



Redwood Region  
**RISE**

**June 27, 2024**

**Redwood Region RISE (Resilient Inclusive Sustainable Economy)  
Monthly Collaborative Meeting**

*Learn More: [bit.ly/Redwood-RISE](https://bit.ly/Redwood-RISE)*



# Welcome Everyone / ¡Bienvenidos todos!

You have arrived at the **June Collaborative Meeting for Redwood Region RISE (Resilient Inclusive Sustainable Economy)**.

Please introduce yourself in the chat—name, affiliation (if applicable) and where you are zooming in from: <https://native-land.ca/>

*Icebreaker question:  
What is your favorite summer activity in our region?  
Let us know in the comments!*



# Land Acknowledgement

**Redwood Region RISE's Collaborative is located on the present and ancestral Homeland and unceded territory of Indigenous People. Tribes and Nations in our region include:**

Bear River Band of the Rohnerville Rancheria; Big Lagoon Rancheria; Big Valley Band Rancheria; Blue Lake Rancheria; Cahto Tribe; Coyote Valley Band of Pomo Indians; Elem Indian Colony; Elk Valley Rancheria; Guidiville Indian Rancheria; Habematolel Rancheria of Pomo Indians; Hoopa Valley Tribe; Hopland Band of Pomo Indians; Karuk; Koi Nation; Manchester Band of Pomo Indians; Mattole; Middletown Rancheria of Pomo Indians; Pinoleville Pomo Nation; Potter Valley Tribe; Redwood Valley Little River Band of Pomo Indians; Resighini Rancheria; Robinson Rancheria; Round Valley Reservation; Scotts Valley Band of Pomo Indians; Sherwood Valley Rancheria; Tsnungwe; Tolowa; Tolowa Dee-ni' Nation; Trinidad Rancheria; Wailaki; Wiyot; Yurok Tribe.

We make this land acknowledgement in recognition that our words must be matched by action and approach.

Learn more: ["What Good Is a Land Acknowledgement?"](#)



# Some Housekeeping Notes

- **Welcome (Back)!**
- **Convening team** 🖐️
- **Spanish Interpretations are available**
- Speak at a **manageable pace** → *and let us know if we aren't!*
- **Questions in chat** → *we gather & answer your questions*
- Please **mute your microphone** while in the public Zoom room

→ **Collaborative Meetings:** report out & knowledge-sharing space

# Agenda for today's meeting:

## Goals:

→ Collaborative Members track our **progress on the Planning Phase Work Plan.**

→ Collaborative Members check in with the **progress being made across the Collaborative.**

→ Collaborative Members get to know **Regional Plan Part 1** and what the data says about our Region.

TIME	TOPIC	PRESENTED BY
11:00-11:05	<b>Welcome (back)!</b>	CCRP
11:05-11:15	<b>Updates from Redwood Region RISE (Resilient Inclusive Sustainable Economy):</b> <ul style="list-style-type: none"> <li>Regional Plan Part 1 and Part 2 (Timeline)</li> <li>Catalyst Phase</li> </ul>	CCRP
11:15-11:30	<b>Collaborative Bodies - Report Out:</b> <ul style="list-style-type: none"> <li><b>Equity Council</b></li> <li><b>Tribal Planning Table</b></li> <li><b>Local Planning Tables:</b> <ul style="list-style-type: none"> <li>Tribal Lands + Del Norte</li> <li>Tribal Lands + Humboldt</li> <li>Tribal Lands + Lake</li> <li>Tribal Lands + Mendocino</li> </ul> </li> <li><b>Sector Planning Tables:</b> <ul style="list-style-type: none"> <li>Arts, Culture, and Tourism</li> <li>Health &amp; Caregiving</li> <li>Renewable &amp; Resilient Energy</li> <li>Working Lands &amp; Blue Economy</li> </ul> </li> <li><b>Voting Member Block</b></li> </ul>	Collaborative, CCRP, NCO, TNON
11:30-12:15	<b>Research Update:</b> <ul style="list-style-type: none"> <li>Walk through of Regional Plan Part 1</li> </ul>	CCRP
12:15-12:25	<b>Q&amp;A: Discussion, inquiries, feedback, thoughts</b>	AEDC, CCRP, NCO, TNON
12:25-12:30	<b>Recap of agreements &amp; next steps</b> <ul style="list-style-type: none"> <li>Local meetings to discuss regional strategies → Stay tuned for more information!</li> </ul>	AEDC, CCRP, NCO, TNON
12:30	<b>Adjourn Meeting</b>	

# RRRISE Updates

- **Partner Directory**
- **Regional Plan Part 1 and Part 2**
- **Catalyst Phase**
- **Implementation Fund Updates**



# Regional Roadmap Timeline

Draft Sector Strategies done (April 22)

Finalize Sector Strategies (June 30)

Draft Cross-Cutting Strategies done (June 30)

Finalize Regional Plan Part 2 (entire Regional Roadmap) (July 30)

Public Comment Period for Regional Roadmap (Aug 1-Aug 30)

Submit Regional Roadmap to the State (August 31)

April 2024

May 2024

June 2024

July 2024

Aug 2024

Sep 2024

Planning Phase

# Catalyst Timeline

Collaborative finalizes input for Project Rubric (early June)

Convening Team Releases RFPs for Catalyst Program (mid-June)

June 2024

Voting Members vote on Project Rubric (end of June)

July 2024

Voting Members select RFP awardees for Catalyst services (end of Aug)

Voting Members vote on Catalyst predevelopment fund design (end of Aug)

Aug 2024

Voting Members begin to award Catalyst Predevelopment Funds (Sep)

Sep 2024

Catalyst Program

Planning Phase



# Collaborative Bodies: Report Out

- **Equity Council**
- **Tribal Planning Table**
- **Local Planning Tables:**
  - Tribal Lands + Del Norte
  - Tribal Lands + Humboldt
  - Tribal Lands + Lake
  - Tribal Lands + Mendocino
- **Sector Planning Tables:**
  - Arts, Culture, and Tourism
  - Health and Caregiving
  - Renewable and Resilient Energy
  - Working Lands and Blue Economy
- **Voting Member Block**



Redwood Region

**RISE**

## **Regional Plan Part 1**

*A Snapshot of the current state of the Redwood Region's economy, key industries, labor force characteristics, climate resilience, and public health issues that impact communities' well-being.*

# Regional Plan Part 1 - Chapters

1. Regional Overview
2. Partner Mapping
3. Economic Analysis
4. Climate and Environment Analysis
5. Public Health Analysis
6. Industry Cluster Analysis
7. Labor Market Analysis
8. Strengths, Weaknesses, Opportunities, Threats

Let's walk through each chapter's highlights!

Key metrics are highlighted to enable tracking of the region's progress towards creation of an inclusive, climate-forward economy.

*We hope that this data will be useful to you all in writing funding proposals, in addition to monitoring our region's progress on the issues that matter to us.*

# 1. Regional Overview

This chapter provides:

- A brief **economic history** of our region
- Current data on **demographics and communities**
- An overview of our **key assets.**

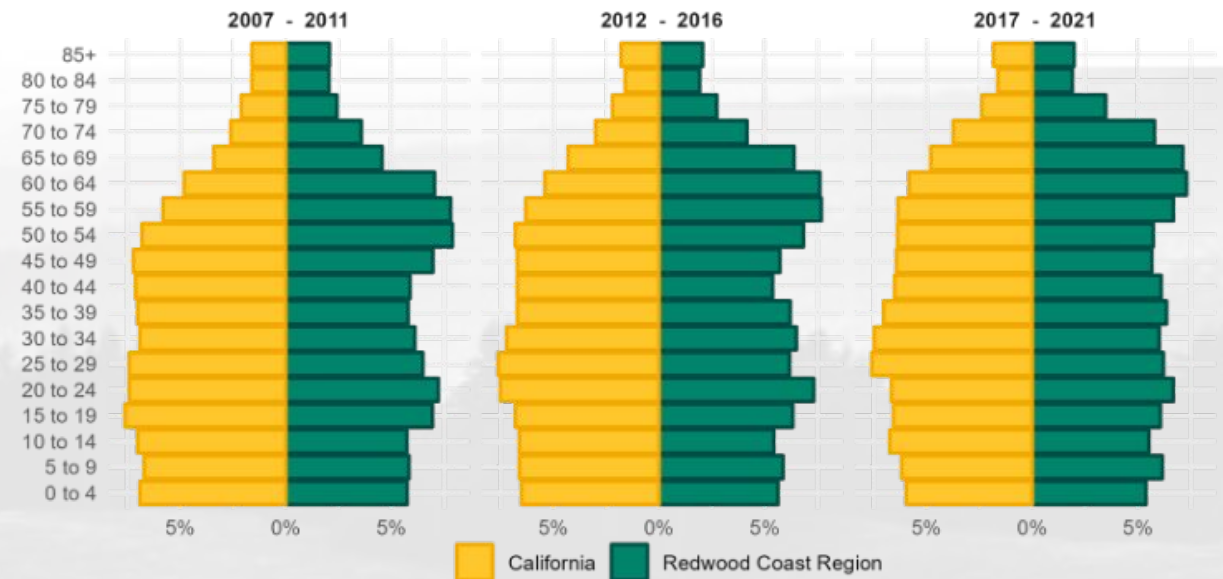
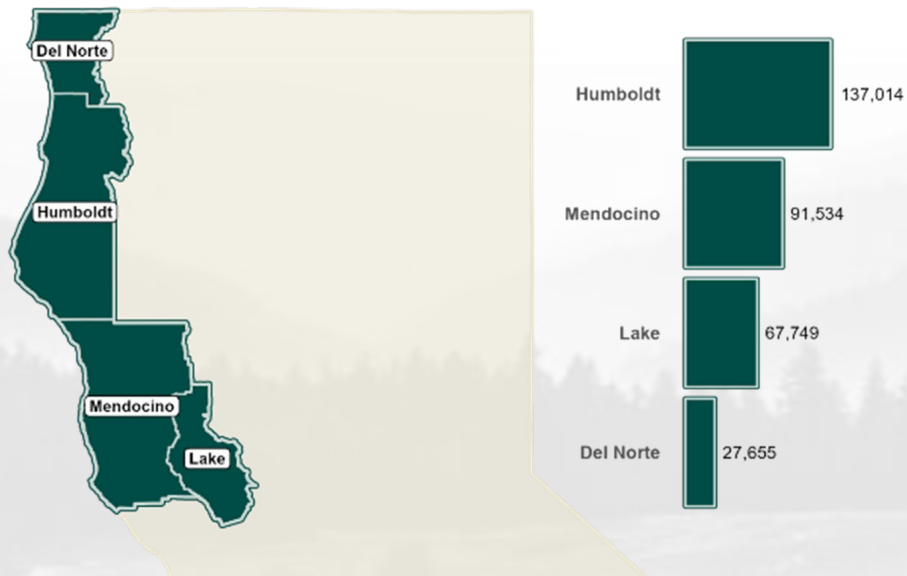


# 1. Regional Overview - Major Findings

- The Redwood Coast Region's economic history is characterized by **commodity boom-and-bust cycles** and a **lack of economic diversification**. While there is a need to move beyond resource extraction, the region's comparative advantage remains its **natural resources and productive landscapes**.
- One of the most rural and remote regions of the state, the region is also **culturally diverse**. It is home to the **state's largest Indigenous communities**, which continue to reside on their ancestral lands. Younger generations are becoming more diverse, and there is a **growing Latinx community**.
- The **region is aging**; the median age is seven years older than California's median. While the population of the region is declining, most town centers have gained residents in recent years, **straining housing availability**.
- **Over 95% of the region qualifies as "disinvested" by California Jobs First criteria.**
- The region possesses many assets that position it to be a **leader in sustainable development**, including suitability for offshore wind development, sustainable forestry, Indigenous-led ecosystem initiatives, and historic strength in local food production and regenerative agriculture.

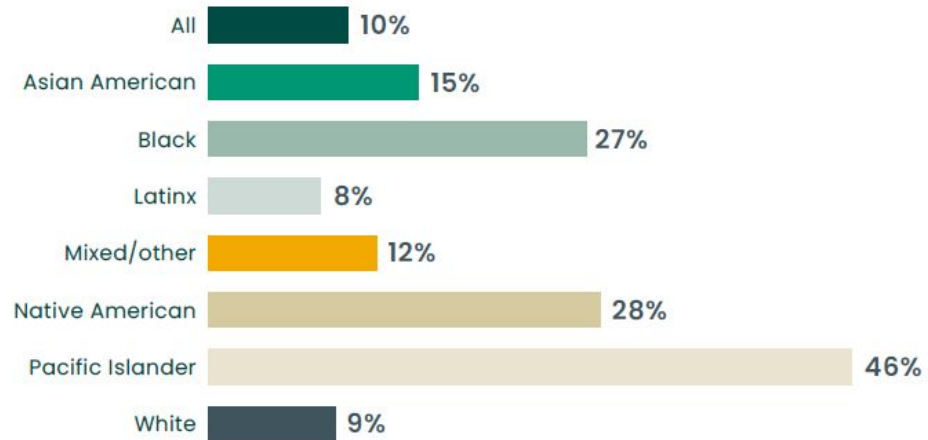
# 1. Regional Overview - Population & Demographics

- Our region has **323,952** residents.
- The population is **aging and declining**, but also **becoming more diverse** as younger generations contain more Latinx community members. Overall our region is 68% white, 20% Latinx, and 3% AI/AN, 2% Black, 2% AAPI.
- While we are losing population overall, many municipalities have gained residents, **straining housing availability**.



