



ACCG Socioeconomic Monitoring Report

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Executive Summary

The Amador-Calaveras Consensus Group (ACCG) was founded in 2008, bringing together diverse stakeholders to form a community-based partnership with the Forest Service, emphasizing working toward “fire-safe communities, healthy forests and watersheds, and sustainable local economies,” as stated in their mission statement. In 2012, the group applied and was selected as a recipient of the Collaborative Forest Landscape Restoration Program (CFLRP), a congressional funding program that supports collaborative forest restoration for both ecological and socioeconomic benefit. The purpose of this report is to evaluate the socioeconomic impacts of the ACCG’s Collaborative Forest Landscape Restoration Project, the Cornerstone Project, on the Eldorado and Stanislaus National Forests and surrounding communities in the central Sierra Nevada.

The Sierra Institute worked with the ACCG Socioeconomic Monitoring Committee to implement a four-pronged approach to monitoring. Data collected include: demographic data intended to situate the work of the collaborative within the communities; a workshop to assess community capacity, or the ability of a community to meet its needs and adapt to changing circumstances; interviews with community members to understand the nuances of how the communities are affected by forest management and the Cornerstone Project; and a survey of contractors active in the Cornerstone Project area. The diversity of data types and sources allows researchers to triangulate findings and draw connections to better understand a variety of interrelated factors.

The Cornerstone Project has had some clear effects, particularly related to building capacity. Bringing people with opposing viewpoints together and reaching agreements in itself is a success. The group has been successful in bringing in additional funding, which leads to more work being done and at least some of that money going back into the community. The group has also promoted the development of a local forest-related workforce, especially through the contributions of a few high-capacity organizations, notably Calaveras Healthy Impact Product Solutions (CHIPS), which employs over 40 people from marginalized populations in local forest restoration activities.

It is impossible to separate the effects of the Cornerstone Project from the effects of other regional, state, and national events and trends. In 2015, the Butte Fire burned 72,000 acres and over 800 buildings in Calaveras County, causing economic hardship and population changes in the affected communities, as well as affecting residents’ mental health. In the years following the Butte Fire, cannabis cultivation was legalized and cheap land in the wake of the fire attracted people to participate in the industry. While this had both positive and negative effects on the communities, the bubble of economic activity created by the influx of people burst when the county banned cannabis cultivation in 2018. The effects of these regional events can obscure socioeconomic outcomes of the Cornerstone Project despite not being directly tied to the work of the collaborative. The Great Recession also obscures the effects of the Cornerstone Project. The Recession caused an increase in unemployment right around the time that ACCG was forming, underscoring the importance of caution when inferring causation.

To continue and expand local socioeconomic benefit in the future, the group should continue to build the capacity of partners, address barriers that local contractors face, and further explore Forest Service contracting and partnership mechanisms. The group has done work in these areas and there is opportunity for continued innovation.

Introduction

In many natural resource management arenas, collaborative groups have been established as an approach to involve diverse stakeholder groups in promoting healthy ecosystems and community well-being. Despite this holistic vision, many collaborative natural resource management attempts in the U.S. are guided by policies and institutions that remain focused on rigid ecological outcomes. As a result, it is unclear the extent to which collaborative approaches are leading to improved outcomes benefitting ecosystems and communities. The Collaborative Forest Landscape Restoration (CFLR) program is a unique policy setting that emphasizes both ecosystem and community outcomes through legislation that requires projects to “benefit local rural economies” and encourages economic and social sustainability alongside ecological goals. Consequently, the CFLR program presents a rare opportunity to assess the influence of collaboration on restoration and community outcomes at a landscape scale.

This report is intended to evaluate the socioeconomic impacts of the Cornerstone CFLR Project on the Eldorado and Stanislaus National Forests in the central Sierra. Research was guided by a focus on: how forest restoration work can advance sustainable local economic activity, especially how the project has affected employment and market expansion; cultural engagement with forest-related work and recreational activities; and changes in community capacity over time. The Cornerstone Project is one chapter in the story of communities historically depending on forest products in Amador and Calaveras Counties. To pinpoint direct outcomes of the Cornerstone Project and how they have radiated through the communities, researchers conducted interviews focused on forest restoration and the CFLR, as well as a survey of contractors. However, because the CFLR exists within a complex socioeconomic system, causation is difficult to establish in most circumstances. To that end, demographic data and community capacity assessments are used to provide a snapshot of socioeconomic conditions in the communities studied to understand the context in which the CFLR operates, and to capture trends such that effects of the Cornerstone Project itself can be disentangled from and aligned with effects of the Butte Fire, cannabis cultivation, recovery from the Recession, and other powerful general socioeconomic and historic trends that have affected the area.

The Collaborative Forest Landscape Restoration (CFLR) Program was established by Congress with *Title IV of the Omnibus Public Land Management Act of 2009*, and is designed to “encourage the collaborative, science-based ecosystem restoration of priority forest landscapes” (Consolidated Appropriations Act of 2012). This initiative promotes an all-lands approach to forest restoration, requiring that the US Forest Service (USFS) collaborate with diverse stakeholders to restore forest ecosystems across ownership boundaries. In addition to restoration of resilient forests, the enabling legislation requires projects funded under the CFLR Program to:

...(7) benefit local economies by providing local employment or training opportunities through contracts, grants, or agreements for restoration planning, design, implementation or monitoring with (a) local private, nonprofit, or cooperative entities; (b) Youth Conservation Corps crews or related partnerships, with State, local, and non-profit youth groups; (c) existing or proposed small or micro-businesses, clusters, or incubators; or (d) other entities that will hire or train local people to complete such contracts, grants, or agreements.... (Section 4003, page 4).

The CFLR Program requires monitoring of restoration projects’ influence on ecological, social, and local economic and community conditions. All projects are required to use a “multiparty monitoring, evaluation, and accountability process to assess the positive or negative ecological, social, and economic effects of projects implementing a selected proposal” (Section 4003, page 8). Despite this multiple benefit mandate, it is unclear how well collaboratives are addressing socioeconomic well-being – largely because monitoring of these outcomes is limited (Swezy, Reeves-Jolley, and Kusel 2016). Additionally,

socioeconomic objectives are frequently not clearly defined, further hampering the ability of these collaboratives to address issues of community well-being (Urgenson et al. 2017). Careful monitoring and assessment of the collaborative capacity and community outcomes from the CFLR program are especially critical given the programmatic emphasis on these outcomes.

The Amador-Calaveras Consensus Group (ACCG), founded in 2008, brought together a diverse group of stakeholders to form a community-based partnership, including a number of organizations with an emphasis on local economic benefit, as exemplified by the prominent role of Calaveras Healthy Impact Product Solutions (CHIPS) within the group. The ACCG along with the two national forests proposed the Cornerstone Project, which was selected as a Collaborative Forest Landscape Restoration Project in 2012. The Cornerstone Project focuses on a 390,000 acre landscape nested within the ACCG's all-lands planning area of nearly 850,000 acres in Amador, Alpine, El Dorado, and Calaveras Counties. Central to the group's goals is building social and economic capacity to restore and maintain the surrounding forest landscapes. In 2018, the ACCG established a cost-share agreement with the Sierra Institute for Community and Environment (Sierra Institute) to assess the status and trends of the socioeconomic conditions in the Cornerstone Project area and determine how these conditions are affected by project activities.

The body of this report consists of several primary components. First, a discussion of methodology for identifying, prioritizing, and obtaining data is provided such that future monitoring can utilize consistent measures to the extent practicable. Second, findings are reported from quantitative and qualitative assessment methods and outcomes from the Cornerstone Project are discussed in the context of major themes from the findings. Finally, the report concludes with impacts from the Cornerstone Project thus far and recommendations for continued productive work in the future.

Methods

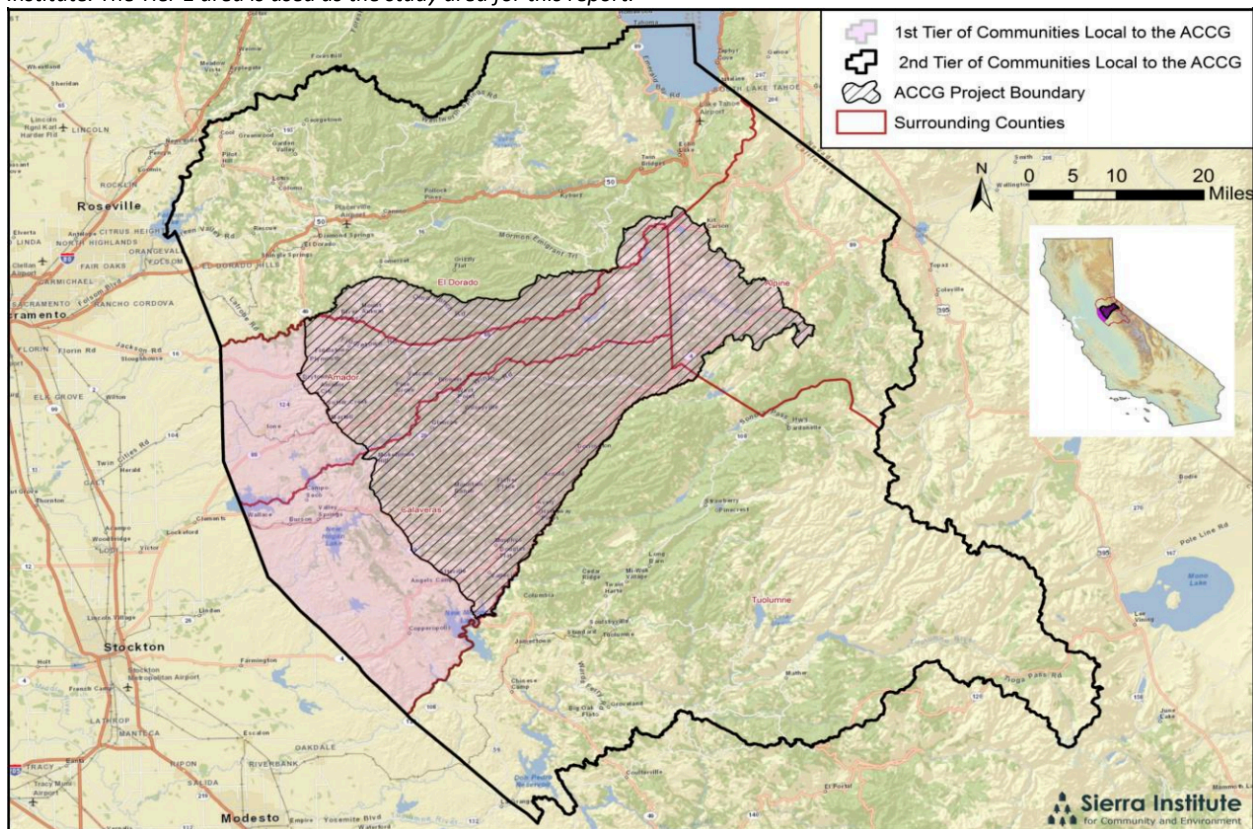
Socioeconomic conditions reflect the social and economic state of local communities and residents. Socioeconomic conditions are characterized by a set of indicators, particular aspects of a community that can be quantified, analyzed, and described using one or more specific measures. Appropriate conditions, indicators, and measures for the ACCG area were identified through a workshop with the ACCG Socioeconomic Monitoring Work Group to capture unique dimensions of the group's work. To address these, the Sierra Institute employed a mixed methods approach drawing on available quantitative data, such as US Census Bureau data and Free and Reduced Price Meal program participation rates, as well as qualitative data from key informant interviews to develop a rich, contextualized snapshot of socioeconomic conditions and trends in the Cornerstone Project area.

The Sierra Institute worked with the Socioeconomic Monitoring Work Group made up of ACCG members to guide and inform the monitoring work. This participatory approach ensures monitoring is grounded in important issues identified by the group, incorporates local knowledge, and considers unique local factors influencing socioeconomic well-being. The Sierra Institute directly engaged this group during initial design of the socioeconomic monitoring approach to: refine the matrix of objectives, questions, and indicators; identify key informants for interviews; and provide periodic updates and course corrections to ensure data collection was relevant, comprehensive, and responsive to local conditions.

Study Area

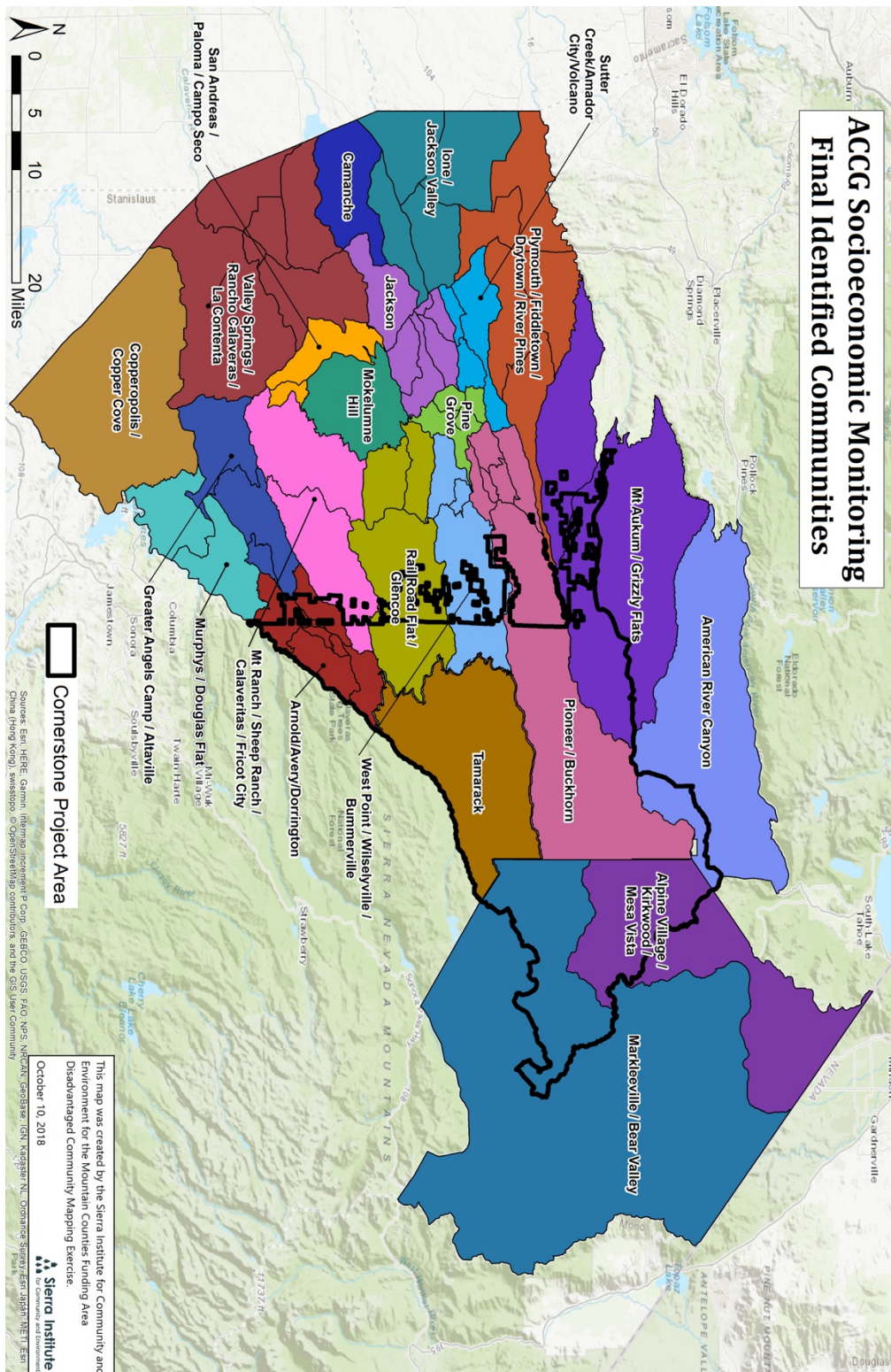
The CFLR Program requires that projects benefit the local area. However, without a clear definition of “local,” collaboratives have defined the geographic area of impact differently. Many have adopted a county, or, frequently, multi-county area, while others committed to identifying impacts at the level of specific communities (Swezy, Reeves-Jolley, and Kusel 2016). The study area for this socioeconomic assessment was determined by previous work done by the ACCG, including a workshop led by the Sierra Institute, to define the area “local” to the Cornerstone Project. The boundary was based on a variety of factors including where contractors doing work on Forest Service land come from, and is divided into “1st tier local” and “2nd tier local” areas (Reeves-Jolley, Kusel, and Hann, 2016). The 1st tier local area, which largely aligns with Amador and Calaveras County boundaries, is used as the study area for this report, and both tiers are used in analyzing contracting information (Map 1).

Map 1: Tier 1 and Tier 2 areas defined in “USFS Collaboratives and Local Benefit: What’s Local Anyways?” 2016 report by Sierra Institute. The Tier 1 area is used as the study area for this report.



Within the study area, data is analyzed at the community level to capture nuanced trends and patterns that would not be visible at the county level. Communities were defined using a peer-reviewed process, first implemented during the Sierra Nevada Ecosystem Project, and more recently as part of the Sierra Institute’s Disadvantaged Communities and Tribal Involvement Program (DACTIP). In this methodology, local experts conduct a mapping exercise in which they aggregate block groups based on geographical and social characteristics such as shared services. Block groups are the smallest unit for which data is collected for the US Census and American Community Survey. This preliminary map is reviewed, discussed, and finalized by a group of community members during a community workshop. Communities may consist of a single block group, or multiple block groups depending on the factors that shape social and economic life in those areas. Through this participatory process, geographic areas are defined as communities when they function as a community, not merely based on geographic proximity

(Map 2). Note that due to small populations and lack of social and economic connection with the Cornerstone Project area according to workshop participants, Mt. Aukum/Grizzly Flats, American River Canyon, Alpine Village/Kirkwood/Mesa Vista, and Markleeville/Bear Valley are not included in analysis in this report.



Data Collection and Analysis

This report uses quantitative and qualitative data from a variety of sources to triangulate findings and understand local nuances. Quantitative data utilized comes from public data sources, as well as from a survey administered to contractors active in the Cornerstone Project area. Qualitative data was collected through key informant interviews, a community capacity workshop, and portions of the contractor survey.

Quantitative data was obtained from a variety of sources, including the US Decennial Census, the American Community Survey, and several state agencies. It was then organized by community, and analyzed in Microsoft Excel. Quantitative data measures were prioritized through a two-step process. First, the ACCG Socioeconomic Monitoring Work Group worked with Sierra Institute's research team to build and refine a list of priority quantitative measures of socioeconomic well-being. Researchers later pared down the list due to time and budget constraints, balancing those measures identified as high priority with data availability, quality, and relevance.

A survey of contractors working on forest restoration-related activities for the US Forest Service in the Cornerstone Project area was conducted. Researchers developed survey questions based on a review of the literature and conversations with both the ACCG and other collaboratives in California. The survey consisted of 32 questions regarding characteristics of the business, focusing on several issues: recent business experiences; small-diameter wood production, utilization, and profitability; knowledge and utilization of Forest Service contracting mechanisms; and the impact of wildfire on the company (Appendix A). For consistency, a single researcher administered the survey to a list of contractors active in the last three years. This list was developed through review of records provided by the Eldorado and Stanislaus National Forests. A total of 29 contractors for which contact information was available were contacted by phone, or by email if a phone number was not available. Three attempts were made to contact each contractor. Contractors were encouraged to complete the survey over the phone, but were given the option to complete it online, giving them a chance to review the survey first and determine if they were comfortable answering the questions. Fifteen contractors responded to the survey, one online and the rest over the phone, generating a response rate of 52%. The responses were exported to Excel and analyzed. Some questions were numerical and can be considered quantitative data, such as number of employees. Other questions asked about characteristics of the contractor's work and their perceptions about contracting practices and fire. Many questions also had an "other" option which allowed for open-ended responses. These types of data are qualitative.

A team of four Sierra Institute researchers conducted a community capacity workshop to delineate communities in the Cornerstone Project area, in conjunction with the Sierra Institute's Disadvantaged Communities and Tribal Involvement Program (DACTIP). The workshop was held in August 2018 as a joint effort between this socioeconomic monitoring project and the DACTIP project with results informing both efforts. Twenty-two community members participated in the workshop, each bringing deep knowledge of at least one of the identified communities. The purpose of the community capacity workshop was to assess qualitative measures of communities' socioeconomic well-being that quantitative measures may not capture. As Kusel (2001) states, "Assessing community capacity makes it easier to understand the potential for increased opportunities for productive and rewarding involvement in a community...high community capacity itself suggests higher levels of well-being for residents...[and] that expanding opportunities to meet community needs (and local well-being) is not only possible but likely." Capacity is made up of five types of capital:

Financial Capital: Availability of dollars for local uses and projects and to meet pressing local needs. These may be public dollars or private dollars, but if private they are tightly linked to community purpose and not just self-interested purposes.

Human Capital: Individuals with knowledge/ability to address conditions and stressors of concern; it is also the experience and capabilities of local residents their willingness to use these locally.

Social Capital: The ability and willingness of local residents to work together towards community ends and purposes.

Cultural Capital: The prevalence and strength of shared local bonds and ways of living, and the uniqueness of and identification with this.

Physical Capital: The “hard infrastructure” of a community, such as roads, sewers, schools, etc., including the quality of this infrastructure and its ability to meet local need (DACTIP MAC Narratives).

After reviewing these definitions, participants were given a worksheet to rate and describe the five capitals in up to four communities with which they were most familiar (Appendix B). These ratings were discussed and relativized with the full group. A final overall capacity score ranging from one to five was identified and a narrative describing the score and key characteristics for each community was developed.

In addition to the community capacity workshop, qualitative data was collected through interviews with key informants in the area. Researchers asked the ACCG Socioeconomic Monitoring Work Group to identify knowledgeable leaders in the community to interview. Members were provided with a list of categories of stakeholder types developed by the researchers to frame their recommendations and ensure that a range of perspectives would be represented. Categories included local contractors and forest-related business owners, other local business owners, Forest Service personnel, and community health and social service providers. Work Group members were also encouraged to provide the names of informants they thought would provide important insight even if they did not fit these categories. Researchers then worked with Work Group members to prioritize the list of potential interviewees within the categories. Additional informants were identified through snowball sampling -- as interviews were conducted, interviewees were asked to recommend additional people to interview. Potential interviewees were added to the list or reprioritized based on these recommendations. Interviewees in the category “Community Members Affected by the Butte Fire” were recommended via snowball sampling and therefore were not prioritized by the ACCG Work Group. Due to the severe effects of the Butte Fire these interviewees were distinct from “other community members” and warranted the inclusion of an additional stakeholder category.

