

Placer County Foodshed Report



Shawn King and Gail Feenstra
UC Sustainable Agriculture Research & Education Program
UC Davis

October 3, 2001

PLACER COUNTY FOODSHED REPORT

Shawn King and Gail Feenstra
UC Sustainable Agriculture Research and Education Program
UC Davis

(530) 752-8408
gwfeenstra@ucdavis.edu

October 3, 2001

Table of Contents

Introduction

Overview of Placer County

Summary of Placer County Foodshed Indicators

Indicators

- I. Demographic indicators
 1. Population
 2. Urban growth rate
 3. Ethnic distribution
 4. Income
 5. Poverty

- II. Agricultural Resource Base
 1. Farm numbers and acreage
 2. Farm ownership
 3. Age of farmers
 4. Organic farming
 5. Farmland conservation

- III. Environmental indicators
 1. Groundwater pollution
 2. Total supplemental water use for agriculture
 3. Synthetic input use and dependence

- IV. Food Distribution Network
 1. Number of establishments
 - a. Farm product raw material wholesalers
 - b. Food manufacturers
 - c. Food wholesalers
 - d. Food retailers

- e. Food servers (restaurants)
- f. Farmers' markets
- g. CSAs
- h. Roadside stands

V. Economic Productivity

1. Top ten agricultural products
2. Gross agricultural productivity (\$)
3. Direct marketing productivity (\$)
4. Food distribution system productivity (\$)

VI. Food System Wages and Employment

1. Employment-farmers
2. Employment and wages-farm labor (farm workers)
3. Employment and wages-food distribution system

VII. Food Consumption

1. Total food expenditures (county approx. and national derivation)
2. Per capita food expenditures (county approx. and national derivation)
3. Dollars spent on food home and away (county approx. and national derivation)

VIII. Community Food Security/ Food Access

1. Government food program participation
 - a. Food stamps
 - b. WIC
 - c. Farmers' Market Nutrition Program (FMNP)
 - d. School meals
2. Community kitchens
3. Food banks
4. Gleaning programs
5. Community gardening

IX. Food/Ag Education

1. K-12 schools with ag/food education, gardens
2. Institutions of higher education with ag and sustainable ag courses
3. Organizations/ Nonprofits – sustainable ag, community food security
4. Ag tourism programs

Food and Agricultural System Policies

Food and Agricultural System Organizations, Initiatives and Networks

Data Template and Rationale for Data Selection

Resources

Introduction

The *Placer County Foodshed Report: Assessing a County's Food System*, provides an overview of important trends in the county's food system. It also highlights and analyzes trends that describe the development of a sustainable, local food system in this region. The purpose of the report is to provide information for residents, farmers, local businesses, nonprofits, government agencies and local policymakers who are interested in the future direction of the region's food and agricultural system.

Agriculture and food systems in the United States have changed dramatically over the past 50 years and Placer County's is no exception. Smaller, family farms have declined substantially with larger, more industrial, vertically integrated operations now supplying food and other agricultural products to a global economy. Farms in regions that used to be characterized by diverse agricultural activities have now become specialized or have disappeared altogether. Most parts of the country are now dependent on imported foods with little or no locally produced foods in commercial channels.

To respond to these global food trends, a diverse array of community-based organizations as well as regional and national groups have begun to revitalize local or regional food systems through greater interactions among local farmers, ranchers, retailers, processors and consumers. These efforts are small in scope, however, and continue to occur within the context of large-scale, regionally concentrated agricultural producers and national and multinational food processors and distributors. Nevertheless, local and regional food system efforts are beginning to become more visible.

This report is an attempt to highlight the local and regional trends and local food system efforts in Placer County. It is part of an initial set of foodshed assessments being conducted in 3 counties in California—Placer, Alameda and Stanislaus. The California work is part of a national study, “Consumers, Commodities and Communities: Local Food Systems in a Globalizing Environment (NE-185)” in which a partnership of 18 land grant universities throughout the country are collaborating to study local food production, distribution and consumption in a globalizing economy. Participating states each agreed to study regional food systems in three counties in their states—an urban county, an urbanizing county and a rural county so they could be compared and contrasted.

California Foodshed Studies

The California research team, based at the UC Sustainable Agriculture Research and Education Program, made an early decision to focus on collecting as much quantitative data as possible about each county's food system through the use of *indicators*, or quantitative measures of system behavior taken over a period of time. The indicators provide information about food and agricultural system trends in nine areas—demographics, environment, agricultural resource base, food distribution network, economic productivity, food system wages and employment, food consumption, food security/food access and food/agriculture education. The indicators are supplemented through interviews of key food system stakeholders. These key informant interviews help us understand the trends and the forces affecting the food system. A separate section outlines key food and agricultural policies and initiatives that have had the most significant impact on local agriculture. This report also describes briefly a number of food and agricultural system organizations, initiatives and networks that have worked to create alternative production and marketing channels for local foods.

What are indicators?

Indicators are quantitative measures or data that show changes in various aspects of a community's well-being over time. For this project, we attempted to collect food system data that have the following characteristics:

1. They reflect fundamental aspects of long-term regional health or community well-being that can be related to food production, distribution, processing or consumption;
2. They are clear, understandable and acceptable;
3. The data has been consistently collected at regular intervals and is publicly available in published documents;
4. They can be interpreted locally, especially when combined with historical information specific to the area studied;
5. The data has been collected the same way for counties throughout the United States to facilitate comparisons between regions.

How to use this report:

This report can be used as a set of benchmarks for assessing past food system changes and suggesting future directions in critical areas. As such, the report can help community residents identify and monitor key issues and challenges to the sustainability of their food system.

This foodshed report can be used as a model for assessing the state of any other region's food system. It provides a broad set of food system data relevant for Placer County; however, other counties may wish to add additional food system dimensions or indicators. Particular stakeholders within Placer County may also wish to add additional indicators that enlighten the public dialogue about issues such as the future of farming in the region, farmland preservation, the food security of local residents, or the sustainability of the local economy.

We welcome your suggestions and will work with you to make this report most useful to you. For more information, please contact:

Gail Feenstra, food systems analyst, UC Sustainable Agriculture Research & Education Program at (530) 752-8408; gwfeenstra@ucdavis.edu.

PLACER COUNTY: AN OVERVIEW

Placer County is located in the northern half of California, directly to the east of the Sacramento metropolitan area, and bordering on the west edge of the Sierra Nevada mountains. Encompassing 1,431 square miles, it is approximately 100 miles long and averages 15 to 20 miles wide from north to south. Placer County includes a wide variation of topography, ranging in elevation from 40 feet in the southwestern corner to 9,000 feet in the Sierras. The county has 700 miles of rivers and streams and 97,000 acres of lakes including one of the deepest lakes in the nation, Lake Tahoe, on the county's eastern boundary.

The county can be divided into four distinct economic and geographic regions.

Southwest Placer County, located on the eastern edge of the Sacramento valley and the Sacramento metropolitan area, accounts for more than half of the employment base in the county, centered primarily on high-tech assembly and research and development enterprises, as well as service and retail trade enterprises. Developed areas are surrounded by rural or agricultural land, where most of the livestock and rice is produced.

The *Western Sierra Nevada foothills* are home to several residential enclaves which act as bedroom communities for Sacramento and the county seat, Auburn, which provides employment in local government. Economic activity is centered on commercial, retail, and light industrial developments near primary freeways, Highways 49 and 80. This region is also home to many of the county's small family farmers.

The *High Sierra* region, characterized by privately and publicly owned forestland, comprises almost half of the land area of the county. Economic activity consists of tourist opportunities from snow ski resorts, historic mining communities, and recreational activities. Other industries in the area include mining and lumber. Many residents commute to the foothills or the valley for work.

The *North Lake Tahoe* area includes many resort communities near the Lake Tahoe shoreline, and several major ski resorts. The economy consists primarily of services and retail trade sectors, designed to accommodate the influx of tourists. New development is strictly controlled to preserve the alpine lake ecosystem.

Placer County is the fastest growing county in California. Communities such as Roseville and Rocklin, characterized as bedroom communities for the workforce in Sacramento, are growing at rates much faster than the county average. Highway 80, a major national thoroughfare, follows the long East-West axis of the county, bringing both tourists and bedroom community residents to the area, and predisposing the county to rapid development. Much of the new development occurs on the flat agricultural land in the western portion of the county, adjacent to the large Sacramento metropolitan area.

Placer County's food production system is concentrated in the southwest flatlands and the Sierra foothills although distribution and food retailing occur all along the I-80 corridor and up to Lake Tahoe resort communities. Historically, Placer County was a major supplier of fruit (plums, pears, cherries, apples) for the entire country. Today, however, not even one of the 22 packing sheds remain. As of the mid-1990s, rice, nursery products and livestock are the top agricultural commodities. Nevertheless, agriculture still remains a \$55 million industry and its health is important to the county.

Due to rapid population growth and development, Placer County farmland is disappearing at an alarming rate. Total farmland now comprises only 15% of the county's land area, down from 32.5% in 1950 (Roger Ingram, UCCE Placer County, August 2001). Larger farms, primarily growing rice and raising livestock, are located in the westernmost portion of the county. Small family farms, mostly located at higher elevations in the foothills, are utilizing direct marketing options such as farmers markets and roadside stands. Niche marketing as an economic strategy is being adopted both on farm and in agricultural education. The county government has adopted policies aimed at protecting agricultural land and activities.

DEMOGRAPHIC INDICATORS

HIGHLIGHTS

Overview

Placer County, stretching from the Sacramento metropolitan area to Lake Tahoe in the Sierra Mountains, can be characterized as one of the fastest growing counties in the state. Rapid growth of the Sacramento region, including an influx of high technology businesses, makes much of Placer County attractive to Californians hoping to settle in a largely “unspoiled” region with a strong, high-earning employment market. Today, about one third of the county’s population resides in the city of Roseville on the county’s western edge, near the southwest edge of the county nearest the Sacramento basin. Although minority populations are growing slowly, they represent a much smaller percentage of the population than in the Sacramento region or the state as a whole. In general, Placer County remains a largely homogeneous, white population.

Placer County is also becoming one of the wealthiest as reflected in increasing incomes and declining unemployment and poverty rates. It now ranks 11th in the state in terms of highest per capita income. Employment growth has occurred primarily in Placer County’s fast-growing southwestern region, adjacent to Sacramento County and along the I-80 and Highway 65 corridors where manufacturing, services and retail trade jobs are growing.

Importance for the alternative/ sustainable food system

Placer County is now predisposed to intense, rapid population growth, including development of the county’s farmland base. Economic pressure to develop rural areas is very high and intensifying, but the process is still in its early stages. Rural landscapes and lifestyles may still be maintained, but it will take well-organized preservation efforts within the county.

On the other hand, the influx of largely middle-class people with higher than average disposable incomes provides an opportunity for local growers and food processors to market their products to potentially receptive consumers. Although direct marketers face competition from the expansion of malls and fast food restaurants along the I-80 corridor, consumers are also willing to buy from farmers’ markets, restaurants and retail stores that serve and sell locally grown foods, and even community supported agriculture projects. The extent of marketing and educational efforts directed at this group will determine how they respond. In addition to county residents, Placer County food businesses continue to cater to tourists traveling to and from the High Sierra and Lake Tahoe. Local growers have tapped into this flow through PlacerGROWN Farm Trails, a free map that gives the location of farms, markets, nurseries and restaurants and provides a local buying guide for when and where to get fresh produce, livestock, rice, nursery products, and Christmas trees.

Although poverty may not be a major issue in Placer County, there are still pockets of low-income people who do not have access to a healthful diet. Attention to their food and educational needs continues to be important.

Population Growth

The trend.

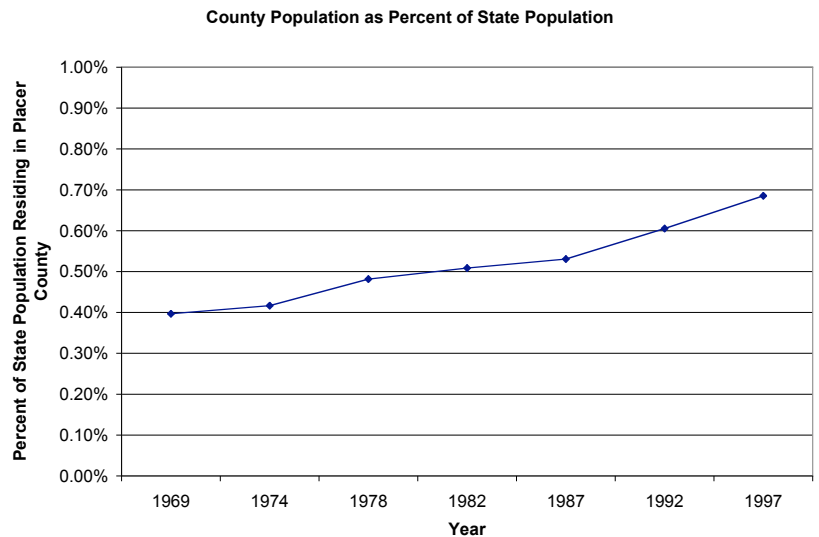
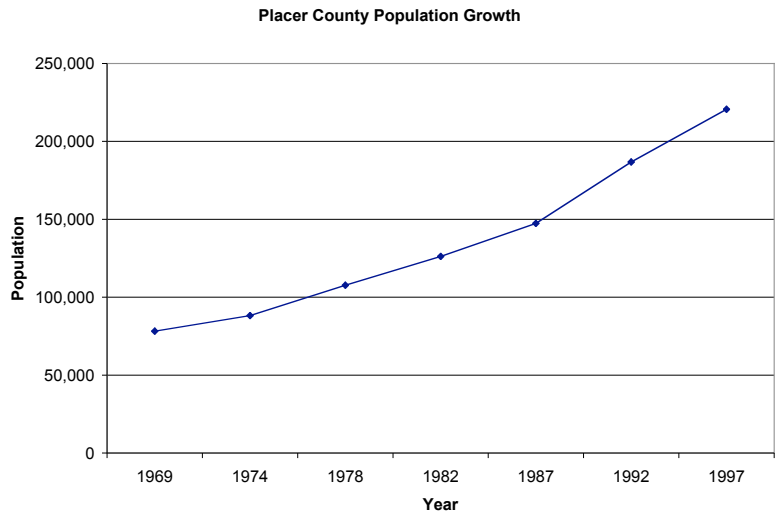
Placer County's population has nearly tripled since 1969. Population growth rate (the slope of the line in the graph shown here) accelerated over the same period. Placer County's population currently represents less than 1% of the state's total population.

Why is this trend occurring?

Placer County's location and geography encourage population growth through the influx of California residents from other counties. Interstate 80, one of the nation's primary highways, stretches along the county's long, narrow shape from the outskirts of Sacramento, California's rapidly growing capital, to the shores of Lake Tahoe, a center for tourism and recreation. Many communities along the I-80 corridor combine historic town centers and rural settings with modern services and shopping centers. Rapid growth of the Sacramento region, including an influx of high technology businesses, makes much of Placer County attractive to Californians hoping to settle in a largely "unspoiled" region with a strong, high-earning employment market.

Why is this important?

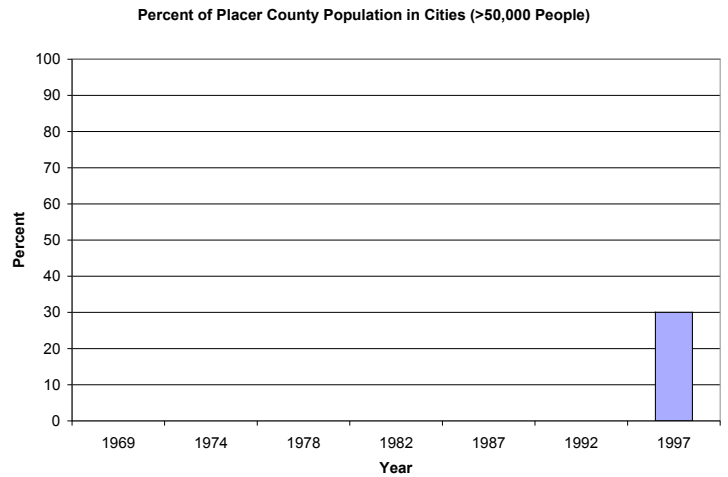
Placer County is now predisposed to intense, rapid population growth, including development of the county's farmland base. Economic pressure to develop rural areas is very high and intensifying, but the process is still in its early stages. Rural landscapes and lifestyles may still be preserved, but only by rapid and well-organized preservation efforts within the county.



Urban Population

The trend.

Until the mid-1990's, none of the cities incorporated within Placer County had populations exceeding 50,000. Today, about one third of the county's population resides in the city of Roseville on the county's western edge. Roseville has experienced explosive growth in the last decade—a 58% increase in population from 45,367 in 1990 to 71,609 in 1998 (RAND California, June 2000). Another 3000 acres are slated for residential development along the western edge of Roseville. Rocklin's population increased 61% from 1990 to 1998 but remains below 35,000. Lincoln is expected to experience explosive growth over the next ten years. A proposed bypass for highway 65 will cut through nearby agricultural land, increasing its vulnerability to development.



Why is this trend occurring?

Both communities are contiguous with the greater Sacramento Metropolitan area. In contrast, Auburn, Placer county's only other significant city, and the county seat, is located in the Sierra foothills along I-80 and has only grown 14.5% from 10,815 to 12,386 over the same period.

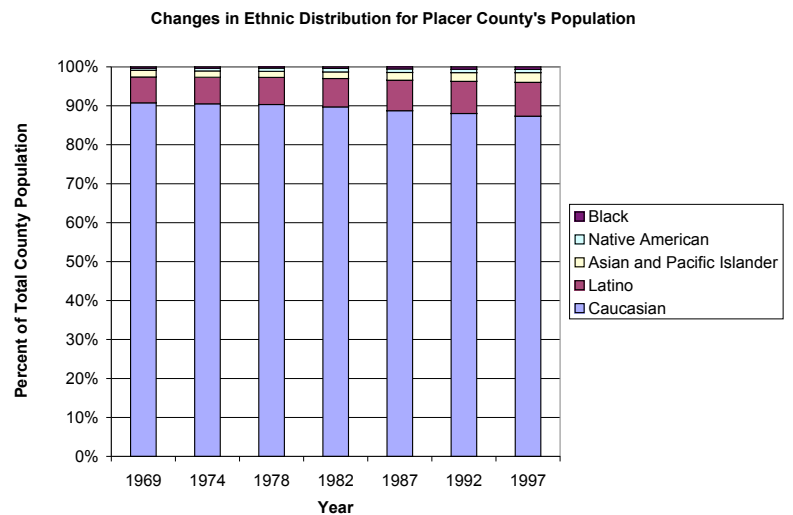
Why is this important?

Near-term development pressures will be concentrated in the best agricultural land areas of Placer County bordering Roseville and Rocklin. As Placer County's population becomes increasingly concentrated in these municipalities, so will consumer economic and political power.

Ethnic Distribution

The trend.

Overall, minority representation in the county is increasing, but at only 1/10th the rate of growth of the state average minority population. In 1997, non-Caucasian races constituted only 12.7% of Placer County's total population,



much lower than the state average 49% non-Caucasian population. Latino population percentage, the second largest ethnic group, is increasing at about half the rate of the state average, while the Black population percentage is increasing at six times the rate of the state average. Asian and Pacific Islander population percentage increase rate approximates that of the state average.

Why is this trend occurring?

Most of Placer County’s recent population growth has been an influx of highly educated urban professionals looking for residential housing within commuting distance of high tech and light manufacturing workplaces. Workers in these sectors are disproportionately Caucasian and high income. Recent growth in black populations is largely concentrated in the Roseville and Rocklin areas, but we do not have information about the reasons for the trend.

Why is this important?

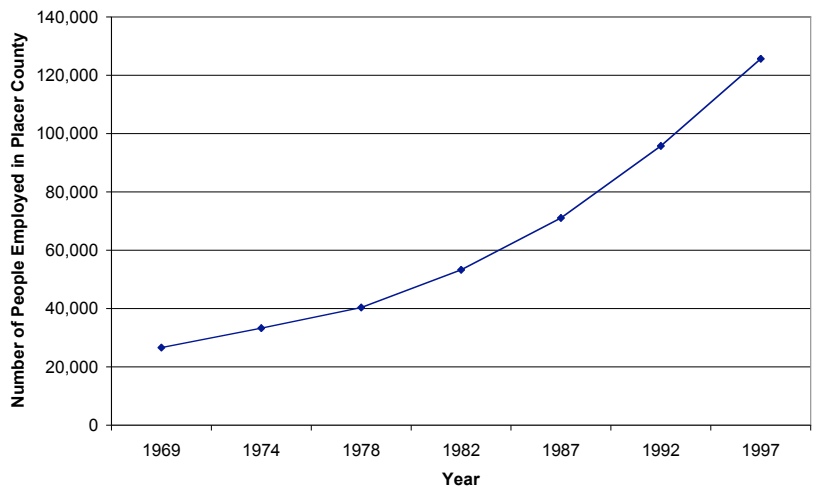
The continuing dominance of middle- to high-income Caucasians in Placer County probably benefits alternative and local agriculture that relies on direct marketing, since this population has disposable income and interest in farmers’ markets and other direct marketing outlets and high-end restaurants.

Income and Employment

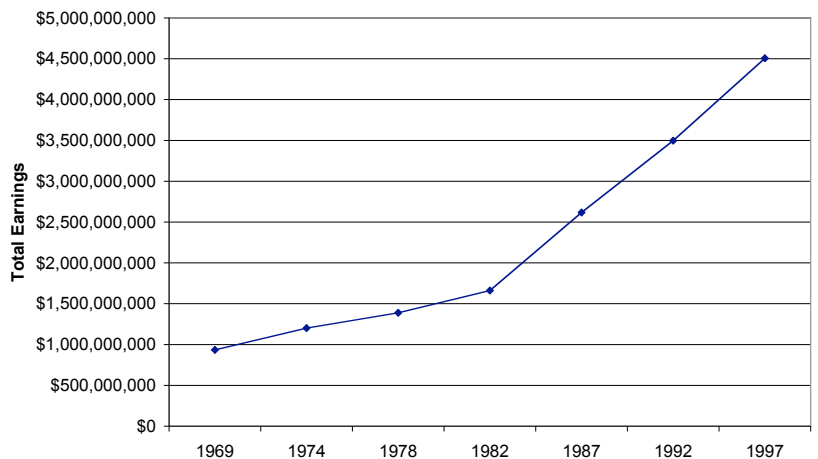
The trends.

Accelerating growth in total employment for Placer county has yielded a six-fold increase since 1969, twice the rate of population growth. Total earnings have increased about five-fold since 1969, with most of that increase occurring since 1982. Inflation-adjusted per-capita income has increased roughly linearly since 1969, with period of slow growth from the late-seventies to early-eighties. Overall, inflation-adjusted per-capita income doubled from 1969 to 1997. Placer county’s rank among California counties for per capita income improved

Changes in Total Employment for Placer County



Trends in Total Earnings in Placer County (adjusted for inflation)



significantly throughout the seventies (from 28th to 11th) but has remained constant since 1987, suggesting county per capita income growth now matches growth of the state average.

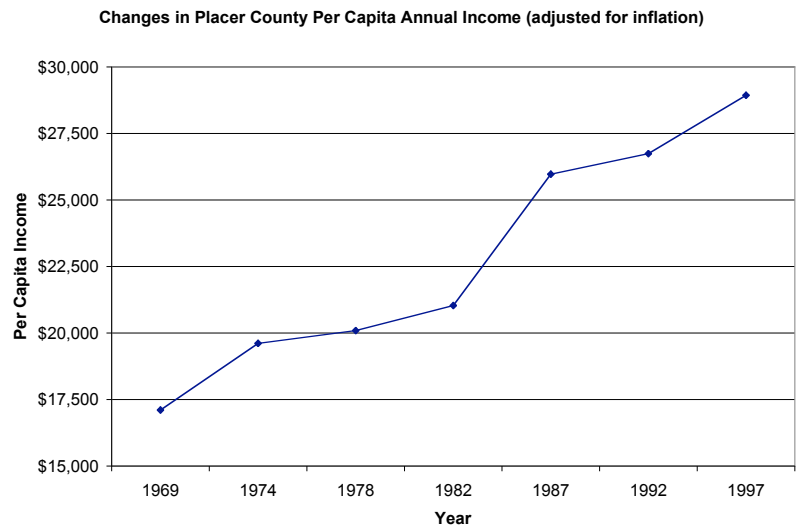
Why are these trends occurring?

Employment growth has occurred primarily in Placer County's fast-growing southwestern region, adjacent to Sacramento County and along the I-80 and Highway 65 corridors where manufacturing, services and retail trade jobs are available. Most of the manufacturing jobs are in the durable goods sector, primarily in the high-tech industry including computers, electronics, communications and software production. The services industry accounts for the second largest increase in jobs, including hotels and lodging, business, amusement and health services. Retail trade, including the development of regional malls, accounts for new jobs in eating and drinking establishments, food stores and other retail establishments.

Why is this important?

Placer County is rapidly getting wealthier, both in terms of income and in terms of employment. Tourism and recreation, which account for many of the new jobs in the service industry, could easily be linked to the local food system. However, the enormous growth in the service sector that is providing new low-wage service jobs is attracting low-income families who move to the area looking for work. As a result, both the Lake Tahoe and the central valley areas of the county have shown accelerated growth in low-income Hispanic populations in the last decade (Sharon Junge, UCCE Placer County, April 2001), many of whom seek economic assistance.