# 1. Regional Overview - Population & Demographics

Figure 3.10 Ethnic Composition of High Poverty Areas, from PolicyLink's Equity Atlas



Source: National Equity Atlas analysis of 2020 American Community Survey 5-year Summary File. Universe includes all people.

Note: Data represent the percentage of the population living in high-priority neighborhoods, defined as census tracts with a poverty rate of 30 percent or higher. Data represent a 2016 through 2020 average.

Figure 1.3 Low-Income or Disadvantaged Communities as Designated by California Jobs First<sup>6</sup>



## 2. Partner Mapping

- This chapter assesses the **region's readiness for the California Jobs First** initiative by examining the landscape of **existing organizations, partnerships, and strategic plans.**
- An overview of organizations and communities fulfilling the **11 partner categories** is included, as well as a description of the **outreach and engagement process.**
- **CEDS and strategic plans** from around the region were also analyzed to gauge alignment and common themes across sub regions.



## 2. Partner Mapping - Major Findings

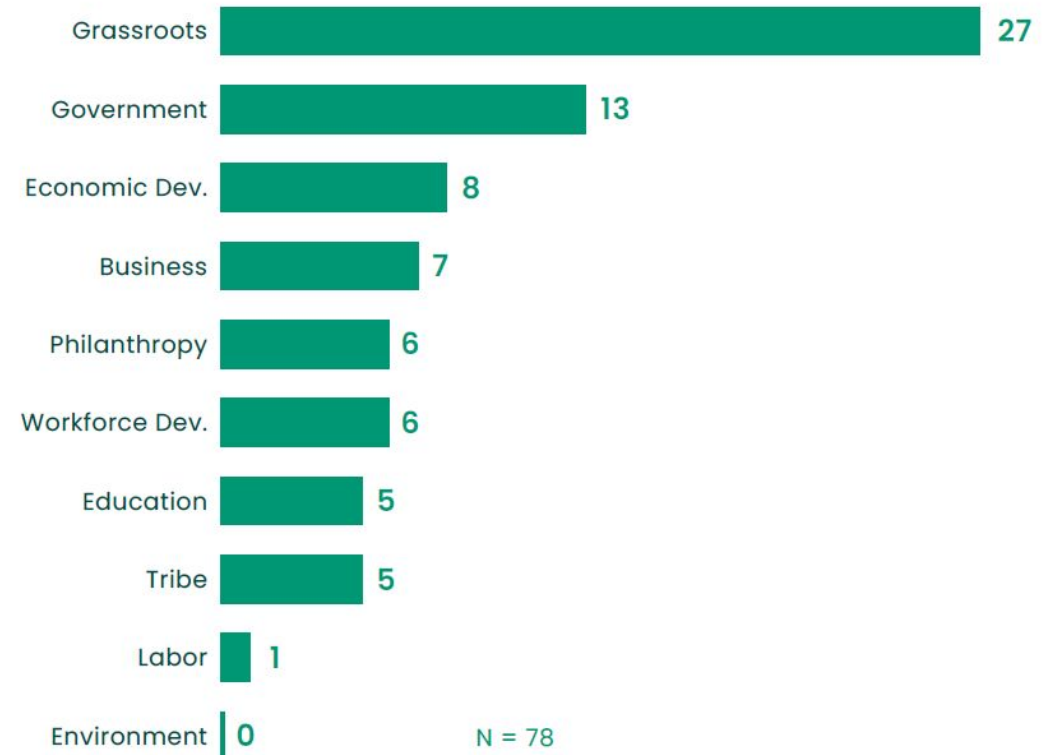
- **Capacity Constraints:** Leaders often wear many hats, lack of time and resources constraints collaboration. The region has few community organizing, identity-based human dignity groups, or environmental justice-specific organizations.
- **Tribal Involvement and Priorities:** The region's 33 federally and non-federally recognized tribes are leaders in creating opportunities for disinvested communities, sustainable natural resource management, renewable energy, housing, and in the arts, culture, and tourism sectors. However, tribal rights holders are often not consulted sufficiently early in key planning decisions.
- **Strong Alignment of Strategies and Focal Areas:** Across counties and tribes, plans emphasize traditional industries like agriculture, forestry, fishing, as well as emerging areas such as tourism, renewable energy, and specialty foods. Plans also highlight critical (physical) infrastructure gaps like those in broadband, water, and transportation that require investment to support further economic growth. Developing a skilled workforce is a common priority across economic development plans.
- **Need for Funding and Technical Support:** Organizations and leaders in the region would benefit greatly from structured, accessible mechanisms for identifying funding opportunities, as well as technical and grant writing support.

## 2. Partner Mapping - Partner Organizations

### Grassroots organizations lead the way in RRRISE...

→ Based on the survey results from November 2023, the majority of our organizations have **less than 10 full time staff** and manage annual budgets of **\$2 million dollars or less.**

Figure 2.3 Sectoral Balance of RISE partners, 11/2023

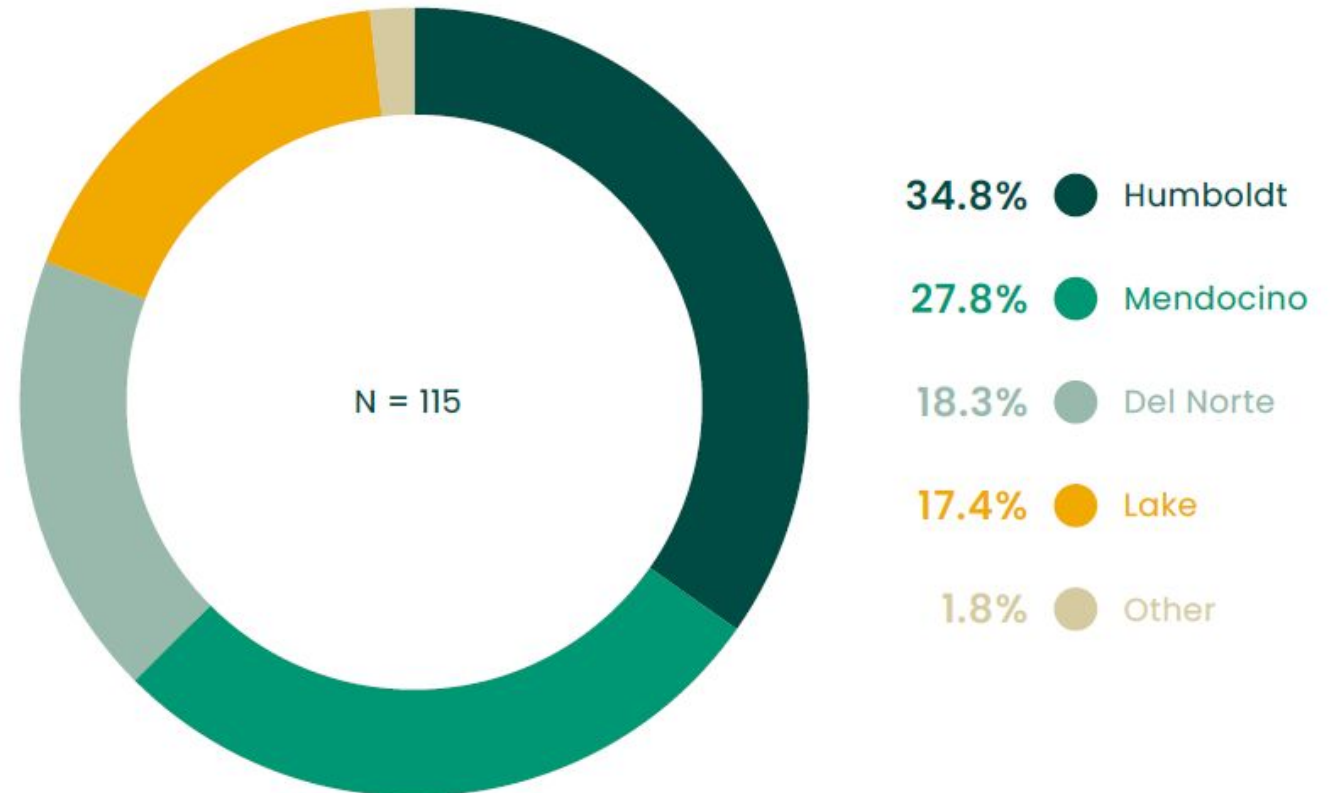


## 2. Partner Mapping - Partner Organizations

**Regional balance** is important to RRRISE participants...

*Note: results from partner survey, not roster analysis*

Figure 2.2 Regional balance of RRRISE Partners, 11/2023



## 2. Partner Mapping - Strength of Connections

Figure 2.4 Strength of Connections Among Organizational Types

	Education	Government	Economic Dev.	Workforce Dev.	Grassroots	Business	Philanthropy	Tribe	Community Dev.	Labor	Environment
Education (n=5)	4.4	3.6	3.4	3.5	2.2	3.2	2.2	2.8	2.8	1.4	1.6
Government (n=13)	2.6	3.8	2.5	2.7	2.9	2.6	2.3	3.2	2.4	1.2	1.7
Economic Dev. (n=8)	3.1	3.1	3.5	2.5	1.6	2.6	2.2	1.6	3.4	2.0	1.7
Workforce Dev. (n=6)	2.8	3.6	2.3	3.4	2.8	2.5	2.5	1.6	2.3	1.6	1.0
Grassroots (n=27)	2.2	3.0	1.9	1.8	3.3	2.0	2.2	2.4	2.5	1.0	1.7
Business (n=7)	2.4	2.4	2.9	2.1	2.1	3.4	2.4	1.6	2.6	0.6	1.0
Philanthropy (n=6)	1.8	2.5	1.7	2.2	3.3	1.7	3.7	2.3	2.5	0.7	1.2
Tribe (n=5)	2.0	2.6	2.0	2.0	2.4	1.6	1.4	3.2	2.0	1.2	1.8

N = 78

Avg. Score (X)

3 < X  
(Shared Projects)

1 < X ≤ 3  
(Info. Exchange)

0 ≤ X ≤ 1  
(No Info. Exchange)

# 2. Partner Mapping - Barriers to Participation

Figure 2.8 Barriers Experienced by Partner Organizations

	Tribe	Government	Business	Workforce Dev.	Philanthropy	Grassroots	Economic Dev.	Education
Geographic/transportation	1.4	1.0	0.8	1.2	1.3	1.2	0.9	1.0
Lack of time to participate	1.2	1.1	1.8	0.8	1.0	1.2	0.8	0.6
Other organizational capacity constraints (staffing, resources)	1.4	1.1	1.2	0.5	1.3	1.2	0.9	0.3
Difficulties increasing awareness/understanding	1.2	1.1	1.0	0.8	0.8	0.8	1.0	0.8
Lack of cultural connectivity	0.8	1.2	1.0	1.0	0.8	0.7	1.0	1.0
Digital inequity (lack of access to broadband or devices)	1.2	0.8	0.6	1.2	1.3	0.7	0.5	1.0
General disinterest	0.8	1.0	1.0	1.0	0.7	0.7	0.8	0.2
Language barriers	0.4	0.7	1.0	0.8	0.8	0.6	0.6	0.6
Community distrust	1.2	0.8	0.4	1.5	0.5	0.5	0.5	0.6

Avg. Score (X)

1.5 < X ≤ 2  
(Significant and Difficult)

1 < X ≤ 1.5  
(A Challenge)

0 ≤ X ≤ 1  
(Insignificant or Manageable)

N = 78. Scoring based on the average score based on the following point system: Insignificant or Manageable = 0 points; A Challenge (but manageable) = 1 point; Significant and Difficult = 2 points.

## 2. Partner Mapping - Outreach Efforts



### 3. Economic Analysis



This chapter focuses on **economic well-being** and **cost of living**, prioritizing findings related to equity, sustainability, job quality and access, and economic competitiveness and resilience.