Interviews were conducted either in person or over the phone using an interview guide (Appendix C) developed by researchers based on previous Sierra Institute socioeconomic monitoring efforts and updated based on a review of relevant literature and conditions unique to the ACCG area. Questions were open-ended and gave interviewers the flexibility to focus interviews based on the interviewee’s areas of knowledge. Most interviews lasted approximately one hour, but ranged from 30 minutes to over two hours. Thirty-three interviews were conducted over the course of three visits to the Amador-Calaveras area in November 2018, February 2019, and April/May 2019, and seven were conducted over the phone, for a total of forty interviews. The breakdown of the number of interviews done for each stakeholder category can be found in Table 1.

Table 1: Number of people interviewed in each stakeholder category

Interviewee Category	Local Contractors/Forest-Related Business Owners	Forest Service Personnel	Local Business Owners	Community Health and Social Service Providers	County Leaders	Community Members Affected by Butte Fire (not prioritized by ACCG Work Group)	ACCG and other community members
Number of Interviews	3	4	5	6	5	6	11

Interviews were recorded, then transcribed using Otter, an AI transcription service, and reviewed for errors by a researcher. Three members of the research team coded the interviews using a multiple-pass method. Researchers independently coded a test transcript, jointly reviewed and compared codes generated to develop a code book, then coded two additional interviews as pairs to ensure consistency across coders and to reduce individual bias. Coding was completed using QDA Miner Lite. After interviews were coded, the coded transcripts were reviewed for common themes, and individual codes were grouped then synthesized. The thematic organization that emerged was used to structure our discussion of interview findings presented herein.

Findings

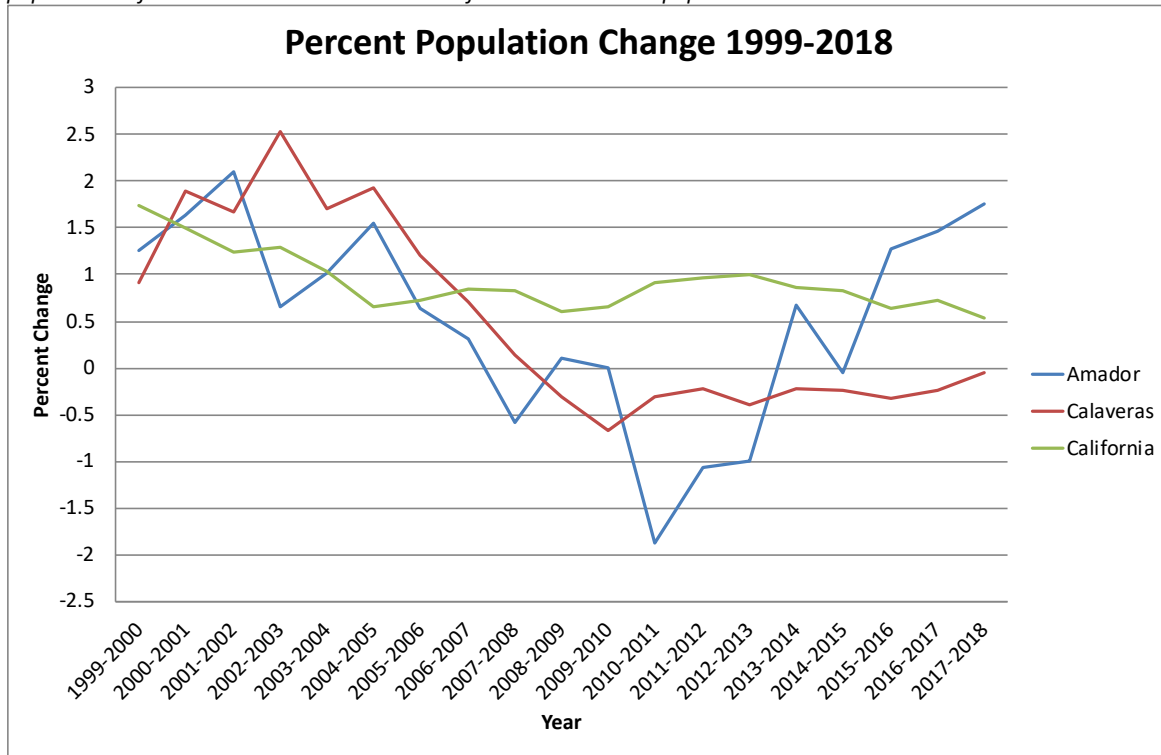
Demographic Data and Socioeconomic Context

Quantitative data were collected for several measures determined to be important to general socioeconomic well-being by the researchers and the ACCG Socioeconomic Monitoring Work Group, based on previous socio-economic monitoring work and knowledge of local trends. The following findings situate the Cornerstone Project within the study area and provide a framework with which to understand how the socioeconomic effects of the Cornerstone Project manifest. Small rural communities with high proportions of retirees, small workforces, and high levels of poverty present unique opportunities and challenges to pursuing forest-restoration based economic and cultural development.

Population

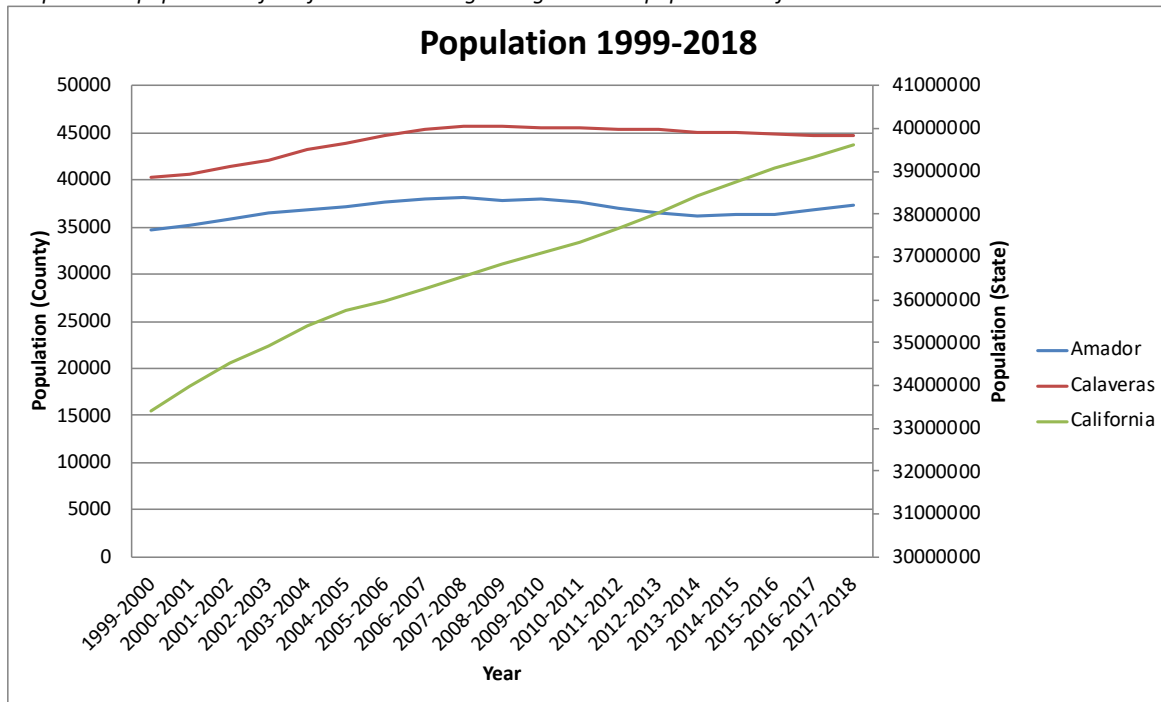
Graphs 1 and 2 show the numerical and percentage population change for Amador and Calaveras Counties compared to the state of California. Population change includes natural increase (birth rate - death rate) and migration (immigration - outmigration). The data show a steady upward trend in statewide population, while both Amador and Calaveras Counties' populations remain fairly flat from 1999 to 2018. While the state of California has gone steadily from a 1.75% growth rate to a 0.5% growth rate over 20 years, the two counties have had a larger range, from 2.5% growth in Calaveras County in 2002-2003 to nearly -2% in Amador County in 2010-2011. Both counties lost residents between 2006 and 2015, and Calaveras has maintained a slight negative growth rate since 2007 while Amador County has returned to positive population growth. This represents a difference between the two counties and may indicate the counties' respective capacity to recover from the Great Recession, setting the stage for Cornerstone's inception in 2012.

Graph 1: While the percent population change in the state of California maintained a steady population increase, the populations of Amador and Calaveras Counties fluctuated between population increase and decrease.



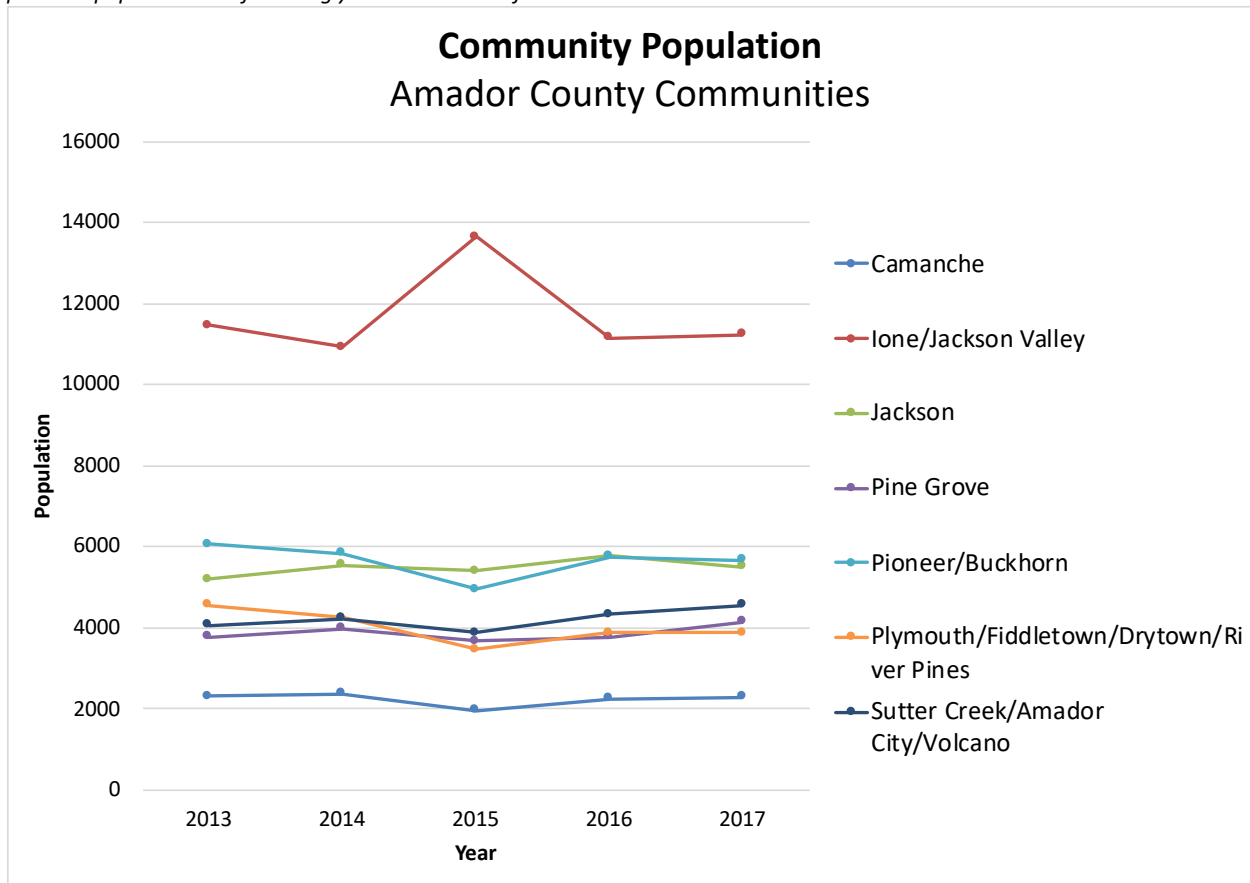
California Department of Finance: <http://www.dof.ca.gov/Forecasting/Demographics>

Graph 2: The population of California has been growing while the populations of Amador and Calaveras Counties have not.



California Department of Finance: <http://www.dof.ca.gov/Forecasting/Demographics/>

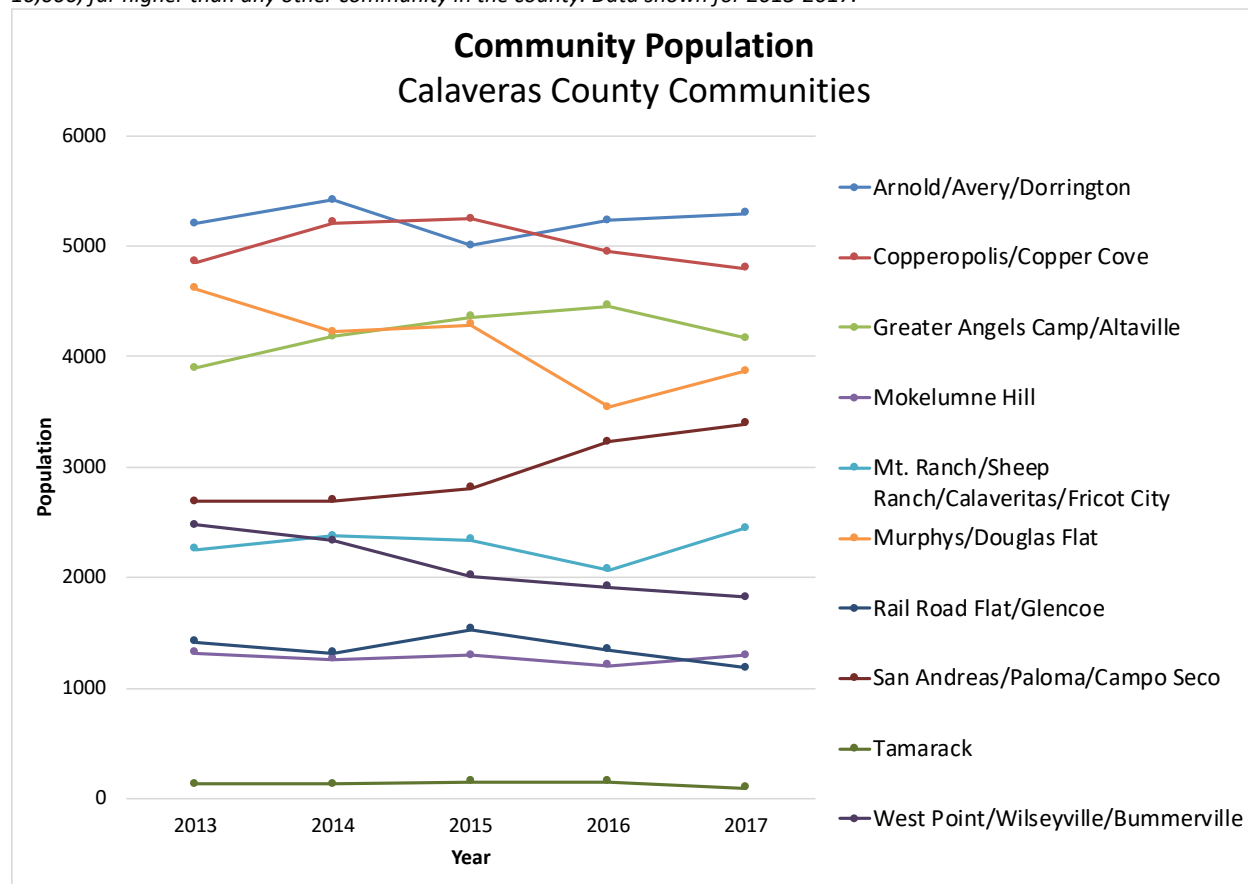
Graph 3: The population of every community in Amador County but one dropped in 2015 and recovered in 2016, while the population of Lone/Jackson Valley, by far the largest community, saw an increase in population in 2015 and returned to its previous population the following year. Data shown for 2013-2017.



US Decennial Census: <https://factfinder.census.gov>

Graph 3 shows the population of each community within Amador County, and Graph 4 shows the population of each community within Calaveras County. The population of the communities appears mostly flat from 2013 to 2017, which is consistent with the minimal change in population at the county level in those years. All communities but one in each county have populations of fewer than 6,000 people, highlighting the rurality of the area.

Graph 4: Populations of communities in Calaveras County are more variable, with both increases and decline in a given year. Note that Valley Springs/Rancho Calaveras/La Contenta is not included in this graph in order to display the rest of the communities in finer detail. The population of Valley Springs/Rancho Calaveras/La Contenta stays fairly steady at around 16,000, far higher than any other community in the county. Data shown for 2013-2017.



US Decennial Census: <https://factfinder.census.gov>

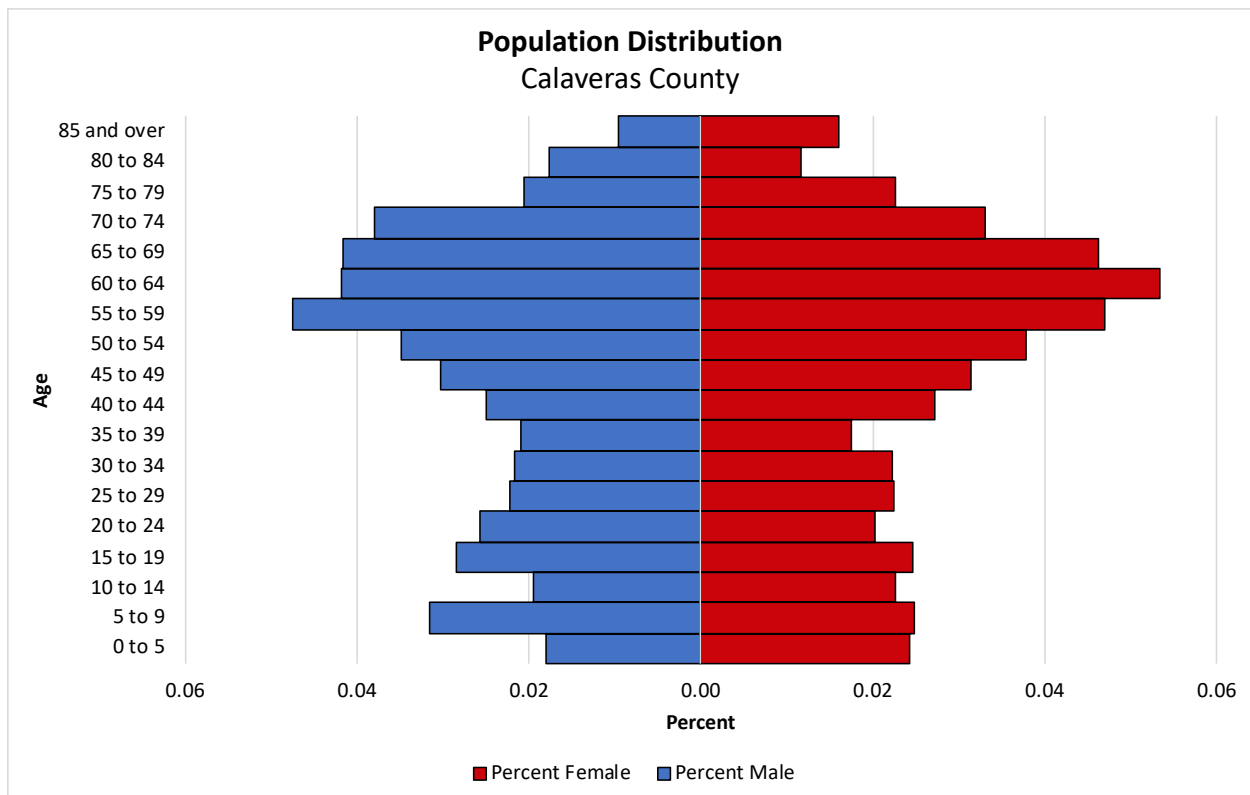
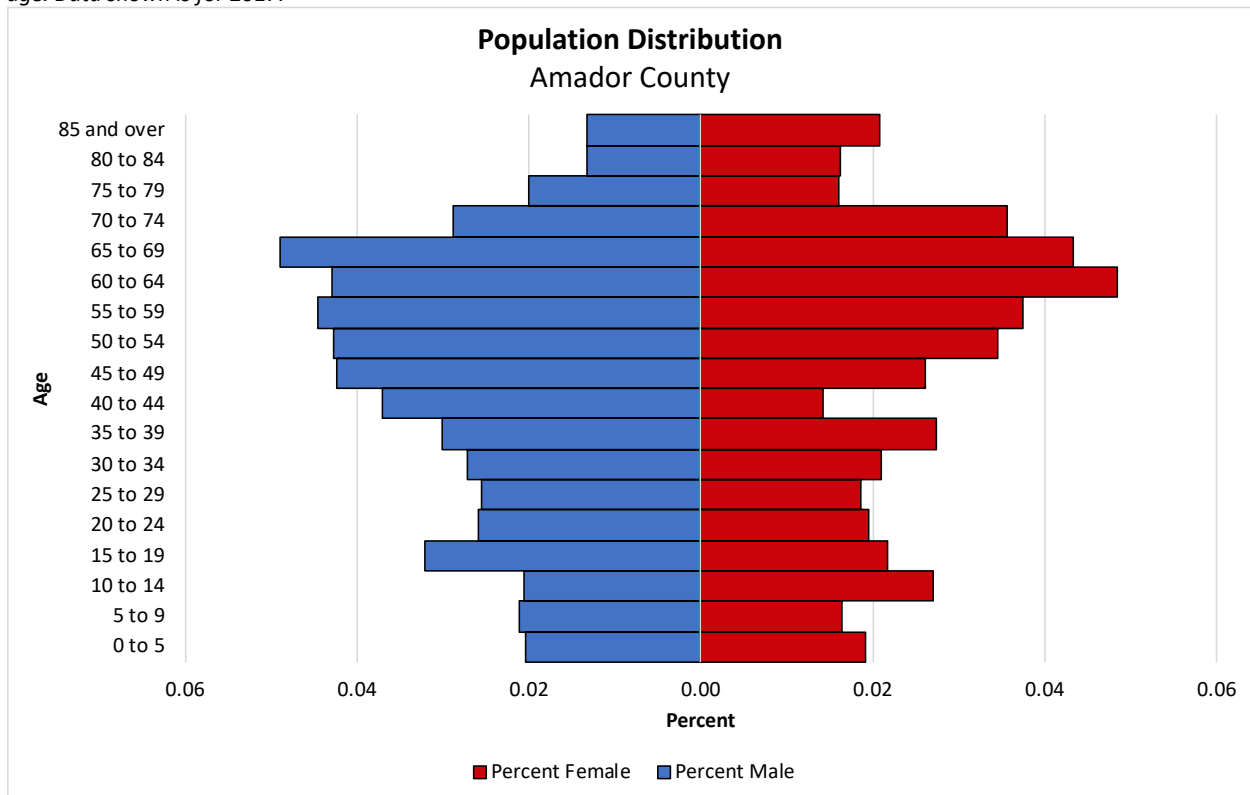
Demographics

Retirees

Population pyramids for both counties, shown in Graphs 5 and 6, show that more people who live in the area are in older age brackets rather than younger. By contrast, in the state of California the proportion of the population in each age bracket is close to equal, starting to taper off at ages 55-59. The communities in Amador and Calaveras Counties generally have similar proportions of households with retirement income ranging from about 15% to 47%, as shown in Graphs 7 and 8, with the exception of Tamarack, which is at about 75% in 2013 and 2014, then drops to levels similar to other communities. This change is amplified because the population of Tamarack is so small: just a few retirees leaving the community represents a large percentage of the population.

