major Cities
Other Cities and Towns
Major Highways
N
0 10 20 30 40 50
miles

Home-Based Employment

Since the mid-1980s the Census Bureau has been keeping track of home based employment. The percentage of people who choose to work at home has increased greatly in the past few years. The increased use of the internet and other telecommunication technologies allows not only owners of small businesses and other self-employed individuals but also certain employees from larger businesses to work at home. Within the Rosie the Riveter/World War II Home Front NHP region (2000), the percentage of the employed labor force working at home ranges from 3.1% (Santa Clara and Solano) to 8.8% (Marin).



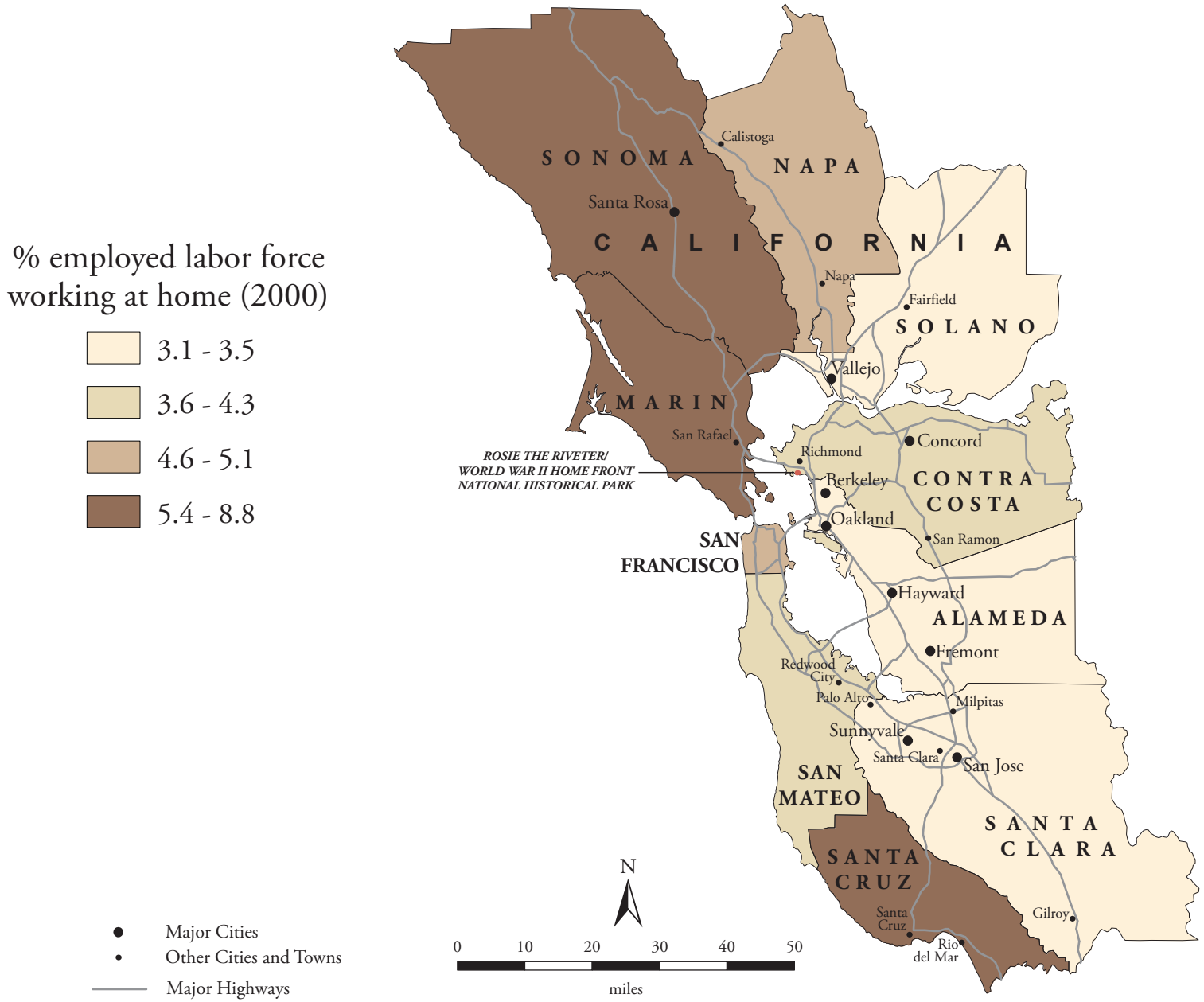
% employed labor force working at home (2000)

Santa Clara	3.1
Solano	3.1
Alameda	3.5
San Mateo	3.6
Contra Costa	4.3
San Francisco	4.6
Napa	5.1
Santa Cruz	5.4
Sonoma	5.4
Marin	8.8

4.5

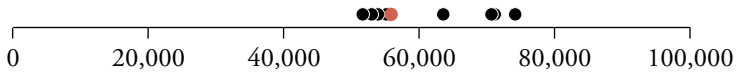
National = 3.2
California = 3.8

Home-Based Employment



Median Household Income

Median household income is indicative of the general level of income among households in a county. The median value exists as the central value in a dataset, with an equal number of observations both above and below the median. General income measures can provide insights into the opportunities and time available for recreation in the park region. Within the Rosie the Riveter/World War II Home Front NHP region, the median household income (1999) ranges from $51,738 (Napa) to $74,335 (Santa Clara).



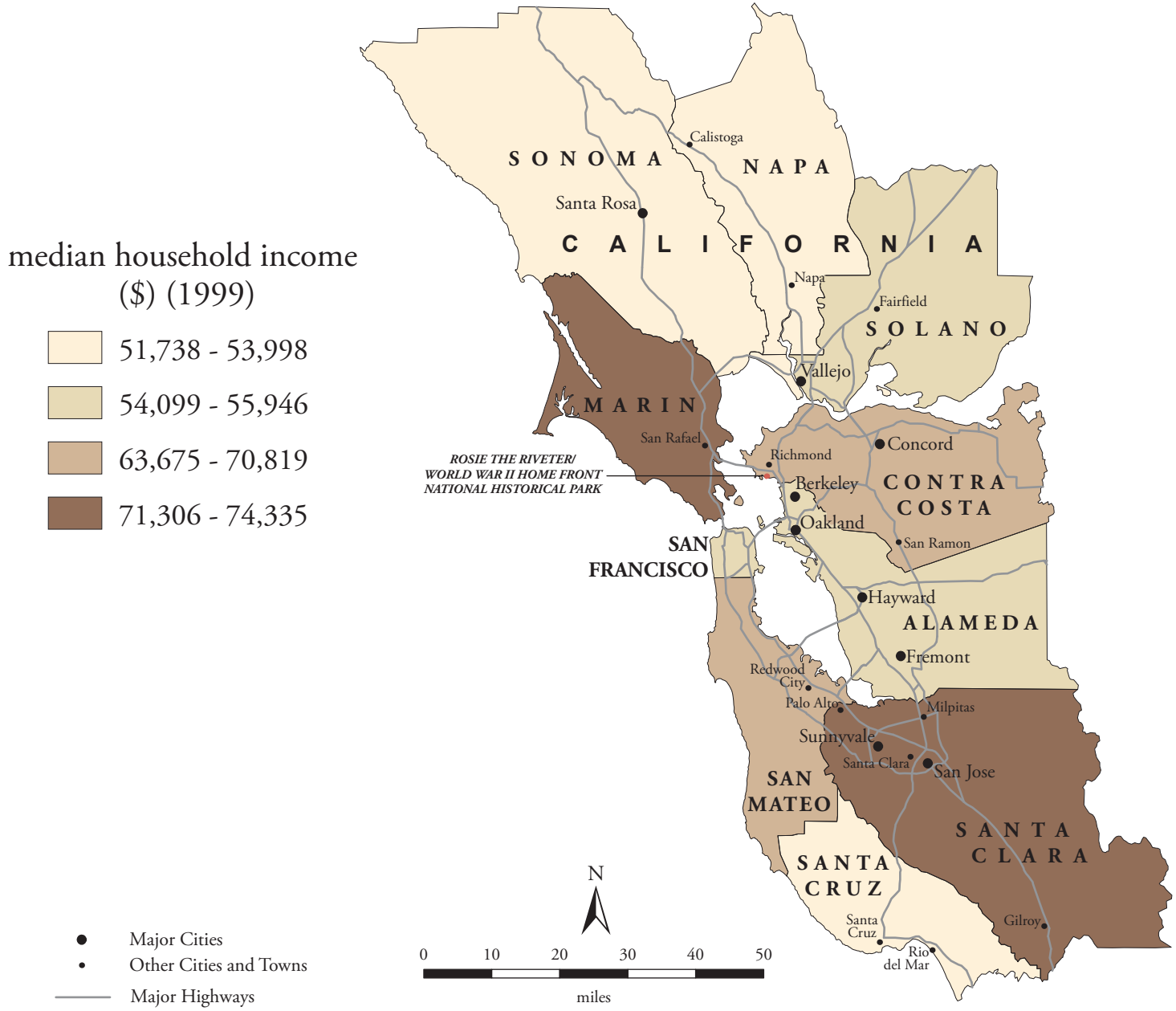
Number Line
showing distribution of data

median household income ($) (1999)	
Napa	51,738
Sonoma	53,076
Santa Cruz	53,998
Solano	54,099
San Francisco	55,221
Alameda	55,946
Contra Costa	63,675
San Mateo	70,819
Marin	71,306
Santa Clara	74,335

55,583

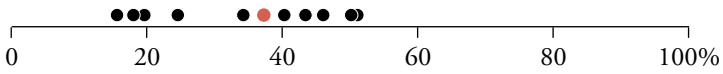
National = 41,994
California = 43,649

Median Household Income



Racial Diversity

Racial diversity is measured as the percentage of the population belonging to minority groups. In the current U.S. context, "minority" is defined as non-White (Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Some Other Race, and Two or More Races). Interactions among people are often influenced by racial identity. Hence, it makes sense for institutions ranging from retailers to police to parks to consider regional racial diversity when recruiting and training staff, when designing public information and educational materials, and when soliciting public involvement in decision-making. Within the Rosie the Riveter/World War II Home Front region, the percentage of racial minorities (2000) ranges from 16.0% (Marin) to 51.2% (Alameda).[8]



Number Line
showing distribution of data

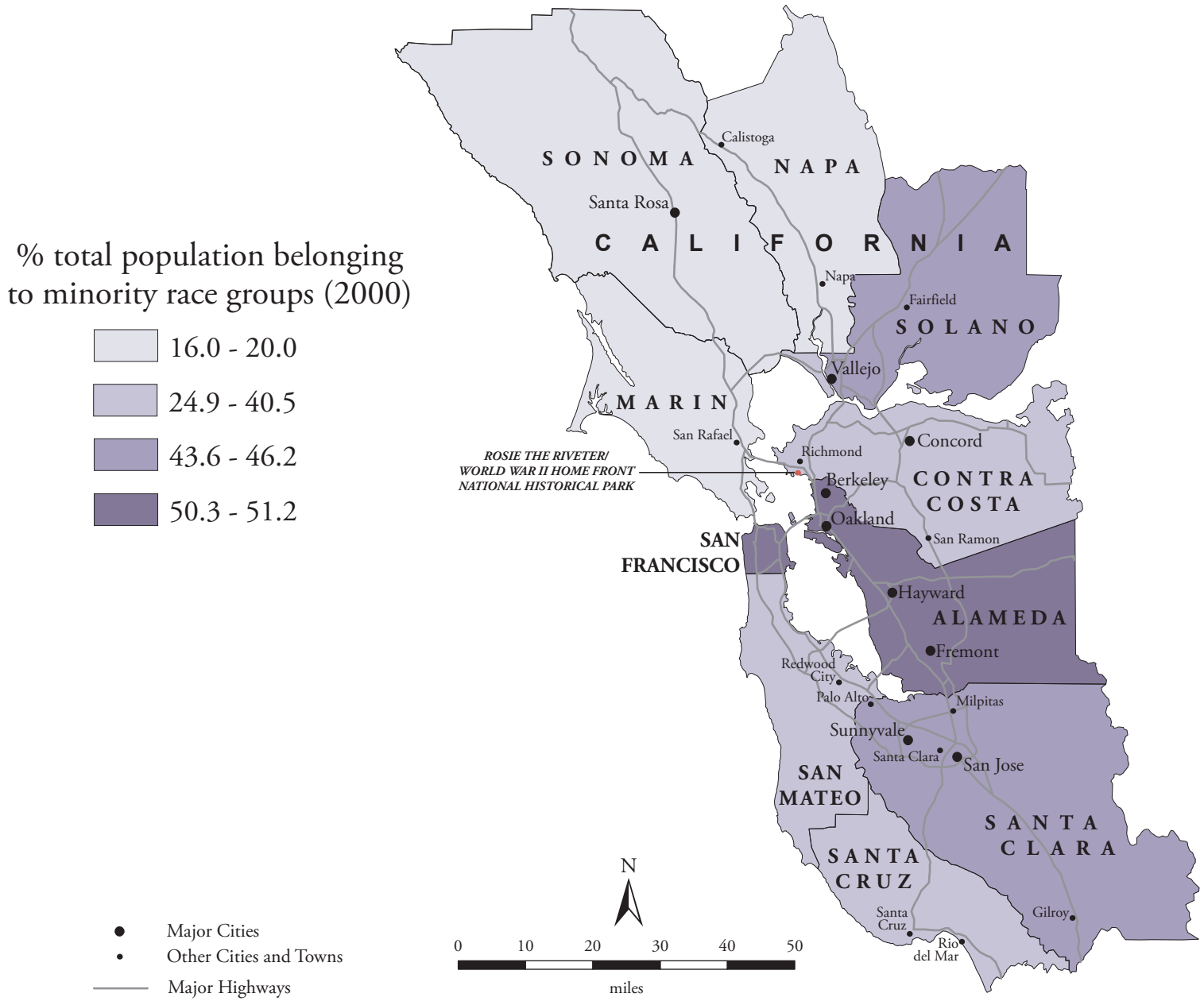
% total population belonging to minority race groups (2000)

Marin	16.0
Sonoma	18.4
Napa	20.0
Santa Cruz	24.9
Contra Costa	34.5
San Mateo	40.5
Solano	43.6
Santa Clara	46.2
San Francisco	50.3
Alameda	51.2

