



A REPORT ON THE QUALITY OF LIFE IN SHASTA AND TEHAMA COUNTIES

The North State Institute For Sustainable Communities

Mission: To promote a balance
of economic vitality, ecological integrity
and social well-being in the region through education,
research and civic engagement

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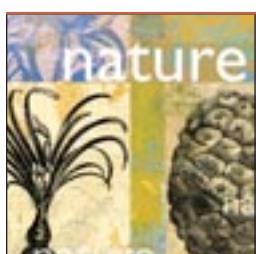
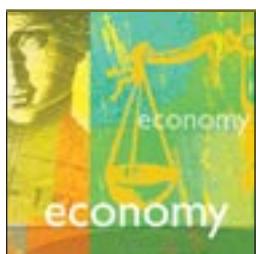
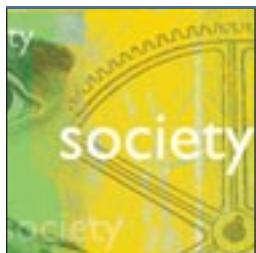
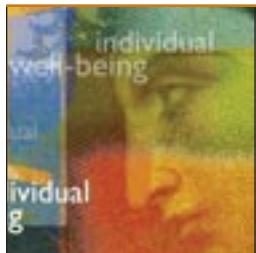
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Introduction

Everyone in our region is concerned about improving the community in which we live, work, shop and play. We're concerned about how our youth grow and develop, about our elderly's contributions and needs, about community safety, the business climate, our energy supply and a host of other issues. We also treasure the region's many unique assets that enhance the quality of life: The views, the water, the air, outdoor recreation, the river and much more.

Creating a healthy community means striking a balance among the social, individual, economic and environmental concerns and assets of our region. *Vital Signs* helps measure that balance over time, offering a picture of the quality of life in Shasta and Tehama counties. By identifying a set of "indicators"—specific statistics that offer a snapshot of particular economic, environmental, social or individual conditions—the report measures common values shared by Shasta and Tehama county residents, business owners, and government and community leaders. By tracking indicators over time, *Vital Signs* will help both public and private groups set priorities, adopt policies and monitor the impact of their decisions on the overall health of our community.

creating a healthy community

Purpose

The measurement system set forth in *Vital Signs* reflects our local values pertaining to the economy, the environment, our society and individual well-being. The system serves several purposes:

- To provide a means for monitoring our quality of life and well-being in Shasta and Tehama counties
- To support decisions that will help move indicator trends in a positive direction
- To generate questions and stimulate further study and understanding of the issues
- To supplement and expand on existing information about the region
- To show the complex ways in which our economy, society, individual well-being and natural ecosystems are interrelated

Process

The North State Institute for Sustainable Communities undertook a year-long community dialogue to identify a comprehensive and broadly accepted set of indicators that would measure economic, environmental, social and individual well-being. This process included the following steps:

- A scientific, random phone survey asked 531 Shasta and Tehama residents what they like about their communities and what regional issues most trouble them. These questions focused on three time periods: the present, 10 years from now and 30 years from now.
- A technical advisory group of local data analysts, scientists and statisticians representing organizations in the region discussed the scientific basis for choosing indicators. They considered the assets and concerns identified by the survey and the scientific quality of the information available to measure those issues. They also contributed additional ideas not covered by the survey.
- A diverse group of more than 100 civic leaders representing Shasta and Tehama county businesses, government, environmental organizations, education, health, youth, senior citizens and minorities reviewed the survey results and added to the list of assets and concerns. This group also suggested indicators to measure the topics.
- An independent focus group of local residents offered feedback and provided a critique of the indicators. They also suggested useful ways to present the data.

About the indicators

The indicators in this report were selected to reflect long-term community conditions affecting our quality of life. They do not include all aspects of north state living, but they are intended to provide an overarching view of the assets and concerns expressed by residents and civic leaders.

Most of the indicators rely on existing data measured at regular intervals. Some indicators, such as Adult Literacy, are estimates and identified as such. Some, like Volunteerism, Mentoring and Environmental Stewardship, used representative groups as proxies for establishing a baseline for future tracking.

Our grateful thanks

This report, and the year-long process that produced it, would not have been possible without the time and effort of many Shasta and Tehama county citizens. We sincerely express our thanks to everyone, especially the many people who provided information. Without them this report would have not been possible. A list of participants is included in the Acknowledgements section.

What are the indicators?

Vital Signs establishes a benchmark for measuring the quality of life in Shasta and Tehama counties. To do so, the report relies on indicators that track changes in our community over time. Taken as a whole, these indicators tell us how well our society is functioning, how our economy is performing, the condition of the environment and the state of our individual well-being. In short, when combined, they tell us about our region's quality of life.

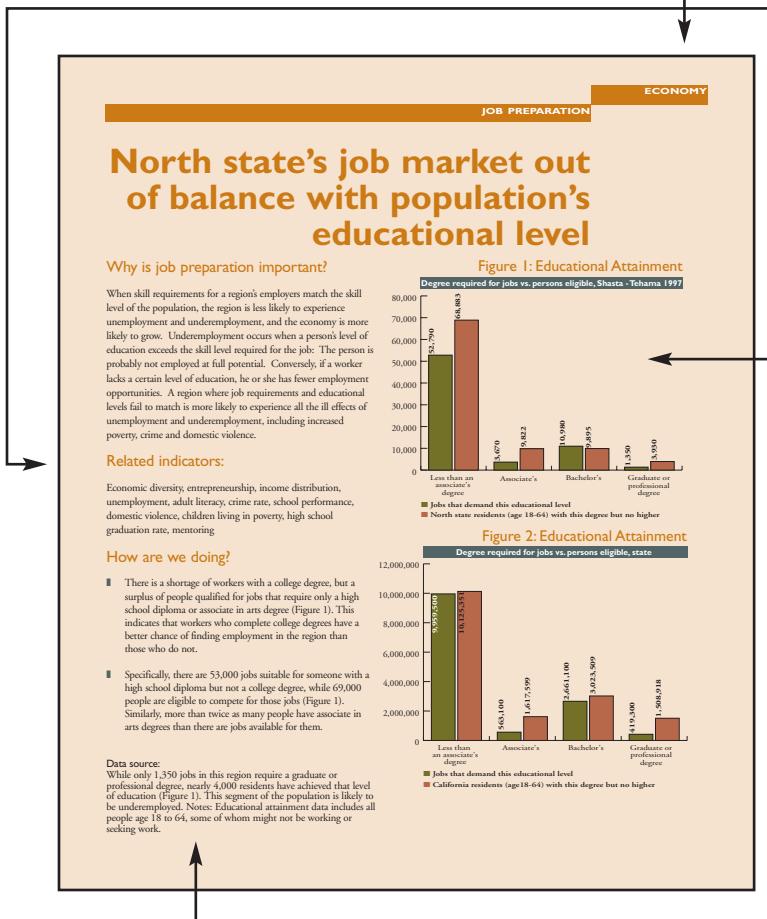
The indicators included in this report were chosen to reflect broad, overall trends across general issues: Ideally, the trends revealed here will encourage deeper exploration of these topics by various members of our community. The report will be revised regularly, incorporating community input and suggestions on the indicators, data and sources.

In selecting data to include in this report, we sought out indicators that would be:

- Clear and easily understood
- Developed from reliable sources
- Tracked and measured at regular intervals
- Reflective of the consequences of past actions, policies or conditions
- Related to other indicators, so together they would reflect the interrelationship and balance of various aspects of our community

Indicator pages

Each indicator page includes a brief description of the indicator, what it measures and why it is important to Shasta and Tehama county residents. These pages also include the following elements:



Indicator categories

The 36 indicators are separated into four major categories: Economy, Nature, Individual Well-Being and Society. The category is listed at the top of each page.

Related indicators

Related indicators were developed with input from a broad base of Shasta and Tehama county residents during the year-long process that led to the creation of this report. The positive movement of one indicator may either reinforce or undermine positive trends in other indicators. The "Related indicators" section lists those indicators most closely and directly related to the one being discussed. However, almost all indicators affect each other in some way, and many less direct relationships were omitted from this section.

Figures, data and notes

Some indicators reflect conditions across Shasta and Tehama counties and therefore combine data for both counties. Other indicators seem to have more local impact and therefore the statistics are broken out by county.

Many indicators measure outcomes based on rate, usually per 1,000 people. Main sources are included at the end of each indicator page. Secondary sources, data notes and methodology can be found at the back of the report.

Strengths and concerns

Selected trends are summarized at the front of each section to provide a snapshot of the condition of the two-county region. These summaries point out some of this report's most noteworthy findings by highlighting some of the region's greatest strengths, along with areas of concern.

A Snapshot of Our Future: Population Projections in the North State

Shasta and Tehama counties are poised for tremendous growth in the next two decades. By 2020, our community will look very different from the way it looks today. The combined population of the two counties will grow by nearly 40 percent, ethnic diversity will increase slowly but steadily, and a larger proportion of our residents will be past retirement age. Many of our new residents will be transplants fleeing the traffic, crime and pollution of larger regions—but as the region grows, our community will need to guard against the very ills of urban living that new residents hoped to leave behind. The changing population will put new demands on community planners, as the need for roads, sewers, communications, schools, recreational activities and health care all increase. Local government, community groups and citizens will need to work together to preserve the high quality of life driving much of our growth.

Important population trends in the north state

By 2020, the combined population of Shasta and Tehama counties is expected to reach 323,000, compared with 219,295 today (Figure 1). Tehama County is expected to add an estimated 20,000 people while Shasta County will add approximately 60,000.

During the nineties, almost three-quarters of the growth in both counties occurred because of migration (people moving in from other locations), rather than from natural births. Migration accounted for 70 percent of Shasta County's growth between 1991 and 1999, and 76 percent of Tehama County's growth (Figure 2).

Figure 1: Population 1970-2020

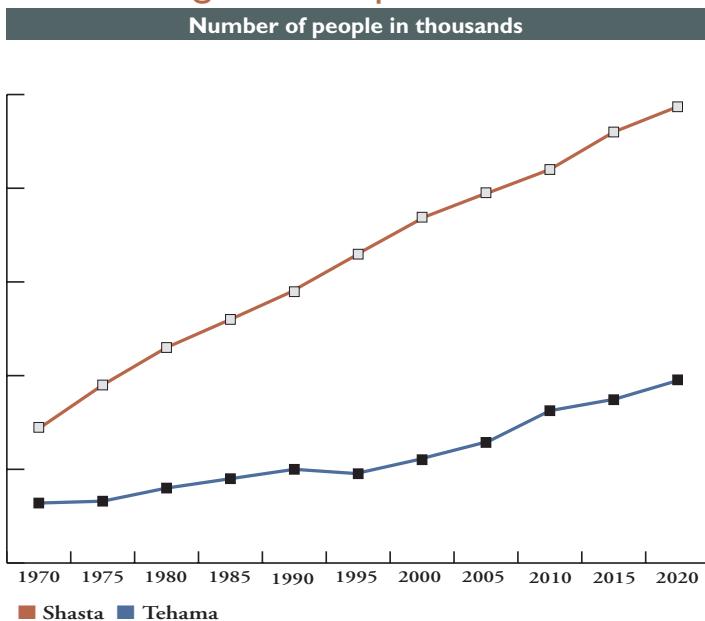


Figure 2: Population Change

Number of people, births vs. migration, 1991-1999

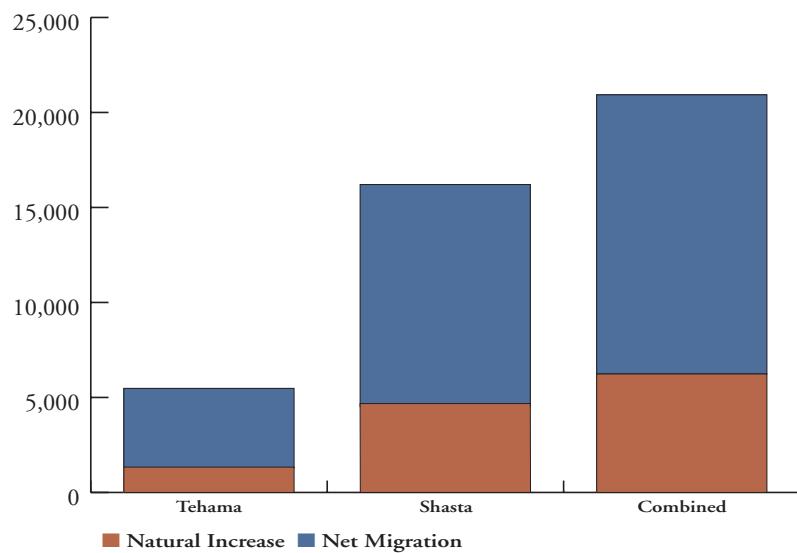
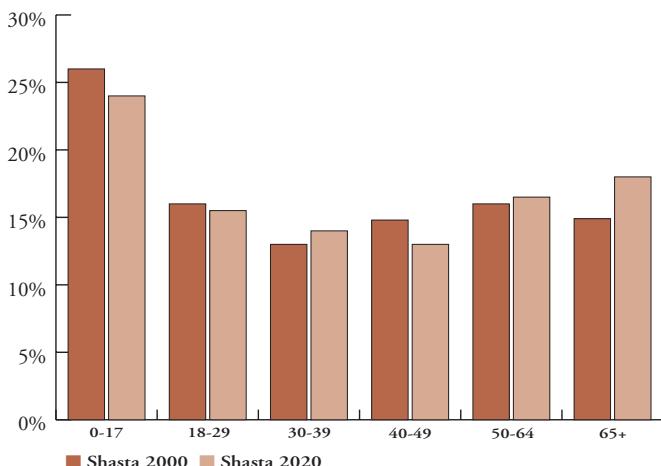


Figure 3.1: Shasta County Population

Distribution by age



By 2020, the population of people older than 65 will grow most quickly, followed by people ages 31-39. The 65-plus age group will account for some 18 percent of the population of Shasta and Tehama counties, an increase of more than 3 percent for Shasta County from 2000. The 31-39 group will grow by approximately 1.5 percent in both counties while decreasing by 4 percent for the state. All other age groups are expected to shrink (Figures 3.1-3.3).

Figure 3.2: Tehama County Population

Distribution by age

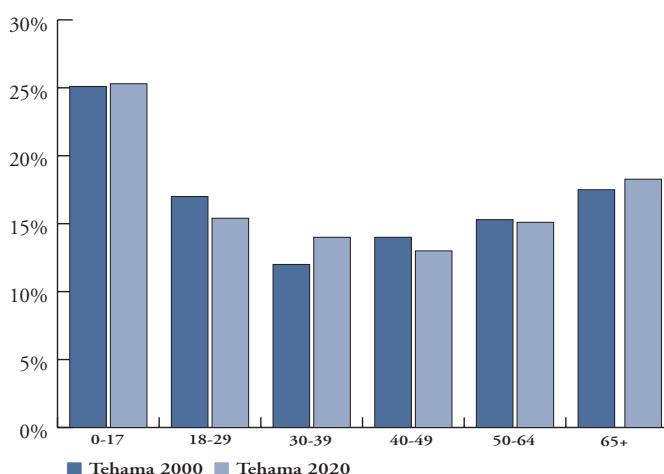
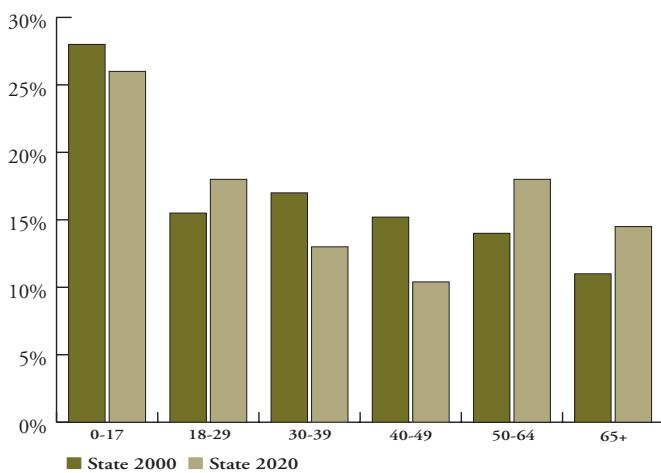


Figure 3.3: State Population

Distribution by age



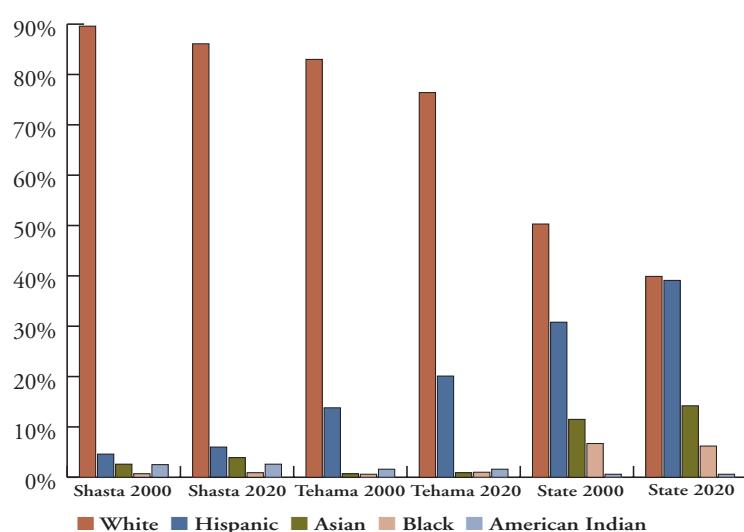
Despite the rapid growth of the older population, children and youth ages 0-17 will still make up the largest population group, accounting for nearly a quarter of the total population of the two counties (Figures 3.1-3.3). The region will gradually become more ethnically diverse, although it will not reflect California's diversity. Non-white populations will still remain relatively small (Figure 4). The white population will drop 3.5 percent in Shasta County and 6.9 percent in Tehama County, while the Hispanic population will grow from about 14 percent to 20 percent in Tehama County and from 4.6 percent to 6.5 percent in Shasta County. The Asian population will increase slightly from 2.6 percent to 3.9 percent in Shasta County and from .7 percent to 0.9 percent in Tehama County. The black population is expected to increase by just under 0.5 percent in both counties. The American Indian population percentage is expected to remain unchanged.

Data source:

California Department of Finance, Demographic Research Unit (www.ca.dof.gov)
 Note: Population projections are taken from the California Department of Finance, Demographic Research Unit and may differ from other projection sources, based mainly on assumptions involving the movement of people in and out of the state.

Figure 4: Population Projection

By race/ethnicity



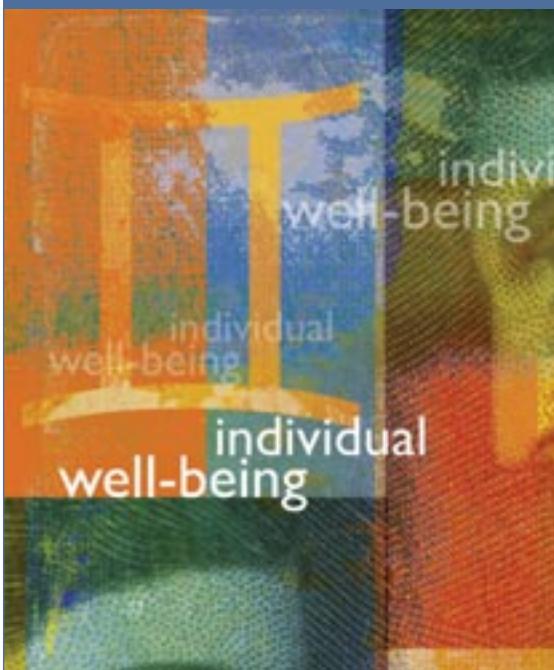
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Summary of strengths and concerns



Individual Well-being indicators

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This section provides a snapshot of the quality of life for individuals in the north state. In addition to positive activities, such as mentoring, this section tracks problems like substance abuse and domestic violence which undermine individual well-being.

Strengths

- Shasta County's teen birth rate dropped during the 1990s and is consistently below the state birth rate

Concerns

- Tehama County's teen birth rate surpassed the state rate in the late 1990s
- Although adult drug- and alcohol-related arrests are dropping, they remain above the state level; juvenile drug- and alcohol-related arrests increased in both counties during the 1990s
- Poverty rates continued to increase in the 1990s and are growing more rapidly than state rates
- Child abuse, domestic violence and elder abuse reports are all above the state average; Shasta County's elder abuse report rate is three times the state rate
- More than one in six adults lack health insurance in Shasta and Tehama counties

Improvements

- Shasta County's child abuse and neglect referrals and domestic violence calls for assistance decreased in the 1990s
- Tehama County's domestic violence calls for assistance and confirmed reports of elder abuse have decreased since 1997

More children living in poverty in both counties

Why are poverty rates important?

Children living in or near poverty often do not have the opportunities afforded others who live in families with higher incomes. (The 1999 poverty threshold for a family of four with two children is \$17,029.) Poor children are more likely than rich or middle-class children to lack basic necessities, to die during childhood, to score lower on standardized tests, to be retained in grades, to drop out of school, to give birth out of wedlock, to experience violent crime, to end up as poor adults and to suffer many other undesirable outcomes. These factors place them at a disadvantage in later life.

Related indicators:

Adult Literacy, Domestic Violence, Health Care Accessibility, Health Care Performance, High School Dropout Rates, Housing Affordability, Job Preparation, Substance Abuse, Teen Birth Rates

How are we doing?

- Although 1998 income data indicated a strong economy, child poverty rates during the 1990s continued to increase, remaining above state levels for both counties after 1995 (Figure 1).
- Poverty rates for children increased more rapidly in both counties than in the state. From 1989 to 1997, Shasta County experienced a 17.5 percent increase (from 24 percent to 28.2 percent), while Tehama County child poverty grew by 16 percent (from 26.6 percent to 30.9 percent). The state rate grew 15.5 percent (from 21.3 percent to 24.6 percent) (Figure 1).
- While the poverty rate estimates for all people increased for the state during this time period by 26 percent (moving from 12.7 percent in 1989 to 16 percent in 1997), poverty in Shasta and Tehama counties for all groups grew more quickly, increasing by 33 percent (Figure 2).
- In both counties and across the state, poverty among all people grew almost twice as fast as child poverty (Figure 2).

Figure 1: Children in Poverty

Children under 18 living in poverty

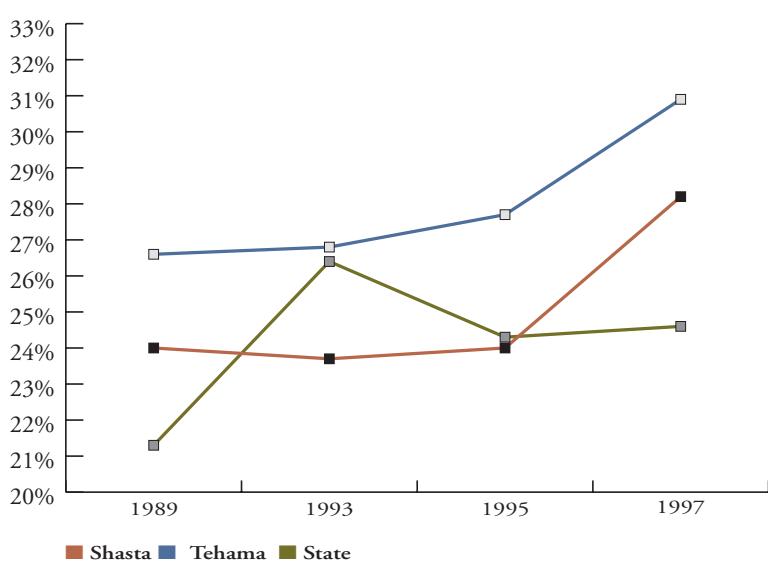
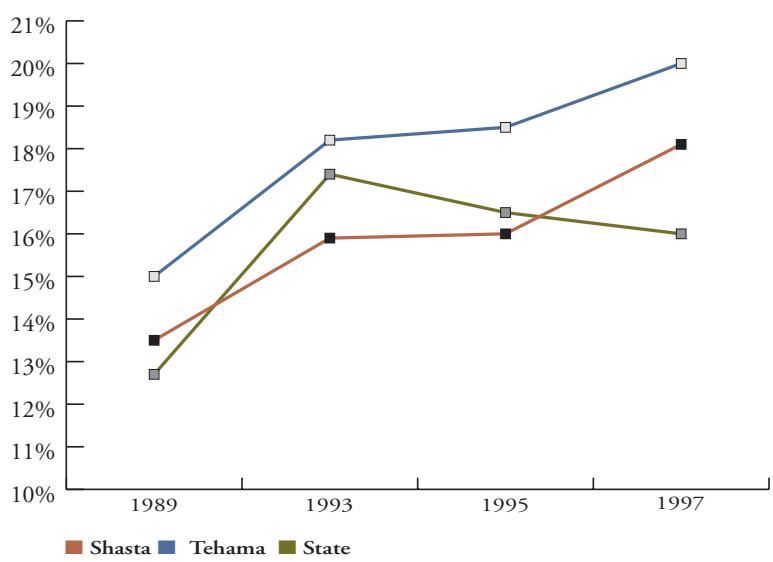


Figure 2: Poverty

People (all ages) living in poverty



Child abuse, neglect rates higher in Shasta-Tehama than in state

Why is domestic violence/child and elder abuse important?

Violence against spouses, partners, children and the elderly damages quality of life for the abused, abusers, relatives, friends, neighbors and society in general. Domestic violence tends to form a cycle that leads to more abuse and may be tied to other criminal behavior. Abused children often grow up to be abusers who draw other people into the cycle. High anxiety from unemployment, poverty, living conditions and other factors may cause domestic violence to erupt.

The Domestic Violence/Child and Elder Abuse Index combines rates for domestic violence, child abuse and neglect, and elder abuse, and compares them to the state rates, using 1995 as the base year.

Related indicators:

Children in Poverty, Crime Rates, Income Distribution, Job Preparation, Unemployment

How are we doing?

- The abuse trend for Tehama County has edged slightly downward from 1995 to a 1999 level of about 1.5 times the state rate, while Shasta County has dropped to a 1999 level that is about 1.9 times the state rate (Figure 1).
- The number of child abuse and neglect referrals for Shasta County has dropped 38 percent since 1995, while Tehama County referrals increased by 62 percent (Figure 2).
- Child abuse and neglect referrals for both counties remained above the state rate of 65.2 referrals per 1,000 children in 2000 (Figure 2).

Figure 1: Abuse Index

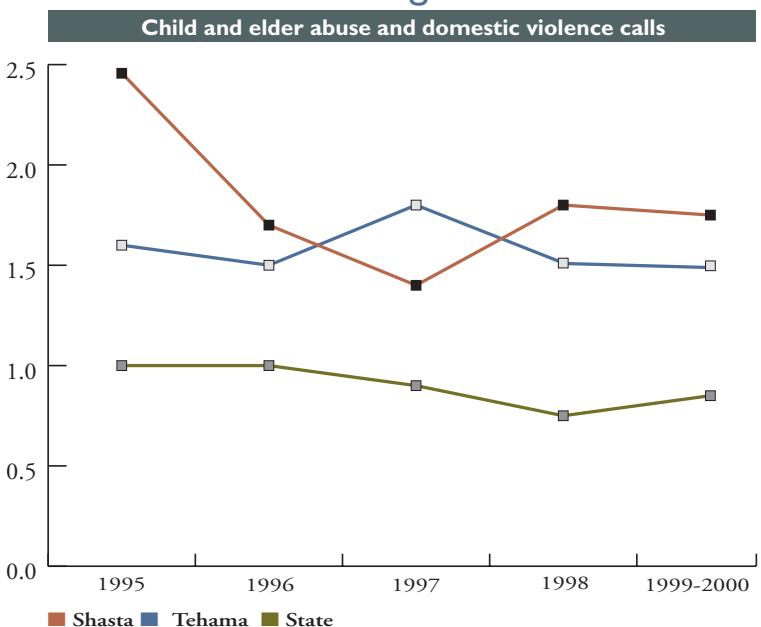
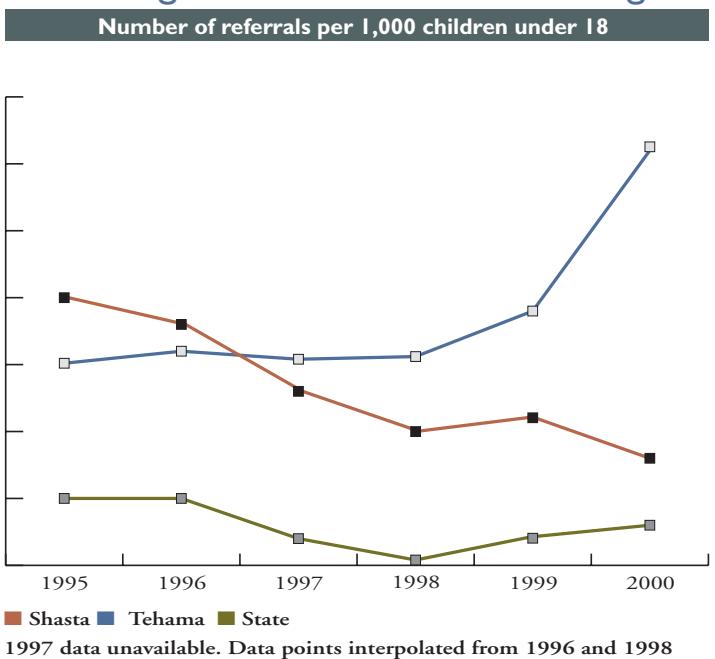


Figure 2: Child Abuse and Neglect



Continued...