Much of the most recent growth in food retail is due to chain stores that open as "anchors" to new mall developments in urbanized areas (Bobbi Park, Placer County Economic Development, April 2001). Chains may be filling space in the community that could have been filled by a proliferation of smaller businesses. Since chain stores are often less able or willing to accept local produce, the trend towards chain store dominance may be limiting new market opportunities for local producers. On the other hand, consumers with higher disposable income and more information may be willing to pay more for available, fresh, locally grown foods.



Poverty

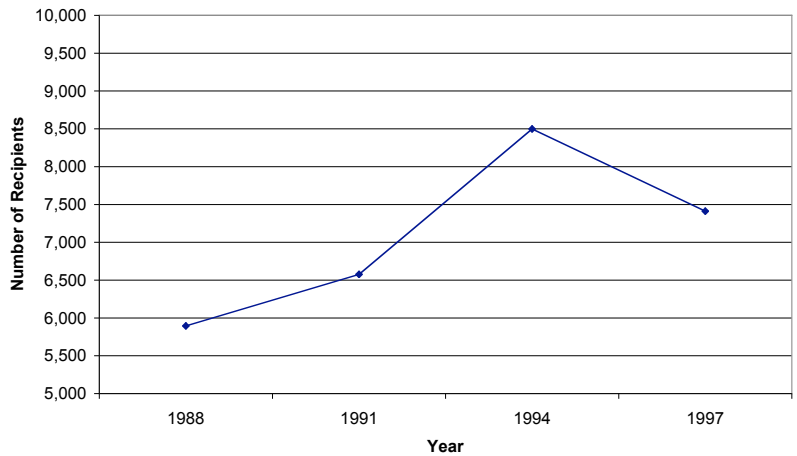
The trends.

The number of welfare recipients in Placer County increased since 1988 along with population, peaked in the mid-nineties, and is now declining. The percentage of Placer County's population receiving welfare payments has remained roughly constant over the same period, with a period of increase in the mid-nineties. The percentage of Placer county's population and percentage of county families below poverty have decreased over the last several decades. Since 1950, the percentage of county families below poverty has decreased by a factor of five, with most of the decline occurring prior to 1970. Civilian unemployment decreased from 7.1% to 5.3% between 1985 to 1997, with a period of increase in the mid-nineties.

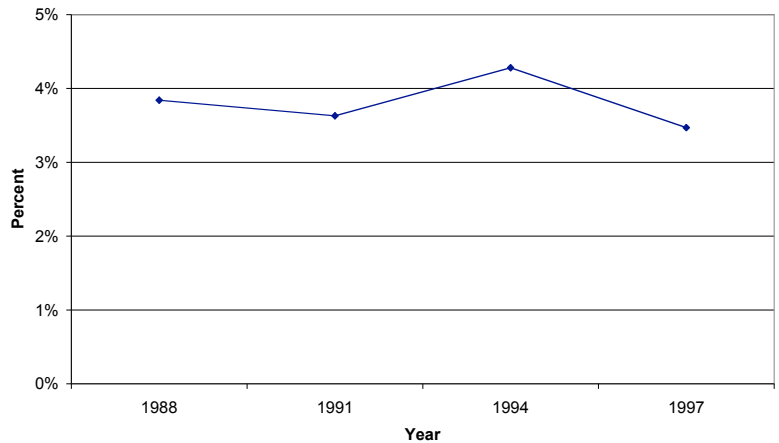
Why are these trends occurring?

The decrease in the overall poverty rate in Placer County reflects the influx of higher income workers who have moved to the county as well as the tremendous increase in hi-tech employment opportunities in the region. The decrease in poverty in the mid ninety's is the result of welfare reform in which many low-income adults were moved from welfare into low-wage service sector employment (Sharon Junge, UCCE Placer County, April 2001).

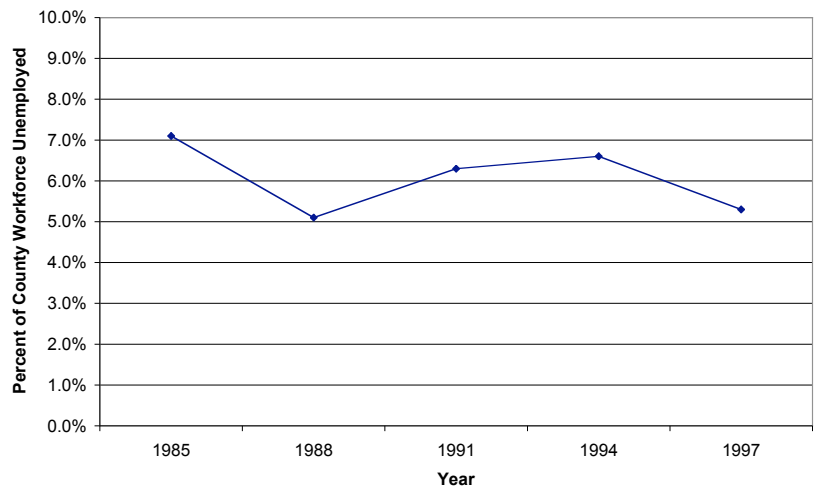
Poverty Trends: Changes in the Number of Welfare (AFDC/TANF) Recipients in Placer County



Poverty Trends: Changes in the Percent of Placer County's Population Receiving Welfare



Poverty Trends: Changes in Civilian Unemployment Rate in Placer County

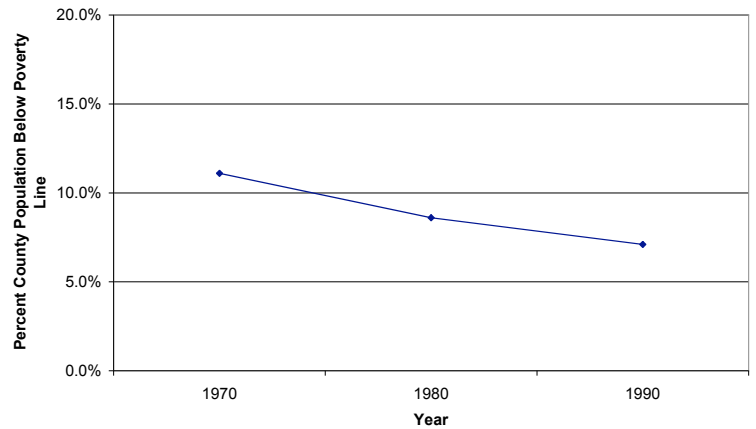


Why is this important?

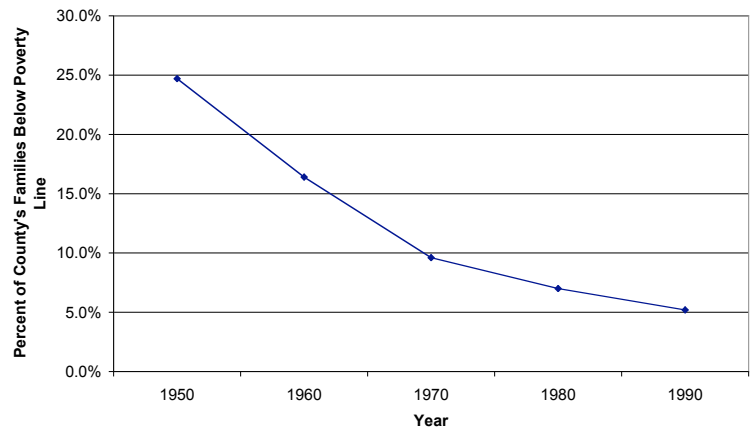
For the majority of the population, income will not be a primary barrier to obtaining adequate food supplies. However, although the overall increase in affluence and newly created service sector jobs provides alternatives to welfare for the county's poor, pockets of poverty in the county continue to persist. Transportation costs and lack of access to food merchants in these poverty areas reduces nutritional quality for the residents. Also, service sector growth fuels immigration of working poor families who create a growing need for family nutrition and school meal assistance. (Sharon Junge, UCCE Placer County, April 2001).

The county will continue to need effective nutritional outreach and assistance to low income families and school age children. Programs to bring direct food marketing to poverty areas may be a good opportunity to both increase diet quality for residents and expand markets for local agricultural producers.

Poverty Trends: Changes in the Percent of Placer County's Population Below the Poverty Line



Poverty Trends: Changes in the Percent of Placer County's Families Below Poverty Line



AGRICULTURAL RESOURCE BASE INDICATORS

HIGHLIGHTS

Overview

Placer County farm acreage, numbers, and ownership have experienced an overall decline since 1950, but a boom in small, part time farming operations in the late 1970's fueled a dramatic, but not lasting recovery. Mid sized farms, from 50 to 99 acres, have declined the most of any class of farm. Minority farm ownership and operation continue to decline. Organic farm numbers and acreage have doubled over the last decade but are still a very small percentage of farm numbers and acreage in the county. The rate of farmland conversion for development continues to increase.

Importance for the alternative/sustainable food system

The impact of the "hobby farm" boom, a surge in small farm numbers driven by interest in rural "lifestyles" combined with farmer's market legislation and other direct marketing opportunities, demonstrates the value of direct marketing in not only preserving but enhancing local agricultural economic viability. To date, however, neither marketing-based nor land preservation-based efforts have prevented accelerating development of agricultural land. Although direct marketing and niche marketing (including organic production) have the most growth potential, additional efforts are needed to reverse attrition in small farm numbers. Mid-sized farms (farms 50 to 499 acres in size) have experience the most conversion to other uses. Commodity farming in the county is declining overall (Roger Ingram, UCCE Placer County, May 2001) and large farm operations, especially ranching operations in western Placer County, are the most vulnerable to development. Agricultural tourism, conservation easements, and commodity support programs offer some hope for keeping large producers in business, but many owners, near retirement with no family members interested in continuing the business, are now waiting for the right development opportunity to sell their land.

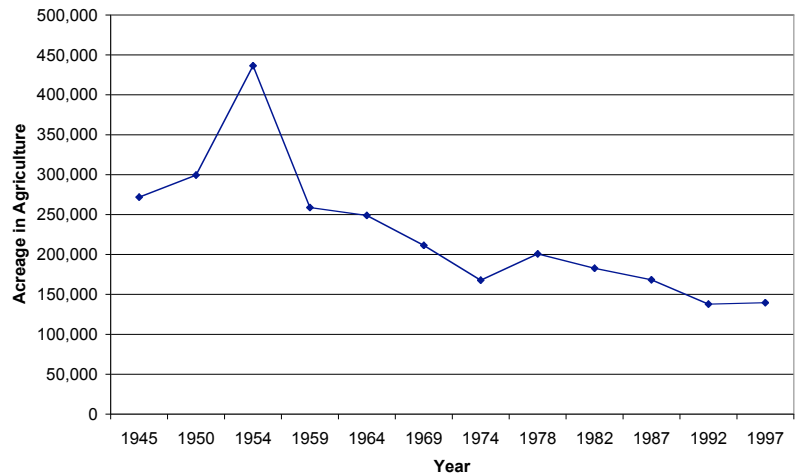
Farm Numbers and Acreage

The trends.

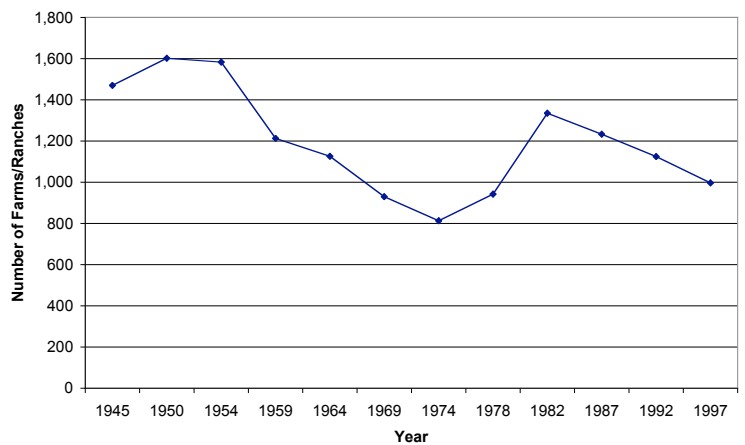
Total Placer county agricultural acreage peaked in 1954 and has declined 49% overall since 1945, with a small recovery between 1974 and 1978. Rate of decline has been lower since 1978 than during years of decline prior to 1974. Since 1992, agricultural acreage has increased slightly. The number of farms and ranches peaked in 1950 and has declined 32% overall since 1945, with a rapid rise in numbers from 1974 to 1982 followed by a decline to present. Less than 2% of California's farms are in Placer County. Though the percentage of California's agricultural acreage in Placer County has declined gradually overall since 1945, the percentage of California's farms and ranches in Placer county increased over the same period. Average Placer County farm size, following a peak of 276 acres in 1954, remained relatively constant until 1978, then declined in just a few years to a new stable point of about 130 acres, a decline of more than 50%.

Trends in farm size distribution vary greatly among size classes. Only the smallest farms, from 1 to 9 acres in size, have become more numerous since 1945, more than doubling in number. Farms of all other sizes have declined in number, with most of the change occurring in the 50- to 99-acre size class, which declined more than three-fold. Trends for the number of farms 1-9 and 10-49 acres in size follow the same pattern, peaking in

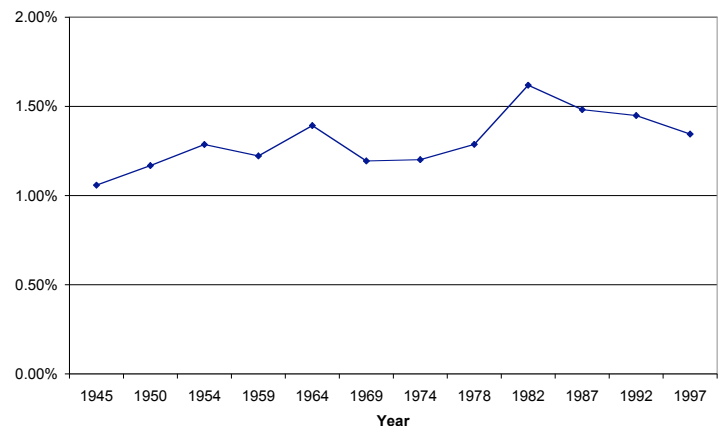
Changes in Total Acreage in Agriculture in Placer County



Changes in the Number of Farms and Ranches in Placer County



Percentage of California's Farms and Ranches Located in Placer County

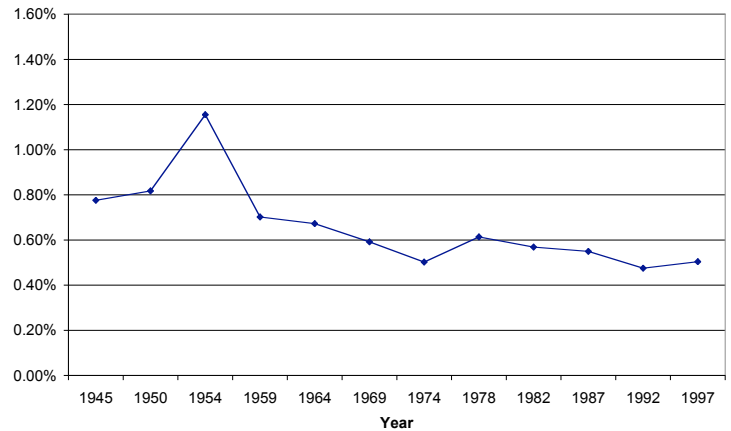


the mid-50's, declining steeply to the late sixties, increasing significantly between 1974 and 1982, then declining more slowly from 1982 to present. Trends for the number of farms in the 50-99 and 100-499 acre classes have remained almost identical from 1945 on, showing a roughly 17% per decade decline until 1974, a mild recovery, then a slower decline to present. Since 1987, decline in 100-499 acre farm numbers has slowed, while decline of 50-99 acre farm numbers has accelerated. Numbers of farms with 500-999 and 1000 or more acres changed very little compared with other farm sizes but showed a gradual decline since 1945. There was more fluctuation and a greater overall decline for farm numbers in the 1000 or more acre class while farm numbers in the 500-999 acre class showed only an 8% decline from 1945 to present.

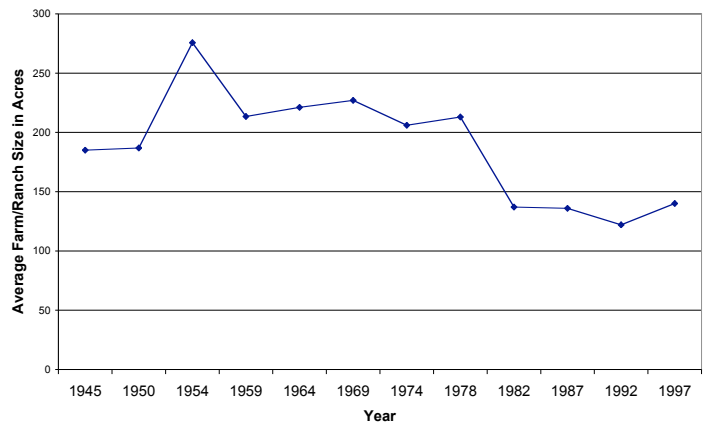
Why are these trends occurring?

In a region experiencing rapid urban, suburban, and industrial growth, agricultural land holders are under constant economic pressure to sell all or part of their holdings. Retiring farmers and ranchers may sell part or all of their land for commercial development when the economic return for the land sale far exceeds the near-term profits to be made by farming the land. In Placer County, acreage and numbers of the largest farms, 500 acres and larger, has been stable or increasing over the last decade while numbers of 50-99 acre farms have dropped significantly, suggesting consolidation. It is unclear what combination of factors has driven the decline of midsized farms. Numbers of the smallest farms have been declining rapidly since 1982. About 90% of Placer County farms purchased between 1974 and 1982 were less than 50 acres in size. Most were bought by older people from

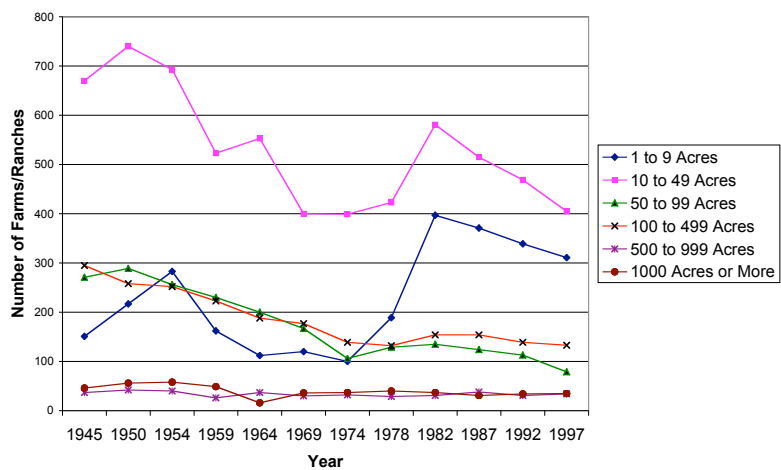
Percentage of California's Farm and Ranch Acreage Located in Placer County



Trends in Average Farm or Ranch Size in Placer County



Trends in Farm and Ranch Size Distribution for Placer County



declining rapidly since 1982. About 90% of Placer County farms purchased between 1974 and 1982 were less than 50 acres in size. Most were bought by older people from

the Bay Area and Southern California who subsidized the farm with outside income. Sales of such small farms also accounts for 77.5% of the decline in farm owners between 1982 and 1997. This attrition was mostly due to loss of interest in farming, retirement, death, and family members' lack of interest in continuing farming. (Roger Ingram, UCCE Placer County, Livestock and Natural newsletter, Fall 2000). We were unable to account for the peak in farm numbers in 1954, but it may reflect new farm establishment driven by the G.I. bill.

Why is this important?

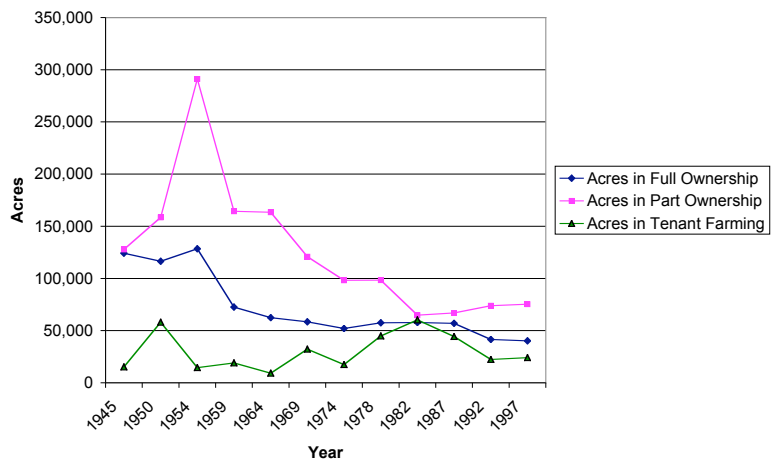
Historical data shows that changes in numbers of the smallest farms, 1-9 and 10-49 acres in size, account for most of the change in overall county agricultural acreage and farm and ranch numbers since 1974, suggesting initiatives to assist small farm viability can significantly enhance overall regional agricultural land preservation. Farm size and numbers among the largest farms have stabilized and may now be increasing, suggesting current conditions favor and support continued large farm viability. Mid-sized farms remain the most vulnerable, possibly due to a lack of support programs that are effective for midsized agricultural operations. Due to the economics of scale, traditional commodity programs benefit larger producers, such as rice growers in Placer County, while direct marketing programs are most effective for assisting the smallest farms.

Farm Ownership

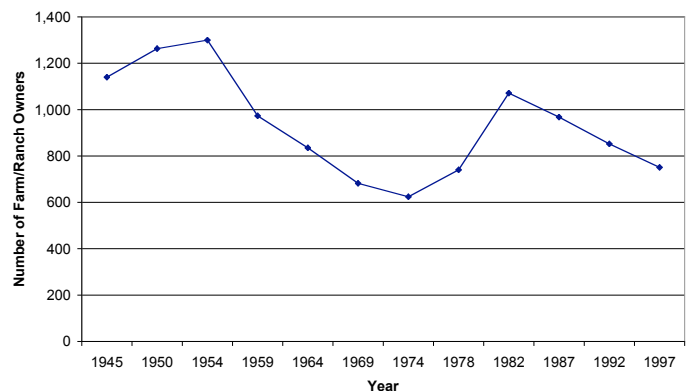
The trends.

Placer County agricultural acreage in full ownership declined 43% between 1954 and 1959, then remained fairly stable until 1987, followed by another 27% decline by 1992 and stability to present. Following a peak in 1954, acres in part ownership declined 61% by 1982 and have risen 12% since then. Following a peak in 1950, acres in tenant farming remained stable until the late 60's, then increased more than six-fold by 1982, and have declined 63% since then. Numbers of acres for all three types of ownership have remained stable since 1992. The trend in the total number of farm and ranch owners in the county parallels trends in total number of farms and total number of farms in the 1-9 and 10-49 acre size classes. There was an accelerating decline in the

Trends in Farm and Ranch Ownership and Tenant Farming in Placer County



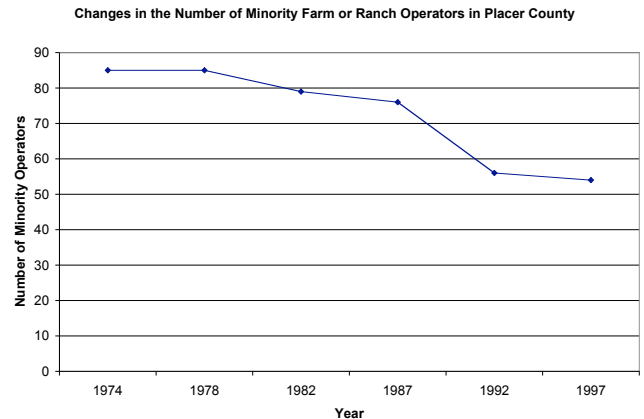
Trends in Farm and Ranch Ownership: Number of Full Owners of Farms or Ranches in Placer County



number of minority farm owners between 1974 and 1992 but numbers now appear to have stabilized.

Why are these trends occurring?

Trends may be due to combinations of several factors including the boom in “hobby farming” in the late 1970’s, leading to many new full and partial farm ownerships, as well as consolidation of midsized farms into larger farms, with the former midsized farm owner becoming tenant or part owner, and so on. Development pressure not only fuels conversion of agricultural lands when full owners sell, but increases the speculative value of agricultural land. High speculation values encourage farmers who are interested in continuing farming to lease land rather than buy it, thus expanding part-owner acreage, but also increase cost of leased lands, reducing viability of tenant farming operations (Roger Ingram, UCCE Placer County, May 2001). It is not possible to clarify causal factors in more detail without further in-depth historical analysis.



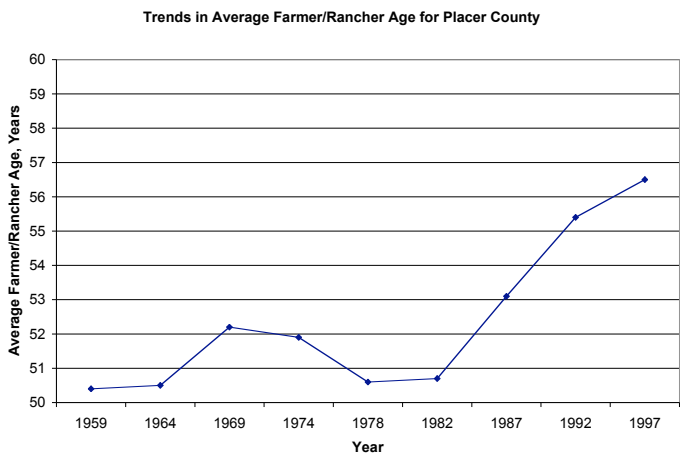
Why is this important?