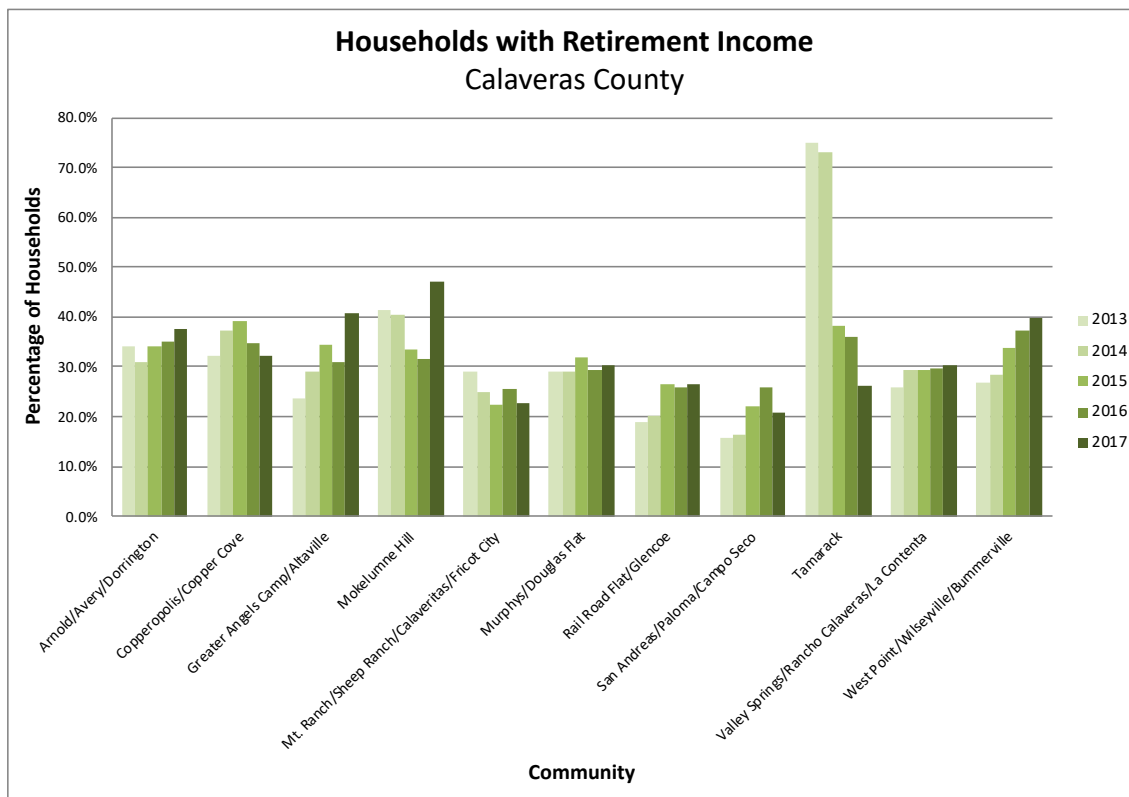
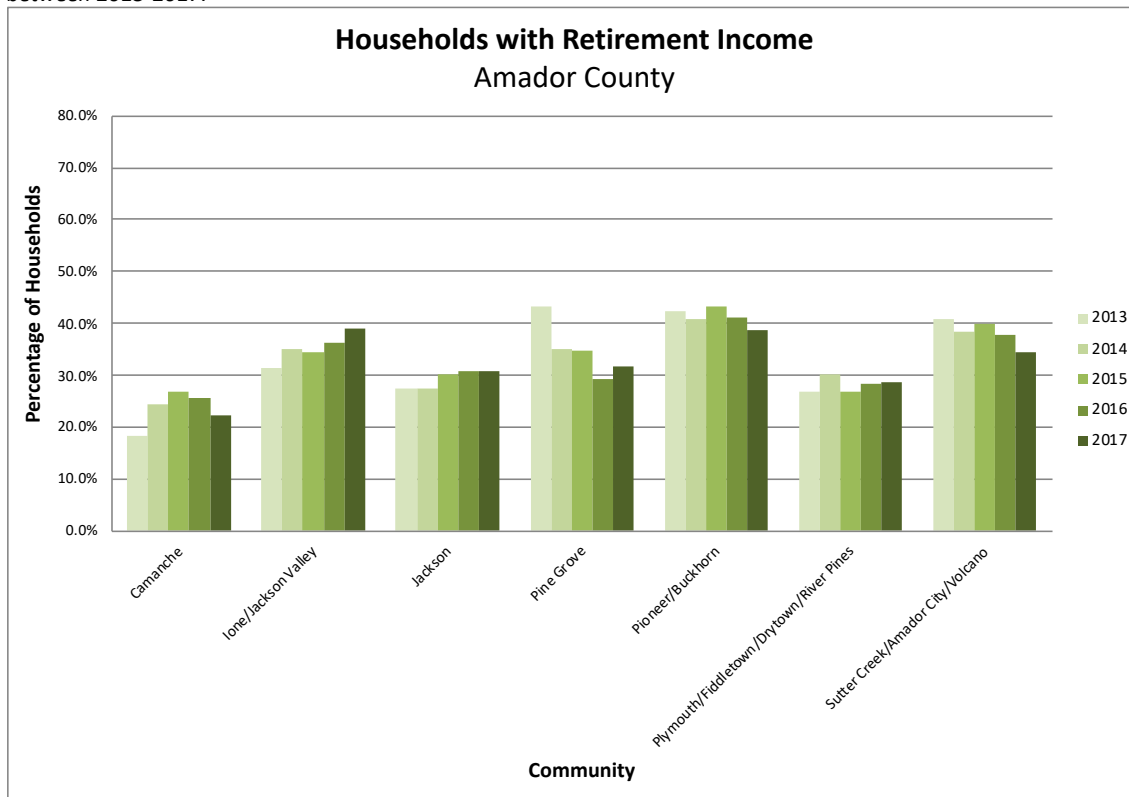
Retirees can face unique challenges related to forest management in rural communities, such as difficulty managing forested property to reduce fire risk, and needing assistance in the event of a fire. The high proportion of elderly people in the area local to the CFLR, in many ways, adds greater importance to the restoration work being done around these communities, and reduces the capacity of the community to contribute to a forest-related workforce, and to forest health on private property. Retirees may enhance the capacity of the community in other ways through volunteering.

Graph 5, Graph 6: Both counties have small numbers of young people and large populations of people at or nearing retirement age. Data shown is for 2017.



US Decennial Census: <https://factfinder.census.gov>

Graph 7, 8: The proportion of households that receive retirement income is between 15% and 47% in most communities between 2013-2017.

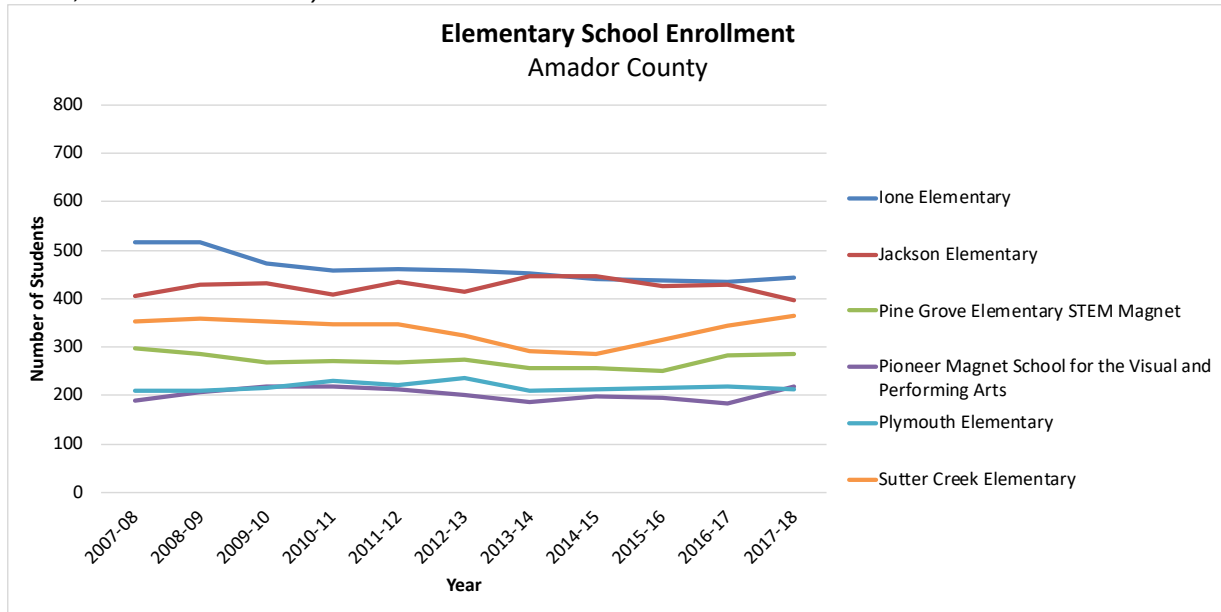


US Decennial Census: <https://factfinder.census.gov>

Schools

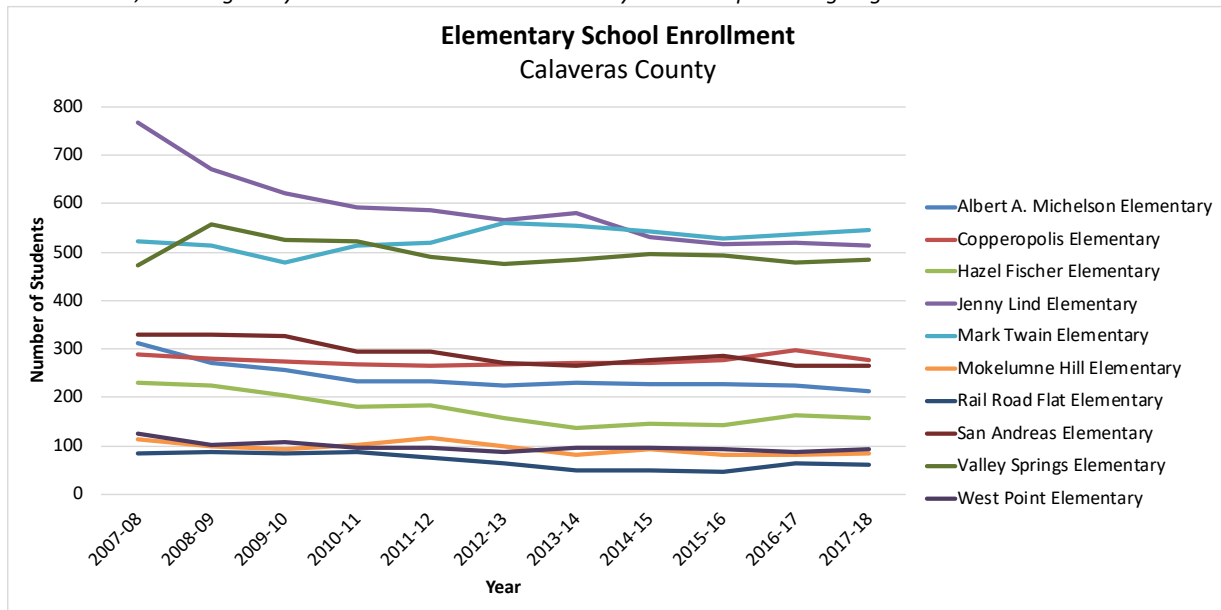
Elementary school enrollment in both counties, shown in Graphs 9 and 10, remains stable in some schools and exhibits a moderate decline in most schools. Jenny Lind Elementary in Valley Springs/Rancho Calaveras/La Contenta declined from an enrollment of 767 to 512 over the last ten years, a decline of 33%.

Graph 9: Most elementary schools in Amador County have stable enrollment between 2007 and 2017, or have some moderate decline, such as Lone Elementary.



California Department of Education: <https://www.cde.ca.gov/ds/sd/sd/filesenr.asp>

Graph 10: Most elementary schools in Calaveras County experience some decline in enrollment between 2007 and 2017, with some schools, including Jenny Lind and Hazel Fischer Elementary Schools experiencing larger declines.

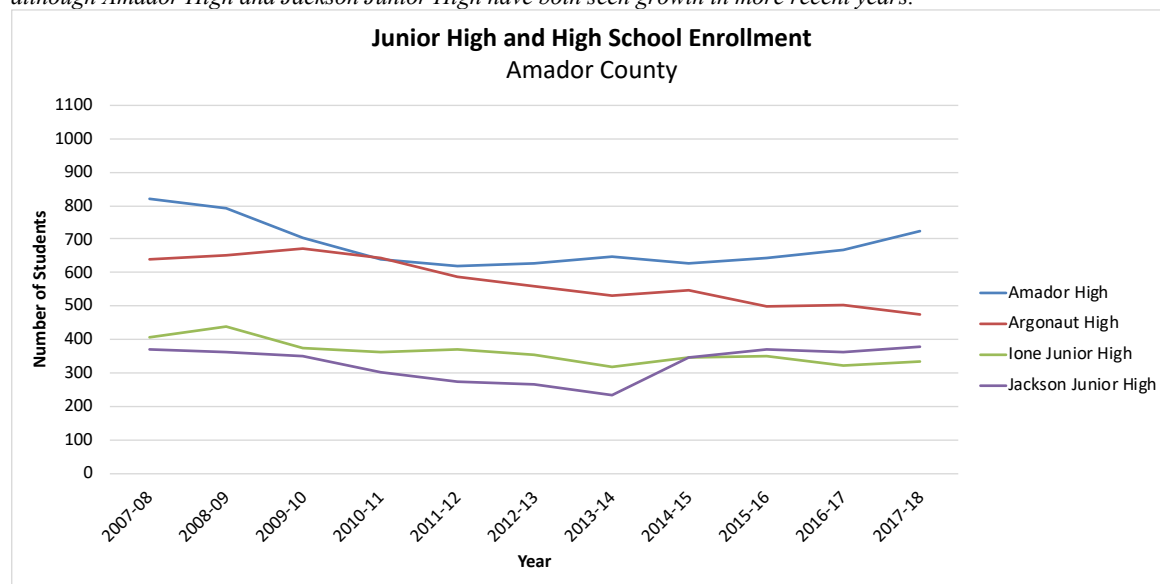


California Department of Education: <https://www.cde.ca.gov/ds/sd/sd/filesenr.asp>

Amador County has two junior high schools and two high schools, and Calaveras County has two middle schools and four high schools (Graphs 11 and 12), as well as a charter school and independent study

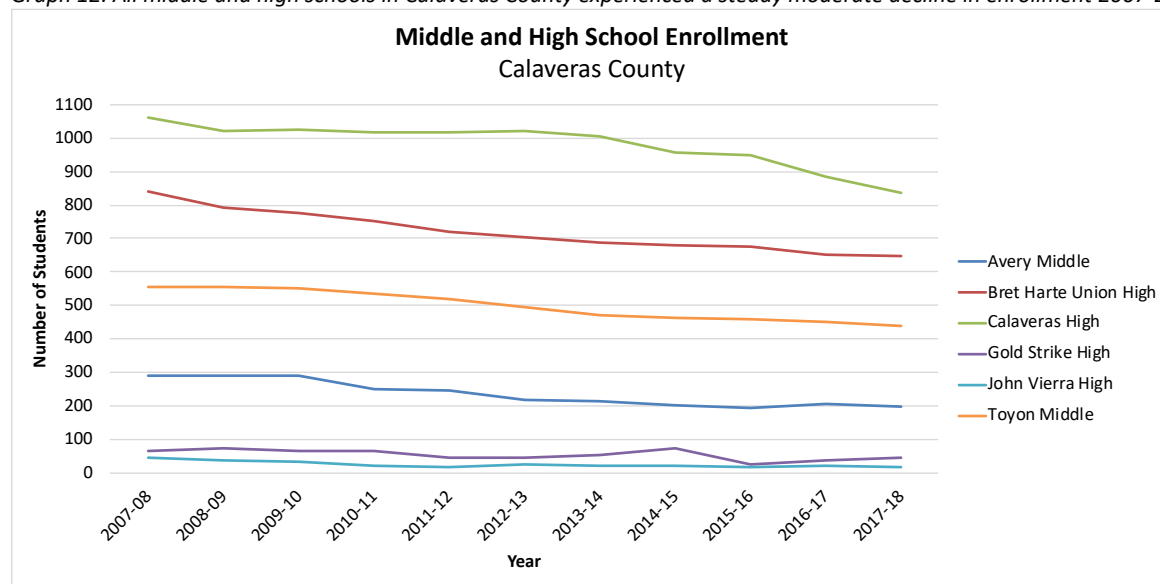
option in each county. John Vierra High in Murphys/Douglas Flat and Gold Strike High in San Andreas/Paloma/Campo Seco both consistently have fewer than 100 students, while Calaveras High, the largest high school in either county, most recently had 837 students. The four middle and high schools in Calaveras County with more than 100 students have all declined in enrollment in varying degrees since 2007. In many rural areas, declining school enrollment and school closures can be linked to the loss of significant family-wage employers, such as a sawmill or Forest Service office, that lead young families to relocate in search of work. The general, slow downward trend of school enrollment and school closures that occurred in both counties, combined with high numbers of retirees, may signify not only communities with diminishing workforces, but declining community capacity overall. At minimum, local schools that often act as centers of community activities may be diminishing in their importance.

Graph 11: All junior high and high schools in Amador County have experienced some decline in enrollment between 2007-2017, although Amador High and Jackson Junior High have both seen growth in more recent years.



California Department of Education: <https://www.cde.ca.gov/ds/sd/sd/filesenr.asp>

Graph 12: All middle and high schools in Calaveras County experienced a steady moderate decline in enrollment 2007-2017.



California Department of Education: <https://www.cde.ca.gov/ds/sd/sd/filesenr.asp>

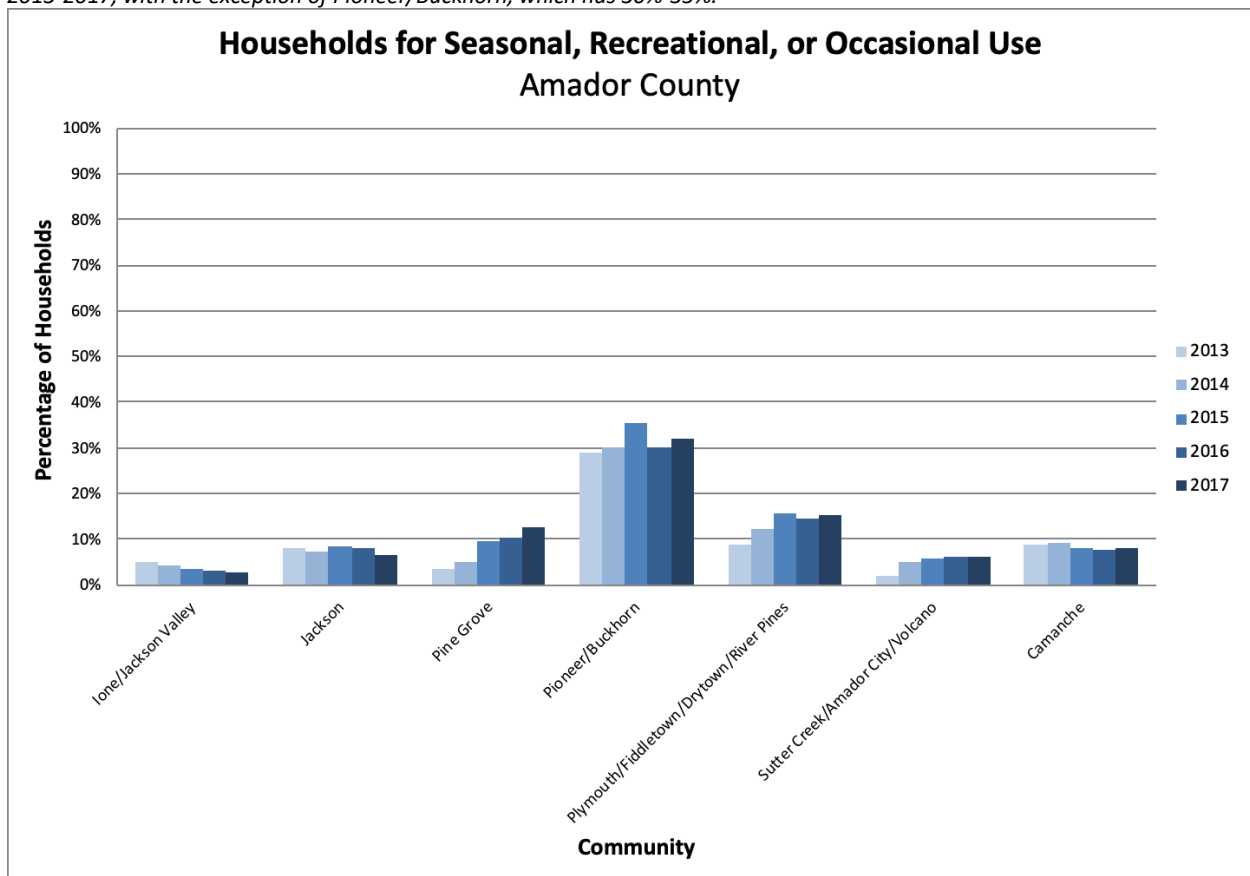
Second Homes

Another aspect of demographics in the area is the number of second homes. In most communities in Amador County less than 10% of the homes are for seasonal, recreational, or occasional use, except in Plymouth/Fiddletown/Drytown/River Pines, which is roughly 15% in 2015-2017, and Pioneer Buckhorn, which has been between about 29% and 35% from 2013-2017, as shown in Graph 13.