- The number of domestic violence calls for assistance has decreased for Shasta and Tehama counties and the state; however, both counties' rates remain above the state rate (Figure 3).
- Confirmed reports of abuse of people 65 and older (perpetrated by others) is also higher for both counties – and Shasta County's rate was three times the state rate (Figure 4).

Data source:

California Department of Social Services, California Department of Finance, Shasta County Department of Social Services, Tehama County Department of Social Services, California Bureau of Criminal Information and Analysis

Figure 3: Domestic Violence

Calls for assistance per 1,000 residents

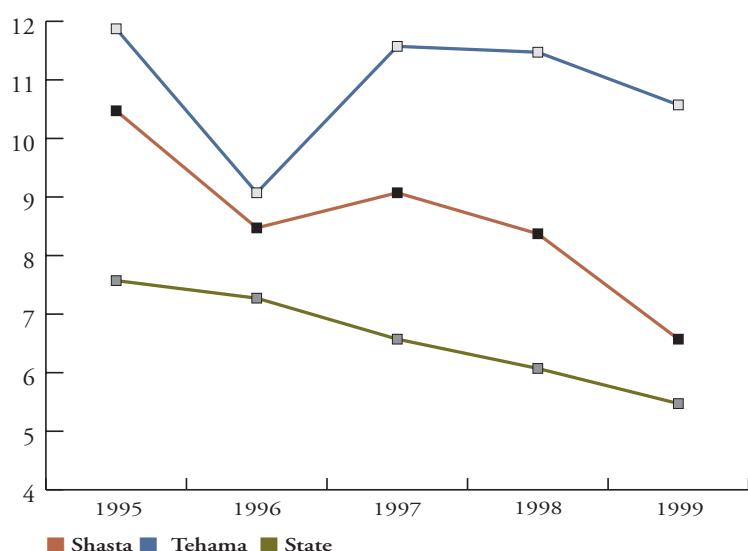
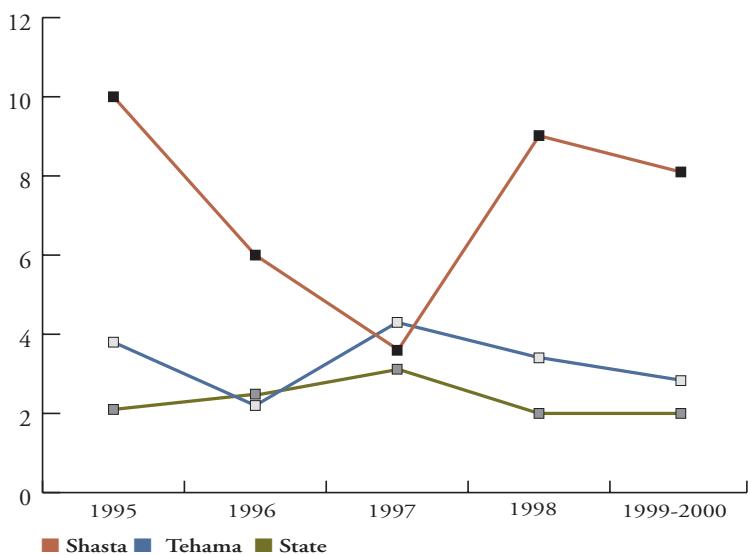


Figure 4: Elder Abuse

Confirmed reports, calls per 1,000 residents 65 or older



More than one in six adults lack health insurance in Shasta and Tehama counties

Why is health care accessibility important?

The ability to obtain medical care is essential to the well-being of families and individuals, and to the health of the community as a whole. Those residents who lack health insurance, however, often find it difficult to access medical care. This indicator tracks the percentage of the population that lacks health insurance and averages, in an index, six factors which may affect access to health care.

Related indicators:

Children in Poverty, Health Care Performance, Income Distribution, Unemployment

How are we doing?

- 15.8 percent of Shasta County residents and 21.5 percent of Tehama residents age 18 to 64 lack health care coverage. By comparison, 22.7 percent of Californians and 15.6 of those in the nation age 18 to 64 do not have coverage (Figure 1).
- More men than women, age 18 to 64, lack health coverage in Shasta County. In Tehama County, more women than men don't have coverage (Figure 2).
- Almost twice the percentage of people age 40 to 64 in Tehama County lack health insurance as in Shasta County. For people age 18 to 39 in both counties, nearly 25 percent are not insured (Figure 2).

Figure 1: Adults Lacking Health Insurance

Percent of adults (ages 18-64)

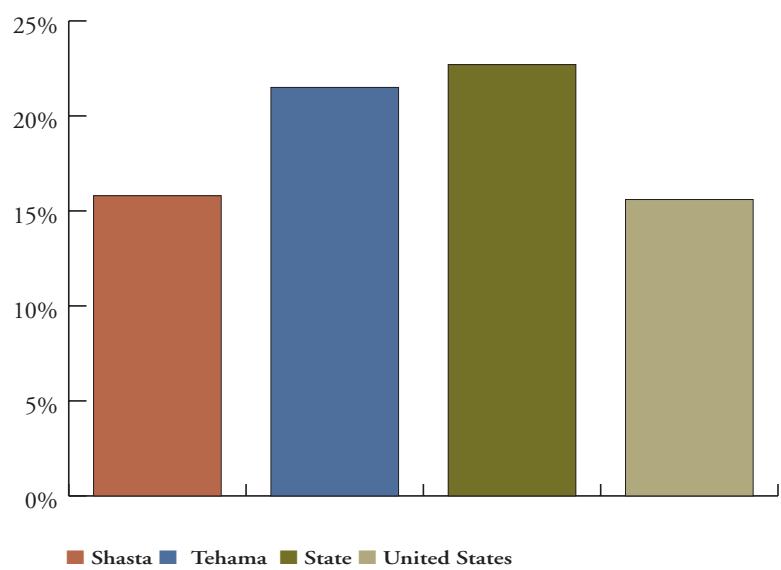
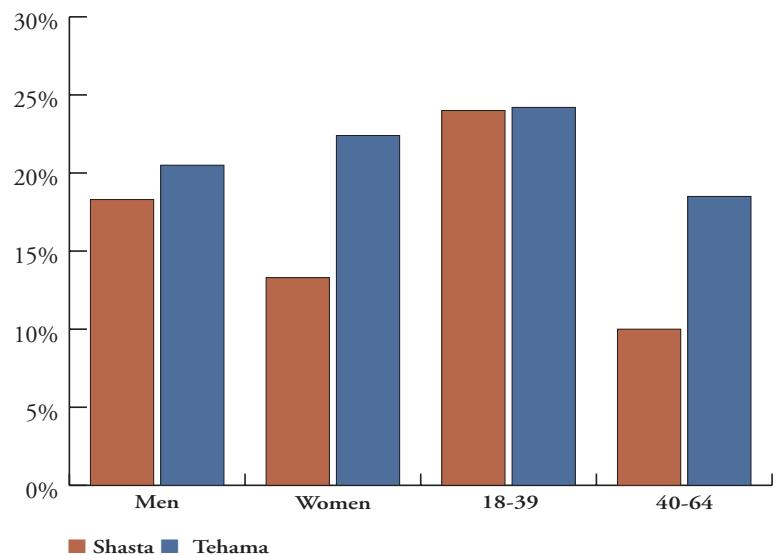


Figure 2: Adults Lacking Health Insurance

Percent of adults (ages 18-64) by gender and age



HEALTH CARE ACCESSIBILITY, CONTINUED

Continued...

- In Shasta County, people lacking a high school diploma or GED are less likely to have insurance. However, people in Tehama County without a diploma or GED are slightly more likely to be insured than those with a diploma or GED (Figure 3).
- Low-income residents are less likely to have insurance than other groups. Adults (ages 18-64) earning twice the federal poverty wage or less were twice as likely to lack health insurance than the rest of the population in both counties (Figure 3).
- According to the 1999 Professional Research Consultants Community Health Survey, 17.3 percent of Shasta County households and 15.8 percent in Tehama County indicated that lack of appropriate insurance was a factor in preventing a physician visit. No national or California comparison is available.
- Some residents find health care difficult to access for other reasons than cost and insurance—some find it difficult to get an appointment during physician's hours, lack transportation to the doctor or have difficulty finding a physician. The Health Care Accessibility Index shows the average percentages of families in Shasta, Tehama and the United States that were prevented from visiting a physician by each of the factors mentioned above. The index shows that more Shasta and Tehama residents have difficulty accessing health care than Americans as a whole. Data was insufficient for a statewide comparison (Figure 4).

Data source:

1999 Professional Research Consultants Community Health Survey, Professional Research Consultants (<http://www.prconline.com/pdfs>)

Figure 3: Adults Lacking Health Insurance

Percent of adults (18-64) by education and poverty status

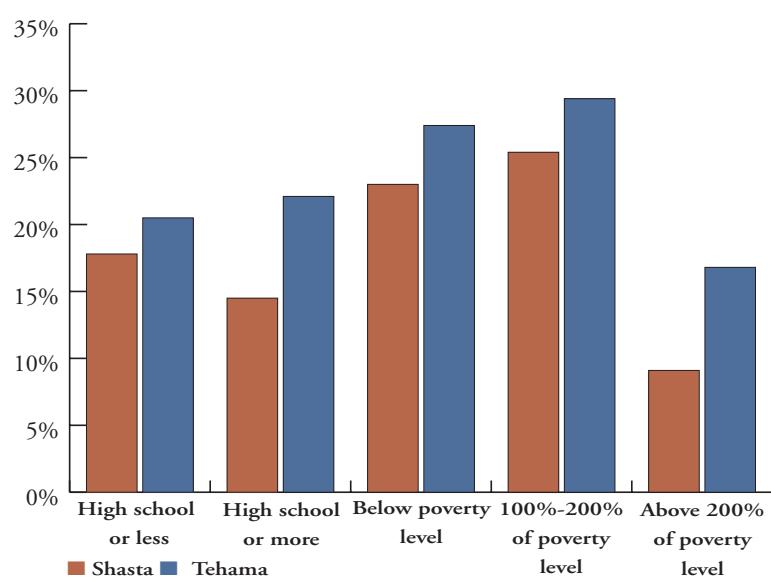
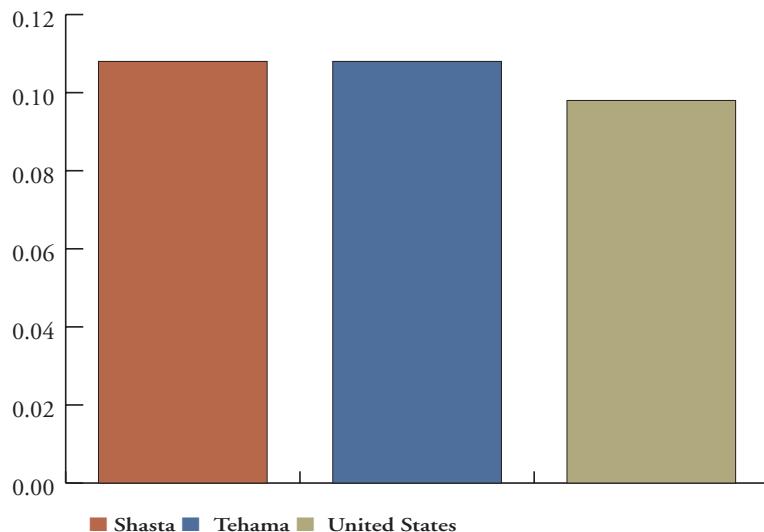


Figure 4: Health Care Accessibility Index

Shasta-Tehama and United States



Health care performing near national average in both counties

Why is health care performance important?

The more effectively a community's health care system performs, the higher the likelihood that the population will be healthy. A healthy population can be more productive in work, family and social activities, improving the overall quality of life in the north state. A healthy labor force takes fewer sick days, contributing to the strength of the economy.

Measuring the performance of health care—the quality of care delivered and the capacity of the system to deliver it—is difficult, given the number of factors involved in health care performance. This report tracks two items to follow health care trends: an index of self-reported health problems, and community death rates from selected health-related causes.

Related indicators:

Children in Poverty, Health Care Accessibility

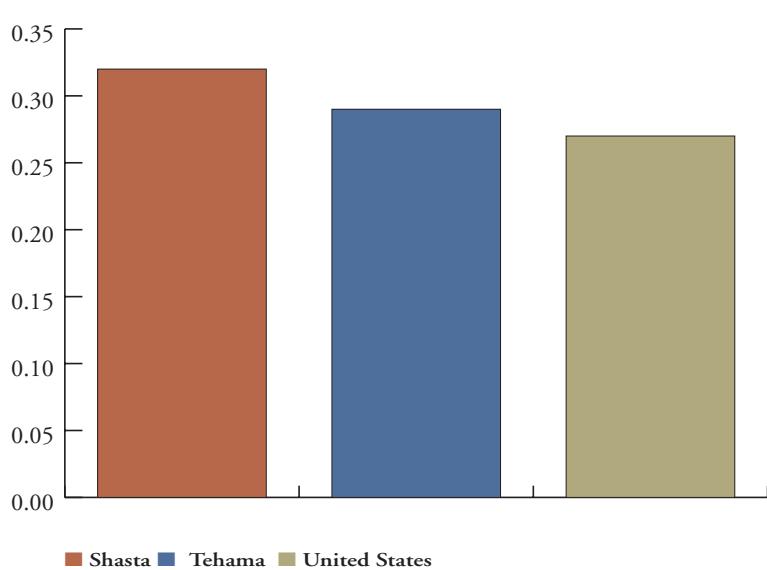
How are we doing?

- The 1999 Professional Research Consultants Community Health Survey asked adults throughout the country whether they suffered from poor physical health or activity limitation; weight problems; or depression lasting two years or more. The percentage of the population that suffered from each of these conditions was calculated, and those four figures were averaged to create the Health Problems Index (Figure 1), which indicates the health of the overall population.

- The Health Problems Index indicates that people in Shasta and Tehama counties are slightly less healthy than the national average. Residents in Shasta County reported 5.5 percent more health problems, and Tehama County residents 3.5 percent more health problems, than the U.S. population (Figure 1).

Figure 1: Health Problems Index

1999



Continued...

- Shasta County's age-adjusted death rate for four health-related factors (cancer, heart disease, stroke and suicide) averaged 8.6 percent less than the national average between 1994 and 1998. Tehama County's rate averaged 12.6 percent less than the national average over the same time period (Figure 2).
- The age-adjusted death rate for the four health-related factors has been decreasing in both counties: 3.6 percent in Shasta and 10.8 percent in Tehama. The national average decreased 4.6 percent (Figure 2).
- Although the health index shows Shasta and Tehama residents are slightly less healthy than the U.S. population, the death rates in both counties are significantly lower than the national rate. In general, when both factors are combined, health care performs equivalently to or slightly better than the national average in both Shasta and Tehama counties.

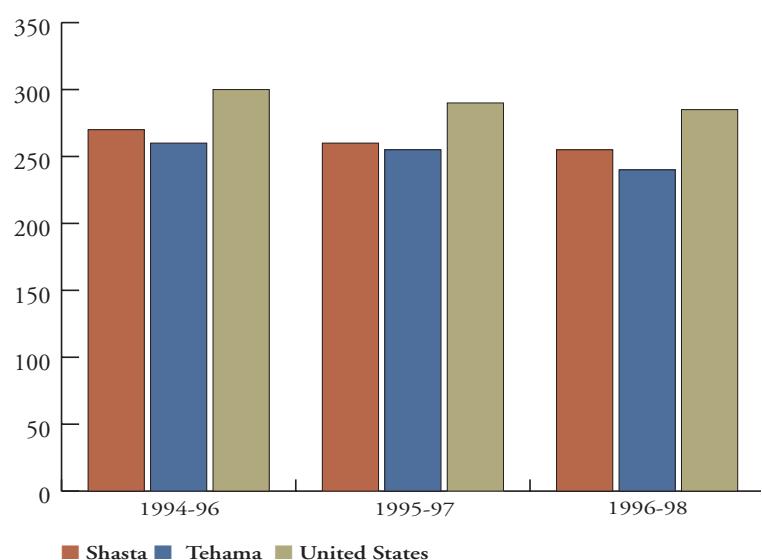
Data source:

Health Problems Index data: 1999 Professional Research Consultants Community Health Survey, Professional Research Consultants. Death rate data: National Vital Statistics, National Center for Health Statistics

Note: For a definition of age-adjusted death rates, see Endnotes

Figure 2: Age-Adjusted Death Rates

Cancer, heart disease, stroke and suicide per 100,000 people



Mentoring programs launch in the north state

Why is mentoring important?

The level of mentoring in a community reflects the concern of residents for the well-being of their fellow citizens. Mentoring connects individuals with other members of the community who can provide support, guidance and advice.

For young people, the benefits of mentoring have been well-documented: A recent study conducted by the California Mentor Foundation reports that of 57,000 young people mentored in 1999, 98.4 percent stayed in school, 85.25 percent did not use drugs, 97.9 percent did not become teen parents and 98.2 percent did not join gangs. Research also showed that grades improved for 59 percent of students as a result of help from their mentors; 53 percent of students mentored credited mentors with improving their ability to avoid drugs; and 96 percent credited mentors for helping them stay in school.

Mentoring programs aren't just for youth, however. Adult mentoring programs like the one offered by Faithworks can help individuals in need get back on their feet.

Figure 1: Number of People Mentored

Program	County	Type of program	Year started	Number of clients being mentored in January 2001
Faithworks	Shasta	Adult	1998	91
Plus One Mentors	Shasta	Youth	1997	151
Redding School District	Shasta	Youth	1999	88
Tehama County Department of Education*	Tehama	Youth	2000	43

* Group and school-based mentoring

Related indicators:

Adult Literacy, High School Dropout Rates, School Performance

How are we doing?

- The number of mentoring programs is rising (Figure 1). Three formal mentoring programs for youth have started in Shasta and Tehama counties since 1997, where none existed before. Faithworks also started a formal mentoring program for adults during that time.
- Because most of the region's mentoring programs are new, historical data was not available for most mentoring initiatives. However, all programs reported a slow but steady increase in client-mentor matches and indicated that the demand for mentors exceeds the supply.
- Some mentor programs depend on grant funds, which may affect their longevity.
- Mentor programs are developing ways to measure their success.

Data source:

Figures self-reported by mentoring programs

Substance abuse arrests decrease but remain above state levels

Why is substance abuse important?

Excessive use of drugs and alcohol can lead to chronic health conditions, educational and employment problems and personal troubles for substance abusers, while threatening public safety and placing additional strain on law enforcement resources. A high rate of substance abuse can also reduce the size of the labor force, undermining local businesses.

In addition, the incidence of substance abuse by adults and juveniles can shed light on the overall health of our society. In healthy communities, most people seek fulfillment in their lifestyle and daily activities. However, negative societal factors, such as long-term unemployment, poverty or discrimination, can contribute to substance abuse. This indicator also serves as an indirect measure of the effectiveness of our drug and alcohol education and treatment programs.

Related indicators:

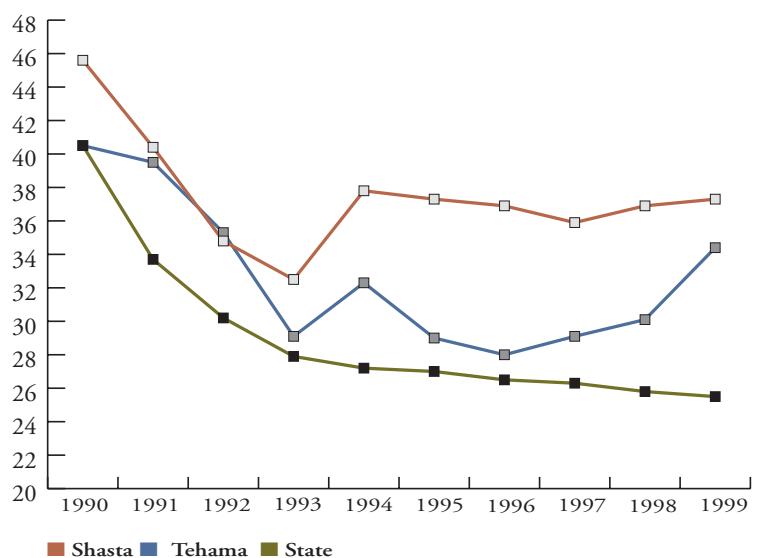
Children in Poverty, Crime Rates, High School Dropout Rates, School Performance, Unemployment

How are we doing?

- Adult alcohol- and drug-related arrests decreased for both Shasta and Tehama counties during the 1990s (decreasing 18 percent in Shasta County and 15 percent in Tehama County). However, arrest rates remain above the state average, which dropped approximately 37 percent during the same time period (Figure 1).
- Since 1994, Shasta County's rate of adult drug and alcohol arrests has remained fairly constant at approximately 37 arrests per 1,000 people between the ages of 18 and 69 (Figure 1).
- Tehama County's adult arrest rate for drugs and alcohol was lowest in 1996 at 28 arrests per 1,000 adults age 18 to 69. By 1999, this rate had increased to 34 arrests per 1,000 adults (Figure 1).

Figure 1: Adult Arrests

Alcohol- and drug-related arrests per 1,000 people(ages 18-69)



Continued...

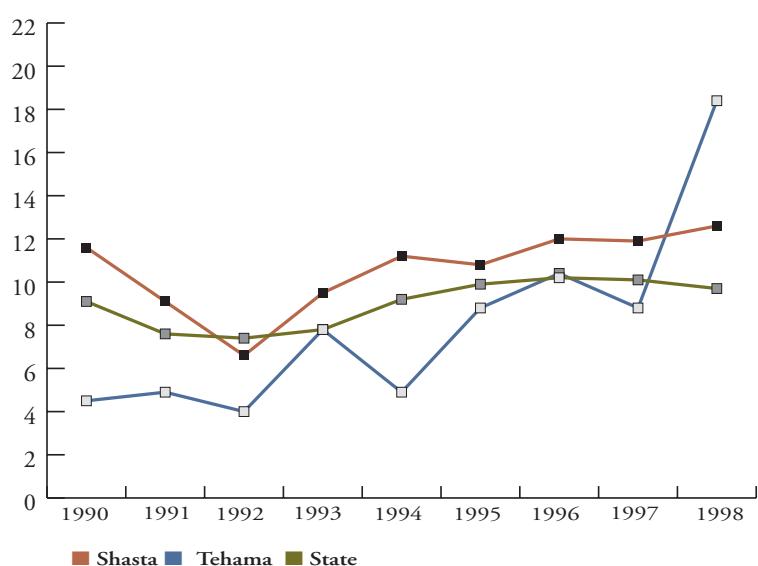
- In the early 1990s, Tehama County youth (children ages 10 to 17) had a lower arrest rate (4.5 arrests per 1,000 youth) than the state average. By 1999, however, that rate had quadrupled to more than 18 arrests per 1,000 youth (Figure 2).
- Shasta County youth started the 1990s with an arrest rate of 11.6 arrests per 1,000 youth. By 1999, arrest rates had increased slightly to 12.6 arrests per 1,000 youth (Figure 2).
- Both counties exceed the state's rates for youth arrests involving drugs and alcohol.

Data source:

California Criminal Justice Statistics Center (<http://caag.state.ca.us/cjsc/>)

Figure 2: Juvenile Arrests

Alcohol- and drug-related arrests per 1,000 people (ages 10-17)



Teen births decreasing in Shasta and Tehama counties

Why are teen birth rates important?

Early childbearing threatens the development of teen parents as well as their children. Becoming a teen parent seriously limits subsequent education, employment prospects and lifetime earnings. Children of teen mothers begin life at a disadvantage, in part because teen mothers are less likely to have the financial resources and social supports to promote optimal child development. Children born to teen-age parents are more likely to suffer poor health, experience learning and behavior problems, live in poverty and become teen parents themselves.

Related indicators:

Children in Poverty, High School Dropout Rates, Income Distribution, School Performance

How are we doing?

- Births to teenagers have dramatically dropped during the 1990s. Both Shasta and Tehama counties have shown decreasing teen births (Figure 1).
- Shasta County has remained consistently below the state birth rate while Tehama County has shown wider fluctuations, ranging from a high of 78.7 births per 1,000 teen-age females in 1990 to a low of 53.5 births per 1,000 teen-age females in 1997 (Figure 1).

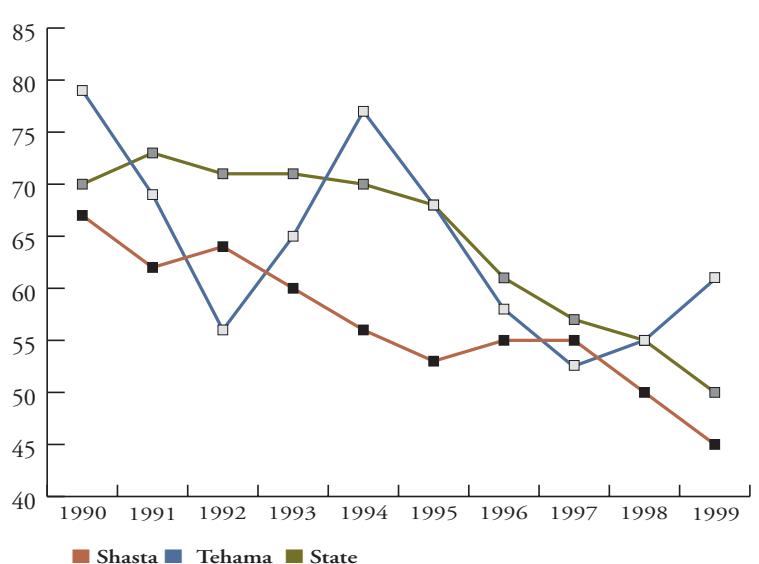
Data source:

Birth records from 1990-1999, California Department of Health Services (www.dhs.ca.gov)

Note: 1999 data has not yet been confirmed by the Department of Health Services

Figure 1: Teen Birth Rates

Per 1,000 females ages 15-19





society



society



society

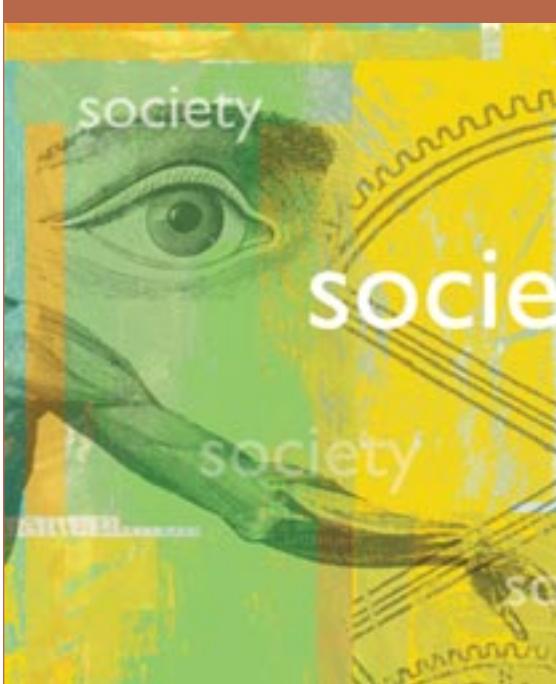


society



society

Summary of strengths and concerns



Society indicators

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This group of indicators seeks to measure the well-being of society as a whole in the north state. From school performance to community service, the activities measured here strengthen the fabric of our community, and create a strong base of support for positive change.