There may be differences in the average short- and long-term viability of full, part, and tenant operations in the shifting economic environment of direct marketing, support programs, development pressures, and competition from other growing regions. Further research is needed to determine which approach, if any, offers the best hope of sustaining a farming operation of a given size.

Age of Farmers

The trend.

The average age of Placer County farm and ranch operators increased four percent between 1964 and 1969, declined again between 1978 and 1982, and has risen 11% since then. Since 1959, average age has remained above 50 years old, with a total increase of about 7 years over the period.



Why is this trend occurring?

About 90% of Placer County farms

purchased between 1974 and 1982 were less than 50 acres in size. These “hobby farms” were bought by older professionals from the Bay Area and Southern California who subsidized the farm with outside income. Sales of such small farms also accounts for 77.5% of the decline in farm owners between 1982 and 1997. This attrition was mostly due to loss of interest in farming, retirement, death, and family members’ lack of interest in continuing farming. (Roger Ingram, UCCE Placer County, Livestock and Natural newsletter, Fall 2000). The dip in average farmer age between 1974 and 1982 might be explained by an influx of young “hobby farmers” new to the business temporarily depressing averages which then rose as the youngest farmers left the business, and the rest continued aging. Although historic increases in farmer age are small relative to the age itself, averages hide the local and national trend towards rapid increases in the total numbers of retirement age farmers. Between 1982 and 1997, numbers of Placer County farmers declined in all age groups except the group over 70 years old, which increased more than 50% over the period (Roger Ingram, UCCE Placer County, Livestock and Natural newsletter, Fall 2000). Most of these older farm owners have no relatives interested in continuing to farm, meaning the land will be bought and absorbed by larger farms or sold for development.

Why is this important?

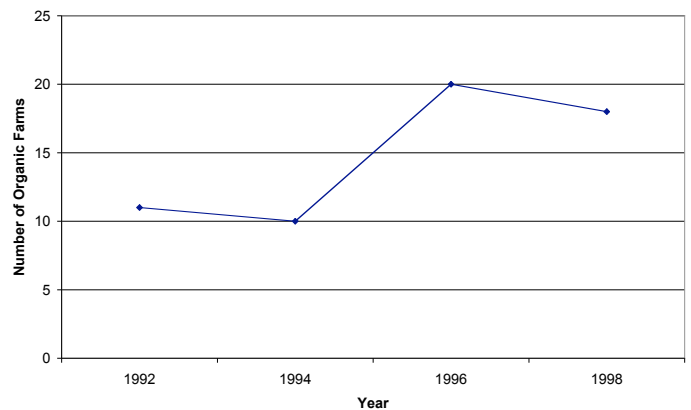
Placer County lacks a new generation of farmers to replace the old. As existing farm owners near retirement, they may decide to sell land for development if no one else in the family wants to continue the work, and trusted and qualified younger farmers are unavailable. Increases in farmer age will thus tend to promote conversion of agricultural lands to other uses. Retiring operators may not have an opportunity to share their wisdom and experience-based knowledge with younger farmers.

Organic Farming

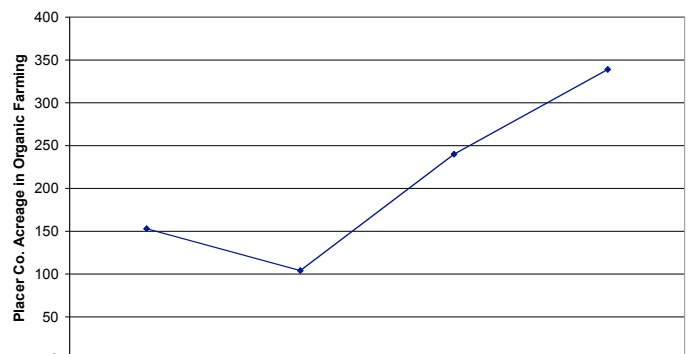
The trends.

Available trend data covers only the last 10 years. The number of organic farms has nearly doubled in that time, with most of the increase between 1994 and 1996. Numbers have declined slightly since 1996. Organically farmed acreage has more than doubled, with all of the increase occurring between 1994 and present. Acreage increased between 1996 and 1998 while the number of organic farms declined slightly, suggesting an increase in average per farm organic acreage. Overall, organic farming

Changes in the Number of Organic Farms in Placer County



Trends in Organic Farm Acreage for Placer County



currently accounts for only 0.2% of total county agricultural acreage.

Why are these trends occurring?

Though numbers of new registrations are still increasing, rates of registration of organic farms have declined, and some smaller organic farms have consolidated into single, larger operations. Competition has narrowed the price difference between organic and conventional products, reducing net profit margins for organic producers and fueling consolidation. (Sean Feder, Inspector Operations Director for CCOF, April 2001).

Why is this important?

Organic farming acreage in Placer County, though increasing, remains a tiny portion of overall agricultural acreage, and does not appear to have slowed the decline in the number of small farms (1-9 and 10-49 acres) over the last decade. The organic market is not yet a significant force in changes in agricultural land use in Placer County. By 2010, however, if the current growth rate of organic acreage continues, organic farming will account for 10% or more of all Placer County agricultural acreage.

Farmland Conservation

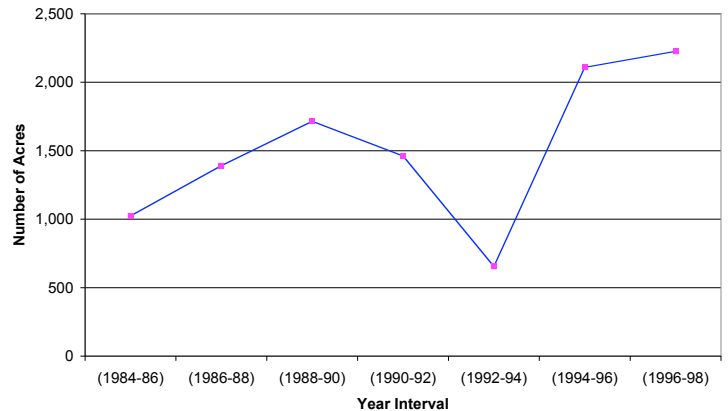
The trends.

The rate of conversion of agricultural land for development has fluctuated over the last decade but is now more than double early 80's rates. Rates fell between 1988 and 1994. Acres of agricultural land enrolled in the Williamson Act, an agricultural land preservation program, declined more than 50 percent between 1978 and 1992, but the decline may now be leveling off.

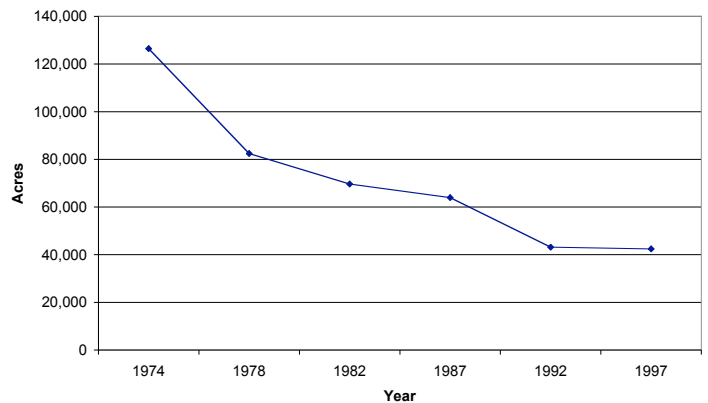
Why are these trends occurring?

Between 1984 and 1996, the county lost 42% of its total grazing land to development in the western half of the county. Most of the county's larger farming and ranching operations are near the rapidly growing cities of Roseville and Rocklin. Adjusted for inflation, the total market value of farmland and buildings in the county increased 21%

Trends in the Number of Acres of Farm and Ranchland Converted for Development in Placer County Over 2-Year Intervals



Trends in Agricultural Land Preservation: Number of Acres Enrolled in the Williamson Act in Placer County



from 1974 and 1997, fueling conversion as retiring farmers and ranchers sold holdings to developers. Prime and locally important farmland, where most crop production occurs, also contribute to the trend, with accelerating conversion over the trend period. Department of Conservation data on land conversion merits further study to determine in detail which farm types have been most vulnerable to conversion. Rates of non-renewals of Williamson Act contracts may be slowing because remaining enrolled acres are in areas unattractive to developers or because of recent enhancements by the State of California that make contracts more profitable (please see the “Major Policy Initiatives” section of this report for more details). Most conversion now occurs in the western end of the county where development pressure is highest, but Williamson Act enrollment in that area continues to protect most producing cropland.

Why is this important?

In spite of agricultural land preservation initiatives such as Placer Land Trust and Placer Legacy and legal resources such as the Williamson Act, agricultural land conversion for development continues to accelerate. Without additional efforts, the agricultural resource base of Placer County will continue to erode.

ENVIRONMENTAL INDICATORS

HIGHLIGHTS

Overview

There is little available trend data for agricultural resource use and environmental impacts. Nitrate pollution in groundwater is worsening on average for the county at a rate faster than population growth but the causes are not understood. Irrigation use by agriculture is intensifying, probably due to recent expansions in irrigated rice acreages. Both total pesticide use and proportion of farm expenses allocated to inputs continue to increase in spite of the general decline in farm numbers and acreage, suggesting increasing agricultural dependence on inputs.

Importance for the alternative/sustainable food system

The environmental impacts and water demands of agricultural operations are likely to become issues of contention between farmers and growing urban and suburban populations. The county's right to farm ordinance protects farmers from conflicts with neighbors, not with the voting public as a whole, which is becoming increasingly urban. Public pressure for cleaner agriculture may help win political and financial support for alternative or sustainable practices, but such a trend could be divisive to the agricultural community as a whole.

Groundwater Pollution

The trend.

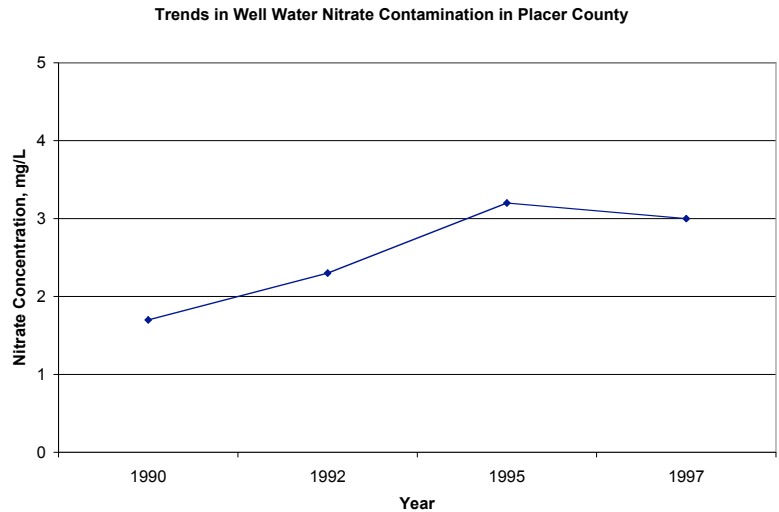
Average nitrate levels in Placer county wells have doubled since 1990, but levels may now be declining. The rate of increase is significantly greater than increases in population levels or population density over the same period.

Why is this trend occurring?

Ground water nitrate levels may provide a rough indication of overall human impact on the environment. Surface contaminants take between 30 years and 100 years or more to reach groundwater aquifers. In the past two centuries, most of the increases of contaminants have been due to human activity, including fertilizer use, waste from livestock, and human waste. The general scientific consensus is that observed gradual increases in well water nitrate levels result from the delayed arrival of contaminants that were initially released at the surface decades ago. Current trends thus reflect historical activity. Since human impacts have continued to increase to date, we can expect groundwater contamination to trend upward even if current activities are stopped. (Graham Fogg, UC Davis Hydrology Program, September 2001).

Why is this important?

Groundwater based drinking and irrigation quality is declining at a rate greater than population growth in the county. Contamination levels will continue to rise as pollution plumes started decades ago move downward and enter groundwater aquifers. Additional or improved efforts to control groundwater pollution will be needed to prevent worsening water quality in decades to come.



Total Supplemental Water Use by Agriculture

The trends.

The number of farms and ranches in Placer county using irrigation has declined 37% overall since 1950. The decline was steep to a minimum in 1974 followed by a rise to a peak in 1982, then a gradual decline to present. The shape of the trend matches changes in total farm and ranch acreage over the same period (see also “Agricultural Resource Base Indicators” following this section). The number of irrigated acres in the county also displays the same pattern of changes, except for a rising trend since 1987.

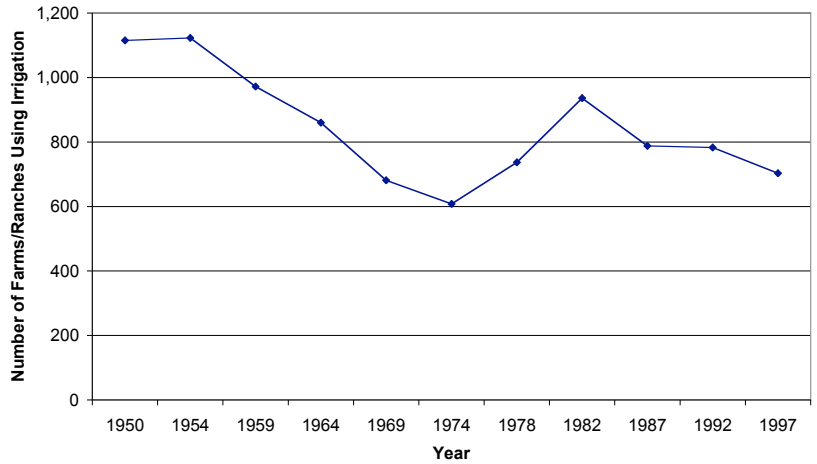
Why are these trends occurring?

Total water supplied annually by precipitation has fluctuated since 1950 (Fritts and Gordon, 1980) and does not correlate well with irrigation use. From 1950 to 1987, total irrigated acreage followed the trend in the total number of farms and ranches, not the trend in number of acres in agriculture, suggesting consistent usage by individual farms. In the last decade, however, the number of irrigated acres has increased while overall agricultural acreage has declined. This trend may be due to the expansion of rice acreage in response to rice commodity programs (Jim Williams, UCCE Placer County, April 2001).

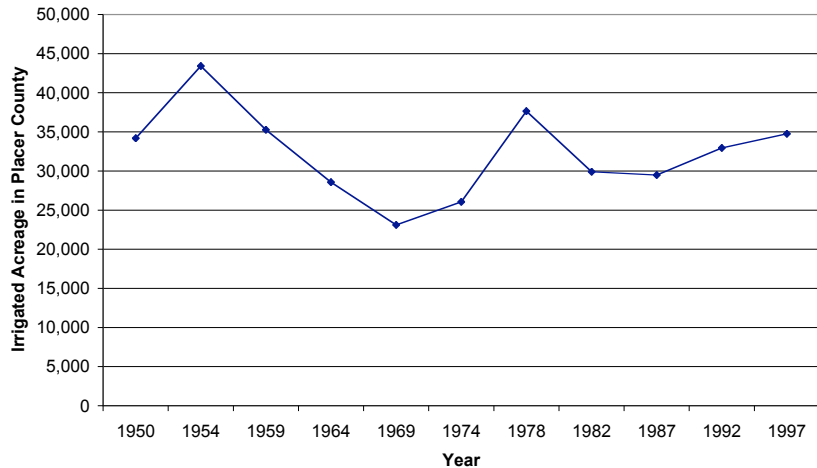
Why is this important?

Potential demand for water resources by agricultural users is now intensifying and no longer follows the general decline in total agricultural acreage and the number of farm and ranch operations. Data on actual total usage is needed to determine if total usage is also increasing. Irrigation efficiency will need to be enhanced to avoid future water use conflicts with urban and industrial users. West of Lincoln, there are no surface water

Irrigation Use in Agriculture: Changes in the Number of Farms and Ranches Using Irrigation in Placer County



Irrigation Use In Agriculture: Changes in the Total Number of Irrigated Acres in Placer County



sources. Planned developments in the area will have to rely on groundwater. Drought year pumping could lower groundwater levels below the reach of existing agricultural wells or increase pumping costs, threatening farm viability.

Synthetic Input Use and Dependence

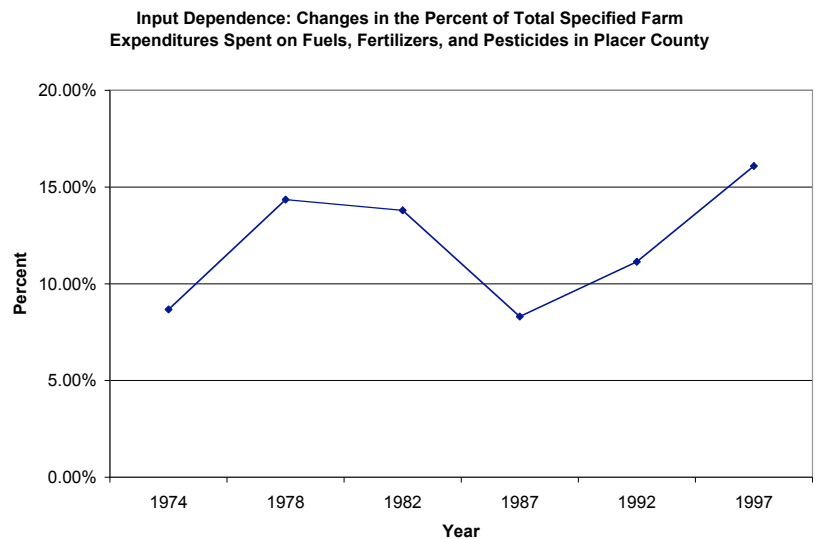
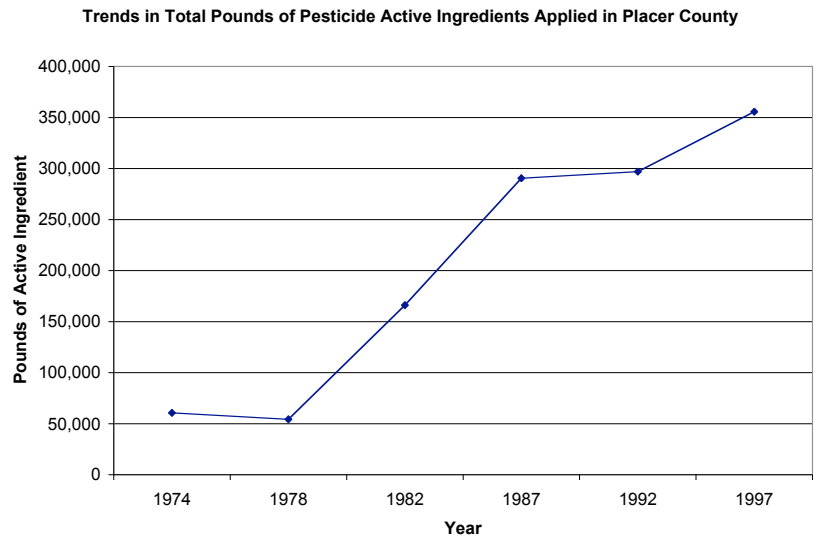
The trends.

Following a brief period of stasis in the mid-70's, total pounds of pesticide* applied annually in Placer County has increased six-fold overall since 1978, though the rate of increase has slowed slightly since 1987. Over the same period, overall agricultural acreage declined 30%. Input dependence, as determined from farm expenditures, fluctuated over the same period, with a significant drop in the late 80's followed by an increasing trend to present. Overall, input dependence has almost doubled from 1974 to present.

Why are these trends occurring?

The rising trend in total pesticide use between 1992 and 1997 is accounted for by increased use of copper sulfate, thiobencarb, and MCPA, all used primarily on rice in Placer County. Since rice acreage decreased 8.5% over the same period, the trend is towards intensification of pesticide use in rice production. Since our input dependence data is in dollars, not units of mass or energy, inflation or “gouging” of input prices could exaggerate the trend, making interpretation difficult. The observed rise in input dependence between 1987 and 1997 may reflect increased pest control costs in rice production, the expansion of high-input nursery businesses, or both.

* Excludes sulfur, inert ingredients and organically acceptable materials. Sulfur is typically applied at rates of many pounds per acre. Small changes in sulfur use obscure large changes in use of more toxic and persistent pesticides, such as organophosphates, if sulfur is included in totals for pesticide use rates.



Why is this important?

Agricultural input use, especially pesticides, is still increasing. Since overall agricultural acreage has declined over the same period, input use and thus potential environmental impact per acre must be increasing. As urban and suburban development of Placer County accelerates, farmers and ranchers may increasingly come into conflict with other county residents over the environmental impacts of input use, and this conflict may undermine political efforts to preserve agricultural land.

Food Distribution Network Indicators

Overview

There are currently no significant packing or farm product processing businesses in Placer County. Numbers of food wholesalers are declining, possibly due to consolidation. Numbers of food retailers have declined since 1987, possibly due to consolidation of smaller grocers into smaller numbers of larger grocery outlets. Declines in the numbers of food wholesalers and retailers may be “syneconomic,” each business sector needing the other to persist locally. The number of food service businesses continues to grow at an average rate of 15 new businesses per year.

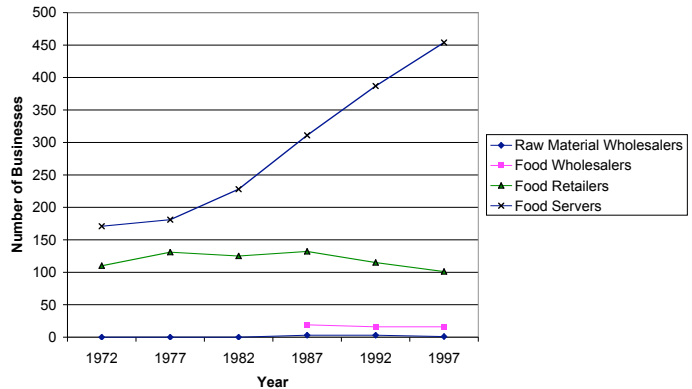
Importance for the alternative/sustainable food system

Local farm product processing remains largely unavailable to Placer County growers. Since larger wholesalers and retailers usually rely on globalized supply and distribution systems, the apparent consolidation in the food wholesale and food retail sectors may reduce marketing opportunities for local producers. Small- to mid-sized farming operations may need to rely entirely on direct marketing to get their product to market.

The trends.

The Economic Census did not contain data for the number of farm product raw material wholesalers (packers and merchants selling unprocessed farm products wholesale) in Placer County prior to 1982. The last packing shed closed its doors in 1998. There have been no large food manufacturers (processors) operating in the county since at least 1972. Placer County rice is processed by Sacramento and Yuba-Sutter County cooperatives while fruit and nuts are sold to out-of-county buyers for distant processing (Roger Ingram, UCCE Placer County, May 2001). The number of food wholesalers (grocery and restaurant suppliers, etc.) was not reported prior to 1987 and has declined since that year. The number of food retailers (grocery stores, bakeries, etc.) increased from 1972 to 1987 then declined 23.5% by 1997. The number of food servers (restaurants, cafés, etc.) grew 265% from 1972 to 1997. Growth rate accelerated in the late 70's and is now constant at an average of 15 new businesses each year. In 1997, there were 10 farmers' markets in the county. We do not have data on the number of farm stands or CSA's.

Trends in the Number of Businesses in Each Sector of the Food Distribution System in Placer County



Why are these trends occurring?

Most of the packing and processing facilities developed to serve Placer County's extensive fruit growing industry beginning in the late 1800's. That industry declined prior to WWII due to competition from southern California growing areas subsidized by newly available federal irrigation water brought by the Central Valley Project and catastrophic pear orchard losses from pear blight in the early 1960's. Trends towards consolidation of livestock marketing and processing in California continue to prevent Placer County's livestock industry from supporting local meat packing and processing businesses. In general, the packing and processing industry (raw material wholesalers and food manufacturers) has followed the decline of large scale fruit farming in the county. Ranchers and rice growers continue to ship product to large processors in other counties. Despite growth in gross profits, employment, and total wages, the number of food wholesalers and retailers is now declining. Rapid growth in population and tourism has fueled rapid growth in the number of food service businesses. Much of the most recent growth in food retail profits is due to chain stores which open as "anchors" to new mall developments in urbanized areas (Bobbi Park, Placer County Economic Development, April 2001), possibly displacing smaller retailers and thus reducing the number of retailers overall.

Why is this important?

In terms of the number of businesses, only the service end of the food distribution system is growing in Placer County. If local retailers are being replaced by chains, the result will be fewer retail marketing outlets for local produce, since chains commonly use their own supply system from out-of-county central distribution points to remain competitive. In the short term, local food marketing efforts should focus on the rapidly growing restaurant market with its added bonus of the high public profile and status this market could impart to local food products. The growth in the number of very small farms and the large local livestock industry suggests possible opportunities for new small-scale processor or wholesaler businesses or cooperative ventures among small producers.