## 3. Economic Analysis - Major Findings

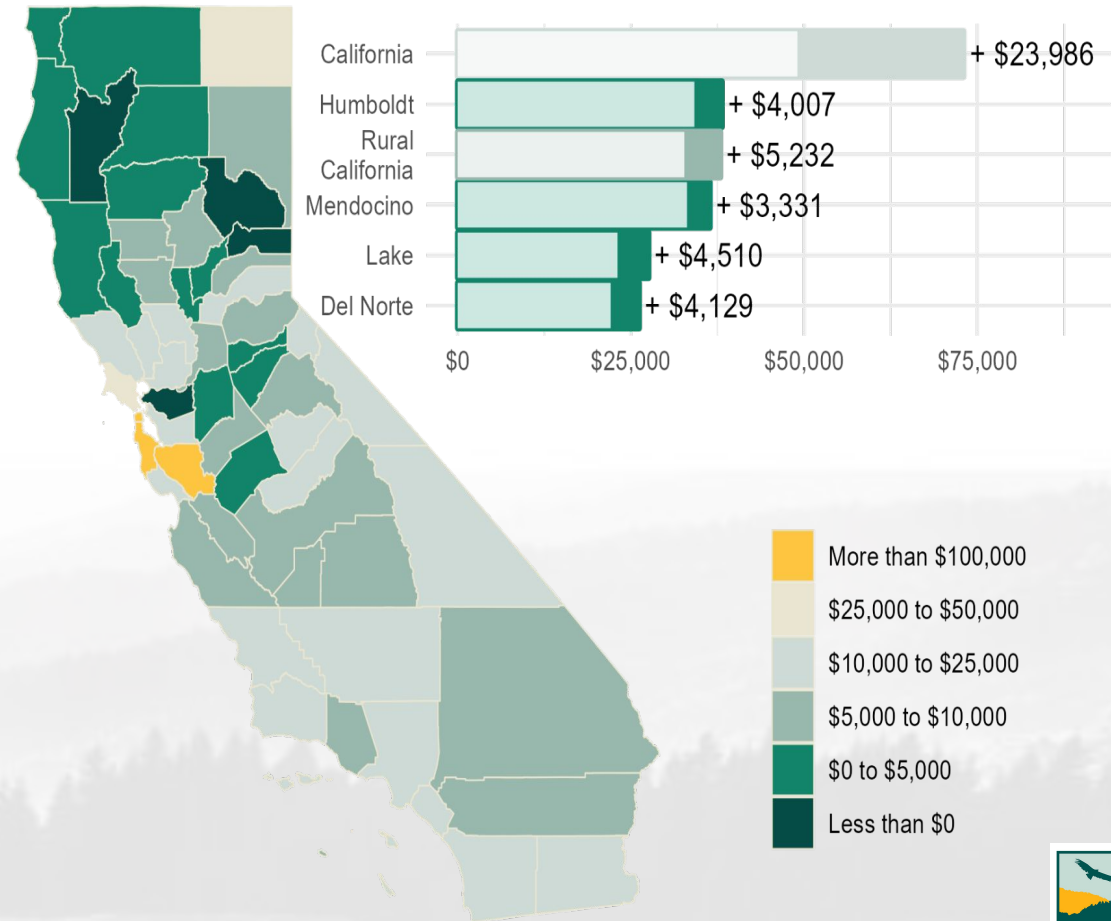
- **Redwood Region has suffered from CA's differential development**
  - Opportunities for high road development have stalled as economies in the Bay Area took off
  - GDP growth has been comparatively low over the past decade
  - Median income across region is low
  - Poverty rates are significantly higher than the state at large
- **Working families in region suffer from: “coastal cost of living with rural america wages”**
  - Cost of living in proportion of wages is significantly higher than the state at large
- **Uneven development burdens the region's residents of color**
  - Residents of color in the region are disproportionately represented amongst the working poor & experience poverty rates up to 2x those of their peer residents of color in the rest of California



# 3. Economic Analysis - GDP Growth Rate (Comparative)

Change in Economic Output (Real Gross Domestic Product [GDP] per Capita, 2001 - 2021)

- Redwood Region has suffered from **California's differential development**
- Opportunities for high road development have **stalled** as economies in the Bay Area took off
- **GDP growth has been comparatively low** over the past decade

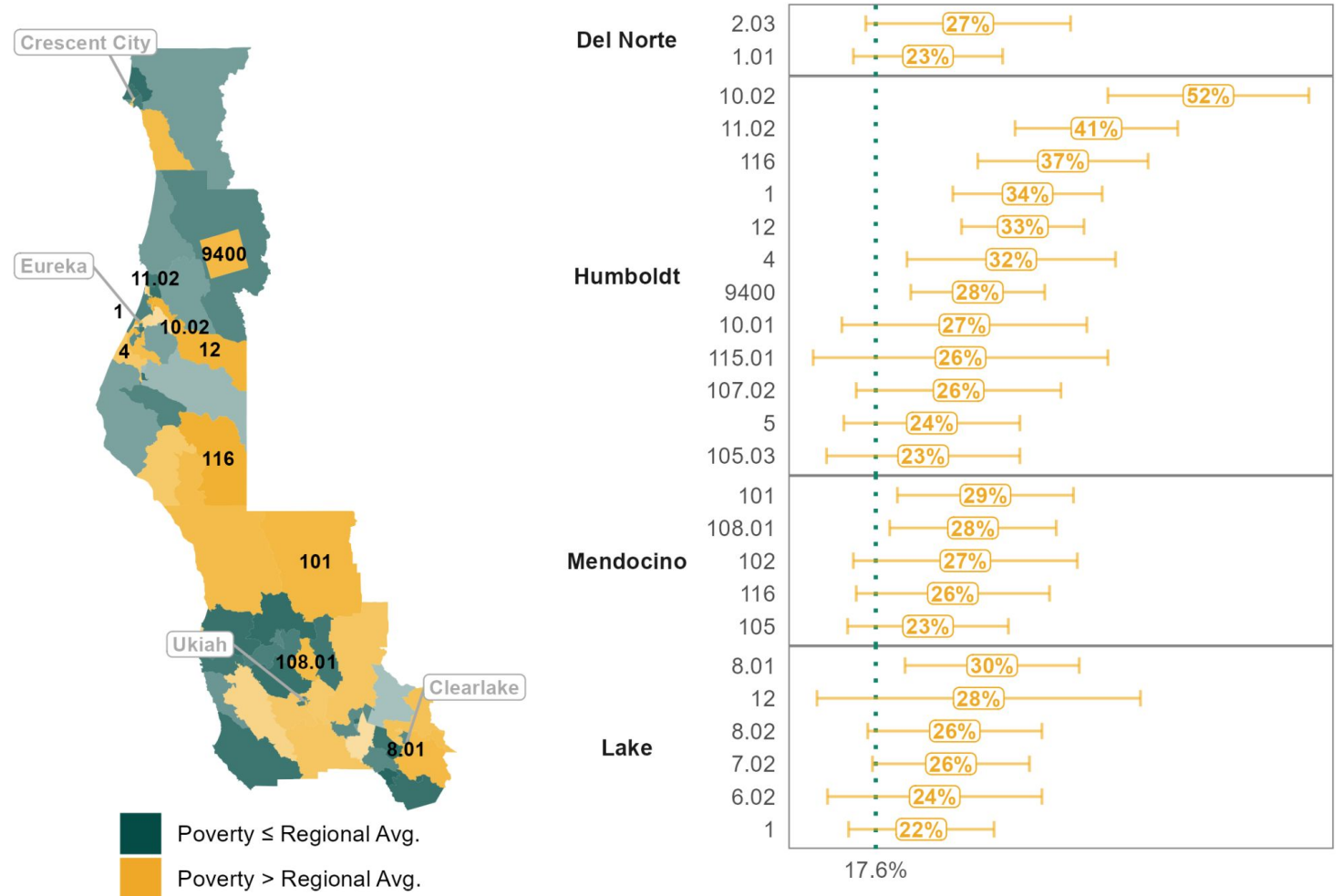


Note: GDP data sourced from the Bureau of Economic Analysis. Population estimates for 2001 and 2021 were sourced from the California Department of Finance

# 3. Economic Analysis - Unequal Development

- Tracts labeled on the left panel have a poverty rate **significantly higher** than the regional average poverty rate (17.6%)
- The right panel displays the top 25 highest poverty rate tracts in the region
- Horizontal bars represent the 95% confidence intervals
- The dotted vertical line represents the regional average

*Intraregional Variation in Poverty Rates (2018 - 2022)*



Note: Data sourced from the American Community Survey.

# 3. Economic Analysis - Differences Across Communities

Disaggregated Poverty Rates (2018 - 2022)

	CA	Humboldt	Mendocino	Lake	Del Norte	
Race/Ethnicity	Black	19%	41%	33%	32%	50%
	AIAN	16%	29%	24%	43%	17%
	Hispanic or Latino	15%	24%	22%	17%	20%
	Two or more races	12%	22%	21%	19%	19%
	Asian	10%	34%	15%	9%	~14%
White, not Hispanic or Latino	9%	18%	13%	15%	12%	
Sex	Female	13%	21%	17%	18%	16%
	Male	11%	19%	16%	15%	13%
Age Range	Under 5 years	16%	20%	28%	20%	16%
	Under 18 years	16%	20%	21%	21%	17%
	18 to 34 years	13%	30%	19%	18%	16%
	5 to 17 years	16%	21%	18%	21%	18%
	35 to 64 years	10%	17%	14%	18%	15%
	65 years and over	11%	12%	13%	10%	9%
Educational Attainment (25+)	Less than high school	20%	34%	25%	26%	17%
	High school or equivalent	13%	20%	18%	20%	16%
	Some college	10%	17%	13%	14%	11%
	BA or higher	5%	9%	8%	5%	8%
Work (16+)	Unemployed	24%	34%	33%	30%	11%
	Did not work	21%	29%	25%	24%	24%
	Worked part-time	13%	25%	14%	16%	11%
Worked full-time	2%	4%	3%	2%	2%	

> 3X CA Avg.
  > 2X CA Avg.
  > CA Avg.
  ≤ CA Avg.

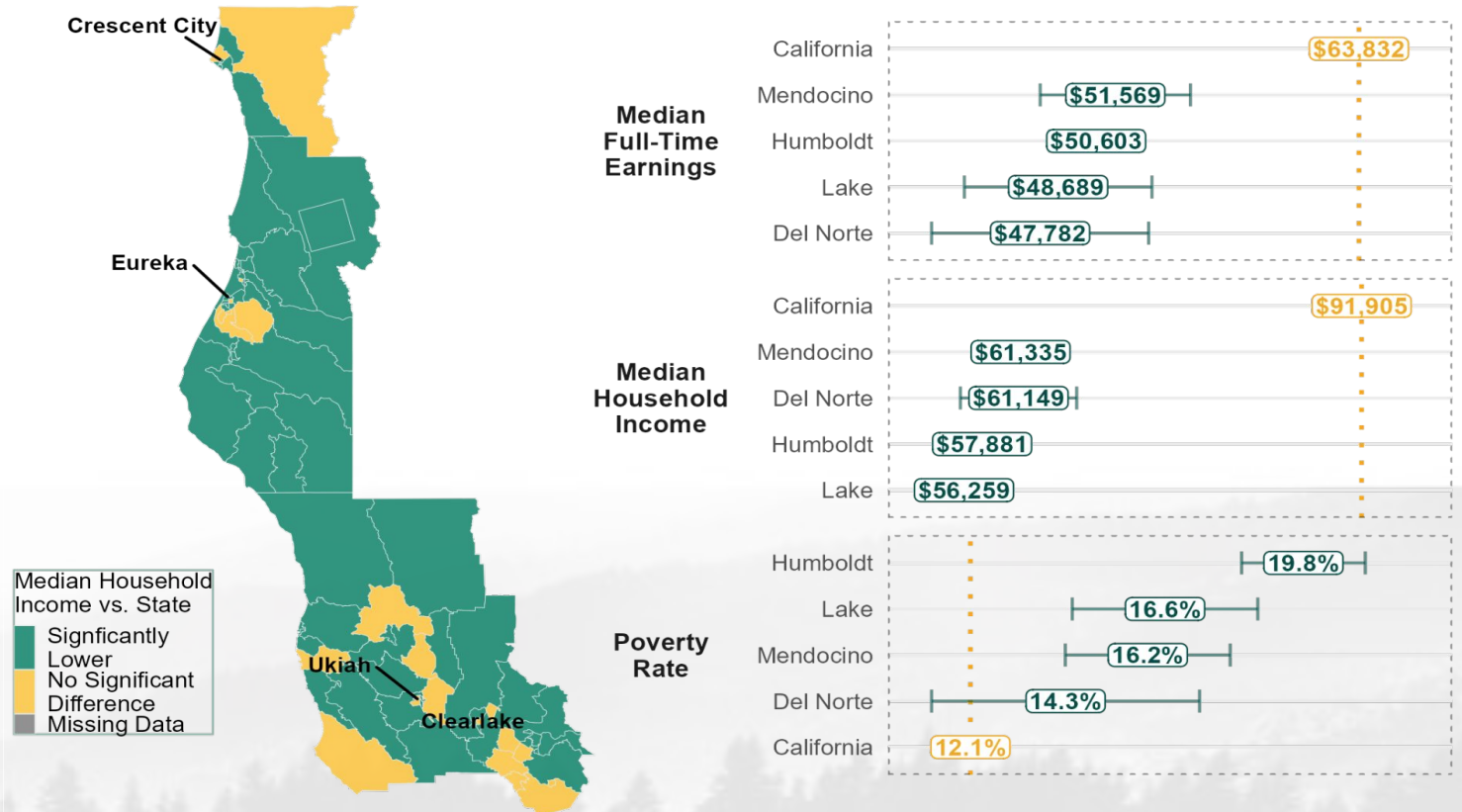
- Poverty rates for **individuals of color** in the Redwood Region are 2-3 x higher than the California average
- **Labor force participation** is also a key factor that seems to impact well-being in the region to a greater degree than the rest of the state