Strengths

- Volunteerism increased during the 1990s, with people donating their time to an array of causes
- Graduation rates of 9th through 12th graders equal the state rates in Shasta County and exceed state rates in Tehama County
- Crime rates dropped by a third in Shasta County from 1997 to 1999, and were down by nearly one-quarter in Tehama County; violent crime has also plummeted, and the region remains below the state average
- Traffic is increasing but is still far below the state rate
- Both counties register fewer voters than the state rate but easily surpass the state average in voter turnout
- Most community events show strong attendance

Concerns

- A waiting list for state-funded child care providers indicates an unmet need for this service
- Although both counties equal or exceed the state literacy rate, some 40 percent of adults still lack basic skills to function successfully in society
- The number of sworn police officers per capita has fallen slightly and is slightly below the state average; there has been difficulty in filling vacant volunteer firefighter positions

Improvements

- Though most schools still fall short of state goals, Shasta and Tehama schools are steadily improving their performance on state tests, and they surpass the state average on these exams

Parents wait for state-funded child care

Why is access to child care important?

When parents or guardians lack day care for their children, they find it more difficult to work, look for work or attend school. If they are unable to find child care, they may be unable to work enough hours to make a living, or they may feel forced to leave their children with an unqualified caregiver. In extreme cases, children may be left unattended.

Tracking the number of children on waiting lists for state-funded child care helps measure how well the child care system is meeting demand.

Related indicators:

Income Distribution, Unemployment

How are we doing?

- State-funded child care programs provide child care vouchers to low-income families. In Shasta and Tehama counties, 16 percent of the 3,415 children who qualified for such programs ended up on waiting lists, according to a February 2001 survey (Figure 1).

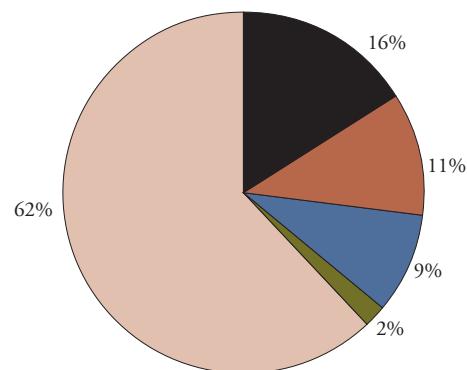
Data source:

Early Childhood Services, Shasta County Office of Education

Note: In "alternative payment programs," someone other than a child's parents pay for that child's care. The state reimburses these child care providers for some of this care, depending on the parents' eligibility.

Figure 1: Children in State-Funded Child Care

Shasta-Tehama counties



■ State preschool ■ Children's centers ■ Special education
 ■ Alternative payment programs ■ Waiting list

More than 40% of Shasta and Tehama residents struggle with literacy

Why is adult literacy important?

Adult literacy is indispensable to the social and economic health of the region. Those with limited literacy find it more challenging to pursue their goals – job advancement, consumer decision-making and general citizenship are all more difficult without sound literacy skills. Adults with low literacy skills are more likely to live in poverty, earn less money, work less and commit more crimes.

Related indicators:

Children in Poverty, Community Event Attendance, Crime Rates, High School Dropout Rates, Job Preparation, Mentoring, School Performance, Unemployment, Voting Rates

How are we doing?

- Shasta County exceeds the state average literacy score by 13 points (266 versus 279), while Tehama County equals the state (Figure 1).
- Literacy experts say adults with Level 3 literacy and above have the basic skills to function successfully in society. Fifty-nine percent of Shasta County residents and 50 percent of Tehama County residents achieve these levels. The state estimate for Level 3 and above is 54 percent (Figure 2).
- Though 24 percent of Californians are foreign-born, 59 percent of the Californians who ranked at Level 1 (the lowest level) on the prose literacy scale were born outside the United States.

Data source:
Portland State University

Figure 1: Average Literacy Score

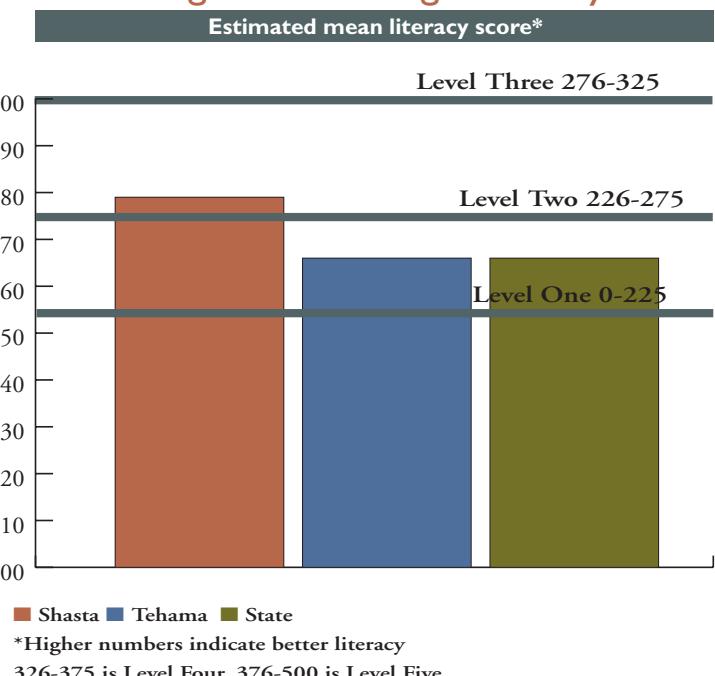
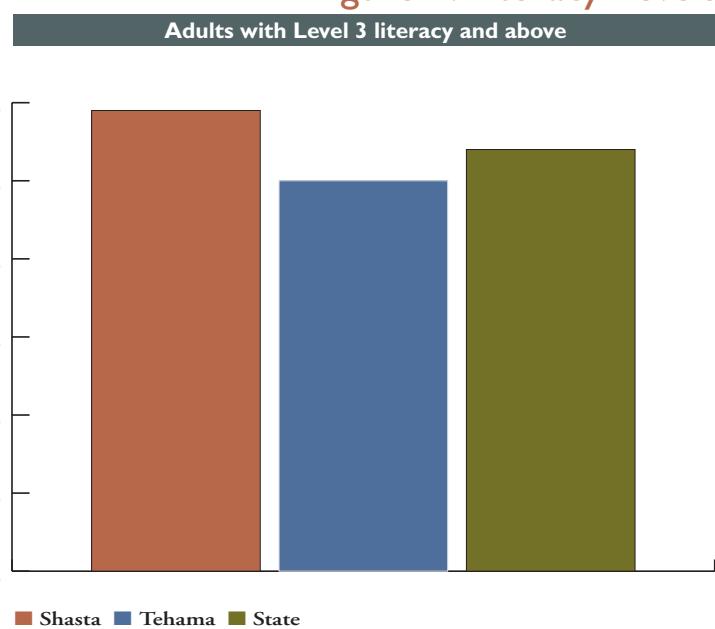


Figure 2: Literacy Levels



Shasta , Tehama set civic participation benchmarks

Why is civic participation important?

Civic participation is the cohesiveness and community spirit felt by a region's residents. A greater sense of community helps encourage individuals to pursue ventures that benefit the community, such as volunteerism and entrepreneurship.

This report creates an index of civic participation, which combines Neighborhood Watch programs, volunteer hours, attendance at annual events and voting rates. Because this is the first year for such tracking, no trends are evident yet.

Related indicators:

Community Safety, Environmental Stewardship, Volunteerism, Voting Rates

How are we doing?

- Shasta County reflected 8 percent more civic participation than the Shasta-Tehama region (Figure 1).
- Tehama County showed some 26 percent less civic participation than the overall region (Figure 1).
- Volunteer hours per person age 15 to 85 and attendance at annual events combine to create this discrepancy between Shasta and Tehama counties (see endnotes).

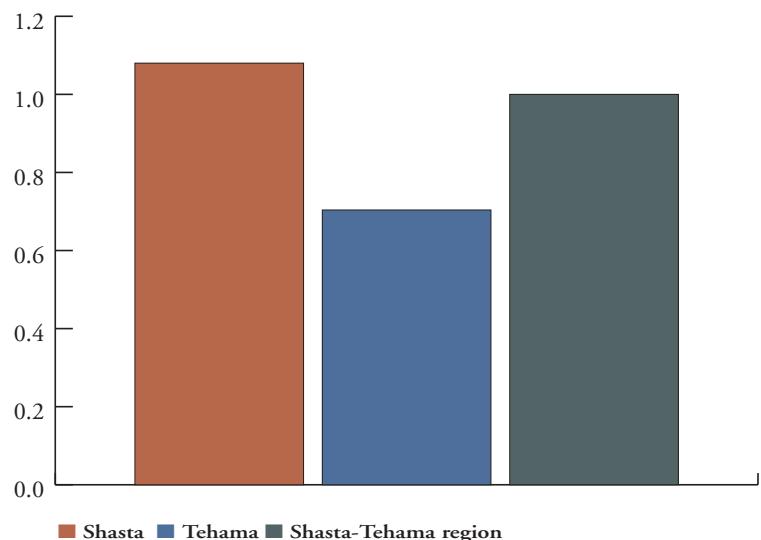
Data source:

Neighborhood Watch data: phone survey of police and sheriff's departments, March 2001. See Volunteerism, Event Attendance and Voting Rates indicators for further sources.

Note: The Civic Participation Index is a function of four variables: Total Neighborhood Watch programs per capita, volunteer hours per person age 15-85, attendance at annual events (adjusted for population differences) and voters as a percentage of persons eligible to vote in a given year. All variables were weighted at 25 percent.

Figure 1: Civic Participation

Index 2000



Shasta, Tehama county residents support community events

Why is community event attendance important?

Quality of life is reflected in part by how people spend their leisure time, including their support of community-sponsored activities. High attendance at a variety of community events indicates a high level of civic and social engagement among an area's citizens.

Event attendance is extremely difficult to measure, and estimates were self-reported by event organizers. Additional criteria for event selection will be developed in future reports.

Related indicators:

Adult Literacy, Income Distribution, Unemployment

How are we doing?

- This indicator benchmarks attendance at 90 representative events (57 in Shasta County and 33 in Tehama County), as estimated by event organizers. These events took place between May 2000 and April 2001 (for a complete list of events and attendance, see endnotes).
- In Shasta County, once-a-year events, including fairs, festivals, parades, annual community celebrations and one-time cultural events or museum activities (40 in all), drew some 384,000 people (Figure 1). In Tehama County, 25 similar events boasted attendance of more than 113,000 people (Figure 2).
- Attendance at recurring events or attractions which people may have attended on more than one occasion (such as MarketFest or museum exhibits) exceeded 213,000 in Shasta County (Figure 1). In Tehama County, eight such activities (including State Theater and annual museum attendance) drew 30,000 visitors (Figure 2).

Figure 1: Community Events, Shasta

May 2000 - April 2001

	Number of Events	Attendance
Once-a-Year Events	40	384,000
Recurring Events	17	213,000

Figure 2: Community Events, Tehama

May 2000 - April 2001

	Number of Events	Attendance
Once-a-Year Events	25	113,000
Recurring Events	8	30,000

Officers per 1,000 residents decreasing in Shasta-Tehama

Why is community safety important?

A community needs protection from crime, fire and other threats to personal safety. If the community does not feel safe, quality of life decreases. The number of police officers and firefighters help indicate the safety level of an area.

Related indicators:

Civic Participation, Infrastructure Maintenance, Land Use, Unemployment

How are we doing?

- The number of sworn police and sheriff's officers in Shasta County per 1,000 people has dipped slightly since 1990. There were 1.8 officers per 1,000 population in 1990 and 1.6 in 1998 (Figure 1).
- Sworn officers per 1,000 population in Tehama County fluctuated during the 1990s, rising to about 1.8 several times but falling to 1.2 in 1995 (Figure 1).
- The region is slightly below the state average in the number of police officers per 1,000 residents. The state rate hovered between 1.9 and 2.0 throughout the 1990s (Figure 1).
- In most years between 1990 and 1998, Tehama County had more officers per 1,000 people than Shasta County (Figure 1).
- There are many vacant volunteer firefighting positions in rural Shasta and Tehama counties. Some communities, however, were staffed to capacity (see Endnotes). In Shasta County, approximately 14 percent of volunteer fire positions are vacant. In Tehama County, about 21 percent are vacant (Figure 2).

Data source:

Police data: Department of Justice Law Enforcement Personnel Survey (1998)
 Volunteer fire data: Reported to the Center for Economic Development, CSU, Chico by individual fire departments (February 2001)

Figure 1: Sworn Officers

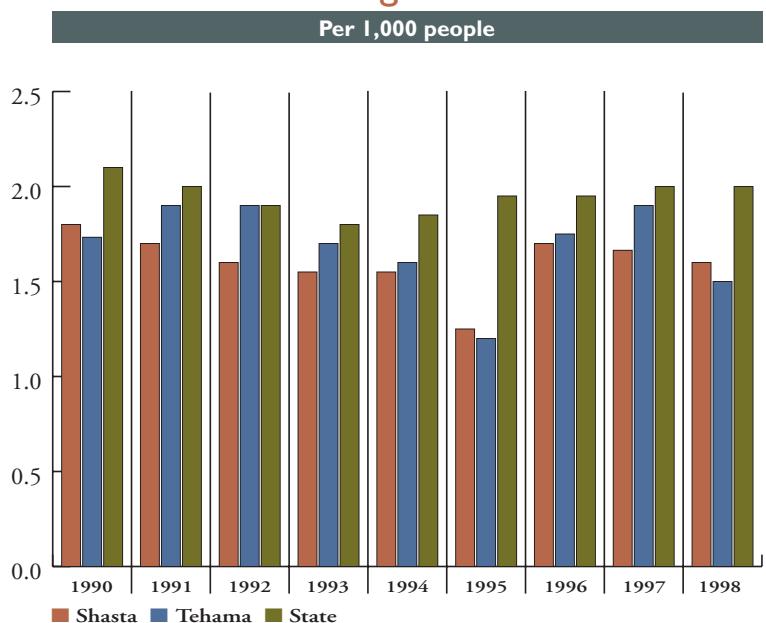


Figure 2: Volunteer Firefighters



Crime decreasing, but less quickly than state rates are dropping

Why are crime rates important?

Crime undermines the economic health of a community by creating property damage, injury and loss of life while diverting public resources from social services. Crime also weakens a community's sense of well-being by creating an atmosphere of mistrust and fear.

Related indicators:

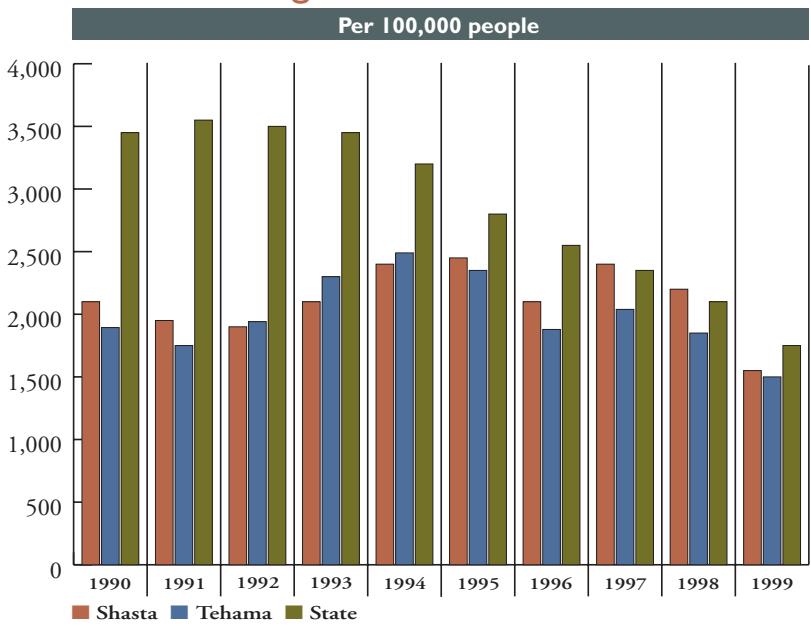
Adult Literacy, Domestic Violence, Income Distribution, Job Preparation, Substance Abuse, Unemployment

How are we doing?

All major crime

- Crime rates in Shasta County decreased 33 percent between 1997 and 1999, while Tehama County rates dropped 22 percent (Figure 1).
- Tehama County's crime rate has been consistently lower than the state average since 1990. However, the Shasta County crime rate exceeded the state average in 1997 and 1998 (Figure 1).
- For the eighth consecutive year, crime has decreased in California, dropping a record 14.9 percent in 1999. Although the state crime rate has decreased by 50 percent since 1990, crime rates in Shasta and Tehama counties have decreased less dramatically. In 1990, Shasta and Tehama county crime rates were more than 30 percent lower than state rates: In 1999, the difference was less than 10 percent.

Figure 1: California Crime Index



Continued...

Violent and property crime

- Violent crime, one part of the crime index, went up in Shasta County until it peaked in 1997 at 793 crimes per 100,000 people. Since then, it has dropped nearly to the 1990 level of 424 per 100,000. This represents a 40 percent decrease (Figure 2).
- Tehama County violent crime peaked in 1995 at 972 per 100,000 and has declined steadily, reaching 562 per 100,000 in 1999, a 42 percent drop to almost the 1991-1992 levels (Figure 2).
- On average, the property crimes of burglary and vehicle theft accounted for two-thirds or more of the crimes in the crime index, specifically 73 percent for Shasta County, 65 percent for Tehama County and 68 percent for the state (Figure 3).
- Complete statistics for the state are available only through 1999. However, more recent statistics have been released for the city of Redding, Shasta County and Tehama County unincorporated areas. All report decreases in overall crime during 2000 – 10 percent in the city of Redding, 6 percent in Shasta County and 1 percent in Tehama County. The decrease was largely attributed to a drop in crimes of opportunity or property crimes, such as burglary and theft. Violent crimes (homicide, rape, robbery and aggravated assault) increased slightly from 1999 – by 3 percent in the city of Redding , 11 percent in Shasta County and by 2 percent in Tehama County unincorporated areas.

Data source:

California Criminal Justice Statistics (<http://caag.state.ca.us/cjsc>)

Shasta County Sheriff's Department, Tehama County Sheriff's Department, Redding Police Department, Red Bluff Police Department

Figure 2: Violent Crime

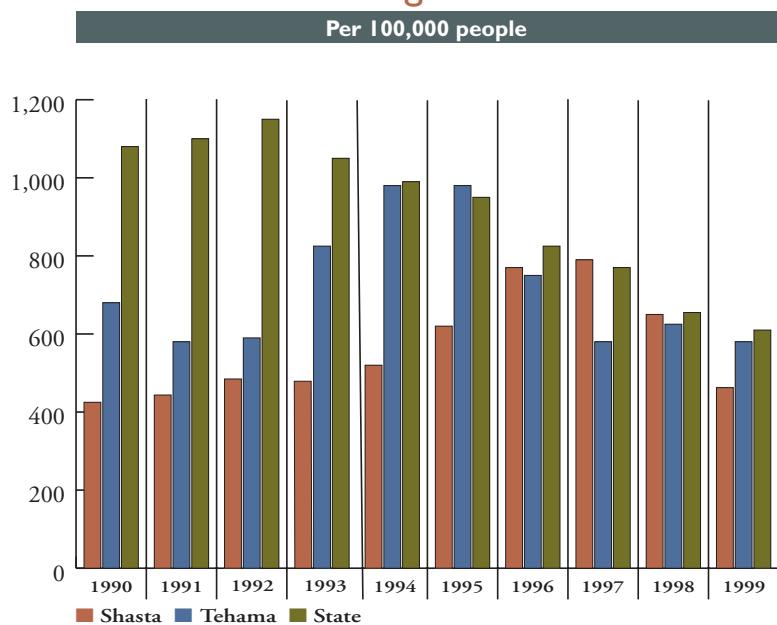
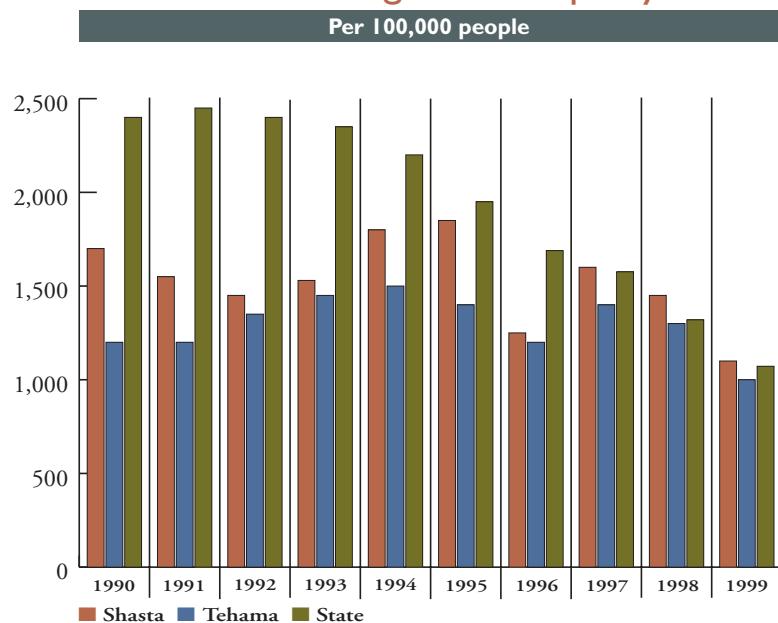


Figure 3: Property Crime



Local high school dropout rates lower than state average

Why are high school dropout rates important?

It is imperative that public schools successfully prepare students to be productive in a society that is becoming more technologically advanced each day. This indicator helps measure the success of our public education system and its ability to meet the needs of all students. Those who drop out find it difficult to acquire and maintain employment providing wages and benefits that can sustain a decent quality of life.

This indicator measures annual dropout rates and four-year dropout estimates for grades 9-12.

Related indicators:

Adult Literacy, Children in Poverty, Job Preparation, Mentoring, School Performance, Substance Abuse, Teen Birth Rate

How are we doing?

- Shasta County mirrored the state's dropout rate through most of the 1990s (Figure 1).
- The dropout rate for high school students in Tehama County was lower the state average through the 1990s (Figure 1).
- Based on the number of annual dropouts, the estimated percentage of students who dropped out over a four-year period steadily declined in Shasta County, from about 20 percent in 1991-92 to 9.7 percent in 1999-2000 (Figure 2).
- Tehama's estimated four-year dropout rate held steady and remained well below the state rate (Figure 2).

Data source:
California Department of Education

Figure 1: Annual High School Dropout Rates

Grades 9-12

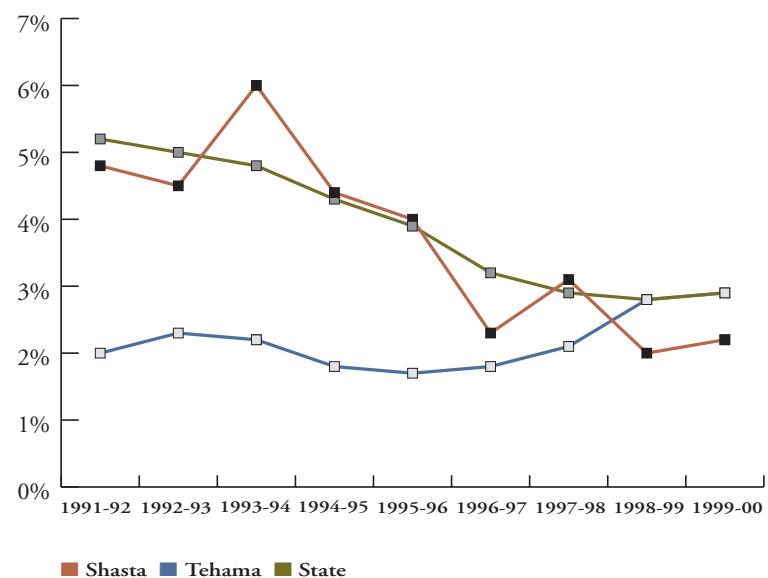
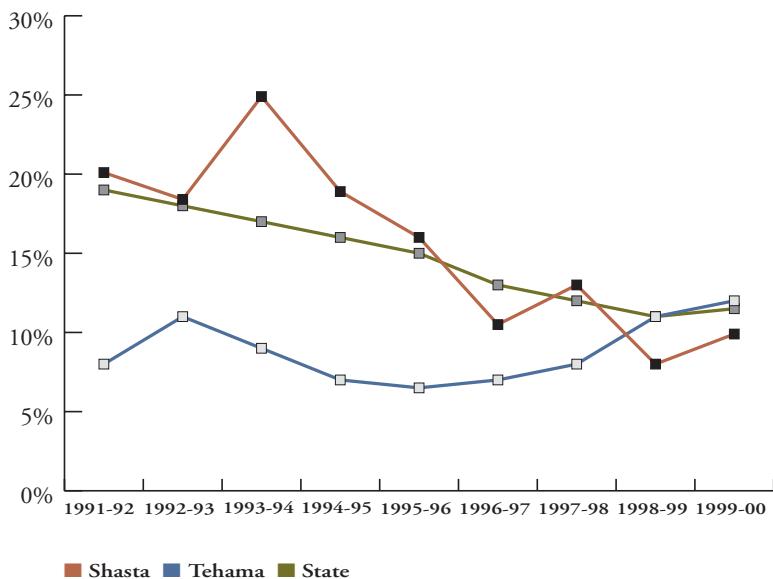


Figure 2: Four-Year Dropout Rates

Grades 9-12, estimated by the State Department of Education



Nearly half of north state residents are online

Why is information technology important?

For the local economy to keep pace with the region, access to information technology is crucial. Information technology can increase worker productivity, while Internet access can provide residents with additional professional, educational and personal resources not available locally. Information technology and Internet access can expand employment opportunities via telecommuting, so people can bring in wages from outside the area. Indirectly, Internet commerce can affect the environment by reducing automobile trips made for retail purposes. On the other hand, Internet commerce could displace local retail jobs.

Related indicators:

Entrepreneurship, School Performance

How are we doing?

- In 51 percent of Shasta County households, at least one person uses the Internet at home (Figure 1).
- In 44 percent of Tehama County households, at least one person uses the Internet at home (Figure 1).
- In 47 percent of all California households, at least one person uses the Internet at home (Figure 1).

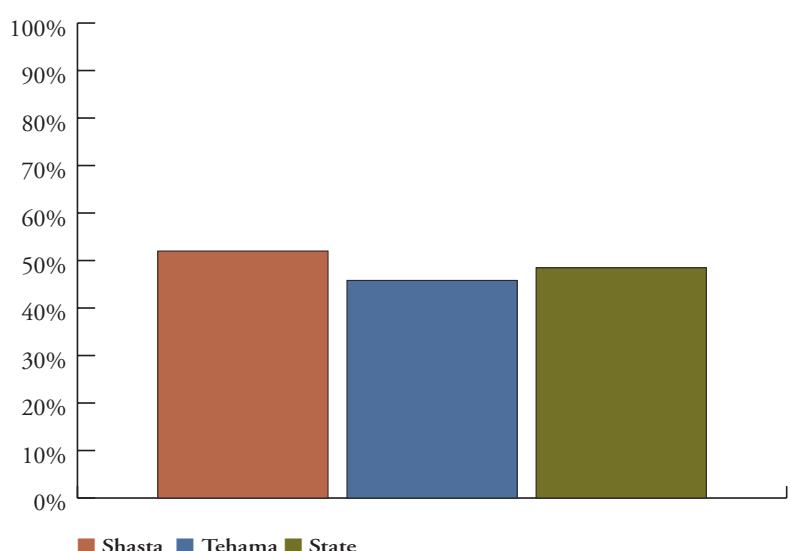
Data source:

Community Assets and Concerns Survey, Shasta and Tehama county residents; August 2000 Current Population Survey, U.S. Department of Commerce

Note: The Shasta-Tehama data for this indicator was taken from answers to the question "Do you access the Internet in your home?" in the Community Assets and Concerns Survey conducted by the North State Institute for Sustainable Communities and Shasta College, January 1999.