Economic Productivity Indicators

HIGHLIGHTS

Overview

The ranching industry has led Placer County agriculture in gross sales for most years since 1963, but there are currently no local slaughterhouses or meat packing facilities. Rice and walnut crops continue to increase in economic importance. Although Placer County gross agricultural productivity has remained steady since 1959, it has fallen in rank relative to other counties in California. Following a peak in the early to mid '80's, growers' profits and participation in direct marketing have experienced an accelerating decline. Inflation-adjusted gross sales for food retailers, food servers, and food wholesalers have all increased linearly since 1972.

Importance for the alternative/sustainable food system

Placer County's economically dominant agricultural systems, rice growing and range, are experiencing decreasing profit margins combined with intensifying development pressures. Although zoning laws have been very effective for preventing conversion, and commodity programs have helped expand rice acreage, additional long-term solutions are needed to prevent development in lowland agricultural areas. Diversified, small mid-elevation farms show promise for future agricultural land expansion but current marketing opportunities and distribution systems are still underdeveloped. UC Cooperative Extension and other organizations are mobilizing to help. Agricultural tourism appears to hold the most promise for supporting local vegetable and fruit production operations in the county.

Top Ten Agricultural Products by Gross Sales

The trends.

Beef cattle and calves have remained top or second place earners since 1963. Plums and prunes, second in 1963, have gradually declined in importance and no longer appear in the top ten list. Irrigated pasture follows a similar pattern due to rising irrigation costs and diminishing returns. Gross sales of turkeys ranked fifth in 1964, rose to first place in 1977, then declined again in 1992. Rice's ranking has risen steadily from eighth in 1963 to first in 1997. Walnuts first appeared in the ranking in 1978, moved from tenth to fifth between 1987 and 1992, and ranked fourth in 1997. Total county crop values for both rice and walnuts more than doubled between 1988 and 1992, indicating these crops are becoming more economically significant. Sheep, lambs and wool first appear in 1982 and have been increasing in importance. Nursery production and flowers have increased gradually in importance since 1974. Placer County's foothill area climate is ideal for production of high-value mandarin and wine grape crops, but neither crop has been planted in significant acreages to date.

Why are these trends occurring?

Nursery products serve the growing market of urban and suburban consumers as well as landscape contractors working with developers. Walnut acreage increased until the early nineties because it was an alternative crop with some economic return suitable for the foothill areas around Lincoln and Pleasant Grove (Roger Ingram, UCCE Placer County, April 2001). Farm program support for rice combined with increased yields from varietal and crop management research has kept the crop profitable in spite of stasis or decline in prices, leading to a steady increase in acreage until present (John Williams, UCCE Placer County, April 2001). The turkey industry initially boomed due to large contracts with Foster Farms, then declined rapidly as contracts were pulled when more cost-effective operations opened in the Turlock area of the Central Valley. The fruit industry decline began with pear blight in the 60's and was magnified as packing houses closed, unable to compete with operations serving the fruit-growing boom in Southern California. Without local packing facilities to support fruit production, the fruit industry has been unable to recover, although direct marketing efforts, i.e. The Mandarin Festival, offer some hope for a future resurgence. The cattle industry persists because so much of agriculture land in the county has class three or higher soils not suitable to other agricultural production, though ranch land, especially in the Lincoln vicinity, has seen the most conversion to development of any type of agricultural land in the county.

Why is this important?

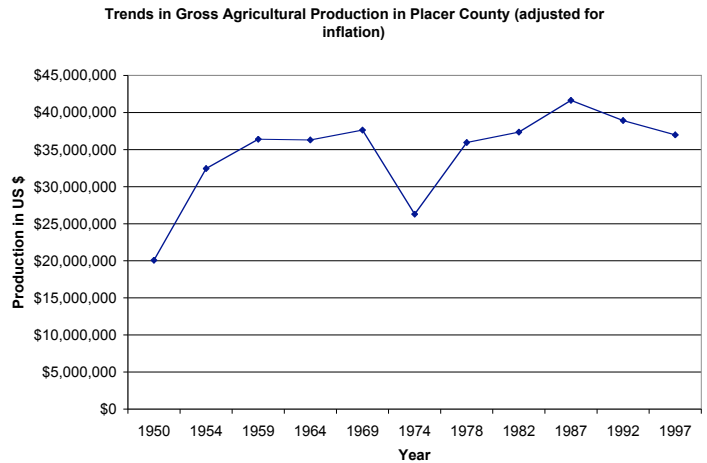
Trends suggest direct marketing could preserve and even enhance agricultural activity at middle elevations in the form of orchard crops. Local fruit production, like market gardening, links well with public demand for fresh products at direct marketing purchase

points, and could be served by cooperative equipment ownership and packing arrangements. However, rangeland and rice growing remain the most dominant, and most development-threatened agricultural activities. Large parcel zoning has helped preserve such operations, but will probably not be adequate in the long run. It may be worthwhile or even necessary to research ways to improve farm and ranch profitability for these commodities rather than relying entirely on zoning, easements, and other preservation tools to prevent attrition to development.

Gross Agricultural Productivity

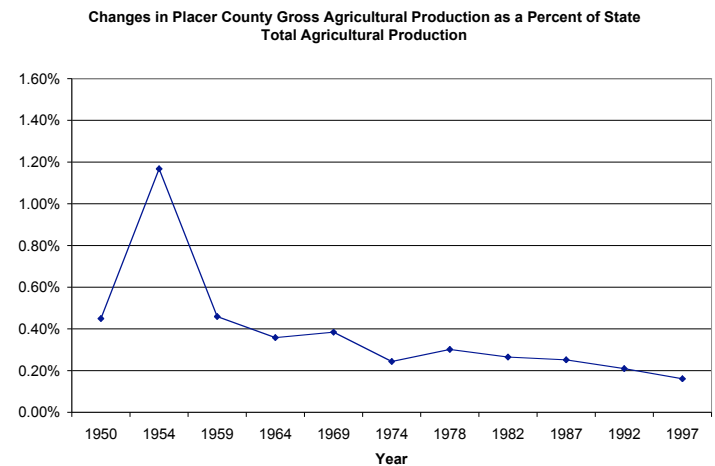
The trends.

Inflation-adjusted gross agricultural production in Placer County has remained fairly constant since 1959, with an apparent brief decline in 1974 and surge in 1987 accounted for mostly by increased gross production of plums/prunes and nursery crops. Following a brief surge in 1954, the county's agriculture has gradually declined in economic importance within state.



Why are these trends occurring?

The Census of Agriculture does not provide an accurate accounting of net earnings for farming. Roger Ingram (UCCE Placer County, April 2001) found a 32% decline in net farm income from 1969 to 1997 coupled with only a 1% decrease in production expenses, suggesting significant decline in real agricultural earnings over that period. Only some of the farms earning \$10,000 or more per year showed net gains. Nearly all farms earning less than \$10,000 per year showed losses. In Placer County, farmers' expenses have increased while gross earnings remained constant or declined, eroding farm profits.



Why is this important?

Despite losses in total agricultural acreage, the county's agriculture has remained economically productive for the last three decades, but with decreasing profit margins for most producers. Sustained gross economic productivity is not sustaining the agricultural

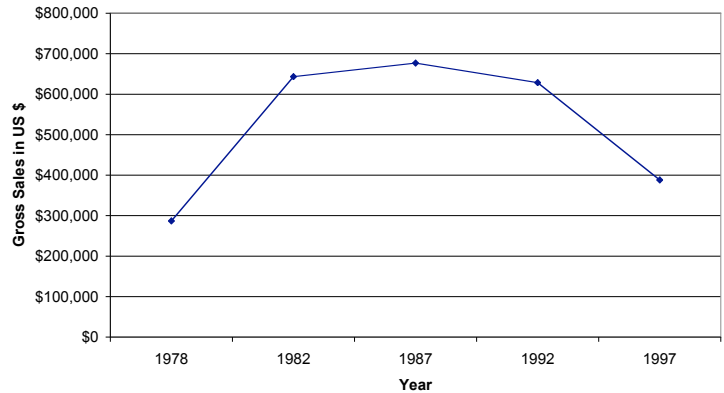
land resource base. Efforts to preserve agricultural land may depend upon overall economic growth in the agricultural sector in addition to land preservation initiatives.

Direct Marketing

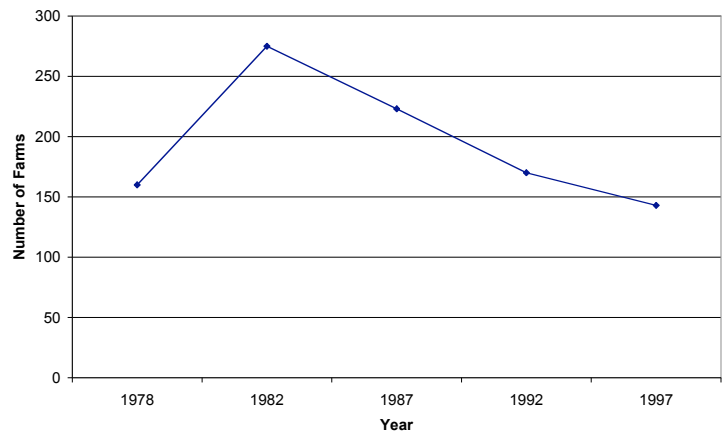
The trends.

Trend data on direct marketing from farms in Placer County is limited; the Census of Agriculture began collecting the data in 1978. Inflation-adjusted total gross receipts from direct market sales peaked in the mid 80's, and has declined at an increasing rate since that year. At the peak, direct sales were less than 2% of the county's gross agricultural receipts. The number of farms participating in direct marketing peaked in 1982 and has declined since, though the decline appears to be slowing down. At the peak, 20% of Placer County's farms participated in direct marketing. The 1999 gross receipts from all farmers markets in the county have been estimated at \$964,108 (Gail Feenstra and Chris Lewis, SAREP, January 2000). In 1997, vegetable-buying clubs supplied over 400 people with regional local produce through annual subscription fees ranging from \$650 to \$1175 per year. As of March 2001, there were 3 active agricultural tourism projects in the county (Roger Ingram, UCCE Placer County, April 2001).

Trends in Gross Receipts from Direct Marketing, All Types, All Farms, in Placer County (adjusted for inflation, 1987 estimated as average of surrounding values)



Trends in the Number of Farms Engaged in Direct Marketing in Placer County



Why are these trends occurring?

The trends reflect the rise and fall of small farms in Placer County over the last two decades detailed in the "Agricultural Resource Base Indicators" section of this report. Small farm viability and direct agricultural marketing activity are symbiotic (or "symeonomic") in the sense that the vitality of each depends on the other.

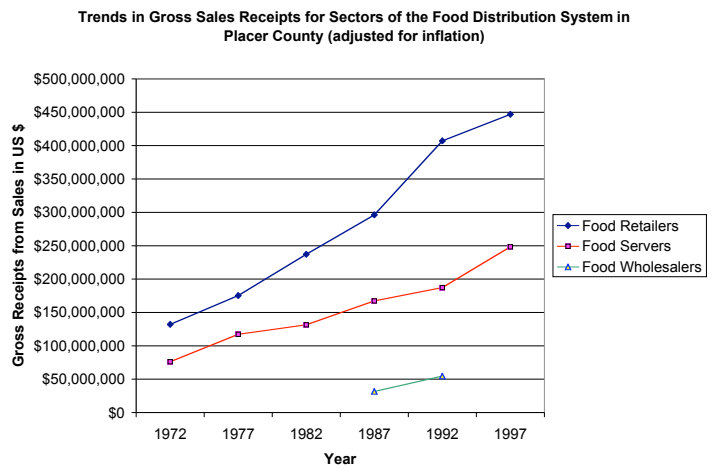
Why is this important?

With the overall decline of commodity farming in the county, direct marketing is the key to the future of county agriculture. Placer Grown Cooperative Extension is now focusing on reversing the decline of direct marketing vital to the survival of small- and mid- sized farming operations in the County. The county now has a funded position for an Agricultural Marketing Coordinator currently held by local long-term agricultural marketing activist Joanne Neft. Placer County will also benefit from the UC DANR Agricultural Tourism Workgroup Project that includes a number of case studies of ag tourism in northern California and will create a manual for local farmers interested in agricultural tourism. In addition, there is a 10-county study chaired by Ellen Rilla (UCCE Marin County) currently underway to determine policy barriers and opportunities that relate to agricultural tourism.

Food Distribution System Productivity

The trends.

Inflation-adjusted gross sales for food retailers, food servers, and food wholesalers have all increased linearly since 1972. Annual growth rates have averaged 14.7% for food retailers, 14.2% for food servers, and 35% for food wholesalers, all in excess of the average 10.9% annual population growth rate for Placer County over the same period. For food servers, gross sales have grown more quickly since 1972 than the number of establishments, while numbers of wholesalers and retailers have been declining.



Why are these trends occurring?

Growth of gross sales for the food distribution system has been largely driven by population growth. The increase in gross sales of retailers and wholesalers while numbers of businesses has declined suggests concentration of sales into fewer, larger businesses. Bobbi Park (Placer County Economic Development, April 2001) indicates that there has not been a trend of larger chain stores replacing existing smaller grocers. Instead, chain stores have been serving as “anchors” for new malls and shopping centers in the high growth areas around the cities of Roseville and Rocklin, essentially meeting most or all of the new demand for retail grocers in those areas. Most chain stores are their own wholesale suppliers, and the growth of such stores in Placer County may be contributing to the decline in the numbers of wholesalers.

Why is this important?

Placer county is a growth market for food servers, but there appears to be high competition and consolidation in the food wholesale and retail sectors. Chains may be filling space in the community that could have been filled by a proliferation of smaller businesses. Since chain stores are often less able or willing to accept local produce, the trend towards chain store dominance may be limiting new market opportunities for local producers.

Food System Wages and Employment Indicators

HIGHLIGHTS

Overview

Trends in the number of farms 50 acres or smaller have determined most of the changes in the number of Placer County farm owners since 1950. Placer attracted a large influx of “hobby” farmers with secondary incomes in the late 70’s, but only about 30% remain active today. Farm labor employment and wages have declined since 1950 but the trend has slowed or begun reversing within the last decade. Food distribution system wages and employment have both increased dramatically since 1972 with most of the growth in service and retail sectors. Inflation adjusted per-worker wages, however, have decline 36%.

Importance for the alternative/sustainable food system

Small farms, which rely largely on alternative and direct marketing, offer both the greatest promise and the most risk for preserving or increasing agricultural employment in the county. Continuing rapid growth in food retail and service could fuel similar growth in alternative and sustainable food production if lasting market connections could be created with local farmers.

Employment as Farmers

The trends.

Since 1950, the trend in the number of farm operators (a term for people employed as farmers) has followed the trends in the number of small farms (1-49 acres), declining until 1974, then rising to a peak in 1982, followed by a linear decline to present. The number of full farmer owners in the county has declined 40% since 1950, but the percentage of California's farm owners and operators located in the county has increased slightly over the same period. Less than 2% of California's farmers farm in Placer County.

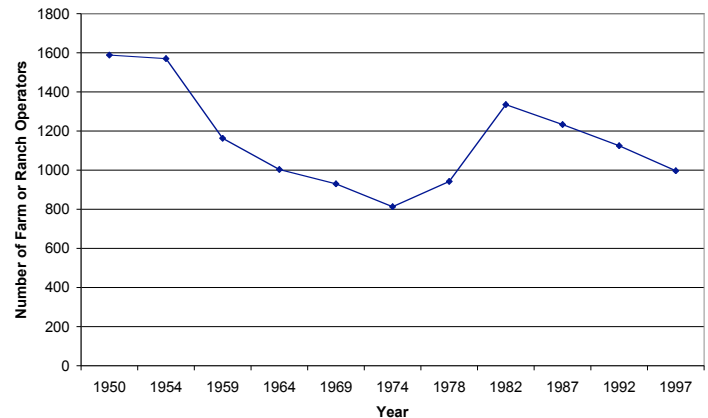
Why are these trends occurring?

About 90% of Placer County farms purchased between 1974 and 1982 were less than 50 acres in size. Most of the new farmers came from urban areas and had other sources of income. Over 70% of farm sales since 1982 were due to farmers' loss of interest in farming, retirement, death, and farm family members' lack of interest in continuing farming. (Roger Ingram, Livestock and Natural, Fall 2000).

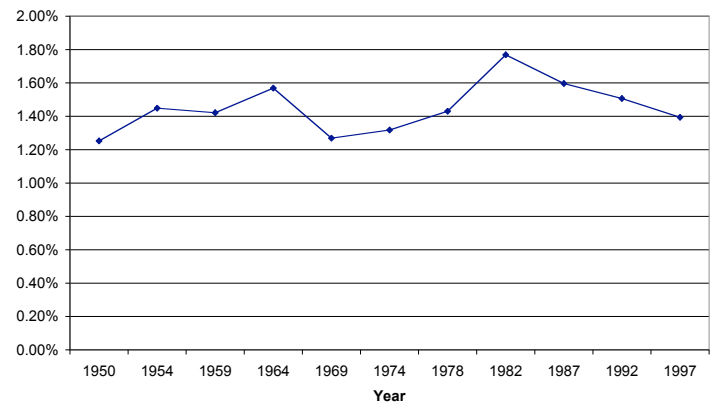
Why is this important?

Despite recent declines, small farms still provide most of the county's farm operator employment. Declines since 1982 represent a lost opportunity to preserve and enhance agriculture in the county. County support of direct marketing activity could help slow or reverse the trend.

Trends in the Number of Farm or Ranch Operators in Placer County



Employment as Farmers: Trends in the Percent of the State's Full Farm or Ranch Owners from Placer County

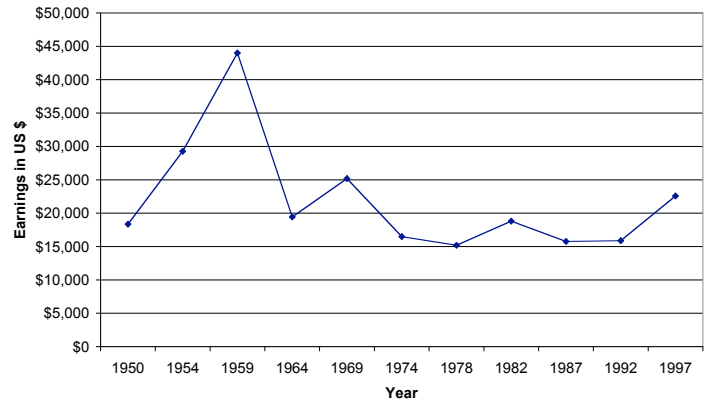


Farm Labor Wages and Employment

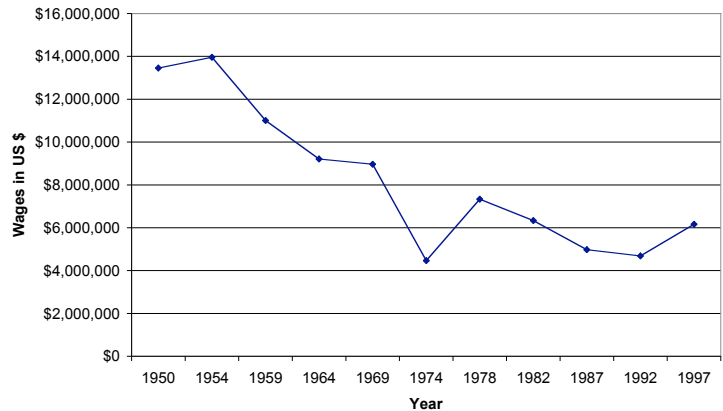
The trends.

Following a peak in 1959, inflation-adjusted average annual farm worker wages declined to 1950 levels by 1978, even though gross agricultural productivity remained roughly constant over the same period. Average farm worker wages stabilized with the onset of the “hobby farm” boom in 1978. Total inflation-adjusted farm worker wages declined linearly from over \$13 million in 1950 to just over \$6 million in 1997. Both trends began rising in the early 90’s. Farm and ranch labor employment trends have been chaotic since 1950, but appear to show a general decline. Farm labor wages and employment as percentages of total Placer County wages and employment have declined since 1967. Placer county has fewer of the state’s farm workers than in previous decades, but the decline is slowing.

Trends in Estimated Average Annual Earnings for a Farm or Ranch Worker Working 150 Days/Year or More in Placer County (adjusted for inflation)



Trends in Total Wages Paid to Farm and Ranch Workers Working 150 Days per Year or More in Placer County (adjusted for inflation)



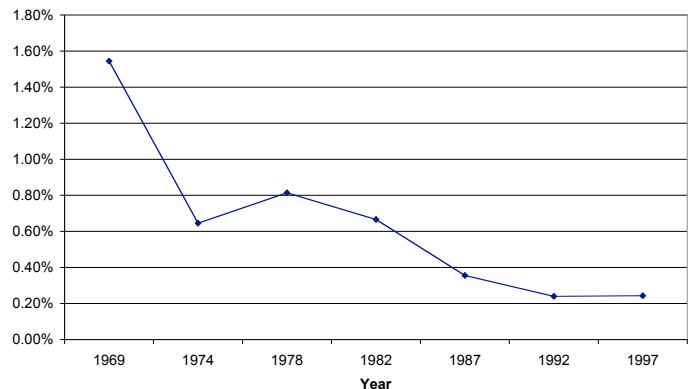
Why are these trends occurring?

Trends in inflation-adjusted average farm worker wages follow trends in the numbers and acreage of farms in the county, suggesting the decline of farming in the county created a decline in both quantity and quality of agricultural jobs.

Why is this important?

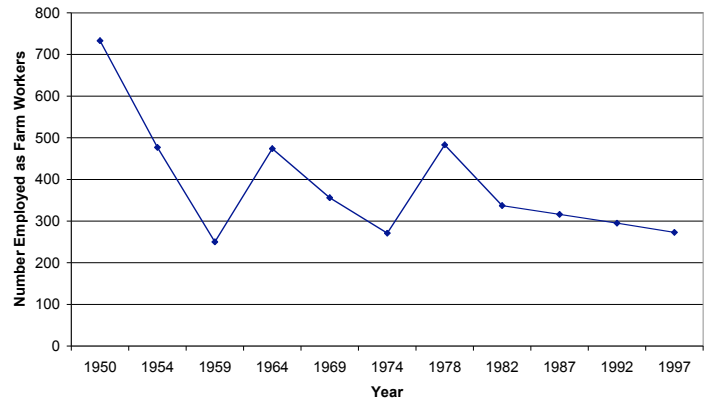
Policy makers often look at employment and wages as indicators of the importance of a given economic activity to overall community well being. Agriculture may lose in political contests with development when land conversion offers the promise of increased and higher paying employment. When real wages decline, workers look for opportunities in other

Changes in Farm and Ranch Labor Wages (for workers working 150 days per year or more) as a Percent of Placer County Total Wages

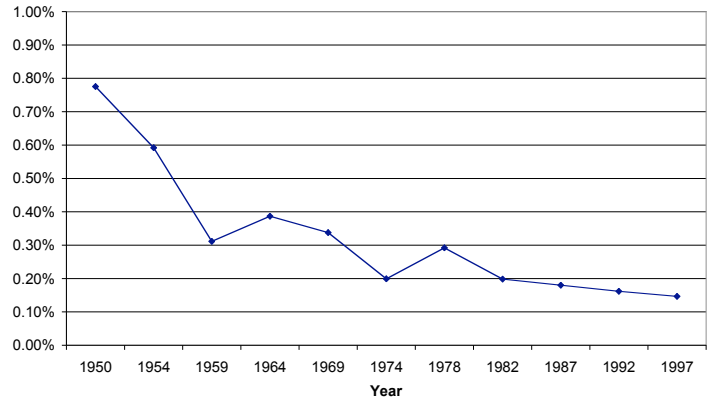


careers or locations, and thus agriculture may experience a “brain drain” as employees leave, taking skills and experience with them. Agricultural careers become less attractive to aspiring farmers and ranchers, leaving few workers willing and able to take the place of retiring farmers. Thus agricultural land preservation is linked to issues of social equity in farm wages and employment. The stability, then rise of average farm worker wages with the “hobby farm” boom suggests small, part-time, and direct marketing supported farms help increase farm worker earning power in the county.

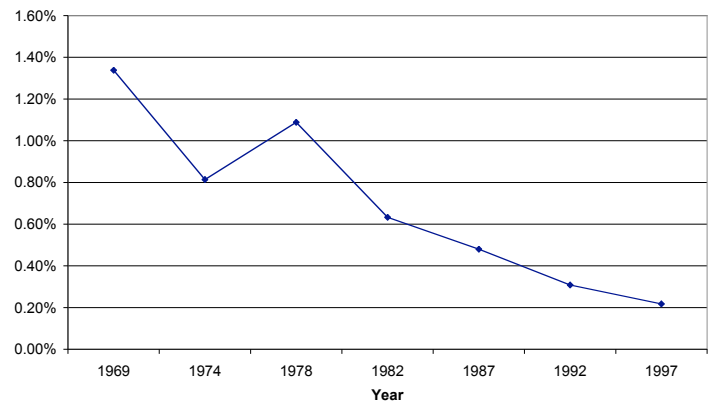
Trends in Employment of Farm and Ranch Workers Working 150 Days or More per Year on Farms in Placer County



Trends in Farm and Ranch Labor Employment in Placer County as a Percent of Total State Farm Labor Employment



Trends in Farm and Ranch Labor Employment as a Percent of Placer County Total Employment



Food Distribution System Wages and Employment

The trends.