37.5

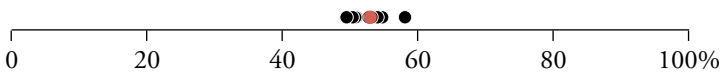
National = 24.9
California = 40.5

Racial Diversity



Educational Attainment

Educational attainment indicators measure the average amount of formal education that a county's residents have received. One indicator of educational attainment is the percentage of adults who have attended or graduated from college. Educational attainment influences many aspects of life, such as how much money people earn, what they do for recreation, where they get their information, and how they participate in civic life. With regard to park management, the educational attainment of the general public is an important consideration in activities, such as marketing, public participation processes, and the design of interpretive programs. Within the Rosie the Riveter/World War II Home Front NHP region, the percentage of adults with some college education (2000) ranges from 49.6% (Alameda) to 58.3% (Marin).[9]



Number Line
showing distribution of data

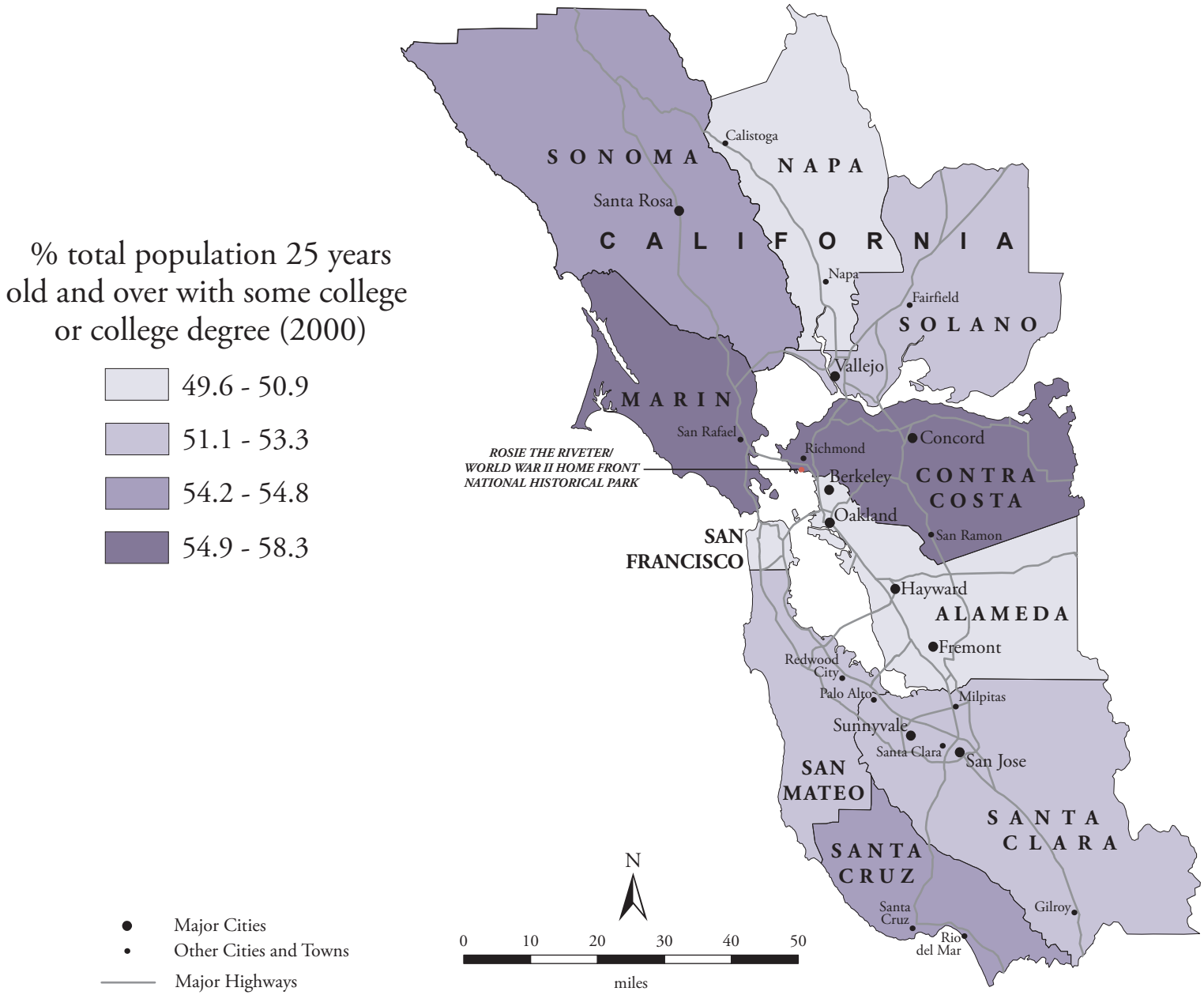
% total population 25 years old and over with some college or college degree (2000)

Alameda	49.6
Napa	50.5
San Francisco	50.9
Santa Clara	51.1
Solano	52.9
San Mateo	53.3
Santa Cruz	54.2
Sonoma	54.8
Contra Costa	54.9
Marin	58.3

53.1

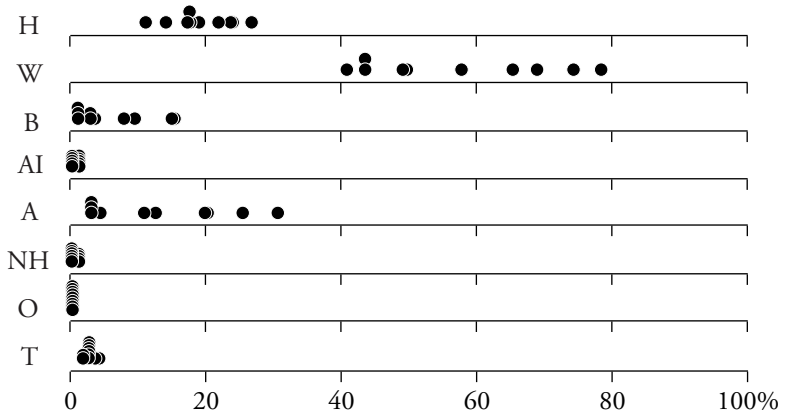
National = 42.9
California = 47.1

Educational Attainment



Racial and Ethnic Composition

Racial and ethnic composition is indicated by the relative size of each of the major race groups and the separate Hispanic ethnic category as classified by the U.S. Census Bureau. These characteristics of the region's population reveal its diversity, which informs park activities such as interpretation and outreach. Within the Rosie the Riveter/World War II Home Front NHP region (2000), non-Hispanic Whites constitute the largest racial group in all 10 counties. Santa Cruz County has the largest percentage of persons of Hispanic or Latino origin.[10]



Number Line
showing distribution of data

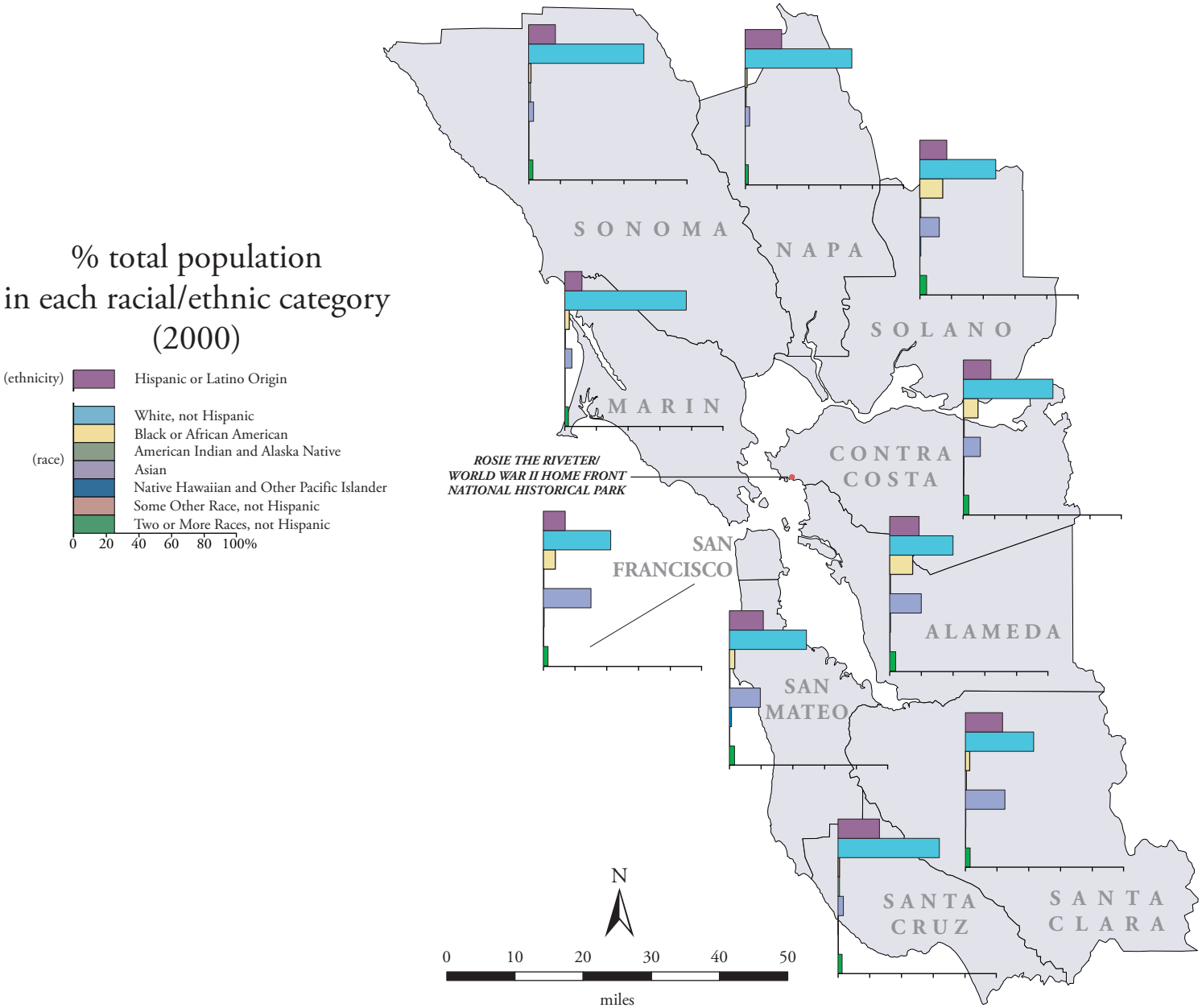
% total population
in each racial/ethnic category
(2000)

	H	W	B	AI	A	NH	O	T
Alameda	19	41	15	1	20	1	0	4
Contra Costa	18	58	9	1	11	0	0	3
Marin	11	79	3	1	5	0	0	2
Napa	24	69	1	0	3	0	0	2
San Francisco	14	44	8	0	31	1	0	3
San Mateo	22	50	4	0	20	1	0	3
Santa Clara	24	44	3	0	26	0	0	3
Santa Cruz	27	66	1	1	3	0	0	3
Solano	18	49	15	0	13	1	0	5
Sonoma	17	75	1	1	3	0	0	3
National	13	69	12	1	4	0	0	2
California	32	47	7	1	11	0	0	3

H = Hispanic or Latino Origin
W = White, not Hispanic
B = Black or African American
AI = American Indian and Alaska Native
A = Asian
NH = Native Hawaiian and Other Pacific Islander
O = Some Other Race, not Hispanic
T = Two or More Races, not Hispanic

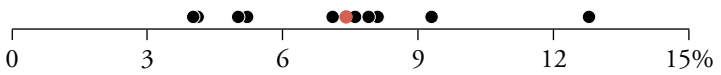
Percentages for race may not add to one hundred due to rounding

Racial and Ethnic Composition



English Language Ability

Indicators of English language ability measure how familiar people are with either spoken or written English. One indicator of English language ability is the percentage of the total county population 5 years old and over that reports that they do not speak English, or do not speak it well. Knowledge of English can influence people's ability to access basic public information, to obtain services such as education and health care, to gain many types of employment, and to exercise political power. An awareness of the characteristics of the region's non-English speaking community can help park managers design effective public relations, public participation, and interpretive programs. Within the Rosie the Riveter/World War II Home Front NHP region, the percentage of people with little or no English language ability (2000) ranges from 4.0% (Marin) to 12.8% (San Francisco).[11]



Number Line
showing distribution of data

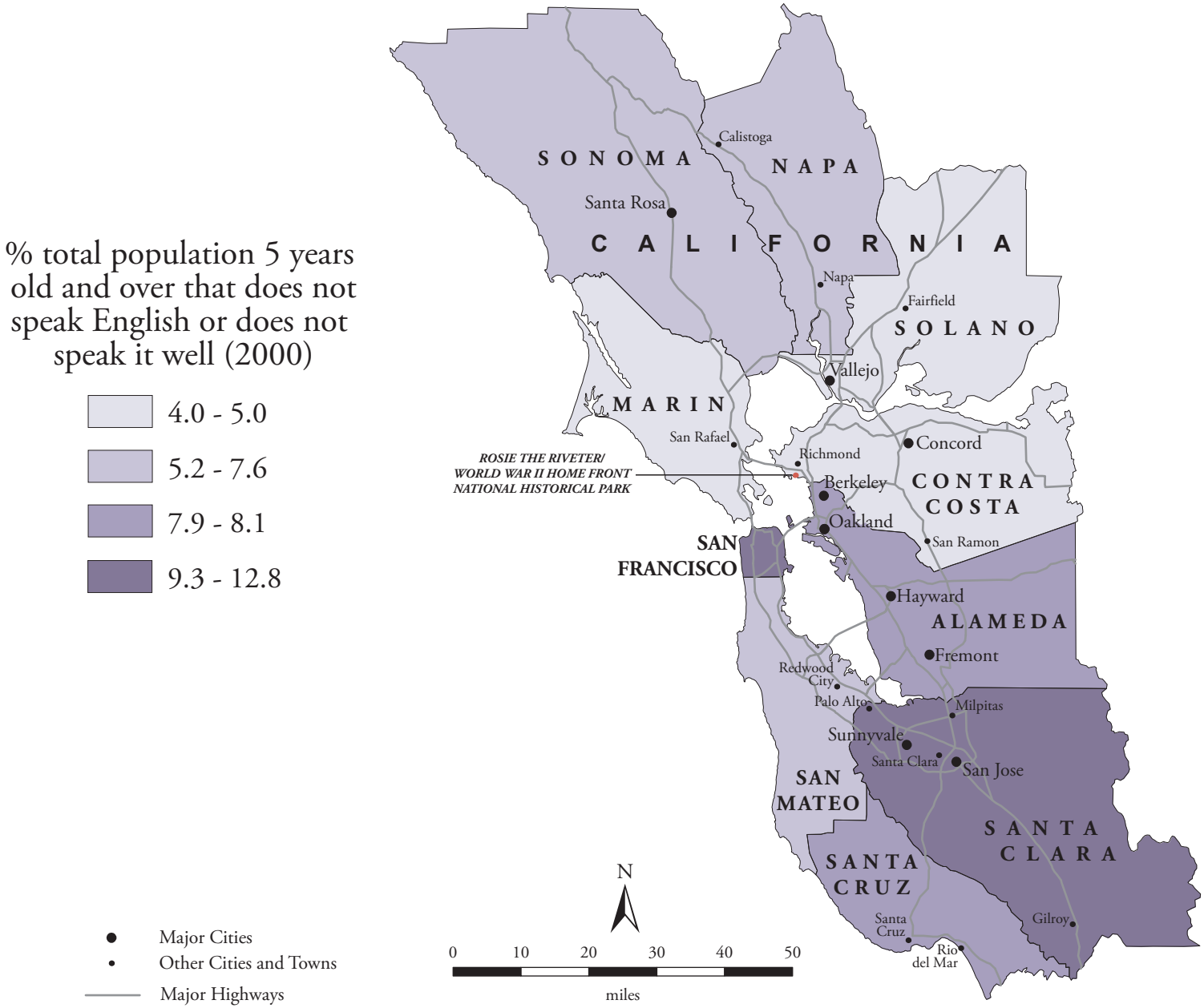
% total population 5 years old and over that does not speak English or does not speak it well (2000)

Marin	4.0
Solano	4.1
Contra Costa	5.0
Sonoma	5.2
Napa	7.1
San Mateo	7.6
Alameda	7.9
Santa Cruz	8.1
Santa Clara	9.3
San Francisco	12.8

7.4

National = 3.9
California = 9.9

English Language Ability



Spanish Speakers

Indicators of language ability measure proficiency in languages other than English. For example, one indicator of Spanish language ability is the percentage of people 5 years old and over that speaks primarily Spanish at home. Awareness of people's primary language (other than English) can help park managers customize information and interpretive programs in a certain language, such as Spanish. Within the Rosie the Riveter/World War II Home Front NHP region, the percentage of the total population 5 years old and over that speak primarily Spanish at home (2000) ranges from 9.5% (Marin) to 22.2% (Santa Cruz).