In Calaveras County, the communities of Mountain Ranch/Sheep Ranch/Calaveritas/Fricot City, Rail Road Flat/Glencoe, Wilseyville/Bummerville, and Copperopolis/Copper Cove have had a second home proportion between 20% and 30% in at least one of the five years reported, as shown in Graph 14.

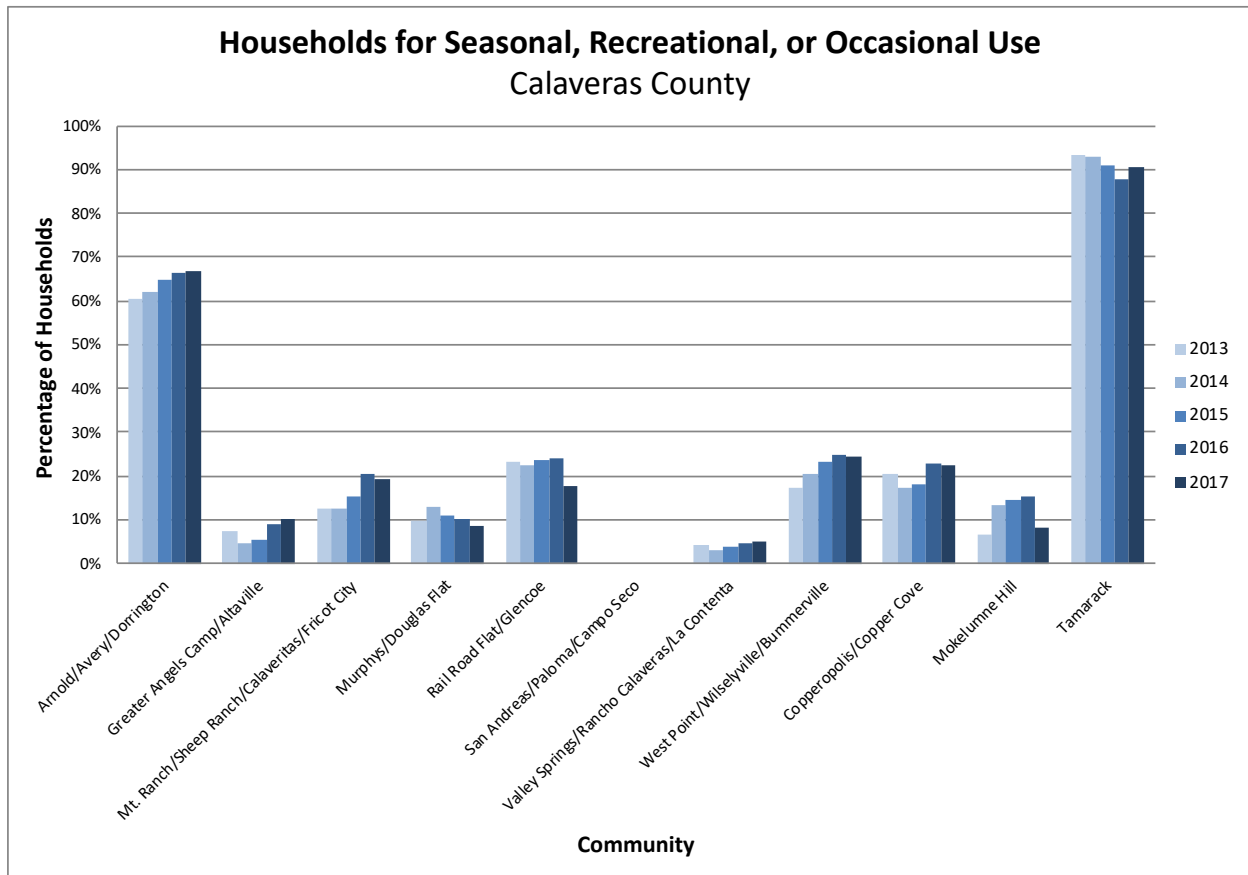
Arnold/Avery/Dorrington is between 60% and 70% second homes each year and Tamarack is around 90%. The extent of second-home ownership is one of the differences between Amador and Calaveras Counties, and may affect community capacity due to second homeowners' effects on the economy, bringing wealth into the area seasonally without necessarily investing in the community. For communities with higher percentages of homes used for seasonal, recreational, or other occasional use, residential needs and residential involvement in sustaining communities differ, sometimes dramatically.

Graph 13: Most communities in Amador County have up to 15% of households for seasonal, recreational, or occasional use in 2013-2017, with the exception of Pioneer/Buckhorn, which has 30%-35%.



US Decennial Census: <https://factfinder.census.gov>

Graph 14: In 2013-2017, communities in Calaveras County overall have more households for seasonal, recreational, and occasional use than Amador County, and there are two communities with more than 60% seasonal, recreational, or occasional use households

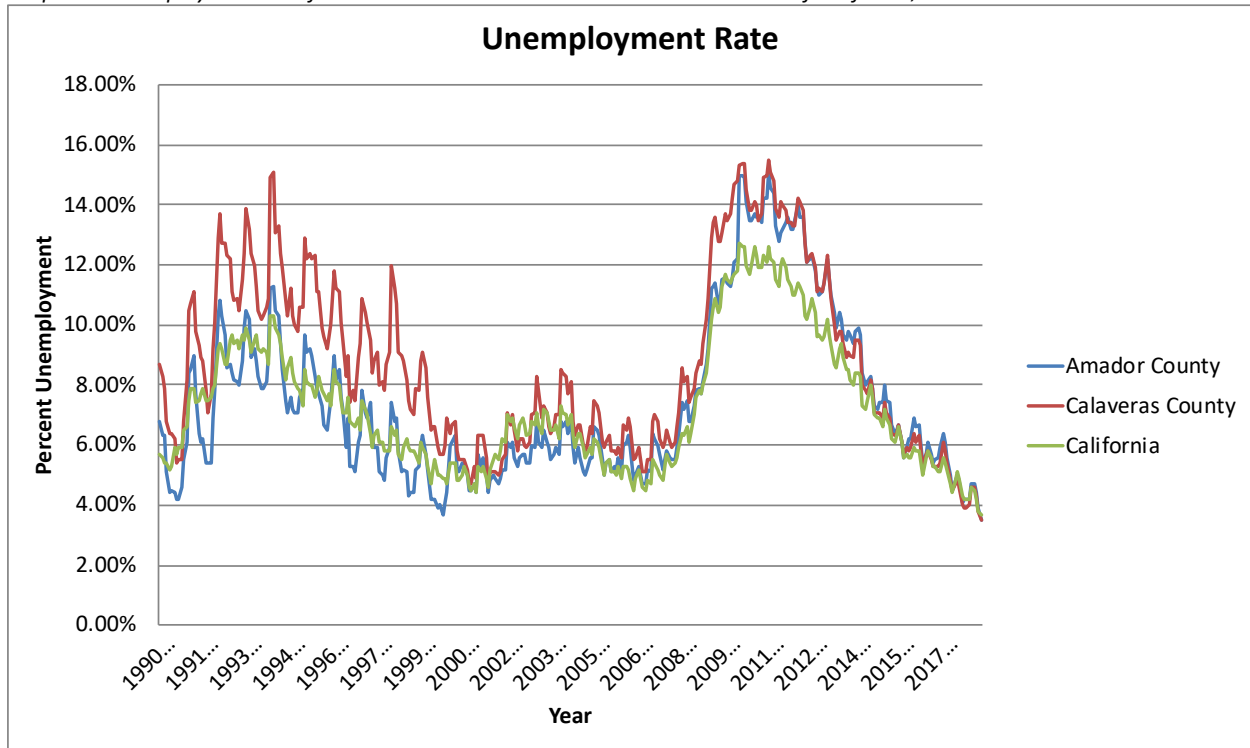


US Decennial Census: <https://factfinder.census.gov>

Employment

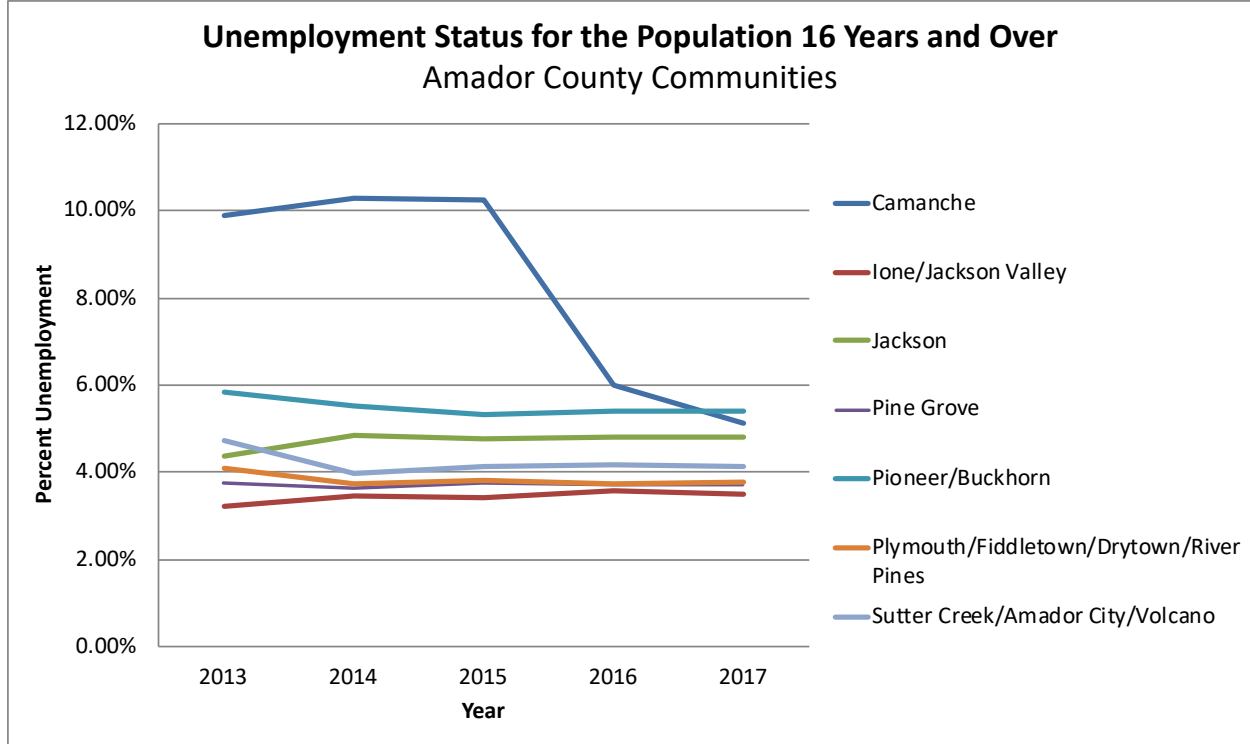
As demonstrated in Graph 15 unemployment rates in Amador and Calaveras Counties have stayed consistent with trends in statewide unemployment, although with slightly higher seasonal variability and slightly higher peaks from 1990 to 2017. Graph 15 shows the impact of the Great Recession on unemployment. While the Recession peaked in 2008 and 2009, these data show that the impacts on unemployment persisted for a number of years. In addition, the impacts were worse than average in Amador and Calaveras Counties, and it took Amador and Calaveras Counties longer than the rest of the state to recover. Graphs 16 and 17 show the unemployment rate in each community in Amador and Calaveras Counties for the population 16 years of age and older.

Graph 15: Unemployment rate for Amador and Calaveras Counties and the state of California, 1990-2017.



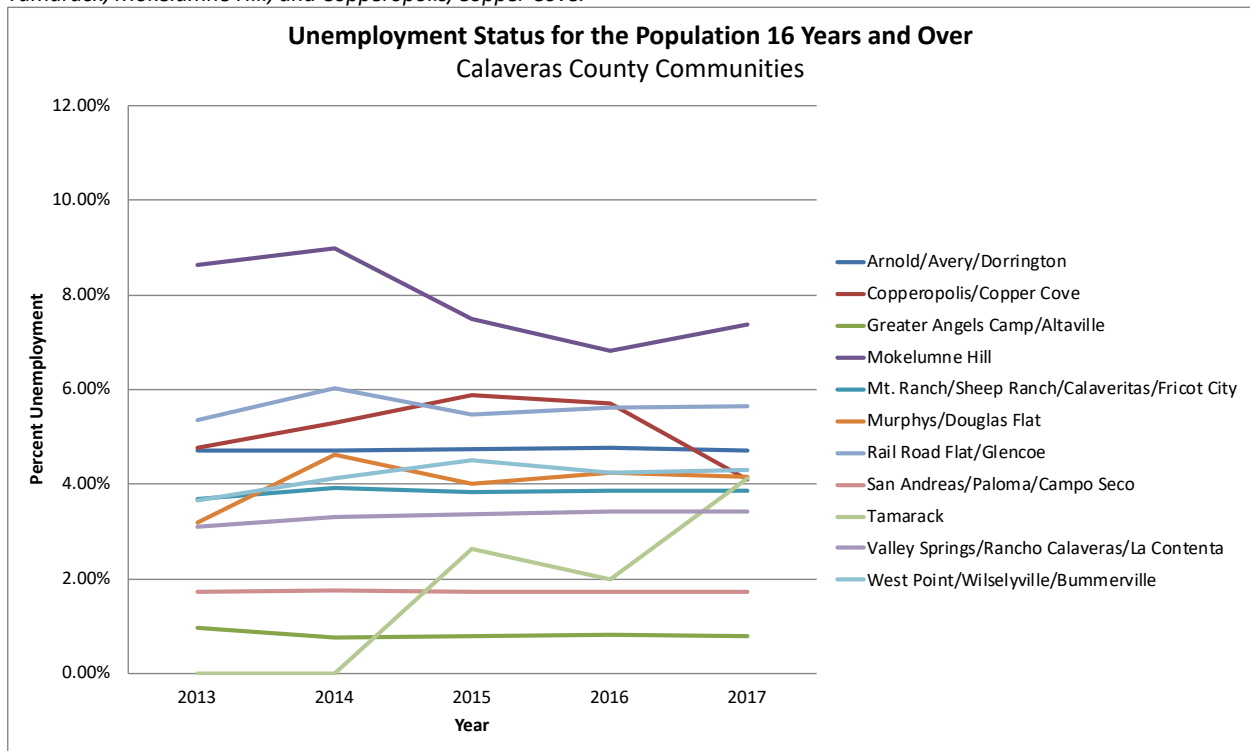
California Employment Development Department: <https://data.edd.ca.gov/>

Graph 16: Unemployment between 2013-2017 remains relatively stable in all communities except Camanche in Amador County.



US Decennial Census: <https://factfinder.census.gov>

Graph 17: Unemployment 2013-2017 is stable in some communities, but rises and falls in several communities including Tamarack, Mokelumne Hill, and Copperopolis/Copper Cove.

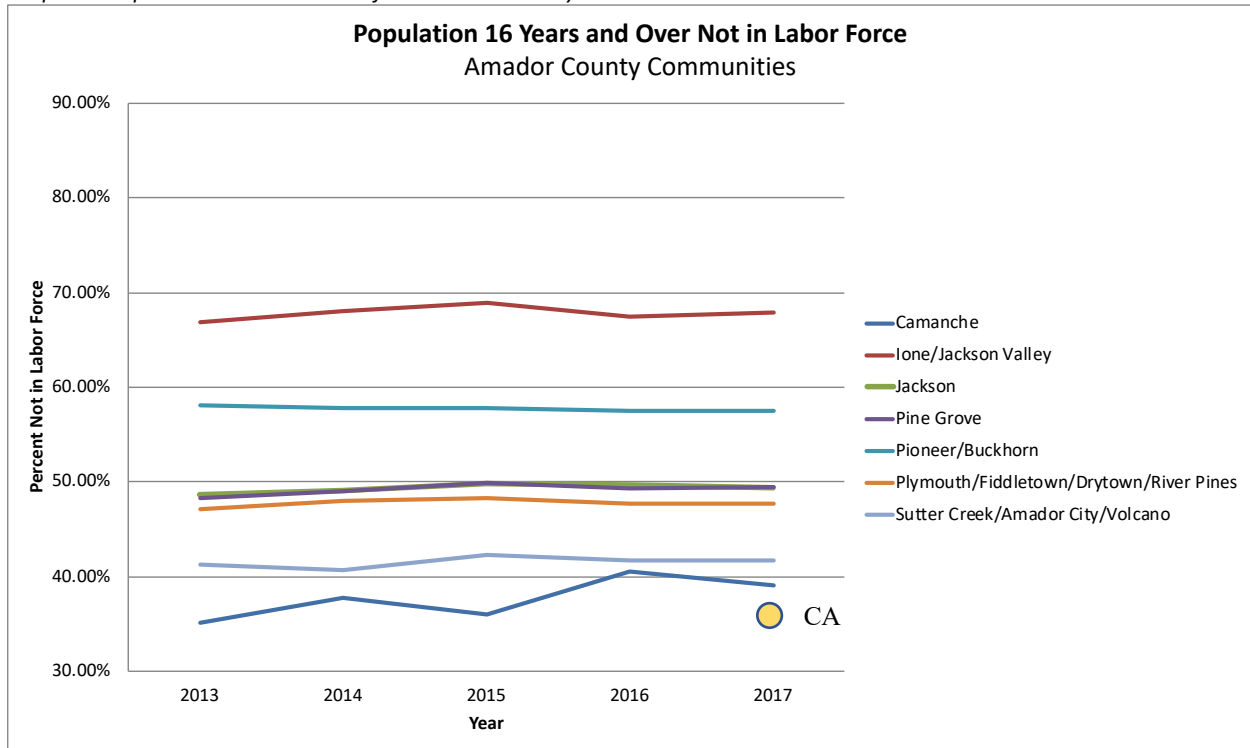


US Decennial Census: <https://factfinder.census.gov>

Graphs 18 and 19 show the percentage of the population that is not in the labor force for each community. According to the Bureau of Labor Statistics, “not in labor force” means those who are not employed and have not been actively seeking employment for the past four weeks. The rate of people not in the labor force in Amador County communities ranges from 35% in Camanche to 69% in Ione/Jackson Valley but remains largely unchanged over five years in most communities. In Calaveras County, the percentage of the population not in the labor force is higher, ranging from 42% in Copperopolis/Copper Cove to 74% in Mountain Ranch/Sheep Ranch/Calaveritas/Fricot City and West Point/Wilseyville/Bummerville, and is generally stable. Mokelumne Hill is a notable exception, increasing by about one-third from 2015-2017, one possible expression of how the Butte Fire has disrupted life in the area. All communities in the two counties have a higher rate of non-participation in the labor force than in the state of California overall, which is around 36%.

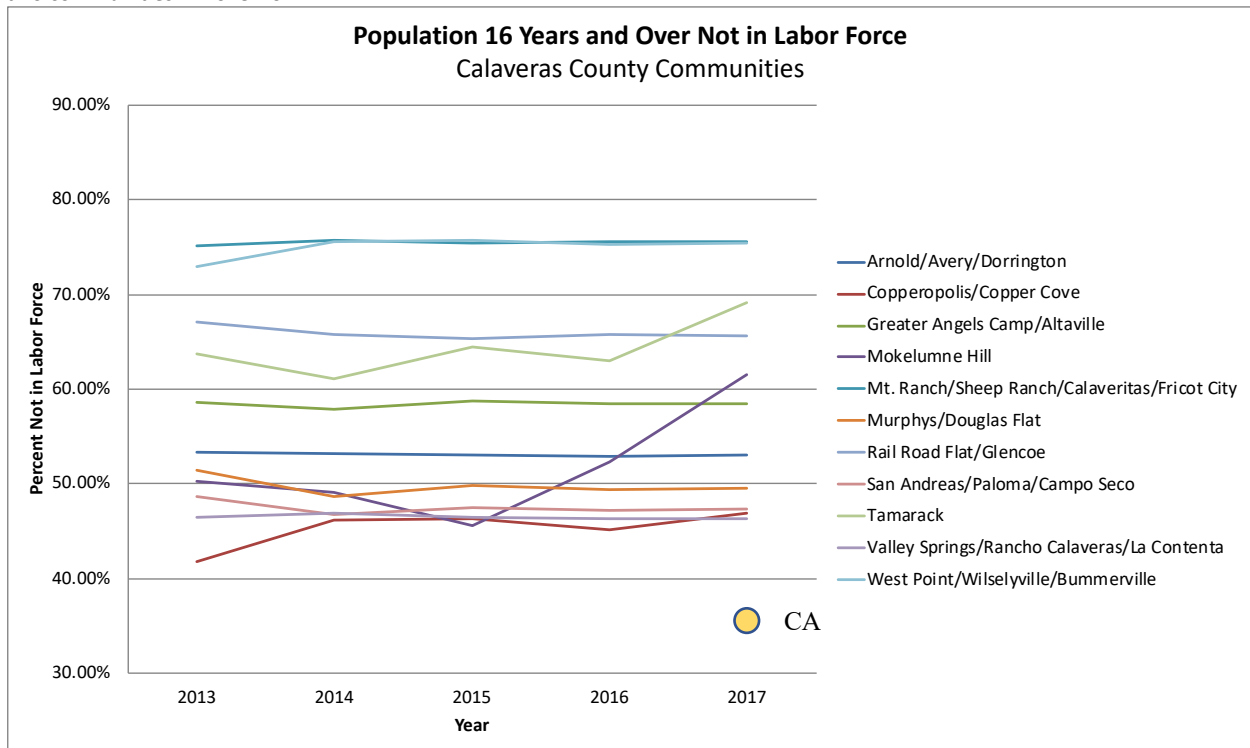
The definition of non-participation in the labor force includes anyone over the age of 16, including retirees. However, communities with high proportions of retirees are not among those communities with the highest proportions of the population not in the labor force. Therefore, higher proportions of residents who are not employed and not actively seeking employment points to some combination of a lack of employment opportunities and individuals who have officially dropped out of the labor force for one reason or another, especially in Calaveras County.

Graph 18: Population not in the labor force remains steady in most communities in 2013-2017.