Wages

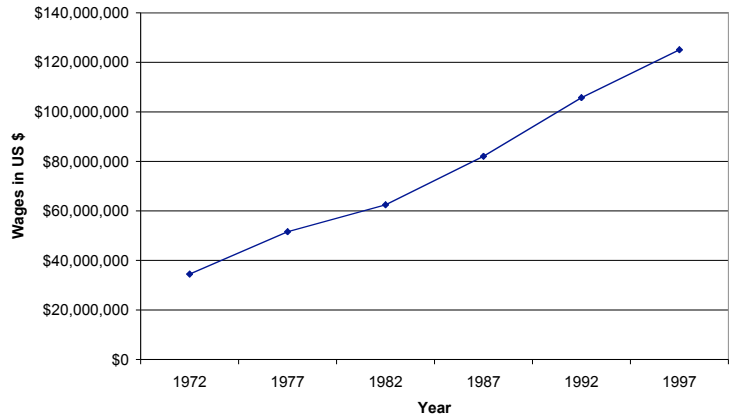
Inflation-adjusted total food distribution system wages in Placer County increased 363% from 1972 to 1997. Total food distribution system wages as a percent of Placer County total wages increased to a peak in 1982 and has declined steadily since then. Estimated average inflation-adjusted per-worker earnings for food distribution system employees declined 36% from 1972 to 1982 and have remained relatively constant to present.

Aside from a brief slowing between 1977 and 1982, total inflation-adjusted wages for food server employees have been growing at an accelerating rate since 1972. 1997 levels were four times 1972 levels. Growth in total inflation-adjusted wages for food retailer employees also accelerated from 1972 until 1992, but has leveled off since that time. Limited data is available for food wholesalers; wages for their employees grew 85% between 1987 and 1992, more than the 72% growth rate for total food server employee wages over the same period.

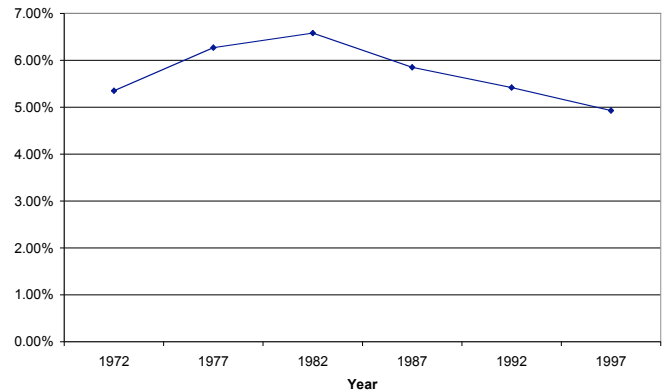
Employment

Total food distribution system employment has grown linearly and rapidly, averaging about 19% per year since 1972. The percent of the state's food distribution system employment in Placer County also grew linearly over the same period. Food distribution system employment as a percent of county total employment increased from 1972 to a peak in 1987, and has declined since.

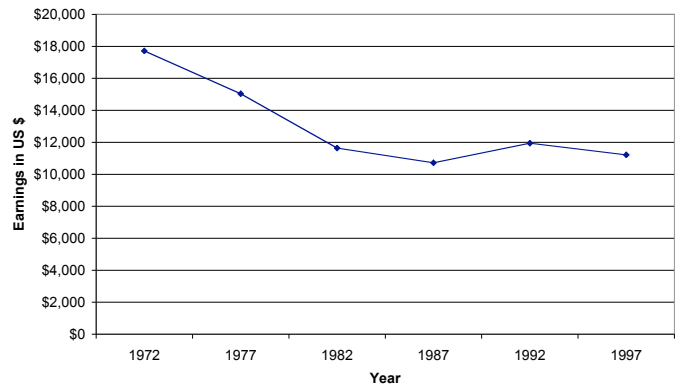
Trends in Total Wages for all Components of the Food Distribution System in Placer County (adjusted for inflation)



Trends in Food System Wages as a Percent of Placer County Total Wages



Trends in Estimated Average Annual Earnings for a Food Distribution System Worker in Placer County (adjusted for inflation)



Trends in employment by food servers, food retailers, and food wholesalers match trends in total wages for the same business types.

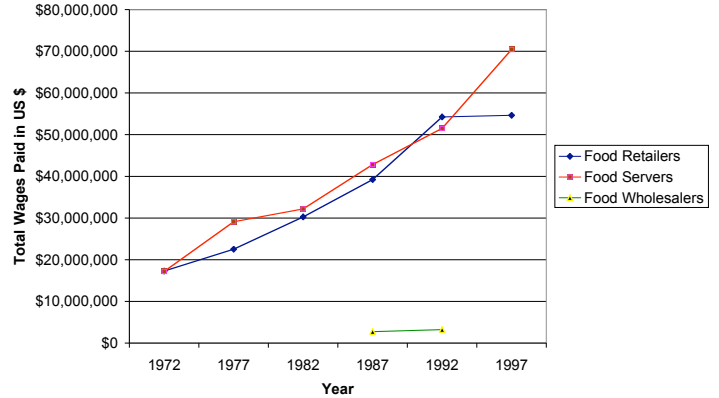
Why are these trends occurring?

Rapid growth in population and tourism has fueled rapid growth in service sector employment. Much of the most recent growth in food retail is due to chain stores that open as “anchors” to new mall developments in urbanized areas (Bobbi Park, Placer County Economic Development). Larger supermarkets often provide numerous but low wage jobs, potentially suppressing average wage for the sector.

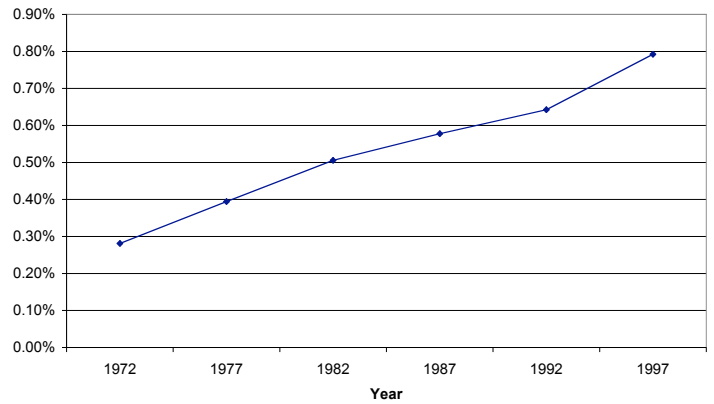
Why is this important?

Food distribution, as a source of employment and wages, continues to expand as agriculture declines in the county. Strong links between distribution and local producers could provide continuing support of producer viability, both economically and politically.

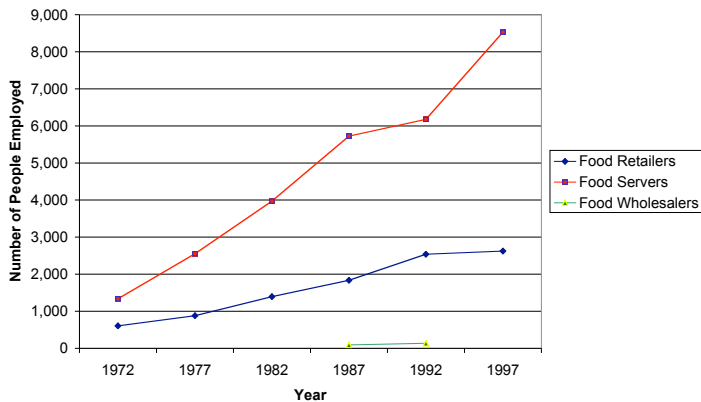
Trends in Total Wages Paid by Businesses Within Food Distribution System Categories in Placer County (adjusted for inflation)



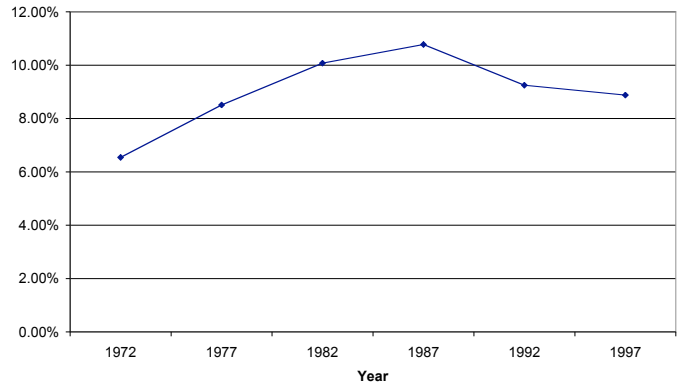
Trends in Total Placer County Food Distribution Employment as a Percent of Total State Food Distribution Employment



Changes in the Number of People in Placer County Employed in Each Sector of the Food Distribution System



Trends in Placer County Food Distribution System Employment as a Percent of Total County Employment



Food Consumption Indicators

HIGHLIGHTS

Overview

There is very little information available on food purchasing and consumption habits in Placer County as a whole. Total food expenditures have been increasing since 1982, but per capita food expenditures have been declining since 1972. Placer County residents eat out more often each year, mirroring national trends. An increasingly wealthy Placer County population has more disposable income for food than ever before, but is accustomed to low prices. A consumer survey (UCCE Placer County, 1995) indicates 70% of Placer County residents participate in direct-from-producer food purchases and 60% would purchase local products preferentially when available, but get most of their produce from supermarkets.

Importance for the alternative/sustainable food system

The rapidly growing and increasingly wealthy resident population combined with an even faster growing tourist population provide an expanding opportunity for high-margin direct and niche marketing of agricultural products to keep local agriculture profitable. Based on the results of the consumer survey, consumer interest in local product is very high, but purchasing is still focused in the low-cost, high-convenience environments of large supermarkets whose wholesale supply lines and purchasing activities limit or prohibit the incorporation of local products. Social marketing may be required to raise consumer demand for local produce to the point where larger supermarkets respond with allocations of shelf space. Since restaurants often act as trendsetters for high-income consumers and may have the flexibility to purchase directly from growers, it may be prudent to focus marketing efforts in local restaurants. Locating direct marketing events, such as festivals and farmer's markets, and permanent store outlets for local agricultural products along major tourism corridors such as Interstate 80 and Highway 49 will help local producers tap the explosive growth of tourism in the county and make local produce purchasing more convenient for residents that live near these throughways.

Total Food Expenditures

Comment on our data set:

Detailed data on food consumption expenditures on the county level is essentially unavailable. In this section, we have used two estimates of expenditures: taking gross food retailer and server sales from the Economic Census as measures of food expenditures home and away from home, and multiplying county population data by national averages for food expenditures reported by the USDA. All data has been inflation-adjusted to 1997 dollars.

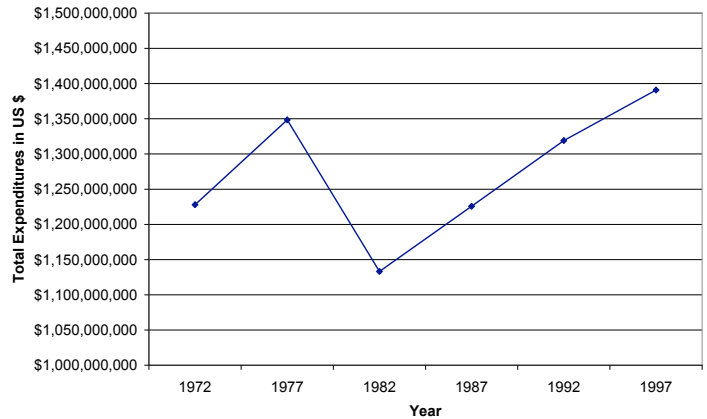
The trends.

Total food expenditures, as estimated from the Economic Census, fluctuated between 1972 and 1982 and have risen linearly since. Expenditures estimated from national averages have accelerated gradually since 1972, slightly exceeding population growth over the same period. Estimated expenditures as a percentage of total county earnings have declined steadily since 1972, but the trend is slowing.

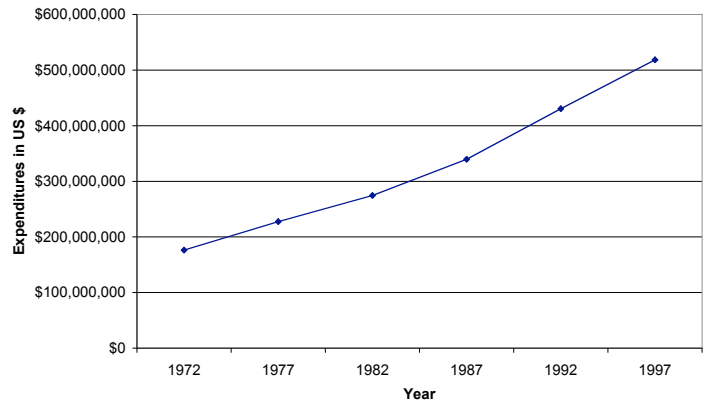
Why are these trends occurring?

Population growth drives overall total increases in food expenditures. Since food expenditures within the county include food purchases by tourists, but only resident income is included in total county earnings, it is possible for food expenditures to exceed total county earnings. Tourism rates increased in pace with county population from 1970 until 1994 and have exceeded population growth rates since 1994 (Elizabeth DePalma, Placer County Visitors

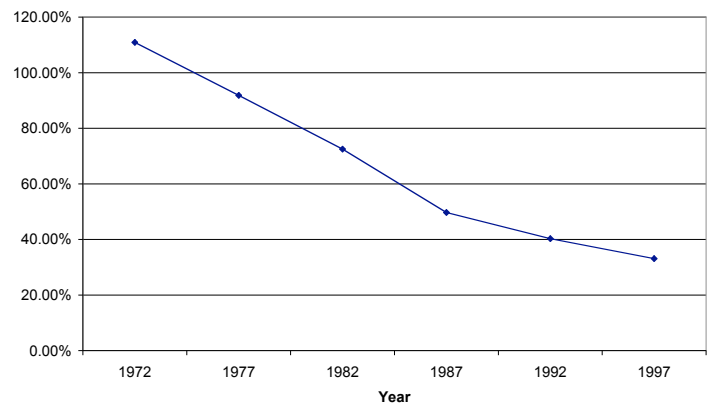
Trends in Total Food Expenditures in Placer County (adjusted for inflation)



Trends in Total Food Expenditures in Placer County, Data Derived From National Averages (adjusted for inflation)



Total Food Expenditures in Placer County as a Percent of County Total Earnings (adjusted for inflation)

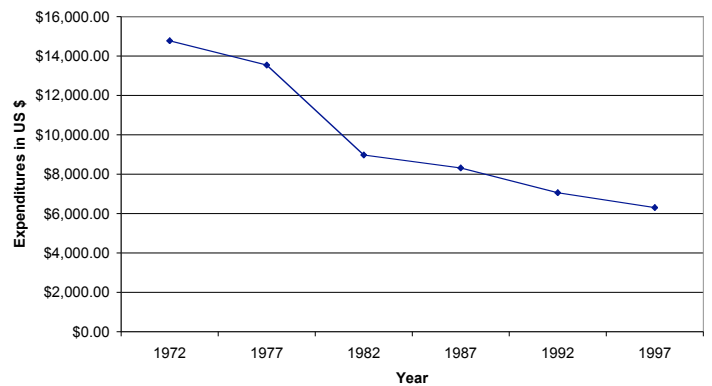


Council, April 2001). If food expenditures by tourists also grew faster than resident food expenditures, total food expenditures as a percent of county total earnings should increase as tourist dollars contribute more and more to food retailer and server receipts in the county. Instead, we see a decline in total food expenditures as a percent of total county earnings, suggesting resident per capita income growth exceeds total increases in tourist expenditures in the food system.

Why is this important?

Expenditures by local agriculture’s ultimate customer base, the population of consumers, will continue to increase. An increasingly wealthy Placer County population has more disposable income for food than ever before, but is accustomed to low prices. Ultimate market opportunities for local production exist and will continue to expand. Direct marketing to the rapidly growing tourist population, composed mostly of urban and international travelers with high levels of disposable income, represents a growing opportunity for high-margin niche marketed local food products.

Trends in Per Capita Food Expenditures in Placer County, Derived from Economic Census Data on Food Retailers and Food Servers Gross Receipts (adjusted for inflation)

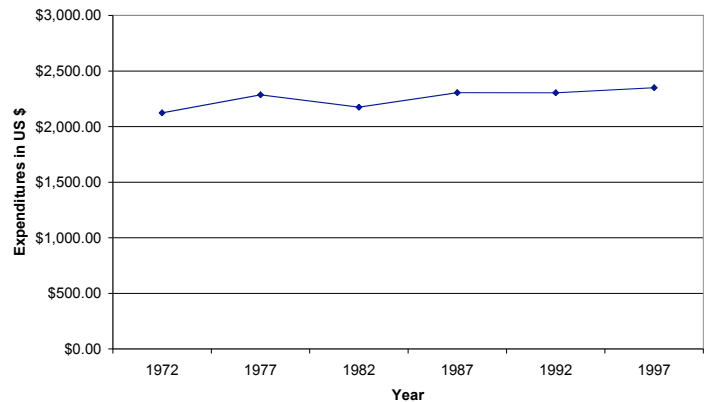


Per Capita Food Expenditures

The trends.

Per capita food expenditures estimated from the Economic Census, both total and as a percentage of Placer County per capita income, have declined steadily since 1972, averaging almost 4% decline per year. County expenditures estimated from national averages increased slightly over the same period.

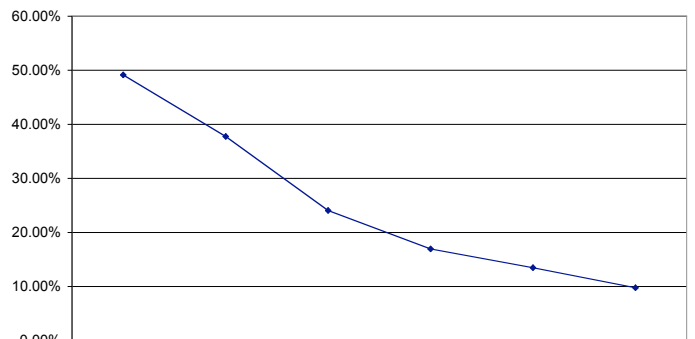
Trends in Per Capita Food Expenditures, National Average (adjusted for inflation)



Why are these trends occurring?

Since tourism growth rates have outpaced placer county population growth, and Economic Census data combines food expenditures by both types of consumers, our estimates based on this Census should show an increase, rather than decrease, in

Trends in Placer County Per Capita Food Expenditures as a Percent of Per Capita Income (adjusted for inflation)



per-capita food expenditures, which are calculated from county population figures. The observed trend probably results from resident per capita income growth exceeding total increases in tourist expenditures in the food system.

Why is this important?

Most consumers have grown accustomed to an inexpensive, abundant, and diverse food supply with pricing and availability largely independent of seasons and fluctuations in the economy. Local agricultural products may not be able to compete at the purchase point with imported or mass-produced goods if consumers are not educated to value product beyond its pricing and superficial quality. Social marketing may be essential to creating demand for non-direct marketed local agricultural products.

Dollars Spent on Food, Home vs. Away

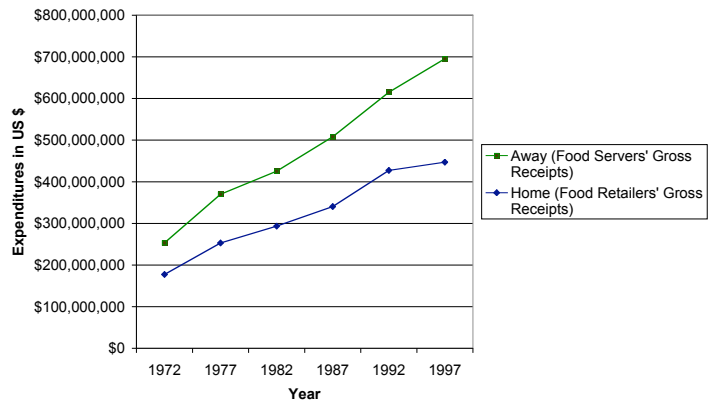
The trends.

Food expenditures at home and away from home, whether estimated from national averages or from county-specific Economic Census data, have increased significantly since 1972. Economic Census based estimates grew faster than national average based estimates and outpaced county population growth. Ratios of home expenditures to away from home expenditures declined over the same period.

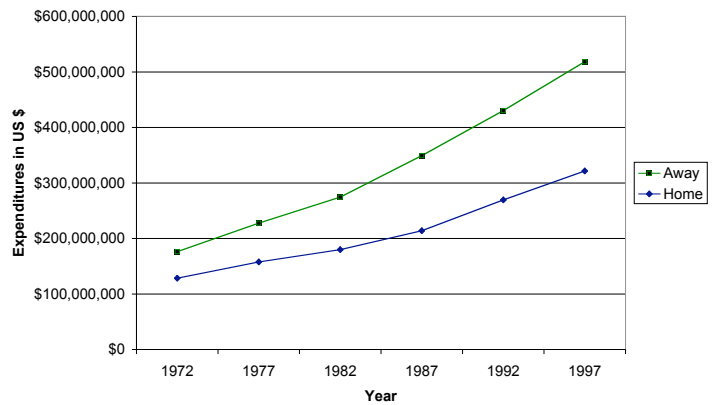
Why are these trends occurring?

Placer County mirrors the national trend towards dining outside the home more frequently. Accelerating Placer County tourism rates, which would affect county estimates but not the national average, may account for the difference in trends between the two data sources.

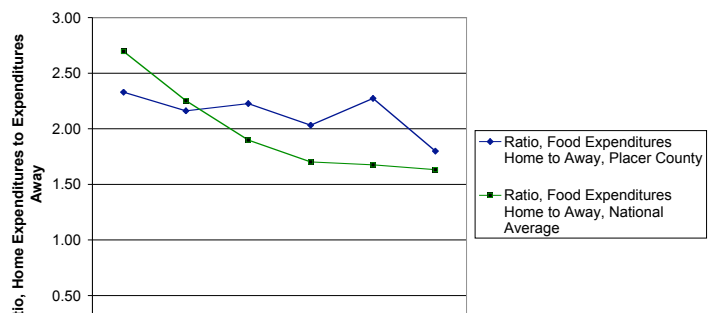
Trends in Food Expenditures in Placer County, Home Vs. Away, from Economic Census Data Sets (adjusted for inflation)



Trends in Food Expenditures in Placer County, Home Vs. Away, as Derived from National Averages (adjusted for inflation)



Trends in the Ratio of Food Expenditures, Home to Away, for Placer County and National Averages



Why is this important?

Food servers act as standard or trendsetters for dining in general, and play an increasingly important role in feeding people. Direct marketing links to food servers, along with social marketing at the point of service, may be the most effective way to educate consumers in general about the value of locally produced food. Note we are assuming that the growth in servers includes independently owned and operated restaurants in addition to food chain outlets and other similar types of servers.

Consumer Survey

In 1995, Placer County Cooperative Extension surveyed 336 county residents about their food-purchasing behavior. More than 60% responded they would choose locally grown and produced foods “always” or “a lot” if they were readily available and over 40% would pay more for the produce to keep local farms in business. Over 92% ranked freshness of produce as the first priority in purchasing decisions, and 70% believed Placer County produce would be fresher than produce imported from other counties. Respondents indicated seasonality (23.4%), organically-grown (10%), and locally-produced (8.1%) foods were low purchase priorities. While 92.8% of participants purchased fruits and vegetables “most” or “all” of the time from supermarkets, over 70% had purchased food through farmers’ markets, roadside stands, or off-the-farm. Respondents said factors that would increase such purchases include increased quality (89.5%), lower price (81.2%), shorter travel distance (78.3%), greater variety of foods (61.3%), and hours of operation (53.7%).

Why is this important?

Although most produce purchases are still made in supermarkets, most consumers also actively shop at direct marketing outlets and would increase their direct market purchases if quality, price, and convenience improved.

Community Food Security and Food Access

HIGHLIGHTS

Overview

Despite the long-term historic trend of increasing wealth in the county and decreasing demand for food stamps, children as a group appear worse off, with growth in enrollment in free and reduced meal programs far exceeding county population growth rates. Increased population in general, and the huge growth in both tourist and high-income populations, has created an explosion in low-wage service jobs. Such low-wage job growth both provides for the existing resident poor and attracts low-income families from outside of the county looking for better opportunities. Details about patterns of need within the county are currently under study by county Placer County Cooperative Extension.

Importance for the alternative/sustainable food system

Although income and diet conditions for adults of low-income families are improving, in part due to educational outreach through WIC, Food Stamp Nutritional Education Programs (FSNEP) and Farmers' Market Nutrition Programs (FMNP) programs, the need to aid school aged children through school meal programs continues to grow. Connecting local producers with school food services represents a win-win opportunity, helping monies for school meals stay within the local agricultural economy while simultaneously improving school meal variety and quality. To the extent that direct marketing opportunities could be located in low-income neighborhoods, farmers' markets in pocket poverty areas could improve food security for the needy while helping local agriculture remain viable. Community gardens, although few in number, have the potential for providing more fresh local produce for residents.

Government Food Program Participation

The trends.