Number Line
showing distribution of data

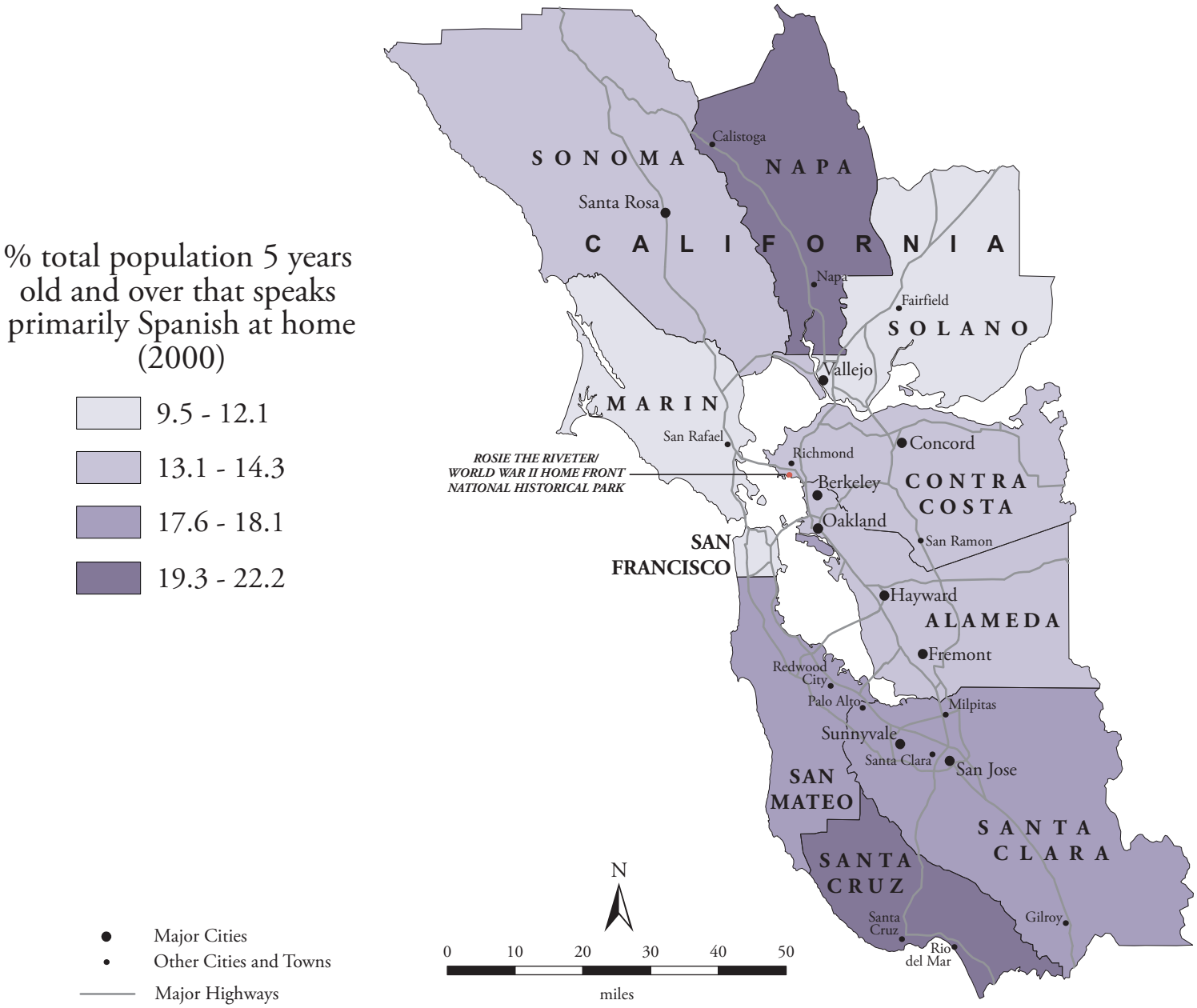
% total population 5 years old and over that speaks primarily Spanish at home (2000)

Marin	9.5
San Francisco	12.0
Solano	12.1
Contra Costa	13.1
Sonoma	13.8
Alameda	14.3
Santa Clara	17.6
San Mateo	18.1
Napa	19.3
Santa Cruz	22.2

14.1

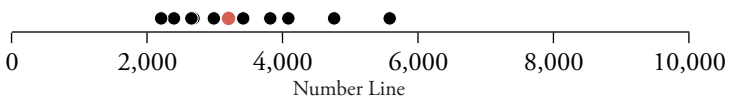
National = 2.6
California = 6.7

Spanish Speakers



Crime

Crime indicators measure the frequency of various types of lawbreaking. One commonly used crime indicator is the number of serious crimes reported per 100,000 people. Serious crimes refer to murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, arson, and motor vehicle theft. A high crime rate has many impacts on the general population, such as higher insurance rates and a reduced sense of security. Crime also affects government by increasing the demand for police, court services, and prisons. Crime presents direct challenges to park management, as the protection of visitors, park property, and resources becomes a greater priority. Within the Rosie the Riveter/World War II Home Front NHP region, the number of serious crimes reported per 100,000 people (2000) ranges from 2,196 (Napa) to 5,597 (San Francisco).



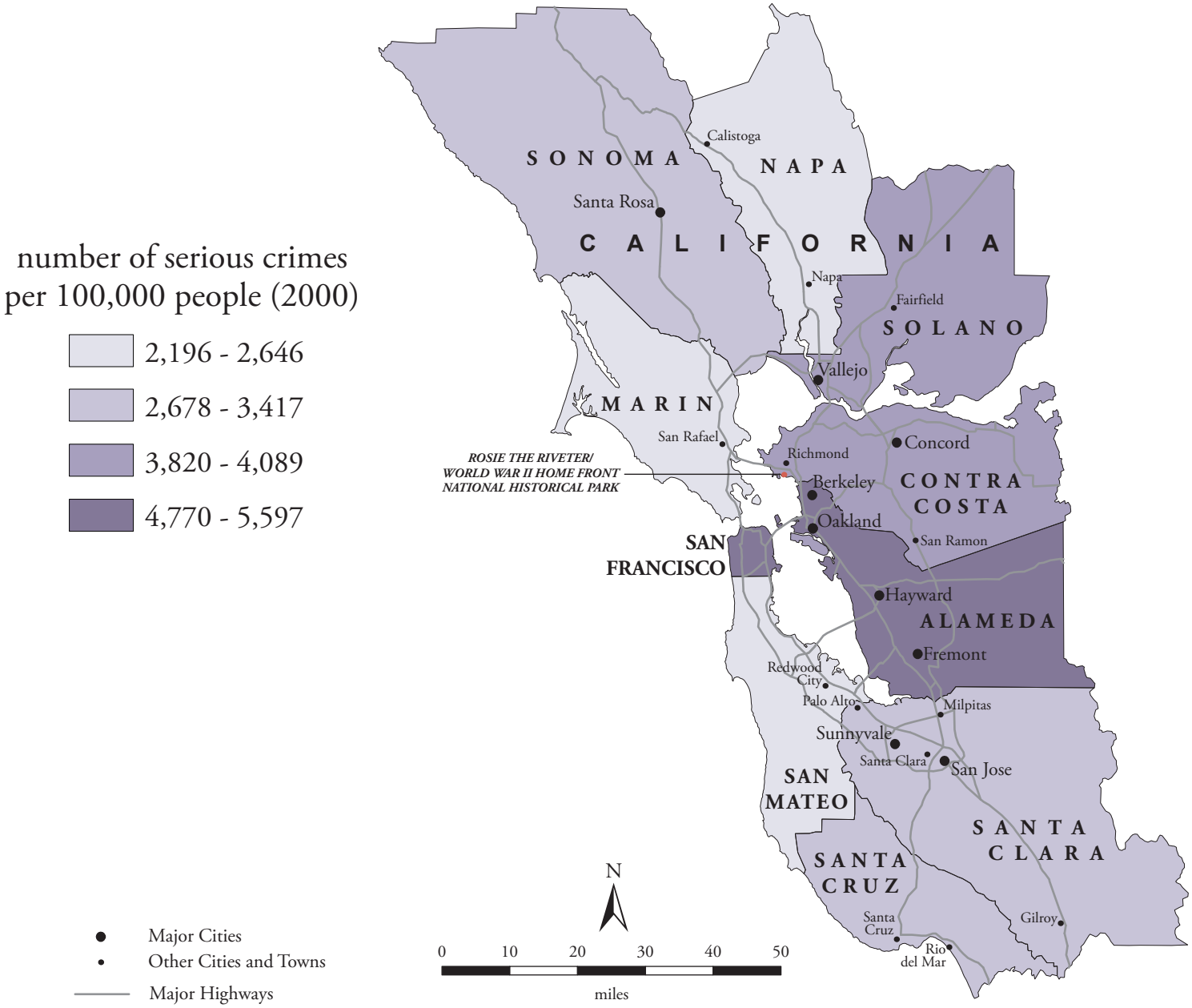
Number Line
showing distribution of data

number of serious crimes per 100,000 people (2000)	
Napa	2,196
Marin	2,387
San Mateo	2,646
Santa Clara	2,678
Sonoma	2,980
Santa Cruz	3,417
Contra Costa	3,820
Solano	4,089
Alameda	4,770
San Francisco	5,597

3,199

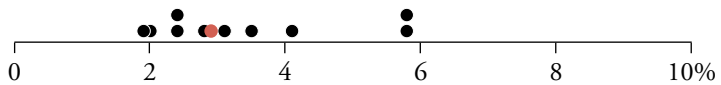
National = N/A
California = 8,810

Crime


number of serious crimes per 100,000 people (2000)
2,196 - 2,646
2,678 - 3,417
3,820 - 4,089
4,770 - 5,597
SONOMA
NAPA
CALIFORNIA
SOLANO
MARIN
CONTRA COSTA
SAN FRANCISCO
ALAMEDA
SAN MATEO
SANTA CLARA
SANTA CRUZ
Calistoga
Santa Rosa
Napa
Fairfield
Vallejo
San Rafael
Richmond
Concord
Berkeley
Oakland
San Ramon
Hayward
Fremont
Redwood City
Palo Alto
Milpitas
Sunnyvale
Santa Clara
San Jose
Santa Cruz
Rio del Mar
Gilroy
ROSIE THE RIVETER/ WORLD WAR II HOME FRONT NATIONAL HISTORICAL PARK
Major Cities
Other Cities and Towns
Major Highways
N
0 10 20 30 40 50
miles

Recreation/Tourism Employment

The significance of the recreation/tourism industry to a county economy can be indicated by the percentage of county workers that it employs. Workers counted as recreation and tourism employees include country club managers, blackjack dealers, campground employees, fishing guides, motel attendants, and other providers of recreation services. A high level of recreation/tourism employment may mean that residents have more disposable income or that the area attracts visitors or vacationers. Within the Rosie the Riveter/World War II Home Front NHP region, the percentage of total paid employees in arts, entertainment, recreation and accommodation services (2001) ranges from 1.9% (Alameda) to 5.8% (San Francisco and Napa).[12]



