ABOUT CALIFORNIA 100

The California 100 Initiative envisions a future that is innovative, sustainable, and equitable for all. Our mission is to strengthen California’s ability to collectively solve problems and shape our long-term future over the next 100 years.

California 100 is organized around 5 policy themes and 5 core values, and driven by interrelated stages of work: research, policy innovation, and engagement with Californians. California 100’s work is guided by an expert and intergenerational Commission.

Through various projects and activities, California 100 seeks to move California towards an aspirational vision—changing policies and practices, attitudes and mindsets, to inspire a more vibrant future. This Regional Analysis was produced as part of California 100’s research stream of work.

The California 100 initiative is incubated through the University of California and Stanford.

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A special thank you to Daniel Huang, Caroline Siegel Singh, and Linda Tran for research assistance.

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The largest cities within each of the counties in the Far North include:

- Chico (Butte County, 101,475)
- Redding (Shasta County, 93,611)
- Eureka (Humboldt County, 26,512)
- Truckee (Nevada County, 16,729)
- Susanville (Lassen County, 16,728)
- Clearlake (Lake County, 16,685)
- Ukiah (Mendocino County, 16,607)
- Red Bluff (Tehama County, 14,710)
- Orland (Glenn County, 8,298)
- Yreka (Siskiyou County, 7,807)
- Crescent City (Del Norte County, 6,673)
- Colusa (Colusa County, 6,411)\(^1\)

**NOTE:** Cities are not listed for Modoc, Plumas, Sierra, and Trinity Counties because the Census only provides data for cities and towns with a population of 5,000 or more.
REGIONAL CHARACTERISTICS

About 1 million people live in the 16 Far North counties, only about 1 percent of the state's total population. The Far North comprises Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Trinity counties, covering roughly 25 percent of the state's total area.

The Far North is the least populated region in California, home to about 1 million people, or less than 1 percent of the state's total population. In spite of its relatively small population, the region comprises roughly 25 percent of California's total land mass, much of which is federally-managed land.

Along the North Coast is the Klamath Mountain Range, a 250-mile long stretch between Oregon and California, through which the Klamath River runs. The Klamath River is a culturally and environmentally significant water source in the region, used by Native American populations for thousands of years for fishing and as a spiritual site for ceremonies and burials. East of the Klamath Mountains is Mount Shasta, a 3,600 foot-tall volcano in the southern part of the Cascade Mountain Range. In the furthest eastern parts of the region lie the northern Sierra Nevada mountains.

Because of the diversity in environment and topography throughout the Far North, the region can be divided into the following three subregions:

<table>
<thead>
<tr>
<th>Sub-Region</th>
<th>Counties</th>
<th>Population</th>
<th>Total Land Mass (sq. mi.)</th>
<th>Water %</th>
<th>Federal Land %</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Coast</td>
<td>Del Norte, Humboldt, Mendocino, Trinity</td>
<td>271,919</td>
<td>11,259</td>
<td>9.0%</td>
<td>44.7%</td>
</tr>
<tr>
<td>Northern Sacramento Valley</td>
<td>Colusa, Glenn, Lake, Nevada</td>
<td>221,160</td>
<td>4,679</td>
<td>2.2%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Shasta Cascade</td>
<td>Butte, Lassen, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama</td>
<td>568,148</td>
<td>26,604</td>
<td>2.7%</td>
<td>53.5%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>1,061,227</strong></td>
<td><strong>42,542</strong></td>
<td><strong>4.4%</strong></td>
<td><strong>67.0%</strong></td>
</tr>
</tbody>
</table>

Residents in the Far North are Predominantly White and Older Than 54

**Figure 1**

**SOURCE:** U.S. Census Data, 2020
Compared to the Rest of the State, the Far North has Far Fewer Hispanic or Latino Residents, but Many More Native or Indigenous People

<table>
<thead>
<tr>
<th>County</th>
<th>Hispanic or Latino</th>
<th>White</th>
<th>Black or African American</th>
<th>Asian or Native Hawaiian and Other Pacific Islander</th>
<th>American Indian and Alaska Native</th>
<th>Two or More Races</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butte</td>
<td>19%</td>
<td>66%</td>
<td>5%</td>
<td>6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colusa</td>
<td>62%</td>
<td>32%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Del Norte</td>
<td>19%</td>
<td>59%</td>
<td>3%</td>
<td>8%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>Glenn</td>
<td>43%</td>
<td>48%</td>
<td></td>
<td></td>
<td></td>
<td>8%</td>
</tr>
<tr>
<td>Humboldt</td>
<td>14%</td>
<td>68%</td>
<td>5%</td>
<td>3%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>Lake</td>
<td>23%</td>
<td>65%</td>
<td>3%</td>
<td>6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lassen</td>
<td>23%</td>
<td>60%</td>
<td>7%</td>
<td>3%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Mendocino</td>
<td>26%</td>
<td>61%</td>
<td>4%</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modoc</td>
<td>14%</td>
<td>74%</td>
<td>4%</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nevada</td>
<td>10%</td>
<td>81%</td>
<td></td>
<td></td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>Plumas</td>
<td>10%</td>
<td>81%</td>
<td></td>
<td></td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>Shasta</td>
<td>11%</td>
<td>75%</td>
<td>3%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sierra</td>
<td>12%</td>
<td>81%</td>
<td></td>
<td></td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>Siskiyou</td>
<td>13%</td>
<td>73%</td>
<td>4%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tehama</td>
<td>27%</td>
<td>63%</td>
<td></td>
<td></td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Trinity</td>
<td>6%</td>
<td>71%</td>
<td></td>
<td></td>
<td>3%</td>
<td>14%</td>
</tr>
<tr>
<td>STATEWIDE</td>
<td>39%</td>
<td>35%</td>
<td>5%</td>
<td>15%</td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE:** U.S. Census Data, 2020
The Far North has Many More Republican Voters than the Rest of the State