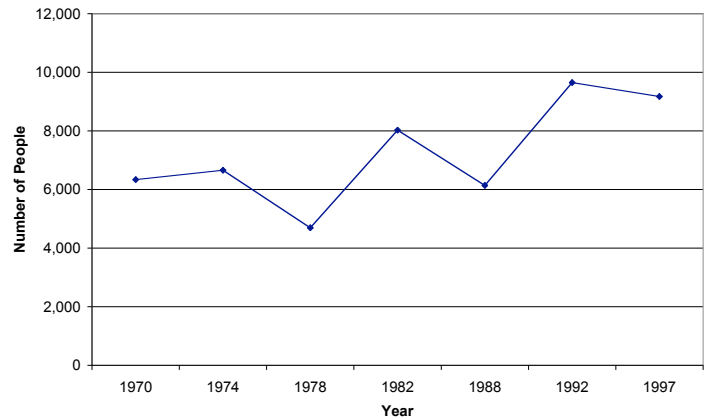
The total number of Placer County residents receiving food stamps has been fluctuating since 1970, but gradually increased on average over that period. In contrast, over the same period, the percentage of county residents receiving food stamps declined by half. Both numbers and percentage of county residents in WIC programs have increased over the last decade, with most of the increase between 1992 and 1994. The percentage of residents in WIC programs may now be declining. The City of Roseville's "Baby Bank" which aids the working poor who are at 150% of the poverty line and overqualified for most other aid, served 2500 families in 2000. The number of children participating in free or reduced price meal programs has more than doubled over the last decade, increasing 62% faster than county population over the same period. In 1997, the Farmer's Market Nutrition Program (FMNP) reached 247 people, and the Food Stamp Nutritional

Education Program (FSNEP) reached an estimated 2400 people. 250 families participated in FSNEP workshops emphasizing use of local resources and fresh fruits and vegetables, and 90 participating teachers in classrooms in both Placer and Nevada counties reached 2,800 children. Also in 1997, there were two food banks, five church-based kitchens including four free meal sites, and two community gardens with 47 participating gardeners total. The county's single gleaning program, Plant a Row for the Hungry, had 45 county residents growing food in their gardens to supply needy families.

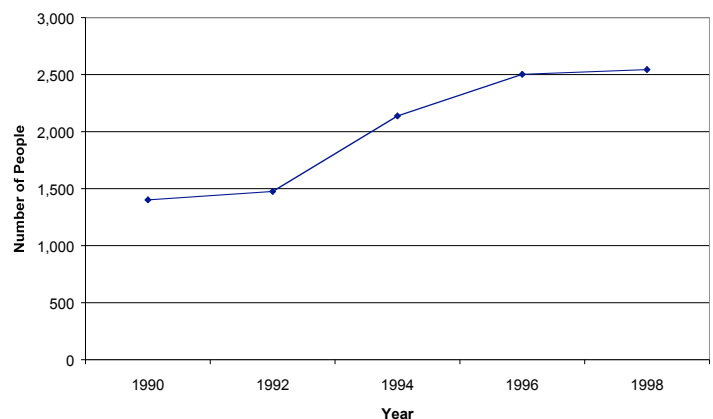
Why are these trends occurring?

Recent reform of both federal and state welfare programs combined with extra efforts by Placer County to help the unemployed find and retain employment have led to rapid reductions in food stamp demand. At the same time, the enormous growth in the service

Trends in the Number of People in Placer County Receiving Food Stamps



Trends in the Number of People in Placer County in WIC Programs

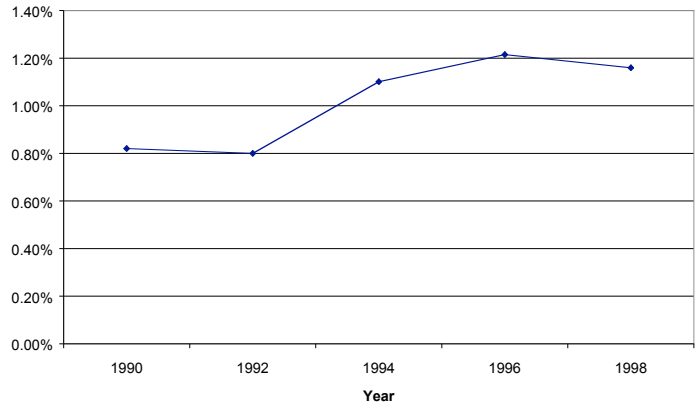


sector that is providing new low-wage service jobs is attracting low-income families who move to the area looking for work. As a result, both the Lake Tahoe and the central valley areas of the county have shown accelerated growth in low-income Hispanic populations in the last decade (Sharon Junge, UCCE Placer County). Though working, many low-income families still need assistance, and school aged children may be the most needy members of the family unit. Pockets of poverty and need also persist in the county, often because basic services are dispersed or distant from these areas, and transportation cost and availability problems prevent residents from overcoming poverty.

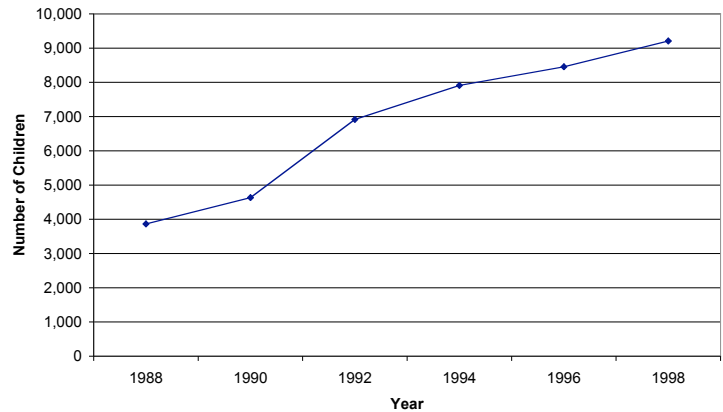
Why is this important?

Food security seems to be improving for adults, but worsening for children. The problem is both acute and chronic. Placer County Cooperative Extension is currently studying patterns of poverty and need within the county to remedy the lack of basic information about food security for the county's poor.

Trends in the Percentage of Placer County's Population in WIC Programs



Trends in the Number of Children in Placer County Enrolled in Free or Reduced Price Meal Programs



Education and Advocacy Indicators

Overview

In general, trend data is not available for the indicators chosen, but 1997 estimates of values were found for some of them.

In 1997, Placer County had 37 schools K-12 with educational gardens, 5 with agricultural vocational education, and an undetermined number of schools with “Agriculture in the Classroom” programs. Overall, 43% of all Placer County schools had educational gardens (SAREP phone survey 1997). Most of the agricultural vocational programs were in Western Placer County schools which had access to 3 education farms totaling 457 acres. There was one community college with courses in sustainable agriculture. We were not able to get data on numbers of organizations and degree of participation in organizations promoting sustainable agriculture and consumer advocacy in the county. According to the Small Farm Center Agri-tourism Database (UC Davis, July 2001), there are six farming operations with agri-tourism programs active in the county; four of these are near the major foothill city and tourism center of Auburn.

Why is this important?

The data shows activity in education and advocacy, but there is a lack of good information about how much activity and how it has developed over time.

Policy and Local Agriculture

Major Policy Initiatives

Placer Legacy (www.placer.ca.gov/planning//legacy)

Placer Legacy is a comprehensive open space and habitat protection program developed through a partnership between the Sierra Business Council (www.sbcouncil.org), a nonprofit association working to secure the economic and environmental health of the Sierra Nevada region, and Placer County. As a set of policies, Placer Legacy is a tool for the Board of Supervisors to use to uphold the spirit of the general plan proactively as well as reactively, and allow the county to comply with statewide regulations imposed by the California Environmental Quality Act. The program is designed to work within existing community plans, the county general plan, and zoning regulations while expanding and empowering local government efforts to preserve open space. Placer Legacy is guided and informed by a Citizens Advisory Committee, an Interagency Working Group, and a Scientific Working Group. To address concerns of private property owners, the Board of Supervisors has agreed, in writing, that only willing buyers and willing sellers will be involved in transactions including property or development rights, easements, and land ownership. In addition to purchase of easements or their exchange for tax reductions, Placer Legacy includes a section specifying strategies for the board to follow that will support local agriculture, as suggested by the Placer Legacy Citizens Advisory Committee, chaired by Joanne Neft:

- 1) Assist Placer County farmers by developing a strong local product identity and by promoting farmers' markets.
- 2) Assist with marketing of locally grown produce by supporting Placer Grown and other local agricultural promotion groups.
- 3) Support a "farm stand" program on major country roads, selling seasonal products, perhaps modeled after "Sonoma Farm Trails" or other organized, marketed programs.
- 4) Support more farm stands or markets emphasizing local produce in the I-80 corridor and adjacent to the highway targeting both locals and transients (tourists).
- 5) Support regular farmers' markets in all major cities and encourage participating vendors to display Placer Grown or other local produce logos for consumer identity and loyalty.
- 6) Through the State Office of Economic Development, encourage use of funding to open more small neighborhood markets featuring Placer Grown products.
- 7) Educate the public regarding the special values of locally grown crops using strategies including a list detailed in the Placer Legacy document.
- 8) Utilize the Agricultural Commissioner's office as an agricultural advocate with the Board of Supervisors.
- 9) Establish neighborhood agricultural "districts" with specific policies that are locally applicable.
- 10) Encourage neighboring agricultural landowners/producers to collaborate on easements/land preservation.
- 11) Assist farmers with tax planning

- 12) Implement and promote the Williamson Act to ensure that the needs of farming operations are protected.
- 13) Educate farmers and ranchers and promote enrollment in the Farmland Security Zone (FSZ), a statewide program similar to the Williamson Act with higher tax benefits but a non-cancelable 20 year contract; FSZ has been adopted by Placer County but there have been no enrollments so far.
- 14) Make the existing right-to-farm ordinance more useful to the farmer by educating the public and by intervening in legal challenges subject to right-to-farm.
- 15) Work to make water available to local agriculture at a reasonable price.
- 16) Develop a program to identify methods to protect agriculturally designated areas from conversion to non-agricultural uses.

Placer Legacy is also creating a GIS database of agricultural properties in western Placer County, where development pressure is most intense, to facilitate conservation.

Status, Impact, and Potential: Placer Legacy received voter approval and high public visibility in the November 2000 elections, but a separate measure to raise sales tax to provide funding was defeated. The Placer Legacy initiative includes detailed descriptions of other tax- and fee-based funding sources that would only require voter and legislative approval by jurisdiction, not county-wide, and a variety of other funding sources. As of March 2001, some funding had been secured from 4 grant sources, three more were pending, and expansion of funds from the General Fund for the county were expected, all sufficient to meet some of the programs initial goals, but lack of secure and sufficient long-term programs remains a barrier. The program has secured conservation easements on 320 acres of farmland. Since Placer Legacy is a set of goals or guidelines, not a legal mandate, continued successful implementation will require ongoing community support and citizen involvement in Board of Directors activities.

Williamson Act (www.consrv.ca.gov/dlrp/LCA)

The Williamson Act, also known as the California Land Conservation Act, was adopted in 1971 with the aim of preserving California's agricultural land. The program allows property tax adjustments to landowners who keep their lands in agricultural production or allow land use restrictions for at least 10 years through a contract with a city or county. The value of the agricultural lands covered by Williamson Act contracts are based on their agricultural value rather than their potential market value under nonagricultural uses. Contracts are automatically renewed unless cancelled by the owner. Since contracted lands cannot be subdivided, the Williamson Act has been effective in keeping valley floor agricultural land above minimum zoned parcel size, further discouraging development.

The incentive for enrolling land in the Williamson Act decreased with the passage of Proposition 13 in 1978, which effectively reduced the tax incentives for farmers to enroll their land. Many farmers chose not to renew their land at this time (Ferreira). In 1997, the Williamson Act was revised from a 20 acre minimum enrollment to a 10 acre minimum and expanded to include lands used for producing nursery products in addition to lands farmed for food or fiber. These changes were designed to make it more attractive

for landowners to enroll their land, although it is too soon to tell what the outcomes of the changes will be.

Status, Impact, and Potential: Unfortunately, many Placer County landowners are not renewing their contracts with the Williamson Act and the number of acres enrolled is dropping. (See “Farmland Conservation” in the Agricultural Resource Base Indicators section of this report for Williamson Act acreage enrollment data). Most of the agricultural land enrolled in the act is located in the western portion of the county, where much of the development is occurring. Some farmers and speculators are selling their land for development, rather than renewing, and receiving a sizable, and difficult to resist, profit. However, most enrolled cropland continues to be protected. (General Plan Background Report, Vol. II, 1994 and Williamson Act Status Report, 1995).

Key Players and Local Policies

Placer County Board of Supervisors

The Placer County Board of Supervisors (www.placer.ca.gov/bos/bos.htm), the county government entity responsible for making policy decisions, has historically been generally supportive of agriculture. Efforts have included:

1. Supporting financially and publicly the development of locally grown agricultural festivals like the Mandarin Festival and Agro Art Festival (Marin).
2. Providing financial support to the Foothill Farmers Markets Association (Marin). Almost \$25,000 over a period of time (Neft).
3. Providing financial support of PlacerGROWN. For example, in the first year, \$97,000 of the \$180,000 available in discretionary funds went to help PlacerGROWN get off the ground, even though there were many other groups interested in the money (Marin).
4. Approving agricultural preservation policies that have been effective at limiting growth to the cities. Pro-growth supervisors have been voted out of office. Growth has been directed toward the cities and prime agricultural land has been largely preserved through zoning restrictions and large size minimum parcels (Marin).
5. Approving the Open Space Implementation Plan in March 1998.

Placer County Planning Department

The Planning Department (www.placer.ca.gov/planning/planning.htm) interprets the spirit and letter of the General Plan in detail. Although each revision of the plan supersedes previous versions, certain key historical initiatives related to agriculture have been retained with few amendments.

Adopted in 1973, the Open Space and Conservation Plan recommended plans to preserve and protect agricultural operations, direct urbanization away from agricultural land, and support the agricultural preserve program. In 1989, Placer County adopted an Agricultural Element to the county’s General Plan. The agricultural element includes a number of goals, policies and implementation programs designed to improve the viability of agricultural operations and the conservation of agricultural land. Goals outlined in the element include:

- 1) To provide for the long-term conservation and use of agriculturally designated lands.
- 2) To minimize existing and future conflicts between agricultural and non-agricultural uses in agriculturally designated areas.
- 3) To protect and enhance the economic viability of Placer County's agricultural operations.
- 4) To maximize the productivity of Placer County's agriculture uses by ensuring adequate supplies of water.
- 5) To conserve Placer County's forest resources, enhance the quality and diversity of forest ecosystems, reduce conflicts between forestry and other uses, and encourage a sustained yield of forest products.

The General Plan also tries to “make it easy as possible” for farmers to remain economically viable, for example through on-site sales of agricultural products and allowing hunting on their land during times when the land is fallow (Yaeger). The general plan contains policies to permit accessory uses on farms, such as on-site sale of agricultural products and some on-site processing, to enhance the viability of agricultural operations.

Zoning Ordinance

Zoning is the primary means the planning department uses to preserve agricultural land by insuring viable farm size and preventing incompatible development adjacent to active farms and ranches. Planners have found zoning to be more effective than the Williamson Act for preserving agricultural land and directing growth into infill areas and lands adjacent to existing urban development. In the valley floor, there is an 80 acre minimum parcel size, implemented in 1967 when the population began to increase. Foothill areas have 10-20 acre minimum parcel sizes to support hobby farms. A problem with the zoning of agricultural land is that no distinction is made between ranch land and crop production land. Any land zoned as “agricultural exclusive” may be subdivided into 20 acre parcels. (Yaeger).

Right to Farm Ordinance

Adopted in 1985 and strengthened by amendment in 1999, the Right to Farm Ordinance is a disclosure document that informs a buyer of property that farmers in existing nearby agricultural operations have the right to continue activities that may be obnoxious but are legal and associated with agricultural operations. The ordinance protects farms and farmers from complaints and legal action taken by residential neighbors against their agricultural practices by nearby residential neighbors.

Placer Land Trust

The Placer Land Trust (www.pltpnc.newworld.net) is a non-profit organization designed to protect farmland and open space in Placer County. The major activities of the organization include outreach to the general public to increase awareness about local land issues and assistance to private property owners seeking options for land preservation. Outreach efforts include workshops on preserving family lands, booths at fairs and festivals, and personal assistance to property owners. Preservation options include conservation easements, whereby land owners donate or sell the development rights on

their property to the land trust, ensuring that the land will remain farmland or open space, as well as the outright purchase and management of land for habitat preservation and public use. To date, the organization has focused its efforts on raising awareness about development pressures and the need to preserve the county's agricultural and open space land.

Working Landscapes Initiative

Launched in 1998 by the Sierra Business Council (www.sbcouncil.org), the Working Landscape Initiative (WLI) is the only significant initiative targeting ranchers in the Sierra Nevada foothill region. The goal of WLI is to "help ranchers preserve their agricultural operations for future generations." WLI offers:

- 1) Educational workshops by respected professionals on topics from tax planning to ranch diversification.
- 2) Estate Planning Referrals via a database of financial professionals specializing in estate planning with the experience needed to assist ranch owners.
- 3) Information on the Farm Security Zone Program, the Williamson Act, and other tools for reducing property taxes.
- 4) Conservation easement services to help ranchers understand the benefits of conservation easements, decide whether they are an appropriate tool for them, and find appropriate organizations to work with for sale of easements.

Placer County Agricultural Marketing Coordinator

This position was recently created to organize and focus county efforts to support marketing of local agricultural products. The position is currently held by Joanne Neft.

Sources (other than web sites):

Ferreira, Alex. Farmer, Board Member, Placer County Board of Supervisors, 1997.

Marin, John. Chief Advisor to the Board of Supervisors, Placer County, 1997.

Neft, Joanne. Activist for local agriculture, Chair of the Citizens Advisory Committee to Placer Legacy, 1997

Yaeger, Fred. Director, Placer County Planning Department, 1998.

Other Initiatives and Resources, State/Federal – see the e-pendix at ...

Other Initiatives and Resources, State/Federal

Conservation Reserve Program (federal) and the California Conservation Reserve Enhancement Program (www.fsa.usda.gov)

Initiated in 1985, this financial incentive program provides farmers with annual payments on a per-acre basis to remove highly erodible or ecologically valuable land from active production and restore it for wildlife habitat. Contracts last for ten years and are administered by the Farm Service Administration with technical assistance from the Natural Resources Conservation Service. Renewals nationwide average upwards of 70% and applications exceed budget-restricted acreage maximums, indicating that the program is very popular with growers. Many states, including California, have legislated and budgeted extensions to the program to encourage additional conservation of especially critical habitats.

Related programs with similar structures include the federal Wildlife Habitat Incentives Program (WHIP) (www.nhq.nrcs.usda.gov/OPA/FB96OPA/WhipFact.html), and the California Wetlands Reserve Program (WRP) (www.wl.fb-net.org/ca.htm and http://ceres.ca.gov/wetlands/introduction/wetland_reserve2.html) which offers a high value 10 year, 30 year, or permanent easements for farmers who enroll to restore currently or previously farmed wetland habitat for wildlife.

Impacts: All programs of this type remove acreage from production, reducing total production and possibly impacting local economies through decreased tax revenues or farm operation related expenses. Benefits include increased available local wildlife habitat and air and water quality.

Potential: The programs remain popular because the payments usually exceed the profits made by farming the marginal lands enrolled. Thus the programs may help preserve the farm as a whole by making it more profitable. Vulnerable mid-sized farms may be able to place some of their acreage in the program and farm the remainder more intensely for direct marketing, enhancing long term economic viability. Farmers may get additional income from selling hunting privileges on enrolled land, additional grants from hunting or environmental organizations, and sale of conservation easements as restored land takes on a “conservation market value” to land trusts and other organizations that purchase easements. Hunters, bird-watchers, and others attracted to restored areas may bring additional income to local retail and service businesses, and tax revenue from sales tax.

Brownfields Revitalization and Environmental Restoration Act of 2001 (S 350, pending authorization by congress as of publication date).

This legislation is designed to facilitate “recycling” of land within urban areas once host to industrial activity but abandoned and requiring environmental clean-up and rehabilitation, referred to as “brownfields” by land-planners and policy makers. The bill, if passed, would provide funds for site evaluation and clean-up, legal protection for

affected parties to reduce liability risks, limits to federal authority and enhancement of state authority over the site, and enhanced involvement of the surrounding community in site cleanup and reuse. Related programs include the federal EPA's Brownfields Pilot Initiative, Brownfields Cleanup Revolving Loan Fund (BCRLF), and Brownfields Economic Redevelopment Initiative, the federal Brownfields Tax Incentive (which grants full deduction of cleanup costs the year of the cleanup),

Potential: Brownfield rehabilitation offers an opportunity to take development pressure off of agricultural lands that border urbanized areas and are most vulnerable to conversion. Brownfield acreages are extensive in metropolitan areas. California's Alameda County, for example, has an estimated 2,950 acres available within its urban areas (Recycling America's Land: A national Report on Brownfield Redevelopment, Volume Two at www.usmayors.org/uscm/brownfields/RecyclingAmericasLand.htm.) But even small cities and towns often have significant areas that qualify. Developers have traditionally avoided brownfields because of cleanup and demolition costs and liabilities even though lot size and location would otherwise make development much more profitable than a similar project in an outlying area. Brownfield conversion initiatives tip the balance.

Resources:

Central Valley Habitat Joint Venture

(http://ceres.ca.gov/wetlands/geo_info/about_cvhvjv.html)

The Green Valley Initiative (www.greenvalleyinitiative.org) – multiple interest group coalition to support open space preservation, acts as an umbrella group providing information and coordination but not competing with other organizations for funding.

Local Agricultural Organizations and Initiatives:

A partial directory

(Taken from Placer Grown Agricultural Services & Resource Directory for Placer County published by PlacerGROWN)

Natural Resources Conservation Service, USDA (NRCS)

District Conservationist
251 Auburn Ravine Road, Suite 201
Auburn, CA 95603
530-823-6830

Formerly called the Soil Conservation Service. Assists private landowners with resource management issues, including irrigation design and management, soil erosion, range management, wildlife habitat improvement, etc.

Rural Economic and Community Development Services (RECDS)

County Supervisor
251 Auburn Ravine Road, Suite 104
Auburn, CA 95603
530-885-7081

Formerly called Farmers Home Administration. Provides limited resource farm loans, farm ownership and operating loans, and farm loan guarantees.

Placer County Agriculture Department

Agricultural Commissioner
11477 E Avenue (Bldg 306, DeWitt Center)
Auburn, CA 95603
530-889-7372

Provides certificates for pest control operators, inspection of weighting and measuring devices, inspection of various agricultural operations, release of biological control agents, and many other services.

Placer County Office of Economic Development

Director
175 Fulweiler Avenue
Auburn, CA 95603
530-889-4016

Provides business development assistance through the Small Business Development Center (SBDC), SBA loans, and other forms of assistance to entrepreneurs.

Placer County Resource Conservation District

Manager

251 Auburn Ravine Road, Suite 201

Auburn, CA 95603

530-885-3046

Provides technical assistance for irrigation planning, conservation planning, erosion control, pasture and seed management, wildlife habitat improvement, and water management.

University of California Cooperative Extension

County Director

11477 E Avenue (Bldg 306, DeWitt Center)

Auburn, CA 95603

530-889-7385

Farm, home, and youth advisors connecting Placer County residents with University of California research and educational resources. Provides programs in livestock and pasture production, home economics, community food security, small farm viability, and other topics.

Placer County Farm Bureau

Manager

10120 Ophir Road

Newcastle, CA 95658

530-663-2929

Voluntary organization seeking solutions to the problems that affect agriculture families. Actively represents agriculture and strives to unify its many diverse interests.

PlacerGROWN

Board President

1477 E Avenue (Building 306, DeWitt Center)

Auburn, CA 95603

530-889-7398

Provides support for the growth of agriculture in Placer County through educational programs and workshops as well as informational and promotional efforts to connect local consumers with local producers.

Sierra Economic Development District

Executive Director
560 Wall Street, Suite K
Auburn, CA 95603
530-823-4703

Acts as a liaison between local businesses and organizations and state and federal funding sources, providing information and expertise to connect initiatives to the funding sources that will support them.

Sierra Grape Growers Association

P.O. Box 528
Foresthill, CA 95631
530-367-2275

Serves the interests of wine grape growers in Placer and Nevada Counties.

Tahoe Cattlemen's Association

President
P.O. Box 1038
Lincoln, CA 95648
530-789-2705

Furthers the best interests of the cattle industry in Placer, Nevada and El Dorado counties. Works to create agreement between cattle industry interests and the overall public interest of local communities.

Data Sources

Classifying Data by Availability

Our research team found it useful to divide data sources into four categories based on data quality, availability, and consistency geographically and over time:

1. Collected at the national level for each county and state at regular intervals over extended time periods and publicly available. The Economic Census, the Census of Agriculture, the Population Census, Statistical Services Bureau data, and the Regional Economic Information System all qualify.
2. Collected consistently by State or County agencies over extended time periods and publicly available, data sets may not be compatible among states. State and County tax, finance, employment, and welfare related agencies are examples of sources, which may qualify.
3. Measured by someone, over short periods or somewhat inconsistently, may or may not have been published and difficult to obtain. May exist as single year estimates provided by people directly involved, casual or formal surveys conducted once or twice, etc. Data not likely to be quantitatively comparable among counties or states. Most data available on alternative agriculture, community kitchens, food banks, gleaning programs, community gardens, agricultural education, agricultural education, etc. fall into this category.
4. Not yet quantified by anyone; no useful data available unless collected by NE-185 researchers. Unfortunately, data on food product flow within the food system falls into this category.