US Decennial Census: <https://factfinder.census.gov>

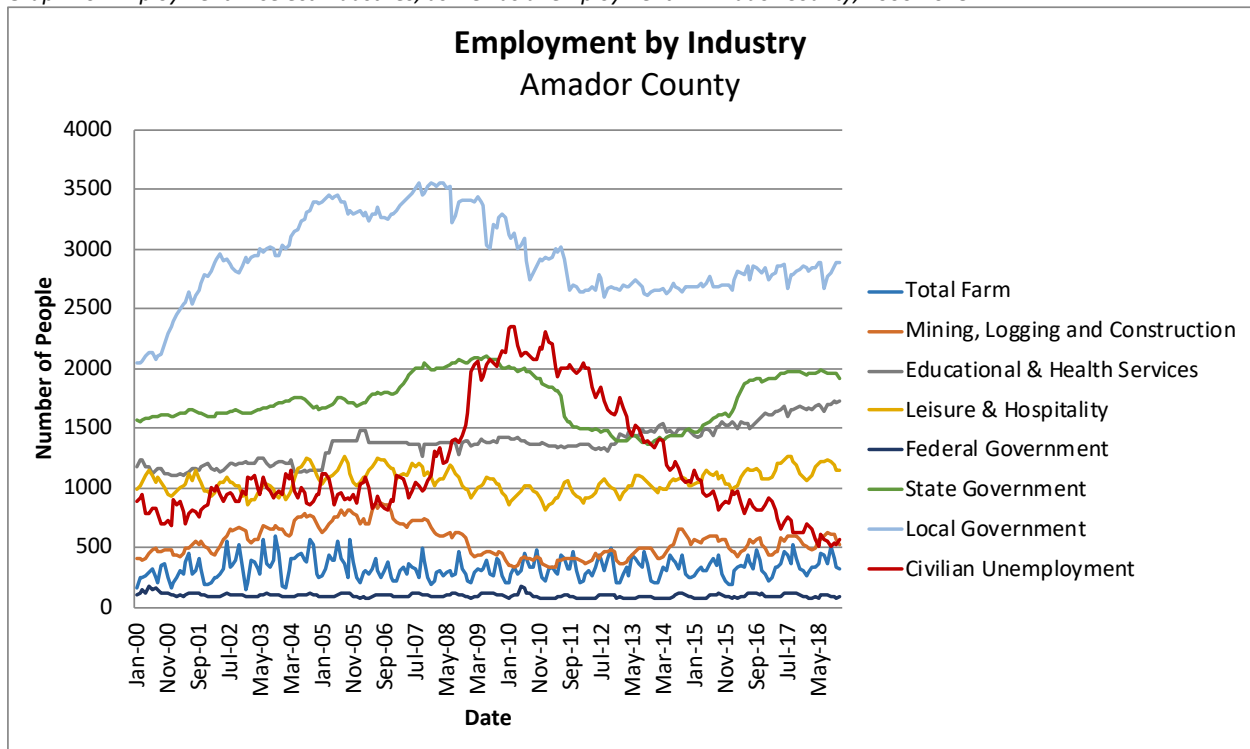
Graph 19: The population not in the labor force is generally higher in Calaveras County than Amador County, and increases in two communities in 2013-2017.



US Decennial Census: <https://factfinder.census.gov>

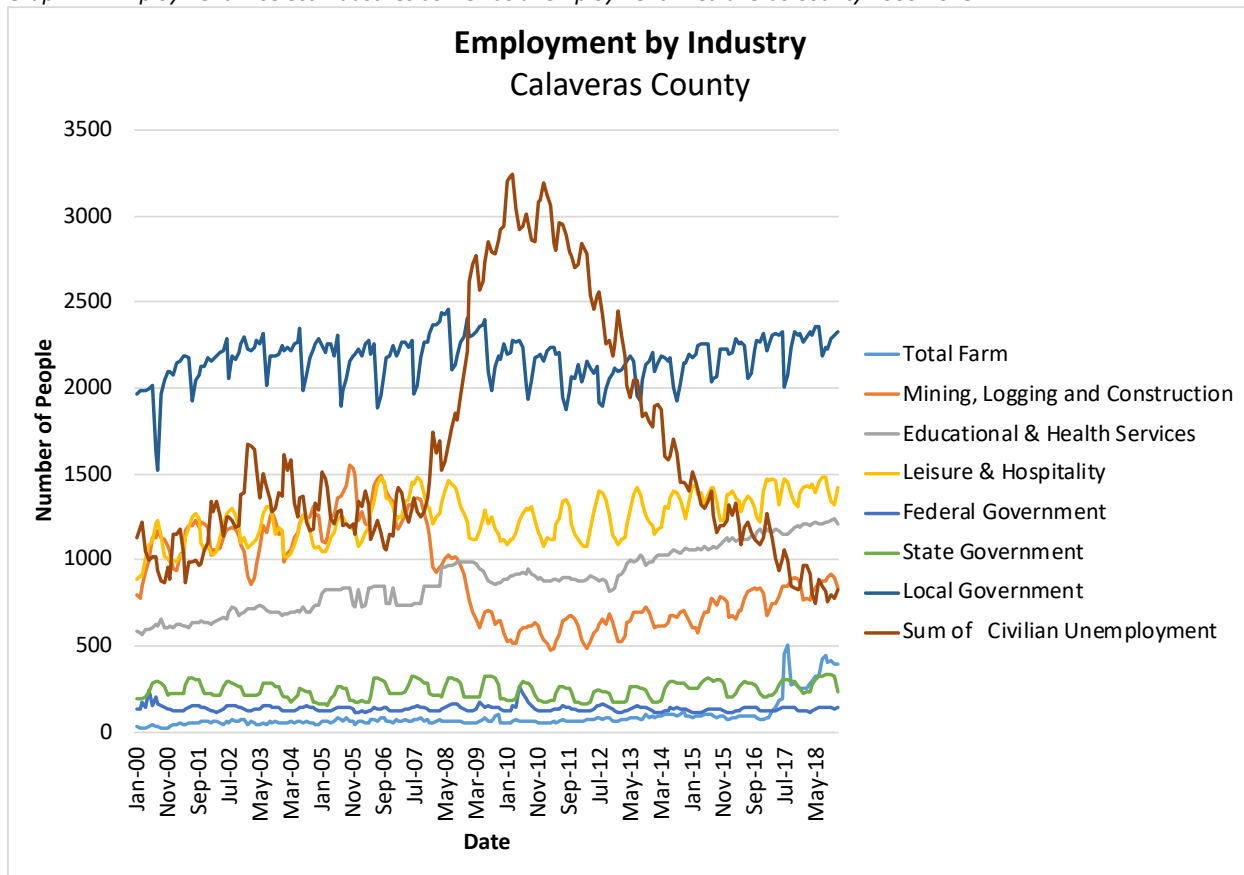
Employment by industry is available only at the county level, not at the community level. Employment by industry is displayed in Graph 20 for Amador County and Graph 21 for Calaveras County as well as total unemployment for each area. The irregularity of the graphed lines reflect the seasonality of employment, with fewer workers employed in the winter months. In both counties, local government employs the most people while the categories of federal government and farming employ the least, for the categories displayed. In both counties education and health services appears to be a growing industry, and leisure and hospitality appears to be steady. State government employs more people in Amador County than in Calaveras County. Mining, logging, and construction was a larger industry in Calaveras County than in Amador County in 2000, but it dropped off around 2007. Amador County had a small peak in that industry just before 2007 as well.

Graph 20: Employment in select industries, as well as unemployment in Amador County, 2000-2018.



California Employment Development Department: <https://data.edd.ca.gov/>

Graph 21: Employment in select industries as well as unemployment in Calaveras County 2000-2018.



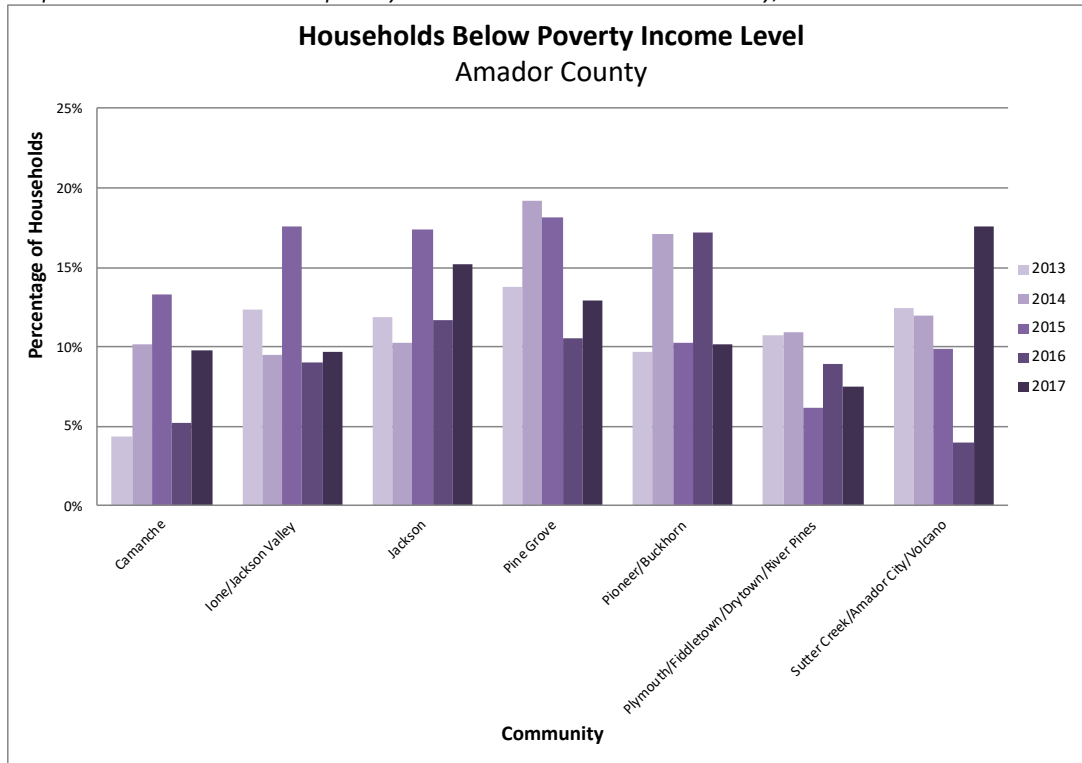
California Employment Development Department: <https://data.edd.ca.gov/>

Poverty

Most communities in the study area tend to have more households in lower income brackets. A few, like Mokelumne Hill and San Andreas/Paloma/Campo Seco have a majority of households in middle income brackets, while others, like Sutter Creek/Amador City/Volcano have a more even distribution. A few communities, including Mountain Ranch/Sheep Ranch/Calaveritas/Fricot City, Rail Road Flat/Glencoe, and West Point/Wilseyville/Bummerville, all of which are in Calaveras County, have a large proportion of households in the lowest income bracket with very few in higher brackets.

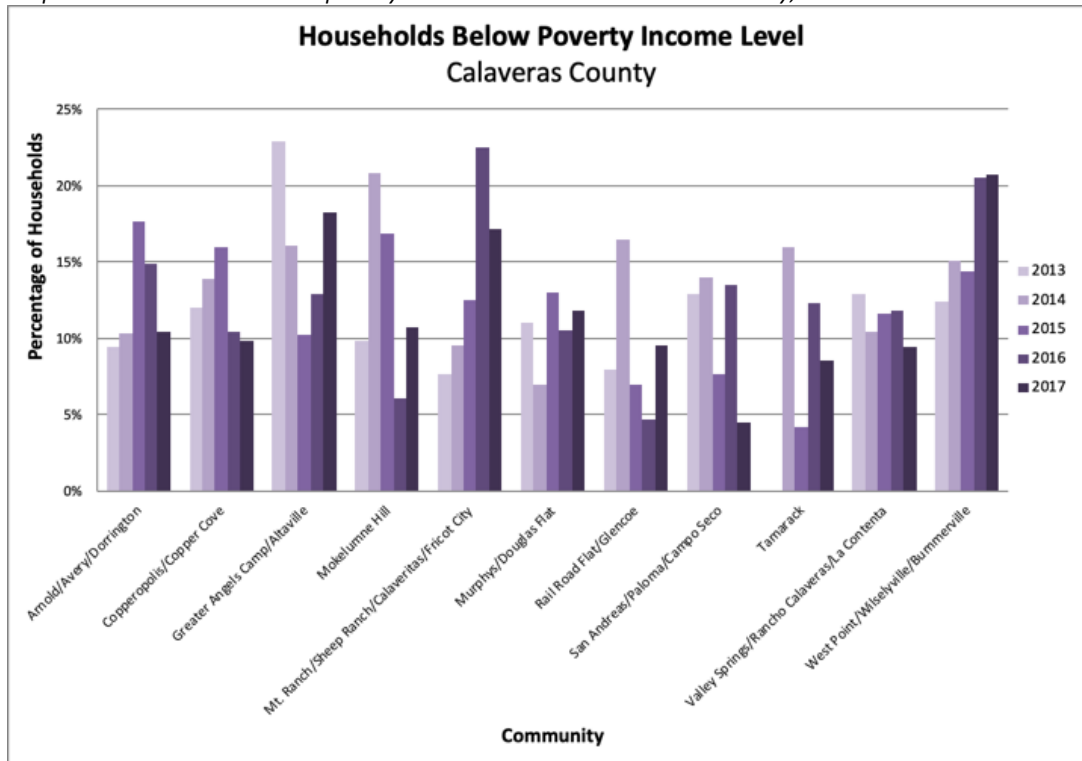
Graphs 22 and 23 show the percentage of households with income under the poverty line in each community between 2013 and 2017. These data are determined by assessing the income of a household compared to a pre-defined poverty threshold based on family size. Households with an income of 100% of the threshold or less are considered to be under the poverty level.

Graph 22: Households under the poverty line in communities in Amador County, 2013-2017.



US Decennial Census: <https://factfinder.census.gov>

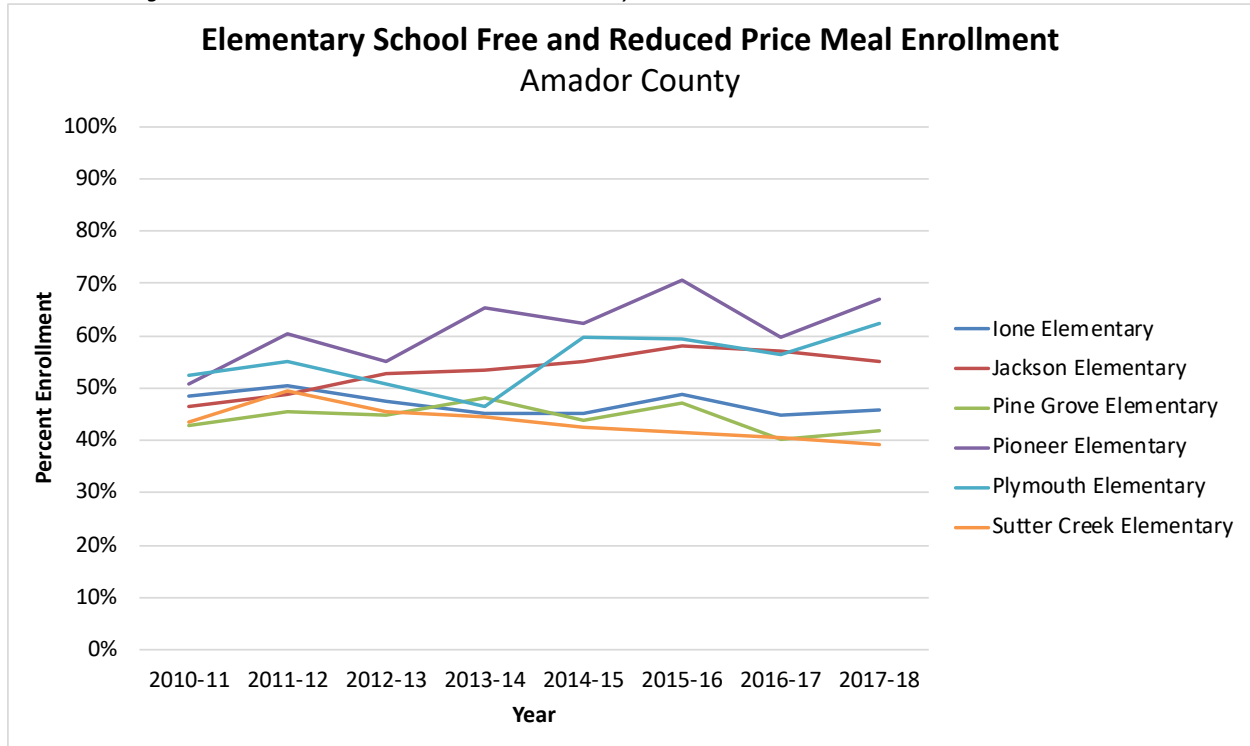
Graph 23: Households under the poverty line in communities in Calaveras County, 2013-2017.



US Decennial Census: <https://factfinder.census.gov>

Enrollment in the Free and Reduced Price Meal Program (FRPM) is another important indicator of impoverishment, reflecting the percentage of students in families with an unemployed parent or guardian, with a low income, or both. FRPM enrollment in elementary schools is a more reliable indicator of poverty because the stigma surrounding FRPM enrollment that emerges in middle and high schools may skew participation. FRPM enrollment in middle and high schools are not included here. Graph 24 shows enrollment in FRPM in Amador County Elementary Schools. Note that Pine Grove Elementary became a STEM Magnet school in 2013 and Pioneer Elementary became a Magnet for the Visual and Performing Arts in 2015. There is no data to indicate whether or not these changes influenced enrollment numbers.

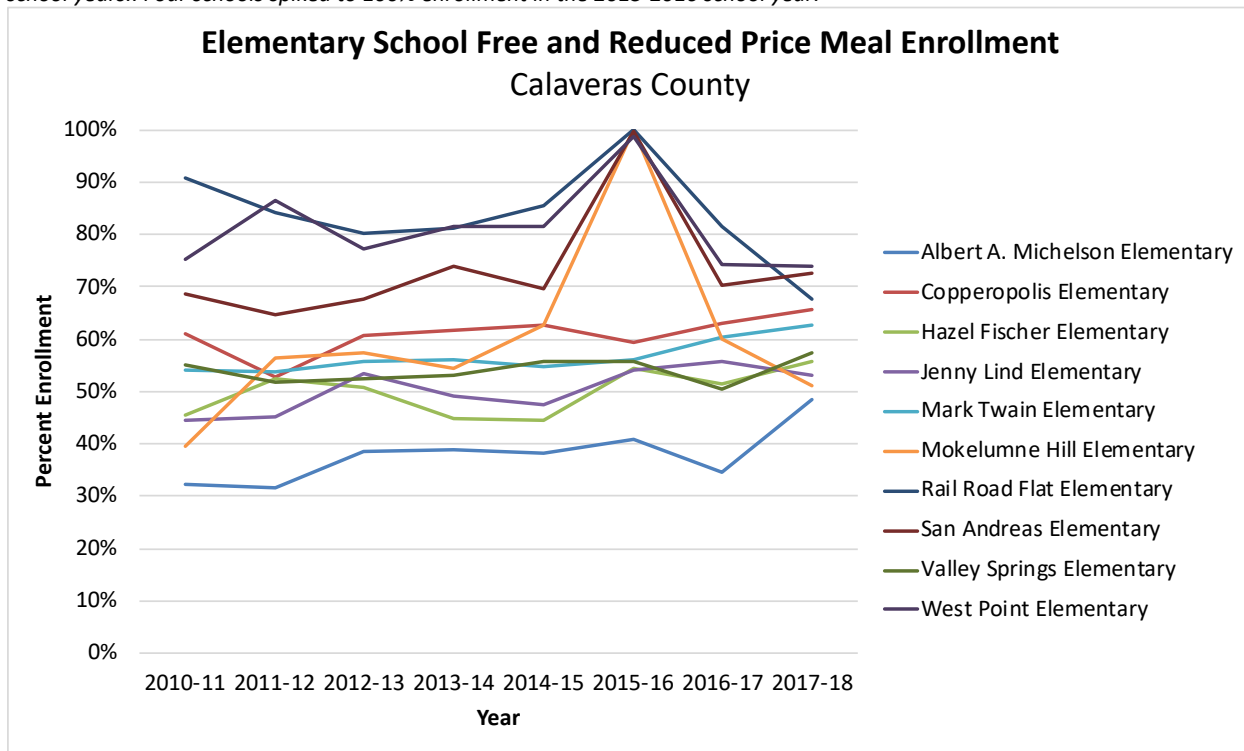
Graph 24: Half of elementary schools in Amador County have seen a slight decrease in FRPM enrollment while the other half have seen a slight decrease between the 2010 and 2017 school years.



California Department of Education: California Employment Development Department: <https://data.edd.ca.gov/>

Graph 25 shows FRPM enrollment in Calaveras County Elementary Schools. A distinct difference between the two counties is the spike in four elementary schools in Mokelumne Hill, San Andreas/Paloma/Campo Seco, West Point/Wilseyville, and Rail Road Flat to 100% enrollment in 2015-16, likely due to hardship caused by the Butte Fire.

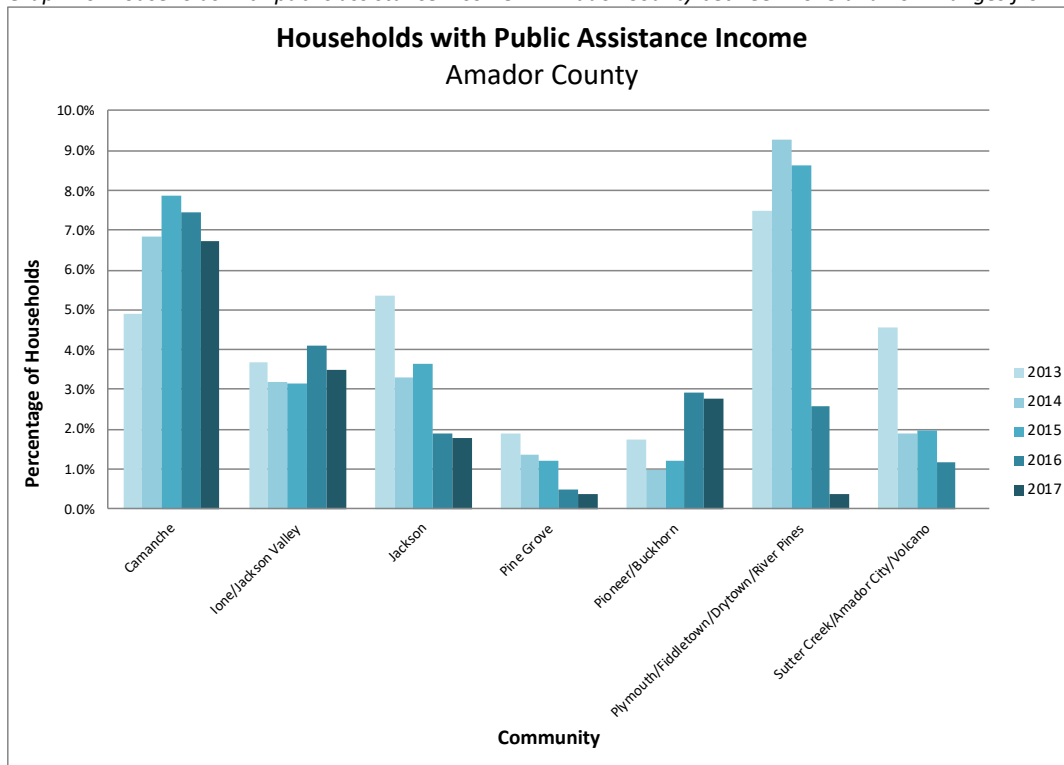
Graph 25: There is a slight upward trend in FRPM enrollment in most schools in Calaveras County between the 2010 and 2017 school years.. Four schools spiked to 100% enrollment in the 2015-2016 school year.