Figure 1: Internet Access

Percent of households with Internet access, 2000



Schools steadily improve, but still fall short of state's goal

Why is school performance important?

Education is the cornerstone of the growth and development of our youth. It impacts every aspect of an individual's life, from choosing a career to total income earnings. A strong and viable educational system is vital to a society's ability to keep pace with change and to build an informed and involved citizenry.

Related indicators:

Adult Literacy, High School Dropout Rates, Information Technology, Job Preparation, Mentoring, Substance Abuse, Teen Birth Rates, Voting Rates

How are we doing?

- Based on yearly standardized test results, most schools in Shasta and Tehama counties performed at or above 1999 base year levels and met their 5 percent growth target.
- Of the 54 elementary, middle and charter schools and eight high schools in Shasta County, three elementary schools and one high school did not show test improvement.
- Of the 24 elementary and middle schools and three high schools in Tehama County, one elementary school and one high school did not show test improvement.
- Both counties had schools that scored in the top 10 percent of California schools and schools that ranked in the bottom 20 percent.
- Elementary schools showed more improvement between 1999 and 2000 than high schools did (Figures 1 and 2).
- Average high school scores for Shasta, Tehama and state high schools improved in 2000. Elementary school rankings for both counties exceeded the average state score of 666 (Figures 1 and 2).

Figure 1: Academic Performance Index

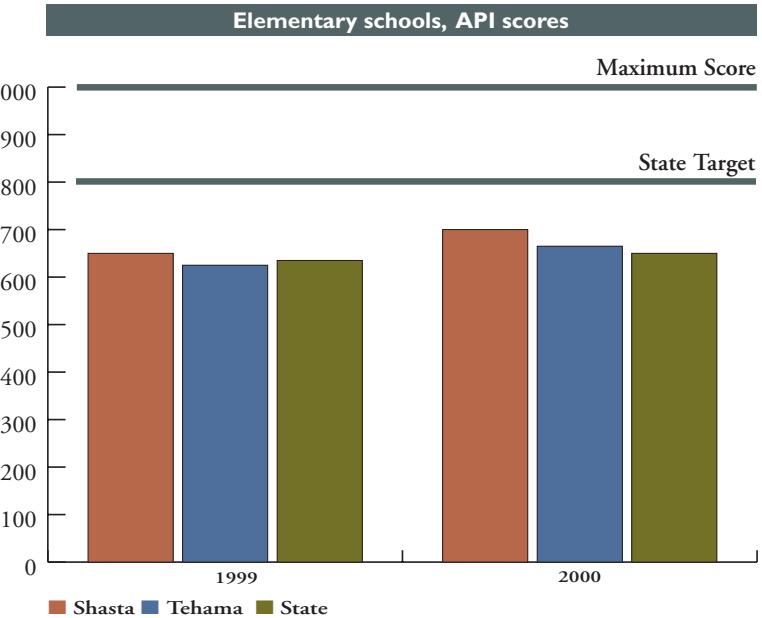
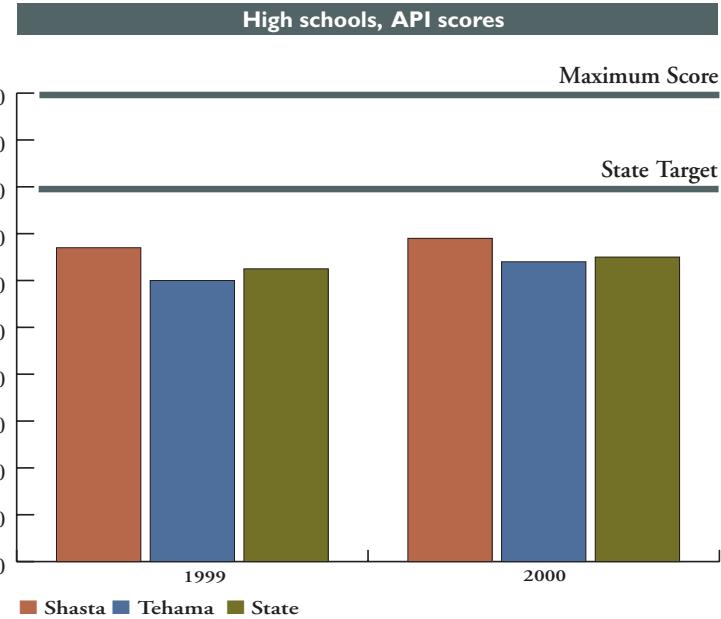


Figure 2: Academic Performance Index



Continued...

- Most schools in Shasta and Tehama counties scored between 600 and 750, short of the state target of 800 but above the state average (Figure 3).
- In 2000, five elementary schools in Shasta County and one in Tehama County met the state standard of 800 (Figure 3).
- Each county had one high school that did not achieve its growth performance goal for 2000.
- Four Shasta County elementary schools and one Tehama County elementary school did not achieve the 2000 growth targets.

Data source:

California State Department of Education

Notes: To measure school performance, we have relied on annual standardized testing data. While critics have pointed out the limitations of such standardized testing to measure all aspects of school performance, alternative methods of comparing school performance have not yet been developed and implemented across the state. The Academic Performance Index (API) ranges from 200-1000. A school's score on the index indicates the school's level of performance.

Figure 3: 2000 API Test Score Distribution

By number of schools for Shasta and Tehama counties

API Score	Elementary and junior high schools		High schools	
	Tehama	Shasta	Tehama	Shasta
851-900		1		
801-850	1	4		State Target
751-800	2	9		
701-750	9	13		3
651-700	5	15	1	4
601-650	7	6	1	1
550-600		6	1	

Traffic increasing in Shasta and Tehama, but still far below state levels

Why is traffic important?

Traffic congestion pollutes a region's environment and burns gasoline. High traffic rates can strain a region's infrastructure, requiring more road maintenance, while reducing individual productivity by increasing the time it takes to commute to work or complete day-to-day errands. Low levels of traffic are also conducive to the efficient distribution of goods and services, which is vital to economic well-being and growth.

This report tracks commute times and vehicle miles traveled within the region.

Related indicators:

Air Quality, Consumer Goods Sales, Ecosystem Health, Energy and Resource Use, Infrastructure Maintenance

How are we doing?

- Average traffic levels in Shasta and Tehama counties are far below the state's levels. Shasta County experienced only 38 percent of the state's average traffic level while Tehama County traffic was 26 percent of the state average in 1999 (Figure 1).
- Traffic levels are increasing slightly faster in Shasta County than in the state, with Shasta County traffic growing 15.9 percent between 1990 and 1999. Tehama County traffic grew 14.5 percent in that period—about the same growth that the state experienced (14.4 percent).
- Average commute times are 30 percent shorter in Shasta County and 24 percent shorter in Tehama County than in California. Both counties have greater proportions of workers who commute less than 15 minutes and a lower percentage of workers who commute more than 30 minutes than in the state overall (Figure 2).

Data source:

Vehicle miles traveled (VMT) and total miles of publicly maintained roadway: California Department of Transportation, Transportation System Information Program. Miles of publicly maintained roadway, 1999: Not available. Estimated by the Center for Economic Development at California State University, Chico

Figure 1: Vehicle Miles Traveled

Per 1,000 miles of maintained roadway

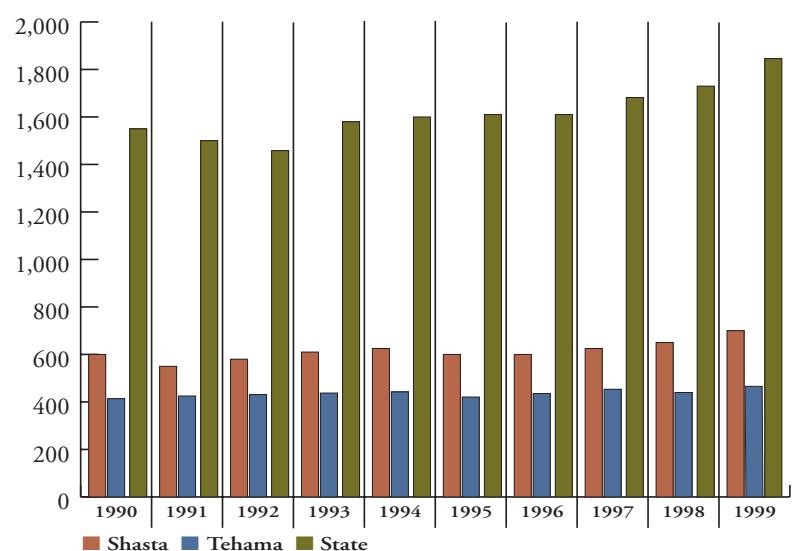
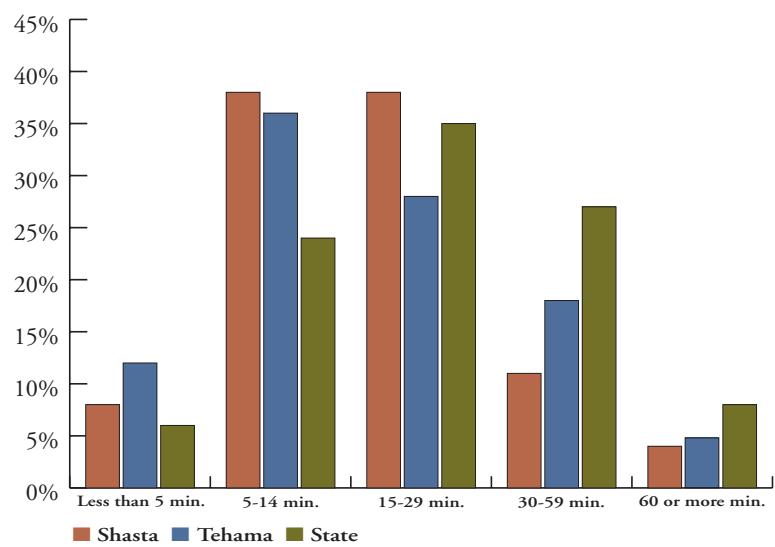


Figure 2: Travel Time To Work

As a percent of employed persons, 1990 Census



More residents donate their time to foster community health

Why is volunteerism important?

The time people donate to charitable organizations and other groups reflects residents' commitment to their communities. Many organizations that benefit the public depend on volunteers to accomplish their goals. Nonprofits, in particular, depend heavily on volunteer help. Higher volunteer rates indicate better services for the needy and can contribute to a better quality of life in the community, while low volunteer rates can lead to greater demands on local government.

Related indicators:

Civic Participation, Environmental Stewardship

How are we doing?

- The recorded total number of volunteers (ages 15-85) per 1,000 people in the representative organizations sampled has generally increased in both Shasta and Tehama counties (Figure 1). However, Shasta County organizations reported a slight drop in volunteer rates between 1999 (with about 30 volunteers per 1,000) and 2000 (when about 27 people per 1,000 volunteered).
- In 2000, the 18 representative organizations in Shasta County recorded more than 551,000 hours of service to their communities; however, 13 of those organizations reported the same or fewer volunteers compared with 1999. One-third of those organizations in 2000 also reported a decrease in volunteer hours (Figure 2; also see endnotes).
- The nine sampled organizations in Tehama County reported more than 88,000 hours of volunteer service in 2000, with no decrease in the number of volunteers. Only one organization reported a decrease in volunteer hours.
- While more adults have volunteered over the last decade (56 percent of adults volunteered in 1998 compared with 45 percent in 1987), the amount of time people spent volunteering declined slightly. In 1998, volunteers gave an average of 3.5 hours per week; in 1995, that average was 4.2 hours per week.

Figure 1: Estimates of Volunteers

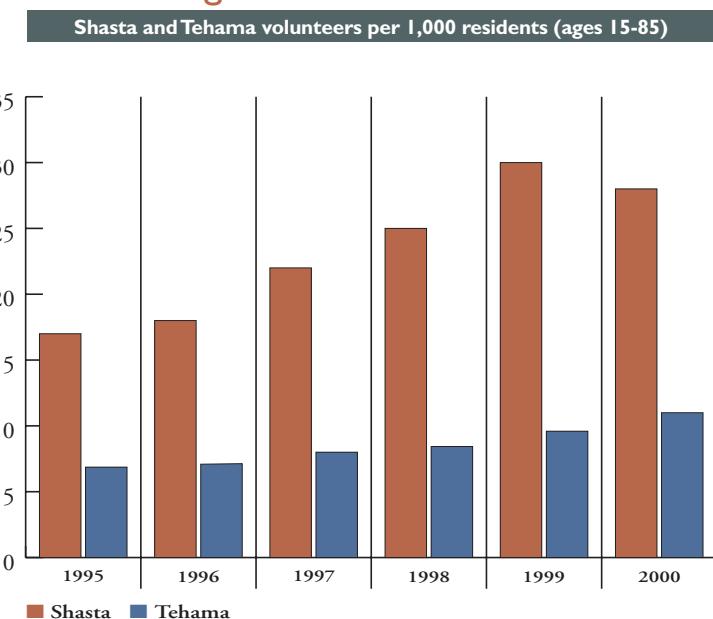


Figure 2: Changes in Volunteer Hours

1999 to 2000

		Number of organizations sampled	Change in number of volunteers			
			Same	Increase	Decrease	Incomp
Shasta	18		3	4	10	1
Tehama	9		3	4	0	2

Number of organizations sampled

		Number of organizations sampled	Change in volunteer hours			
			Same	Increase	Decrease	Incomp
Shasta	18		2	9	6	1
Tehama	9		1	5	1	2

- In 2000, Shasta County volunteers contributed an average of 2.9 hours per week, while Tehama County volunteers gave an average of 3.5 hours per week.

Data source:

Eighteen organizations in Shasta County and nine organizations in Tehama County were selected as a representative sample of community organizations who use volunteers. The data also includes figures provided by The Volunteer Center, a volunteer coordinating agency in both counties which represents more than 40 categories of organizations, including adult correction, animal care, chambers of commerce, environmental organizations, parks and recreation, and schools.

Voter turnout improving in the north state

Why is voter participation important?

Voting is a fundamental right and duty of all adult citizens. Voter turnout reflects the level of commitment that people feel toward the political system. High turnout makes elected officials more accountable to the community as a whole, which bolsters the underlying tenets of our democratic system.

Related indicators:

Adult Literacy, Civic Participation, School Performance

How are we doing?

- I Shasta and Tehama counties have slightly lagged behind the state average in the percentage of residents who register to vote (Figure 1).
- I Voter turnout (the percentage of registered voters who vote) in Shasta and Tehama counties has significantly increased since 1990 (Figure 2); about seven of every 10 registered voters in these counties showed up at the polls between 1990 and 2000, while the statewide voter participation rate bounced between about 30 percent and 55 percent in general elections during that period.
- I During the past 11 years, the presidential election of 1992 has seen the highest voter turnout for both counties, with 82 percent for Shasta County and 81.4 percent for Tehama County (Figure 2).

Figure 1: Adults Registered to Vote

Percent of total adult population

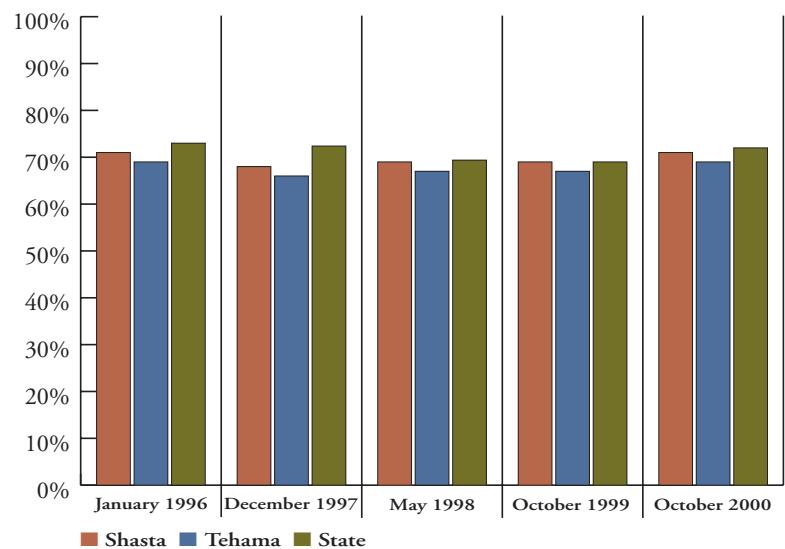
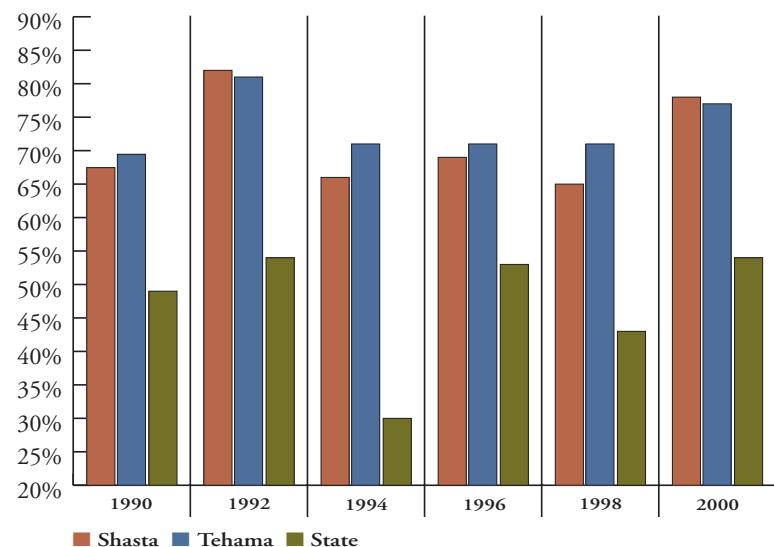


Figure 2: Voter Participation

Registered voters who voted, general elections



VOTING RATES, CONTINUED

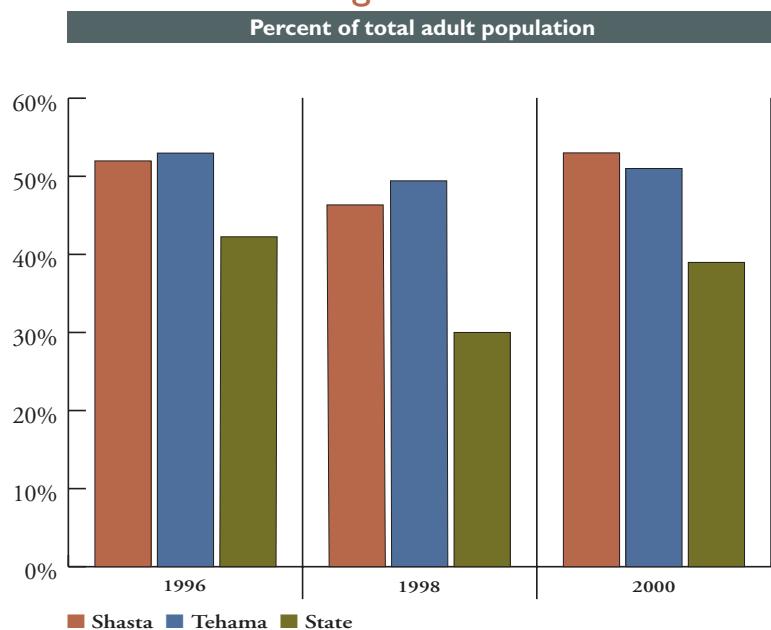
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- Of all adults eligible to vote (registered or not), about half show up at the polls in Shasta and Tehama counties, compared with 38 percent participation in the state (Figure 3). Slightly more than 55 percent of all Shasta County adults and more than 53 percent of Tehama County adults voted in November 2000.

Data source:

Shasta County Clerk/Registrar of Voters, Tehama County Elections Department, California Secretary of State

Figure 3: Adults Who Vote



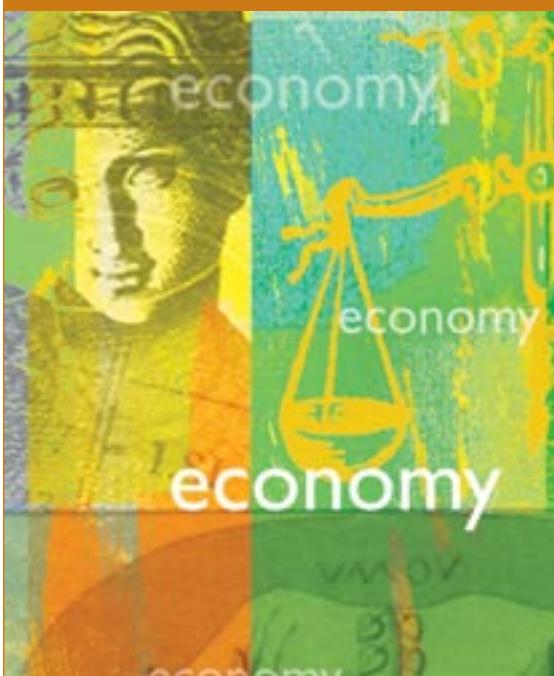


economy

economy

economy

Summary of strengths and concerns



Economy indicators

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This group of indicators measures the health of the economy in Shasta and Tehama counties. By examining the vitality and diversity of north state businesses, as well as employment levels, income distribution and other factors, this section identifies trends over time that will strengthen or hinder our economic growth.

Strengths

- Housing is much less expensive than the state average

Concerns

- The region has a shortage of college-educated workers and there is a large discrepancy between the jobs available and people qualified with high school diplomas
- The area has fewer new businesses than the state average
- More than half the labor force is underemployed

Improvements

- Unemployment is still above the state rate but is dropping
- Consumer goods sales steadily increased during the late 1990s
- The diversity of businesses is increasing in Shasta County

Tehama lags behind state average in luring sales tax dollars; Shasta keeps pace

Why are consumer goods sales important?

Economic performance is vital to community health. Consumer goods sales, or taxable sales, reflect a region's economic performance. When the economy is in decline, people purchase fewer consumer goods (defined as products not necessary for basic survival, such as cars and household goods). A low volume of consumer goods sales may also indicate a shortage of shopping opportunities. When the economy expands, consumer goods sales increase. Communities lacking in consumer goods sales can suffer a disadvantage in community development; when the local population travels elsewhere for consumer goods, the business climate weakens.

Related indicators:

Entrepreneurship, Income Distribution, Traffic

How are we doing?

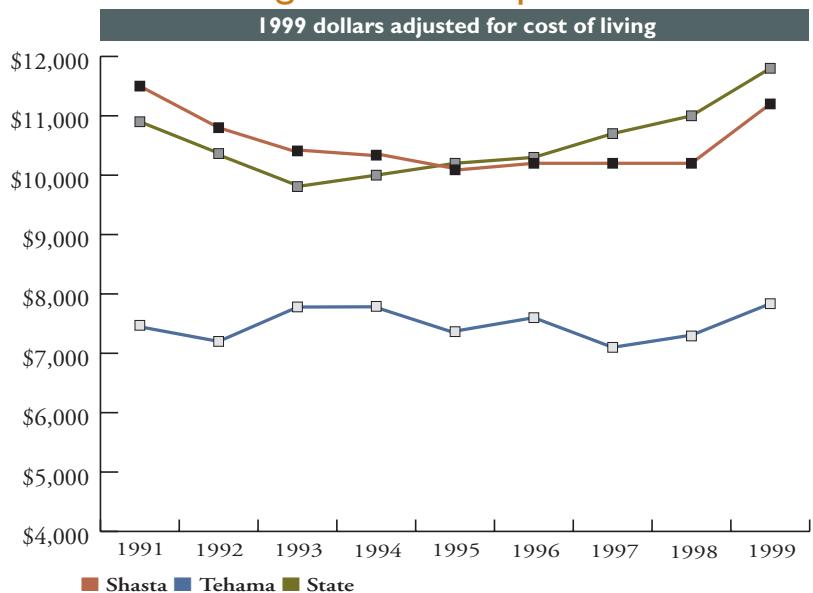
- Taxable sales per capita in Shasta County, as adjusted for cost-of-living differences, steadily declined between 1991 and 1998, then jumped as the local economy expanded (Figure 1).
- In Tehama County, taxable sales per capita fluctuated slightly during the 1990s but have consistently remained well below the state average. Fluctuation in Tehama County is due to its agriculture-based economy (Figure 1).
- Economic expansion in Shasta County during the 1990s has hovered around the state average, but Tehama County's sales have not kept pace with California (Figure 1).

Data source:

California Board of Equalization

Note: This indicator assumes that the cost of living changes in Shasta-Tehama at the same rate as it does in the state; however, the cost of living in the Shasta-Tehama region may change more slowly than in faster-developing areas.

Figure 1: Per-Capita Taxable Sales



Shasta County becoming more economically diverse; Tehama fluctuating

Why is economic diversity important?

Economic diversity indicates the resilience of the local economy. In a diverse economy, income flows from a variety of industries; no single industry accounts for a majority of the region's wages. As a result, a diverse economy will suffer only minor fluctuations in the flow of goods, services and cash during industry-specific downturns.

To measure economic diversity, this report tracks the number of industries contributing to the north state's income. It also compares the dollars contributed by each industry in Shasta and Tehama counties with the dollars contributed to the national economy by the same industries.

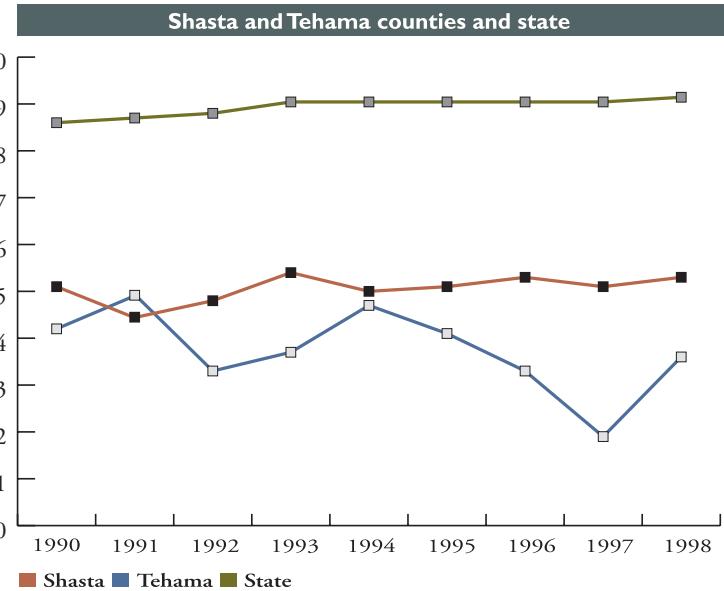
Related indicators:

Entrepreneurship, Job Preparation, Land Use, Unemployment

How are we doing?

- Shasta County is more economically diverse than Tehama County. Diversity in Shasta County is increasing, though both counties are less diverse than the state (Figure 1).
- Diversity in Tehama County is generally decreasing. Tehama's diversity index shows much more fluctuation than Shasta, largely because much of Tehama's income comes from the agriculture industry, which is highly sensitive to market variations (Figure 1).

Figure 1: Economic Diversity Index



ECONOMIC DIVERSITY, CONTINUED

Continued...