Number Line
showing distribution of data

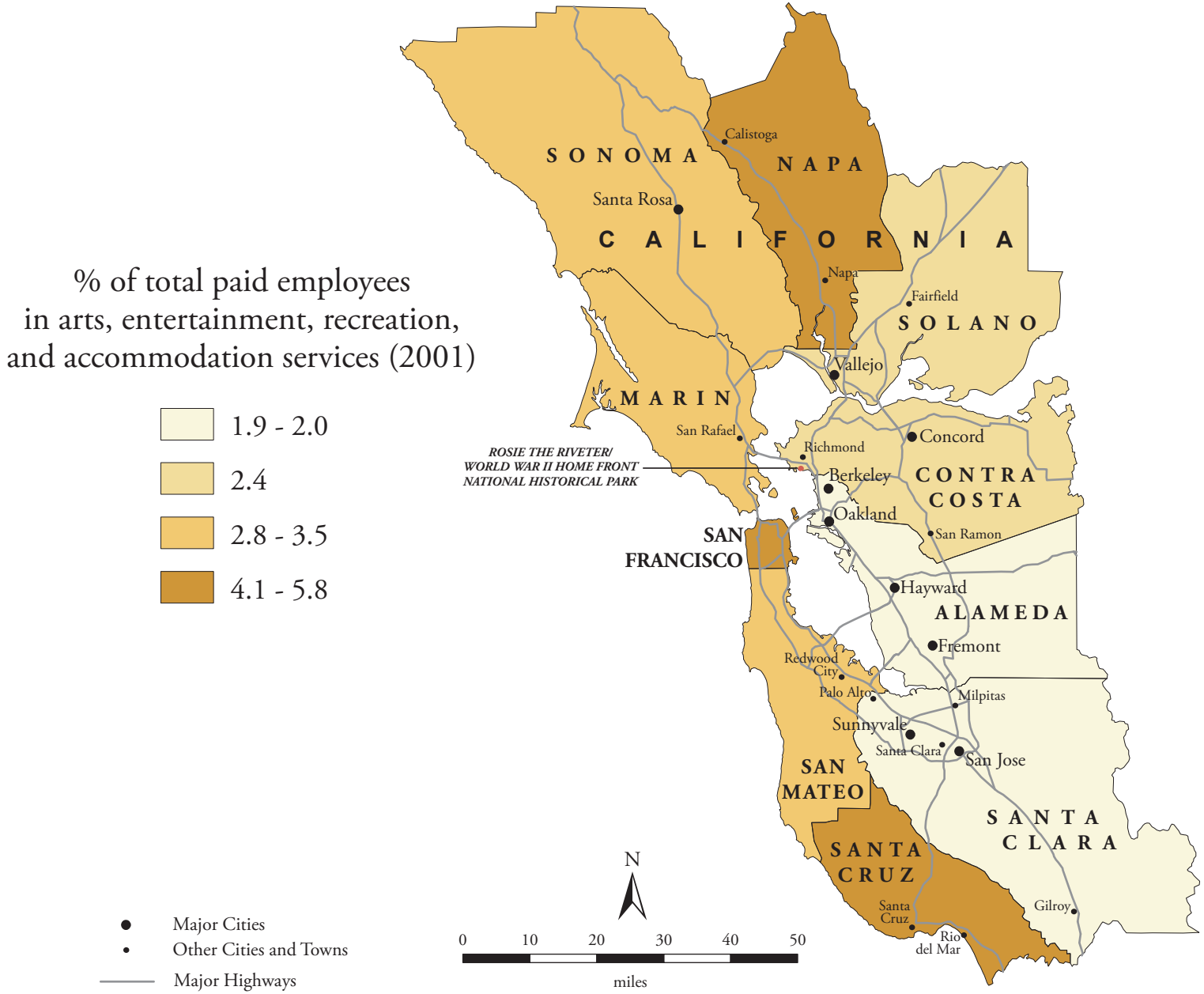
% of total paid employees
in arts, entertainment, recreation,
and accommodation services (2001)

Alameda	1.9
Santa Clara	2.0
Contra Costa	2.4
Solano	2.4
San Mateo	2.8
Marin	3.1
Sonoma	3.5
Santa Cruz	4.1
San Francisco	5.8
Napa	5.8

2.9

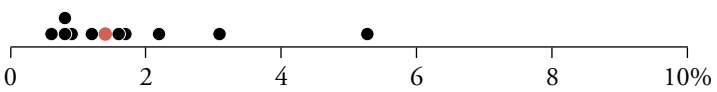
National = 3.1
California = 3.4

Recreation/Tourism Employment



Recreation/Tourism Revenue

Recreation and tourism revenue is a key indicator of the economic importance of recreation and tourism to a county. Recreation and tourism revenue can be expressed as a percentage of total sales and service receipts. Recreation and tourism establishments can occupy an important position within a county economy because they attract visitor dollars from elsewhere. Secondary economic benefits are realized when these dollars are re-spent within the local economy or deposited in banks, where they provide capital to other businesses. Within the Rosie the Riveter/World War II Home Front NHP region, the percentage of total sales from arts, entertainment, recreation and accommodation services (1997) ranges from 0.6% (Santa Clara) to 5.3% (San Francisco).[13]



Number Line
showing distribution of data

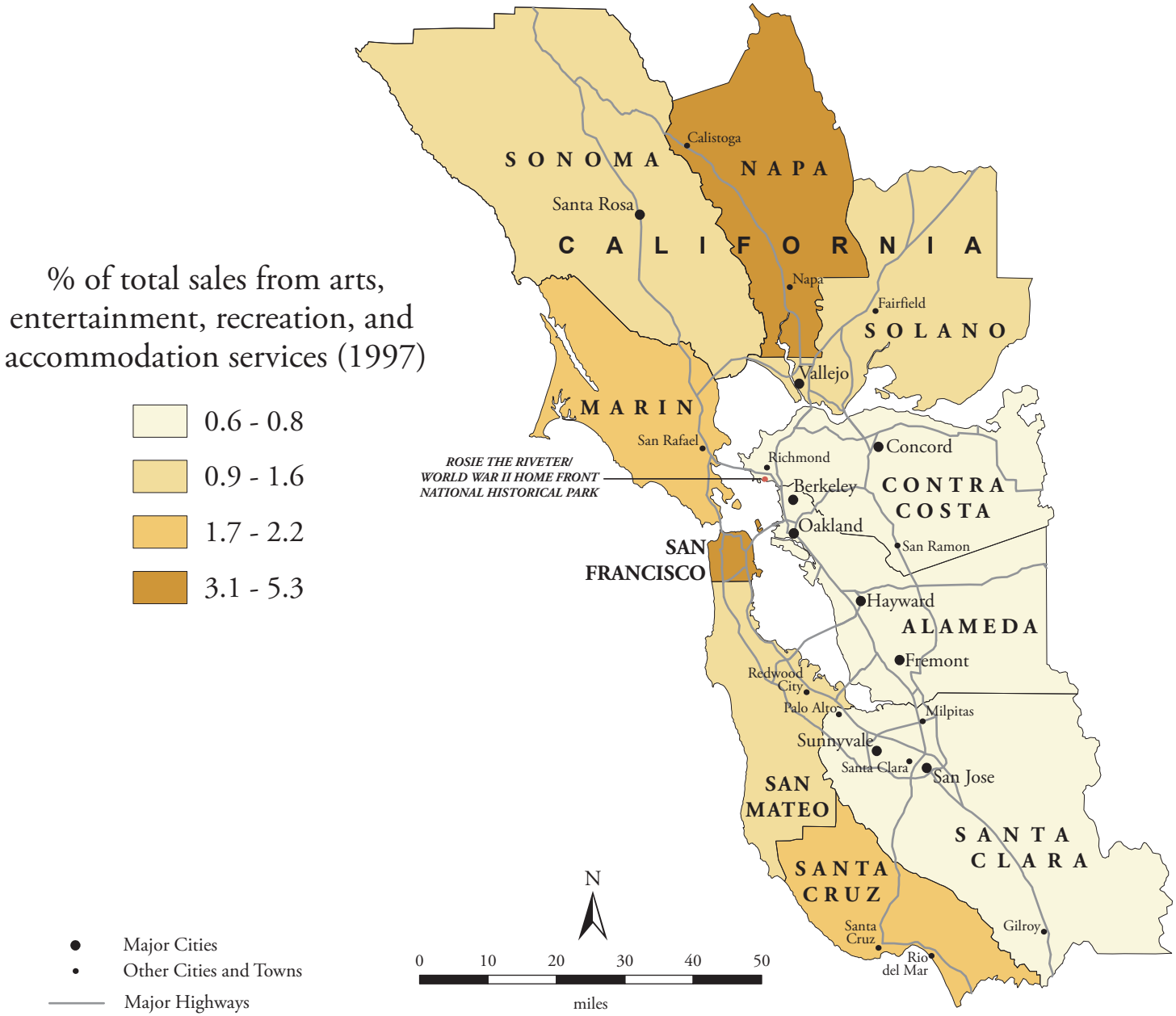
% of total sales from arts, entertainment, recreation, and accommodation services (1997)

Santa Clara	0.6
Contra Costa	0.8
Alameda	0.8
Solano	0.9
Sonoma	1.2
San Mateo	1.6
Santa Cruz	1.7
Marin	2.2
Napa	3.1
San Francisco	5.3

1.4

National = 2.0
California = 1.6

Recreation/Tourism Revenue



Recreation/Tourism Establishments

The recreation and tourism industry is composed of two categories: arts, entertainment, and recreation sector (ranging from museums and concerts, to sporting events and amusement parks) and accommodation subsector (ranging from hotels to campsites). Recreation and tourism indicators measure the size of the recreation and tourism industry as a share of the overall sales and services sector of the economy. The size of that share is a broad indicator of a county's economic reliance on recreation and tourism. Recreation and tourism establishments can be proponents of actions that enhance their area's attractiveness as a visitor destination (such as transportation improvements, protection of scenic or cultural landmarks, or marketing campaigns). Recreation and tourism establishments also can be vulnerable to, and thus wary of, actions, policies, or chance events that could affect business, such as visitor use restrictions, fires, or economic downturns. Within the Rosie the Riveter/World War II Home Front NHP region, the percentage of total establishments in arts, entertainment, recreation and accommodation (2001) ranges from 1.5% (Santa Clara) to 3.8% (Napa).[14]

Number Line
showing distribution of data

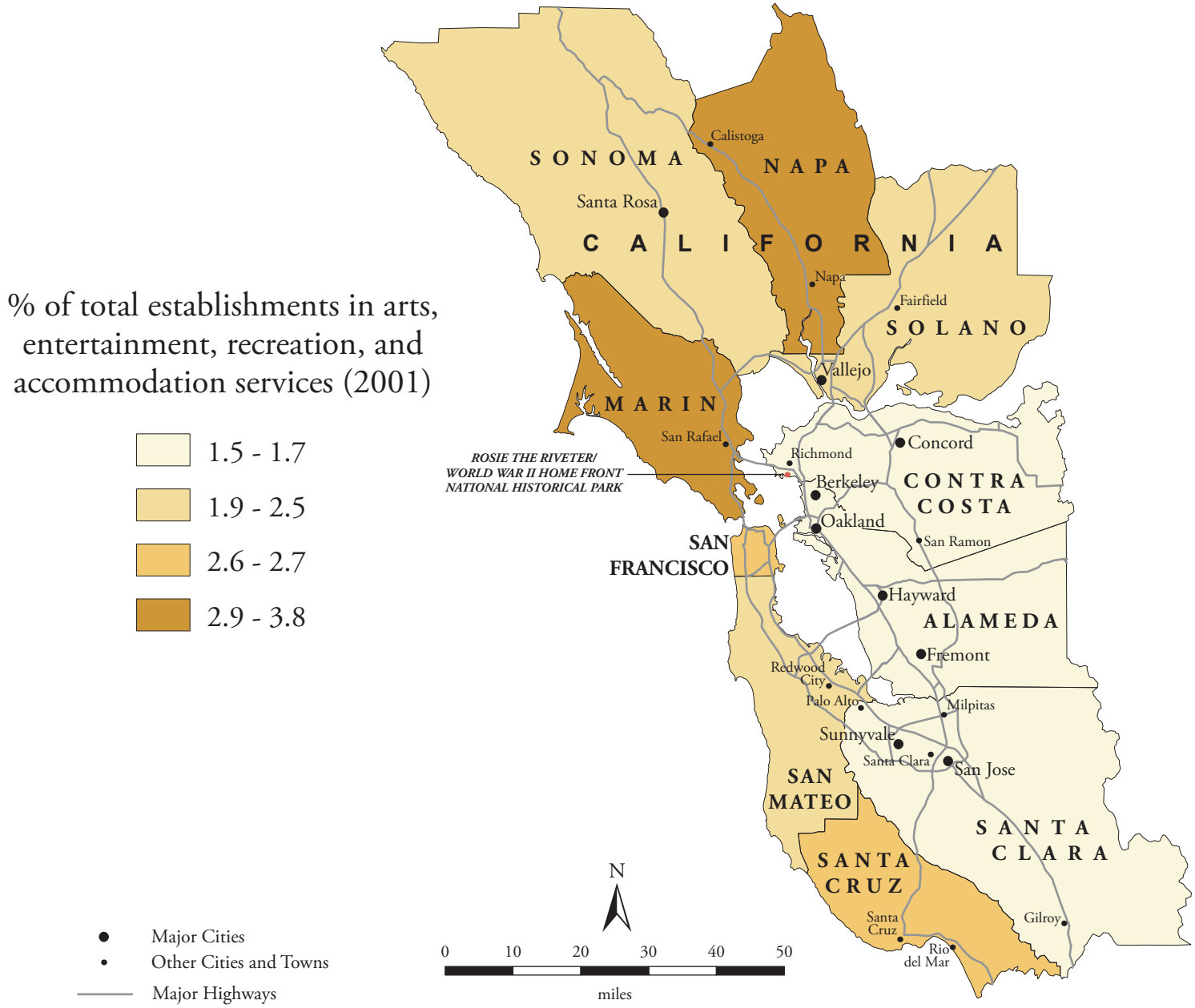
% of total establishments in arts, entertainment, recreation, and accommodation services (2001)

Santa Clara	1.5
Alameda	1.6
Contra Costa	1.7
San Mateo	1.9
Solano	2.2
Sonoma	2.5
San Francisco	2.6
Santa Cruz	2.7
Marin	2.9
Napa	3.8