<table>
<thead>
<tr>
<th>County</th>
<th>Democratic</th>
<th>Republican</th>
<th>Third-Party</th>
<th>No Party Reference</th>
<th>Eligible Non-Registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butte</td>
<td>26%</td>
<td>27%</td>
<td>7%</td>
<td>15%</td>
<td>26%</td>
</tr>
<tr>
<td>Colusa</td>
<td>25%</td>
<td>31%</td>
<td>5%</td>
<td>17%</td>
<td>23%</td>
</tr>
<tr>
<td>Del Norte</td>
<td>24%</td>
<td>31%</td>
<td>7%</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>Glenn</td>
<td>21%</td>
<td>34%</td>
<td>5%</td>
<td>15%</td>
<td>24%</td>
</tr>
<tr>
<td>Humboldt</td>
<td>37%</td>
<td>19%</td>
<td>7%</td>
<td>16%</td>
<td>21%</td>
</tr>
<tr>
<td>Lake</td>
<td>28%</td>
<td>22%</td>
<td>7%</td>
<td>16%</td>
<td>28%</td>
</tr>
<tr>
<td>Lassen</td>
<td>12%</td>
<td>39%</td>
<td>7%</td>
<td>12%</td>
<td>30%</td>
</tr>
<tr>
<td>Mendocino</td>
<td>39%</td>
<td>17%</td>
<td>7%</td>
<td>17%</td>
<td>21%</td>
</tr>
<tr>
<td>Modoc</td>
<td>16%</td>
<td>42%</td>
<td>6%</td>
<td>12%</td>
<td>23%</td>
</tr>
<tr>
<td>Nevada</td>
<td>36%</td>
<td>29%</td>
<td>12%</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td>Plumas</td>
<td>25%</td>
<td>40%</td>
<td>8%</td>
<td>17%</td>
<td>10%</td>
</tr>
<tr>
<td>Shasta</td>
<td>18%</td>
<td>40%</td>
<td>7%</td>
<td>15%</td>
<td>19%</td>
</tr>
<tr>
<td>Sierra</td>
<td>22%</td>
<td>37%</td>
<td>8%</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>Siskiyou</td>
<td>24%</td>
<td>34%</td>
<td>8%</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Tehama</td>
<td>19%</td>
<td>37%</td>
<td>7%</td>
<td>16%</td>
<td>21%</td>
</tr>
<tr>
<td>Trinity</td>
<td>17%</td>
<td>20%</td>
<td>6%</td>
<td>12%</td>
<td>45%</td>
</tr>
<tr>
<td>STATEWIDE</td>
<td>38%</td>
<td>19%</td>
<td>5%</td>
<td>18%</td>
<td>19%</td>
</tr>
</tbody>
</table>

**SOURCE:** California Secretary of State, September 9, 2022 Report of Registration.
The Far North region’s climate is among the most diverse in the state, with moist and cool weather along the North Coast, which transitions into a mountainous semiarid climate moving east into the Shasta Cascade. Reflecting this diversity in climate, topography, and environment, many distinct Native American tribes lived throughout the region for thousands of years before Spanish colonization. According to the California Native American Heritage Commission, the tribes along the North Coast included the Tolowa, Shasta, Karok, Yurok Hupa Whilikut, Chilula, Chimarike and Wiyot tribes; in the Shasta Cascade region: the Modoc, Achumawi, and Atsugewi tribes.

Along the coastal communities where fishing was abundant, salmon, smelt, and shellfish served as staples in the diet of native communities. The Redwood trees along the coast also served important roles for these communities.
munities, which used the wood to construct homes and boats. Further east, the climate shifted to be drier and the communities in the mountainous region subsisted off seeds, berries, and small animals including rabbit and deer. These communities were often independent and governed internally.

The arrival of the Spanish, first in 1542, and more permanently in 1769 with the establishment of the mission system, set in motion the tumultuous transition of California as a region formerly occupied primarily by Native Americans, to one governed by Spain, then Mexico, and finally, the U.S. The majority of the 18th-century Spanish activity, however, remained along the coast further south than the Far North territories. Because the northernmost mission was in Sonoma, expeditions into the Far North were infrequent and often temporary.

Some Native Americans living in the Far North were recruited for work in constructing the missions, but the region was more acutely affected by the Gold Rush and California statehood, which brought an influx of settlers into the northernmost portions of the state. Within the Far North region, the gold mines in the Trinity Mountains in the Klamath Range were some of the most productive in the state.

STATE-SANCTIONED DISCRIMINATION AGAINST THE NATIVE POPULATION

Through statehood in 1850, California became an unsafe place for many Native and Indigenous peoples. That year, the newly-established California state legislature passed
the Act for the Government and Protection of Indians, which was one of the earliest laws passed against Native Americans. Despite its name, the law allowed for the seizure of land and of indigenous people who were arbitrarily deemed unemployed, who could then be sold at auction.11

The following year, the first California governor, Peter Burnett, discussed the impending extermination of the Native people in an address to the state legislature. This speech garnered nearly $1.3 million in support from the state legislature to form local militias against indigenous communities.12 As land previously held by Native communities was seized by settlers, many died of disease, while others were killed by the state-sanctioned genocide: in the first two decades following California’s entrance into the Union, roughly 80 percent of the state’s Native American community was killed.13

In the Far North, such attacks against the Native people had already begun before the passage of the 1850 law. In 1847, two white cattle ranchers settled in present-day Lake County, enslaving several hundred Pomo people for labor. Following more than two years of inhumane treatment and starvation, a group of Pomo attacked and killed the ranchers in retaliation for mistreatment and forced labor, which led to a punitive response against the Pomo by the ranchers’ family members, aided by the U.S. Army.

In 1850, a treaty was signed between the U.S. government and various indigenous tribes in the region, including the Pomo, Clear Lake, and Lake Miwok tribes. However, the treaty
was not honored by the U.S. government, and conflicts between indigenous people and settlers continued. In May 1850, a group of white settlers attacked a Pomo village, killing an estimated 200 Pomo people in Clear Lake, which became known as the Bloody Island massacre.\textsuperscript{14}

In 1855, the Klamath War broke out between the indigenous Modoc people and the United States Army. The Modoc people, who had inhabited the region around the Klamath River for thousands of years, faced pressure from white settlers who moved into the area in increasing numbers. Conflict between the Modoc and the U.S. Army lasted several months and involved a series of battles and skirmishes, with both sides suffering casualties.

The conflict had significant consequences for the Modoc people, who were eventually forced onto a reservation.

After being forced onto a reservation that was not suitable for their traditional way of life, in 1872, the Modoc War began between the Modoc and the U.S. government after years of tension from the Klamath War. When the Modoc refused to be moved to a different reservation, the U.S. Army was sent to force their compliance. The Modoc fought back and were able to hold off the U.S. Army for several months before they were eventually defeated. Many of the surviving Modocs were exiled to Oklahoma, as their land was assumed by the U.S.\textsuperscript{15}
ECONOMY AND INDUSTRY IN THE 19TH AND 20TH CENTURIES

LUMBER AND LOGGING

In the 19th century, the economy of the North Coast became dependent on the lumber industry due to the Gold Rush. Because the populations of boom-towns, which had sprung up around mining communities, rose so quickly, there were constant shortages of timber available for housing. Given its proximity to such communities and to about 2 million acres of redwood forests, Humboldt Bay quickly became one of the largest producers of timber in the state by the late 1850s. By 1960, about 90 percent of the original redwoods had been cut down by industrial logging efforts. Today, only about 7 percent of this old-growth forest remains.