- Compared with the national average, Shasta and Tehama county residents earn more of their income from transfer payments (Figure 2), defined as any supplemental income that is not a return on an investment or a payment for work immediately performed. Transfer payments include retirement, welfare, disability, Medi-Cal and unemployment insurance. Such payments accounted for nearly 25 percent of all personal income in Shasta and Tehama counties, compared with 11.9 percent in California and 13.4 percent nationally.
- Compared with the national average, Shasta and Tehama county residents earned less of their income from services, finance, manufacturing and wholesale trade. More jobs in these industries would increase economic diversity (Figure 3).

Data source:
Department of Commerce, Bureau of Economic Analysis

Figure 2: Industries Contributing More Income

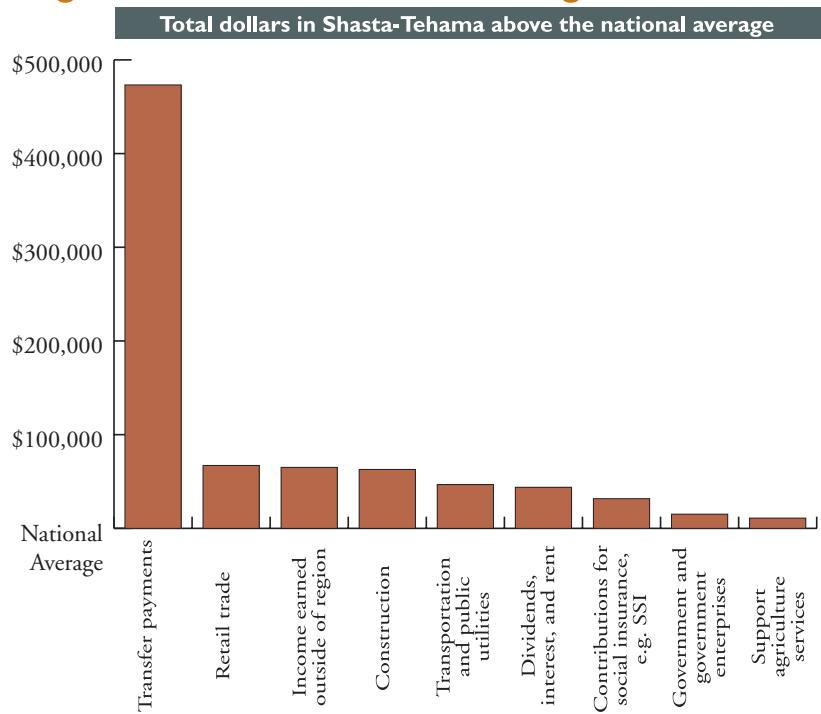
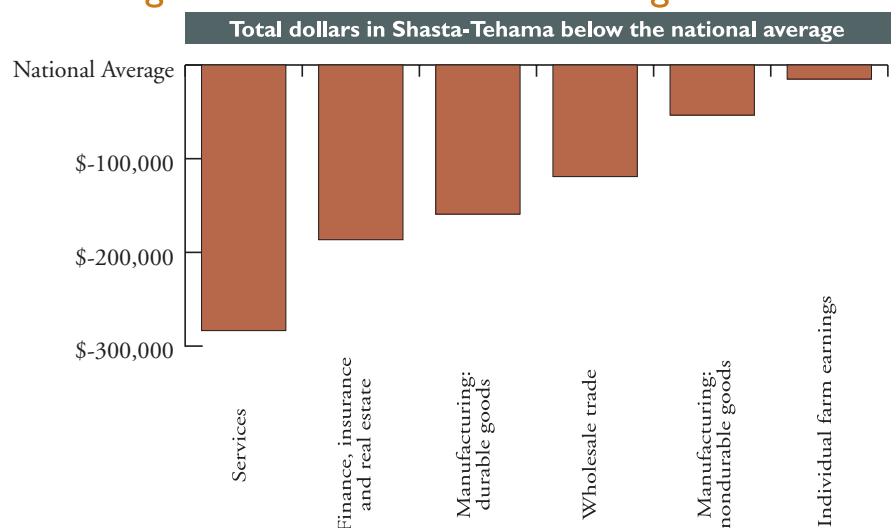


Figure 3: Industries Contributing Less Income



Shasta-Tehama has fewer young businesses than the state

Why is entrepreneurship important?

Entrepreneurs, who tend to be highly innovative and visionary, are a driving force behind the market economy. New businesses keep the economy from stagnating; an area that has many small firms and new businesses is likely to grow.

The percentage of small firms and new businesses helps measure business growth in the region. On average, entrepreneurial businesses add 80 percent of new jobs to an area.

Related indicators:

Consumer Goods Sales, Economic Diversity, Information Technology

How are we doing?

- Shasta and Tehama counties have a smaller percentage of new businesses than the state (Figure 1).
- More than 80 percent of businesses in Shasta County, Tehama County and California have fewer than 10 employees (Figure 2).
- Some 1.3 percent of businesses in Shasta County and 1.7 percent of business in the state have 100 or more employees, while just 0.2 percent of Tehama County businesses fit that profile (Figure 2).

Data source:
Dunn and Bradstreet business database

Figure 1: Age Of Firms

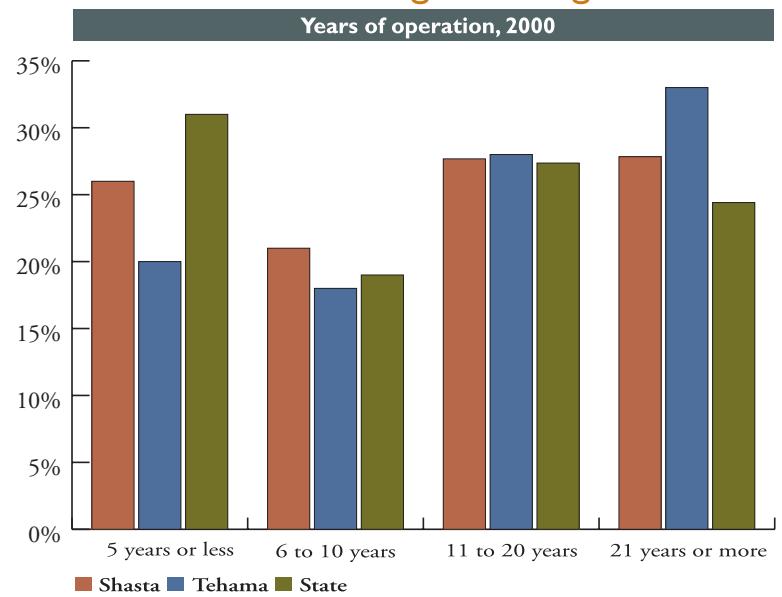
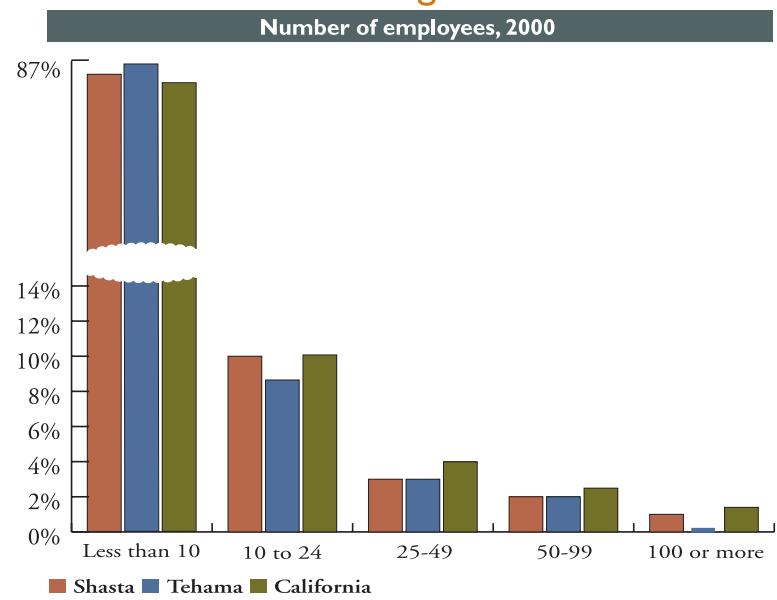


Figure 2: Size Of Firms



Low-income residents pay more of their income for housing

Why is housing affordability important?

Affordable housing is necessary to maintain a decent quality of life. Whether a person rents or pays a mortgage, the more that he or she spends on housing means the less that person will have left for clothing, food, transportation and other items that contribute to quality of life.

Related indicators:

Children in Poverty, Income Distribution, Job Preparation, Unemployment

How are we doing?

- Housing in Shasta and Tehama counties is more affordable for people in all income levels than it is in California as a whole. Forty-four percent of households in Shasta-Tehama, compared with 36 percent of households in California, pay less than 20 percent of their income in housing. Only 24 percent of households in Shasta-Tehama, compared with 29 percent of households in California, spend more than 35 percent of their income on housing (Figure 1).
- While housing is more affordable in Shasta-Tehama than in California, there is still more housing available for people with higher incomes than for those with lower incomes. Seventy-five percent of households earning \$10,000 or less in 1989 paid more than 35 percent of their income on housing compared with 1 percent of households earning \$50,000 (Figures 2 and 4).
- Eight percent of households earning \$10,000 or less in 1989 paid less than 20 percent of their income on housing compared with 85 percent of households earning \$50,000 (Figures 2 and 4).
- Rents in Shasta and Tehama counties are not increasing as quickly as income, as suggested by comparing estimates of Fair Market Rent from the U.S. Department of Housing and Urban Development, and from estimates of Median Household Income from the U.S. Department of Commerce Census Bureau.

Data source:

U.S. Department of Commerce, Bureau of the Census, 1990 Census

Note: 2000 Census data not yet available

Figure 1: Income Spent On Housing

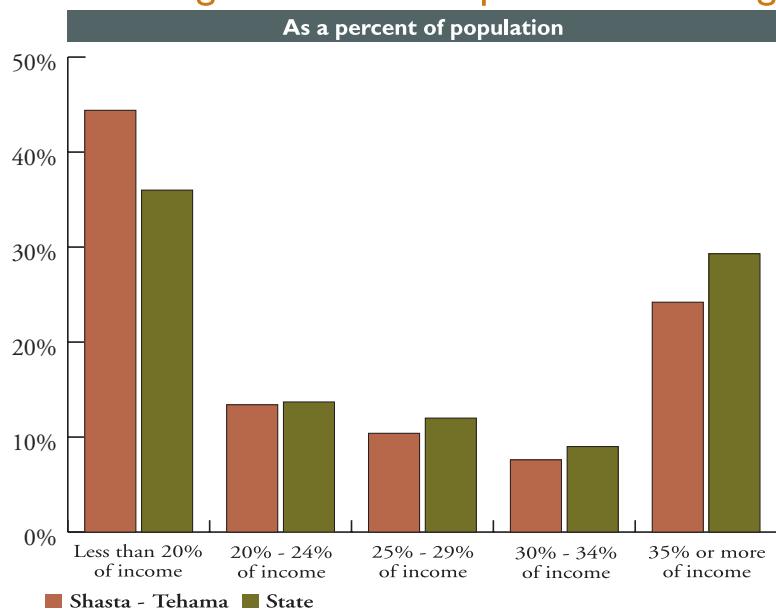
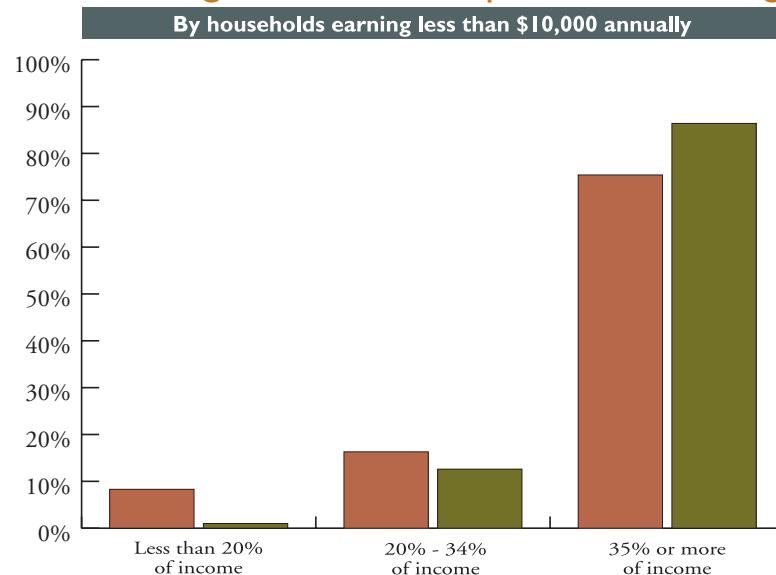


Figure 2: Income Spent On Housing



HOUSING AFFORDABILITY, CONTINUED

Continued...

Figure 3: Income Spent On Housing

By households earning \$10,000 - \$50,000

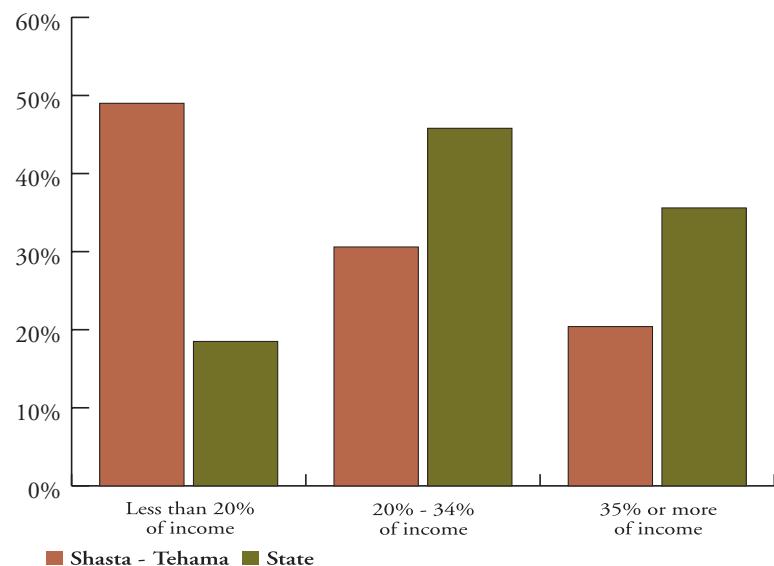
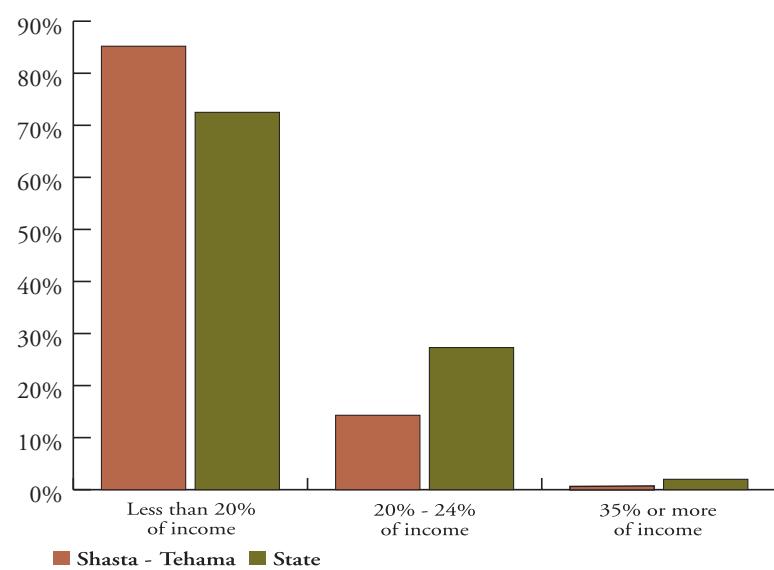


Figure 4: Income Spent On Housing

By households earning more than \$50,000



Richest get slightly richer, but so do the poorest

Why is income distribution important?

Income distribution—the proportion of an area's dollars taken home by the rich, middle-income and poor—reflects how well the regional economy provides a healthy standard of living for the population. The more evenly the income in a region is distributed, the greater the possibility that every person can maintain a healthy standard of living.

While great disparities between rich and poor are undesirable, so is a perfectly even distribution of wealth, as the opportunity to earn more money rewards education, ambition and creativity.

Related indicators:

Access to Child Care, Community Event Attendance, Consumer Goods Sales, Crime Rates, Domestic Violence, Health Care Accessibility, Housing Affordability, Job Preparation, Teen Birth Rates

How are we doing?

- The fifth of the population with the lowest incomes in Shasta-Tehama earned 4.4 percent of total personal income in 1989, up from 3.9 percent in 1979 (Figure 1).
- The fifth of the population with the highest incomes in Shasta-Tehama earned 46.7 percent of the region's total income in 1989, up from 45.8 percent in 1979 (Figure 1).
- The 60 percent of households in the middle took home less of the region's income in 1989 than they did in 1979, declining from 50.3 percent to 48.9 percent (Figure 1).
- Families earning the median income within the highest quintile made more than \$60,000 in 1989, nearly 8.5 times the income of families in the lowest quintile, who earned about \$7,000 in 1989 (Figure 2).

Figure 1: Income Distribution

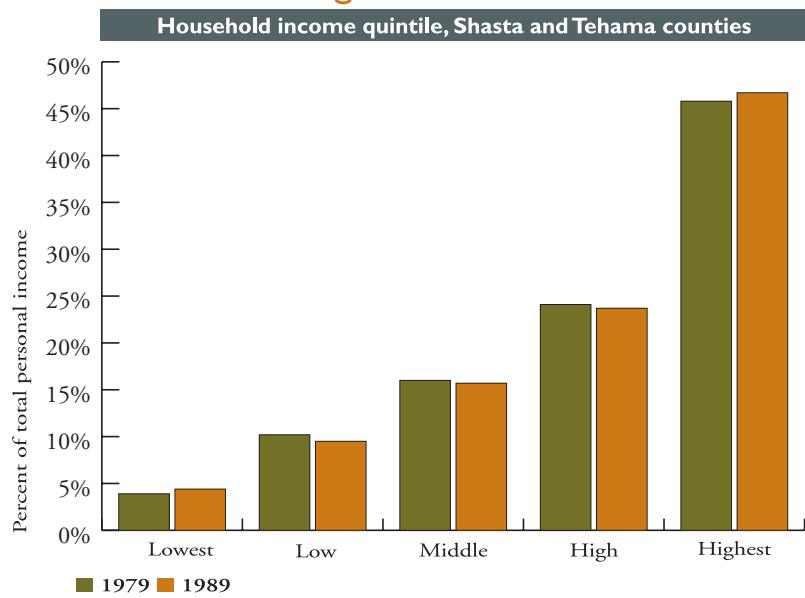
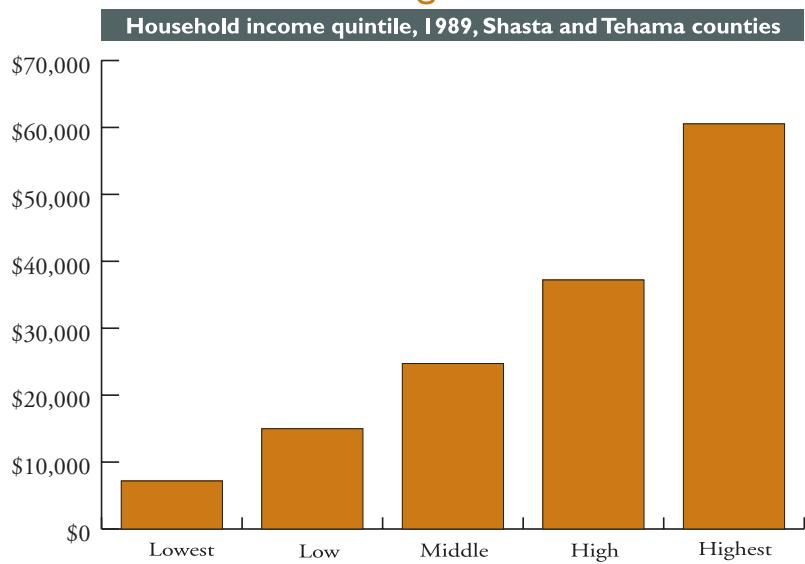


Figure 2: Median Income



INCOME DISTRIBUTION CONTINUED

Continued...

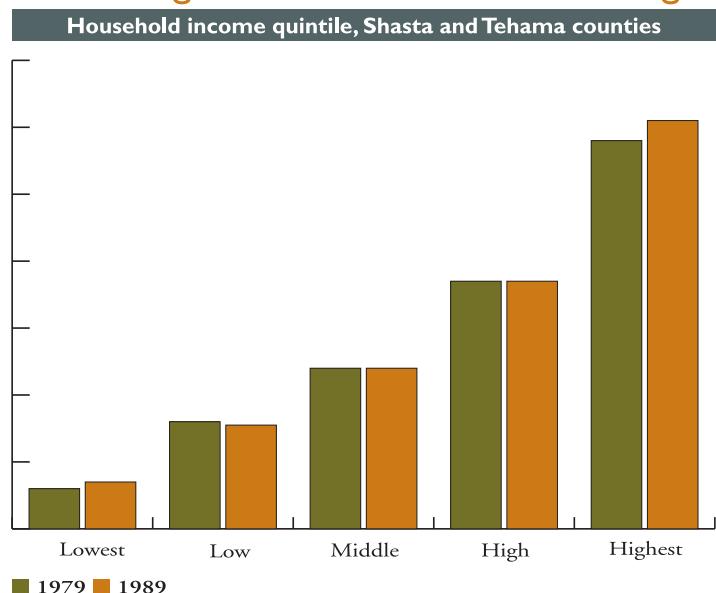
- Incomes rose most for the lowest-income households in Shasta and Tehama counties, which earned 21.9 percent more money in 1989 than in 1979 (adjusted for inflation) (Figure 3).
- Incomes rose for the highest-income households in Shasta-Tehama, which earned 2.9 percent more income in 1989 than in 1979 (adjusted for inflation) (Figure 3).

Data source:

U.S. Department of Commerce, Bureau of the Census, 1990 Census

Note: 2000 Census data not yet available

Figure 3: Median Income Changes



Road maintenance workers below 1990 staffing levels

Why is infrastructure maintenance important?

A region's infrastructure (roads, bridges, sewer and drainage systems, public buildings, etc.) is a key component of its economy. Well-maintained roads, for example, are necessary for efficient distribution of goods and services. Inadequately maintained roadways make travel more difficult and increase the cost of transportation and vehicle upkeep. Road maintenance, measured here by the number of maintenance workers per 1,000 miles of roadway, will be used in this report as a proxy for infrastructure maintenance.

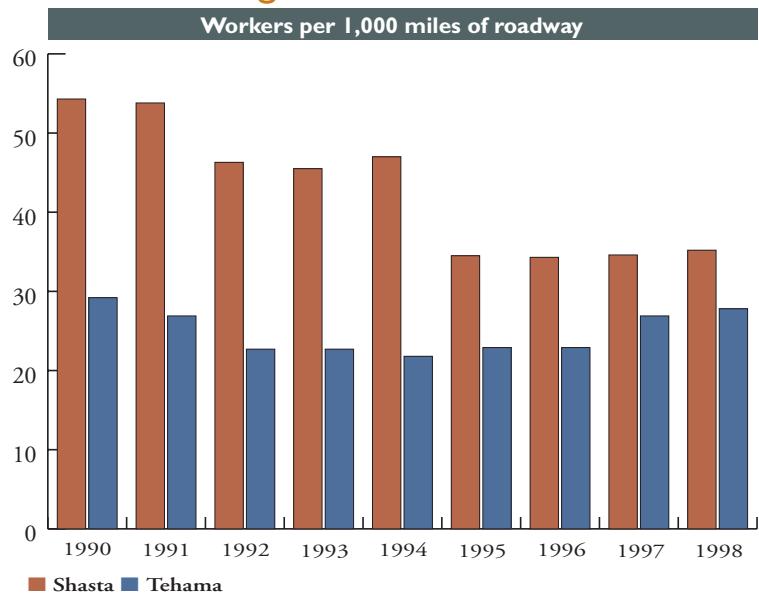
Related indicators:

Community Safety, Energy and Resource Use, Traffic, Water Supply

How are we doing?

- In 1998, Shasta County employed approximately 35 road workers per 1,000 miles of roadway, compared with about 28 in Tehama County.
- Between 1990 and 1994, workers per 1,000 miles of roadway in Tehama County dropped some 25 percent. Since then, staffing has nearly returned to its 1990 levels.
- Road maintenance workers per 1,000 miles of roadway fell 35 percent in Shasta County from 1990 to 1998. Most of this decline occurred between 1994 and 1995, when the county government cut employment. The number of workers per 1,000 miles has remained about the same since 1995 (Figure 1).
- Because Shasta County has more workers per 1,000 miles of roadway than Tehama County, road maintenance would appear to be better in Shasta County than in Tehama County. However, Shasta County's roads may also call for more maintenance because they handle an average of 19 percent more traffic.

Figure 1: Maintenance Workers



Data source:

Shasta County, Tehama County, City of Red Bluff, City of Redding, City of Anderson and City of Shasta Lake departments of public works, February 2001. City of Corning did not respond to inquiries, and the City of Tehama is serviced by Tehama County.

Note: Roadways in this indicator only include city- and county-maintained roads. Roadways maintained by the California Department of Transportation, the U.S. Forest Service and the National Park Service were not included.

Region's job market out of balance with population's educational level

Why is job preparation important?

When skill requirements for a region's employers match the skill level of the population, the region is less likely to experience unemployment and underemployment, and the economy is more likely to grow. Underemployment occurs when a person's level of education exceeds the skill level required for the job: The person is probably not employed at full potential. Conversely, if a worker lacks a certain level of education, he or she has fewer employment opportunities. A region where job requirements and educational levels fail to match is more likely to experience the ill effects of unemployment and underemployment, including increased poverty, crime and domestic violence.

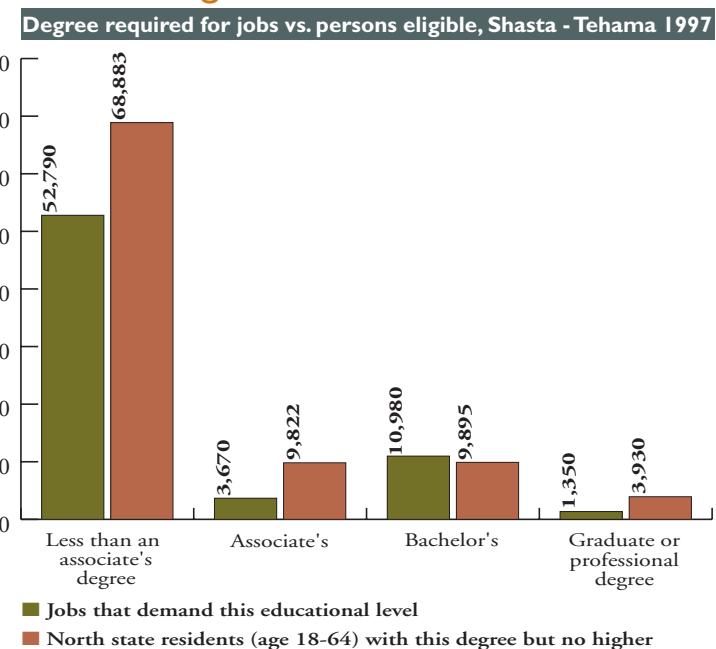
Related indicators:

Adult Literacy, Children in Poverty, Crime Rates, Domestic Violence, Economic Diversity, High School Dropout Rates, Housing Affordability, Income Distribution, School Performance, Unemployment

How are we doing?

- While only 1,350 jobs in this region require a graduate or professional degree, nearly 4,000 residents have achieved that level of education (Figure 1). This segment of the population is likely to be underemployed.
- There are 53,000 jobs suitable for someone with a high school diploma but not a college degree, while 69,000 people are eligible to compete for those jobs (Figure 1). Similarly, more than twice as many people have associate in arts degrees than there are jobs available for them.
- There is a shortage of workers with a college degree, but a surplus of people qualified for jobs that require only a high school diploma or associate in arts degree (Figure 1). This indicates that workers who complete college degrees have a better chance of finding employment in the region than those who do not.

Figure 1: Educational Attainment



Continued...