2.3

National = 2.3
California = 2.7

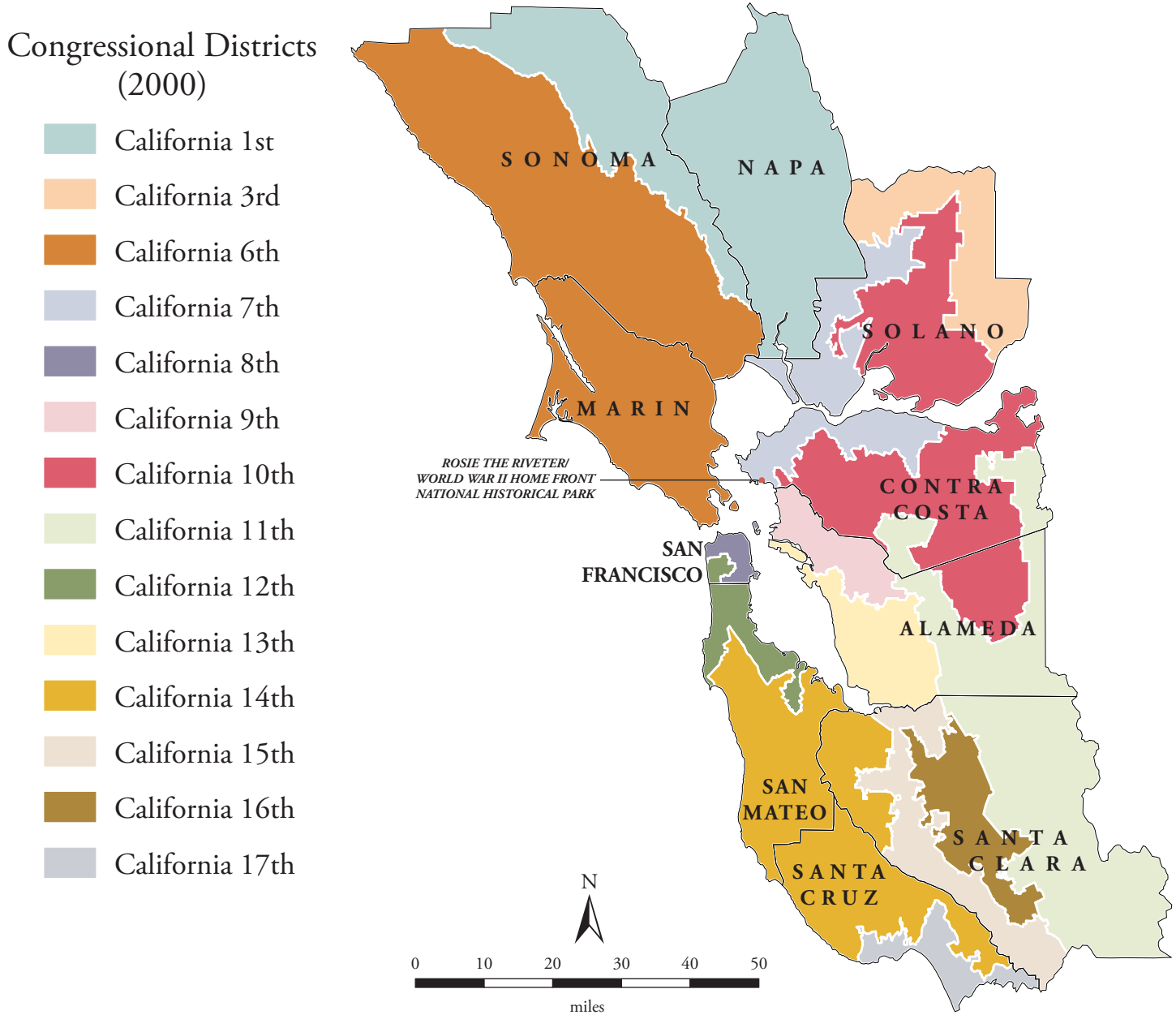
Recreation/Tourism Establishments



Congressional Districts

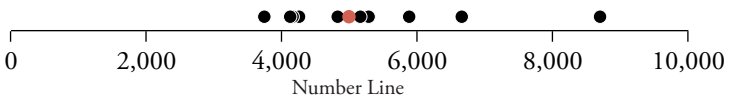
Congressional districts form a key layer in the political structure of a region of interest for a park. These districts, roughly equivalent in population, are defined by state legislatures based on the national census and redrawn every ten years. Members of Congress are key points of access for citizens seeking to influence federal-level policies and programs, including those related to federal lands such as national parks and national forests. The Rosie the Riveter/World War II Home Front NHP region includes all or portions of 15 Congressional districts, all of which are in California and are based on Census 2000.

Congressional Districts



Federal Expenditures

The importance of the federal government to a county economy can be indicated by the amount of federal expenditures per person. These expenditures can be a key source of dollars flowing into the county economy (in contrast, taxes and fees are an outflow of dollars). Federal spending can influence the park region through such wide-ranging initiatives as agricultural subsidies, social programs, military bases, and national parks. Within the Rosie the Riveter/World War II Home Front NHP region, federal expenditures per person (2002) range from $3,768 (Santa Cruz) to $8,686 (San Francisco).[15]



Number Line
showing distribution of data

federal expenditures per capita ($) (2002)	
Santa Cruz	3,768
Contra Costa	4,147
Sonoma	4,183
San Mateo	4,277
Napa	4,843
Solano	5,174
Marin	5,296
Santa Clara	5,890
Alameda	6,660
San Francisco	8,686

5,008

National = 6,650
California = 5,878

Federal Expenditures

federal expenditures per capita ($) (2002)

- 3,768 - 4,183
- 4,277 - 5,174
- 5,296 - 5,890
- 6,660 - 8,686

- Major Cities
- Other Cities and Towns
- Major Highways

Federal Grants

Federal grants are a specific type of spending, generally intended to assist local governments in carrying out major capital projects or program enhancements. These grants differ from other federal expenditures in that they are centrally received and administered (as opposed to individual wages and loans), are short-term disbursements (as opposed to entitlement programs), and are not exchanged for any goods or services (as opposed to salaries and procurement). Federal grants represent an important short-term flow of dollars into a county. If a county receives a relatively high percentage of federal expenditures in the form of grants, this may indicate that other types of federal spending in the county are relatively limited. It also may indicate that the county has a relatively greater need for grant-funded projects and programs such as roads, sewage treatment, and school subsidies. Within the Rosie the Riveter/World War II Home Front NHP region, the percentage of federal expenditures received in the form of grant awards (2002) ranges from 13.5% (Solano) to 33.8% (San Francisco).[16]

% total federal expenditures received as grant awards (2002)

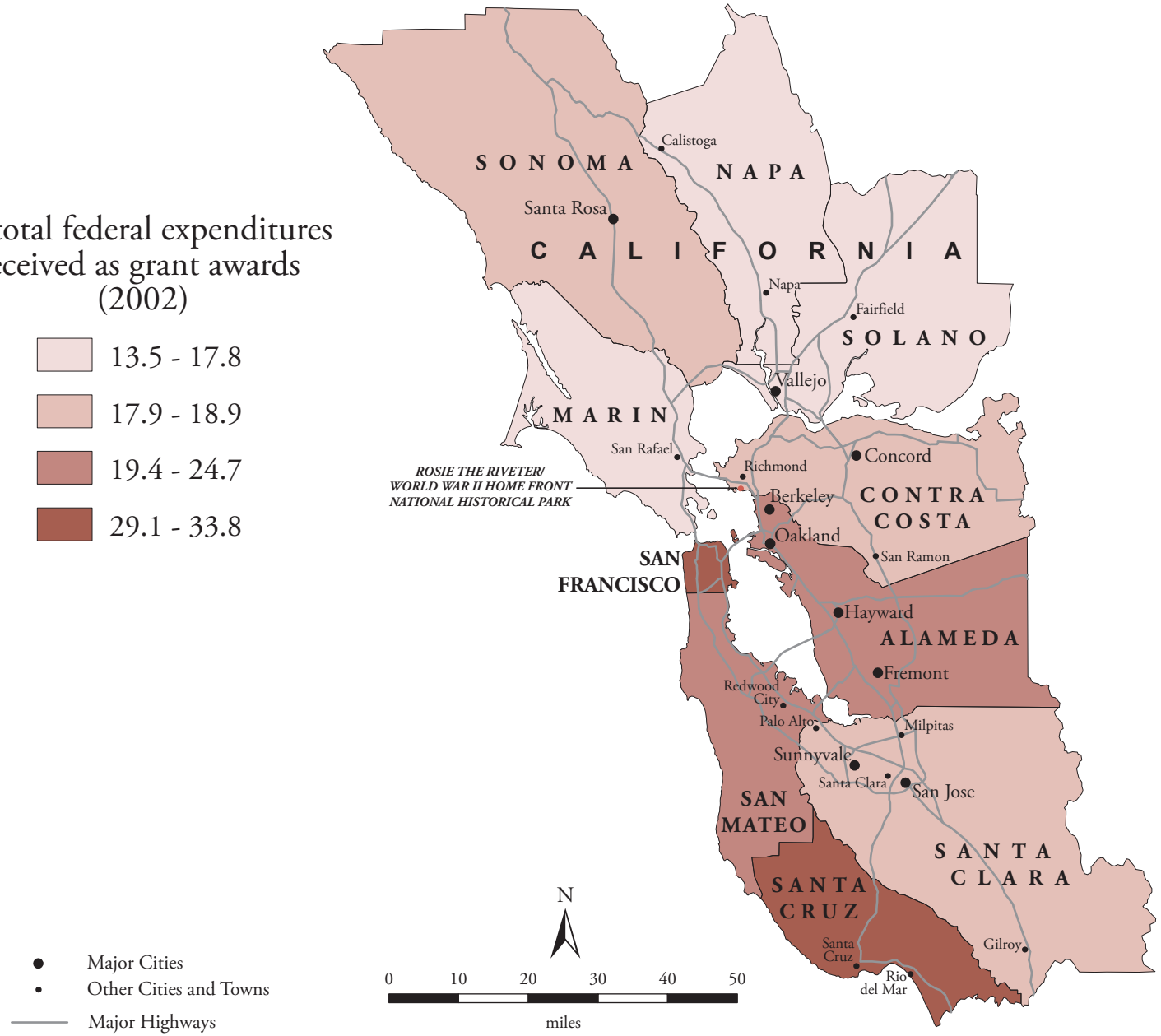
Solano	13.5
Marin	13.7
Napa	17.8
Contra Costa	17.9
Santa Clara	18.7
Sonoma	18.9
San Mateo	19.4
Alameda	24.7
Santa Cruz	29.1
San Francisco	33.8

18.8

National = 21.5
California = 23.3

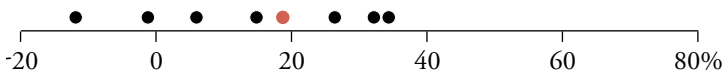
Number Line
showing distribution of data

Federal Grants



Change in Local Government Expenditures

The level of activity of local government can be measured by calculating the change in local government expenditures per person. As the principal means of collective decision-making at the local scale, local governments commit resources to county, state, and federally-mandated services (such as schools and law enforcement) as well as other optional or non-essential services (such as recycling and recreation services). The resources committed to programs may vary over time. Changes in expenditures over time may be related to available revenue, voter priorities expressed through cyclical elections, or changes in the population (e.g., number of people or age structure). Within the Rosie the Riveter/World War II Home Front NHP region, the percentage change in local government expenditures per person (adjusted for inflation) (1987 - 1997) ranges from a decrease of 12.2% (Solano) to an increase of 34.2% (Alameda).



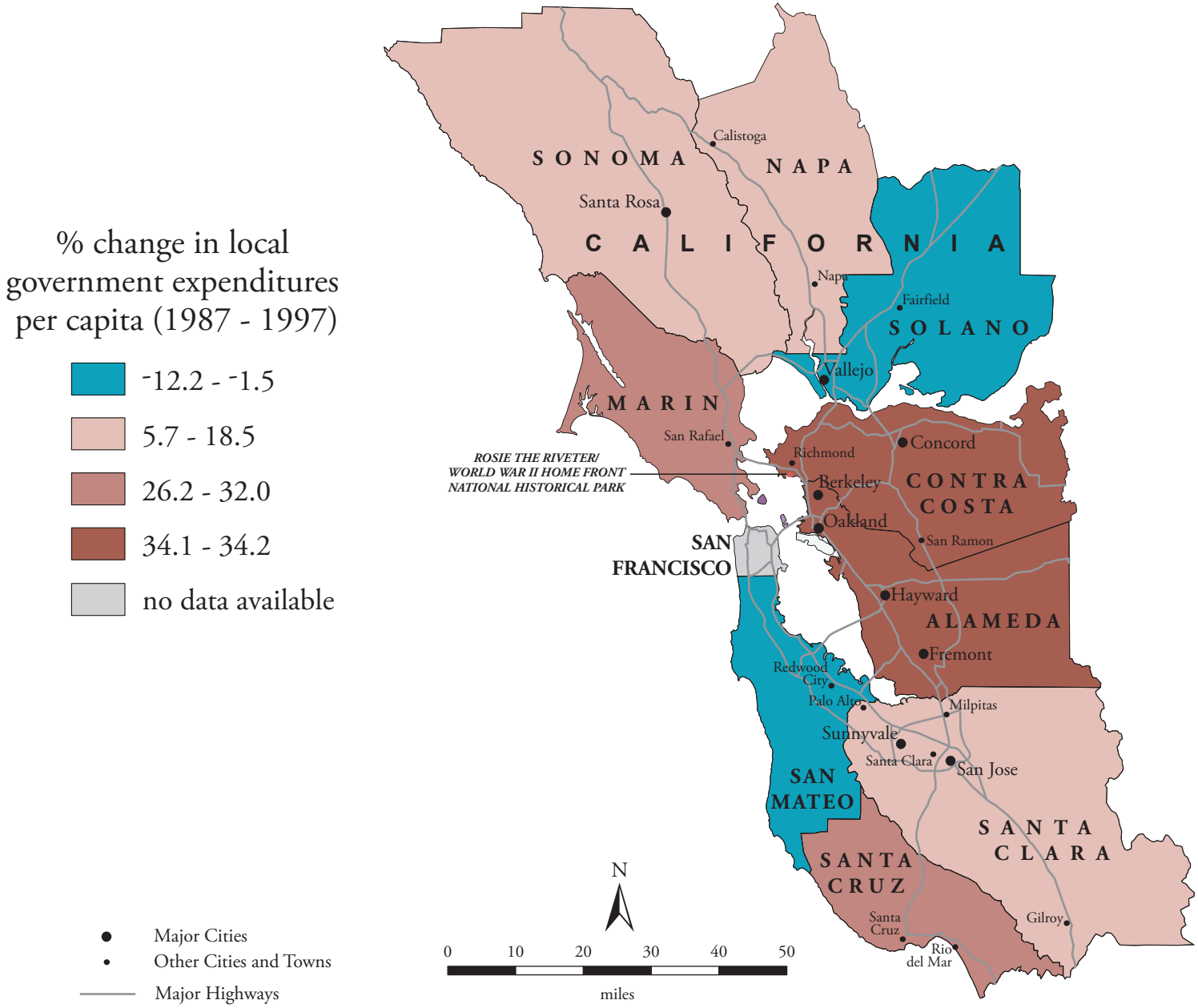
Number Line
showing distribution of data

% change in local government expenditures per capita (1987 - 1997)	
Solano	-12.2
San Mateo	-1.5
Sonoma	5.7
Napa	14.6
Santa Clara	**18.5**
Marin	26.2
Santa Cruz	32.0
Contra Costa	34.1
Alameda	34.2
San Francisco	N/A

National = -17.7
California = 23.1

Percentage change calculation incorporates inflation adjustment.

Change in Local Government Expenditures



Change in Local Government Revenue

Government revenue provides funding for many programs that affect communities and business. Changes in the amount of county taxes and state and federal aid within a local government can create a cascading set of impacts. Over a period of time, park managers can monitor the changes in local government activity that a county's residents demand or are willing to support. Local and regional political decisions, including those that impact park management goals, depend on the amount of funding grants provided to government programs. Within the Rosie the Riveter/World War II Home Front NHP region, change in local government revenue per person (adjusted for inflation) (1987 - 1997) ranges from -67.4% (Santa Clara) to -50.6% (Napa).