California Department of Education: California Employment Development Department: <https://data.edd.ca.gov/>

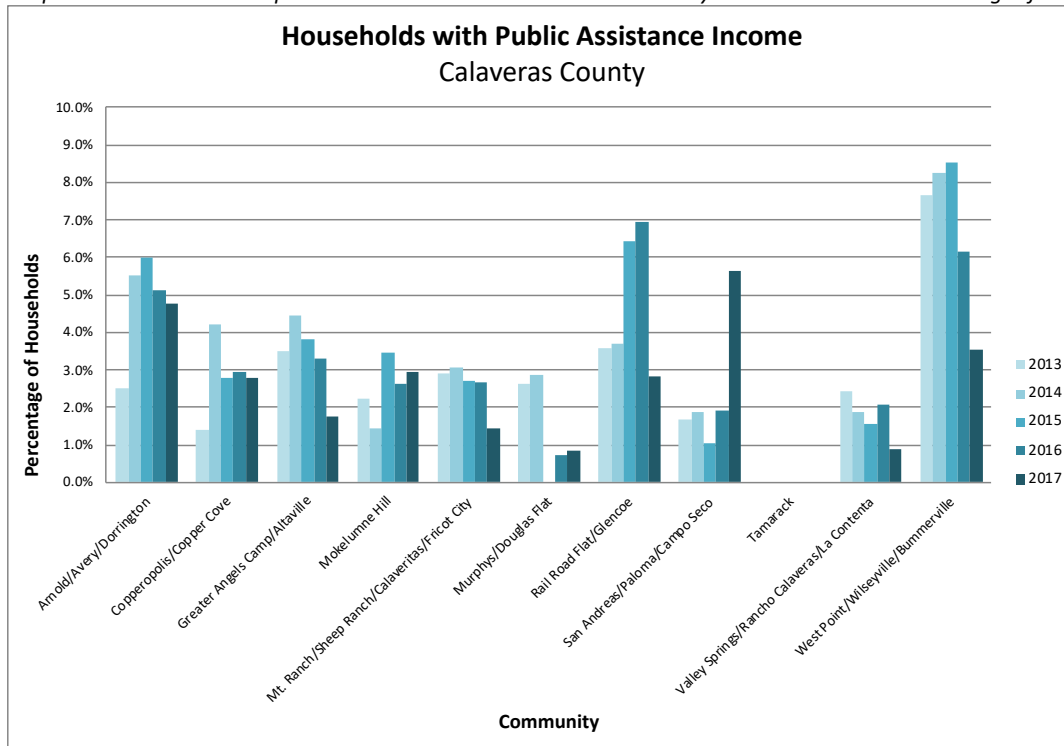
Graphs 26 and 27 show the percentage of households receiving public assistance income in each community in the two counties. In Plymouth/Fiddletown/Drytown/River Pines, the percentage of households with public assistance income was the highest in either county in 2014 and 2015, then dropped to one of the lowest in 2016 and 2017. In Calaveras County, Tamarack has no households receiving public assistance income, possibly due to the high number of second homes, and West Point/Wilseyville/Bummerville has some of the highest rates. Several communities in both counties saw a downward trend in 2016 and 2017.

Graph 26: Households with public assistance income in Amador County between 2013 and 2017 ranges from 0.4% to 9.3%.



US Decennial Census: <https://factfinder.census.gov>

Graph 27: Households with public assistance income in Calaveras County between 2013 and 2017 ranges from 0% to 8.5%.



US Decennial Census: <https://factfinder.census.gov>

Community Capacity Assessment

Community capacity is the ability of a community to meet the needs of its residents, take advantage of opportunities, and respond and adapt to circumstances (Kusel, 1996). The community capacity workshop produced a numerical 1-5 rating of the capacity for each community within the study area as well as a brief narrative describing key socioeconomic characteristics. The scores for each community are shown in Table 2. Amador and Calaveras Counties both have communities with an even distribution of the range of capacity scores, so neither county can be said from this measure in the aggregate to have higher capacity.

Table 2: Community Capacity Scores

Communities	Overall Community Capacity Consensus-Based Total
Camanche	2
San Andreas	2
Pioneer/Buckhorn	2.5
Valley Springs/ Rancho Calaveras/ La Contenta	2.5
Wilseyville/West Point/Bummerville	3
Ione/Jackson Valley	3
Mountain Ranch/Sheep Ranch/Calaveritas	3
Pine Grove/ Volcano East	3
Plymouth	3
River Pines	3
Greater Angels Camp/Altaville	3.5
Arnold/ Avery/ Dorrington	3.5
Copperopolis/ Copper Cove	3.5
Jackson	3.5
Mokelumne Hill/ Paloma	4
Murphys/ Douglas Flats	4
Sutter Creek/ Amador City/ Volcano West	4

Overall, higher rated communities in the region have a strong tax base. Hubs of tourism tend to have higher financial capital due to the presence of people from the Bay Area and elsewhere with second homes in these communities, yet experience seasonal swings in economic activity and may lack the social cohesion of other communities. Many communities that were affected by the Butte Fire received somewhat lower scores, as the fire damaged the infrastructure and caused some residents to leave the area, affecting capacity in many different ways. Still other communities, particularly those on the west side of the region near Sacramento, were described as “bedroom communities” where people commute out of the area to work and a sense of place and social cohesion is limited.

Much of the data gathered from the community capacity assessment aligns with quantitative data and interviews, characterizing the area as fairly typical of rural areas with high second homeownership and population of retirees. The area generally has moderate capacity, with pockets of low capacity and a few more high capacity communities.

Camanche

Final Capacity Measure: 2

Camanche has poor physical infrastructure, with the sewers, roads, and internet lacking. There is one small store and gas station and no schools. As workshop participants reported, “The population is a mix of retirees, large horse ranches, young families, and second home owners, all of which travel outside the area for work or activities because ‘there’s nothing there.’”

Pine Grove/Volcano East

Final Capacity Measure: 3

In this community, Volcano is “tightknit and organized” while Pine Grove is not. There has been a push to create a town center in Pine Grove to facilitate social cohesion but this has not to date been successful. Involvement in community issues is strong in Volcano but the only example outside of Volcano brought up in the workshop was a volunteer fire department that is unstable due to a lack of personnel. There is some tourism but little investment into infrastructure and little perceived potential for growth.

Pioneer/Buckhorn

Final Capacity Measure: 2.5

In Pioneer/Buckhorn, there is some wealth due to an influx of retirees from the Bay Area and other higher-income areas, although this wealth is not often invested into the community. There are also a number of fixed income retirees, so there is a wealth disparity that may be widening. There is also a political divide. There is little sense of social cohesion and low involvement in community issues, with the exception of the successful mobilization to save the local grocery store in 2013 and 2014. There has been some infrastructure improvement and participants noted, “county funds dedicated to road repairs, fire protection, and hazardous tree removal have strengthened the housing market.” There is some concern about the ability of the water system to support fire protection.

Plymouth/River Pines

Final Capacity Measure: 3

This community is polarized due to a strong ranching history as well as recent adversarial politics, which prevents people from working together, although they have been able to pull together when needed. It is also a commuting community, which limits cohesion. Plymouth has good financial resources with the annual county fair and the growing wine industry bringing in more revenue. River Pines on the other hand is lower-income and has poor infrastructure with high rates of crime and drug use.

Ione/Jackson Valley

Final Capacity Measure: 3

Recent infrastructure improvements, new housing, and the new casino are bringing growth, yet planning is lacking. One participant noted that there is no “clear sense of ‘what the town wants to be when it grows up.’” Many residents commute, but the community maintains a sense of cohesion in its neighborhoods. The state prison and the Jackson Valley Fire Protection District provide some institutional employment and leadership. Challenges come with limited budgets and some city leadership that is “resistant to change.”

Jackson

Final Capacity Measure: 3.5

Jackson is the Amador County seat and has a strong tax base as well as stronger institutions and services than the rest of the county. The hospital and schools are well established and the area has high social and human capital. However, the area also “suffers from high rates of poverty, homelessness, and opioid addiction,” and has aging physical infrastructure.

Sutter Creek/Amador City/Volcano West

Final Capacity Measure: 4

Sutter Creek has high capacity, as “many affluent residents donate to local causes, the populace collaborates well together to solve civic problems, and there are many skilled residents who generously share their expertise.” It is a hub of tourism and brings in revenue. However, some areas of investment are lacking, such as schools. Although the large population of retirees are described as very active, they may not engage equally in all issues. The unincorporated areas in this community are somewhat less cohesive and could benefit from infrastructure upgrades, especially water and wastewater systems.

Angels Camp

Final Capacity Measure: 3.5

Angels Camp has a strong identity, influenced by its ranching and gold mining past and outdoor tourism industry. The socioeconomic status of residents ranges from wealthy “golf course” residents to rural poverty and trailer parks. There are several groups that work to benefit the community, but the community struggles with infrastructure. Roads and schools are in reasonable shape while water and sewer systems need improvement.

Arnold/Avery/Dorrington

Final Capacity Measure: 3.5

Arnold/Avery/Dorrington is reported to have many second homes and a large retired population. Financial resources and volunteer capacity exist and support good physical infrastructure, but residents may not be invested as effectively as they could be.

Blue Mountain Communities (Rail Road Flat/Glencoe and West Point/Wilseyville/Bummerville)

Final Capacity Measure: 3

The Blue Mountain Communities is an area of very low income, with degrading infrastructure and struggling businesses. However, the area has high human and social capital. Community efforts have been very successful in bringing in grants and investment by coming together, and the few higher income residents also contribute to community fundraisers. It was reported that “a number of community organizations exist in [the Blue Mountain Communities],” such as the veterans’ club, a forest restoration collaborative, service clubs, a community radio station, and a newspaper. However, the Butte Fire negatively impacted the landscape and infrastructure, and caused some high capacity individuals to leave the area.

Copperopolis/Copper Cove

Final Capacity Measure: 3.5

Participants noted this community's potential for growth. Although political and wealth disparities prevent residents from coming together, different groups give back to the community in different ways. The homeowners' associations organize community involvement among wealthier residents, while schools and the fire department are other hubs of social cohesion. Physical infrastructure could use improvement but is not as low as in other areas. New housing is being developed, but neighborhoods are separated so this investment in the community may not serve to build social or cultural capital.

Mokelumne Hill/ Paloma

Final Capacity Measure: 4

Mokelumne Hill/Paloma has a strong sense of community and high human capital and high-income residents. According to workshop participants, "the population consists of a mix of college educated professionals who migrated to the area and local residents who grew up there and stayed, both knowledgeable populations with a wide range of skills and willing to work collectively on community projects." Residents support a few local businesses and a library, park, town hall, and school, although other infrastructure is aging.

Mountain Ranch/Sheep Ranch/Calaveritas

Final Capacity Measure: 3

This community was highly affected by the Butte Fire and is struggling to recover. It was reported that the area had much higher capacity before the fire. However, the fire destroyed houses and other infrastructure and caused displacement of community members that disrupted a strong history of community engagement. Resilience was compromised by infrastructure that was already aging prior to the fire. The influx and subsequent banning of cannabis has also destabilized the community. Sheep Ranch is very isolated, which is how residents like it. It has a community plan and generally rejects outside and governmental influence.

Murphys/Douglas Flat

Final Capacity Measure: 4

Murphys has a strong, well-managed tourism economy and second-home market, with the growing wine industry bringing in additional revenue. There is a strong sense of community and support for theatre, music, and other culture and arts events. Pockets of poverty exist in the area, however, particularly in Douglas Flat. These areas benefit from the high capacity of Murphys and have well-maintained infrastructure.

San Andreas

Final Capacity Measure: 2

San Andreas is the county seat and houses "government buildings, the hospital, newspaper, courthouse, jail, library and a historical society museum," as well as schools. However, a lack of local businesses and a loss of population result in low social and human capital and physical infrastructure is in disrepair. It is a place people come to for work but do not live in. Many of those who do live there are low-income.

Tamarack

Tamarack did not receive a final capacity measure

The community of Tamarack represents a somewhat extreme example of some of the trends seen in other communities. It has a very small year-round population and a large proportion of second homes, whose owners bring in wealth and patronize local businesses seasonally but do not invest in the financial or social capacity of the community.

Valley Springs/Rancho Calaveras/La Contenta/Jenny Lind

Final Capacity Measure: 2.5

This community functions as four isolated communities that do not work well together. Workshop participants noted that Valley Springs is low income, Rancho Calaveras is middle class, and La Contenta is more affluent. They are primarily commuter communities with low community engagement, and poor planning exacerbates isolation. People come together for school events, and, according to workshop participants, “will collaborate to fundraise and write grants when necessary.” Physical capacity is generally good.

Interviews

Semi-structured interviews provided a nuanced view of the many factors at play and their varied influences in communities. Informants highlighted a number of critical dimensions of community capacity and well-being, with an emphasis on social and cultural capital, forest-related business, employment and connected issues, and the impacts of events and patterns beyond the local communities’ control over socioeconomic well-being. In many respects, informants discussed the resilience of communities attributed to a relatively high level of social and cultural capital. The current socioeconomic conditions of the region, with a long history of dependence on resource economies -- initially mining, followed by timber and agriculture -- largely reflect the ebbs and flows of these industries. Informants frequently described the condition of the economy in the context of historic declines in employment opportunities in the timber industry, and the potential rise of a restoration economy colored many future outlooks with notable influences from the Cornerstone Project. Beyond these two immediate themes, interviewees also described the substantial effects of exogenous factors (e.g., cannabis, fire, broader economic trends) on socioeconomic conditions. In this section, we present findings related to three key themes of relevance to the Cornerstone project: social and cultural capital; forest management and the economy; Cornerstone impacts on capacity and restoration. Though not the primary focus of this report, we then briefly discuss the intersection of cannabis and the Butte Fire with the above themes, as their impacts are unavoidably intertwined.

Social and Cultural Capital

One line of questioning for interviewees focused on the sense of community, events or activities that bring the community together, and other elements of social and cultural capital. A majority of interviewees reported high degrees of social and cultural capital for communities within the Cornerstone Project study area. In the words of several informants, “people take care of each other” in these communities. This was reported in different ways, from responding to disasters, such as the Butte Fire, to addressing the needs of a community through fundraisers. That numerous interviewees shared examples of the willingness of local residents to come together, bringing both skills and financial resources to solve community concerns, underscores a sense of social cohesion in spite of the overall lack of wealth in the region.

Although overwhelmingly positive in their descriptions of the social capital found in the study area, a number of interviewees alluded to a variety of drivers changing the demographic composition of these communities. This suggests, at a minimum, the *potential* for, if not the reality of, erosion of cultural capital, which is defined as the prevalence and strength of shared local bonds and ways of living. The departure of long-standing families who had a multi-generational connection to the landscape, an influx of retirees, and the loss of significant employment opportunities were all cited as cause for concern

regarding potential declines in cultural and perhaps social capital in the eyes of some interviewees. One informant noted how the changes have affected social capital, saying:

Everybody pretty much knew everybody, you know, back in those days...That's changed a lot. Probably they moved away or the families and the kids growing up, they moved away and not many have come back. If they come back it's only because they're retiring back here again...It's hard to make a living here.

Describing the impact of major employment opportunities shifting from large mills to the prison in Ione, another interviewee said,

The sense of community isn't like what it was when we had 800 people working in the same place...You knew everybody, everybody was, it was multi-generational. You had grandfathers, fathers and kids working here at the same time. So there's... just not that sense of community anymore. There's only so many jobs where there's... a large amount of people gathered. And I don't think there's a real sense of community in the prison system with all the people that work there.

Another theme that emerged from interviewees was the perception that social capital has changed as a result of newcomers moving into the region seeking an area of California with more affordable housing. This includes retirees living on fixed incomes, as well as people of limited economic means, and a growing homeless population. Each demographic brings unique challenges: retirees need access to services and necessitate a special planning emphasis for wildfire evacuations; lower-income residents need access to jobs and a range of social services the county has limited capacity to provide; and, the homeless population needs further social assistance -- services that have been stretched thin.

In the midst of these changes, the region was heavily affected by the Butte Fire in 2015. While the impacts of the fire are discussed at length later in this report, it bears noting that multiple informants identified the Butte Fire as another factor leading some residents to leave the area, taking connections, skills, and resources with them. For those that remained, the loss of this human and social capital was felt acutely.

Changing Economies, Butte Fire, and Cannabis

Emerging economies -- particularly tourism and wineries, were frequently highlighted by interviewees in describing the socioeconomic conditions of the Cornerstone Project area. Neither was described as being part of the region's history or cultural identity, but both were described frequently as increasingly important economic drivers. However, interviewees were not in agreement as to whether these industries benefit the communities, with some expressing concerns about the quality of jobs that they provide, and how they are changing the culture of the area. In addition, many informants shared reflections on the role the cannabis industry has played in the local economy, and could play in the future. Perspectives were similarly divergent on the merits of a cannabis industry, though few disputed it has affected socioeconomic conditions in recent years. The effects of the Butte Fire were described as being intertwined in many ways with changing economies, particularly cannabis, in the region.

Tourism and Wineries

Tourism was described as one of the major drivers of economic activity in recent years within the Cornerstone Project area, a shift from the region's past natural resource reliance. One informant shared that tourism likely provides the most sales tax in the area, and many acknowledged the growing reliance of the area on tourism-related businesses. However, not everyone in the county is pleased about it, and interviewees who were supportive of increased tourism often noted some resistance within the larger community. Informants recognized the growth in wineries, like tourism generally, does provide new jobs for some residents, but some expressed concerns about the area's dependence on these tourism jobs. In particular they said that many are low-wage jobs that you can't raise a family on. Multiple informants identified wineries and winery tourism as one of the major growth industries in the area, with one noting that the area had 14 wineries with tasting rooms in 1993, and now the figure is closer to 60. Another interviewee described the growth saying, "it's like a miniature Napa Valley over in Shenandoah Valley right now." Some expressed surprise the region transitioned so quickly from relying heavily on timber falling and wood products jobs to wineries. Describing the growth of the wine industry, several interviewees pointed out that wineries attract a lot of business -- both direct and indirect-- and ascribed community-oriented characteristics to the wineries, with one informant saying "they help and donate to hundreds of organizations." Other interviewees saw downsides to the growth of the wine industry as they felt it has pushed out "local serving businesses," particularly in Sutter Creek

Butte Fire and Cannabis

In September of 2015, the Butte Fire started in Amador County before burning approximately 70,000 acres, primarily in Calaveras County, causing two fatalities and destroying hundreds of residences and outbuildings. In the wake of the Butte Fire, many interviewees described the community coming together to assist those in need by organizing animal rescues, and generally helping each other out. Other informants shared how the Butte Fire affected social structure, especially in hard-hit communities like Mountain Ranch, by disrupting connections as neighbors moved away, and affecting the mental health of those who remained. Other notable impacts included disrupting residents' connection to the landscape, deteriorating infrastructure conditions, and a continued strain as communities respond to the aftermath years after the fire was out. Almost four years later, informants said the on-going cleanup work is a challenge to the community. One informant highlighted both the migration and clean up issues, saying,

I got trees falling all over the place around me right here at where I live because of absentee land owners, you know...Nobody's doing anything about these burnt trees. So I got a driveway that goes through two lots, or one lot in front of me. And I'm cleaning that guy's property all the time and fixing the driveway. Yeah, the community is kind of falling apart up here a little bit. A lot of people my age got up and left.

Cannabis production impacted many of the same areas of Calaveras County following the Butte Fire, and many interviewees discussed connections between the two events. Cannabis growers began to move into Calaveras County in search of inexpensive land in the wake of the fire. However, the county banned cultivation in 2018, driving a segment of the population out of the area. As one interviewee put it, "the Butte Fire and the resulting cannabis growers and the divisive polarization...of many of these less than environmentally sensitive pot-grow operations...combined with the truly negative, high severity effects of the Butte Fire ended up severely damaging some of the social structure of these rural forest communities." Individual perspectives varied on the impacts of cannabis production. Some interviewees felt it brought jobs and younger people to the area, while others focused on negative effects such as a perceived increase in aggressive dogs or property being purchased by out-of-area buyers and then abandoned after cannabis growing was banned in the county. Regardless of their individual perspectives, the majority of interviewees were in agreement that the uncertainty caused by the legalization and de-legalization of cannabis growing in Calaveras County created significant social and economic upheaval.

Interviewees made a connection between the social impacts of the Butte Fire and the general socioeconomic well-being of communities in the area, but few made an explicit link between the fire and restoration work planned as part of the Cornerstone Project. The Butte Fire burned very little national forest land and none of the Cornerstone Project area. The effects of the Butte Fire and cannabis production in the area have lowered community capacity, and, for the purposes of this report, obscure capacity impacts of the Cornerstone Project.

Forest Management and the Economy: Past, Present, Future

Lasting impacts from historical declines in timber industry employment, in the woods and at the mill, dominated discussions of the role of forest management in the local economy. Relatedly, a number of interviewees described the greater implications of this decline -- particularly mill closures, with impacts including the loss of living-wage jobs followed by the loss of workforce capacity and certain skillsets whether through out-migration or workers re-training to work in other occupations. The more recent impacts of tree mortality and increasing wildfire severity led some interviewees to view forest restoration as a clear opportunity for the future. This outlook was also colored by how informants viewed recent policy shifts and their anticipated impacts. There was a clear recognition among interviewees that, “we’re never going to go back to the 80s level of timber cutting or even the 90s for that matter.” However, others saw real possibilities with new restoration-oriented work. As one interviewee said, “I think with all the money coming in for forest work we’re going to have more people going back to work in the woods you know, which is a good thing. But you know, how quickly that’s going to happen is really hard to know.”