The U.S. Population Census, the Economic Census, and the Agricultural Census all contain data collected and compiled by county and by state nationwide for regular intervals beginning more than fifty years ago and continuing today. These category one sources provide most of the quantitative data presented in this report. 1950 was chosen as a cut-off date for most trends, since federal data sources are less complete and consistent for dates prior to WWII. A fifty-year time line encompasses significant societal changes, not just short-term trends. The Economic Census did not provide enough detail for most components of the food system before 1972. State government data sources (category two) were used for some indicators not adequately covered by federal sources or for indicators primarily impacted by state law. Most state governments probably gather similar data. Category three data sources were used to provide some information on important indicators not regularly quantified by federal, state, or local governments.

A Hidden Story: The Genesis of Change

One of the goals of the NE-185 project is to provide information and analysis that will help individuals and organizations enhance local food production, distribution, and

consumption. Although distribution and consumption of locally produced food does occur through existing, conventional commodity chains, “alternative” distribution systems, such as farmers markets, farm stands, community supported agriculture (CSA) services, u-picks, direct sales to markets or restaurants, etc., account for much of the volume and most of the growth in local food system activity. Unfortunately, basic data on public participation, sales, or volume of goods moving through such systems is not collected as part of any census, nor by most state and county agencies. In some cases, research efforts by individuals or organizations have produced data for certain areas collected for a specific year, or several years, but not consistently collected data for periods long enough to establish trends. Often, only single year estimates are available.

For this study, we relied on interviews and, in some cases, our own case studies to provide missing information on specifically local food system activity. As a result of our efforts, we have compiled a list of the types of currently unavailable data we feel are important to understanding food systems in the local dimension. There is a great need for public agencies to begin documenting local components of food systems.

Missing Data: A Working List

Alternative Agriculture – acreage, number of farms, ownership, gross and net product, products and lbs./bushels/bundles produced for Organic, LISA, BIOS, Biodynamic, Ag Tourism, U-Pick, CSA, Ecolabel.

Alternative Distribution and Marketing - number of markets, sales and product volumes, number of participating growers, number of customers/subscribers for roadside stands, farmers’ markets, organic and/or local produce wholesalers and distributors, packers and processors handling certified produce, direct sale arrangements with institutions.

Agricultural Education/Advocacy – number of organizations and programs, membership and participation rates, budgets, number of gardens/acreage for school garden programs, college and university programs, alternative-focused research and advocacy organizations.

Community Food Security – number of organizations and programs, membership and participation rates, budgets, types of food products and volume for nutritional and anti-hunger organizations and initiatives.

Environmental Impact – locally compiled data on erosion rates, surface and groundwater pollution, pesticide application rates, acres, and compounds, fossil fuel and electricity consumption by producers and processors, delivery vehicle mileage for distributors.

Food Flow – source to destination pathways and the volume and value of food products they contain. In our already largely globalized economy, paths of a single product cross many political boundaries and fork many times, making tracing the production to consumption path essentially impossible. If, however, the data suggested in the

Alternative Agriculture and Alternative Distribution and Marketing sections, above, were collected consistently and accurately, food flows for *local* product could be clearly defined and quantified as long as “local” was carefully defined for data collection.

DEMOGRAPHIC INDICATORS

Indicator	Years	Measure/Graph	Source
Population			
State Population	69, 74, 78, 82, 87, 92, 97	Number of people in state vs. time.	California Department of Finance Demographic Research Unit
County Population	69, 74, 78, 82, 87, 92, 97	Number of people in county vs. time.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
County Population as Percent of State Population	69, 74, 78, 82, 87, 92, 97	Percent of state population resident in county vs. time.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
Population Density, Persons per sq. Mile	69, 74, 78, 82, 87, 92, 97	Number of persons per sq. mile average for county vs. time.	California Department of Finance Demographic Research Unit.
Urban Growth			
Percent of County Population in Cities over 50K	69, 74, 78, 82, 87, 92, 97	Percent of county population in cities over 50,000 vs. time.	California Department of Finance Demographic Research Unit.
Ethnic Distribution			
Asian and Pacific Islander Black Caucasian Latino Native American	69, 74, 78, 82, 87, 92, 97	Percentage of county population that classify themselves in each of the following groups: Asian and Pacific Islander, Black, Caucasian, Latino, Native American.	California Department of Finance Demographic Research Unit.
Income			
Inflation Adjustment	69, 74, 78, 82, 87, 92, 97	Factor used as multiplier to convert dollar values for a given year to 1997 equivalent.	Consumer Price Index data compiled by Robert Sahr, Political Science Department, Oregon State University, Corvallis, Oregon.
Total Employment for the County	69, 74, 78, 82, 87, 92, 97	Number of people employed vs. time for census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
Total Earnings for the County	69, 74, 78, 82, 87, 92, 97	Total earnings vs. time for census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
County Per Capita Annual Income	69, 74, 78, 82, 87, 92, 97	County per capita annual income vs. time.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
County's Rank in the State for Per Capita Income	69, 74, 78, 82, 87, 92, 97	Rank of county per capita income in state vs. time.	Bureau of Economic Analysis Regional Economic Analysis CD ROM .
Poverty			
Number of Welfare Recipients (AFDC/TANF)	88, 91, 94, 97	Number of people receiving AFDC/TANF assistance in the county vs. time.	AFDC Caseload Movement and Expenditures Reports, Statistical Services Bureau, Dept. of Social Services; Compiled by RAND Co.
Percent of County's Population Receiving Welfare	88, 91, 94, 97	Percentage of county population receiving AFDC/TANF assistance in the county vs. time.	Calculated from sources on this page.
Civilian Unemployment Rate, Percent	85, 88, 91, 94, 97	Percent of county labor force unemployed vs. time.	Employment Development Department, Compiled by RAND Co.
Percent of County's Population Below Poverty Line	70, 80, 90	Percent of county's population below poverty level vs. time.	Calculated from County and City Data Book published by The Census Bureau and population data, this pg.
Percent of County's Families below poverty	50, 60, 70, 80, 90	Percent of total number of families in county below poverty level vs. time.	County and City Data Book published by The Census Bureau.

AGRICULTURAL RESOURCE BASE INDICATORS

Indicator	Years	Measure/Graph	Source
Farm Numbers and Acreage			
Number of Farms in State	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	No graph – used for comparison calculations only.	U.S. Census of Agriculture, Geographic (Area) Series.
Acres in Farming, State Total	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	No graph – used for comparison calculations only.	U.S. Census of Agriculture, Geographic (Area) Series.
Number of Farms in Placer County	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Total number of farms in the county vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Acres in Farming in Placer County	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Acres in farming for county vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Percent of California's Farms in Placer County	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Number farms in county as percent of state total vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Percent of California's Farm Acreage in Placer County	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Acreage in farming for county as percent of state total vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Average Farm Size, Acres	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Total acres in farming in county divided by total number of farms in the county vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Number Farms by Acreage Size Class	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	As a bar graph with each bar containing one year's distributions for 1-9, 10-49, 50-179, 180-499, 500-999, and 1000 + acre categories for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Farm Ownership			
Acres in Full Ownership Acres in Part Ownership Acres in Tenant Farming	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Acres under full owner, part owner, and tenant owner (3 lines on a single graph) in county vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Number Full Owners in County	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Number of full owners of farms in Placer County vs. time for ag. census years	U.S. Census of Agriculture, Geographic (Area) Series.
Minority Farm Operators, Number of Farms	74, 78, 82, 87, 92, 97	Number minority-operated farms in county vs. time, ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Age of Farmers			
Average Farmer Age	59, 64, 69, 74, 78, 82, 87, 92, 97	Average farmer age in county vs. time, ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Organic Farming			
Number of Organic Farms	92, 94, 96, 98	Number of organic farms in the county vs. time, ag. census years.	County Agricultural Commissioner Crop Reports.
Acreage in Organic Farming	92, 94, 96, 98	Acreage in organic farming in the county vs. time, ag. census years.	County Agricultural Commissioner Crop Reports.
Land Conservation			
Acres of Farmland Converted for Development	86, 88, 90, 92, 94, 96, 98	Acreage converted to urban or suburban development in county vs. time, ag. census years.	California State Department of Conservation Farmland Mapping Program.
Acres enrolled in the Williamson act	74, 78, 82, 87, 92, 97	Acres enrolled in the Williamson act in the county vs. time for ag. census years.	California State Department of Conservation Division of Land Resource Protection

ENVIRONMENTAL INDICATORS

Indicator	Years	Measure/Graph	Source
Groundwater Pollution			
Well Water Pollution, Average Nitrate (NO3)	89, 92, 95, 97	Concentration of nitrate in well samples averaged countywide vs. time.	California Department of Health Services.
Total Supplemental Water Use by Agriculture			
Use of State and Federal Subsidized Water by Agriculture	82, 87, 92, 97	Acre feet of water supplied by federal and state water projects to county for agriculture vs. time for ag. census years.	California Department of Water Resources.
Number of Farms Using Irrigation	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Number of farms in county using irrigation vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Total Number of Irrigated Acres in the County	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Total county irrigated acreage vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Synthetic Input Use and Dependence			
Pesticide Use, Total Pounds A. I. Applied	74, 78, 82, 87, 92, 97	Total pounds of active ingredient* applied in the county vs. time for ag. census years.	Department of Pesticide Regulation Pesticide Use Reporting Data compiled by Environmental Toxicology Dept. researchers at UCD.
Expenditures on Fuel, Fertilizer, and Pesticides	74, 78, 82, 87, 92, 97	Sum of expenditures on fuel, fertilizer, and pesticides reported under specified farm expenditures, ag. census years . Not graphed.	U.S. Census of Agriculture, Geographic (Area) Series.
Total Specified Farm Expenditures	74, 78, 82, 87, 92, 97	Total specified farm expenditures, ag. census years. Not graphed.	U.S. Census of Agriculture, Geographic (Area) Series.
Cost of Inputs as Percent Total Farm Costs	74, 78, 82, 87, 92, 97	Percent total specified expenditures spent on synthetic chemicals and fuels for all farms in county vs. time for ag. census years.**	U.S. Census of Agriculture, Geographic (Area) Series.

* Excludes sulfur, inert ingredients, and organically acceptable materials.

** Calculated using total specified farm expenditures and summed expenditures on fertilizer, fuel, and pesticides.

**FOOD DISTRIBUTION NETWORK INDICATORS
(U.S. Economic Census categories)**

Indicator	Years	Measure/Graph	Source
Number of Farm Product Raw Material Wholesalers (Packers, Shippers)	72, 77, 82, 87, 92, 97	Number establishments in the county vs. time for economic census years.	U.S. Economic Census, Geographic Area Series.
Number of Food Manufacturers	72, 77, 82, 87, 92, 97	Number establishments in the county vs. time for economic census years.	U.S. Economic Census, Geographic Area Series.
Number of Food Wholesalers	72, 77, 82, 87, 92, 97	Number establishments in the county vs. time for economic census years.	U.S. Economic Census, Geographic Area Series.
Number of Food Retailers	72, 77, 82, 87, 92, 97	Number establishments in the county vs. time for economic census years.	U.S. Economic Census, Geographic Area Series.
Number Food Servers (incl. Restaurants)	72, 77, 82, 87, 92, 97	Number establishments in the county vs. time for economic census years.	U.S. Economic Census, Geographic Area Series.
Number Farmer's Markets	1999	Number of farmers' markets in the county.	Sustainable Agriculture Research and Education Program, UC Davis.
Number CSA's	?		
Number Roadside Stands	?		

ECONOMIC PRODUCTIVITY INDICATORS

Indicator	Years	Measure/Graph	Source
Top Ten Agricultural Products			
Top Ten Agricultural Products by Gross Sales	63, 67, 73, 77, 82, 86, 92, 97	List of products produced in county ranked by gross sales, ag. census years since 1963.	County Agricultural Commissioners, compiled by California Farmer magazine.
Gross Agricultural Productivity			
Inflation Adjustment, Agricultural Producers	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Factor used as multiplier to convert dollar values for a given year to 1997 equivalent.	Bureau of Labor Statistics Producer Price Index data, non-seasonally adjusted annual average, farm products group.
State Gross Agricultural Production	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	State gross agricultural production, all agricultural products. Not graphed.	U.S. Census of Agriculture, Geographic (Area) Series.
Gross Agricultural Productivity, County	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Gross earnings from sale of all ag. products in the county vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series; County Annual Crop Reports.
County Gross Production as Percentage of State Total	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Gross earnings from sale of all ag. products in the county vs. time for ag. census years presented as percent of state total calculated from census data.	U.S. Census of Agriculture, Geographic (Area) Series; County Annual Crop Reports.
Direct Marketing			
Gross Receipts From Direct Marketing, all Types, all Farms	78, 82, 87 extr., 92, 97	Gross receipts for direct marketing, all types, for county vs. time, ag. census years (1987 no data published, extrapolated).	U.S. Census of Agriculture, Geographic (Area) Series.
Number of Farms Engaged in Direct Marketing, all Types	78, 82, 87 extr., 92, 97	Number of farms participating in direct marketing, all types, for county vs. time, ag. census years (1987 no data published, extrapolated).	U.S. Census of Agriculture, Geographic (Area) Series.
Estimated Dollar Value, Farmer's Market Sales	1999	Estimated total sales from all farmer's markets in the county. Single year.	Sustainable Agriculture Research and Education Program, UC Davis
Estimated Dollar Value, CSA Sales	?	Estimated total sales from all community supported sustainable agriculture (CSA) programs in the county. Single year.	None yet found
Estimated Dollar Value, Roadside Stand Sales	?	Estimated total sales from roadside stands in the county. Single year.	None yet found

Food Distribution System			
Inflation Adjustment, Food Manufacturers	72, 77, 82, 87, 92, 97	Factor used as multiplier to convert dollar values for a given year to 1997 equivalent.	Bureau of Labor Statistics Producer Price Index data, non-seasonally adjusted annual average, processed foods and feeds group.
Inflation Adjustment, Farm Product Wholesalers	72, 77, 82, 87, 92, 97	Factor used as multiplier to convert dollar values for a given year to 1997 equivalent.	Bureau of Labor Statistics Producer Price Index data, non-seasonally adjusted annual average, crude foodstuffs and feedstuffs group.
Inflation Adjustment, Food Wholesalers and Retailers	72, 77, 82, 87, 92, 97	Factor used as multiplier to convert dollar values for a given year to 1997 equivalent.	Bureau of Labor Statistics Producer Price Index data, non-seasonally adjusted annual average, finished consumer foods group.
Inflation Adjustment, Food Servers	72, 77, 82, 87, 92, 97	Factor used as multiplier to convert dollar values for a given year to 1997 equivalent.	Consumer Price Index data compiled by Robert Sahr, Political Science Department, Oregon State University, Corvallis, Oregon.
Food Manufacturers Net Value Added to Products	72, 77, 82, 87, 92, 97	Total earnings for the county vs. time, economic census years.	U.S. Economic Census, Geographic Area Series.
Farm Product Wholesalers Gross Receipts	72, 77, 82, 87, 92, 97	Total earnings for the county vs. time, economic census years.	U.S. Economic Census, Geographic Area Series.
Food Wholesalers Gross Receipts	72, 77, 82, 87, 92, 97	Total earnings for the county vs. time, economic census years.	U.S. Economic Census, Geographic Area Series.
Food Retailers Gross Receipts	72, 77, 82, 87, 92, 97	Total earnings for the county vs. time, economic census years.	U.S. Economic Census, Geographic Area Series.
Food Servers Gross Receipts	72, 77, 82, 87, 92, 97	Total earnings for the county vs. time, economic census years.	U.S. Economic Census, Geographic Area Series.

FOOD SYSTEM WAGES AND EMPLOYMENT INDICATORS

Indicator	Years	Measure/Graph	Source
Agricultural Production			
<i>Employment as Farmers</i>			
Number Full Owners of Farms in the State	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Number of full owners of farms in state vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Number Full Owners of Farms in the County	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Number of full owners of farms in county vs. time for ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Percent of State Full Farm Owners from County	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Number of full owners of farms in county as percent of total number full farm owners in state vs. time for ag. census years.	Calculate using U.S. Census of Agriculture, Geographic (Area) Series data.
<i>Farm Labor Wages</i>			
Inflation Adjustment	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Factor used as multiplier to convert dollar values for a given year to 1997 equivalent.	Consumer Price Index data compiled by Robert Sahr, Political Science Department, Oregon State University, Corvallis, Oregon.
County Total Wages	69, 74, 78, 82, 87, 92, 97	Total wages earned by the labor force in the county, all occupations, vs. time for ag. census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
Farm Labor Wages	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Wages paid to all farm workers working 150 days/year or more in county vs. time, ag. census years.	U.S. Census of Agriculture, Geographic (Area) Series, specified farm expenditures data.
Farming Labor Wages as Percent County Total Wages	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Wages paid to all farm workers in county as % of total wages in county vs. time for ag. census years.	Calculated from the two preceding data sets.
Average Annual Earnings for a Farm Laborer (adjusted for inflation)	50, 54, 59, 64, 69, 74, 78, 82, 87, 92, 97	Total county farm labor wages for the county divided by total county farm labor employment times inflation adjustment vs. time for ag. census years.	Calculated using total farm labor wage data and total farm labor employment data from this section, adjusted with inflation adjustment factor from this section.
<i>Farm Labor Employment</i>			
County Total Employment	69, 74, 78, 82, 87 extr., 92, 97	Total number of people employed in the county, all occupations, for time vs. ag. census years. (1987 not reported, extrapolated). Not graphed.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
State Farm Labor Employment	50, 54, 59, 64, 69, 74, 78, 82, 87 extr., 92, 97	Number people employed on farms in state for 150 days/year or more vs. time, ag. census year. (1987 not reported, extrapolated). Not graphed.	U.S. Census of Agriculture, Geographic (Area) Series.
County Farm Labor Employment	50, 54, 59, 64, 69, 74, 78, 82, 87 extr., 92, 97	Number of farm workers working 150 days/year or more in county vs. time, ag. census years. (1987 not reported, extrapolated).	U.S. Census of Agriculture, Geographic (Area) Series.
County Farm Labor Employment as Percent of State Total	50, 54, 59, 64, 69, 74, 78, 82, 87 extr., 92, 97	Number hired farm workers in county as percent state total vs. time, ag census years. (1987 not reported, extrapolated).	Calculated from the two preceding data sets.
Farm Labor Employment as Percentage of County Total Employment	69, 74, 78, 82, 87 extr., 92, 97	Number workers employed in farming as % of total county work force vs. time for ag. census years. (1987 not reported, extrapolated).	Calculated using county total employment and county farm labor employment data sets.

Food Distribution System			
<i>Food Distribution System Wages</i>			
Inflation Adjustment	72, 77, 82, 87, 92, 97	Factor used as multiplier to convert dollar values for a given year to 1997 equivalent.	Consumer Price Index data compiled by Robert Sahr, Political Science Department, Oregon State University, Corvallis, Oregon.
Total Food Distribution System Wages for the County	72, 77, 82, 87, 92, 97	Wages paid to all food distribution system workers in county vs. time for economic census years.	Summed from U.S. Economic Census, Geographic Area Series data in this section.
Food Distribution Wages as Percent of County Total Wages	72, 77, 82, 87, 92, 97	Wages paid to all food distribution system workers in county as percent of total wages in county vs. time for economic census years.	Calculated using total county wages from demographic section and sum of all food system wages from this section.
Average Annual Earnings for a Food Distribution System Employee (adjusted for inflation)	72, 77, 82, 87, 92, 97	Total food distribution system wages for the county divided by total food distribution system employment times inflation adjustment vs. time for economic census years.	Calculated using sum of all food distribution system employment and sum of all wages from this section, adjusted with inflation adjustment factor from this section.
Farm Product Raw Material Wholesaler Wages Paid, County	72, 77, 82, 87, 92, 97	One graph with a line for each measure in dollars vs. time, economic census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Food Manufacturers Wages Paid, County			
Food Wholesalers Wages Paid, County			
Food Retailers Wages Paid, County			
Food Servers Wages Paid, County			
<i>Food Distribution System Employment</i>			
Total Food Distribution System Employment for the State	72, 77, 82, 87, 92	Number workers employed in food system in state, sum of state totals for each food system category from economic census. Not graphed.	Summed from U.S. Economic Census, Geographic Area Series data in this section.
Total Food Distribution System Employment for the County	72, 77, 82, 87, 92, 97	Number workers employed in food distribution system in the county vs. time, economic census years.	Summed from U.S. Economic Census, Geographic Area Series data in this section.
Total County Food Distribution System Employment as Percent State Total	72, 77, 82, 87, 92	Total number workers employed in the county for all parts of food distribution system as percent of state total food system employment vs. time for economic census years.	Calculate summing food system data in this section.
Food Distribution System Employment as Percent County Total Employment	72, 77, 82, 87, 92, 97	Number workers employed in food distribution system as percent of total county work force vs. time for economic census years.	Calculate using total county employment from demographic section and sum of all food system employment from this section.
Farm Product Raw Material Wholesaler Employment, County	72, 77, 82, 87, 92, 97	One graph with a line for each measure vs. time, economic census years.	U.S. Census of Agriculture, Geographic (Area) Series.
Food Manufacturers Employment, County			
Food Wholesalers Employment, County			
Food Retailers Gross Employment, County			
Food Servers Gross Employment, County			

FOOD CONSUMPTION INIDICATORS

Descriptor	Years	Measure/Graph	Source
Inflation Adjustment	72, 77, 82, 87, 92, 97	Factor used as multiplier to convert dollar values for a given year to 1997 equivalent.	Consumer Price Index data compiled by Robert Sahr, Political Science Department, Oregon State University, Corvallis, Oregon.
Total Food Expenditures			
Total Food Expenditures, County	72, 77, 82, 87, 92, 97	Sum of food retailer and food server gross receipts reported in the Economic Census vs. time, Economic Census years.	U.S. Economic Census, Geographic Area Series.
Total Food Expenditures in County Derived from National Average	72, 77, 82, 87, 92, 97	County population divided by US population, multiplied by total US food expenditures from Food Consumption, Prices, and Expenditures vs. time, Economic Census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM; US Census Bureau Historical National Population Estimates; Food Consumption, Prices, and Expenditures, USDA.
Total County Earnings	72, 77, 82, 87, 92, 97	Total county wages vs. time, Economic Census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
Total Food Expenditures in County as % Total County Earnings	72, 77, 82, 87, 92, 97	Total food expenditures as percent of total county earnings vs. time for Economic Census years.	Calculated from Economic Census and Bureau of Economic Analysis data in this section.
Per Capita Food Expenditures			
County Population	72, 77, 82, 87, 92, 97	County population vs. time, Economic Census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
County Per Capita Income	72, 77, 82, 87, 92, 97	County per capita income vs. time, Economic Census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.
Per Capita Food Expenditures, National Average	72, 77, 82, 87, 92, 97	Total US food expenditures reported in Food Consumption, Prices, and Expenditures divided by US population vs. time, Economic Census years.	Food Consumption, Prices, and Expenditures, USDA; US Census Bureau Historical National Population Estimates.
Per Capita Food Expenditures, County	72, 77, 82, 87, 92, 97	Total food expenditures for county from Economic Census data divided by county population vs. time for Economic Census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.; U.S. Economic Census, Geographic Area Series.
Per Capita Food Expenditures, County Deviation from National Average	72, 77, 82, 87, 92, 97	Difference between per capita food expenditures, county and per capita food expenditures, national average, vs. time for Economic Census years.	Calculated from preceding two variables.
County Per Capita Food Expenditures as % Per Capita Income (adjusted for inflation)	72, 77, 82, 87, 92, 97	Per capita food expenditures, county, as percent county per capita income vs. time, Economic Census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.; U.S. Economic Census, Geographic Area Series.
National Average Derived County Per Capita Food Expenditures as % Per Capita Income (adjusted for inflation)	72, 77, 82, 87, 92, 97	Inflation adjusted per capita food expenditures, national average, divided by inflation adjusted county per capita income times 100 vs. time, Economic Census years.	Bureau of Economic Analysis Regional Economic Analysis CD ROM.; U.S. Economic Census, Geographic Area Series.

Dollars Spent on Food, Home vs. Away			
Food Retailers' Gross Receipts (Home)	72, 77, 82, 87, 92, 97	Food retailers' gross receipts vs. time, Economic Census years.	U.S. Economic Census, Geographic Area Series.
Food Servers' Gross Receipts (Away)	72, 77, 82, 87, 92, 97	Food servers' gross receipts vs. time, Economic Census years.	U.S. Economic Census, Geographic Area Series.
Money Spent on Food at Home in County, Derived from National Average	72, 77, 82, 87, 92, 97	Total US food expenditures for home reported in Food Consumption, Prices, and Expenditures divided by US population, multiplied by county population vs. time for Economic Census years.	Food Consumption, Prices, and Expenditures, USDA; US Census Bureau Historical National Population Estimates; Bureau of Economic Analysis Regional Economic Analysis CD ROM.
Money Spent on Food Away from Home in County, Derived from National Average	72, 77, 82, 87, 92, 97	Total US food expenditures away from home reported in Food Consumption, Prices, and Expenditures divided by US population, multiplied by county population vs. time for Economic Census years.	Food Consumption, Prices, and Expenditures, USDA; US Census Bureau Historical National Population Estimates; Bureau of Economic Analysis Regional Economic Analysis CD ROM.
Ratio, Food Consumed Home vs. Away, County	72, 77, 82, 87, 92, 97	Ratio, food retailers' gross receipts divided by food servers' gross receipts for county vs. time for Economic Census years.	U.S. Economic Census, Geographic Area Series.
National Averages, Ratio Food Consumption, Home vs. Away	72, 77, 82, 87, 92, 97	Ratio, total US food expenditures for home divided by expenditures away, data reported in Food Consumption, Prices, and Expenditures vs. time for Economic Census years.	Food Consumption, Prices, and Expenditures, USDA.