Note: Data sourced from the American Community Survey (ACS)

# 3. Economic Analysis - Economic Well-being in the Region

- Lower median full-time earnings, household income, & higher poverty rate in the Redwood Region compared to the rest of California contributes to **poorer economic well-being overall**
- This can be attributed to several factors including **reliance on industries** such as tourism, agriculture, & forestry which typically offer **lower-wage jobs** compared to sectors like technology, healthcare, or professional services prevalent in other parts of the state

Indicators of Economic Well-being (2018 - 2022)

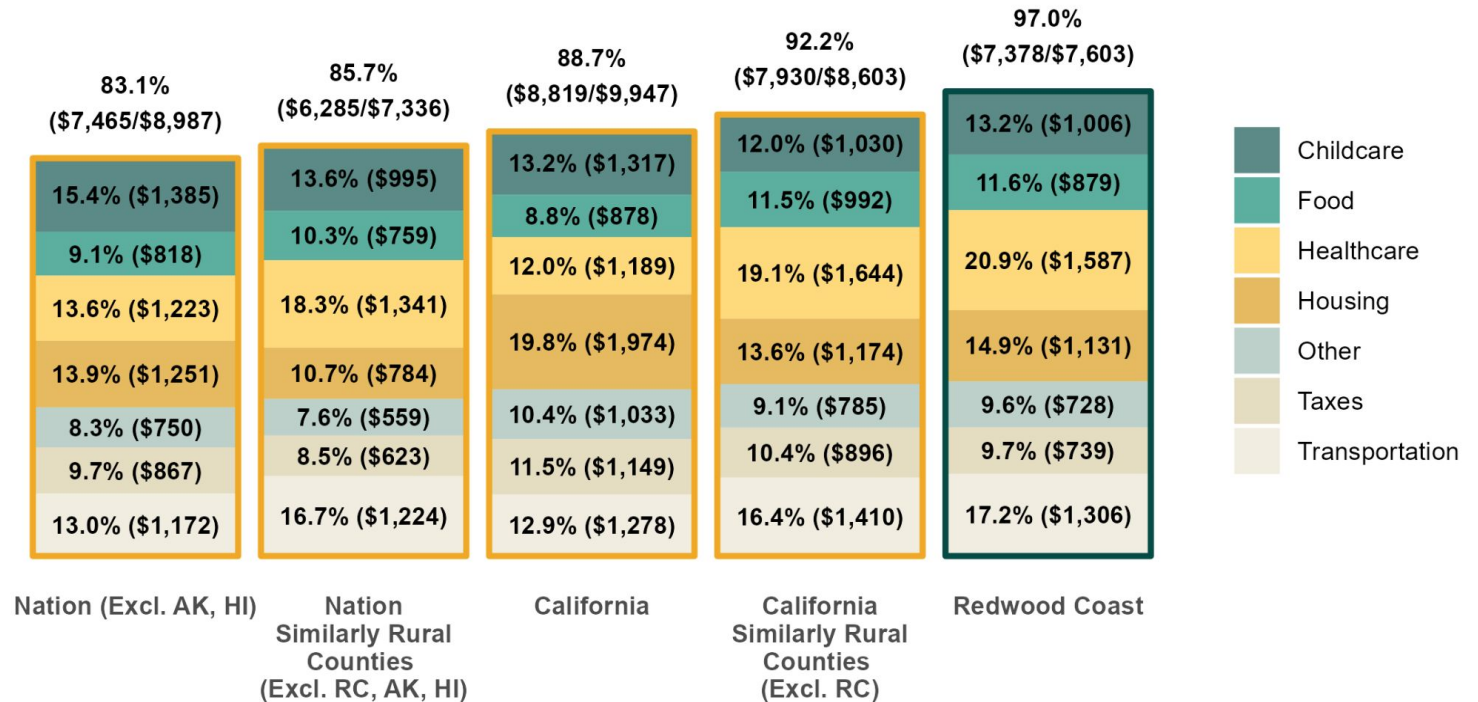


Note: Data sourced from the American Community Survey

# 3. Economic Analysis - Cost of Living in the Region

Monthly Cost of Living for a Family of Two Full-Time Working Adults and Two Children (2017 - 2021), Expressed as a Ratio of Labor Income

- Working families in region suffer from: **“coastal cost of living with rural america wages”**
- Cost of living in proportion of wages is **significantly higher** than the state at large

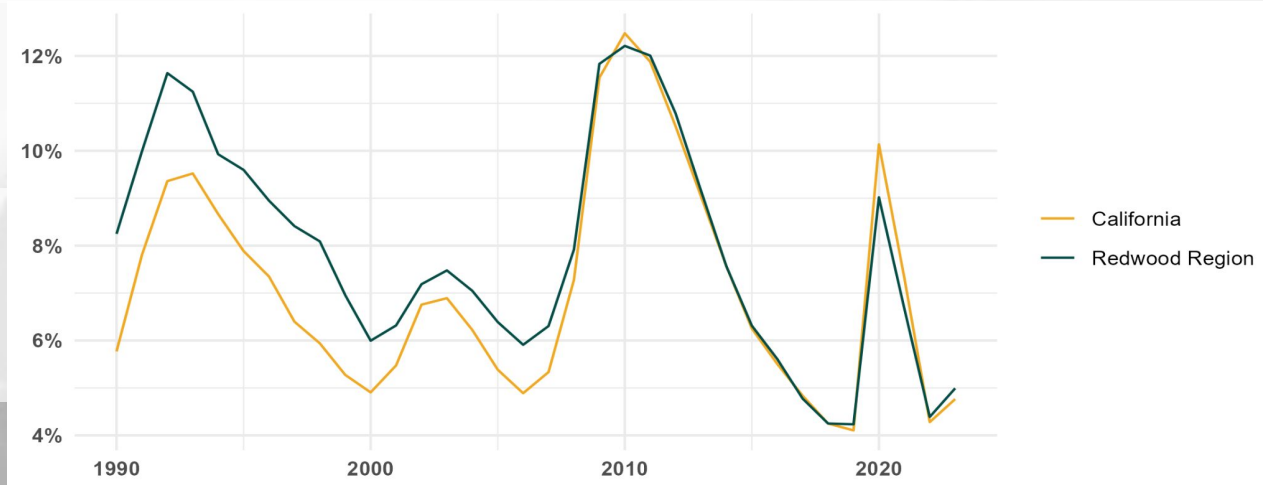


Note: Data sourced from Economic Policy Institute’s Family Budget Calculator, the American Community Survey, and the Index of Relative Rurality

# 3. Economic Analysis - Economic Shocks & Shifts

- **Natural Disasters:** Wildfires have had the largest impact amongst natural disasters the region experiences
- **2008 Recession:** With 1) significant decline in home prices, and slowdown in new housing construction, 2) job losses in related industries such as lumber and building materials, 3) sharp rise in unemployment rates, remaining high for years afterward, and 4) decline in tax revenues leading to budget shortfalls and cuts in public services
- **Policy Changes:** Significant impacts from cannabis legalization on the economies of Humboldt and Mendocino Counties
- **COVID-19:** Closure of businesses and the decline in tourism and service sectors (among others) also led to job losses and economic hardship. Across the four counties employment went from 132,970 in Feb 2020 to 113,120 in April 2020 (Labor Market Information, EDD), a 14.9% drop.

*Redwood Region Unemployment Rate (1990 - 2023)*  
*Data: EDD*



# 3. Economic Analysis - Industry Composition & Trends

- **Two largest industries by employment are Administrative Government & Health Care & Social Assistance**
  - Collectively both industries employ  $\frac{1}{3}$  of Redwood Region workers representing a much larger share of regional employment compared to the state averages
  - Both industries pay higher-than-average wages & employ much larger proportions of the region's workforce compared to state-level trends
  - Except for construction, no other sectors have these qualities, highlighting the importance of government employment in supporting the region's wages
- **High-wage industries are sharply underrepresented (in terms of employment) in the Region**
- **Almost all occupations across industries have substantial wage gaps compared to the state**
  - Especially amongst high-skilled workers and occupations
  - Depressed wages are a problem applying to most industries in the region

# 3. Economic Analysis - Major Employers & Drivers

- Vast majority (72%) of businesses in the region are small with **fewer than 5 employees**
- Region’s top employers tend to be **government administrative services** or related, focused on **education & health**
- Region’s **Tribal Nations &** their enterprises are major economic forces

Figure 3.12 Major Employers in the Redwood Region

Top 10 Employers, by Number of Employees	Employees (Single Site)	NAICS 2022 Code	NAICS 2022 Description
Sun Valley Floral Group, LLC	750	339999	All other Miscellaneous Manufacturing
Blue Lake Casino	370	321150	American Indian and Alaska Native Tribal Governments
Humboldt County Office of Education	370	611110	Elementary and Secondary Schools
Shannon Ranches, Inc.	250	541611	Administrative Management and General Management Consulting Services
Harwood Products	230	321918	Other Millwork (including Flooring)
Robinson Rancheria Citizens Council	200	921140	Executive and Legislative Offices, Combined
Little River Inn, Inc.	176	721191	Bed-and-Breakfast Inns
Running Creek Casino	170	721120	Casino Hotels
The Eureka Hotel Company	150	721110	Hotels (except Casino Hotels) and Motels
Kokatat Inc.	150	315250	Cut and Sew Apparel Manufacturing (except Contractors)

Source: Dunn & Bradstreet, 2023



# 3. Economic Analysis - Housing Availability & Affordability

- **Rental Vacancy** rates are lower than the statewide average, indicating far more competitive conditions for renters
- Statewide, 44.8% of renters spend **more than 35%** of their household income on housing expenses, while regional figures are as high as **54.0% in Humboldt**

Figure 3.4 Regional Housing Data

County name	Median House Value	Housing Units	Occupied Housing Units	% Occupied Housing Units	Home Owner Vacancy Rate	Vacant Housing Units	% Vacant Housing Units	Median Monthly Rent	Rental Vacancy Rate
Del Norte	\$237,700	11,093	9,531	85.9%	1.5%	1,562	14.1%	\$999	1.1%
Humboldt	\$344,800	62,137	53,729	86.5%	1.0%	8,408	13.5%	\$1,079	2.9%
Lake	\$260,600	34,309	26,307	76.7%	1.7%	8,002	23.3%	\$1,116	2.8%
Mendocino	\$417,100	41,276	34,183	82.8%	1.4%	7,093	17.2%	\$1,176	2.3%
Region-Wide	\$315,050	148,815	123,750	82.9%	1.4%	25,065	17%	\$1,093	2.3%
California	\$573,200	14.34 M	13.22M	92.2%	1.0%	1.11M	7.8%	\$1,698	3.9%

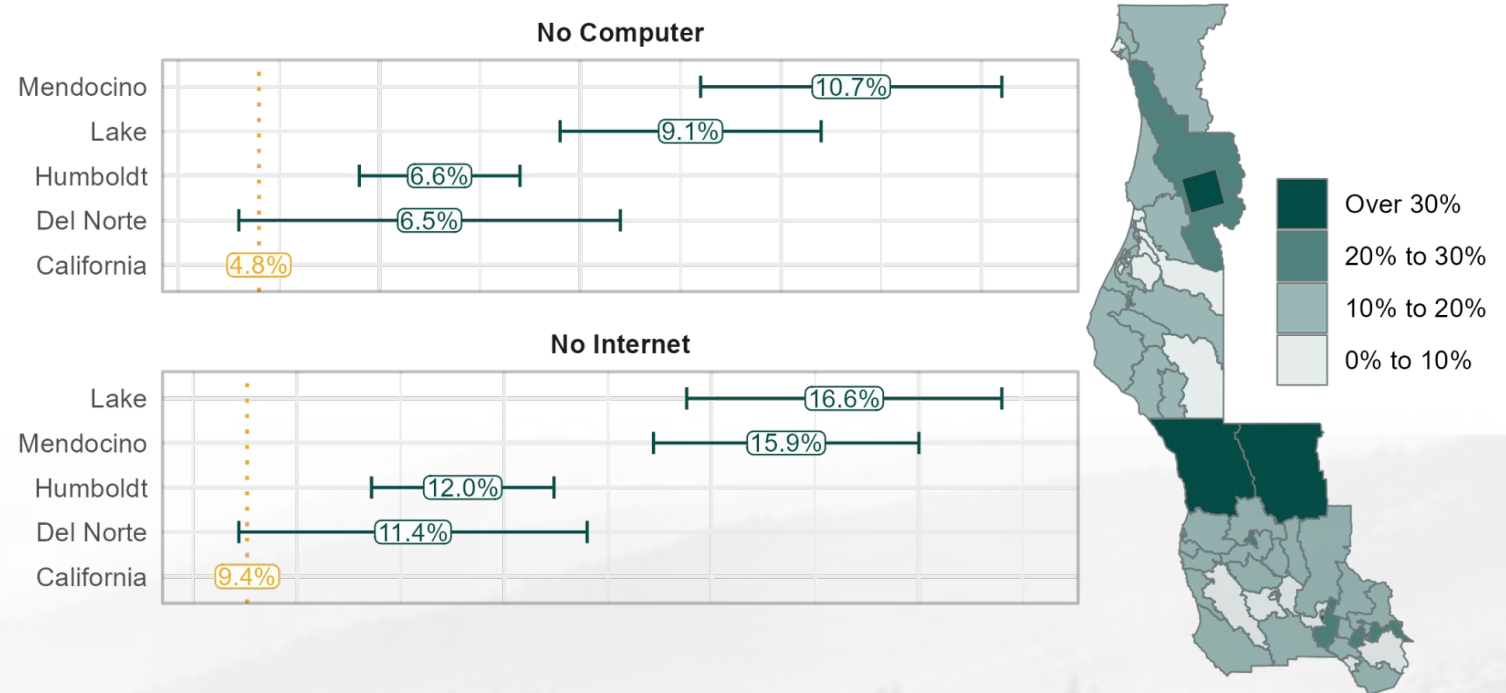
Source: Lightcast™ (2022)



# 3. Economic Analysis - Digital Access & Broadband Efforts

Householders without Internet Access (2017 - 2021)

- Significantly more households in the Redwood Region **lack internet access** in the home compared to the rest of California
- Broadband is a **necessary infrastructure component** for the region to utilize telehealth and other emerging opportunities to build the health & wealth of all residents



Note: Data sourced from the American Community Survey (ACS). Map indicates percentage of households lacking any form of internet subscription.