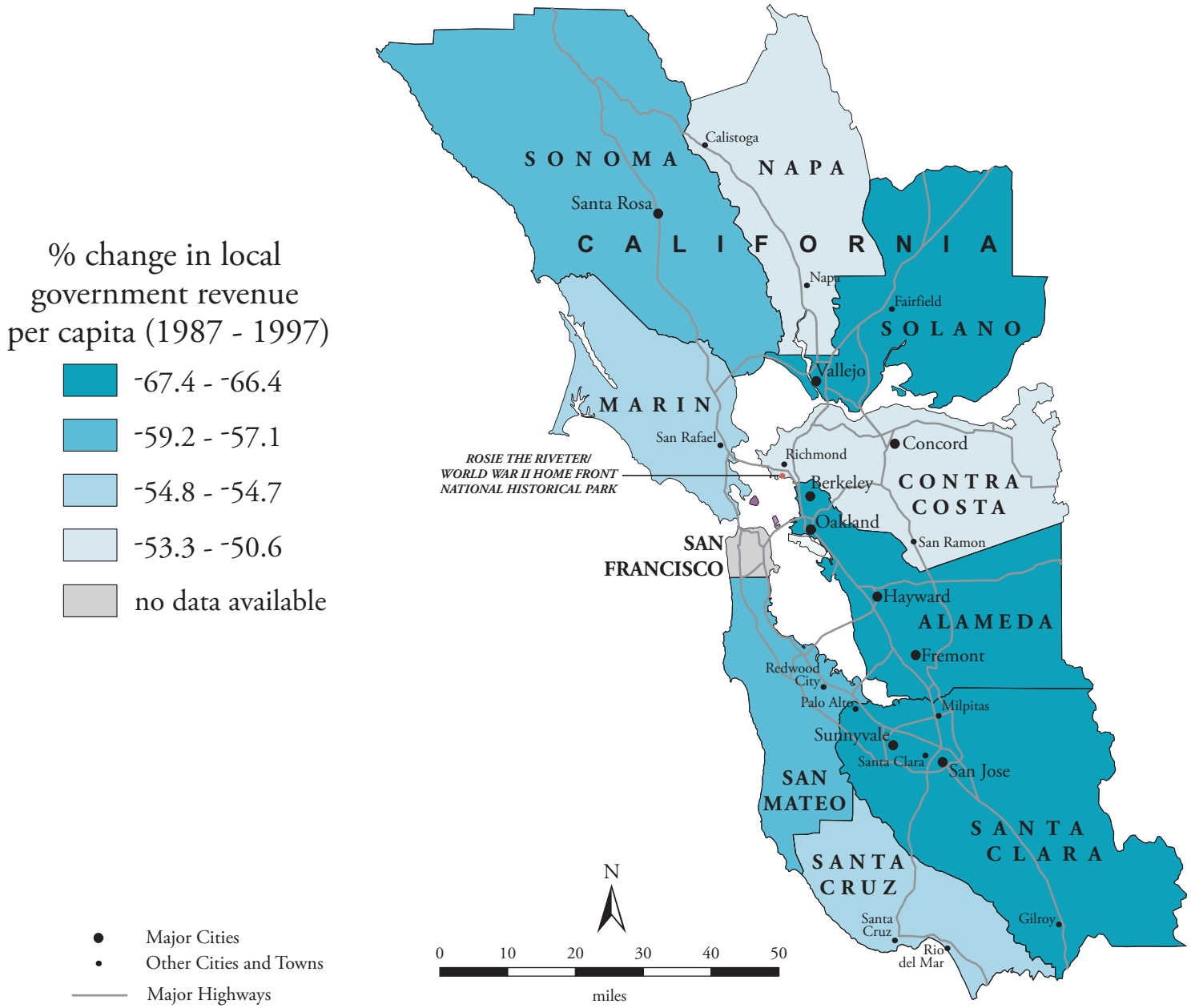
Number Line
showing distribution of data

% change in local government revenue per capita (1987 - 1997)	
Santa Clara	-67.4
Alameda	-66.6
Solano	-66.4
San Mateo	-59.2
Sonoma	**-57.1**
Santa Cruz	-54.8
Marin	-54.7
Contra Costa	-53.3
Napa	-50.6
San Francisco	N/A

National = -65.4
California = -57.5

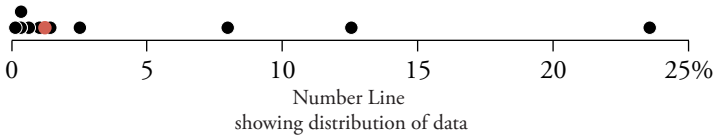
Percentage change calculation incorporates inflation adjustment.

Change in Local Government Revenue



Federal Land Management

One indicator of the federal government's role in regional resource management is the amount of land under federal management. This amount can be measured as a percentage of the total land area in each county. Stewardship of private land is carried out through a combination of regulation, market forces, and voluntary action. In contrast, stewardship of public land is carried out through direct implementation of agency policies. Thus the variation in public versus private land ownership across the park region can significantly influence the design and implementation of resource protection strategies. Within the Rosie the Riveter/World War II Home Front NHP region, land under federal management (2003) ranges from 0.0% (Santa Cruz) to 23.6% (Marin).[17]

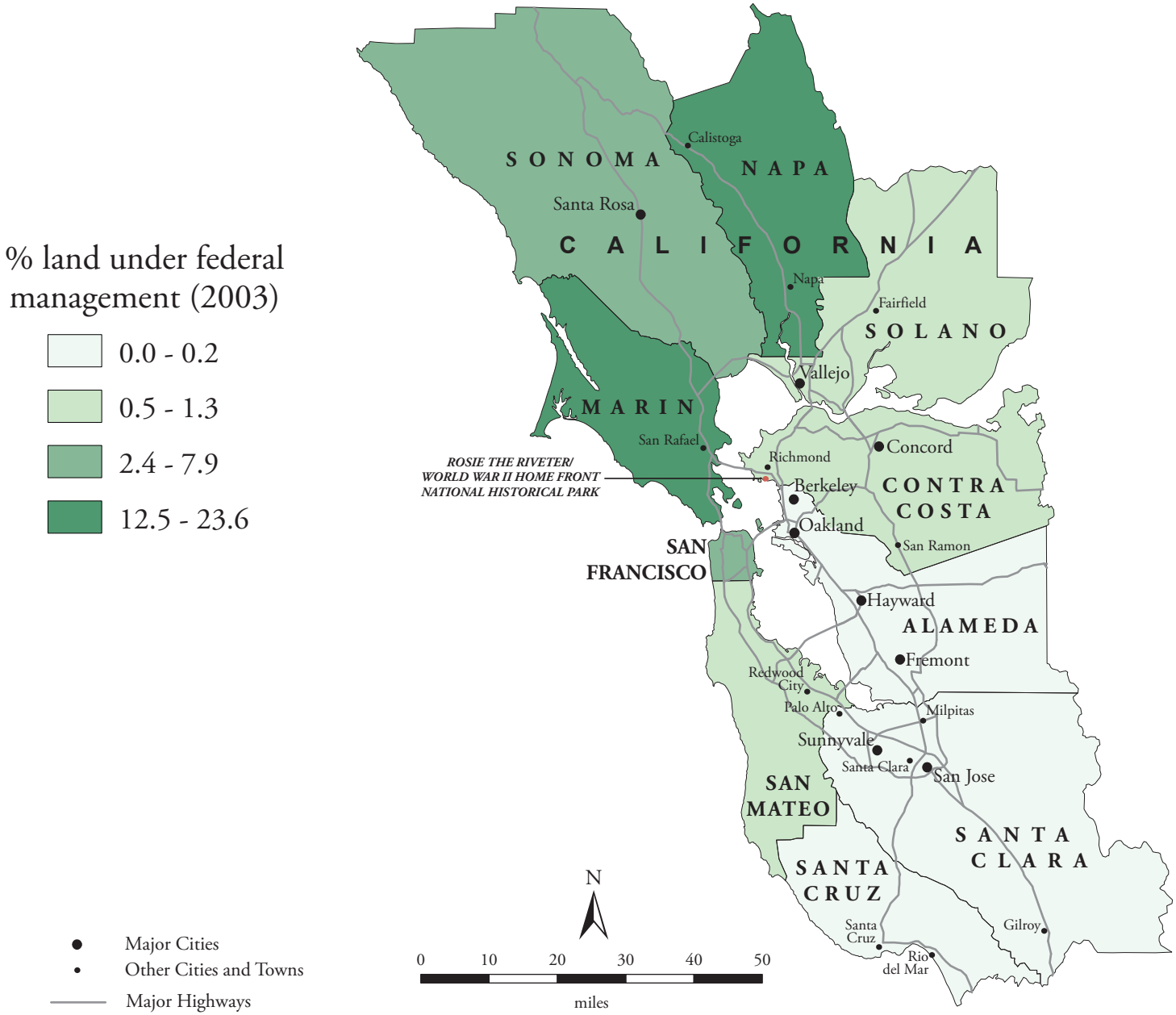


% land under federal management (2003)	
Santa Cruz	0.0
Alameda	0.2
Santa Clara	0.2
Contra Costa	0.5
San Mateo	0.9
Solano	1.3
Sonoma	2.4
San Francisco	7.9
Napa	12.5
Marin	23.6

1.1

National = 27.1
California = 1.9

Federal Land Management



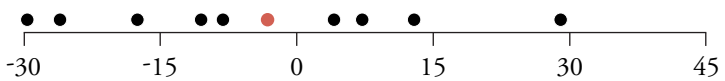
Federal Lands and Indian Reservations

National park units, administered by the National Park Service, are part of a larger system of public lands. Other federal agencies that administer public lands include the Bureau of Land Management, Bureau of Reclamation, Department of Defense, U.S. Fish and Wildlife Service, and U.S. Forest Service. Indian reservations are also an important part of the landscape. Public land managed by one federal agency may share boundaries with land managed by a different federal agency or with an Indian reservation. Understanding the location and pattern of federal lands (by agency) and Indian reservations can help park managers and others in the region cooperate on resource protection and planning issues.[18]

Federal Lands and Indian Reservations

Change in Farmland

Changes in the amount of farmland provide an indication of economic and land use trends among counties in the park region. Land can be converted to farming because of increased demand for agricultural products or because new technology, business practices, or government programs make farming profitable. Land can be taken out of farming due to soil depletion, competition from other growers elsewhere, loss of labor, or conversion of land to other (often urban) uses. Within the Rosie the Riveter/World War II Home Front NHP region (1987 - 1997), the amount of farmland decreased in 5 of the 10 counties. The change ranged from a decrease of 29.8% (San Mateo) to an increase of 28.8% (Santa Cruz).[19]

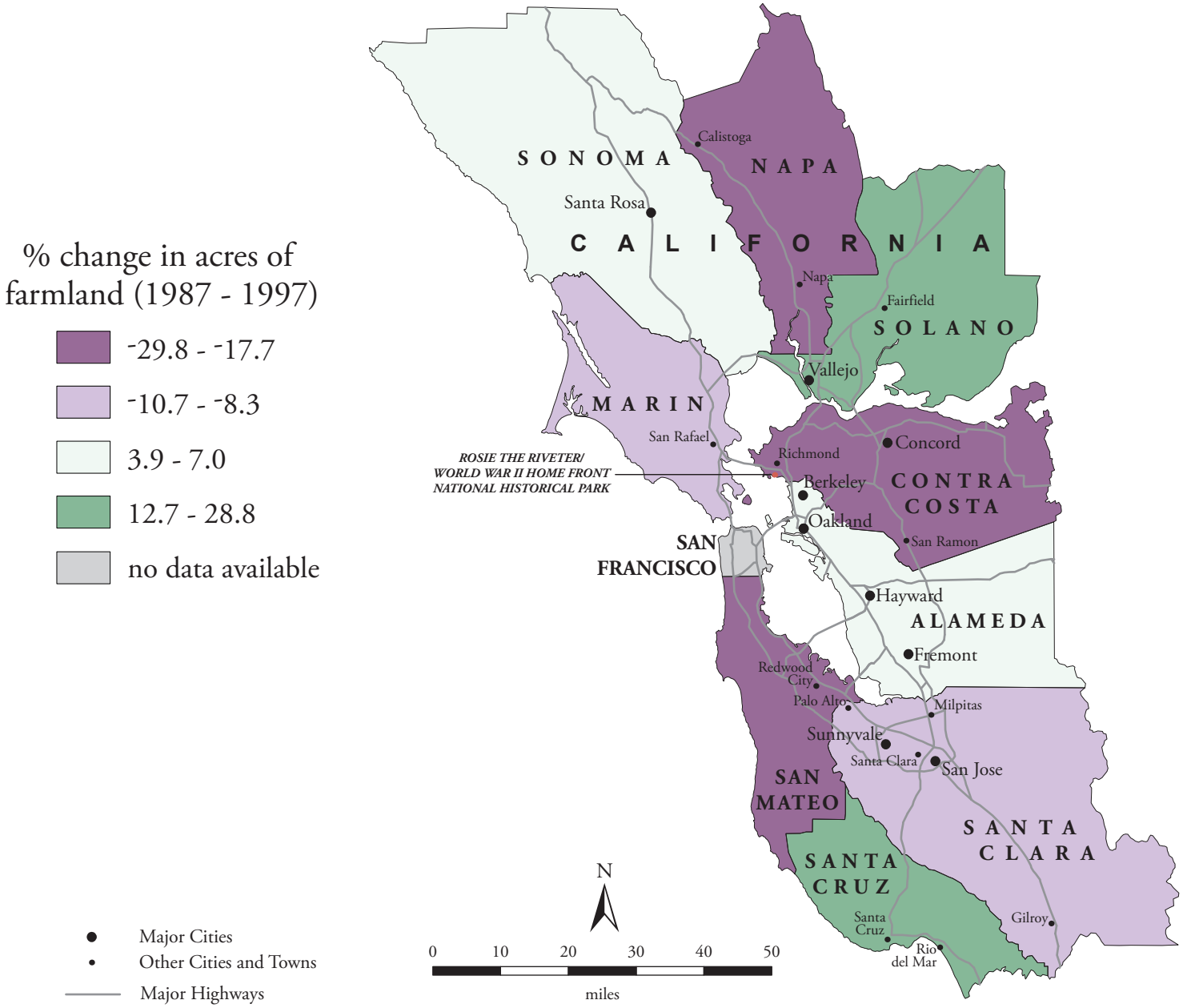


Number Line
showing distribution of data

% change in acres of farmland (1987 - 1997)	
San Mateo	-29.8
Contra Costa	-26.2
Napa	-17.7
Marin	-10.7
Santa Clara	**-8.3**
Sonoma	3.9
Alameda	7.0
Solano	12.7
Santa Cruz	28.8
San Francisco	N/A