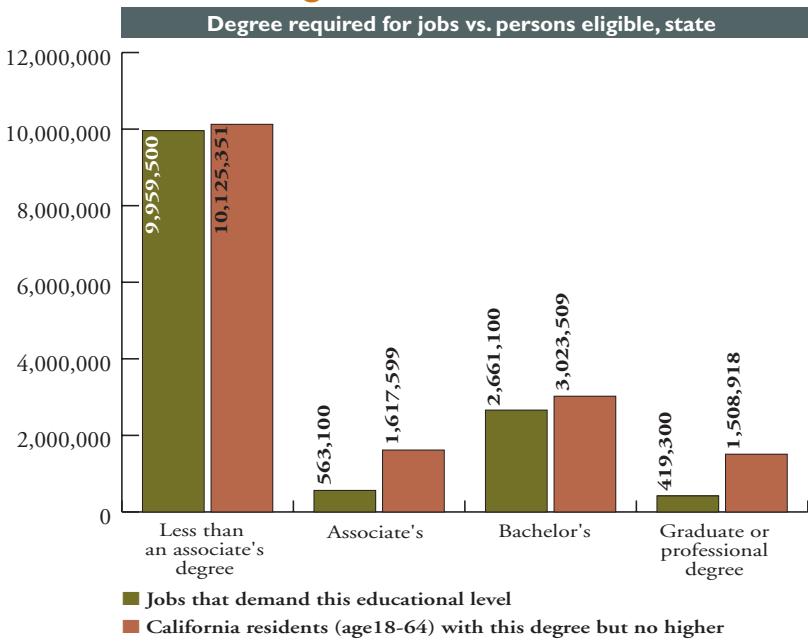
- The north state's shortage of college graduates to fill jobs requiring a bachelor's degree contrasts with state figures, where there are more college graduates than jobs requiring college degrees (Figure 2).

Data source:

Job skills requirement data: Employment Development Department, 1999
 Educational attainment data: Bureau of the Census, 1997 projections based on the 1990 Census

Note: Educational attainment data includes all people ages 18-64, some of whom might not be working nor seeking work.

Figure 2: Educational Attainment



North state unemployment higher than California, but dropping

Why is unemployment important?

Unemployment rates indicate the economic well-being of workers within a region. High unemployment rates indicate economic decline and are associated with a host of negative effects, including increased poverty, substance abuse and crime. Low unemployment indicates expanded economic opportunities.

In this report, unemployment rates in Shasta and Tehama counties are combined since they share a common labor market.

Related indicators:

Access to Child Care, Adult Literacy, Community Event Attendance, Community Safety, Crime Rates, Domestic Violence, Economic Diversity, Health Care Accessibility, Housing Affordability, Job Preparation, Substance Abuse

How are we doing?

- The combined unemployment rate in Shasta and Tehama counties is 6.9 percent, compared with 5.2 percent in California (Figure 1).
- Shasta and Tehama counties historically experience higher unemployment rates than the state. However, the gap between local and state rates is beginning to close (Figure 1).
- In 1999, 56.5 percent of workers in Shasta and Tehama counties were underemployed—a rate that has remained constant for at least the past decade (Figure 2). This is significantly higher than underemployment in the Sacramento metro area.

Data source:

Employment Development Department, U.S. Department of Commerce, Bureau of the Census, 1990 Census

Notes: Underemployment measures people who are working seasonally, part-time or commuting out of the area, along with employed people who are overqualified for their jobs. 2000 Census data not yet available

Figure 1: Annual Unemployment

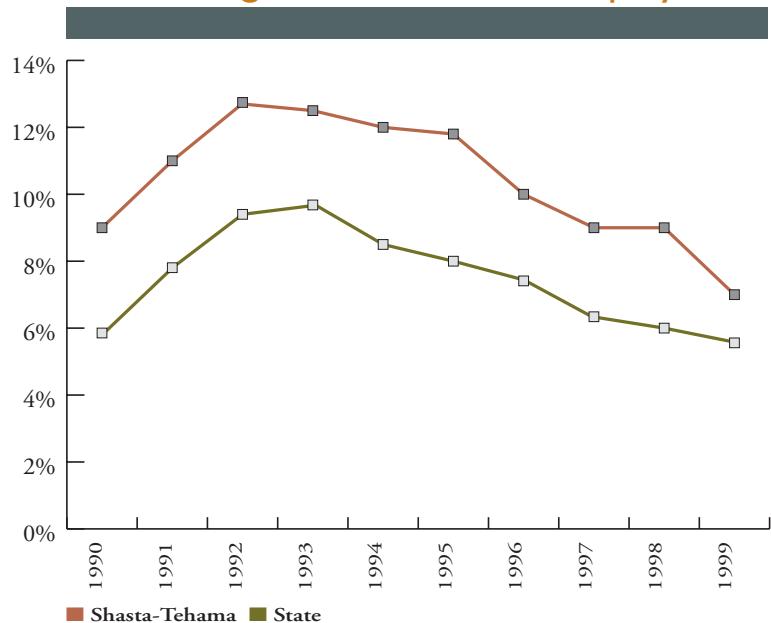


Figure 2: Total Underemployment

	Shasta-Tehama	% of labor force	% of labor force in Sacramento metro area
1990	51,143	56.4%	35.1%
1999	56,684	56.5%	33.7%

Groundwater needed to meet future water demand

Why is water supply important?

An adequate supply of water is necessary for the region's health and economy. A community must ensure that water is available when demand increases, and that delivering more water does not deplete surface or groundwater supplies below sustainable levels.

Water markets are complex. Long-term demand is affected by increasing population, changes in agricultural acreage, urbanization, water conservation and recycling, and environmental policies. Long-term supply is affected by changes in storage capacity, climatic cycles, groundwater levels and legislative changes in water rights. Over the long term, adequate storage and groundwater are critical to meet expected increases in future demand due to increasing population and environmental policies.

Annual supply and demand poses a great short-term challenge—people demand more water for irrigating crops, lawns, etc., in years with less rainfall. Furthermore, federal governments scale back water deliveries during drier years, increasing the need for short-term water supplements. Historically, more groundwater is pumped to supplement available water in drier years.

This report tracks water delivery to municipal and industrial water districts and to agricultural irrigation districts as an indicator of historical water use. Demand in 2020 is projected using the expected change in agricultural and urban use. Groundwater levels are measured as an indicator of supply used as a last resort, and average annual precipitation is used to measure the amount of source water replenishment.

Related indicators:

Economic Value of Natural Resources, Ecosystem Health, Environmental Stewardship, Infrastructure Maintenance

Figure 1: Agricultural Water Delivery

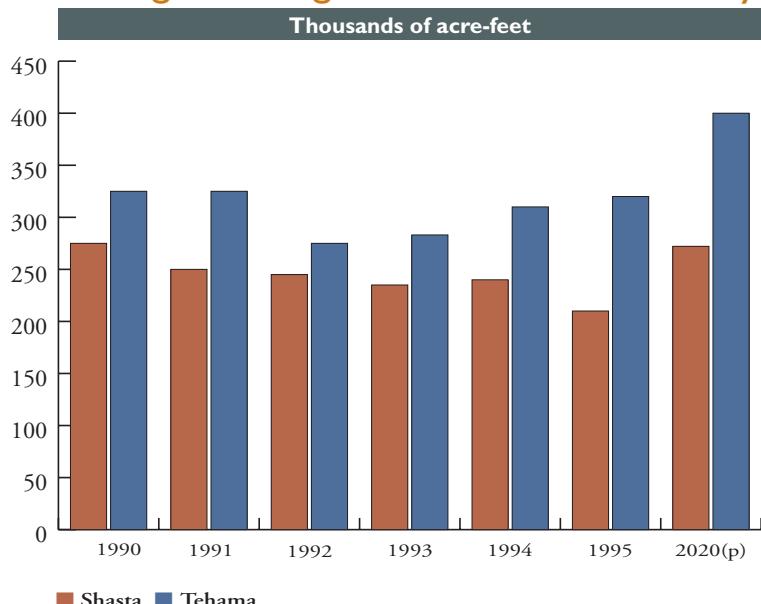
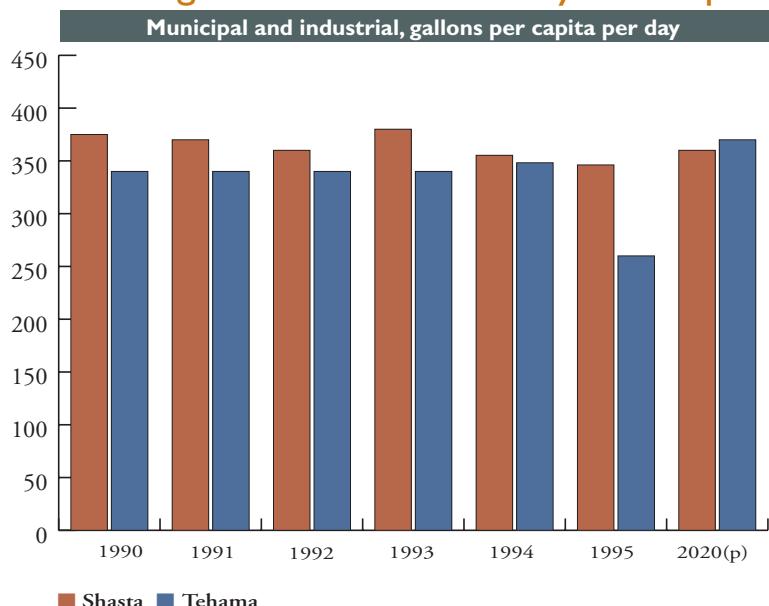


Figure 2: Water Delivery Per Capita



Continued...

How are we doing?

- Agricultural water deliveries declined in Shasta County, falling from 276,000 acre-feet of water in 1990 to 213,000 acre-feet in 1995. However, delivery has been unstable in Tehama County, falling to a low of 279,000 acre-feet in 1992 and rebounding to 334,000 acre-feet by 1995. Delivery in both counties is projected to increase significantly by 2020 (Figure 1).
- Municipal and industrial water delivery per capita has remained relatively constant since 1990, though Tehama County had a sizeable drop in 1995. These numbers are projected to grow slightly by 2020 (Figure 2).
- Shasta and Tehama counties are in a favorable position regarding water rights, compared with much of the state. Local water districts have the right to take water in excess of current demand during normal years. However, during dry years and to meet expected long-term increases in demand, groundwater must be pumped. Groundwater pumping only becomes a problem when overpumping begins to deplete the groundwater supply.
- Groundwater overdraw in the Redding groundwater basin is not a problem now. On average, groundwater levels have remained several feet above those in 1990 since 1995. However, overdraw in the Sacramento Valley groundwater basin is of greater concern, as year-to-year levels are less stable. Long-term levels do not seem to be falling (Figure 3).
- Analysis of local rainfall levels indicate that while seven out of 11 years had less than average rainfall, the 11-year average is slightly greater than the average annual rainfall dating back to 1948. This shows that the study period was not one of excessive rainfall or excessive drought (Figure 4).

Data source:

California Department of Water Resources, California Water Plan and Groundwater Level Data (well.water.ca.gov); and National Oceanic and Atmospheric Administration, Western Regional Climate Center

Figure 3: Groundwater Basins

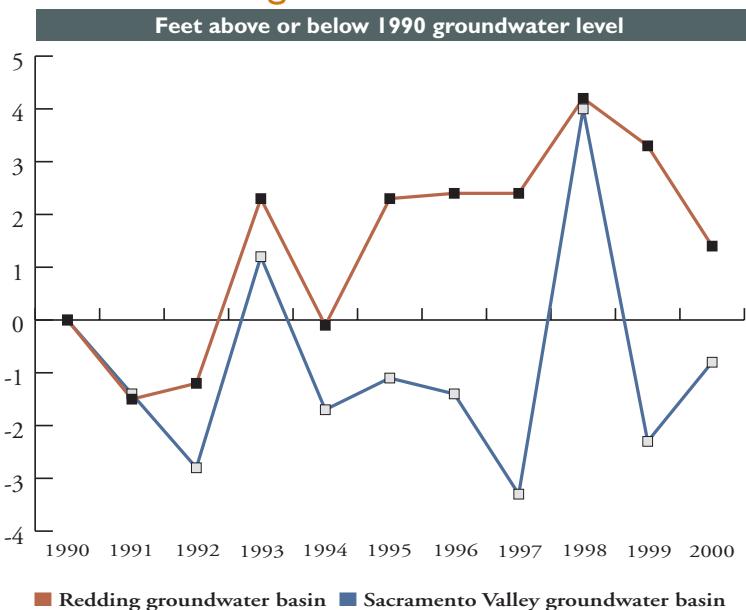
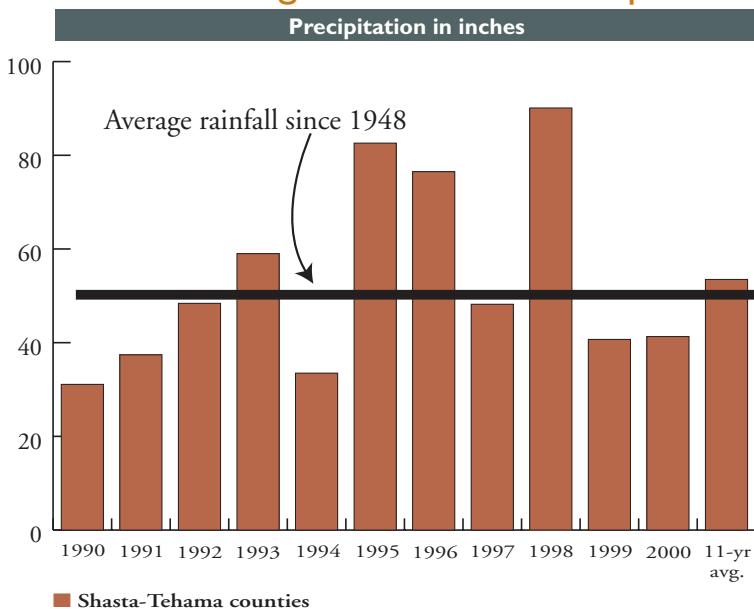


Figure 4: Annual Precipitation

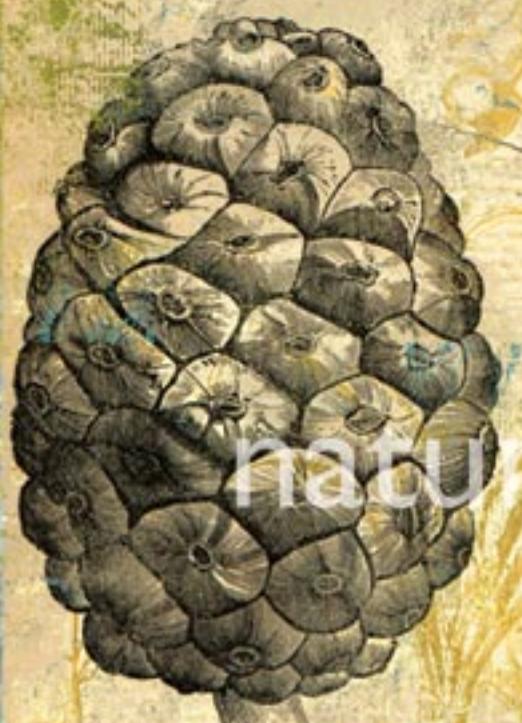


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Summary of strengths and concerns



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Shasta and Tehama county residents take enormous pride in the region's lakes, mountains and other natural wonders. This section measures the health and vitality of the north state's natural assets by examining indicators such as air quality, ecosystem health and outdoor recreation rates.

Strengths

- Outdoor recreation continues to grow, largely because of increased park attendance

Concerns

- Watershed health is better in Shasta-Tehama than in the state as a whole, but where data is available, 57 percent of the region's watersheds face minor quality problems; the remaining 43 percent face "more serious" problems
- Urban activities and development are encroaching on Shasta County agricultural land
- The region experiences ozone levels above state limits
- The rate of dumping waste in landfills is growing

Improvements

- The value of natural resources is increasing, mostly due to tourism in Shasta County and agriculture in Tehama County
- Gasoline and electricity consumption has been stable, with natural gas consumption declining in the late 1990s

Air quality improving slightly, but challenges lie ahead

Why is air quality important?

Good air quality contributes to the overall health and well-being of the region's residents, plants and animals. Clean air, free from smog or haze, enhances the region's spectacular views and boosts real estate values. Poor air quality, on the other hand, can lead to an increase in respiratory illnesses, lung damage, cancer and even premature death. Air pollution most severely affects children, elderly people and adults who work or play outdoors. Air pollution also erodes buildings, rubber and some plastics, increasing maintenance costs.

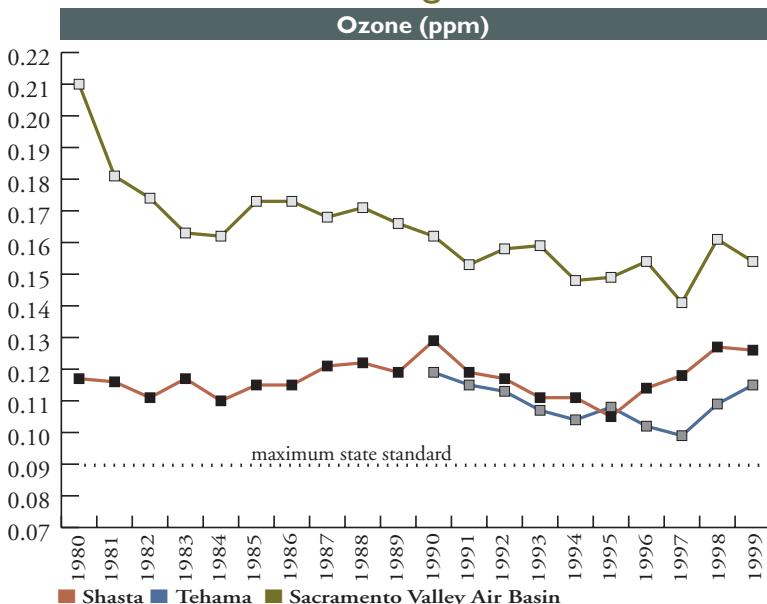
Related indicators:

Ecosystem Health, Energy and Resource Use, Outdoor Recreation, Traffic

How are we doing?

- Over time, ozone in Shasta County has remained essentially constant, ranging between .1 and .13 parts per million (ppm) per hour (Figure 1). Ozone, a colorless gas formed when gasoline engine emissions and organic gases react with sunlight, is the main component of urban smog.
- Tehama County's ozone level has gone up and down over the last decade, but is at approximately the same level it was in 1990 (Figure 1).
- Shasta County has exceeded the state standard for maximum ozone every year since 1980. Tehama County has also exceeded the standard since 1990, when data was first available. Both are therefore designated as "nonattainment," or violating the state standard. To identify the severity of the problem and the extent of planning required, nonattainment areas are assigned a classification that is commensurate with severity (i.e. severe, serious, moderate). Both Shasta and Tehama counties are classified as moderate.

Figure 1: Ozone Trend



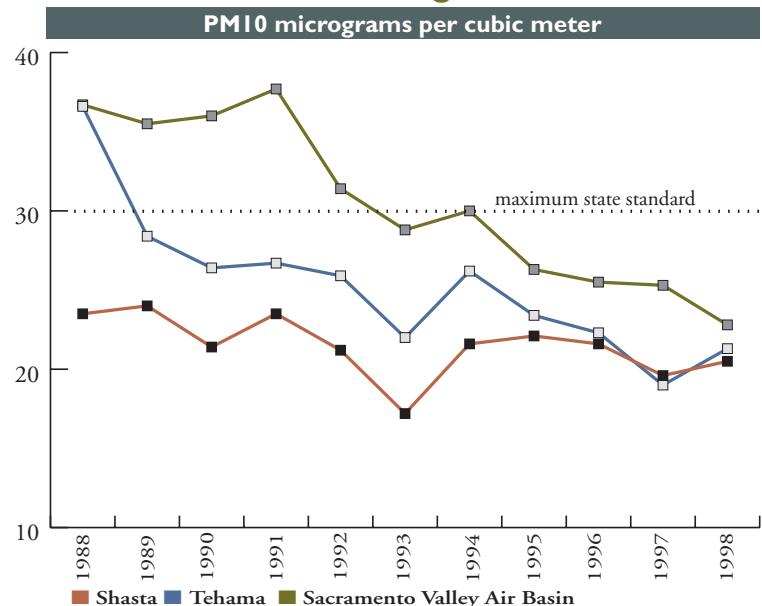
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- Because of topography and air flow, ozone produced in other parts of the Sacramento Valley Air Basin affects air quality in Shasta and Tehama counties. Ozone levels in the southern part of the basin tend to be significantly higher than in Shasta and Tehama counties, although those levels have decreased steadily over time.
- Particulate matter (PM10) in Shasta and Tehama counties has decreased steadily since 1989, consistently falling below the state annual standard (Figure 2). PM10 measures the number of tiny solid or liquid particles in the air produced by vehicles, fireplaces, wood-burning stoves, dust from construction, landfills, agricultural areas and other open land, wildfires, waste burning and industrial sources. PM10 creates much of the haze we think of as smog.
- Improvements in motor vehicle and manufacturing emissions, along with clean burning gasoline, have contributed to the overall improvement in air quality.
- More vehicles are driving more miles these days, while the number of large, less fuel-efficient vehicles has increased in recent years. As the population grows, the community will face even greater challenges to maintaining or reducing present ozone and PM10 levels and improving the overall air quality of the two counties.

Data source:

California Almanac of Emissions and Air Quality, California Air Resources Board, 1999 and 2001

Figure 2: PM10 Trend



Natural resource value holding steady

Why is the economic value of natural resources important?

The north state's rich natural resources provide residents with jobs and recreational opportunities, and contribute greatly to our overall quality of life. The region's abundant forests, lakes, rivers and farmland are an integral part of who we are and how we feel about living in this region. They also contribute other benefits. For example, rivers and lakes store water and moderate land temperature; trees also help moderate temperature and remove carbon dioxide from the air. Furthermore, these resources contribute directly to the economy and can be used for economic growth in agriculture, mining, timber, recreation and nature-based tourism.

The same resources are important to California and the nation. California's largest river, the Sacramento, yields 35 percent of the state's developed water supply and provides habitat for 70 percent of all Chinook salmon caught off the California coast.

This report measures the value of agriculture, timber production and travel spending. Additional resources may be included in future reports as more information becomes available. Because no precise figures exist tracking nature-based tourism, this report measures leisure travel spending as a proxy, on the assumption that many or most leisure travelers to Shasta and Tehama counties come to enjoy the region's boating, hiking, camping and other natural amenities.

Related indicators:

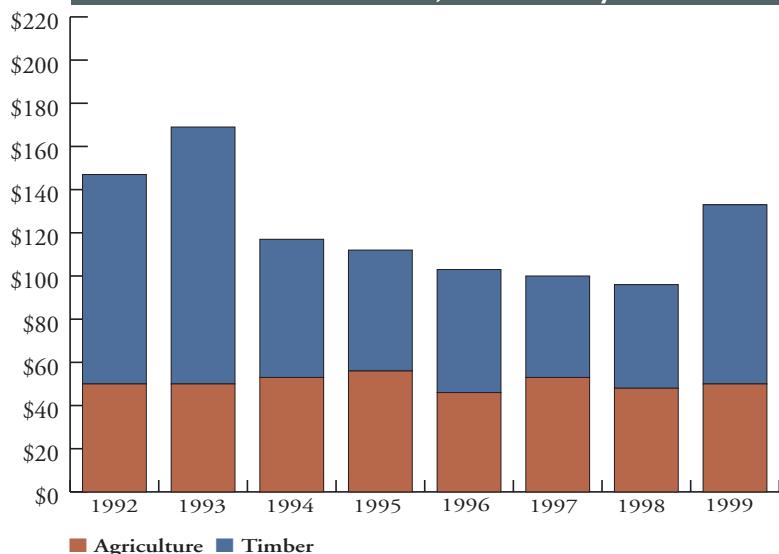
Ecosystem Health, Land Use, Outdoor Recreation, Water Supply

How are we doing?

- Between 1992 and 1999, agriculture and timber production added about \$122 million to the economy in Shasta County and \$133 million to the economy in Tehama County on average each year (Figures 1 and 2).

Figure 1: Value of Timber and Agriculture

Millions of dollars, Shasta County



ECONOMIC VALUE OF NATURAL RESOURCES, CONTINUED

Continued...

- The value of agriculture and timber production increased 1.2 percent in Shasta County and 2.2 percent in Tehama County annually on average between 1992 and 1999 (Figures 1 and 2). However, values fluctuated annually.
- Leisure travel spending contributes more to Shasta County's economy than do timber and agriculture, while agriculture contributes more in Tehama County (Figures 1 and 2).
- Leisure travel spending, of which nature-based tourism is a major component, is increasing in Shasta and Tehama counties, growing 3.1 percent in Shasta and 3.8 percent in Tehama County annually on average between 1992 and 1999 (Figure 3).

Data source:

Agriculture and timber data: Shasta and Tehama County Departments of Agriculture.

Travel spending: California Technology Trade and Commerce Agency, *California Travel Impacts by County, 1992-1999* (March 2001)

Figure 2: Value of Timber and Agriculture

Millions of dollars, Tehama County

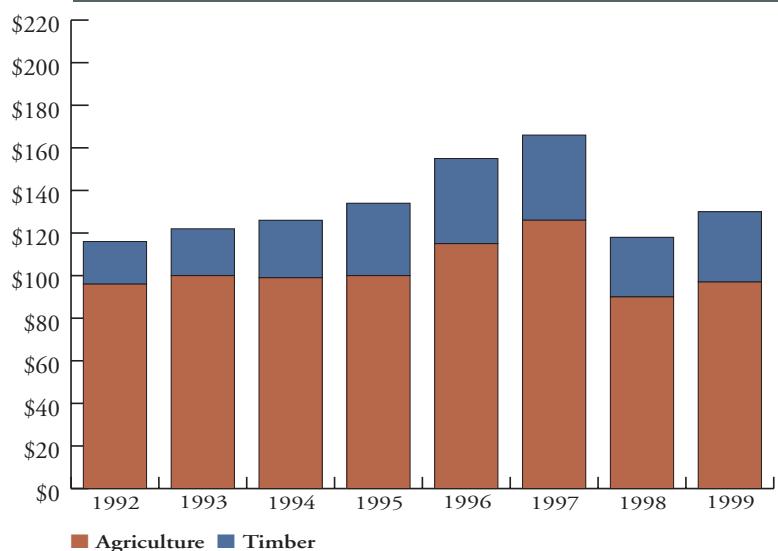
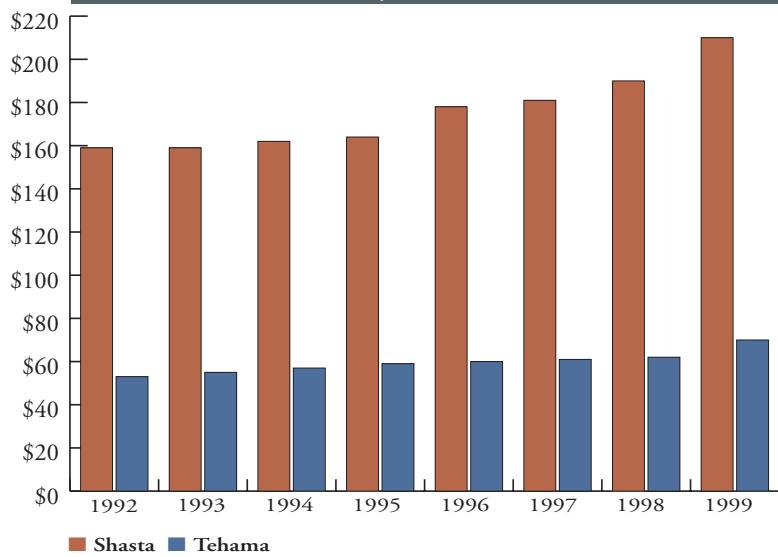


Figure 3: Leisure Travel Spending Estimates

Millions of dollars, Shasta-Tehama counties



All Shasta-Tehama waterways have quality problems

Why is ecosystem health important?