## 4. Climate Analysis



This chapter provides an overview of **key climate and environmental issues** in the region and the related impacts on people and communities.

## 4. Climate Analysis - Major Findings

- **Critical Environmental Risk Factors Across the Region include:**
  - **Ground- or surface-water contamination, wildfires, & lead exposure** in young children
  - Region enjoys **better air quality** than the rest of the state - its largest industrial emitters are located in low-income areas
- **Sea level rise:** a critical climate impact for the region, has the longest coastline of any California Jobs First region. Humboldt Bay (Wigi) is one of the highest risk areas on the CA coast, yet is slated for the most redevelopment activities of anywhere in the region.
- **Wildfires:** major driver of economic losses & has been a public health disaster for inland communities. Most of the worst impacts are felt in communities with incomes well below the state median. Lake County has suffered the worst of these impacts in recent years. Del Norte & Humboldt counties have the highest risk projections in the region. Critical risk to industries in the working lands sector.
- Investment in **infrastructure for water delivery & waste disposal** is a crucial EJ issue for the region
- Jurisdictions in the region have **significant data gaps pertaining to GHG emissions**
  - Jurisdictions should prioritize creating GHG emissions inventories to better direct clean energy projects & other emissions-reduction effort

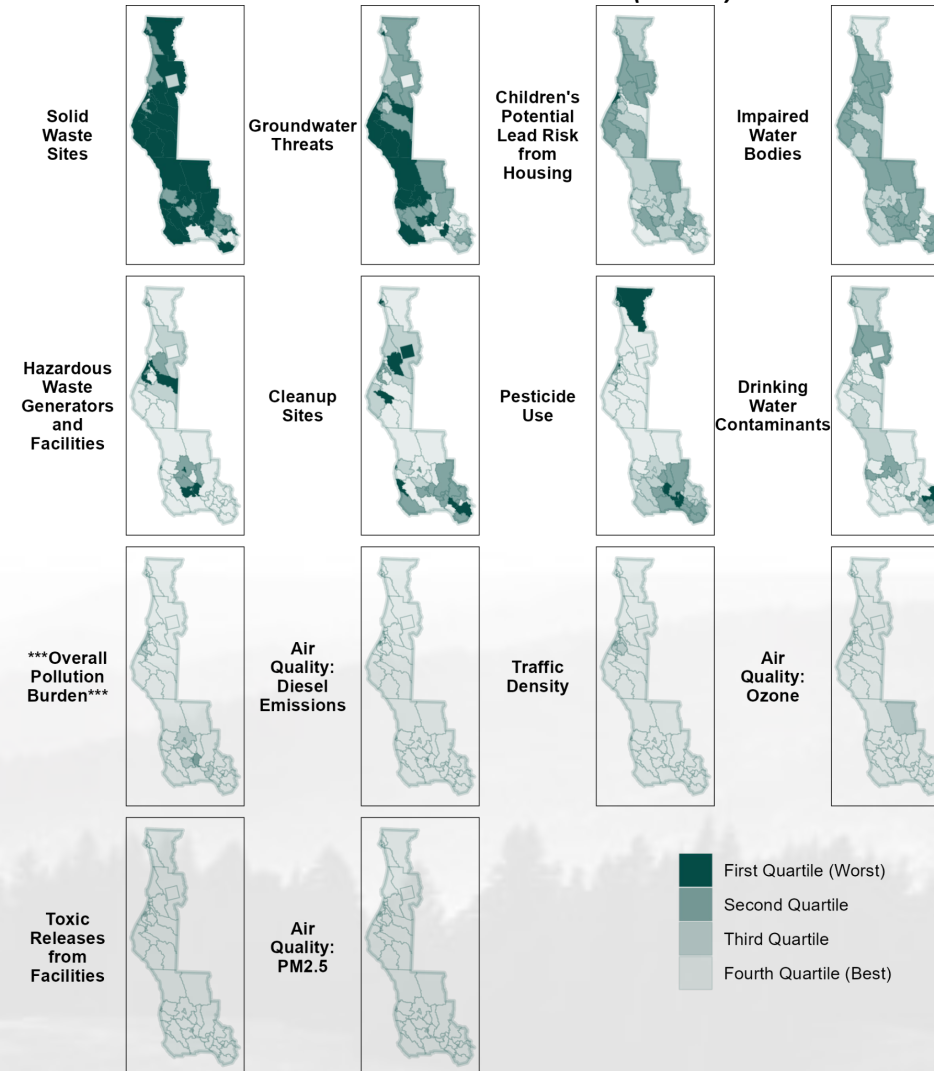
# 4. Climate Analysis - Environmental Risk for Communities

## Environmental risks for the region include:

- Variety of sources of water resource impacts (e.g., drinking water and fish contamination)
  - Solid waste sites
  - Nonpoint-source groundwater pollution
  - Hazardous waste generators
  - Clean-up sites
- Pollution sources that put children at risk of lead poisoning

Data sourced from CalEnviroScreen 4.0. Each Census tract is ranked compared to all other Census tracts in the state. Those in the first quartile (dark emerald) are among the worst 25% of Census tracts in the state. Those in the fourth quartile are among the best 25%.

CalEnviroScreen 4.0 Indicators (2023)



# 4. Climate Analysis - Water Quality, Impaired Water Bodies

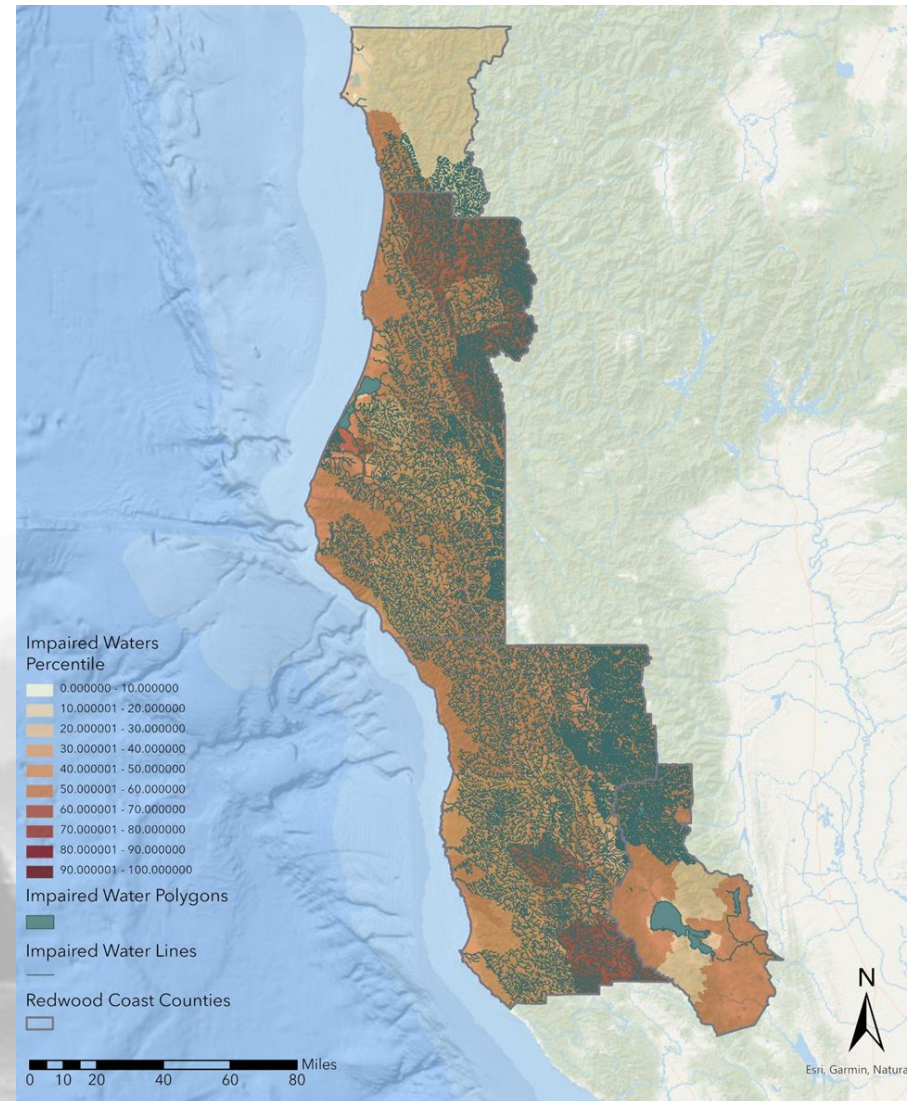
*Impaired Waterways Map*

The region's water bodies are more likely polluted compared to statewide trends

Runoff & surface materials picked up by moving bodies is a critical source of water pollution in the region

Across the region there are over 36,000 miles of rivers and streams that are considered impaired due to pollutants

- 67% have sedimentation
- 66% have heightened water temp.
- 45% have aluminum



# 4. Climate Analysis - Water Quality, Groundwater Threats

Map of Groundwater Threats

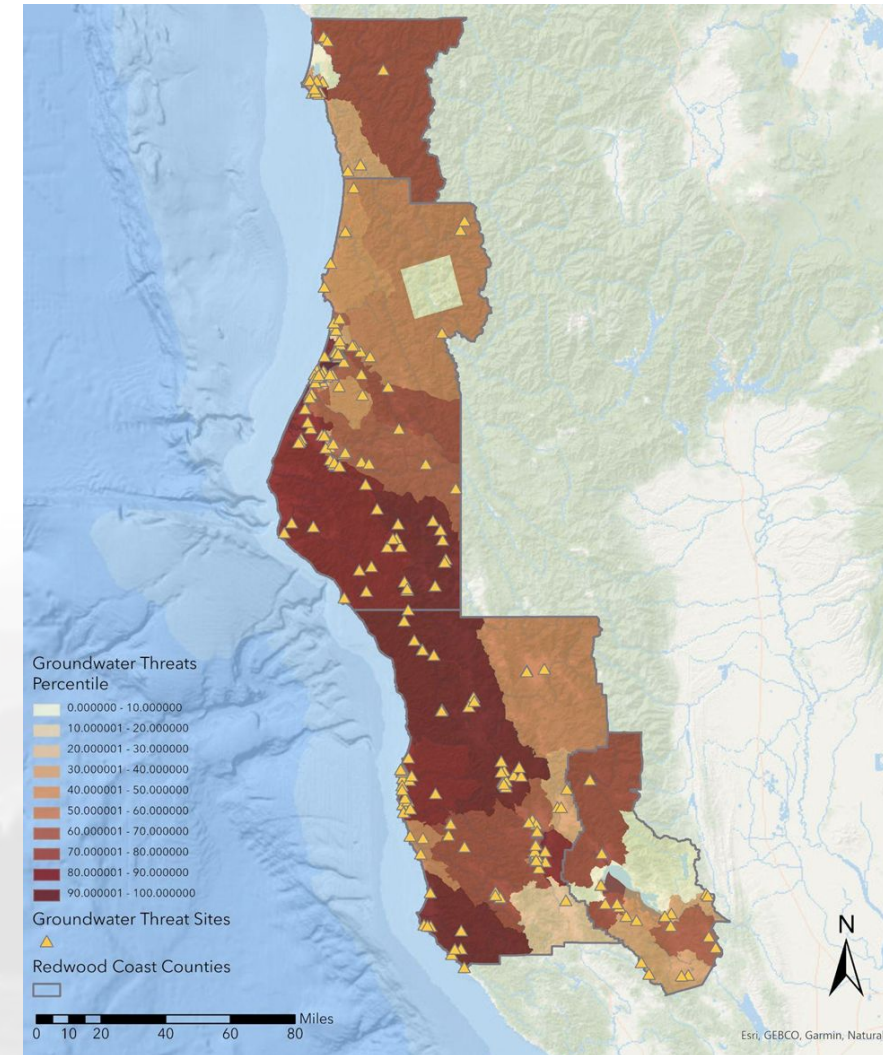
Approximately 270 locations across the region have led to common soil & groundwater pollutants to leak

- 30% are land disposal sites
- 40% are Cleanup Program sites

Remaining sites are Leaking Underground Storage Tanks (LUSTs) & military cleanup sites

Common groundwater pollutants are gasoline & diesel fuels at gas stations

Additionally, substances include pesticides or heavy metals leaking from landfills or burn sites



Source:  
CalEnviroScreen  
Indicator Maps:  
Groundwater  
Threats,  
requested July  
2023.