National = -3.4
California = -9.5

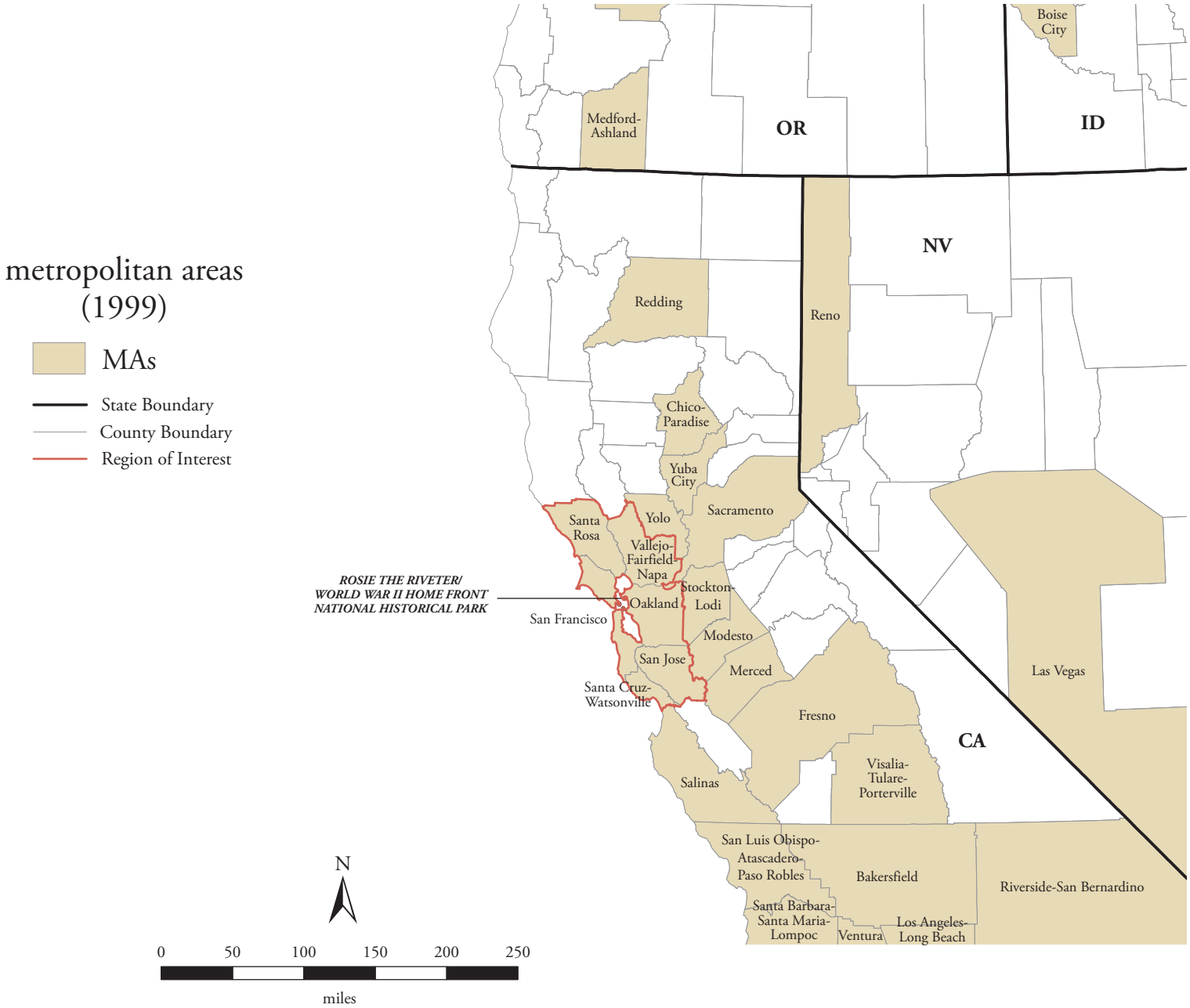
Change in Farmland



Metropolitan Areas

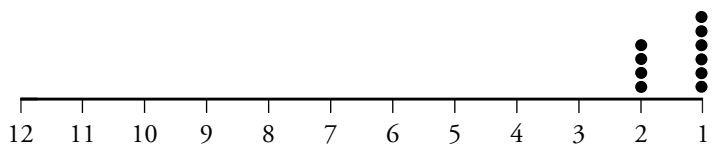
Maps of metropolitan areas show park managers densely populated urban areas that are near national park units. The Census Bureau defines a metropolitan area (MA) as having a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus. MAs are single counties or aggregations of counties. Most counties in MAs include both urban and rural land uses. For this map, a larger region around Rosie the Riveter/World War II Home Front NHP is provided to show the extent of nearby MAs.[20]

Metropolitan Areas



Urbanization

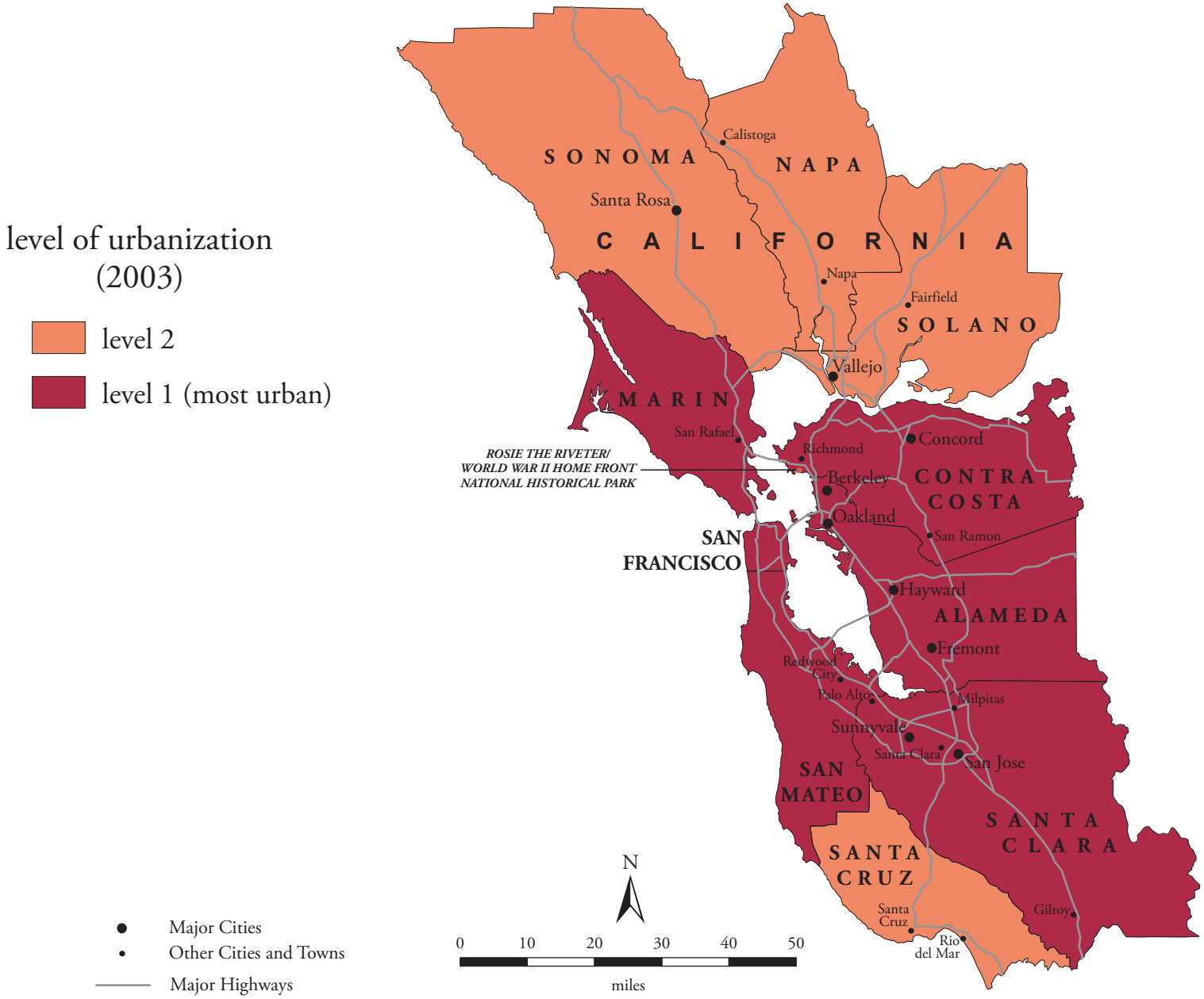
Urbanization is a measurement of the degree to which land has been developed as towns and cities. The political and economic priorities of more urbanized counties tend to differ from those of less urbanized counties. The concentration of people in towns, cities, and large metropolitan areas creates opportunities for cooperative efforts (such as municipal water systems, public transportation, and a host of non-governmental organizations) but also can increase the incidence of problems such as congestion, air pollution, and habitat fragmentation. The Economic Research Service classifies counties' degree of urbanization along a continuum ranging from completely rural to large metropolitan. Within the Rosie the Riveter/World War II Home Front NHP region (2003) all of the counties are classified as belonging to metropolitan areas.[21]



Number Line
showing distribution of data

level of urbanization (2003)	
Napa	2
Santa Cruz	2
Solano	2
Sonoma	2
Alameda	1
Conta Costa	1
Marin	1
Santa Clara	1
San Francisco	1
San Mateo	1

Urbanization



Conclusion: Using This Atlas for Park Management

A national park functions as part of a regional human ecosystem. A natural ecosystem can be understood in terms of factors such as flora, fauna, rainfall, temperature, elevation, and soil. Similarly, a human ecosystem can be understood in terms of factors such as population, commerce, social and cultural practices, politics, and land-use patterns.

The regional human ecosystem, like the natural ecosystem, strongly influences the long-term health of the park's natural and cultural resources. Just as a park may be concerned with upstream activities outside its boundaries yet inside its watershed, parks are also concerned with human activities taking place outside their boundaries yet inside their region. Thus, knowledge of natural and human conditions external to a park is as essential to park management as knowledge of internal natural and cultural conditions.

This atlas focuses on human activities and features in the region surrounding Rosie the Riveter/World War II Home Front National Historical Park. Five primary applications for this atlas as a tool for park management are:

- monitoring activities and analyzing trends that could have short- or long-term impacts on the park;
- making comparative studies, both within the region and between regions;
- assessing potential social impacts of management decisions;
- supporting collaborative decision-making and public participation; and
- educating park staff and other stakeholders about regional socioeconomic trends.

Monitoring activities and analyzing trends. The standardized data sources and presentation format of this atlas allow it to serve as a baseline for long-term monitoring of human conditions and trends that impact the park, such as immigration or economic shifts. These human conditions and trends can have significant implications for park planning and management. For example, the atlas can be consulted to determine trends in educational attainment among regional residents. This information could be helpful in designing interpretive and public participation programs and materials that can increase access to and understanding of the role of the park in the region. The atlas can be used to gain knowledge about the overall structure of and local variations in the regional economy. This information could be important to developing a strong collaborative working relationship with regional business leaders. The atlas can be examined to recognize trends in land use. This information could support proactive planning to mitigate potential impacts of development such as habitat fragmentation, degradation of air or water quality, or intrusions upon historic settings and/or scenic values.

Comparative studies. This atlas can support comparative studies of two kinds. First, the atlas can be used to compare counties within the region. By displaying the range of values for a particular indicator or a set of indicators, the atlas can help identify specific counties where it may be desirable to take (or avoid taking) certain management actions because of the potential impact on the human ecosystem. Second, the atlas can be used to make comparisons with other park regions. Potential management actions can be evaluated in terms of how effective they have been for another park unit where similar regional socioeconomic factors are involved.

Social impact assessment. Federal law and NPS planning directives require that park managers evaluate the social impacts of potential management actions. The socioeconomic indicators displayed in this atlas can make an important contribution to such social impact assessments. For example, the maps displayed here could be used to help understand the impacts of various park management plans and provide context for assessments at smaller scales, such as local communities.

Collaborative decision making. In developing general management plans, park staff are directed to "consider the park holistically … as part of the surrounding region" and to conduct planning "as part of cooperative regional planning whenever possible" (Director's Order 1998-2, par. 3.3.1.2). Tools such as this atlas can support the goal of applying a regional perspective to park planning and management. Distribution of this atlas to citizens, elected officials, educators, business and service groups, resource managers, and others can strengthen their ability to effectively participate in park management activities and decision-making. Maps that present facts in a standardized format can be particularly helpful for establishing common ground on which to decide upon management priorities, especially for decisions that affect both the park and the adjacent region.

Education and orientation. The atlas can be used to orient new park staff, as well as central office staff, to some of the basic facts about human activities in the park's region of interest. It can also serve as a tool for sharing information about socioeconomic trends with the public, gateway communities, media, and Congress.

In conclusion, effective park management requires a clear understanding of human activities in the surrounding region that can impact park resources and operations. By providing the "basic facts" about such activities, this atlas can help managers, citizens, and others better provide for the preservation and enjoyment of Rosie the Riveter/World War II Home Front National Historical Park.

Appendices

Appendix 1: Data Sources for Indicators

The data sources used to obtain the measures for the socioeconomic indicators are listed below. The indicators listed on the left correspond to the titles of the maps in the atlas. The measure corresponds to captions for the legends used in the maps and the ranked data tables.