The air that people breathe and the water that they consume affect their overall health, which can influence their contribution to society. This report uses the quality of Shasta-Tehama's watersheds as a proxy for ecosystem health.

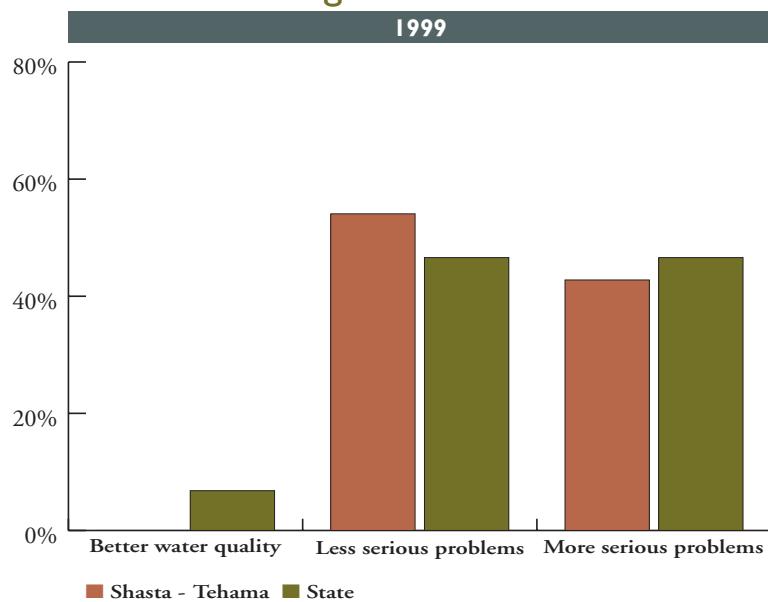
Related indicators:

Air Quality, Economic Value of Natural Resources, Environmental Stewardship, Outdoor Recreation, Recycling, Traffic, Water Supply

How are we doing?

- The Environmental Protection Agency rates water quality in three categories: "better," where aquatic conditions meet state or tribal water quality goals; "less serious," where aquatic conditions fall below state or tribal water quality goals; and "more serious," where aquatic conditions are well below these goals.
- The local ecosystem is contributing to water quality problems in Shasta and Tehama counties. Fifty-seven percent of the waterways in Shasta-Tehama are rated as having less serious water quality problems; the remaining 43 percent have more serious problems. Four watersheds have insufficient data to be rated (Figures 1 and 2).
- Ecosystem health in Shasta and Tehama counties is better than the state, in which 47 percent of waterways have "more serious" problems (Figure 1).
- Watersheds are also rated for their vulnerability. A low-vulnerability watershed faces less danger of declining quality, while high-vulnerability watersheds have significant pollution and other stressors that threaten water quality. No waterways in Shasta and Tehama counties are considered to be highly vulnerable, compared with 6.8 percent statewide (Figure 2).

Figure 1: Watershed Health



- Water quality problems in Shasta and Tehama counties come mostly from resource extraction deposits. Cadmium, copper and zinc deposits are the leading pollutants. Waterways in some agricultural areas, such as the lower Pit River in Shasta County, contain pollutants from agriculture. Whiskeytown Lake has a unique problem – coliform from septic tank leakage (Figure 3).

Data source:
U.S. Environmental Protection Agency

ECOSYSTEM HEALTH, CONTINUED

Continued...

Figure 2: Watershed Health Ratings

From the EPA				
County	Watershed	Index Rating	Insufficient Data	Vulnerability Rating
Shasta	Sacramento Headwaters		X	
Shasta	McCloud		X	
Shasta	Lower Pit	Less Serious		Low
Shasta	Sacramento - Upper Clear	Less Serious		Low
Shasta-Tehama	Cottonwood Headwaters	More Serious		Low
Shasta-Tehama	Lower Cottonwood	More Serious		Low
Shasta	Sacramento - Lower Cow - Lower Clear	Less Serious		Low
Shasta-Tehama	Upper Cow - Battle	More Serious		Low
Tehama	Mill - Big Chico		X	
Tehama	Upper Elder - Upper Thomes		X	
Tehama	Sacramento - Lower Thomes			

Figure 3: Watershed Quality Problems in Shasta - Tehama Waterways

Agriculture and Grazing						Resource Extraction						Septage Disposal	
Waterway	Nutrients	Organic Enrichment	Pesticides	Sedimentation Siltation	Temperature	Acid Drainage	Cadmium	Copper	Lead	Mercury	Unknown Toxicity	Zinc	High Coliform Count
Fall River			yes										
Keswick Reservoir							yes	yes				yes	
Lake Shasta							yes	yes				yes	
Little Backbone Creek						yes	yes	yes				yes	
Little Cow Creek							yes	yes				yes	
Pit River	yes	yes			yes								
Sacramento River (Red Bluff to Delta)			yes							yes	yes		
Sacramento River (Shasta Dam to Red Bluff)							yes	yes				yes	
Spring Creek						yes	yes	yes				yes	
West Squaw Creek							yes	yes	yes			yes	
Whiskeytown Lake													yes
Willow Creek						yes		yes				yes	

Electricity and gasoline consumption unchanged

Why is energy and resource use important?

Efficient use of energy and natural resources helps protect the environment and provides benefits such as clean air and water. Efficient, affordable energy sources can contribute to economic growth, while resource conservation helps protect existing sources of income.

Related indicators:

Air Quality, Infrastructure Maintenance, Recycling, Traffic

How are we doing?

- In 1999, the Shasta-Tehama region consumed 284 gallons of gasoline per person, nearly the same as in 1993.
- Shasta County's per capita electricity use has decreased from 9.5 megawatt-hours in 1990 to 8.8 in 1999 (Figure 2). Tehama County had little change in per capita electricity use, averaging 8.3 megawatt-hours per capita per year between 1990 and 1999 (Figure 2).
- California's energy situation has changed dramatically since 1999. However, data is not yet available for 2000.

Data source:

Gasoline consumption data: California Department of Transportation

Electricity consumption data: California Energy Commission

Note: Gasoline consumption was calculated using estimated consumption in Shasta and Tehama counties and subtracting gasoline consumed in these counties by through traffic on Interstate 5.

Figure 1: Gasoline Consumption

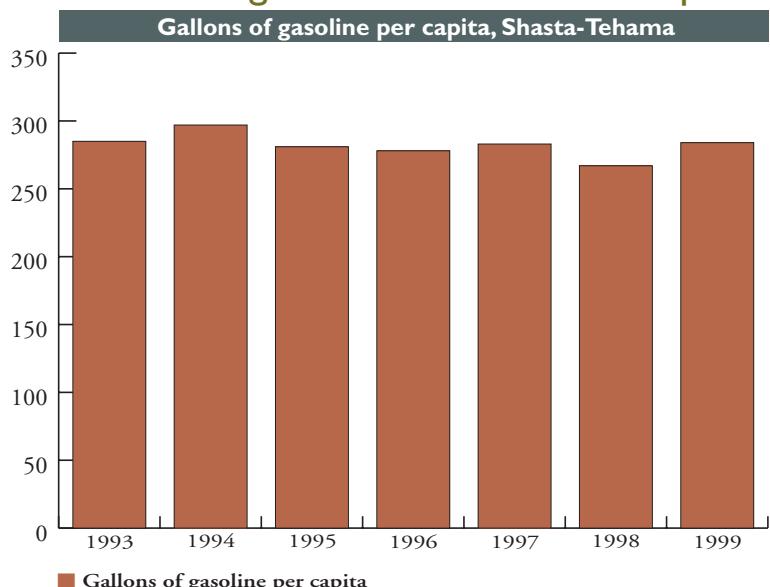
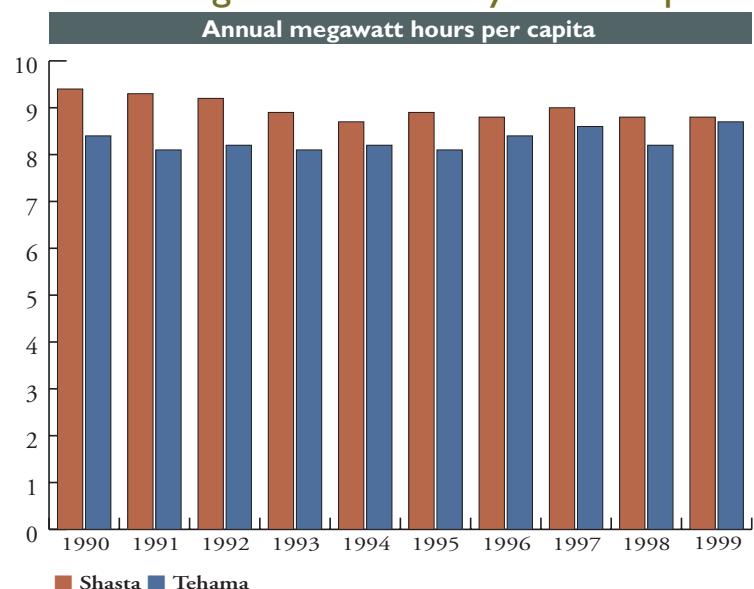


Figure 2: Electricity Consumption



Citizen-based watershed groups active in north state

Why is environmental stewardship important?

The overall health of a region – its people, jobs, businesses, resources, social infrastructure and overall quality of living – is closely tied to the health of its natural environment, timber, land, wildlife, water, air and other resources. Environmental protection can only be accomplished through the combined efforts of government, businesses and individuals. While it is difficult to measure all the ways in which the community participates in environmental protection, watershed management groups serve as a useful proxy. These groups bring together government agencies, community groups, landowners and individuals to work together to improve the quality of the environment. Such environmental stewardship benefits the region's agriculture, recreation and overall health.

Related indicators:

Civic Participation, Ecosystem Health, Recycling, Volunteerism, Water Supply

How are we doing?

- Shasta and Tehama counties have 17 active community-based watershed management groups (Figure 1). Most of these groups produce written information about their watersheds, which extends community awareness about water quality issues.
- More than 600 people regularly attend watershed management meetings either monthly, quarterly or annually (Figure 1). Because historical data on participation is not available, no conclusions can be drawn about trends over time in this area. This figure will serve as a benchmark for future measurement.

Data source:

California Regional Water Quality Control Board, Central Valley Region, Redding; Natural Resources Conservation Service, Redding

Note: A watershed is a defined land area that captures rainfall and other precipitation and funnels it to a particular lake, river, stream or creek.

ENVIRONMENTAL STEWARDSHIP, CONTINUED

Continued...

Figure 1:Watershed Management

Groups			
Group Name	Location	Waterways	Average Meeting Attendance
Sacramento River Conservation Area	Sacramento Valley	Sacramento River, Keswick to Verona	50
Sacramento River Watershed Program	Sacramento Valley	Sacramento River	100
Bear and Dry Creek Advisory Group	Shasta County	Bear and Dry creeks	10
Upper Fall River Advisory Group	Shasta County	Upper Fall River	10
Lower Clear Creek Watershed	Shasta County	Andrews, Boulder, Kanaka and Salt creeks, Dog and Orofino gulches	40
Upper Clear Creek Watershed	Shasta County	Upper Clear, Slate and Whiskey creeks, French, Grizzly and Cline gulches	20
Battle Creek Watershed	Shasta, Tehama counties	Battle and Bailey creeks North and South forks	90
Sulphur Creek Watershed	Shasta County	Sulphur Creek	20
Upper Sacramento River Watershed	Shasta, Siskiyou counties	Upper Sacramento River; Castle, Dog, Hazel, North Salt, Shotgun, Slate and Soda creeks	40
McCloud River Watershed	Shasta County	McCloud River; Angel, Ash, Hawkins Mud and Squaw Valley creeks	15
Pit River Watershed Alliance	Shasta, Modoc counties	Pit and Fall rivers; Ash, Burney, Hat, Horse, North and South Fork and Parker creeks	25
Shasta West Watershed	Shasta County	Middle, Olney, Rock, Canyon and Salt creeks	18
Cow Creek Watershed	Shasta County	Little Cow, Oak Run, Clover, Old Cow and South Cow creeks	80
Mill Creek Conservancy	Tehama County	Mill Creek	35
Deer Creek Watershed	Tehama County	Deer Creek	35
Reeds Creek/Red Bank Creek Watershed	Tehama County	Reeds and Red Bank creeks	20
Cottonwood Creek Watershed	Shasta, Tehama counties	Beegum, Buck, Cottonwood, Dry, Duncan, Hooker, Pine, Salt and Wells creeks, Gold, Middle, North and South forks	25

Urbanization displacing farmland in Shasta; more farmland in Tehama

Why is land use important?

A healthy community balances the uses of its land among economic, social and natural needs. Land is essential for agricultural uses, such as farming and grazing, and for urban purposes, such as housing and industry. Open space and recreational areas are also important to a healthy community. Regional planning and policies regarding natural, agricultural and developed areas help societies maintain and balance these economic and social land needs.

Tracking the number of acres used for urban purposes, compared with the acres used for farming, grazing and other uses, provides a measure of how much land—and what kind of land—urban growth consumes.

Related indicators:

Community Safety, Economic Diversity, Economic Value of Natural Resources

How are we doing?

- In Shasta County, urban growth has displaced farmland more than other kinds of land since 1990. Urban land was the fastest-growing category in each two-year period to 1998. Conversely, farmland was the fastest-declining category, with total number of acres falling in roughly the same proportion as urban use increased, except in 1990-1992, when urban land mostly consumed other lands (Figure 1).
- Far less urban land is being created in Tehama County. The small level of existing urban growth has consumed mostly grazing land. The greatest land use change in Tehama County since 1990 has been the conversion of grazing land to farmland, averaging about 1,000 acres (1.5 square miles) per year to 1998 (Figure 2).

Data source:

California Department of Conservation, Farmland Mapping and Monitoring Program

Figure 1: Change in Land Use, Shasta

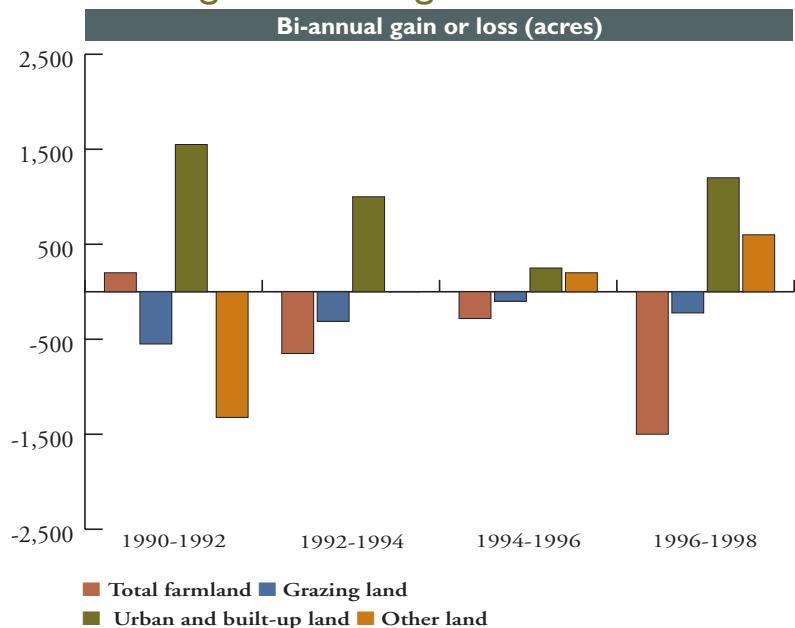
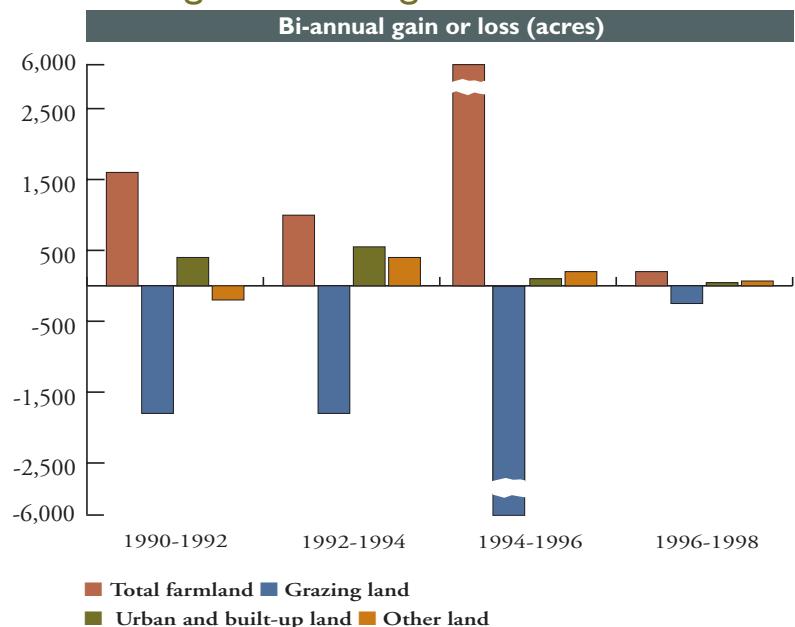


Figure 2: Change in Land Use, Tehama



Outdoor recreation continues to grow

Why is outdoor recreation important?

Outdoor recreation is one of the greatest assets of the north state. Access to outdoor recreation can reduce stress and improve the quality of life. Outdoor recreation opportunities can also attract new companies to the region, fostering economic growth. However, outdoor recreation can expose highly sensitive natural areas to human overuse.

This report uses boat registrations, hunting licenses, fishing licenses and park attendance as measurements of outdoor recreation. The level of outdoor recreation is gauged by an index: Higher index values indicate greater use.

Related indicators:

Air Quality, Ecosystem Health, Economic Value of Natural Resources

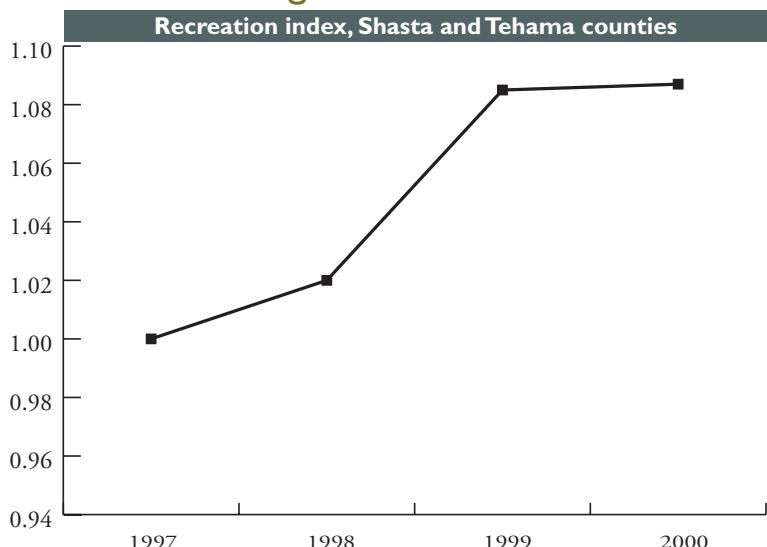
How are we doing?

- Outdoor recreation increased 9 percent from 1997 to 2000 (Figure 1). The increase resulted from increases in hunting and fishing licenses issued in 1999 and 2000, coupled with large increases in state park attendance annually since 1997. Recreation did not grow as dramatically between 1999 and 2000 as it did the previous year because of a smaller increase in state park attendance.

Data source:

California Department of Fish and Game, California Department of Motor Vehicles, California State Parks Department

Figure 1: Outdoor Recreation



Recycling increasing, but so is landfill use

Why is recycling important?

Recycling helps the environment by reducing the need to use new natural resources to make new products, which saves energy and decreases pollution. As recycling increases, more raw materials become available for recycled and reused products. A growing demand for recycled products can present new business opportunities, which can generate new jobs. Higher recycling rates and lower usage of landfills would indicate a more efficient use of resources.

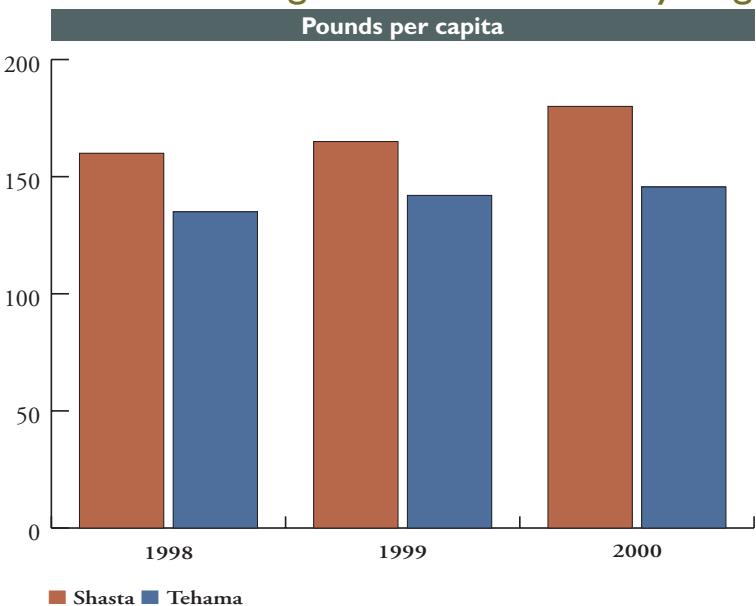
Related indicators:

Ecosystem Health, Energy and Resource Use, Environmental Stewardship

How are we doing?

- Both counties show an increase in recycling. In 2000, residents in Shasta County recycled an estimated 184 pounds per person of cardboard, paper, plastic, glass, tin and aluminum (Figure 1).
- Tehama County residents reported approximately 143 pounds per person recycled for the same year. No comparable data was available for the state.

Figure 1: Estimated Recycling



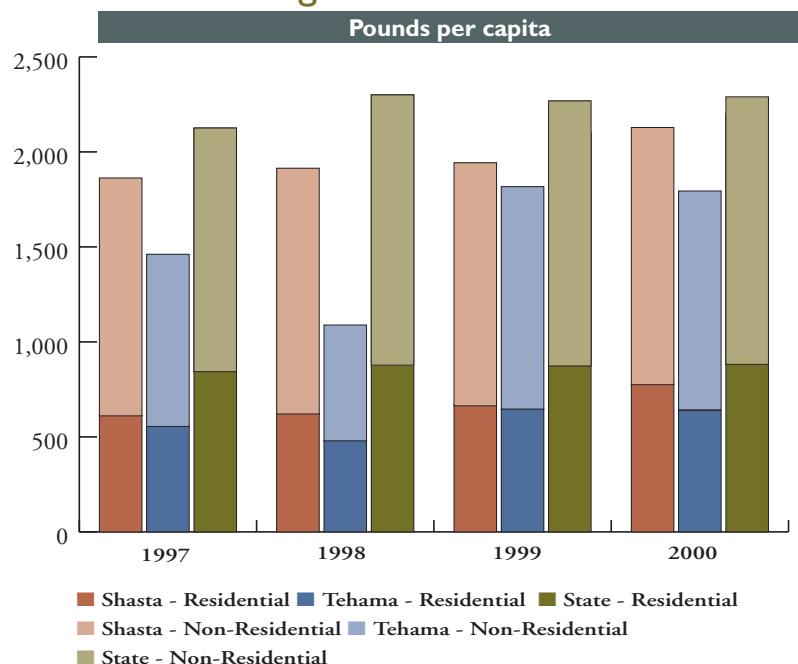
Continued...

- In 1997, Shasta County dumped about 1,900 pounds of waste per capita into landfills. In 2000, that number increased to 2,060 pounds per capita, representing nearly an 8 percent increase. Approximately 740 pounds per person (36 percent) of that waste came from residential sources (Figure 2).
- Waste sent to landfills in Tehama County is based on estimates until 1999, after which actual measurements are used. In 1999, about 1,856 pounds of waste per capita were put in landfills, dropping in 2000 to about 1,811 pounds per person. About 652 pounds per capita came from residential sources: 1,159 pounds per capita were non-residential waste (Figure 2).
- Both counties use less landfill per capita than state averages. In 2000, about 2,200 pounds per capita of waste were dumped in landfills statewide.

Data source:

Waste Management, Redding; California Department of Conservation, Division of Recycling; Tehama County Sanitary Landfill Regional Agency; City of Redding; Smurfit, Sacramento; Shasta County Department of Resource Management; California Integrated Waste Management Board; California Department of Finance; CH2M Hill.

Figure 2: Waste Put in Landfills



Endnotes and footnotes

Access to Child Care:

All child care facilities in this report require a license unless they meet at least one qualification for exemption as listed in the Manual of Policies and Procedures of the Community Care Licensing Division in the State of California. A complete list of requirements for a license can be found in the division's [Manual of Policies and Procedures: Title 22 Division 12 Chapter 1](#).

Adult Literacy:

Literacy estimates came from Portland State University; Adult Education, Training and Assessment (www.casas.org). Information about the effects of literacy came from "The State of Literacy in America," the National Institute for Literacy's 1998 survey of adult literacy (www.nifl.gov).

Mean literacy scores were calculated in 1992 by interviewing and extensively testing 2,665 adults. Each received a proficiency score ranging from 0 to 500. Those were broken down into five levels: Level 1 (0-225), Level 2 (226-275), Level 3 (276-325), Level 4 (326-375) and Level 5 (376-500). Portland State University used these figures and other data to establish literacy estimates for every county and major city in California.

Level 1 literacy skills include signing one's name, finding a piece of information in a sports article and totaling a bank deposit entry. People with Level 2 literacy can find an intersection on a map or understand an appliance warranty, but cannot write a letter explaining a billing error or use a bus schedule. Adults in levels 3 through 5 can comprehend lengthy and complicated documents as well as performing the more complex tasks that Level 2 readers cannot manage.

Air Quality:

The ozone peak indicator is derived from data representing the maximum concentration of ozone expected to occur once per year. It is based on a calculation using ambient data collected at each monitoring site. Because it is a robust statistical calculation, it is more stable, thereby providing a trend that is not highly influenced by weather, according to the California Air Resources Board.

Two state standards were used to evaluate PM10 emissions: a 24-hour standard and an annual standard. If either measure exceeds one or both state standards, the area is in violation and classified as "nonattainment." Almost all of California is designated as nonattainment. Shasta and Tehama counties exceed the 24-hour standard, not the annual standard.

Children in Poverty:

Census Bureau estimates are generated from a statistical model that combines data from tax returns and food stamp records with demographic information from the Census and Current Population Survey.

Information about the effects of growing up in poverty are from *The Future of Children*, published in Summer/Fall 1997, by the David and Lucile Packard Foundation's Center for the Future of Children.

The U.S. Census Bureau lists poverty rates at a 90 percent confidence interval. For confidence intervals on Small Area Income Poverty Estimates, refer to the U.S. Census Web site.

Additional source: *Child Poverty Rates Continue to Lag Behind Other Key Economic Indicators*, September 1999, National Center for Children in Poverty.

Civic Participation:

The index base is the Shasta-Tehama region in 2000, so the Shasta-Tehama Civic Participation Index for 2000 is 1.0. The index for each county is the difference between that county in a given year and the Shasta-Tehama region in 2000. To calculate the index, the difference between each variable in the given year and in Shasta-Tehama in 2000 was calculated. This difference was multiplied by the weight of each indicator, or 25 percent. The four weighted differences between the given year and Shasta-Tehama in 2000 were added together to create the index.

Neighborhood Watch programs are defined as the number of Neighborhood Watch districts organized through the local police or sheriff's office. These include patrols, which are prevalent in more remote areas of Shasta and Tehama counties.