# 4. Climate Analysis - Large Emission Point Source Facilities

- Waste disposal & farming operations are the **largest emitters of total organic gases**
- Industry mineral processes are the **largest stationary source** of particulate matter
- Dust being blown from unpaved roads is another **major source of particulate matter**
- Residential fuel combustion made up of wood burning & the use of natural gas for heating & cooking is **one of the largest areawide pollution sources** in the region
- Wildfires are the **single most significant contributor** to overall air pollution



# 4. Climate Analysis - Data Limitations: Greenhouse Gas (GHG) Emissions

- It is highly recommended that all jurisdictions complete comprehensive GHG emission inventory in order to properly engage in climate action planning
- There are major GHG emission data gaps in the region
- Residential building energy use is typically rural region's second-largest GHG emitting sector due to rural regions' reliance on natural gas & propane as primary fuel sources of home heating

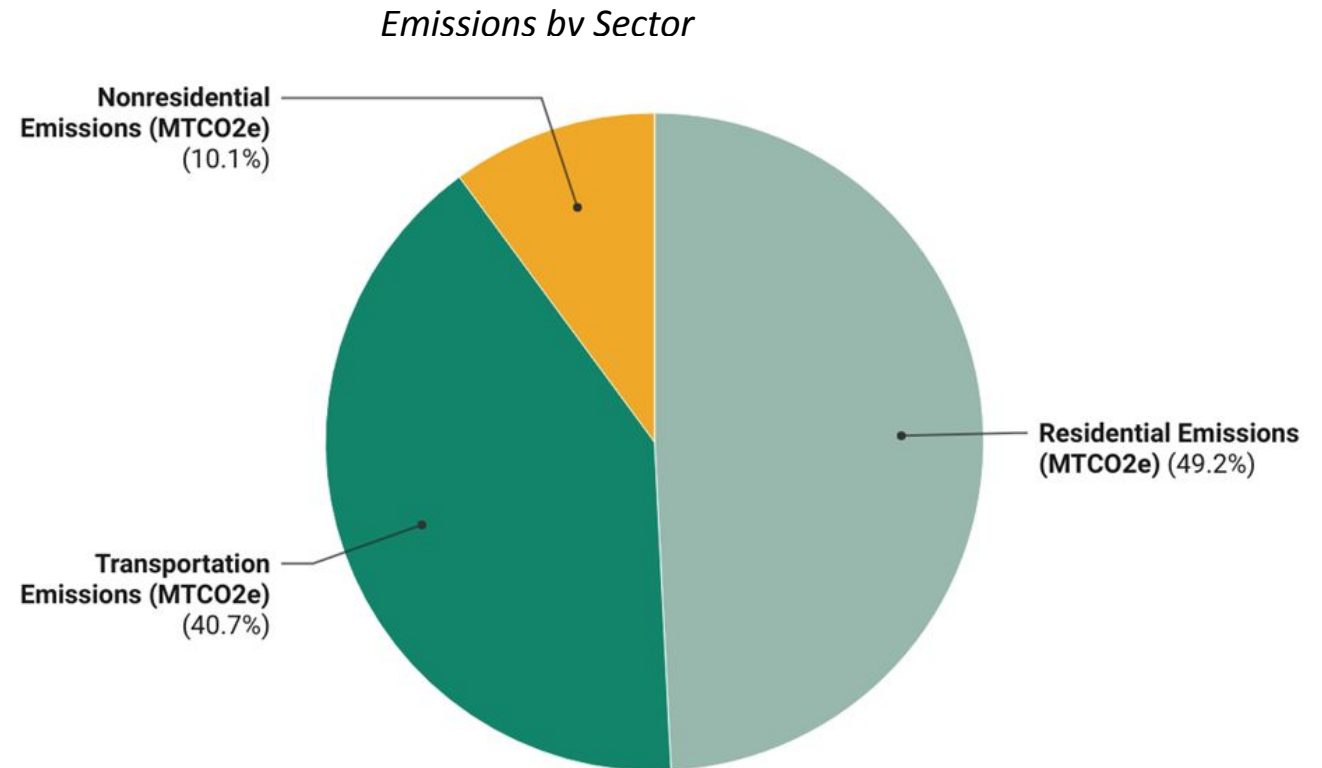


Chart: Sierra Business Council • Source: Local Greenhouse Gas Inventories where available (scaled to 2020 when necessary), Google Environmental Insights • Created with Datawrapper

# 4. Climate Analysis - Greenhouse Gas (GHG) Emissions

- California Air Resources Board (CARB) requires facilities emitting more than 10,000 or more metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) to report annually
- Only Lake & Humboldt County have facilities that meet or exceed the mandatory reporting thresholds for 2020

Figure 4.5 CARB Mandatory Reporting Facilities in the Redwood Region (2020)

County	City	Source Name	Emissions (MTCO <sub>2</sub> e)	Year	NAICS	Sector
Lake	Middletown	Calpine - Geysers Power Company, LLC - Geothermal	210,004	2020	221116	Electricity Generation
Humboldt	Samoa	DG Fairhaven Power LLC	16,128	2020	221117	Electricity Generation
Humboldt	Scotia	Humboldt Sawmill Company	295,562	2020	221116	Cogeneration
Humboldt	Eureka	PG&E Humboldt Bay Generating Station	227,214	2020	221112	Electricity Generation
Humboldt	Arcata	The Sun Valley Group	11,532	2020	111,422	Other Combustion Source

# 4. Climate Analysis - Industry Greenhouse Gas (GHG) Emissions

Among target sectors, data from the Industry Cluster & Labor Market Analysis: the **Working Lands & Blue Economy** industries have the **highest output** of GHG emissions among the RRRISE target industry sectors

**Figure 4.6 Major Sources of GHG Emissions, Air, Water, and Hazardous Waste From Potential Growth Clusters, Emissions (kg) per Job**

	Commercial RCRA Defined Hazardous Waste (kg)	Criteria and Hazardous Air Emissions (kg)	Greenhouse Gases (kg)	Point Source Releases to Water (kg)	
Performing Arts, Spectator Sports, and ... (711)	0	1	94	0	Arts, Culture, & Tourism
Museums, Historical Sites, and Similar ... (712)	7	4	557	0	
Miscellaneous Store Retailers (453)	0	5	179	0	Other NAICS: Retail Trade (44-45)
Electronics and Appliance Stores (443)	0	8	280	0	
Nonstore Retailers (454)	0	28	255	0	
Motor Vehicle and Parts Dealers (441)	1	43	1,708	0	
Food and Beverage Stores (445)	0	14	429	0	
Social Assistance (624)	0	1	177	0	Health & Caregiving
Hospitals (622)	2	16	2,034	0	
Rental and Leasing Services (532)	4	15	4,127	0	Other NAICS: Real Estate and Rental and Le... (53)
Leather and Allied Product Manufacturin... (316)	0	8	1,428	0	Agriculture and Blue Economy
Fishing, Hunting and Trapping (114)		0	5,561	1	
Animal Production and Aquaculture (112)	0	4,992	61,734	77	
Beverage and Tobacco Product Manufactur... (312)	10	134	5,512	2	
Support Activities for Agriculture and ... (115)	0	66	1,829	0	Wood Products
Furniture and Related Product Manufactu... (337)	38	43	2,735	0	
Wood Product Manufacturing (321)	89	927	22,985	70	
Apparel Manufacturing (315)		1	624	1	Other NAICS: Manufacturing (31-33)
Printing and Related Support Activities (323)	118	33	7,839	1	
Chemical Manufacturing (325)	35,612	1,030	355,607	462	
Administrative Government (9B)	8	52	10,972	1	Government
Construction (23)	7	239	10,279	20	Renewable & Resilient Energy, Enabling Industries
Waste Management and Remediation Servic... (562)	8,511	783	46,604	27	Other NAICS: Administrative and Support and... (56)

4th Quartile (Lowest Emitting)
  3rd Quartile
  2nd Quartile
  1st Quartile (-Highest Emitting)

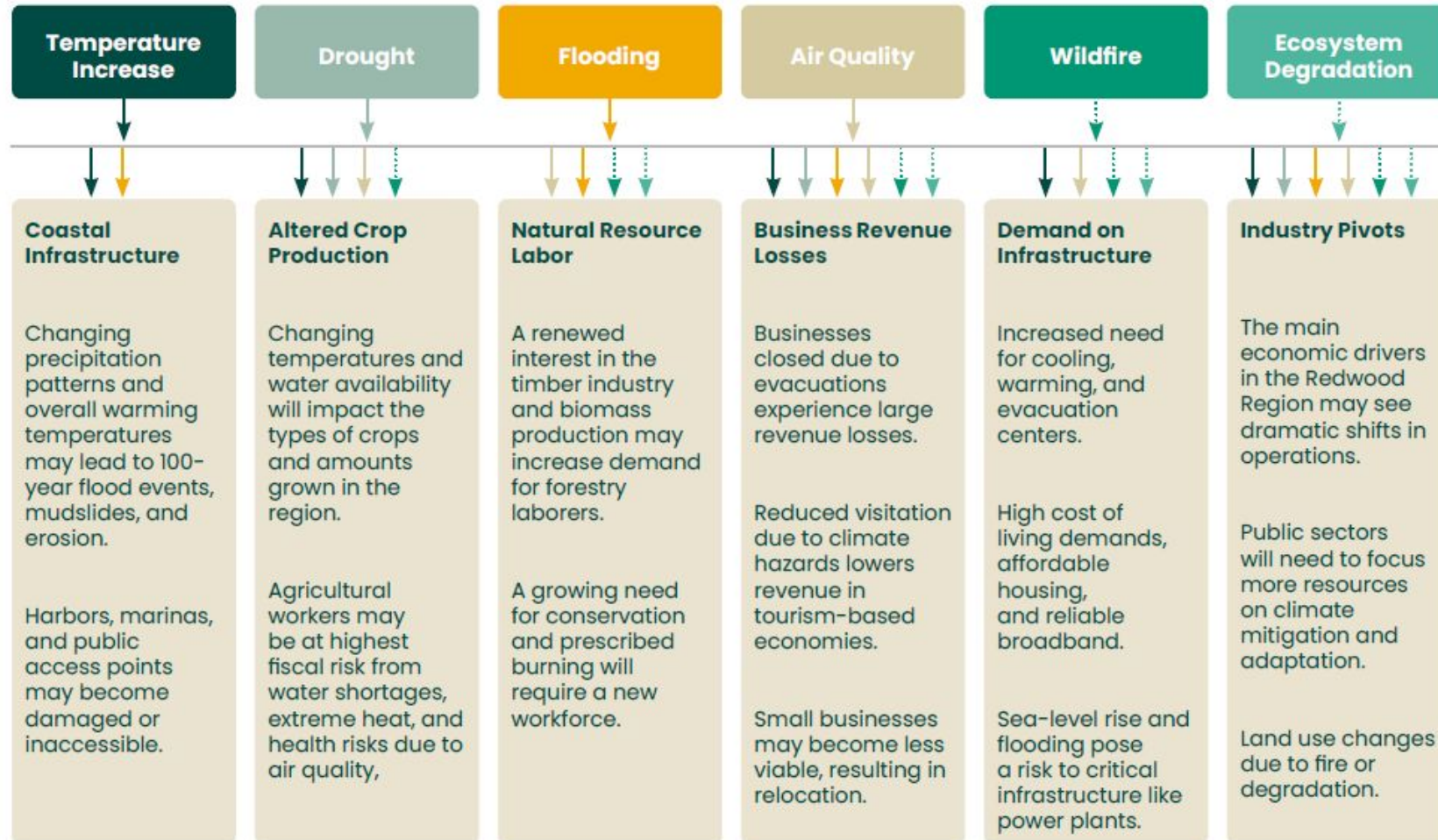
Note. Data sourced from IMPLAN.

## 4. Climate Analysis - Climate Impacts: Heat

- Recent high-impact wildfires & droughts have been linked to extremes in the Evaporation Demand Drought Index (EDDI).  
  
→ Evaporative demand can be thought of as how “thirsty” the atmosphere is, & how much moisture evaporates over a period of time.
- The mid-century model shows a **consistent increase of over 400%** (nearly five times the historical baseline) across the entire region, with Del Norte & Humboldt having more extreme EDDI days than the more southern counties in the region.