The Shasta Cascade also has a long history of being an important area for timber and agriculture. During the 1800s and early 1900s, logging and lumber mills were the dominant industries, with the timber being used for building materials and fuel for steamships and locomotives. Agriculture has always been a major part of the region’s economy, with crops such as wheat, hay, and fruit trees being grown in the fertile valleys.

Moreover, the introduction and expansion of the railroad allowed for the industry’s growth throughout the entire Far North. By 1915, railroads ran between San Francisco and Humboldt Bay, allowing for more efficient transportation of timber, which had previously been sent south by boat. The railroads also facilitated the export of timber products to markets throughout the country.
FISHING

Historically, the fishing industry played a significant role in the North Coast’s economy. The region’s coastal towns, including Fort Bragg and Eureka, were home to large fishing fleets that primarily targeted salmon, tuna, and shellfish. The industry provided a significant number of jobs and supported many other businesses, such as canneries and processing plants.

MINING

Both the Shasta Cascade and the Northern Sacramento Valley relied on mining as key industries. The discovery of gold in the Northern Sacramento Valley in the mid-1800s led to a significant mining industry in the region, with towns such as Red Bluff and Redding growing as supply centers for the mining camps in the mountains. Later, the discovery of copper and other minerals in the region also spurred mining activity.

AGRICULTURE AND CATTLE RANCHING

The Northern Sacramento Valley in particular relied on agriculture as its primary industry. The region has a long history of farming, including the cultivation of crops such as rice, almonds, walnuts, and prunes. Likewise, the agricultural industry also gained traction in the North Coast region, initially with cultivation of grains and potatoes; over time, however, land was increasingly dedicated to livestock, such that Humboldt County became one of California’s largest wool producers, and a significant contributor to its dairy industry.21

In the 19th and early 20th centuries, the cattle ranching industry was a significant economic driver in the Far North. Cattle ranching became popular because of the vast grasslands that provided ample grazing lands for livestock. East Coast demand for beef, hides, and tallow supported the expansion of ranching. The arrival of the railroad in the late 19th century made transportation of cattle and beef products easier and more efficient.
A large fraction of the Far North is federal land. The federal government has historically sought to protect natural resources in the region, including forests, rivers, and wildlife habitats, by creating several national forests, parks, and wildlife refuges. The federal government also manages many of the natural resources in the region, including timber, minerals, and water by leasing land for resource extraction or regulating activities that may impact these resources. Overall, the federal government’s presence in the Far North has had a significant impact on the region’s economy, culture, and environment.

**Figure 4** The Far North Region Includes a Significant Amount of Federal Land

**Federal land in California**

- Forest Service
- National Park Service
- Bureau of Land Management
- Department of Defense
- Other

THE U.S. FOREST SERVICE

The U.S. Forest Service was established in 1905 to manage the nation’s forest reserves and to provide a steady supply of timber. In the Far North, the Forest Service has played and continues to play a critical role in the management of the region’s vast forest resources, including those in the Shasta Cascade and North Coast subregions.

The Forest Service’s management practices help to sustainably harvest timber and preserve other resources for future generations. The agency also helps to create jobs in the region, particularly in the timber industry. However, there are also negative impacts associated with the Forest Service’s management practices, including the displacement of Indigenous peoples and the destruction of habitat for wildlife.

NATIONAL PARKS AND PRESERVATION AREAS

Due to the Far North’s reliance on natural resources, including logging and mining, the impact of these industries on the region’s environment has been significant. As a result, there have been various conservation practices implemented over the years.

One significant conservation effort in the region has been the establishment of national and state parks. The Redwood National Park and the Lassen Volcanic National Park were established in the mid-20th century to protect the region’s natural beauty and wildlife.
FORESTS AND PRESCRIBED BURNS

Prior to the widespread settlement of Europeans in the 19th century, the Native American populations throughout California practiced prescribed burns, intentionally setting fire in designated areas in order to maximize resources. Fires can change the shape in which shrubs like hazelnut grow, allowing it to be used for basket weaving, while fires can also promote growth of food sources, including acorns.\(^{22}\) Periodic fires can also clean up underbrush and avoid “mega-fires” that result when fire prevention efforts have led to massive accumulations of fuel.

In the early 20th century, however, when the Forest Service was established, it transitioned privately-controlled forested lands to the government, which – in response to a number of destructive forest fires in the late 19th century – adopted fire exclusion and suppression policies with the goal of putting out fires as quickly as possible.\(^{23}\) The Forest Service eliminated the practice of allowing or using prescribed burns throughout the state.

Until the 1970s, when research indicated that fire can have a positive effect on ecosystems, federal land management policies banned the practice of prescribed burns, which had been vital to the culture and livelihood of Native tribes.\(^{24}\) Moreover, the implementation of these policies coincided with the displacement of Native American communities across the state, the razing of forested areas for agricultural and livestock purposes, and the advent of a timber industry, ultimately altering the landscape of the Far North.\(^{25}\)
The Shasta Cascade region in particular has a history of hydroelectric power generation, with many dams being built along the rivers in the early 20th century. The construction of several large dams and water projects in the Far North region, including the Shasta Dam and the Trinity Dam, had a significant impact on the region’s economy and environment. These projects provided water for irrigation and hydroelectric power, but they also had negative effects on the region’s fisheries and ecosystems.

During the Great Depression, several New Deal programs were implemented in the Far North region to help alleviate poverty and stimulate economic growth. The New Deal also invested in building the Shasta Dam, the second largest dam in the world behind the Hoover Dam. About 2,700 workers built the dam between 1938 and 1945, which today stores up to 20 percent of the state’s developed water, or water that is stored and held for various uses, and powers the Shasta Powerplant, which can generate power for up to 710,000 homes.

The region is also home to a series of dams along the Klamath River, which were built between 1908 and 1963 for the purpose of generating hydroelectric power. However, these dams caused a significant decline in the Klamath River’s salmon populations, which are critical to the region’s economy and cultural heritage. A movement to remove these four dams has been active for decades, and gained real momentum in the 2000s. In 2020, a deal was reached between the states of California and Oregon, the federal government, and the dam’s owner, PacifiCorp, to remove the dams by 2023.
The four dams are expected to be removed sometime in 2023 or 2024. Demolishing these dams, built along about 400 miles of the river between Oregon and California, will cost about $500 million dollars, roughly $200 million of which will be paid by the dam’s operating power utility company, PacifiCorp. This effort will be the largest dam removal project in the world and will help to restore access for fish to their historical cold-water habitat.