Community Event Attendance:
COMMUNITY EVENTS
May 2000-April 2001
Shasta County

EVENTS WITH REPEAT ATTENDANCE			ATTENDANCE AT OTHER EVENTS	
Anderson	Anderson Historical Museum Anderson River Park Mosquito Serenade Season Shasta Speedway Auto Racing	375 1,700 28,000	Anderson Explodes, July 4th Celebration Civil War Days- Anderson River Park North State Kids Expo Return of the Salmon Festival Shasta District Fair Shasta Highlands Renaissance & Celtic Faire	1,800 350 5,500 10,500 95,900 21,000
Burney/ Intermountain Area	Fort Crook Museum Gallery Intermountain Artist's Guild Annual Events	2,600 5,300	Burney Basin Days Parade and Fireworks Fort Crook Museum Annual Events Heritage Days Celebration Intermountain Fair	2,500 450 2,500 32,000
Cottonwood			Cottonwood Antique Street Fair Mother's Day Rodeo and Parade Old Fashion Holiday	1,750 3,000 2,000
Happy Valley			Strawberry Festival	3,000
Palo Cedro			Honeybee Festival Palo Cedro Homespun Fair	7,000 2,000
Redding	Black History Month - Shasta College MarketFest Season Shasta College Annual Fine Arts Performances Shasta Community Concert Season Shasta County Arts Council Classes Community Events Gallery Attendance Local & Touring Artists in Schools Performances & Events at Old City Hall Turtle Bay Museums - Annual Attendance Beauties and Beasts Season	200 25,000 3,400 6,000 300 500 5,000 12,000 6,000 45,000 40,000	Air Show 2000 Chamber of Commerce Chamberee Industrial Barbecue Cinco de Mayo - Shasta College Ducky Derby Earth Day Spring Clean-a-Thon, City of Redding Fox 40 Helping Hand MS Walk July 4th Freedom Festival Kids Unlimited Kool April Nights Car Show Martin Luther King Birthday Celebration Pumpkin Extravaganza - Shasta College Redding Rodeo Redding Rodeo Parade Redding State of the City Shasta County Mien New Year's Celebration Stillwater Powwow Turkey Trot Walk-a-thon Turtle Bay Museums Arts & Crafts Fair Children's Lawn Festival Harry Potter Harvest Festival Women's Fair 2000	30,000 500 500 300 13,000 500 232 12,000 2,500 22,000 150 4,700 21,000 27,500 700 1,000 4,000 3,000 11,000 5,000 5,000 4,700
Shasta	Shasta State Historic Park/ Courthouse Museum park attendance	32,566	Shasta Art Fair and Fiddle Jamboree Shasta State Historic Park/Courthouse Museum park events	14,500 3,608

Community Event Attendance:
COMMUNITY EVENTS
May 2000-April 2001
Tehama County

EVENTS WITH REPEAT ATTENDANCE			ATTENDANCE AT OTHER EVENTS	
Corning	Corning Museum - Annual Attendance	500	Corning Olive Festival	3,000
			Hometown Christmas Parade	1,000
			May Madness Car Show, Concert & Dinner	1,200
			Wine & Blues at the Bridge	1,000
Los Molinos			Los Molinos 4th of July Parade	1,500
Manton			Apple Festival	4,000
Red Bluff	Ballet North Catch the Holiday Spirit Santa's Headquarters Community Concert Series Ide Adobe Museum Attendance and Events State Theater for the Arts Annual Events Tehama County Arts Council's Annual Events	1,850 1,000 2,000 19,000 2,700 1,000	Annual West Coast Monster Truck Nationals Antique Street Fair Bull and Gelding Sale Catch the Holiday Spirit - The Spirit of Christmas Parade Historical Vehicle Assn. Annual Car Show Ide Adobe Museum Events Adobe Day Pioneer Christmas Party New Year's Eve Pro Rodeo Celebration Nitro National Drag Boat Festival Round-up Kick-off Weekend Round-up Parade Round-up Rodeo Tehama District Fair Western Open Fiddle Championships	17,000 3,500 3,000 2,000 2,000 540 155 2,000 16,900 3,500 3,000 20,000 24,000 1,100
Tehama	Tehama County Museum - Annual Attendance	2,500	Archaeology Week - Arch. Digs and Events Annual Armistice Day Parade Annual Turkey Shoot Bi-Annual Quilt/Doll Show Tehama County Museum Jubilee	300 500 125 500 1,500

Community Safety:

Shasta and Tehama county fire departments and nine of the 10 independent fire departments were contacted (one was unavailable). Two independent departments employed no volunteers. Two independent departments had a surplus of volunteers, one had all positions filled and the remaining four had vacant volunteer positions. Two fire departments had no set number of volunteer positions and one had dramatically fewer volunteers than volunteer positions; in these cases, "available spaces" refers to levels the respondent believed would provide adequate safety to the district's residents. No state volunteer firefighter vacancy information was available.

The temporary decrease in law enforcement personnel in 1995 was due to a temporary drop in the number of Shasta County sheriff's deputies (sworn officers went from 144 in 1994 to 88 in 1995, then back to 152 in 1996).

The decline in number of officers may be due to city and county response to lower crime rates.

Consumer Goods Sales:

Per-capita taxable sales are total taxable transactions divided by total population. This figure is adjusted for inflation and given in constant 1998 dollars. People in Shasta and Tehama counties have lower incomes than the state average and therefore less purchasing power – 37.5 percent less in Tehama County and 22 percent less in Shasta in 1998. Purchasing power was calculated again for each year from 1991 to 1998 and taxable sales in Shasta and Tehama were adjusted to reflect the purchasing power for each year.

Crime Rates:

The California Crime Index (CCI) is a group of offenses used as an index to gauge fluctuations in overall crime. Offenses in the index were selected because of their seriousness and likelihood of being reported to the police by the public. The index measures violent crimes, including willful homicide, forcible rape, robbery and aggravated assault. It also includes the property crimes of burglary and motor vehicle theft.

Domestic Violence/Child and Elder Abuse:

The Domestic Violence Index combines domestic violence-related calls for assistance, child abuse and neglect emergency response referrals and confirmed reports of elder abuse perpetrated by others. It compares these combined rates with the state, using 1995 as the base year. For example, if child abuse rates for Shasta County in 1995 were twice as high as the state rate, the index value for that year for Shasta County would be 2. All other years were then compared to 1995, so as abuse rates change, the index value reflects the corresponding rate of change.

Not all child abuse and neglect referrals or confirmed reports of elder abuse resulted in confirmed cases of child abuse or elder abuse cases.

Because 1997 child abuse and neglect figures were unavailable, results were interpolated from 1996 and 1998.

Additional sources: California Department of Social Services, Information Services Bureau (www.cdss.gov); California Department of Finance, Demographic Research Unit (www.dof.ca.gov); Shasta and Tehama County Departments of Social Services, Adult Protective Services; California Bureau of Criminal Information and Analysis, Criminal Justice Statistics Center (www.cjsc.gov).

Economic Diversity:

The Economic Diversity Index is based upon earnings by place of work in Shasta County, Tehama County and the state of California, with the United States as the base.

While Shasta and Tehama counties receive much greater proportions of personal income in transfer payments, the distribution of transfer payment components is similar. In Shasta County, 38.3 percent of all 1998 transfer payments were for retirement and disability payments, 36.1 percent were for Medi-cal payments, 14.9 percent were for income maintenance benefits and 2.7 percent were for unemployment. In Tehama County, 42.2 percent were for retirement and disability, 32.4 percent were for Medi-cal, 15.4 percent were for income maintenance and 2.7 percent were for unemployment. In California, 35.1 percent were for retirement and disability, 37.3 percent were for Medi-cal, 16.4 percent were for income maintenance and 2.5 percent were for unemployment.

It would be more appropriate to compare Shasta and Tehama counties to the average of all California counties rather than the nation overall. However, the Bureau of Economic Analysis will not disclose information on an industry that has three or fewer businesses in a county, or where at least 80 percent of personal income is from one company in that county. Enough disclosures exist statewide that an average of all counties would have little meaning without extensive additional analysis beyond the scope of this study.

Economic Value of Natural Resources:

Value of timber production represents the value in the county in which it is harvested, not the county where it was processed. Anderson in Shasta County is a regional timber processing center, and the value of processed timber here is much higher than the figures given.

According to the 1999 California County Travel Report, 77 percent of travel to and through Shasta County is leisure travel, representing about 2 million person-trips annually between 1997 and 1999. The Center for Economic Development at California State University, Chico, applied this figure to total travel spending in Shasta and Tehama counties as estimated by the California Technology, Trade, and Commerce Agency to estimate leisure travel spending in Shasta and Tehama counties.

Ecosystem Health:

Watersheds used for Shasta and Tehama counties include those in which all or a major portion of the watershed is located in the county. Watersheds with insufficient data upon which to create a measure were omitted.

Watershed quality definitions in this indicator include:

Better water quality — Watersheds where data is sufficient to assert that the state or tribal designated uses are largely met and other indicators of watershed condition show few problems.

Less serious problems — Watersheds with aquatic conditions below state or tribal water quality goals that have problems revealed by other indicators.

More serious problems — Watersheds with aquatic conditions well below state or tribal water quality goals that have serious problems exposed by other indicators.

Entrepreneurship:

Additional source: Edward J. Blakely and Ted K. Bradshaw: "What are 'Third-Wave' State Economic Development Efforts? From Incentives to Industrial Policy," *Economic Development Quarterly*, August 1999, Vol. 13, Issue 3.

Environmental Stewardship:

Attendance at meetings was collected by the North State Institute for Sustainable Communities. Some people attend more than one watershed management group.

Additional source: *Watersheds and You*, Western Shasta Resource Conservation District.

Health Care Accessibility:

The Physician Accessibility Index is the average of the percent of households where one of six factors prevented a physician visit: "cost prevented getting medicine," "cost prevented physician visit," "inconvenient physician hours," "difficulty getting an appointment," "lack of transportation to physician's office" or "difficulty finding a physician." The 1999 PRC Community Health Survey determined the percent of households for which each of these barriers prevented people from obtaining medical care and/or treatment. These six percentages were then averaged. Decreasing numbers represent better access to health care.

At press time, only 1999 data was available.

Health Care Performance

Unadjusted rates of death by chronic diseases may appear to be higher for older populations when compared to younger populations. The death rates in this indicator were "age-adjusted" to account for these differences. These age-adjusted rates show what the death rates would be if the Shasta and Tehama county populations had the same age breakdown as the population of the United States.

High School Dropout Rates:

To calculate the annual dropout rate, the state Department of Education uses this formula: $(\text{Gr. 9-12 Dropouts}/\text{Gr. 9-12 Enrollment}) * 100$

This rate is the percent of dropouts during a single year, calculated from actual data submitted. This rate is used by the National Center for Education Statistics to compare states and school districts.

To calculate the estimated four-year dropout rate (also called the four-year derived rate), the state Department of Education uses this formula:

4 Year Derived Rate Formula: $(1 - ((1 - (\text{drop gr 9}/\text{enroll gr 9})) * (1 - (\text{drop gr 10}/\text{enroll gr 10})) * (1 - (\text{drop gr 11}/\text{enroll gr 11})) * (1 - (\text{drop gr 12}/\text{enroll gr 12}))) * 100$

This rate estimates the percent of students who would drop out in a four-year period, based on data collected for a single year. The department is unable to create an actual four-year rate because it is unable to accurately track individual student data over time.

Housing Affordability:

According to the 1990 Census, income spent on rental housing includes contracted rent plus utilities. Income spent on housing in owner-occupied units consists of the mortgage payments, property taxes, utilities and insurance.

Fair market rents are defined as those below the rental price of 40 percent of standard-quality rental housing units.

Income Distribution:

Income distribution refers to how the region's income is distributed to five groups of households that are equal in population, but not household income. The lowest

fifth are the 20 percent of all households with the lowest income, while the highest fifth are the 20 percent of households with the highest income.

There is no reliable indicator of change in income distribution since 1989. However, according to the U.S. Department of Commerce, inflation-adjusted, per capita income rose 1.2 percent in Shasta County and 3.9 percent in Tehama County between 1989 and 1998.

Income distribution was estimated using population and housing data from the 1980 and 1990 Census. The Center for Economic Development calculated how many households made up one quintile for 1980 and 1990 and found each income range that contained the threshold between quintiles. To estimate the threshold dollar amount, the percentage of households falling within the household income range, above the threshold and below the threshold were calculated. It was assumed that households in a household income range were equally distributed within that range. Then the income difference within the range was calculated and multiplied by the percentage above the threshold to get total households above the threshold, and multiplied by the percentage below the threshold to get total households below the threshold.

Infrastructure Maintenance:

According to Shasta County public works officials, there have been no significant technology changes since 1990 that would reduce the number of workers required to maintain roads.

Land Use:

This indicator uses the following definitions:

Farmland includes prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance.

Prime farmland includes irrigated land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season and moisture supply needed to produce sustained high yields. Land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.

Farmland of statewide importance includes irrigated land similar to prime farmland that has a good combination of physical and chemical characteristics for production of agricultural crops. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than prime farmland. Land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.

Unique farmland includes lesser quality soils used for production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

Farmland of local importance includes land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. See either "A Guide to the Farmland Mapping and Monitoring Program" or the latest copy of the "Farmland Conversion Report" for each county's definition of Farmland of Local Importance.

Grazing land includes land on which existing vegetation is suited to livestock grazing. This category is used only in California and was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension and other groups interested in the extent of grazing activities. The minimum mapping unit for grazing land is 40 acres.

Urban and built-up land includes land occupied by structures with a building density of at least one unit per 1.5 acres, or approximately six structures per 10-acre parcel.

Other land includes land that does not fit in any other category. Typical uses include low-density rural development, heavily forested land, mined land or government land with restrictions on use. Water areas with an extent of at least 40 acres are also included.

Mentoring:

Mentoring occurs in many forms. For this indicator, we have measured only those programs that are registered and fit the mentoring definition provided by the California Mentor Initiative (CMI), along with programs that offer similar services for adults. The CMI defines mentoring as a relationship over a prolonged period of time between two or more people where older and more experienced individuals provide support, guidance and help to minors who are at risk for teen pregnancy, academic failure, gangs and violence, use of alcohol and drugs and other unhealthy behaviors.

Information on the benefits of mentoring came from the California Mentor Foundation's 1999 Mentor Summer Survey (www.calmentor.ca.gov) and the Mentor Resource Center in Sacramento (www.calmentor.ca.gov).

Outdoor Recreation:

The outdoor recreation index incorporates fishing licenses, hunting licenses, and attendance at all state parks in Shasta and Tehama Counties. Park attendance is weighted at 50 percent, while fishing and hunting licenses and boat registrations are weighted at 16 2/3 percent. This balances naturalist use of outdoor recreation with traditional uses.

The index base year is 1997, so the index is 1.0 for that year. To calculate the index, the difference in the level of each variable between the given year and 1997 was calculated. This difference was multiplied by the weight of each component. The four weighted differences were added together to create the index, which is also adjusted for local population increases.

Recycling:

Recycled materials include cardboard, newspapers and other paper, tin cans, glass, plastic, aluminum, and City of Redding tin. For this report, it does not include green waste, industrial waste and scrap iron.

Data for residential and non-residential waste sent to the landfill is based on a 1992 Shasta County waste diversion study by CH2MHill and is estimated to include 36 percent residential and 64 percent non-residential. Non-residential sources include commercial (49 percent), industrial (8 percent) and self-hauled waste (6 percent). Percentages do not equal 64 due to rounding.

School Performance:

The Public Schools Accountability Act, enacted in 1999, directed the California Department of Education to measure academic performance of 2nd through 11th grade students. This is achieved through the Standardized Testing and Reporting (STAR) Program on an exam known as the Stanford 9. Students in elementary and middle schools are tested annually in reading, mathematics, spelling and language. Ninth through 11th grade students are tested in reading, mathematics, language, science and social science. Each school receives a score ranging from 200 to 1000 on the Academic Performance Index (API), which is used to compare schools and establish growth targets. The state's goal is for each school to reach an API of 800 or better.

Individual district and school API scores are available at the department's Web site, www.cde.ca.gov.

Substance Abuse:

Population figures are taken from the California Department of Finance, Demographic Research Unit. Charts combine arrest statistics for drug-related felonies, drug-related misdemeanors, alcohol-related felonies and alcohol-related misdemeanors for adults ages 18-69 and juveniles ages 10-17.

Teen Birth Rates:

Information about the ill effects of early childbearing on teen parents and their children came from "Shasta County Children at Risk," a 1997 publication of the Redding Area League of Women Voters.

Traffic:

The Center for Economic Development at California State University, Chico estimated miles of maintained roadway in 1999 by taking the average annual change in total miles over the five previous years and multiplying by the previous year.

Unemployment:

Unemployment data, provided by the Employment Development Department, measures the percent of people in the civilian labor force who are not working. Underemployment data provided by the U.S. Department of Commerce's Bureau of the Census includes part-time employment and persons commuting. Seasonal employment was provided by the Employment Development Department. These data sources are compatible because both use the same definition of unemployment.

Data is unavailable to track changes in part-time employment, one component of underemployment.

Volunteerism:

Volunteer rates were developed from Department of Finance, Demographic Research Unit Population Projections. Volunteer participation was collected by the North State Institute for Sustainable Communities.

Sampled organizations:

Shasta County: Burney Fire Protection District and Ambulance Service, Shasta County Fire Department, City of Redding Volunteer Services, Family Service Agency of Northern California, Foster Grandparent Program, Help Inc., Mayers Memorial Hospital Auxiliary Volunteers, Mayers Intermountain Healthcare Foundation, Mercy Medical Center Volunteers, Northern Valley Catholic Social Services, People of Progress*, Redding Medical Center Auxiliary, Senior Companion Program, Shasta County Library, Shasta County Women's Refuge, Shasta Senior Nutrition Program, The Community Volunteer Center, Turtle Bay Museums
Tehama County: Tehama County Fire Department, Corning Senior Center, Corning Volunteer Fire Department, Family Service Agency of Tehama County*, Tehama County Senior Nutrition Program*, St. Elizabeth Community Hospital Auxiliary, Tehama County Library Adult Reading Program, Tehama County Department of Education (SERRF After School Program), The Community Volunteer Center

*Not all organizations reported volunteers every year.

Additional source: Points of Light Foundation.

Water Supply:

This indicator uses the California Department of Water Resources water budget supply for agriculture, industrial, and urban use from 1990 to 1995 and includes a year 2020 forecast of water supply representing average water year conditions. Although these figures represent water supplies for various uses, they are not the actual consumptive uses since they do not account for evaporative or conveyance losses, percolation of applied water, or outflow to the Pacific Ocean. This data is based on a water use survey conducted every five years by the Department of Water Resources. The next state water plan, expected to be released in 2003, will contain data from 1995 to 2000.

An acre-foot is the amount of water needed to fill one acre of land one foot deep. Traditionally, approximately one acre-foot of water will supply one household with a one-year supply of water.

Groundwater levels are an average from a sample of 50 wells located throughout Shasta and Tehama counties, 25 from the Redding Groundwater Basin and 25 from the Sacramento Groundwater Basin. The Redding basin includes Sacramento Valley between Millville and Cloverdale, south of downtown Redding and north of Hooker Creek. The Sacramento Valley basin includes Sacramento Valley between Flournoy and the Vina plains, narrowing and shallowing as you go north toward Hooker Creek.

Five weather stations were chosen for Figure 4, including Mineral, Manzanita Lake, Shasta Dam, Volta Powerhouse and Whiskeytown. These were the only five stations in Shasta and Tehama counties with precipitation readings for each year between 1990 and 2000.

Acknowledgements

Vital Signs would not have been possible without the many citizens and organizations who offered their time, experience and insights into the quality of life in Shasta and Tehama counties. The North State Institute for Sustainable Communities offers its grateful thanks to all participants, especially to the many individuals and organizations who provided the information on which the indicators are based.

We would also like to express our thanks to The McConnell Foundation for its generous support of the Institute and this report. Thanks also to the Shasta-Trinity National Forest for its Rural Community Assistance Grant, which financially supported a portion of the research, and to Shasta College for its support of the Community Assets and Concerns Survey.

Technical Advisors

The Technical Advisory Group included experts in dozens of fields including public health, education, urban planning, economic development, forestry and other industries. This group identified data sources and proposed methods of measuring various quality of life factors.

Advisor	Organization
Ron Adams	City of Redding Planning Department
Dean Angelides	VESTRA Resources
Bob Bailey	Natural Resources Conservation Service
Rick Blankenship	Redding Police Department
Laura Champion	Student, Red Bluff Joint Union High School
Stephan Cragg	Shasta College
Evan Dent	Student, Red Bluff Joint Union High School
Donnell Ewert	Shasta County Department of Public Health
Betty Harrison-Smith	Private Industry Council
Heide Hatcher	Shasta County Office of Education
Victoria Hindes	Shasta College
Arlene Kallis	U.S. Forest Service, Shasta-Trinity National Forest
Dennis Kessinger	City of Shasta Lake
Larry Lloyd	Great Valley Center
Kent Manuel	City of Redding Planning Department
Matthew McCallum	City of Redding Community Services
Dennis McFall	Shasta County Department of Social Services
Sheila Miller	Shasta County Office of Education
Gary Nakamura	U.S. Cooperative Extension - Forestry
James Pedri	Regional Water Quality Control Board
Deborah Peel	Shasta County Office of Education
Don Peery	Private Industry Council
Nancy Polk	Shasta County Department of Resource Management

Kathy Porter	State of California Employment Development Department
Andrea Redamonti	California Department of Transportation - District 2
Matt Reno	Student, Red Bluff Joint Union High School
Dan Ripke	California State University, Chico
Vicki Shipman	Kennedy-Jenks Consultants
Brian Sindt	The McConnell Foundation
Sandy Smith	California Department of Transportation - District 2
Shawn Tillman	Redding Redevelopment Agency
Fernando Villegas	Tehama County Mental Health Agency
Jill Ward	Legal Services of Northern California, Inc.
Sheena Watt	Student, Red Bluff Joint Union High School
Beth Woodworth	Job Training Center of Tehama County

Civic Leaders Group

The Civic Leaders Group included citizens actively involved in community leadership through business, government, volunteer groups or other organizations. This group recommended and evaluated ways to measure the community's quality of life.

Leader	Organization
David Allen	Allen/Stellar Group
Mort August	City of Redding Department of Public Works
Gregg Avilla	Avilla Ranch
Tammy Boone	Future Trucking Professionals
Keith Brookshaw	Shasta College
Melinda Brown	People of Progress
Richard Bull	Red Bluff Police Department
Jim Cain	City of Shasta Lake
Carolyn Chambers	Shasta County Library
Bridget Chicoine	Redding Elementary School District
Gary Clark	Shasta County Probation Department
Jeff Cooper	Shasta College
Velma Cooper	Habitat for Humanity, Shasta County
Trent Copland	Enterprise High School
Bill Cummings	Citizen, Eastern Shasta County
Kent Dagg	Shasta Builders' Exchange
Steve Davidson	Redding Police Department

Civic Leaders Group, continued

Vicky Dawley	Tehama County Resource Conservation District	Tom O'Mara	Youth Violence Prevention Council
Nick Deal	California Department of Transportation - District 2	Greg O'Sullivan	Tehama Local Development Corporation
Cindy Dodds	Tri-County Community Network	Gary Otremba	Omni-Means, Ltd.
Betty Doty	Citizen, Redding	Gracious Palmer	Citizen, City of Shasta Lake
Robert Douglas	Tehama County Department of Education	Clay Parker	Tehama County Sheriff's Department
Bill Ellison	Tehama Bank	Marilyn Parris	Lassen National Volcanic Park
Christine Flowers	Shasta College	Robyn Peterson	Turtle Bay Museums
Irwin Fust	Shasta County Board of Supervisors	Venita Philbrick	Tehama County Arts Council
Dennis Garton	Tehama County Sheriff's Department	Ralph Phipps	U.S. Forest Service, Shasta-Trinity National Forest
Pam Giacomini	California Farm Bureau	Wern Jiem Pien	Shasta County Department of Public Health
Rob Gibbs	Red Bluff Community/Senior Center, Parks & Recreation	Helen Pitkin	Corning District Chamber of Commerce
Kathleen Gilman	Shasta Land Trust	Frank Plucker	Sacramento River Discovery Center
Earnest Graham	Fall River Joint Unified School District	Stephen Pohlmeyer	Student, Central Valley High School
Gretchen Hanson	Gateway Unified School District	Dave Pugh	Whiskeytown-Shasta-Trinity National Recreation Area
Peter Harvey	City of Red Bluff	Sha Reynolds	Shasta County Citizens Against Racism
Carl Havener	Tehama County Health Agency	Larry Russell	International Association 2 Sheet Metal Workers' 1-A
Brent Hawkins	Plainwell Shasta Paper Company	John Sabol	Knauf Fiber Glass
Gail Hawthorne	Local Indians for Education	Ryan Sale	Agriculture - Tehama County
John Helfriah	Knox Realty	Larry Schaller	Shasta County Sheriff's Department
Heather Hennessey	First Christian Church-Disciples of Christ	Kathy Schmitz	Job Training Center of Tehama County
Rachel Hickerson	Shasta County Farm Bureau	Karen Scholes	Mayers Memorial Hospital
Gini Holmes	Shasta County Arts Council	Mary Schroeder	Western Shasta Resource Conservation District
Lori Holstein	DPM, Inc.	Dave Scott	D.H. Scott & Company
Bud Ivey	Sacramento Watershed Action Group	Fraser Sime	California Department of Water Resources
Jim Kraft	Cascade Small Business Development Center	Ed Sisneros	Latino Outreach of Tehama County
Kathy Kuhn	Redding Elementary School District	Deborah Smiddy	Record Searchlight
Chris Kutras	Shasta College	Carolyn Steffan	City of Tehama
Judy Lalouche	Turtle Bay Museums	William Stegall	First United Methodist Church
Mary Leas Stegall	Shasta County Women's Refuge	Frank Strazzarino	Greater Redding Chamber of Commerce
Larry Lees	Pacific Bell	John Strohmayer	Central Valley High School
Dorothy Lindauer	Lindauer River Ranch	Tom Tillisch	Shasta Land Trust
Sharon Lowrey	Shasta College	Mike Torres	CDF - Shasta County Fire Department
John McCullah	Salix Applied Earthcare	Carole Treadway	Golden Umbrella, CHW
Barbara McIver	Tehama County Board of Supervisors	Doug Treadway	Shasta College
Mike McLaughlin	Redding Elementary School District	Frank Treadway	Chestnut Street Neighborhood Association
Peggy McNutt	Nature Conservancy	Janet Tyrrel	League of Women Voters, Redding Area, Inc.
Charles Menoher	Shasta County Office of Education	Gustavo Vasquez	Gerber Parks Committee
Dave Minch	Tehama County Probation Department	Jeffrey Wachter	Student, Central Valley High School
Chris Moats	Family Service Agency of Shasta County	Mike Warren	City of Redding
Scott Morgan	City of Anderson	Virginia Webster	Shasta Senior Nutrition Program, Inc.
Stan Morgan	Aon Worksite Solutions	Dexter Wright	Tehama Local Development Corporation
Patrick Moriarty	Shasta County Department of Public Health	Jim Zauher	Economic Development Corporation of Shasta County
Bill Moule	Moule's Tehama County Glass		
Russ Mull	Shasta County Department of Resource Management		
Barbara Murphy	Redding Rancheria		
Keevil Nichols	National Association for the Advancement of Colored People		
Peggy O'Lea	Redding Elementary School District		

Citizens Focus Group

The Citizens Focus Group provided feedback on proposed indicators and offered a variety of suggestions that improved the project.

Citizen

Citizen	Organization
Catherine Anderson	Shasta College
Rick Anderson	Tribal Data Resources
Angie Ayers	Student, Burney Jr.-Sr. High School
Bill Burrows	Agriculture - Tehama County
Anna Ciaramella	Citizen, Redding
Jeff Cummings	Shasta College
Beth Doolittle	California Regional Water Quality Control Board
Melanie Hoskins	Red Bluff Joint Union High School, retired
Bill Keller	Citizen, Redding
Kimi Kinoshita	Mistletoe Elementary School
Ken Murray	Redding Realty
Donna Pate	Job Training Center of Tehama County
Miral Patel	Student, Burney Jr.-Sr. High School
Patricia Rice	Shasta College
San Saellee	Citizen, Redding
Lin Stewart	Mercy Hospice
Kathey Townley	Citizen, Redding
Jeanette Velasquez	Enterprise High School
Doug Woodworth	Shasta College

Organization



CONTACT US:

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