# 4. Climate Analysis - Climate Impacts: Economic Risks

Figure 4.7 Economic Risks and Losses Related to Climate Change on the Redwood Coast



Total wildfire burn area is expected to rise between **29% in Lake County** & much as **213% in Del Norte County**

## 4. Climate Analysis - Climate Impacts: Sea Level Rise

- Coastal communities in Del Norte, Humboldt, & Mendocino counties are project to experience **varying impacts of sea level rise (SLR)**
- Coastlines around Crescent City are likely to see SLR within **6 inches by 2050**
- Beaches with low gradients, like Crescent City, could **lose 100 feet of shoreline** to SLR by 2060
- The land around Humboldt Bay is subsiding (sinking), which could amplify the relative rate of SLR in the area
- The **North Spit** of the bay is expected to experience the most significant SLR in the Redwood Coast region
- **Arena Cove** on the Mendocino shore is expected to experience up to a foot of SLR by 2050
- SLR may lead to a loss of shoreline near **Point Arena Pier & erosion** along the sea cliffs
- Loss of shoreline in Arena Cove will **reduce public and commercial access**

# 4. Climate Analysis - Additional Impacts on the Region's targeted industries

## Health and Caregiving

- Increased need for healthcare during extreme events (e.g., wildfires, floods, heat).

## Working Lands and Blue Economy

- Changing weather patterns impacts agricultural & natural resource productivity.
- Droughts impact crop production & wildfire poses risk to all land based industries (including ash damage to vineyards).
- Sea level rise or algae blooms may disrupt maritime industries.

## Arts, Culture, and Tourism

- Degradation of culturally important landmarks, sites, & infrastructure.
- Flooding, wildfires, & algae blooms may decrease tourism.

## Renewable and Resilient Energy

- Increased need for building cooling during heat waves.
- Need for reliable energy sources during heat waves, wildfires, & storms.
- Sea level rise may damage infrastructure.

# 4. Climate Analysis - Climate Impacts on Disinvested Communities

Redwood Region communities are especially vulnerable to climate change due to:

- **Geography & environment**
- **Lack of resources & essential services**
- **Underrepresentation of at-risk populations**

Young children, seniors, & people with disabilities are at higher risk of physical impacts

People experiencing poverty & those unable to work are more likely to face economic barriers to climate adaptation

Figure 4.8 Populations at Risk of Adverse Impacts from Climate Change

Population	Number of People	Percent of Total Population	Critical Risks
Under 5	17,421	5.4%	Extreme heat, air quality
Over 65	65,563	32.9%	Extreme heat, air quality, reduced evacuation ability
People of color	79,956	24.7%	Extreme heat, air quality
People in poverty	56,819	17.8%	Extreme heat, air quality, reduced evacuation ability, water shortages (i.e., dry wells), extreme precipitation events
Nonworking people (aged 16-64)	58,611	29.4%	Extreme heat, air quality, reduced evacuation ability, water shortages (i.e., dry wells)
Households with no car	8,104	6.6%	Extreme heat, air quality, reduced evacuation ability, water shortages (i.e., dry wells), extreme precipitation events
People with disabilities	58,697	18.4%	Extreme heat, air quality, reduced evacuation ability, power outages
People without health insurance	25,042	7.9%	Extreme heat, air quality

*Various Total Populations were used based on population type. For example, the percent of households with no car is based on the total number of households in the Redwood Coast Region and not the total population.*

*Table: Sierra Business Council. Source: US Department of Commerce. 2022. Census Bureau, American Community Survey Office, Washington, D.C. Created with Datawrapper.*



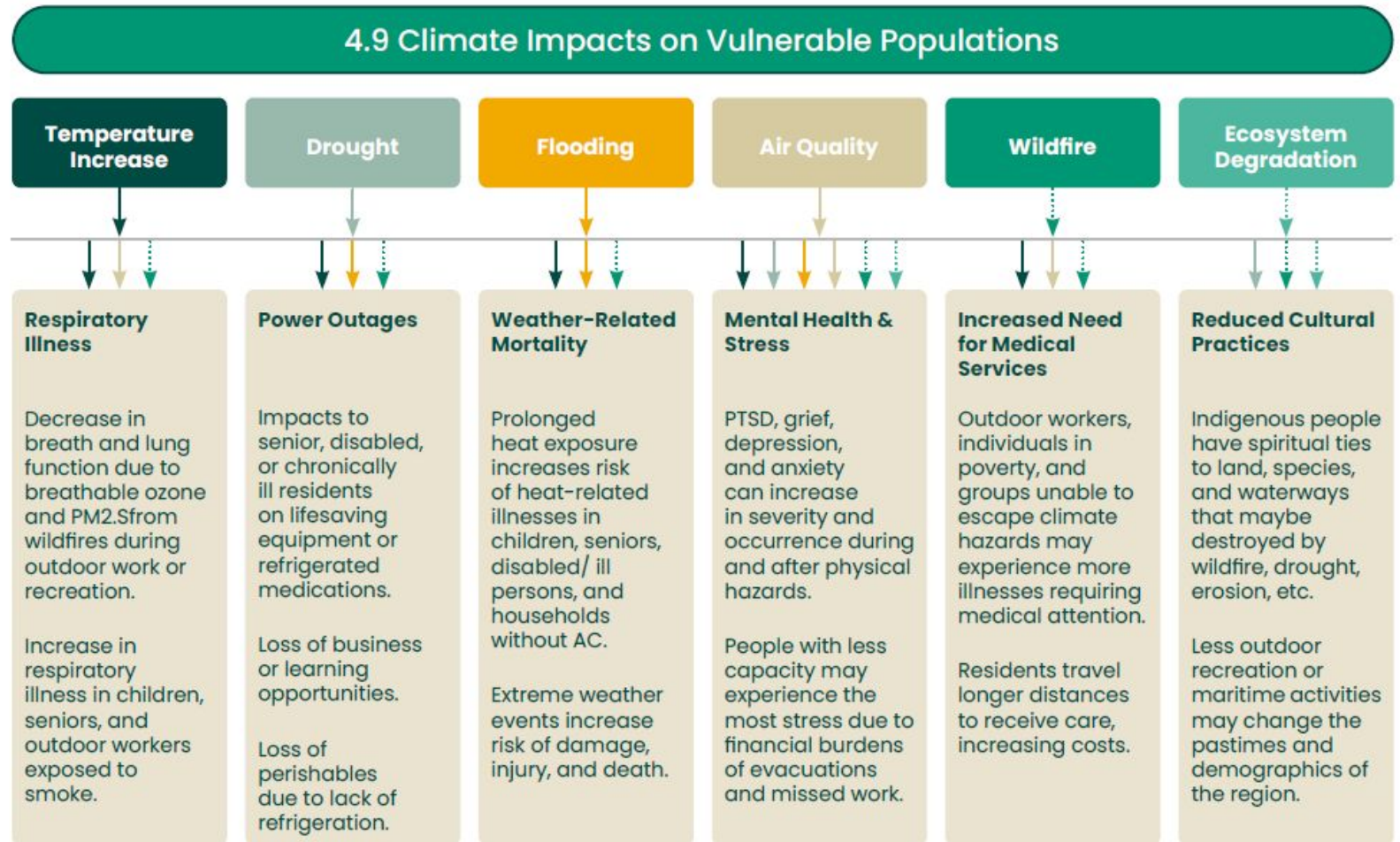


# 4. Climate Analysis - Climate Impacts on Disinvested Communities: Tribal Communities

Tribal Populations within the region disproportionately face several climate-related threats including:

- **Food & water insecurity**
- **Limited access to traditional foods**
- **Loss of culturally vital plant, fungi, & wildlife**

Impacts on freshwater resources are of particular concern for Tribal communities that depend on them for drinking water, fisheries, & cultural practices



## 4. Climate Analysis - Environmental Leadership in the Region

- Tribal Nation's environmental leadership in the Redwood Region has been transformative, showcasing the **power of integrating indigenous knowledge & values** into today's restoration & conservation efforts
- **Notable Example of Tribal Environmental Leadership:**  
Klamath River Restoration Agreement signed in 2010 by the Yurok, Karuk, & Klamath Tribes along with federal & state agencies to remove four dams on the Klamath River in efforts to:
  - Restore salmon runs
  - Improve water quality

## 5. Public Health Analysis



This chapter explores the **social determinants of health** and the **disparities** experienced by the region's communities, drawing connections to the economic and environmental factors that **influence health outcomes.**

## 5. Public Health Analysis - Major Findings

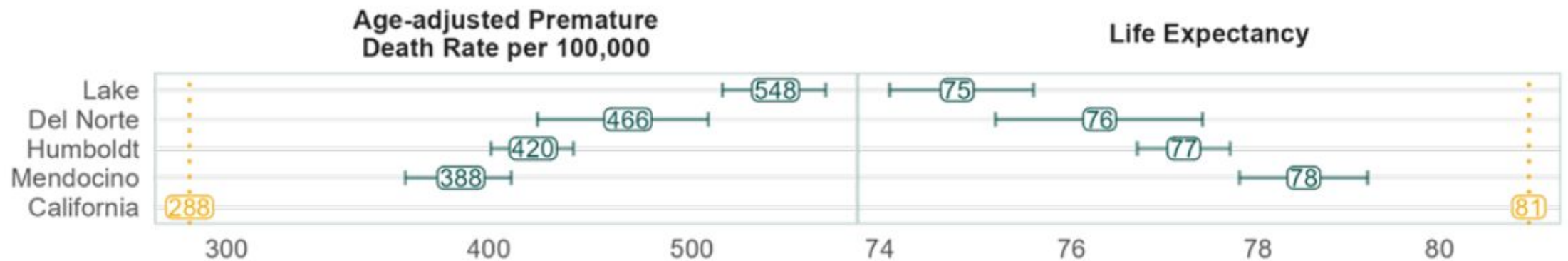
- The Redwood Coast region experiences higher age-adjusted mortalities than the state as a whole across most causes of death, especially **unintentional injuries**, all forms of **cancer**, **drug-induced deaths**, **chronic lower respiratory disease**, **lung cancer**, **chronic liver disease** and **cirrhosis**, **suicide**, **motor vehicle traffic crashes**, **coronary heart disease**, **prostate cancer**, and **firearm-related deaths**.
- The proximate risk factors for these are smoking, substance use, and poor mental health. These issues particularly affect specific populations in the region—people of color, people over the age of 50, and lesbian, gay, and bisexual individuals.
- Complex and interrelated social and community factors are observed with respect to **disability rates**, **high reported Adverse Childhood Experiences (ACEs)**, **poverty** and **attrition from the workforce**, **lower educational attainment**, **loneliness** and **isolation**, and other factors that are pervasive and disproportionately impacting priority communities.

→ The outreach and engagement team's **Insights Report** offers qualitative insights into the relationship between these phenomena. Participants highlighted socioeconomic factors but also a desire for greater community cohesiveness, better relationships, and social belonging.

# 5. Public Health Analysis - Health Disparities on the Redwood Coast

There is a clear regional pattern of **substantially higher death rates** than those for the state as whole in several categories: unintentional injuries, all cancer types, drug-induced deaths, chronic lower respiratory disease, lung cancer, chronic liver disease and cirrhosis, suicide, motor vehicle traffic crashes, coronary heart disease, prostate cancer, and firearm-related deaths.

Figure 5.1 Premature Death and Life Expectancy (2018 - 2020)

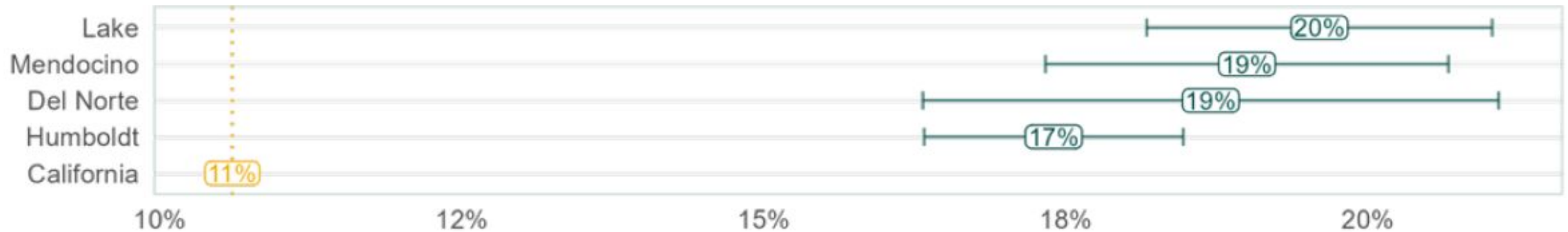


Note. Data sourced from CHRR.

# 5. Public Health Analysis - Disability

**Disability rates** are also much higher than the state average, and are a key driver of attrition from the workforce in prime age. The prime type of disability reported in the region is **cognitive/behavioral**.

Figure 5.3 Disability Rates (2017 - 2021)



Note. Data sourced from the U.S. Census Bureau (2022).