THE FAR NORTH’S SECESSION EFFORTS

The Far North has sought independence from the State of California and to become its own territory since its inception. As a greater number of settlers moved into the northernmost parts of the state, and along the southern border of Oregon in the 1850s, talk of forming a new territory began. Following a failed attempt by Oregonians in Jackson County to secede in 1854, Californians in Yreka sought to form a separate territory in 1859. This second attempt garnered statewide support, passing through the state legislature with approval by the governor, but it ultimately failed at the national level.

In the early 20th century, the region was critical to providing raw materials for the U.S. war efforts, but residents felt that the region remained undervalued without adequate investment by the government of California. Therefore, another attempt was made to secede from California. However, contrary to earlier efforts, this attempt was explicitly made largely to draw public attention to the Far North and its neighbors across the Oregon border. The “State of Siskiyou,” as it was initially called, was an attempt to attract infrastructure expenditure for better roads, which proved to be moderately successful, as several highways were paved in the following years.

Regardless of these infrastructure efforts, industry leaders and local politicians still felt the lack of investment from the state. In 1941, a new secession movement was introduced, naming the proposed state “Jefferson.” However, national concerns drowned out the efforts of the rural Californians, as the U.S. entered World War II following the attack on Pearl Harbor.

The concept of the “State of Jefferson” is one that continues to endure into the present day. Some Far North residents argue that the stark ideological disparities between the region and the rest of the state mean that the region lacks real representation. In the 2016 presidential election, voters in 12 of the 16 Far North counties provided a plurality for President Trump which constituted almost half of the 25 California counties that gave him their support. All eight counties in the Shasta Cascade region voted for Trump, two of the four in the North Coast, and two of the four in the Northern Sacramento Valley. Residents in counties like Siskiyou and Trinity region report feelings...
of alienation from the Democratic electorate.\textsuperscript{36} The result is a continued interest in the Jefferson movement.\textsuperscript{37} As recently as May 2021, counties in Southeastern Oregon endorsed a plan to integrate with much of the Far North region to join the more conservative state of Idaho.\textsuperscript{38} Not surprisingly, in the 2020 Presidential Election, the Far North region broke from the Democratic-leaning majority of the state, instead voting Republican.\textsuperscript{39,40}
REGIONAL DRIVERS

THE FAR NORTH EXPERIENCES THE BRUNT OF ALL FORMS OF CLIMATE CHANGE

WILDFIRES

Relative to the rest of California, the Far North is disproportionately affected and particularly vulnerable to lightning-caused wildfires. In the Far North, where elevations average among the highest in the state – reaching up to 14,000 feet at Mt. Shasta in Siskiyou County so the risk of dry thunderstorms increases.41

Dry thunderstorms occur at higher elevations, frequently during dry and warm conditions, when rain clouds are so high that precipitation evaporates as it falls, leaving only the thunder and lightning strikes.42, 43 For nearly 100 years, studies have shown that Northern California is most likely to experience fires ignited by lightning.44
The Far North Has Experienced Half of the 20 Largest Wildfires in State History Within the Last 15 Years

<table>
<thead>
<tr>
<th>Fire Name</th>
<th>Date</th>
<th>Size (acres)</th>
<th>Counties (Shasta Cascade, Sacramento Valley, North Coast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>August Complex*</td>
<td>August 2020</td>
<td>1,032,648</td>
<td>Mendocino, Humboldt, Trinity, Tehama, Glenn, Lake, and Colusa</td>
</tr>
<tr>
<td>Dixie*</td>
<td>July 2021</td>
<td>963,309</td>
<td>Butte, Plumas, Lassen, Shasta, and Tehama</td>
</tr>
<tr>
<td>Mendocino Complex</td>
<td>July 2018</td>
<td>459,123</td>
<td>Colusa, Lake, Mendocino, and Glenn</td>
</tr>
<tr>
<td>LNU Lightning Complex*</td>
<td>August 2020</td>
<td>363,220</td>
<td>Napa, Solano, Sonoma, Yolo, Lake, and Colusa</td>
</tr>
<tr>
<td>North Complex</td>
<td>August 2020</td>
<td>318,935</td>
<td>Butte, Plumas, and Yuba</td>
</tr>
<tr>
<td>Rush</td>
<td>August 2012</td>
<td>271,911</td>
<td>Lassen</td>
</tr>
<tr>
<td>Carr*</td>
<td>July 2018</td>
<td>229,651</td>
<td>Shasta and Trinity</td>
</tr>
<tr>
<td>Monument</td>
<td>July 2021</td>
<td>223,124</td>
<td>Trinity</td>
</tr>
<tr>
<td>River Complex</td>
<td>July 2021</td>
<td>199,359</td>
<td>Siskiyou and Trinity</td>
</tr>
<tr>
<td>Klamath Theater Complex</td>
<td>June 2008</td>
<td>192,038</td>
<td>Siskiyou</td>
</tr>
</tbody>
</table>

*Appears on both tables showing the largest and most destructive wildfires.

**SOURCE:** CalFire, Top 20 Largest California Wildfires.
The effects of wildfire in the Far North have been magnified by the amount of dense, forested area in the region. As the vegetation in these regions dries during hot summer months, the amount of fuel for fires grows: not only are fires more likely, but the severity of fires also increases.\textsuperscript{45}

California is more prone to fire than any other state in the U.S. and the intensity of wildfires has progressed over time.\textsuperscript{46} Specifically, as the two tables show, the Far North has experienced both the largest and many of the most deadly wildfires in the entire state. In particular, the Shasta Cascade is prone to wildfires, which can threaten homes, businesses, and critical infrastructure.
Many of the State’s 20 Most Destructive and 20 Deadliest Wildfires Have Occurred in the Far North

<table>
<thead>
<tr>
<th>Fire Name</th>
<th>Date</th>
<th>Structures Destroyed</th>
<th>Deaths</th>
<th>County (Shasta Cascade, Sacramento Valley, North Coast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camp</td>
<td>November 2018</td>
<td>18,804</td>
<td>85</td>
<td>Butte</td>
</tr>
<tr>
<td>North Complex</td>
<td>August 2020</td>
<td>2,352</td>
<td>15</td>
<td>Butte, Plumas, and Yuba</td>
</tr>
<tr>
<td>Rattlesnake</td>
<td>July 1953</td>
<td>0</td>
<td>15</td>
<td>Glenn</td>
</tr>
<tr>
<td>Iron Alps Complex</td>
<td>August 2008</td>
<td>10</td>
<td>10</td>
<td>Trinity</td>
</tr>
<tr>
<td>Redwood Valley</td>
<td>October 2017</td>
<td>543</td>
<td>9</td>
<td>Mendocino</td>
</tr>
<tr>
<td>Carr*</td>
<td>July 2018</td>
<td>1,614</td>
<td>7</td>
<td>Shasta and Trinity</td>
</tr>
<tr>
<td>LNU Lightning Complex*</td>
<td>August 2020</td>
<td>1,491</td>
<td>6</td>
<td>Napa, Solano, Sonoma, Yolo, Lake, and Colusa</td>
</tr>
<tr>
<td>Dixie*</td>
<td>July 2021</td>
<td>1,311</td>
<td>1</td>
<td>Butte, Plumas, Lassen, and Tehama</td>
</tr>
<tr>
<td>Jones</td>
<td>October 1999</td>
<td>954</td>
<td>1</td>
<td>Shasta</td>
</tr>
<tr>
<td>August Complex*</td>
<td>August 2020</td>
<td>935</td>
<td>1</td>
<td>Mendocino, Humboldt, Trinity, Tehama, Glenn, Lake, and Colusa</td>
</tr>
</tbody>
</table>

*Appears on both tables showing the largest and most destructive wildfires. 