COMMUNITY FOOD SECURITY AND ACCESS INDICATORS

Indicator	Years	Measure/Graph	Source
Government Food Program Participation			
County Population	69, 74, 78, 82, 87, 92, 97	Number of People in the county vs. time. Not graphed.	California Department of Finance Demographic Research Unit.
Number of People Receiving Food Stamps	69, 74, 78, 82, 87, 92, 97	Number of individuals participating in the food stamp program in the county vs. time.	California Department of social Welfare, Public Assistance in California (Periodical).
Percent of County Population Receiving Food Stamps	69, 74, 78, 82, 87, 92, 97	Number of individuals participating in the food stamp program in the county as a percent of total county population vs. time.	Calculated from preceding two measures.
County Population	90, 92, 94, 96, 98	Number of People in the county vs. time. Not graphed.	California Department of Finance Demographic Research Unit.
Number of People in WIC Programs	90, 92, 94, 96, 98	Number of people in WIC programs in the county vs. time.	California State WIC Office.
Percent of County Population in WIC Programs	90, 92, 94, 96, 98	Number of people in WIC programs as a percent of county population vs. time.	California State WIC Office.
Number of FMNP's	Single year?	Number of FMNP's in the county.	California State WIC Office.
Number of People Reached by FMNP's	1997	Number of people reached by FMNP's vs. time.	California State WIC Office.
Number of Children Enrolled in School Meal Programs	Single year?	Number of students receiving free and reduced price lunches.	California Department of Education, Compiled by RAND Corporation.
Community Kitchens			
Number of Community Kitchens	Single year?	Number of community kitchens in the county.	Cooperative Extension.
Food Banks			
Number of Food Banks	Single year?	Number of food banks in the county.	SAREP, NE-185 phone survey
Number of People Served by Food Banks	Single year?	Number of people served by county food banks.	None yet found
Pounds of Food Served at Food Banks	Single year?	Pounds of food served at county food banks.	None yet found
Gleaning Programs			
Number of Gleaning Programs	Single year?	Number of gleaning programs active in the county.	None yet found
Pounds of Food Gleaned	Single year?	Pounds of food gleaned from sources in the county.	None yet found
Number of Gleaning Program Participants	Single year?	Number of people participating in gleaning programs and activities.	None yet found
Community Gardens			
Number of Community Gardens	Single year?	Number of community gardens in the county.	SAREP, NE-185 phone survey
Number of Community Gardeners	Single year?	Number of people using community gardening space in the county.	SAREP, NE-185 phone survey

EDUCATION AND ADVOCACY INDICATORS

Indicator	Years	Measure/Graph	Source
K-12 Schools with Agriculture/Food Education			
Number of Schools in the County with Educational Gardens	Single year?	Number of schools in the county with educational garden programs.	SAREP, NE-185 phone survey
Number of Schools in the County with Agricultural Vocational Education	Single year?	Number of schools in the county with courses in agriculture as a vocation.	SAREP, NE-185 phone survey
Number of Schools in County with "Agriculture in the Classroom"	Single year?	Number of schools in the county with "Agriculture in the Classroom" programs.	None yet found
Higher Education Institutions with Sustainable Agriculture Courses			
Number of Universities, Colleges, and Community Colleges in the County with Sustainable Agriculture Courses	Single year?	Number of universities, colleges, and community colleges in the county with courses in sustainable, organic, or other alternative agriculture.	SAREP, NE-185 phone survey
Sustainable Agriculture and Consumer Advocacy			
Number of Sustainable Agriculture Organizations Active in the County	Single year?	Number of sustainable agriculture organizations active in the county.	None yet found
Number of Consumer Advocacy Organizations Active in the County	Single year?	Number of consumer advocacy organizations active in the county.	None yet found
Number of County-Resident Members in Sustainable Agriculture Organizations	Single year?	Number of county-resident members in sustainable agriculture organizations.	None yet found
Number of County-Resident Members in Consumer Advocacy Organizations	Single year?	Number of county-resident members in consumer advocacy organizations.	None yet found
Agricultural Tourism			
Number of Agricultural Tourism Programs in the County	Single year?	Number of agricultural tourism programs in the county.	County Cooperative Extension?
Community Food Security			
Number of Community Food Security Projects in the County	Single year?	Number of community food security projects in the county.	SAREP, NE-185 phone survey
Number of Hunger Advocacy Organizations Active in the County	Single year?	Number of hunger advocacy organizations active in the county.	None yet found

AGRICULTURAL RESOURCE BASE INDICATORS - PLACER COUNTY

Year	1945	1950	1954	1959	1964	1969	1974	1978	1982	1987	1992	1997
Farm Numbers and Acreage												
<i>Number of Farms in State</i>												
<i>Acres in Farming, State Total</i>	138,917	137,168	123,075	99,274	80,852	77,875	67,674	73,194	82,463	83,217	77,669	74,126
	35,054,379	36,613,291	37,794,780	36,887,948	37,010,500	35,722,348	33,365,619	32,727,202	32,156,894	30,598,178	28,978,997	27,698,779
Number of Farms in Placer County												
Acres in Farming in the County	1,470	1,602	1,583	1,213	1,126	930	813	942	1,335	1,233	1,125	997
	271,912	299,334	436,469	258,825	248,934	211,439	167,705	200,746	182,792	168,223	137,723	139,597
Percent of California's Farms in Placer County												
	1.06%	1.17%	1.29%	1.22%	1.39%	1.19%	1.20%	1.29%	1.62%	1.48%	1.45%	1.35%
Percent of California's Farm Acreage in Placer County												
	0.78%	0.82%	1.15%	0.70%	0.67%	0.59%	0.50%	0.61%	0.57%	0.55%	0.48%	0.50%
Average Farm Size, Acres												
	185.00	186.90	275.70	213.40	221.10	227.00	206.00	213.00	137.00	136.00	122.00	140.00
Number Farms by Acreage Size Class												
1 to 9	151	217	283	162	112	120	100	189	397	371	339	311
10 to 49	670	740	693	523	553	400	399	423	581	515	469	405
50 to 99	271	289	256	230	200	167	106	129	135	124	113	79
100 to 499	295	258	252	223	188	177	139	132	154	154	139	133
500 to 999	37	42	40	26	37	30	32	29	31	38	31	34
1000 or more	46	56	58	49	16	36	37	40	37	31	34	35
Farm Ownership												
Acres in Full Ownership	124,206	116,430	128,375	72,568	62,365	58,380	52,012	57,437	57,728	56,947	41,469	40,188
Acres in Part Ownership	127,774	158,464	291,137	164,297	163,454	120,837	98,237	98,404	64,827	66,945	73,894	75,297
Acres in Tenant Farming	15,180	57,986	14,567	18,965	9,187	32,222	17,456	44,905	60,237	44,331	22,360	24,112
Number of Full Owners in County												
	1,140	1,263	1,300	973	835	682	624	740	1,071	968	852	751
Minority Farm Operators, Number of Farms												
					85	85	85	85	79	76	56	54
Age of Farmers												
Average Farmer Age				50.4	50.5	52.2	51.9	50.6	50.7	53.1	55.4	56.5
<i>Expanded Time Scale</i>												
	1986	1988	1990	1992	1994	1996	1998					
Organic Farming												
Number of Organic Farms									11	10	20	18
Acreage in Organic Farming									153	104	240	339
Land Conservation												
<i>Acres of Farmland Converted for Development (time interval)</i>												
				1,024	1,391	1,715	1,462	655	2,109	2,226	(1996-98)	
				(1984-86)	(1986-88)	(1988-90)	(1990-92)	(1992-94)	(1994-96)			
Acres Enrolled in the Williamson Act												
				126,438	82,443	69,627	63,977	43,185	42,403			
Year	1945	1950	1954	1959	1964	1969	1974	1978	1982	1987	1992	1997

ENVIRONMENTAL INDICATORS - PLACER COUNTY

	1950	1954	1959	1964	1969	1974	1978	1982	1987	1992	1997
Groundwater Pollution											
Well Water Pollution, Average Nitrate (NO3)								1.7	2.3	3.2	3
								1989 to 1990	1992	1995	1997
Total Supplemental Water Use In Agriculture											
Use of State and Federal Subsidised Water by Agriculture											
Number of Farms Using Irrigation	1,115	1,123	972	860	681	608	737	936	788	783	703
Total Number of Irrigated Acres in the County	34,190	43,415	35,260	28,571	23,104	26,051	37,639	29,909	29,487	32,955	34,754
Synthetic Input Use and Dependence											
Pesticide Use, Total Pounds A.I. Applied*					60,628		54,300	166,081	290,547	297,009	355,701
Expenditures on Fuel, Fertilizer, Pesticides					1,486,000		2,669,000	3,146,000	2,682,000	3,831,000	5,167,000
Total Specified Farm Expenditures					17,136,000		18,598,000	22,806,000	32,289,000	34,390,000	32,123,000
Cost of Inputs as Percent Total Farm Costs**					8.67%		14.35%	13.79%	8.31%	11.14%	16.09%
Measure/Year	1950	1954	1959	1964	1969	1974	1978	1982	1987	1992	1997

* Excludes sulfur, inert ingredients, and organically acceptable materials.

** Calculated using total specified farm expenditures and reported expenditures on fertilizer, fuel, and pesticides, as reported in the Census of Agriculture.

FOOD DISTRIBUTION NETWORK INDICATORS - PLACER COUNTY

Year	1972	1977	1982	1987	1992	1997
Number of Farm Product Raw Material Wholesalers	0	0	0	3	3	1
Number of Food Manufacturers	0	0	0	0	0	not published
Number of Food Wholesalers	not published	not published	not published	19	16	16
Number of Food Retailers	110	131	125	132	115	101
Number of Food Servers	171	181	228	311	387	454
Number of Farmer's Markets						10
Number of CSA's						(1999)
Number of Roadside Stands						

ECONOMIC PRODUCTIVITY INDICATORS - PLACER COUNTY

Year/Measure	1950	1954	1959	1964	1969	1974	1978	1982	1987	1992	1997
--------------	------	------	------	------	------	------	------	------	------	------	------

Top Ten Agricultural Products by Gross Sales

Year/Measure	1950	1954	1959	1964	1969	1974	1978	1982	1987	1992	1997
1	2.56	2.61	2.81	2.90	2.51	1.46	1.29	1.13	1.18	1.09	1.00
2	\$1,741,961,237	\$1,064,144,425	\$2,822,109,315	\$3,499,383,112	\$3,903,560,191	\$7,599,623,000	\$9,274,495,000	\$12,491,442,000	\$13,992,234,000	\$17,051,912,000	\$23,032,259,000
3	\$4,466,567,274	\$2,778,444,974	\$7,927,273,357	\$10,143,139,455	\$9,783,358,875	\$10,786,622,449	\$11,936,287,001	\$14,098,693,002	\$16,539,283,688	\$18,575,067,538	\$23,032,259,000
4	\$7,827,187	\$12,426,539	\$12,955,681	\$12,525,758	\$15,013,208	\$18,034,000	\$27,937,000	\$33,106,000	\$35,233,000	\$35,728,000	\$36,985,000
5	\$20,069,710	\$32,445,272	\$36,392,362	\$36,306,545	\$37,627,088	\$26,288,630	\$35,954,955	\$37,365,688	\$41,646,572	\$38,919,390	\$36,985,000
6	0.45%	1.17%	0.46%	0.36%	0.38%	0.24%	0.30%	0.27%	0.25%	0.21%	0.16%
7											
8											
9											
10											

Gross Agricultural Productivity

Year/Measure	1950	1954	1959	1964	1969	1974	1978	1982	1987	1992	1997
State Gross Agricultural Production	\$1,741,961,237	\$1,064,144,425	\$2,822,109,315	\$3,499,383,112	\$3,903,560,191	\$7,599,623,000	\$9,274,495,000	\$12,491,442,000	\$13,992,234,000	\$17,051,912,000	\$23,032,259,000
adjusted for inflation	\$4,466,567,274	\$2,778,444,974	\$7,927,273,357	\$10,143,139,455	\$9,783,358,875	\$10,786,622,449	\$11,936,287,001	\$14,098,693,002	\$16,539,283,688	\$18,575,067,538	\$23,032,259,000
Gross Agricultural Production, Placer County	\$7,827,187	\$12,426,539	\$12,955,681	\$12,525,758	\$15,013,208	\$18,034,000	\$27,937,000	\$33,106,000	\$35,233,000	\$35,728,000	\$36,985,000
adjusted for inflation	\$20,069,710	\$32,445,272	\$36,392,362	\$36,306,545	\$37,627,088	\$26,288,630	\$35,954,955	\$37,365,688	\$41,646,572	\$38,919,390	\$36,985,000
County Gross Production as Percent of State Total	0.45%	1.17%	0.46%	0.36%	0.38%	0.24%	0.30%	0.27%	0.25%	0.21%	0.16%

Direct Marketing

Gross Receipts from Direct Marketing, all Types, all Farms	\$223,000	\$223,000	\$223,000	\$223,000	\$223,000	\$223,000	\$223,000	\$223,000	\$223,000	\$223,000	\$223,000
adjusted for inflation	\$287,001	\$287,001	\$287,001	\$287,001	\$287,001	\$287,001	\$287,001	\$287,001	\$287,001	\$287,001	\$287,001
Number of Farms Engaged in Direct Marketing, all Types	160	160	160	160	160	160	160	160	160	160	160
Estimated Dollar Value, Farmer's Market Sales											
Estimated Dollar Value, CSA Sales											
Estimated Dollar Value, Roadside Stand Sales											

Food Distribution System

Year	1972	1977	1982	1987	1992	1997
Food Manufacturers Net Value Added to Products	no data	no data	no data	no data	no data	no data
adjusted for inflation	no data	no data	no data	no data	no data	no data
Farm Product Wholesalers Gross Receipts	no data	no data	no data	no data	no data	no data
adjusted for inflation	no data	no data	no data	no data	no data	no data
Food Wholesalers Gross Receipts	\$46,087,000	\$95,584,000	\$176,410,000	\$241,080,000	\$373,350,000	\$446,966,000
Food Retailers Gross Receipts	\$132,054,441	\$175,383,486	\$237,110,215	\$296,167,076	\$407,142,857	\$446,966,000
Food Servers Gross Receipts	\$19,788,000	\$44,234,000	\$79,224,000	\$118,630,000	\$164,275,000	\$248,425,000
adjusted for inflation	\$76,183,800	\$117,220,100	\$131,511,840	\$167,268,300	\$187,273,500	\$248,425,000

None reported for county throughout series.

Food Manufacturers Net Value Added to Products	data suppressed	data suppressed	data suppressed	data suppressed	data suppressed	data suppressed
Farm Product Wholesalers Gross Receipts	data suppressed	data suppressed	data suppressed	data suppressed	data suppressed	data suppressed
Food Wholesalers Gross Receipts	\$50,131,000	\$50,131,000	\$50,131,000	\$50,131,000	\$50,131,000	\$50,131,000
Food Retailers Gross Receipts	\$54,668,484	\$54,668,484	\$54,668,484	\$54,668,484	\$54,668,484	\$54,668,484
Food Servers Gross Receipts	\$373,350,000	\$373,350,000	\$373,350,000	\$373,350,000	\$373,350,000	\$373,350,000
adjusted for inflation	\$407,142,857	\$407,142,857	\$407,142,857	\$407,142,857	\$407,142,857	\$407,142,857

Food Servers Gross Receipts	\$164,275,000	\$164,275,000	\$164,275,000	\$164,275,000	\$164,275,000	\$164,275,000
adjusted for inflation	\$187,273,500	\$187,273,500	\$187,273,500	\$187,273,500	\$187,273,500	\$187,273,500

Estimated Dollar Value, Farmer's Market Sales						
Estimated Dollar Value, CSA Sales						
Estimated Dollar Value, Roadside Stand Sales						

Number of Farms Engaged in Direct Marketing, all Types	160	160	160	160	160	160
adjusted for inflation	not published	not published	not published	not published	not published	not published
Estimated Dollar Value, Farmer's Market Sales						
Estimated Dollar Value, CSA Sales						
Estimated Dollar Value, Roadside Stand Sales						

Estimated Dollar Value, Farmer's Market Sales						
Estimated Dollar Value, CSA Sales						
Estimated Dollar Value, Roadside Stand Sales						

Number of Farms Engaged in Direct Marketing, all Types	160	160	160	160	160	160
adjusted for inflation	not published	not published	not published	not published	not published	not published
Estimated Dollar Value, Farmer's Market Sales						
Estimated Dollar Value, CSA Sales						
Estimated Dollar Value, Roadside Stand Sales						

FOOD CONSUMPTION INDICATORS - PLACER COUNTY

	1972	1977	1982	1987	1992	1997
Total Food Expenditures						
<i>inflation adjustment</i>	3.85	2.65	1.66	1.41	1.14	1.00
Total Food Expenditures, County (a)	\$243,132,692	\$392,685,725	\$549,161,454	\$700,218,475	\$964,798,913	\$1,142,357,000
<i>adjusted for inflation</i>	\$935,125,740	\$1,038,851,124	\$913,746,180	\$989,009,145	\$1,103,888,917	\$1,142,357,000
Total Food Expenditures in County Derived from National Average (b)	\$45,856,897	\$86,027,507	\$165,026,723	\$240,426,159	\$376,223,571	\$518,452,394
<i>adjusted for inflation</i>	\$176,372,680	\$227,585,997	\$274,866,894	\$339,564,970	\$430,461,751	\$518,452,394
Total County Earnings	\$219,261,000	\$427,645,000	\$757,418,000	\$1,408,789,000	\$2,395,586,000	\$3,448,788,000
<i>adjusted for inflation</i>	\$843,311,538	\$1,131,335,979	\$1,260,262,895	\$1,989,814,972	\$2,740,945,080	\$3,448,788,000
Total Food Expenditures (a) in County as % Total County Earnings	110.89%	91.83%	72.50%	49.70%	40.27%	33.12%
Per Capita Food Expenditures						
County Population	83,119	99,562	126,216	147,363	186,815	220,580
County Per Capita Income	\$4,828	\$8,157	\$12,642	\$18,386	\$23,373	\$28,935
<i>adjusted for inflation</i>	\$18,569	\$21,579	\$21,035	\$25,969	\$26,743	\$28,935
Per Capita Food Expenditures, National Average (c)	\$552	\$864	\$1,307	\$1,632	\$2,014	\$2,350
<i>adjusted for inflation</i>	\$2,123	\$2,286	\$2,175	\$2,305	\$2,304	\$2,350
Per Capita Food Expenditures, County (d)	\$2,925	\$3,944	\$4,351	\$4,752	\$5,164	\$5,179
<i>adjusted for inflation</i>	\$11,250	\$10,434	\$7,240	\$6,711	\$5,909	\$5,179
Per Capita Food Expenditures, County Deviation from National Average (e)	\$2,373	\$3,080	\$3,044	\$3,120	\$3,150	\$2,829
<i>adjusted for inflation</i>	\$9,127	\$8,148	\$5,065	\$4,406	\$3,605	\$2,829
County Per Capita Food Expenditures as % Per Capita Income (f)	49.15%	37.76%	24.08%	16.97%	13.48%	9.78%
National Average Derived County Per Capita Food Expenditures as % Per Capita Income (g)	11.43%	10.59%	10.34%	8.88%	8.62%	8.12%
Dollars Spent on Food, Home vs. Away						
Food Retailers' Gross Receipts (Home)	\$46,087,000	\$95,584,000	\$176,410,000	\$241,080,000	\$373,350,000	\$446,966,000
<i>adjusted for inflation</i>	\$177,257,692	\$252,867,725	\$293,527,454	\$340,508,475	\$427,173,913	\$446,966,000
Food Servers' Gross Receipts (Away)	\$19,788,000	\$44,234,000	\$79,224,000	\$118,630,000	\$164,275,000	\$248,425,000
<i>adjusted for inflation</i>	\$76,107,692	\$177,021,164	\$131,820,300	\$167,556,497	\$187,957,666	\$248,425,000
Money Spent on Food at Home in County, Derived from National Average (h)	\$33,422,471	\$59,581,846	\$108,092,776	\$151,444,760	\$235,579,245	\$321,499,792
<i>adjusted for inflation</i>	\$128,547,965	\$157,623,931	\$179,854,869	\$213,905,028	\$269,541,470	\$321,499,792
Money Spent on Food Away from Home in County, Derived from National Average (i)	\$12,394,826	\$26,445,660	\$56,933,947	\$95,854,193	\$140,644,326	\$196,952,601
<i>adjusted for inflation</i>	\$47,672,408	\$69,962,063	\$94,732,025	\$135,387,278	\$160,920,281	\$196,952,601
Ratio, Food Consumed Home vs. Away, County (j)	2.33	2.16	2.23	2.03	2.27	1.80
National Averages, Ratio Food Consumption, Home vs. Away (k)	2.70	2.25	1.90	1.70	1.68	1.63

(a) = Sum of food retailer and food server gross receipts reported in the Economic Census.
 (b) = County population divided by US population times total US food expenditures reported in Food Consumption, Prices, and Expenditures.
 (c) = Total US food expenditures reported in Food Consumption, Prices, and Expenditures divided by US population.
 (d) = (a) adjusted for inflation divided by county population.
 (e) = Difference, preceding two variables.
 (f) = (d) divided by county per capita income as adjusted for inflation.
 (g) = (c) divided by county per capita income as adjusted for inflation.
 (h) = Total US food expenditures for home reported in Food Consumption, Prices, and Expenditures divided by US population times county population.
 (i) = Total US food expenditures away from home reported in Food Consumption, Prices, and Expenditures divided by US population times county population.
 (j) = Ratio, food retailers gross receipts divided by food servers gross receipts for county.
 (k) = Ratio, total US food expenditures for home divided by expenditures away, data reported in Food Consumption, Prices, and Expenditures.

COMMUNITY FOOD SECURITY AND ACCESS INDICATORS - PLACER COUNTY

	Year	1970	1974	1978	1982	1988	1992	1997
Government Food Program Participation								
<i>County Population</i>								
		77,632	87,200	104,000	125,000	154,000	184,100	212,400
Number of People Receiving Food Stamps		6,338	6,660	4,693	8,024	6,137	9,648	9,173
Percent of County Population Receiving Food Stamps		8.2%	7.6%	4.5%	6.4%	4.0%	5.2%	4.3%
<i>County Population</i>								
			170,100	184,100	194,100	206,000	219,400	254,400
Number of People in WIC Programs			1,401	1,475	2,137	2,503	2,544	2,544
Percent of County Population in WIC Programs			9.9%	9.6%	1.1%	1.2%	1.2%	1.2%
Number FMNP's							Not Available	Not Available
Number of People Reached by FMNP's							Not Available	247
Number of Children Enrolled in Free Meal Programs			3,865	4,632	6,918	7,909	8,454	9,209
Community Kitchens								
Number of Community Kitchens								at least 1
Food Banks								
Number of Food Banks								7
Number of People Served by Food Banks		no data						
Pounds of Food Served at Food Banks		no data						
Gleaning Programs								
Number of Gleaning Programs		no data						
Pounds of Food Gleaned		no data						
Number of Gleaning Program Participants		no data						
Community Gardens								
Number of Community Gardens								2
Number of Community Gardeners								47
Year		1969	1974	1977	1982	1987	1992	1997

EDUCATION AND ADVOCACY INDICATORS - PLACER COUNTY

	Year	1969(70)	1974	1977/78	1982	1987	1992	1997
<u>K-12 Schools with Agriculture/Food Education</u>								
Number of Schools in the County with Educational Gardens								37
Number of Schools in the County with Agricultural Vocational Education								5
Number of Schools in the County with "Agriculture in the Classroom"								
<u>Higher Education Institutions with Sustainable Agriculture Education</u>								
Number of Universities, Colleges, and Community Colleges in County with Sustainable Agriculture Courses								1
<u>Sustainable Agriculture and Consumer Advocacy</u>								
Number of Sustainable Agriculture Organizations Active in the County		<i>no data</i>						
Number of Consumer Advocacy Organizations Active in the County		<i>no data</i>						
Number of County-Resident Members in Sustainable Agriculture Organizations		<i>no data</i>						
Number of County-Resident Members in Consumer Advocacy Organizations		<i>no data</i>						
<u>Agricultural Tourism</u>								
Number of Agricultural Tourism Programs in the County								6
<u>Community Food Security</u>								
Number of Community Food Security Projects in the County*								7
Number of Hunger Advocacy Organizations Active in the County		<i>no data</i>						

Resources

Elizabeth DePalma, Executive Director of Tourism, Placer County Visitors Council

Sean Feder, Inspector Operations Director, CCOF

Graham Fogg, Professor, Hydrology Program, University of California at Davis

Fritts, H.C. and G.A. Gordon. 1980. Annual precipitation for California since 1600 reconstructed from western North American tree rings. Laboratory of Tree-Ring Research, University of Arizona.

Roger Ingram, Farm Advisor, UCCE Placer County

Sharon Jung, County Director, UCCE Placer County

Bobbi Park, Economic Development Specialist, Placer County Economic Development

Ellen Rilla, County Director, UCCE Marin County

John Williams, Farm Advisor, UCCE Placer County

SAREP phone survey of Placer County Schools, 1997

Agri-tourism database, Small Farm Center, University of California at Davis, July 2001,
<http://calagtour.org/AgTour.ASP>