INDICATOR	MEASURE	DATA SOURCE
General Population		
*Total Population	total number of people (2002)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
*Recent Population Change	% change in total number of people (1990 - 2000)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/population/cen2000/atlas/all_00.xls
*Projected Population Change	projected % change in total number of people (2000 - 2020)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
Historical Population Change	% change in total number of people (1970 - 1990)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
Elderly Population	% total population 65 years old and over (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 1 (SF1) 100% Data, Table P12
Projected Elderly Population	projected % total population 65 years old and over (2020)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com

Appendix 1: Data Sources for Indicators (continued)

INDICATOR	MEASURE	DATA SOURCE
Domestic Migration	net number of non-foreign migrants (1995 - 2000)	U.S. Department of Commerce, Census Bureau, Census 2000, Table 2, http://www.census.gov/population/www/cen2000/phc-t22.html
International Migration	net number of foreign migrants (1990 - 1999)	U.S. Department of Commerce, Census Bureau, Population Estimates, http://eire.census.gov/popest/archives/county/co_99_8.php – California, Block 6
Economy and Commerce		
*Earnings by Industry	% total earnings by industrial category (1999)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
*Employment by Industry	% employment by industrial category (1999)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
*Poverty	% total population in poverty (1999)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/hhes/poverty/2000census/poppvstat00.html
Home-Based Employment	% employed labor force working at home (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 3 (SF3) Sample Data, Table QT P-23
Median Household Income	median household income ($) (1999)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 3 (SF3) Sample Data, Table P53
Social and Cultural Characteristics		
*Racial Diversity	% total population belonging to minority race groups (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 1 (SF1) 100% Data, Table P7

Appendix 1: Data Sources for Indicators (continued)

INDICATOR	MEASURE	DATA SOURCE
*Educational Attainment	% total population 25 years old and over with some college or college degree (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 3 (SF3) Sample Data, Table P37
Racial and Ethnic Composition	% total population in each racial/ethnic category (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 1 (SF1) 100% Data, Tables P7, P8
English Language Ability	% total population 5 years old and over that does not speak English or does not speak it well (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 3 (SF3) Sample Data, Table P19
Spanish Speakers	% total population 5 years old and over that speaks primarily Spanish at home (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 3 (SF3) Sample Data, Table PCT-10
Crime	number of serious crimes per 100,000 people (2000)	U.S. Department of the Interior, U.S. Geological Survey, http://nationalatlas.gov/crimesm.html
Recreation and Tourism		
*Recreation/Tourism Employment	% of total paid employees in arts, entertainment, recreation, and accommodation services (2001)	U.S. Department of Commerce, Census Bureau, http://censtats.census.gov/cbpnaic/cbpnaic.shtml
*Recreation/Tourism Revenue	% of total sales from arts, entertainment, recreation, and accommodation services (1997)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/epcd/www/econ97.html
Recreation/Tourism Establishments	% of total establishments in arts, entertainment, recreation, and accommodation services (2001)	U.S. Department of Commerce, Census Bureau, http://censtats.census.gov/cbpnaic/cbpnaic.shtml
Administration and Government		
*Congressional Districts	Congressional Districts (2000)	U.S. Department of the Interior, U.S. Geological Survey, http://nationalatlas.gov/cgd108m.html

Appendix 1: Data Sources for Indicators (continued)

INDICATOR	MEASURE	DATA SOURCE
*Federal Expenditures	federal expenditures per capita ($) (2002)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/prod/www/abs/cffr.html
Federal Grants	% total federal expenditures received as grant awards (2002)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/prod/2003pubs/cffr02.pdf
Change in Local Government Expenditures	% change in local government expenditures per capita (1987 - 1997)	1) U.S. Department of Commerce, Census Bureau. USA Counties 1998 http://censtats.census.gov/usa/usa.shtml (*1987 data*) 2) U.S. Department of Commerce, Census Bureau. Vol. 4, No. 3, Finances of County Governments; http://www.census.gov/govs/www/cog.html (*1997 data*)
Change in Local Government Revenue	% change in local government revenue per capita (1987 - 1997)	1) U.S. Department of Commerce, Census Bureau. USA Counties 1998 http://censtats.census.gov/usa/usa.shtml (*1987 data*) 2) U.S. Department of Commerce, Census Bureau. Vol. 4, No. 3, Finances of County Governments; http://www.census.gov/govs/www/cog.html (*1997 data*)
Land Use		
*Federal Land Management	% land under federal management (2003)	1) U.S. Department of the Interior, Bureau of Land Management. Payment in Lieu of Taxes, Fiscal Year 2003. Washington, DC. http://www.blm.gov/pilt/search.html *(federal land in acres)* 2) U.S. Department of Commerce, Census Bureau http://www.census.gov/population/cen2000/atlas/all_00.xls *(county square mile data to convert into acres)*
*Federal Lands and Indian Reservations	federal lands and Indian reservations (2000)	U.S. Department of the Interior, U.S. Geological Survey, http://nationalatlas.gov/atlasftp.html
*Change in Farmland	% change in acres of farmland (1987 - 1997)	U.S. Department of Agriculture, National Agricultural Statistics Service, http://www.nass.usda.gov/census/
*Metropolitan Areas	metropolitan areas (1999)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/geo/www/cob/ma1999.html#shp

Appendix 1: Data Sources for Indicators (continued)

INDICATOR	MEASURE	DATA SOURCE
*Urbanization	level of urbanization (2003)	U.S. Department of Agriculture, Economic Research Service, http://usda.mannlib.cornell.edu/data-sets/rural/97002/

** Denotes a core indicator, common to all atlases in this series. Additional indicators were selected by park managers to include information specific to their particular management needs.*

Appendix 2: Technical Notes on Map Design

Selection of Base Map Data – The regional base map used to map socioeconomic indicators in this atlas includes state and county boundaries, some of the major roads, major cities, and a few other selected cities and towns. The roads, cities, and towns are included to provide readers with a few familiar points of reference. It should be emphasized that this is not a general purpose atlas of the region, for it focuses only on socioeconomic indicators.

Choropleth Mapping – For most of the maps, data are grouped by quartiles which vary in shading from light to dark (for low to high values). This shading technique, known as choropleth mapping, is usually applied to ratio data; population density, infant deaths per 1,000 live births, and median income are examples. Maps that display total amounts (such as total population) often use other approaches, such as proportional symbols. For clarity, ease of use, and consistent design, choropleth mapping is used for most of the social indicator data.

Quartile Classification – The choice of a *quartile* classification of the data means that for most maps, counties were divided into four classes. Rather than focusing on the actual numerical value of the indicator for each county, the quartile approach emphasizes the rankings of data values among counties. The legend accompanying the map allows the reader to see the range of values among counties within a class. Quartiles make it easy for the reader to make intuitive comparisons among counties; the darkest shaded counties are in the "top quarter," the lightest shaded counties are in the "bottom quarter," and so forth. Quartiles also facilitate comparisons between maps in the atlas ("this county ranks in the bottom quartile on all three of these indicators").

Two notes: (1) Whenever the number of counties cannot be evenly divided by four, the convention for this atlas series is to reduce the size of the highest quartile first, then the next quartile if needed, then the third quartile if needed. Hence ten counties would be divided into groups of 3, 3, 2, and 2, with the groups of 2 having the highest data values/darkest shading. (2) Counties with identical data values are grouped in the same quartile, even if this results in quartiles of unequal size.

Note on Political Boundaries – The regional base map depicts the formally defined political boundaries of states and counties.

Map Sources – The regional map on the cover and at the beginning of the atlas was generated from the North American HYDRO1k dataset (http://edcdaac.usgs.gov/gtopo30/hydro/) developed at the U.S. Geological Survey's EROS Data Center. The standard region of interest map used throughout the atlas was generated from U.S. Geological Survey shapefiles. Contextual information (roads and cities) was also obtained from the U.S. Geological Survey (http://www.nationalatlas.gov).

Production – Indicator data for the atlas were compiled in Microsoft Excel 2000. These were linked to U.S. Geological Survey shapefiles using ESRI ArcMap GIS 8.3. The GIS files were imported into Adobe Illustrator 10.0 for final map

design. Text was prepared in Microsoft Word 2000. The final atlas layout (text, maps, graphics) was completed using Adobe InDesign 2.0.

Text Sources – Additional web resources used to prepare park and regional descriptions are:

- Rosie the Riveter/WWII Home Front National Historical Park; http://www.nps.gov/rori/index.htm
- Bay Area Marketing Partnership; http://bayareafirst.org
- San Francisco Estuary Institute; http://www.sfei.org/index.html
- The Bay Institute; http://www.bay.org/main.htm
- U.S. Census Bureau; http://www.census.gov

Appendix 3: Technical Notes on Measurement of Selected Indicators

[1] Persons enumerated in the census were counted as inhabitants of their usual place of residence, which generally means the place where a person lives and sleeps most of the time. This place is not necessarily the same as the legal residence, voting residence, or domicile. In the vast majority of cases, however, the use of these different bases of classification would produce substantially the same statistics, although appreciable differences may exist for a few areas.

[2] For an explanation of Woods & Poole's projection methods see page 11 in the Woods and Poole Technical Documentation manual.

[3] **Domestic migration** is measured as the movement of people within the United States between 1995 and 2000. Net migration is the difference between in-migration and out-migration to the area. A positive net migration indicates that more migrants entered the area than left it, while negative net migration indicates that more migrants left the area than entered it. Immigrants who moved to the U.S. from abroad between 1995 and 2000 are not included in these domestic migration figures.

[4] **International migration** is measured as the movement of people between the United States and areas outside of the United States. Net international migration is the difference between immigration (moving into the United States) and emigration (moving out of the United States). Net international migration includes legal immigration,

undocumented immigration, net movement between Puerto Rico and the rest of the United States, and emigration from the United States.

[5] Economic activity is categorized as belonging to one of four **industry categories**: agriculture/natural resources, construction/manufacturing, sales/services, and government. Individual workers, regardless of their specific job responsibilities, are classified according to the category their overall company or organization belongs to. Thus, while accounting is considered a "service" activity, an accountant for a mining company would be counted as working in "agriculture/natural resources." "Government" includes all federal government workers and all state/local employees, such as teachers, police, firefighters, etc. Even though government jobs may involve construction, natural resource management, or provision of services, they are still counted as belonging to the "government" category.

[6] See note above on industry categories.

[7] **Poverty** is measured as the percentage of the total population living below the poverty level. The poverty level is defined as earnings of $17,029 or less for a family of four persons (1999). Poverty thresholds are applied on a national basis and are not adjusted for regional, state, or local variations in the cost of living.

[8] **Racial diversity** is defined for this measure as the percentage of the population classified as being non-White. Diversity by this definition does not necessarily measure the degree of "variety" in the population. For example, a hypothetical county with a 90% Asian population would be considered more "diverse" than a county in which each of the six major race groups constituted 10% of the population (in the latter case, diversity would be measured as 60%). The Hispanic or Latino origin category was not included in this measure because persons of Hispanic or Latino origin may be of any race (including White). Data on the Hispanic population are included on pages 42 and 43.

[9] For the census, persons are classified according to the highest level of school completed or the highest degree received. The question included instructions to report the level of the previous grade attended or the highest degree received for persons currently enrolled in school.

[10] **Racial composition** is based upon self-identification by people responding to the U.S. Census. Census respondents are asked to classify themselves according to the race with which they most closely identify. Specific responses such as "Polish," "Haitian," "Thai," or "Lakota" were coded more generally as belonging to one of six general categories (White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, and Some Other Race). Respondents to Census 2000 could indicate more than one race, and these respondents are grouped together in the category Two or More Races. Persons of Hispanic or Latino origin may be of any race. People of Hispanic origin who are not white were counted in the Hispanic group and were also counted in the Black, American Indian and Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander group they indicated.

[11] These data represent the person's own perception about his or her ability to speak English or, because Census questionnaires are usually completed by one household member, the responses may represent the perception of another household member. Persons 5 years old and over who reported that they spoke a language other than English were also asked to indicate their ability to speak English based on one of the following four categories: "not at all," "not well," "well," and "very well."

[12] **Recreation and Tourism** is composed of the arts, entertainment, and recreation sector and the accommodation subsector, both a part of The North American Industry Classification System (NAICS). The arts, entertainment, and recreation sector includes museums, historical sites, gambling and recreation industries, golf courses and country clubs, fitness and recreational sports centers, and all other amusement industries. The accommodation subsector is comprised of establishments including hotels, motels, bed and breakfasts, RV parks, recreational camps, and vacation camps. For a complete definition of these NAICS categories please consult http://www.census.gov/epcd/www/naics.html.

[13] See note above on recreation/tourism.

[14] See note above on recreation/tourism.

[15] **Federal expenditures** include expenditures, or obligation for, direct payments for individuals, procurement, grants, salaries and wages, direct loans, and guaranteed loans and insurance. Grant awards are reported by county of the initial recipient; thus if the initial recipient is the state government, the county in which the state capital is located is reported as having "received" that "pass-through" grant, even though the monies are subsequently distributed to other local governments.

[16] For **federal grants** administered through state governments, the recipient county is the county where the state capital is located.

[17] **Federal lands** include all tax-exempt federal lands administered by the Bureau of Land Management (BLM), the National Park Service, the U.S. Fish and Wildlife Service, the U.S. Forest Service, federal water projects, and some military installations (tribal lands are not included). The BLM calculates the amount of federal land within counties in order to administer the federal government's payments-in-lieu-of-taxes (PILT) program.

[18] The U.S. Geological Survey produces the **federal lands and Indian reservations** map layer. This map layer does not include any federally and Indian held land that has an areal extent smaller than 640 acres. For more information and metadata, consult http://www.nationalatlas.gov/fedlandsm.html.

[19] **Farmland** consists primarily of agricultural land used for crops, pasture, or grazing. Also included is woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm operator's total operation. Farmland includes acres in the Conservation Reserve, Wetlands Reserve Programs, or other governmental programs. Farmland includes land owned and operated

as well as land rented from others. Land used rent-free is included as land rented from others. All grazing land, except land used under government permits on a per-head basis, is included as farmland provided it was part of a farm or ranch. Land under the exclusive use of a grazing association is reported by the grazing association and included as farmland. All land in American Indian reservations used for growing crops or grazing livestock is included as farmland. Land in reservations not reported by individual American Indians or non-Native Americans is reported in the name of the cooperative group that used the land.

[20] Certain **metropolitan areas** (MAs) are defined around two or more nuclei. Each MA must contain either a place with a minimum population of 50,000 or a U.S. Census Bureau-defined urbanized area and a total MA population of at least 100,000. For a complete definition, consult http://www.census.gov/geo/www/cob/ma_metadata.html.

[21] The Economic Research Service classifies counties according to their level of **urbanization**. The classification consists of twelve mutually-exclusive codes:

METROPOLITAN COUNTIES

1) In large metro area of greater than 1 million residents
2) In small metro area of less than 1 million residents

NONMETROPOLITAN COUNTIES

3) Micropolitan adjacent to large metro
4) Noncore adjacent to large metro
5) Micropolitan adjacent to small metro
6) Noncore adjacent to small metro with own town
7) Noncore adjacent to small metro no own town
8) Micropolitan not adjacent to a metro area
9) Noncore adjacent to micro with own town
10) Noncore adjacent to micro with no own town
11) Noncore not adjacent to metro or micro with own town
12) Noncore not adjacent to metro or micro with no own town

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