**SOURCE:** CalFire, [Top 20 Most Destructive California Wildfires](https://www.calfire.ca.gov/fire_info/fire_info_overview), [Top 20 Deadliest California Wildfires](https://www.calfire.ca.gov/fire_info/fire_info_overview).
Wildfires not only disrupt ecosystems and communities, but can also add to concerns of mudslides, particularly in regions like the Far North that experience heavy annual rainfall. For up to five years after a fire, these areas become more prone to mudslides because vegetation that had anchored the soil is now disrupted from burns, while the soil itself becomes clogged with ash, thereby limiting its ability to absorb water so that it rushes off its surface more easily.47

In regions like the Far North, where climate change has led to heightened concerns of wildfires and where warming temperatures result in more precipitation falling as rain than as snow, the risk of landslides is also rising.48 The U.S. Geological Survey’s annual audit of wildfires notes new locations in Siskiyou, Klamath, and Humboldt have high post-fire debris-flow hazards.49 In early 2021, Congress passed the National Landslide Preparedness Act, which recognized the vulnerability of recently-burned areas for landslides.50
AIR POLLUTION

The effects of these fires have been devastating on both the local communities, and the state more broadly. During the 2020 fire season in California, enough carbon dioxide emissions were released to undo the effects of 18 years of statewide emission-cutting efforts. Specifically, the 2020 fire season released roughly 127 million metric tons of carbon dioxide emissions, compared with the 65 million conserved. That year, more than 4 million acres burned across the state causing more than $19 billion in economic losses, with the most severe burns in the Far North.

Estimating the emissions of wildfires can vary depending on the inputs of multiple data sources, including the amount of area burned, the type of vegetation burned, the amount of fuel and its moisture level, and the behavior of the fire. However, accounting for such variability, some estimates indicate that 2020 emissions of carbon dioxide exceeded all historical averages.

Figure 5

The Northern Sacramento Valley and Shasta Cascade Experience
MONTHS OF SMOKE EXPOSURE EACH YEAR

Source: NPR’s California Newsroom and Stanford University’s Environmental Change and Human Outcomes Lab.
Likewise, the average levels of PM 2.5, or particulate matter made up of microscopic pieces of ash, rises during severe wildfire seasons. According to the Environmental Protection Agency, exposure to this type of particulate matter, which is so small that it can lodge itself into the lungs and bloodstream, can have effects ranging from respiratory and cardiac issues to premature death.

The effects of wildfire and pollution are numerous: human health is compromised, as is the health of wildlife and livestock. In counties like Siskiyou, Humboldt, Modoc, Lake, and Shasta, cattle and dairy farming are among the most valuable agricultural activities. Research has linked smoke inhalation among cattle to respiratory infections like pneumonia, eye irritation including blindness, and inflammation of the skin and feet. Cattle farmers in Glenn County, for example, have reported ocular illnesses in livestock in recent years, while other research has shown that dairy cows produce less milk after exposure to smoke from wildfires.
COASTLINE EROSION

According to a report by the California Natural Resources Agency, the North Coast is particularly vulnerable to erosion due to a combination of factors, including its geology, climate, and sea level rise. The North Coast is composed of a mix of soft sedimentary rock, shale, and sandstone, which are easily eroded by the ocean’s waves and currents. Additionally, the region is home to several major river systems that transport large amounts of sediment to the coast, which can further exacerbate erosion. As the sea level rises due to global warming, erosion poses a significant threat to the North Coast. Coastline erosion is expected to increase, which could lead to the loss of beaches, cliffs, and other coastal features.

Coastline erosion can have significant impacts on the North Coast’s environment, economy, and communities. For example, erosion can lead to the loss of coastal habitats and biodiversity, as well as damage to infrastructure such as roads and buildings. It can also impact tourism and recreation, which are important economic drivers in the region. Erosion also impacts the houses and communities built along the coast.

To address this issue, the California Natural Resources Agency has developed a North Coast Regional Sediment Management Plan, which includes strategies to reduce erosion and protect coastal habitats. These strategies include beach nourishment, sediment removal, and restoration of natural systems such as dunes and wetlands. However, funding for these efforts is limited, and more comprehensive solutions are needed to address the long-term impacts of erosion on the North Coast.
RISING TEMPERATURES

Some projections indicate that temperatures could warm in the state between 6 to 11 degrees Fahrenheit by 2100, which will further magnify wildfires. However, the rising temperatures in the Far North have also begun to shift the region’s physical systems. Beginning in the 14th century, glaciers began to form in California. For example, in the Klamath Mountains, estimates indicate there were six glaciers at the end of the 19th century; although two survived until the 21st century, all have now disappeared. Their disappearance is notable, in part as an indication of a warming climate, and also because they often serve as important water sources.

In the past, glaciers retained much of their water until the late summer, only then beginning to melt more rapidly allowing for runoff. With the warming climate, however, they now melt earlier in the summer, shedding water at the height of summer, affecting the amount of runoff available in the later months and the temperature of nearby rivers and streams.

THE EFFECT OF DROUGHT ON BIODIVERSITY

The Far North of California has experienced drought conditions in recent years. In 2022, the Sacramento Valley and Shasta Cascade were experiencing severe drought conditions, with several counties experiencing exceptional drought. According to the U.S. Drought Monitor, as of February 2022, 97 percent of Butte County, 90 percent of Glenn County, and 100 percent of Tehama County were in exceptional drought. The drought had significant impacts on agriculture in the region, including reduced crop yields, increased water costs, and decreased availability of irrigation water. The North Coast also experienced drought conditions, although they were generally less severe than in the Sacramento Valley. The drought had impacts on water resources in the region, with some communities experiencing water shortages and implementing water conservation measures. The record rains of 2022-23 have helped to ameliorate the situation, but weather forecasters predict that more droughts are in California’s future.