Mill closures in recent decades resulted in substantial job losses in the region. Interviewees reported multiple mill closures in the area left several hundred mill workers out of a job. Large mills in the area employed up to 800 people at their peak, with one interviewee reporting the largest of the mills had a payroll of \$12 million in 1997 before shutting its doors. Interviewees also highlighted that the jobs lost were well-paying union jobs that one could raise a family on. In contrast, where mills were re-tooled and kept open, the jobs that remained were typically non-union work. One interviewee summed up the effect of mill closures on the workforce by saying, “they slowly started to erode that workforce where many of the mill workers were skilled in other facets, welding, mechanics of some type and were able to take on those types of positions elsewhere.” Some also made connections between loss of infrastructure and loss of resources for local schools.

In fact, informants highlighted the decline in the timber industry as a significant event, with workforce capacity outcomes the region continues to struggle with today. The increasing mechanization of harvesting, as well as reductions in harvest levels, were mentioned by informants as in-woods impacts lasting from this era, with one interviewee noting “mechanization is taking a toll.” Another interviewee described the decrease of timber fallers locally, saying,

They changed occupations as well. Some went from timber falling into more tree work, arborist type of work...Some of them left. Some of them went completely out...That's what happened. These like four or five or six companies left in this area - Amador, Calaveras and El Dorado Counties - working and before there were 50 to 100 crews working and lots and lots of timber fallers so that that made a big impact.

Despite the negative effects of the timber decline on both processing capacity and workforce capacity, a number of interviewees outlined a vision of future forest-related industry opportunities. Those who described the future of forest management and related economic impacts optimistically often referenced new or different products that could be made with small-diameter wood or lower-quality wood from trees

killed by bark beetles. A number of these interviewees also remarked on the changing dynamics in California, both in terms of social acceptance and corresponding policy changes that might accelerate work in the future.

Cornerstone Project: Collaborative Capacity and Restoration Impacts

Outcomes from the Cornerstone Project were described in numerous ways by interviewees, sometimes directly, while others referred to events or impacts connected to Cornerstone without making the association. Broadly, the discussions fall under two overarching themes: capacity and restoration impacts. Many informants described increased capacity of the ACCG or individual members, including: their collective ability to identify and implement new mechanisms for doing work in the woods and capturing value locally; the role of the group in finding common ground among community members; and the ability to secure additional funding. These outcomes, in part, lead to important restoration outcomes reported by a range of key informants, including building restoration workforce capacity and increasing the amount and availability of work locally. While the majority of informants described the capacity and restoration impacts of ACCG in a positive light, there remain significant hurdles to be addressed. Two notable issues that were raised are maintaining collaborative capacity in the face of turnover among participants, agency and non-agency alike, and more closely tying the advancement of additional restoration work to local employment and benefits.

Foundational among the collaborative capacity outcomes described by interviewees is the notion that the ACCG through the Cornerstone Project has built relationships and understanding among stakeholders where previously there was little common ground. One interviewee spoke directly about the different groups of stakeholders involved, and the role of the ACCG in bringing them together, saying, “these two groups never talked to each other. Well, what is new is they actually talk to each other now and tolerate each other. So that’s I guess a big achievement that they’re in the same room together.” Other interviewees also noted the added value that comes from having forest industry, the environmental community, and others working together, both in terms of the projects that have been developed and funding secured, as well as building trust between stakeholders and the Forest Service. Although interviewees were in agreement about the capacity outcomes achieved, they did not all agree about the stability of the progress made. Several interviewees raised the concern that changing political pressures could disrupt the balance achieved by the group. Others identified turnover among Forest Service staff as well as other members as a key ongoing issue with the potential to adversely affect the group’s progress, with one informant saying, “we’ve developed all that [agreement] with the original people. Now, there’s all different groups of people in there. So you go and explain to them what we originally started with and they didn’t know a thing about it.” While there are still real needs and challenges to be met, interviewees were nearly unanimous in their praise for the collaborative capacity built through ACCG, while acknowledging that this is ongoing work.

Interviewees engaged with ACCG, and some who were less involved, said that bringing people together to identify mutual goals and discuss issues has allowed groups to coordinate efforts, leading to greater impacts. For example, one interviewee shared, “It’s helped everybody...it’s definitely brought some people together...those guys weren’t working together at all, they met through the ACCG basically...I think it’s been very beneficial to the organizations that do work to be able to better coordinate their work.” Coordination between funding opportunities and project needs provides an opportunity to bring additional money into the community -- several individuals have been very successful at bringing in grant money -- and allows more work to be done. In addition to finding common ground and facilitating coordination, several interviewees highlighted examples of how the group has led organizations to become increasingly involved in forest management issues, who may have been on the sidelines before, with the effect of increasing local capacity to address these issues. The ACCG’s work with the Upper Mokelumne River Watershed Authority (UMRWA) captures an array of these important issues --

exploration of innovative mechanisms, pursuit of additional funding for restoration, and, to a degree, frustrations over only partially realizing the ACCG's goals around contracting with locals (See Box # 1).

Box 1. UMRWA Partnership

In 2016, ACCG facilitated the development of a Master Stewardship Agreement (MSA) between the Upper Mokelumne River Watershed Authority (UMRWA) and the Stanislaus and Eldorado National Forests. UMRWA acts as the Mokelumne-Amador-Calaveras integrated regional water management group (IRWM) with the purpose to “enhance water supply and protect water quality and the environment” (CFLRP Annual Report, 2016). UMRWA is made up of six water agencies, including five in Amador, Calaveras, and Alpine counties as well as the East Bay Municipal Utility District (EBMUD), and the counties of Amador, Calaveras, and Alpine. The Mokelumne River supplies 1.4 million water users in the East Bay, and this partnership, started in 2000, marks the first time in California that a downstream water user has committed to contribute to forest restoration work in upstream headwaters. Under the MSA, the first implementation tool other than the IRWM, UMRWA will assist in implementation of projects developed collaboratively by ACCG and the Forest Service.

UMRWA received a \$500,000 Prop. 1 grant from the Sierra Nevada Conservancy to do restoration work on 970 acres on the Calaveras Ranger District on the Stanislaus National Forest. The project was completed in 2017 by Calaveras Healthy Impact Products Solutions (CHIPS) crews and other contractors.

These capacity outcomes have contributed to restoration impacts, including local employment and workforce capacity, and accelerated restoration work in the Cornerstone area. Numerous interviewees brought up the role of the Calaveras Healthy Impact Product Solutions (CHIPS) organization and the work of the ACCG to understand and promote the use of contracting mechanisms that result in more contracts awarded locally. Restoration impacts on the ground were described primarily in the context of more work getting done, and the role of ACCG in encouraging and coordinating with other agencies to accelerate the pace of work. While interviewees weren't all in agreement that the model of attracting public funds via grants is ideal, there was near unanimous agreement on the impact of the ACCG in facilitating additional work. As one informant said, “Without ACCG, we would not be doing literally millions of dollars of work on our watersheds.”

Workforce capacity development and local employment impacts include incentivizing contractors to invest in new equipment, and exploring contracting processes to benefit local contractors and the growth of the CHIPS organization. As the pace of restoration increases, some interviewees expressed concern there would be too much work and not enough equipment locally to accomplish it. However, as one local contractor told us, “you get the work out there...there [are] people willing to invest in the equipment.” Others noted that, although increased mechanization of the timber industry has led to higher equipment costs, some local contractors have recently invested in new equipment to be able to accomplish an increased workload. Across interviewees, whether identifying a need for more equipment locally or discussing how local folks have already invested in equipment, there was broad agreement that investment will be closely tied to an assurance of availability of consistent work over time. Interviewees also shared anecdotes of the increasing number of contractors bidding on local projects, as one informant put it, the ACCG had initially expected “zero to three companies to show up” for bid tours at a project site, and a recent project ended up with 22 companies on the site visit. Other interviewees reported that some logging contractors are returning to the area as a result of increased work being available, but this was counterbalanced by some informants suggesting that local contractors have had to lay off employees to keep costs down and stay in business. CHIPS was universally described as a successful example of

workforce capacity development, and an effort that has been closely intertwined with the ACCG since its inception. The organization was created through the work of numerous dedicated volunteers, with the motto “Doing good with wood,” and a commitment to rebuilding workforce skills within a deeply divided community. Interviewees attributed CHIPS with successfully increasing the amount of culturally sensitive restoration accomplished -- in part, due to their commitment to employing Native Americans from the local area. Others emphasized the employment opportunities provided by CHIPS, hiring more than 40 workers in 2019, the connection between the success of CHIPS as a workforce development program attracting additional financial support to increase the pace and scale of restoration, and the idea that CHIPS prepares employees to enter into other resource management or wood processing job opportunities in the area that individuals would previously have been unqualified for (See Box #2).

Box 2. Calaveras Healthy Impact Product Solutions (CHIPS)

Calaveras Healthy Impact Product Solutions is a non-profit based in West Point and is a founding member of the Amador-Calaveras Consensus Group. CHIPS was founded in 2004 as an attempt to address generational unemployment, especially among local native populations, and move forest restoration forward by reestablishing employment opportunities in the woods. As of 2019, over 40 local people were employed, 70% of Miwok, Washoe, and Paiute heritage and many former inmates. Crews do forest restoration work, including fuels reduction, meadow restoration, cultural site work, and fuel breaks, on ancestral land in surrounding national forests and Yosemite National Park as well as on private land. Fuel breaks built by CHIPS crews contributed to protecting the town of Glencoe from the Butte Fire. In order to bring marginalized populations into the workforce, CHIPS takes steps to lower the barriers to employment by providing transportation to work, incentives for attendance and safety, and on-the-job training including Sawyer S212 and Basic 32 fire certifications.

CHIPS purchased a 13-acre former mill site as the home of a forest products yard to process materials removed from the forest during restoration work. Fire wood produced is delivered to families and tribal elders in the Woodfords Hung-a-lel-ti community, and the chipping operation provides chips for local school playgrounds, underscoring CHIPS’ commitment to local benefit. A 3-megawatt gasification facility is in progress that will produce heat, electricity, and biochar, and provide jobs for up to 75 additional people for fuel procurement, plant management, and trucking.

The board and staff have been entirely volunteer until 2019, when funds allowed an administrator to be hired. CHIPS’ innovative work toward the triple bottom line has been a driving factor of the collaborative and has brought in grant money and allowed the group to get work done. CHIPS signed a Master Participating Agreement to do work on CFLR projects in the Amador and Calaveras Ranger Districts on the Eldorado and Stanislaus National Forests. In 2017, a Master Participating Agreement with the Stanislaus, Eldorado, and Tahoe National Forests was signed, which gave CHIPS the flexibility to purchase new saws, crew cabs, and a bus and to do repairs on equipment and vehicles and keep up to 25 staff employed through the winter.

The relationship between CHIPS and the collaborative has been mutual: ACCG has helped CHIPS develop into the organization it is today, in part by facilitating innovative partnership mechanisms with the Forest Service, while CHIPS has provided organizational and workforce capacity to do increased restoration work in the collaborative area.

The ACCG's exploration of contracting mechanisms that can provide local benefits was successful in terms of increasing the knowledge and understanding of the possibilities, but less successful at substantially altering the process the majority of contracts are awarded through on public lands, according to interviewees. A number of interviewees highlighted that the Cornerstone Project led the group to learn a great deal about potential mechanisms to achieve the local benefits desired. This included knowledge exchange with other groups and Forest Service units that have had success in focusing work in a way that benefits local economies, as well as working through "defining local" for the ACCG area. Some informants described this as a critical goal of the group, while others felt that simply awarding more contracts would result in increased local benefits as contractors from out of the area spend money locally. In some cases, interviewees felt they worked to set up projects and processes that would result in award of contracts to local companies, only to find there were real or perceived legal challenges. Another challenge reported by interviewees was the inability of smaller, local contractors to compete with large companies. Multiple interviewees described how local contractors initially sought to work together to leverage skillsets and equipment to successfully bid on restoration projects. However, eventually this process was undermined by projects routinely being awarded to the lowest bidder -- often from out of the area. Some informants felt these low bids create an artificially low price that precludes a contractor's ability to pay quality wages and ensure long-term business sustainability through equipment maintenance and replacement. Another contracting theme raised by many informants was the concept of best value. As one interviewee described it, "to be economically [competitive]...we're under heavy pressure to be competitive, both in terms of production and cost." Interviewees also pointed out that federal partners are divided in how they look at best value, with some acknowledging the benefits of a processes that "get the community back into the game, spread money throughout the area, and make life better," while others opt for a lowest bid contract award for the value it provides to the government. Overall, interviewees described some successes of local contracting, but with additional opportunities left unfulfilled as summarized by one informant, who said, "there's still what seem to be higher opportunities, better opportunities, if they could work out the details of what really is best value, and how to move that forward."

Contract Review and Contractor Survey

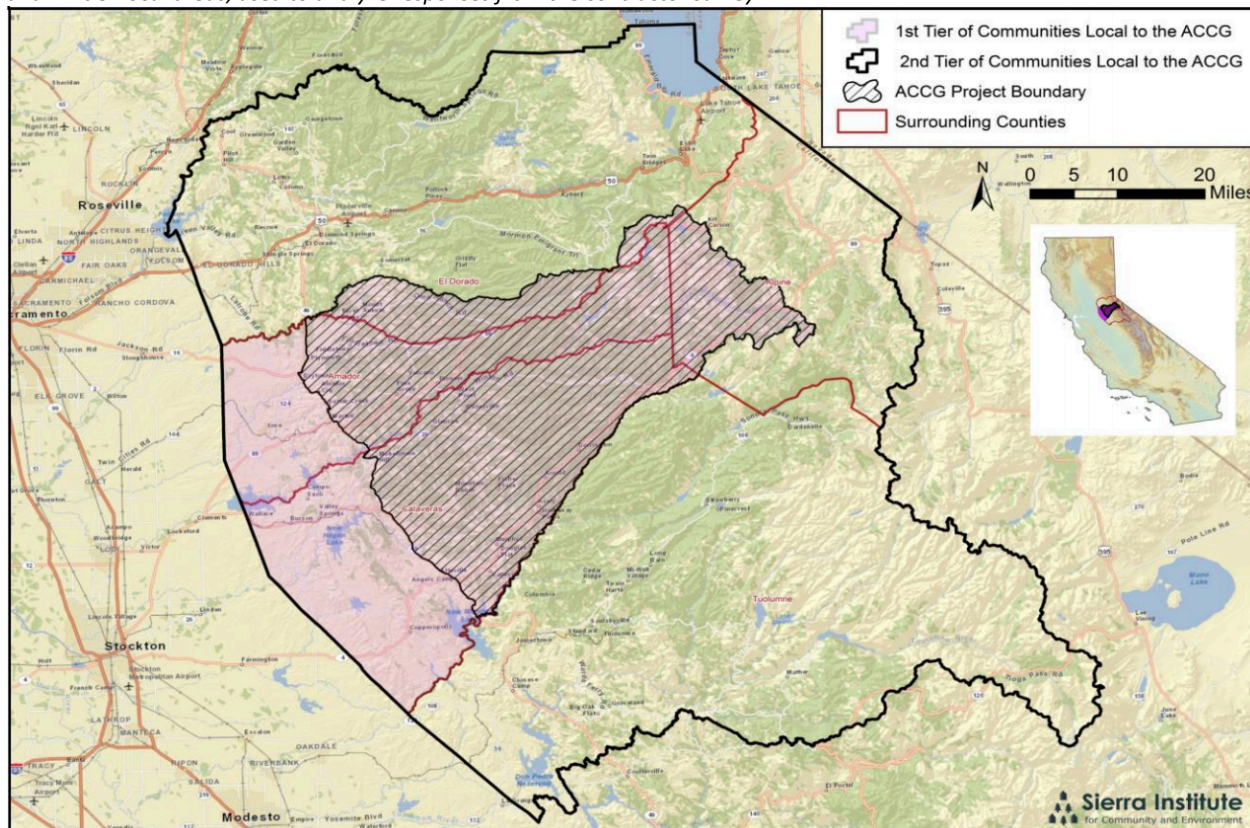
The ACCG and Cornerstone Project expressed considerable interest in working with federal partners to develop effective pathways for local contracting. Data on contracts let under the Cornerstone Project were difficult to obtain. The Stanislaus NF provided a list of 32 contracts/agreements funded with CFLR funding from fiscal year 2011 – 2018. The Eldorado NF did not provide a list of contracts/agreements funded over the life of the Cornerstone Project. Staff from the Eldorado NF provided a list of contracts/agreements funded for fiscal years 2016 – 2018. Inconsistencies, including the lack of contract value associated with many contracts/agreements, limit the usefulness of these data for evaluating the impact of the Cornerstone Project, particularly as it relates to local community contracts.

To better understand the impacts of the Cornerstone Project on contractors working in the area, Sierra Institute administered a survey focused on recent business experiences, small-diameter wood utilization, contracting processes, and the impact of wildfire. Because contractors were given the option to refrain from answering any question, some questions have fewer responses than others. Some questions addressed characteristics of the business while others solicited the contractor's opinion on a variety of issues. Because the sample size is small, it is difficult to identify clear trends or generalize from these responses. However, key themes that emerged as important to contractors are presented.

Of 15 respondents (47% response rate), two were located within the 1st tier local and five were located or had branches within the 2nd tier local boundaries defined in Sierra Institute's 2016 report, shown in Map 3 (Reeves Jolley, Kusel, and Hann, 2016). Nine were outside of these boundaries, with two from Oregon.

All of the contractors hired from within the 1st or 2nd tier local boundaries reported that they work primarily within 100 or fewer miles, indicating that most of their work would occur in and around the study area.

Map 3: This map, taken from Sierra Institute's "USFS Collaboratives and Local Benefit: What's Local Anyway?" shows the 1st tier and 2nd tier local areas, used to analyze responses from the contractor survey.



Both contractors from within the 1st tier local boundaries reported that they have not, to their knowledge, received any contracts on the basis of best value. All from within the 2nd tier local boundaries said they have but one, who was unsure. Five non-local contractors said they have received contracts on the basis of best value, two said they have not, and one was unsure. Contractors are not notified whether a contract is “best value,” so these responses are based on the perception of the contractor.

Ten contractors said they harvest and/or use small-diameter wood. Three of those said that portion of their business was somewhat profitable and just one said it was very profitable, while the rest said it was not at all profitable.

Some respondents reported that wildfire has had only positive effects on their business, while others experienced both positive and negative effects. Nine of the 14 respondents who answered this set of questions (one respondent refrained) said that at least one negative effect of wildfire had been very or extremely impactful to their business. Table 3 shows the distribution of responses to questions about some of the potential negative effects of wildfire. The reduced availability of Forest Service personnel managing existing contracts due to wildfire had the greatest impact on contractors’ ability to get or complete work, with seven respondents saying it was very or extremely impactful. Fire burning through a

contract area also caused hardship to some contractors. Another effect several contractors brought up was that the number of days they could work was reduced due to fire and smoke.

Table 3: Distribution of responses having to do with the negative impacts of wildfire on contracting businesses.

	Reduced availability of Forest Service staff managing existing contracts.	Reduced (company)'s ability to plan for future work.	Reduced the availability of unburned forest restoration work.	Burned through a contract area.	Reduced the availability of a workforce.	Caused hardship for (company)'s existing workforce.	Reduced the value of forest products (company) harvests.
Extremely impactful	4	2	2	4	2	0	2
Very impactful	3	1	1	0	1	2	2
Moderately impactful	1	3	3	2	4	4	2
Somewhat impactful	2	2	0	2	1	1	0
Not at all impactful	2	4	6	4	4	5	6

All respondents said that their business has been positively affected by wildfire. Positive effects include the availability of salvage work, the availability of unburned restoration work, the availability of a workforce, and increased public support for forest restoration have all been beneficial for business.

Discussion

Community Socioeconomic Well-Being

Through both the community capacity workshop and interviews, it appears that many communities throughout the area have moderate to high levels of social capital and moderate levels of community capacity overall. In some instances, capacity, especially financial capital, may be boosted by resident connections to the Bay Area and greater Sacramento area. Those connections, however, also challenge communities as residents may increasingly work and shop out of the area -- diminishing their ties to the community.

Data are clear that retirees comprise a significant proportion of residents in both counties. While some of these individuals, especially those coming from the Bay Area and elsewhere in California, may bring financial wealth, they may be less likely to invest in the community due to lack of connection, and may ultimately move out of the area to be nearer to family and healthcare services. In addition, retirees and other older residents present unique challenges: they may be incapable of managing fire threat on their own property, may not be aware of the fire risk, and may be difficult to reach and assist in the event of an evacuation. On the other hand, many retirees volunteer for different community organizations, including ACCG, and contribute to many different aspects of the communities.

Second home ownership, another theme frequently brought up, appears to be a more concentrated issue in some communities, notably in Tamarack and Arnold/Avery/Dorrington. These areas see an influx of wealth during the warmer months, but lack long-term investment due to a lack of connection to the communities.

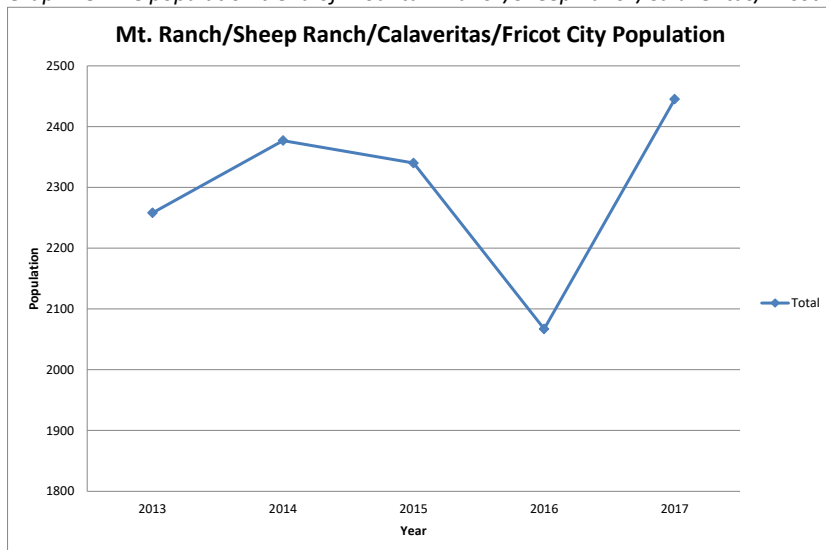
While these demographic changes present challenges to maintaining community capacity long-term, the area benefits from a history of deeply connected residents, multi-generational families, and small business owners. The region has a strong cultural connection to forests and forest management from the timber industry days, and it is clear through interviews that a strong connection remains between residents and the forest. Since the decline of the timber industry in the 1990s, the economic drivers of local communities has increasingly shifted to tourism, though it should be noted this may be as much a result of the decline of in-woods and wood products jobs as it is the growth of tourism, as industry data suggests very little growth in the leisure and hospitality sector. Despite this recent shift in importance, there appear to be promising opportunities for rebuilding a workforce to carry out important forest restoration work in the area -- evidenced in part by the success of CHIPS. Two additional major issues affecting community capacity during the lifespan of ACCG are the Butte Fire and cannabis production, both particularly prominent in Calaveras County.