One of the consequences of a warming climate, drought conditions, and the loss of such glaciers has been reductions in the region’s biodiversity. Chinook salmon, long found in the rivers and streams of the Far North region, like the Klamath and Russian Rivers, once endangered, are now disappearing. The eggs of winter-run species of Chinook salmon, which move upstream in the spring and summer months for spawning, are increasingly unable to survive because of the warming river temperatures and drought conditions.

The Sacramento Valley has also experienced record-low precipitation levels due to the drought. This led to reduced water availability for agriculture, as well as impacts on natural ecosystems. A study by the Nature Conservancy found that drought conditions have caused significant declines in populations of migratory birds that rely on wetlands in the region. In the Shasta Cascade, a study by the
University of California, Davis found that drought conditions have led to significant declines in the population of the foothill yellow-legged frog, an endangered species.

Similarly, the Sierra forests have experienced wildfires and bark beetle infestations that have contributed to the thinning out of the forests, particularly in mature and high-density forests, according to recent research. Consequently, animals – such as the endangered spotted owls – which live among dense canopy in old-growth, mature forests are experiencing a population decline. Some researchers attribute this decline in the Sierra Nevada forests to the effects of the prevalent logging activities for decades, which have been exacerbated by the introduction of marijuana farming in the region.

FEW ECONOMIC OPPORTUNITIES

The Far North has limited economic opportunities. The region is largely rural and sparsely populated, which limits the demand for certain types of businesses and industries. Additionally, because the Far North has been historically reliant on industries like logging and mining, it has seen declines in these industries in recent decades due to changing economic conditions and environmental concerns. In recent years, the Far North has attempted to shift from a “resource base to a knowledge base.”

Many areas in the region have a limited number of job opportunities, particularly in industries that pay a living wage. Consequently, it is difficult for residents to find stable employment. Even when jobs are available, wages in the far north region tend to be lower than in other parts of the state. The region also faces challenges in attracting and retaining skilled workers, as many young people leave the area to pursue educational and career opportunities elsewhere. With young people leaving, there is a shortage of skilled labor in certain industries, which can make it difficult for businesses to expand and grow.

SHIFTING INDUSTRIES TO DIVERSIFY THE ECONOMY

TIMBER AND LOGGING

Historically, the Far North region has relied on the area’s natural resources to produce raw materials for export. However, since the land has been over extracted for the past two centuries, the economies in the Far North are shifting. In the North Coast and Shasta Cascade, the timber industry has faced significant challenges in recent years, including declining timber supplies, increased competition from foreign imports, and environmental regulations. These changes have resulted in a decline in the number of timber jobs and mills in the region.
Regardless, the timber and logging industries continue to be an important part of the region’s economy, particularly in rural areas where there may be fewer employment opportunities. The industry is working towards sustainability and innovation to adapt to changing markets and environmental concerns.

**FISHING AND CANNERIES**

Today, the fishing industry in the North Coast is much smaller than it was historically, with fewer people working in the industry and lower economic output. Some species, such as salmon, are still harvested, but at reduced levels compared to the past. However, salmon and crab remain important fisheries, and there is also a growing market for sustainable seafood products.

The industry is still subject to a variety of challenges, including climate change impacts such as ocean acidification, warming waters, and harmful algal blooms. These factors can affect the abundance and health of fish populations, making it more difficult for fishermen to make a living. Despite these challenges, the fishing industry remains an important part of the North Coast’s economy and culture.

**CANNABIS**

According to some estimates, between 60 and 70 percent of the marijuana consumed in the U.S. is grown in California with a significant cluster of farms in what is referred to as the “Emerald Triangle” – Humboldt, Trinity, and Mendocino Counties. In Humboldt County, for example, old lumber mills in Arcata have
been repurposed by marijuana growers and businesses to accommodate the growing industry.\textsuperscript{78} Many of these growing sites, however, have been illegally stationed on public lands in California. As of 2019, estimates indicated that only between 10 and 20 percent of marijuana farmers in California had legal permits.\textsuperscript{79}

Such illegal farming has been cited with stealing water from already scarce supplies: estimates by the \textbf{Cannabis Removal on Public Lands Project} indicate that more than 9 billion gallons of water are illegally diverted for the cultivation of marijuana on public lands.\textsuperscript{80} Meanwhile, between 2012 and 2016, the number of sites growing marijuana in watersheds near Humboldt and Mendocino Counties rose by 80 percent.\textsuperscript{81} Mendocino County, which is one of the hardest hit regions and relies primarily on rainfall for marijuana farming, declared a drought emergency in 2021, asking residents not to exceed 50 gallons of water usage per day, while placing locks on fire hydrants to protect their supply for fighting fires.\textsuperscript{82} Yet, the County has a history of marijuana growers illegally siphoning water from wells, streams, and rivers – reducing the water available for fighting fires in the region.\textsuperscript{83} Similarly, in nearby Siskiyou County, sheriffs estimated that up to 2 million gallons per day were drawn illegally for grow sites.\textsuperscript{84} Relative to other major California crops, like heads of lettuce that require about 3.5 gallons of water, marijuana plants use between 5 to 10 gallons of water.\textsuperscript{85, 86}
RENEWABLE ENERGY PRODUCTION

As the site of many hydroelectric dams along the Klamath River and throughout the region, the Far North is a natural place to lead the shift to renewable energy sources.\(^87\) For example, wind energy has been harnessed in several locations in the Far North region. For instance, in Shasta County, there is a wind farm consisting of 44 turbines generating around 102 megawatts of electricity.\(^88\) The Far North is also home to several geothermal power plants, including The Geysers in Lake County, which is the largest geothermal field in the world.\(^89\) There are also smaller geothermal plants in Modoc County.\(^90\) Another set of geothermal power plants was proposed and approved in Siskiyou County in 2002, but it was canceled in May 2022.\(^91\)

However, the region has mostly focused on biomass energy production.\(^92\) Biomass energy is a renewable energy source that is derived from organic matter such as wood, crops, and waste.\(^93\) Proponents of biomass energy argue that it is a carbon-neutral energy source because the carbon dioxide emitted during combustion is balanced by the carbon dioxide that was absorbed by the plants during their growth. However, opponents argue that biomass energy can have negative environmental impacts, such as deforestation and loss of biodiversity, and that it can also emit other pollutants such as particulate matter and nitrogen oxides.\(^94\)

The Far North has seen several efforts to develop biomass energy production as a way to use wood waste and other organic materials—that
would otherwise decay and produce carbon dioxide and methane—to generate electricity and reduce greenhouse gas emissions. For example, several biomass power plants have been developed in the region, including the Blue Lake Power LLC plant in Humboldt County, which generates up to 12.5 megawatts of electricity from wood waste and other feedstocks. The Shasta Biomass Energy plant in Shasta County uses wood waste to generate up to 50 megawatts of electricity, while another plant in Shasta County, the Burney Forest Power plant, generates up to 30 megawatts.