Butte Fire

The Butte Fire in September of 2015 was raised by a number of interviewees through the study area as a significant event, especially in the areas in which it burned. It seems unlikely that the Butte Fire has directly affected the activities of ACCG because it did not burn within the Cornerstone boundaries or on any Forest Service land. However, the social and economic impacts of the Butte Fire create a backdrop for ACCG's work and should be addressed.

Interviewees reported an exodus of people following the Butte Fire. Population data from Mountain Ranch (Graph 28) shows a dip in population from 2015 to 2016, but then shows a rise in population to above pre-fire levels in 2017. These data could also be affected by the cannabis industry in those same communities, discussed in the next section. Some interviewees said that those who could afford to leave the area did, leaving behind a population of lower-income residents.

Graph 28: The population trend of Mountain Ranch/Sheep Ranch/Calaveritas/Fricot City from 2013-2017.



US Decennial Census: <https://factfinder.census.gov>

Overall, it appears the Butte Fire led to a loss of social capital in the region -- particularly in the most affected communities. Although many said that the Butte Fire brought people together initially, after the immediate response dwindled, residents of those areas that were hardest hit reported a loss of social capital. Friends and neighbors moved out of the area leaving a depleted social network, and the damaged physical infrastructure and economic hardships have made it difficult to rebuild the community. The

emotional toll of living in the burned landscape continues to weigh on those who have remained and face the fire hazards of thousands of acres of dead trees, egress routes routinely blocked by fallen dead trees, and the general condition of properties abandoned with owners failing to deal with the aftermath of the fire. The social impact of the fire is underscored by 100% participation in Free and Reduced Price Meal programs at some schools in and around the fire footprint the school year following the fire. School enrollment in those schools did not change very much during that time so changes likely reflect a change in economic status rather than a change in population. Those schools had some of the highest rates of FRPM participation before the fire, supporting the idea brought up in the community capacity workshop that the communities hardest hit by the fire were already struggling, making recovery more difficult.

One way in which the Butte Fire has had a broader impact is how it has affected public opinion about forest management. Nearly every interviewee mentioned the Butte Fire when asked about their perspective on the current state of the forest, with several characterizing it as “an eye-opener.” Residents who may not have given forest management much thought previously despite their proximity to a forested landscape may now be more aware of forest management needs and more supportive of the kinds of restoration activities that ACCG is involved in.

Cannabis

Similar to the Butte Fire, the cannabis controversy in Calaveras County has been playing out largely outside of Cornerstone Project boundaries. Nevertheless, it has had an impact on the socioeconomic characteristics of the area that cannot be ignored.

Interviewees have connected the fluctuation of the cannabis industry in Calaveras County with both the aftermath of the Butte Fire and county leadership. According to interviewees, an influx of cannabis growers took advantage of property values that had dropped after the Butte Fire. Some interviewees regarded the population growth as beneficial because it boosted the local economy and schools. Others, however, noted that social capital declined because cannabis growers tended to be isolated, brought aggressive guard dogs and weapons, and generally were not engaged in the community. In January of 2018, Calaveras County banned the cultivation of cannabis. Interviewees reported that the cannabis growers subsequently moved out of the area, bursting the bubble of economic benefit they brought. Population data is not available for 2018-2019 to support or refute these statements.

The Cornerstone Project and Forest Restoration Capacity

Through the Cornerstone Project, the ACCG seeks to address the socioeconomic decline in the small rural communities of Amador and Calaveras Counties. This research shows that the consolidation of the timber industry and closure of local mills has left a legacy that remains, but there are clear signs of early impacts from the Cornerstone Project that can provide a foundation that informs future activities of the ACCG.

CFLRP Annual Reports include direct impacts of the project, including funds expended, partner matching funds, acres treated, and jobs created and maintained as determined through TREAT modeling, an economic tool used by the Forest Service. These reports include both ecological and socioeconomic information and demonstrate the growth and development of partnerships and the work that is being done. One of the most straightforward of these direct impacts is that, in addition to the CFLR funds, the Cornerstone Project has leveraged \$12,389,924 of additional Forest Service dollars and \$8,572,448 in partner funds between 2012 and 2017. These funds are contributing to forest restoration work that will benefit the communities by increasing fire resilience, creating jobs, and putting money into the community through contractors' spending.

Although the job creation estimates in these reports are modeled rather than actual counts, they are of particular interest in this report because they represent a direct economic outcome of the Cornerstone Project. In Fiscal Year 2012, the Cornerstone Project and matching funds reportedly created or maintained 47.2 full and part-time direct and indirect jobs, resulting in \$1,912,755 in labor income, and 152.6 jobs and \$7,315,193 total labor income in 2013. The full and part-time direct and indirect job figure was 23.5, 35, and 78 in 2014, 2015, and 2016 respectively, and was 316 in 2017, bringing in \$14,270,956 in labor income. However, these modeled outcomes often cannot discern whether these jobs went to local people. When local people are employed in forest restoration work, a higher proportion of their income stays in the community, contributing to local businesses, schools, and cultural institutions, and therefore further employment. However, as the survey of contractors demonstrates, the majority of contractors doing work in the ACCG area are coming from several counties or states away. While contractors put some of that money back into the community for lodging, gas, and food for the duration of their work, much of it leaves the area. Although the number of jobs created indicates a lot of forest restoration work being done, capturing the economic benefit of that work locally is important to achieving the socioeconomic goals of the group.

Beyond direct impacts, the Cornerstone Project was explicit in its goal to create “broad social return-on-investments” from the beginning. The data collected as part of the monitoring effort suggest there are clear positive returns -- most notably through the positive impacts of the CHIPS organization that created jobs and built social support for workers. However, the area has faced additional unpredicted challenges, in the form of tree mortality, catastrophic wildfire, and legalization, temporarily, of cannabis growing that have mitigated success.

The work of the ACCG and individual member groups over the first eight years of the CFLR program represents a first step toward rebuilding the local capacity to implement forest restoration at a greater scale. Through our research, we identified several major tracks where the ACCG has achieved success and where potential exists for further growth, such as increasing the capacity of partner organizations and a local workforce, and increasing local contracting. An additional potential opportunity that has not been a focus for the group as yet is jobs or opportunities for professionals to conduct NEPA analyses or multi-party monitoring. Biomass utilization remains very much a work in progress despite considerable efforts, due largely to factors outside the group’s control, including state policy and the challenges of working with PG&E on biomass power purchase agreements and, now, its bankruptcy.

While the ACCG has made substantial progress toward its socioeconomic goals, some interviewees expressed concerns about the ability of the group to continue to achieve success. In particular, an initial strength of ACCG -- the connection to local contractors -- appears to have become more strained over time, as the group has struggled to fully realize the goal of local economic benefit. This has led to frustrations among local contractors; partners within ACCG don’t see the issues in the same manner as contractors, potentially clouding the possibilities for ACCG to navigate a fully successful path forward.

These challenges notwithstanding, a significant success of the Cornerstone Project has been bringing people together in the same room to find agreement about forest management. In some cases, active partners were previously only loosely connected to forest management, thus bringing these stakeholders to the table and increasing their engagement with these issues represents a major accomplishment in itself. Partners have been successful at bringing in significant additional funding to support this work. The Cornerstone Project has also had success in reconnecting residents to the forest through restoration work, particularly through employment of members of the Miwok and Washoe communities, but also evidenced by the return of “local” contractors to the area. Interestingly, data from the survey of active contractors suggests there is sufficient work to employ contractors locally. Few local contractors reported going outside of the local area to get work, and the fact that out-of-area contractors continue to win contracts

locally indicates further opportunities to build the local contractor workforce -- whether through developing skills or through improving the ability of the ACCG to offer work in ways in which local contractors can compete successfully.

Conclusions and Recommendations

In this conclusion, we review a number of key findings and provide recommendations for advancing the ACCG's positive influence on the social and economic conditions of local communities. A major element of the ACCG's work, and consequently a focus of this report, is building local capacity. Accelerating the pace and scale of restoration requires added capacity to collaboratively identify, prioritize, and advance projects; plan and implement restoration in the woods; and utilize small-diameter wood produced through restoration activities. Our work identified three major tracks the ACCG has progressed along in order to achieve these outcomes, as well as future steps to further advance these goals. We provide a brief summary and recommendations for each below.

Developing the Capacity of Partner Organizations

Although building the capacity of local organizations to engage in and support the goal of increased pace and scale of forest restoration may not be an explicit goal of the Cornerstone Project, our research indicates this is a significant outcome to date. The continued success of the ACCG and the Cornerstone Project depends, in many ways, on the willingness and ability of these partner organizations to invest staff time and resources in this work. As such, we recommend that the ACCG more formally consider the development of the capacity of partner organizations as a desired outcome, and develop strategies accordingly. For example, several of these organizations depend heavily on the committed, charismatic leadership of one or a few individuals. Planning for the sustainability of the collaborative beyond the original members, as well as the longevity of partner organizations will be critical to maintaining momentum in the coming years.

Rebuilding Local Workforce Capacity

The Cornerstone Project identified the creation of at least 120 direct jobs as a desired outcome in the initial CFLR proposal. It is difficult to assess precisely how many direct jobs have been created as a result of the CFLR -- and whether they would have been created in its absence, however, interviewees shared a clear perception that the CFLR has created local jobs, directly through CFLR funds, but also, and perhaps more so, through funding leveraged by partners. This work has been shouldered primarily by the CHIPS organization. Over the last ten years, CHIPS has wrestled with numerous challenges of creating employment and recruiting employees in communities that have gone a generation or more without significant employment opportunities. Hurdles remain, including employee retention, but this local workforce is increasingly cost-competitive on project bids and carries considerable promise going forward, and could serve as a model for workforce development in other areas. While a noteworthy success, CHIPS represents a somewhat unique case. Other local employment opportunities have faced other challenges, particularly local contractors. Interviewees shared anecdotes that local contractors have had to lay off employees, and delay hiring more workers because they don't have any assurance of long-term availability of work. These contractors are also further challenged by low bids from out-of-area contractors, a challenge discussed below.

Expanding Local Contracting Opportunities

Providing local socioeconomic benefits has been a primary thrust of the ACCG and Cornerstone Project, and identifying mechanisms for awarding contracts to local companies is a pathway the group has pursued to considerable extent. Numerous interviewees shared that the ACCG and its partner organizations have dedicated considerable time to learning about opportunities for local preferences, exploring processes that other groups have used, and working with local federal partners to encourage the adoption of existing mechanisms. However, there is more work to do on this front. Best value contracting appears to be one of the most promising avenues, but there is not a clear understanding of what best value means or how to apply it. Furthermore, some informants suggested that contracts can't be awarded locally because there isn't sufficient capacity, but contractors indicated they can't increase capacity unless they are awarded contracts. These are real and difficult barriers to overcome, but existing authorities, particularly Stewardship Authority and Good Neighbor Authority, provide opportunities. We recommend the ACCG continue to work with both federal partners and partner organizations to identify agreeable and legal contracting pathways that can offer contracts locally, and in sizes and configurations that are accessible to local contractors. ACCG and partner organizations have had a number of successes working with federal and state agencies to try new contracting mechanisms and pathways. Building opportunities for local contracting has been a central and ongoing effort throughout the life of the collaborative. Despite significant challenges, there has been considerable success and there is promising potential for continued innovation.

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ACCG Contractor Survey

Business Demographics

The first section will ask some questions about the background and characteristics of (company).

1. What are the primary types of activities (company) is involved with?

- ☐ Logging-forest operations ☐ Firewood dealer-processor
☐ Timber or biomass processing facility ☐ Other
☐ Log hauling

Comment

2. Would you characterize the majority of (company)'s work as equipment-intensive, technical, or labor-intensive?

- ☐ Equipment-intensive
☐ Technical
☐ Labor-intensive

Comment

3. What type of business (e.g. sole proprietorship, corporation) is (company)?

4. Does (company) qualify as a small business, 8(a) - minority or women owned business, and/or located in a HUB Zone?

5. How many years has (company) been in operation?

6. How many employees does (company) employ?

7. Has the number of employees changed in the last 5 years? To what extent?

- ☐ Increased
- ☐ Decreased
- ☐ Roughly the same

Comment

8. Where is (company) based?

9. In what counties/areas does (company) primarily work?

10. Would you say the majority of (company)'s work is within 25, 50, 100, or more miles?

- ☐ within 25 miles
- ☐ within 50 miles
- ☐ within 100 miles
- ☐ outside 100 miles

11. Does (company) primarily work on federal, state, or private lands?

- ☐ Federal
- ☐ State
- ☐ Private

Comment

12. What percent of (company)'s work occurs on federal lands?

13. (Company) produces/material (company) harvests is used to produce...

- | | |
|--|---|
| <input type="checkbox"/> Dimensional lumber and studs | <input type="checkbox"/> Particleboard, plywood |
| <input type="checkbox"/> Chips and hog fuel | <input type="checkbox"/> Veneer, laminates |
| <input type="checkbox"/> Firewood, densified energy products, etc. | <input type="checkbox"/> Engineered or composite wood products
(e.g. glulam, crosslam, etc.) |
| <input type="checkbox"/> Posts, poles, pilings | <input type="checkbox"/> Pulp and Paper |
| <input type="checkbox"/> Other (please specify) | |

ACCG Contractor Survey

Recent Businesses Experiences

This section asks about (company)'s recent business experiences.

14. Has your company sought any of the following types of business assistance?

- | | |
|---|--|
| <input type="checkbox"/> Financing assistance | <input type="checkbox"/> Business management and planning |
| <input type="checkbox"/> Financial advice | <input type="checkbox"/> Accessing federal timber or biomass sales |
| <input type="checkbox"/> Workforce recruitment and training | |
| <input type="checkbox"/> Other (please specify) | |

15. Source of business assistance

16. To what extent are the following limiting factors for (company)?

	Extremely limiting	Very limiting	Somewhat limiting	A little bit limiting	Not at all limiting
Federal timber volume offered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Private timber volume offered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of qualified workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Current wood products markets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity for skills and training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to capital or loans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to purchase or upgrade equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regional or local competition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

17. To what extent do you agree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The Forest Service effectively utilizes local workforce capacity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Best Value contracting helps local businesses win Forest Service contracts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is enough work available to support my business.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Small diameter wood is an important component of today's forest products industry.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My business has access to the infrastructure needed to be successful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ACCG Contractor Survey

Small-Diameter Wood

This section covers (company)'s experience with Small-Diameter Wood.

18. Does (company) harvest/use small-diameter wood (8" or less)?

19. If yes, is this a major component of (company)'s business?

20. How would you describe the profitability of the SDW component of business?

☐ Not at all profitable

☐ Very profitable

☐ A little profitable

☐ Extremely profitable

☐ Somewhat profitable

21. Has (company) re-tooled or purchased new equipment to handle SDW in the past 10 years?

☐ Yes

☐ No

Comment

ACCG Contractor Survey

Stewardship and Good Neighbor Authority

This section asks about (company)'s experience with contracting authorities for federal agencies.

22. How familiar are you with Stewardship Authority?

- ☐ Extremely familiar
- ☐ Very familiar
- ☐ Somewhat familiar
- ☐ Not very familiar
- ☐ Not at all familiar

23. How familiar are you with Good Neighbor Authority

- ☐ Extremely familiar
- ☐ Very familiar
- ☐ Somewhat familiar
- ☐ Not very familiar
- ☐ Not at all familiar

24. To your knowledge, has (company) conducted work under a stewardship contract or agreement in the last 5 years?

- ☐ Yes
- ☐ No
- ☐ Unsure

25. If no, would (company) be interested in stewardship contracting or agreements?

- ☐ Yes
- ☐ No

26. To your knowledge, has (company) conducted work under Good Neighbor Authority?

- ☐ Yes
- ☐ No
- ☐ Unsure

27. If no, would (company) be interested in work under Good Neighbor Authority?

- ☐ Yes
- ☐ No

28. To your knowledge has (company) won any contracts on the basis of best-value (i.e. a contract awarded not only on the lowest cost bid)?

- ☐ Yes
- ☐ No
- ☐ Unsure

ACCG Contractor Survey

Wildfire

This section covers how wildfire has affected (company).

29. Have wildfires negatively affected (company) during the past 5 years?

☐ Yes

☐ No

30. If yes, for each of the following, how impactful has wildfire been on (company)?
Wildfire has...

	Extremely impactful	Very impactful	Moderately impactful	A little bit impactful	Not impactful at all
Reduced availability of Forest Service staff managing existing contracts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced (company)'s ability to plan for future work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced the availability of unburned forest restoration work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Burned through a contract area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced the availability of a workforce.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Caused hardship for (company)'s existing workforce.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced the value of forest products (company) harvests.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other impacts?

31. Have wildfires positively affected (company) during the past 5 years?

- ☐ Yes
- ☐ No

32. If yes, for each of the following, how impactful has wildfire been on (company)?
Wildfire has...

	Extremely impactful	Very impactful	Moderately impactful	A little bit impactful	Not impactful at all
Provided salvage or post-fire restoration work opportunities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase the availability of unburned forest restoration work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased the availability of a workforce.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased community support for forest restoration.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other impacts?					

Appendix B

Sierra Institute Socioeconomic Monitoring: Community Capacity Assessment Workshop

March 30th, 2018

Community Name _____

Please circle the number that best reflects your community's level of capital or capacity (on a scale of 1-5, 1 being the lowest level of capital or capacity and 5 being the highest level). Use space beneath each type of capital to provide narrative information. For example, describe the unique or important characteristics of your community that informed your decision. Additional space is provided at the end of this worksheet.

FINANCIAL CAPITAL

LOW 1 2 3 4 5 HIGH

(Availability of dollars for local uses and projects and to meet pressing local needs. These may be public dollars or private dollars, but if private they are tightly linked to community purpose and not just self-interested purposes.)

Please describe why you rated this community as you did in the box below.

HUMAN CAPITAL

LOW 1 2 3 4 5 HIGH

(Individuals with knowledge/ability to address conditions and stressors of concern; it is also the experience and capabilities of local residents their willingness to use these locally.)

Please describe why you rated this community as you did in the box below.

SOCIAL CAPITAL

LOW 1 2 3 4 5 HIGH

(The ability and willingness of local residents to work together towards community ends and purposes.)

Please describe why you rated this community as you did in the box below.

CULTURAL CAPITAL

LOW 1 2 3 4 5 HIGH

(The prevalence and strength of shared local bonds and ways of living, and the uniqueness of and identification with this.)

Please describe why you rated this community as you did in the box below.

PHYSICAL CAPITAL

LOW 1 2 3 4 5 HIGH

(The “hard infrastructure” of a community, such as roads, sewers, schools, etc., including the quality of this infrastructure and its ability to meet local need.)

Please describe why you rated this community as you did in the box below.

OVERALL CAPACITY RATING

LOW 1 2 3 4 5 HIGH

Please describe why you rated this community as you did in the box below.

Additional Narrative Information:

**ACCG Socioeconomic Monitoring Assessment Interview Guide
April 2019**

Introduction:

- Introduce yourself and other persons present, position(s).
- Give brief recap of Sierra Institute and its relationship to the Amador-Calaveras Consensus Group.
- Provide recap of ACCG/CFLR socioeconomic monitoring assessment: purpose, methods, desired outcomes.
- Review map and its purpose as a visual aid.
- Consent [directed to informant]:
- Your responses will remain anonymous but will inform a written report provided to ACCG/USFS and made publicly available online (your name will not be attached to any information you provide unless you give explicit permission). Is that okay?
 - Is it okay if we take notes to make sure we capture your ideas effectively?
- You may choose to end the interview at any time and you don't have to answer any question that you don't feel comfortable answering.
 - Any questions before we get started?

I. General

- Do you live in the ACCG CFLR area? How long have you lived in the area?
- What kind of work do you do?
 - Please describe
 - How long have you been doing that kind of work? How long has this business been around?
 - How many employees?
- Are you aware of the Amador-Calaveras Consensus Group?
 - Have you been involved and if so in what capacity?

II. Work Connection

- Is there a connection between the work you do and the ACCG Cornerstone Project, or the Forest Service or forest management more generally? Please describe.
- How does the current state of the Forest affect [your community]?
 - Eg. Was your business/family/community affected by the Butte Fire? Mill closures?
 - Do you believe that will that change in the next 3-5 years? If so, how?
- How would you describe the relationship between the USFS and local communities?

III. ACCG Specific << If knowledgeable about the Collaborative >>

- How would you describe the relationship between ACCG and the Forest Service?
- How would you describe the relationship between the CFLR and the local community?
- Are people in your community aware of ACCG?
- What are the economic outcomes of the CFLR? The social outcomes?
- Has the Cornerstone Project created local jobs?

- Have projects/practices changed due to ACCG activities?
- Have projects/practices changed since the Butte Fire?

IV. Economy

- In what context are you familiar with the local economy? Specify community.
- How has the economy in this area changed in the past 10 years? How would you describe its current condition?
 - How would you describe the condition of local businesses in the area? Are there new business/start-ups and can they last?
 - Where do you think the economy is headed in the next 3-5 years?
- What types of employment support your community?
 - How would you characterize the amount of living wage job opportunities?
 - How do job opportunities and employment rates influence this community?
 - What types of employment support other communities local to the ACCG CFLR area?
- How would you describe the condition of local schools? Has this changed in the past 10 or so years?
- How would you describe the community of [your community]?
 - What brings people in [your community] together? For example, are there community events (i.e. sports, fundraisers)?
 - What are people in this community proud of?
 - Are there individuals or groups that work on behalf of the community?

V. Conclusion

- What do you see as the most prevalent connection between the Cornerstone Project and/or local forests and local socioeconomic wellbeing?
- Who are other key people that we should be talking to about local socioeconomic issues?
- Is there anything we didn't cover that you'd like to mention?
- May we contact you if we have additional follow-up questions?