Some communities in the region have explored smaller-scale biomass energy projects that can provide heat and electricity for local buildings and facilities. For example, the town of Weaverville in Trinity County developed a biomass boiler to provide heat for several buildings in the town, while the Karuk Tribe in Siskiyou County has explored the use of biomass for heating and cooling in tribal facilities.

TOURISM AND OUTDOOR RECREATION

Particularly in recent years, tourism has played an important role in the Far North, particularly in the North Coast and Shasta Cascade. For example, the North Coast is a popular destination for tourists due to its scenic beauty and cultural attractions, such as the Redwood National and State Parks, the Mendocino Coast, and the Avenue of the Giants. According to a report by Visit California, tourism in the North Coast generated $1.2 billion in travel-related spending in 2021, supporting nearly 13,000 jobs. This tourism generated more than $114.6 million in state and local tax revenues for the region.
Similarly, the Shasta Cascade is also known for its outdoor recreation opportunities, including hiking, fishing, and skiing. According to a report by Visit California, tourism in the Shasta Cascade generated $1.1 billion in direct travel-related spending in 2021, supporting over 11,700 jobs.99 At the southernmost part of the Shasta Cascade, the Sierra Cascade region is home to several popular tourist destinations, such as Lassen Volcanic National Park and Mount Shasta.

**WAGES AND JOB STABILITY**

The Far North has historically been reliant on low-wage industries, such as agriculture, timber, and hospitality. According to the U.S. Census Bureau, the median household income in the region is substantially lower than the state median. In 2021, the median household income in California was $84,097, while in the Far North region, it was $56,275.100 Across the region, the median household incomes ranged from a low of $49,857 in Siskiyou County to a high of $74,617 in Nevada County. According to the California Employment Development Department, the average hourly wage in the region was $25.51 in 2021, which is significantly lower than the state-wide average of $41.23.101 Modoc County saw the lowest average hourly wage in the region at $23.58, while perhaps unsurprisingly, Nevada County had the highest average hourly wage with $28.93.
It is important to note that not all industries in the Far North region are low-wage. For example, there are higher-paying jobs in healthcare and education, but these jobs are not typically plentiful nor are many residents qualified for these positions. Therefore, low-wage industries continue to be a significant part of the region’s economy.

Furthermore, unemployment rates hover above the state’s average, with regions like Colusa County regularly hitting double-digit figures. Colusa—dubbed the rice capital of California—relies heavily on its agricultural output for its economy. Often, such work is seasonal, leaving workers harvesting rice employed during the months of April to October, while unemployment tends to rise during the off season.\textsuperscript{102,103} In other parts of the Far North, the unemployment rate is similarly high: in Shasta County, unemployment was 8.4 percent in 2020 while it was 8.7 percent in Siskiyou County.\textsuperscript{104}

\textbf{Figure 6} Unemployment Rates in the Far North Often Exceed the Rest of the State

\begin{figure}
\centering
\includegraphics[width=\textwidth]{unemployment_rates.png}
\caption{Unemployment Rates in the Far North Often Exceed the Rest of the State}
\end{figure}

Poverty is a significant issue in the Far North, particularly in rural areas. According to the U.S. Census Bureau, the poverty rate in the region was 16.1 percent in 2022, which is higher than the statewide average of 12.3 percent. Additionally, some counties in the region have particularly high poverty rates, such as Del Norte County with a poverty rate of 21.4 percent and Modoc County with a poverty rate of 19.9 percent.

According to a 2019 report by the California Center for Rural Policy based out of Cal Poly Humboldt, rural areas in Northern California, including the Far North, have higher poverty rates and lower median household incomes than the state as a whole, which the data outlined above substantiates. For example, in Trinity County, part of the Klamath Mountains region, the poverty rate was 19.1 percent in 2022 and the median household income was $42,206 in 2021. In comparison, the poverty rate for the state of California was 12.3 percent and the median household income was $84,097.

**ATTACTING AND RETAINING SKILLED WORKERS**

As noted above and throughout this section, the Far North has a small and limited job market, with many of the available jobs in low-wage industries such as tourism and agriculture. Skilled workers may not find suitable employment opportunities in the region, which can lead to “brain drain,” or qualified workers leaving the region to find employment elsewhere.

Despite the region’s strong community college system, which can provide affordable access to higher education, residents often have limited access to other higher education opportunities. The region has relatively few universities—only two state universities—compared to other parts of California, which can make it difficult for local residents to access higher education opportunities. Therefore, fewer than 25 percent of the population in the Far North has achieved a bachelor’s degree, whereas that figure stands above 35 percent statewide. According to the U.S. Bureau of Labor Statistics, higher levels of education are correlated not only with increased earnings, but also with decreasing levels of unemployment.

Some students who graduate from colleges and universities in the region may leave to seek job opportunities in other parts of the state or country, which can contribute to a “brain drain” of talented young people from the region. In recent years, to prevent this brain drain, the Far North has invested in its two California State Universities (CSU): CSU Chico and Cal Poly Humboldt (previously Humboldt State). The student population of CSU Chico, which is a designated Hispanic-Serving Institution, is predominantly from California, with nearly 30 percent of its students coming from within the Far North region.

Cal Poly Humboldt recently received polytechnic designation by the CSU Board of Trustees following an investment of $458 million in state funding, allowing the former CSU to expand its campus and create more resources for STEM programming. This funding is also a strategic investment in the
North Coast to develop more broadband access to rural libraries and schools as well as more applied research into climate resilience.\textsuperscript{114} The designation of Humboldt State as a Cal Poly offers an opportunity to develop the kind of innovative industries that have clustered around the University of California campuses and Cal Poly San Luis Obispo.

LIMITED ACCESS TO AMENITIES AND SERVICES

The Far North is a remote and sparsely populated region, which makes it challenging for people to access services and amenities such as education, healthcare, housing, and entertainment.\textsuperscript{115} This lack of infrastructure can deter skilled workers from moving to the region. The Far North region has limited cultural amenities, such as museums, theaters, and other cultural institutions. This can make it less attractive to skilled workers who are looking for a vibrant and diverse cultural scene. It also has a relatively homogeneous population, which can make it challenging for individuals from diverse backgrounds to feel welcome and integrated. This lack of diversity can also limit the range of perspectives and ideas that are available in the region.

HOUSING

Housing affordability and availability is an ongoing issue in the Far North, as well as in the state as a whole.\textsuperscript{116} According to a report from the California Housing Partnership, the Far North has a shortfall of more than 27,000 affordable rental homes for low-income households as of 2020.\textsuperscript{117} As of 2021, the Far North region is significantly behind its projected progress towards meeting its Regional Housing Needs Allocation production, particularly for any housing for individuals and families earning below a moderate income level for the region. It has only achieved its production goals for families earning above moderate incomes for the region.

In the Shasta Cascade, the median home price was $337,000 as of September 2021, up 27.5 percent from the previous year.\textsuperscript{118} Similarly, in the Sacramento Valley, the median home price was slightly lower at $312,500 as of September 2021, but still up 22.2 percent from the previous year. These increases in home prices have made it difficult for many residents to afford to purchase a home, leading to a shortage of available housing.

The North Coast also has high housing costs, with a median home price of $522,000 as of September 2021, up 20.5 percent from the previous year.\textsuperscript{119} This high cost of living has led to many residents struggling to afford their housing, with around 45 percent of households in the North Coast severely rent burdened, which means they spend more than
50 percent of their income on housing costs. In the entire region, 74 percent of extremely low-income households are severely cost burdened by housing costs. For very low-income and low-income households, 78 and 70 percent, respectively, are cost burdened by rent and housing costs.120

Additionally, the Shasta Cascade has a high percentage of renters, with around 35 percent of households in the Shasta Cascade renting their homes. The city of Chico in Butte County has been facing a particularly acute housing crisis in recent years, with skyrocketing rents and a shortage of available units. The city declared a shelter crisis in 2018 to address the issue, but the problem persists. A report from the Chico State Center for Economic Development notes that across the Shasta Cascade subregion, “there are multiple ZIP Codes where more than 60 percent of households spend at least 50 percent of their income on rent.”121 The report goes on to note that “although some of these areas overlap with urban centers where housing competition would be expected to drive prices above rural areas, the hotspots for high housing costs relative to incomes do not exclusively overlap with concentrated populations. It is likely that in rural areas, elevated household poverty driven by localized demand for unskilled labor in low-wage jobs, or by fixed incomes, could play into this skew towards proportionately large expenditures on rental housing.”

Overall, the housing crisis and affordability issues in the Far North are complex and multifaceted. Low vacancy rates, high demand, and limited affordable housing options contribute to the challenges faced by residents in the Far North. The geography of the region can make it difficult to build new housing. Specifically, the mountainous terrain in many areas limits the amount of available land for development, and building on steep slopes can be challenging and expensive. Additionally, because the region is prone to wildfires and other natural disasters, development opportunities are limited and drive up the cost of construction.

HEALTHCARE

The Far North also faces a number of challenges related to low access to healthcare. Many areas lack an adequate number of primary care physicians and specialists. This shortage can make it difficult for residents to access medical care, particularly for those living in rural areas. According to a report by the California Future Health Workforce Commission, the Far North has the highest primary care physician shortage in the state, with only 54 percent of its primary care needs being met. According to health officials in Shasta County, the lack of primary care physicians and specialists has led to inundated primary care offices that are left treating conditions traditionally seen by specialists because of the uneven distribution of doctors.122

In part, recruiting physicians to work in rural regions has been a well-known challenge across the country, leaving such communities with shortages of physicians.123 In such regions, a challenge accessing care is correlated with cancers going undetected and being diagnosed late. For example, in Humboldt and Del Norte counties along the North Coast, the...
death rates across all causes are 30 percent higher than those in California, and are particularly high when compared to California’s average rate for suicide, drug use, and firearms.124

Some medical practices in the region have initiated residency programs with the goal of attracting medical students to work in the Far North, while other primary care physicians serve in rural areas as part of a tuition-reimbursement program through the National Health Service Corps’ scholarship program.125 However, as of a January 2022 review by the California Health Care Foundation, little progress had been made to draw medical students to support high-need, rural regions.126

Moreover, many residents in the Far North lack health insurance making it difficult to access medical care, as they may not be able to afford out-of-pocket costs. According to the California Health Care Foundation, the uninsured rate in the Far North is 11 percent, which is higher than the statewide average of 7 percent.127 In June 2022, Governor Newsom signed legislation allowing all Californians between the ages of 26 and 49 to access Medi-Cal coverage, regardless of immigration status. This expansion is expected to allow up to 700,000 California residents to enroll.128 Already in the Far North, the majority of the population is enrolled in either Medi-Cal or Medicare – about 60 percent – 15 percent higher than the rest of the state.129 However, in regions that are heavily dependent on Medi-Cal, low reimbursement for services is an added challenge and a hindrance to attracting more physicians.130

BROADBAND INFRASTRUCTURE

According to a report by the California Public Utilities Commission, in 2021, only 62 percent of households in rural areas of California had access to broadband internet, compared to 98 percent of households in urban areas. In the Far North, the availability of broadband internet varies by county, with some counties having lower access rates than others. For example, in Trinity County, only 48 percent of households had access to broadband internet at those speeds, while in Siskiyou County, the rate was 84 percent.131

The lack of broadband infrastructure has been a hindrance to economic development in the region.132 In 2018, the California Statewide Broadband Action Plan noted that the lack of broadband infrastructure in rural areas of California was a barrier to economic growth, particularly in areas such as precision agriculture, telemedicine, and online education. The report also noted that the lack of broadband infrastructure made it difficult for businesses to compete in the global economy.

Efforts to improve broadband infrastructure in the Far North have been ongoing. In 2021, the California Public Utilities Commission approved $50 million in funding for broadband infrastructure projects in rural areas of California, including the Far North. Additionally, the California Department of Technology has been working to develop a plan to increase broadband access and adoption in rural areas of California.
The Far North region in California is a sparsely populated area, encompassing roughly 25 percent of the state’s total area but less than 1 percent of its total population. It is home to a number of natural landmarks, including the Sierra Nevada and Klamath mountain ranges. As a primarily rural region, many challenges faced by the Far North relate to the environment, as a warming climate affects the region’s water supply and its wildlife. Moreover, because its economy has been relatively stagnant for years, the Far North provides limited economic opportunities for its residents, which has led to difficulties retaining its highly-educated workforce, including physicians and teachers.
ENDNOTES

1 United States Census Bureau. "QuickFacts."
7 California Native American Heritage Commission, op. cit. 5.
8 Ibid.
10 Ibid.
17 Ibid.
19 Ibid.
21 Cornford, op. cit. 9.
24 Ibid.
29 Ibid.
36 Ibid.
37 Ibid.
38 Hubler, op. cit. 34.
44 Ibid.
46 Ibid.
53 “Public Comment Draft California’s Historical Fire Activity before Modern Fire Suppression.” California Air Resources Board, November 2021.