# 5. Public Health Analysis - Proximate Risk Factors

There are several risk factors that could lead to these disparities, including:

- Smoking
- Heart disease
- Poor mental health
- Substance use
- Liver disease
- Motor vehicle fatalities

Figure 5.16 Comparative Analysis of Demographic Disparities in Health Factors (2011-2022)

	People of Color vs. White	Homosexual or Bisexual vs. Heterosexual	Disabled vs. Non-Disabled	Veteran vs. Non-Veteran	55+ vs. Younger	
Fair or Poor Health Status	21/16%	18/19%	41/9%*	27/19%*	22/13%*	Redwood Coast
Current Smoker	16/16%	19/14%	27/15%*	17/16%	12/20%*	
Binge Drinking	17/17%	22/16%	29/42%*	17/17%	10/22%*	
Suicide Ideation	17/19%	49/18%*	21/11%*	20/19%	15/22%*	
Below FPL	26/16%*	25/16%	24/15%*	11/18%*	12/21%*	
Less than BA	79/65%*	57/66%	80/63%*	68/67%	64/69%	
3+ ACEs	53/44%	60/43%*		40/46%	36/52%*	
Violence by Intimate Partner	-2/2%	-6/1%			-1/2%	
Lives Alone	14/19%*	20/18%	29/14%*	28/17%*	27/12%*	
Lower Access to Fruits/Veggies	16/12%	-9/13%	17/10%*	11/13%	12/13%	
Delayed Care in Past 12 Months	14/19%*	32/20%*	25/15%*	17/22%	16/19%	
Health Impacted by Ext. Weather	-7/15%	21/13%		10/14%	12/16%	

Fair or Poor Health Status	18/14%*	19/18%	41/12%*	18/19%	25/12%*	California
Current Smoker	10/10%	13/8%*	17/11%*	11/10%	8/11%*	
Binge Drinking	16/20%*	28/18%*	25/35%*	16/19%*	10/24%*	
Suicide Ideation	11/13%*	35/12%*	15/6%*	12/12%	8/14%*	
Below FPL	21/14%*	16/15%	24/14%*	6/16%*	12/18%*	
Less than BA	65/59%*	57/60%*	75/60%*	60/62%*	62/61%	
3+ ACEs	32/34%*	52/31%*		36/33%	27/37%*	
Violence by Intimate Partner	3/2%*	4/2%*		2/3%	1/3%*	
Lives Alone	9/13%*	15/11%*	17/10%*	18/11%*	20/7%*	
Lower Access to Fruits/Veggies	15/10%*	13/12%	16/10%*	10/12%	10/12%*	
Delayed Care in Past 12 Months	11/14%*	25/15%*	21/11%*	11/16%*	12/13%*	
Health Impacted by Ext. Weather	5/8%*	14/6%*		6/7%	6/7%*	

Ratio (R)   $R \leq 0.5$  (Lower Risk)   $0.5 < R \leq 1$    $1 < R \leq 1.5$    $1.5 < R \leq 3$    $3 \leq R$  (Higher Risk)

Note. Data sourced from the CHIS. (\*) denote statistically significant differences and (-) denote unstable estimates. An estimate may be simultaneously unstable and significantly different. Missing values are not shown. Years are selected based on all available years from 2011 to the present. Binge drinking represents either "Binge Drinking in Past Month" or "Binge Drinking in Past Year" depending on data availability.

LGBTQIA+ and disability community members are particularly at risk



# 5. Public Health Analysis - Social Drivers of Health Disparities

Figure 5.9 Total Counted Homeless per 100,000 Population by Continuum of Care (2016 – 2020)<sup>72</sup>

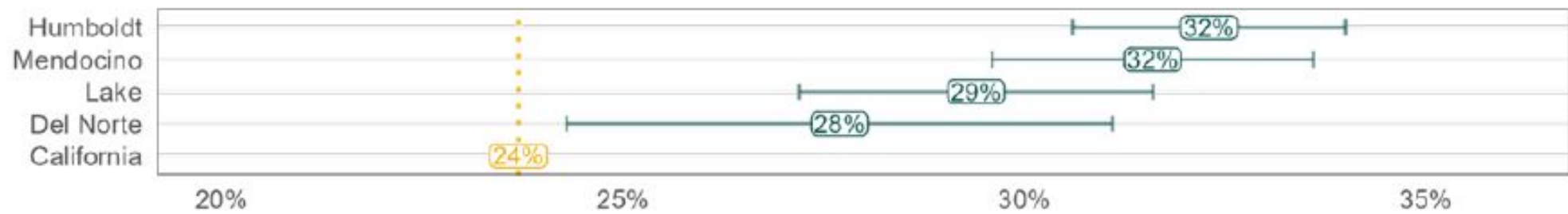


*Note. Data sourced from the U.S. Department of Housing and Urban Development's datasets on Point-in-Time (PIT) estimates, a count of sheltered and unsheltered individuals experiencing homelessness. Data are five-year averages from 2016 to 2020. Rates calculated by the author are five-year estimates using population data from the U.S. Census Bureau (2022) for 2016-2020. Population estimates are summed for each CoC service area by county.*

# 5. Public Health Analysis - Social Drivers of Health Disparities

Significantly more householders live alone in the Redwood Region, with implications for **social isolation**. Isolation is a critical risk factor for suicidal ideation, among other issues.

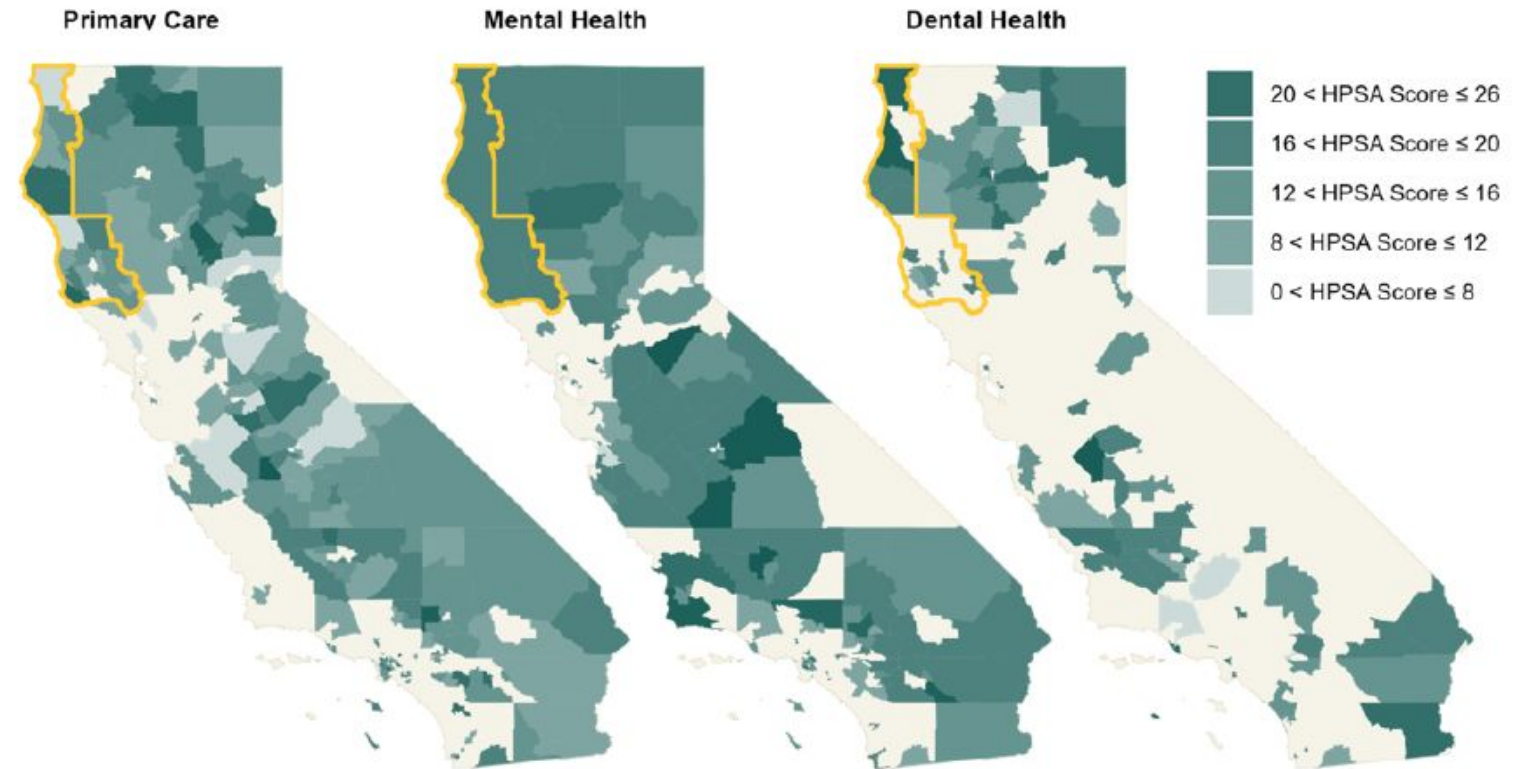
Figure 5.14 Householders Living Alone, Percent of Households (2017 - 2021)



Note. Data sourced from the U.S. Census Bureau (2022).

# 5. Public Health Analysis - Social Drivers of Health Disparities

Figure 5.15 Health Professional Shortage Areas and Scores (2023)<sup>80</sup>



*Note. Beige areas are not HPSAs. Blue areas are HPSAs, with darker hues indicating higher HPSA scores (or greater need). The Redwood Coast region is outlined in gold. Data sourced from the Health Resources and Service Administration's data on shortage areas, measuring HPSA areas in primary care, dental health, and mental health.*

The region faces **acute shortages of providers**. Priority populations have fewer coping strategies or alternatives they can access when care is unavailable locally.

## 6. Industry Cluster Analysis



This chapter identifies key industry clusters with the potential for sustainable growth and family-sustaining careers, such as the **Working Lands and Blue Economy; Arts, Culture, and Tourism, Renewable and Resilient Energy, and Health and Caregiving** sectors.

These industry clusters will drive the regional strategy detailed in the forthcoming Part 2 of this report.

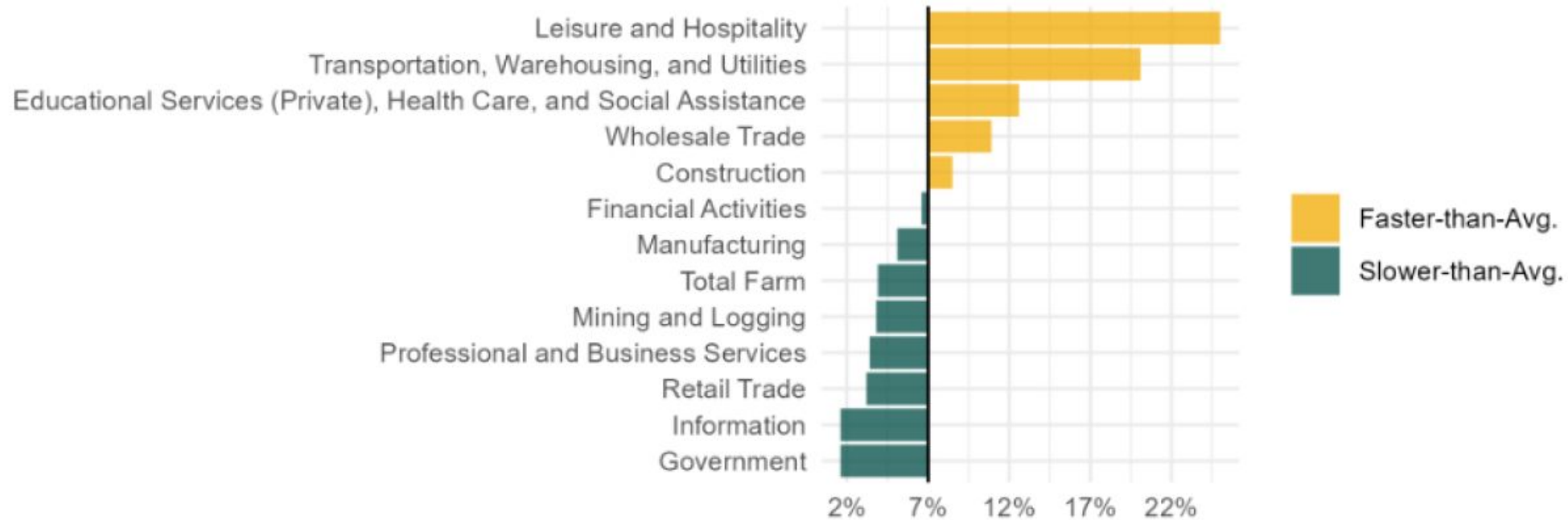
## 6. Industry Cluster Analysis - Major Findings

**Redwood Region's economic landscape is defined by four key industry clusters:**

- **Working Lands and Blue Economy:** Dominated by wine grapes in Lake & Mendocino, diverse livestock in the north, and significant aquaculture in Humboldt Bay. Forestry & Wood Products remain the region's most concentrated sector with a high location quotient. Despite volatile price fluctuations, it is defined by stable timber production & increasing market values.
- **Arts, Culture, and Tourism:** A vital driver of the local economy, attracting visitors with natural wonders and cultural events. Despite recent disruptions, the cluster shows resilience & potential for growth, especially in creating jobs compatible with low-carbon goals.
- **Renewable and Resilient Energy:** The development of utility-scale wind energy, particularly offshore, offers substantial economic and employment potential, aligning with the region's environmental goals & supporting related industries.
- **Health and Caregiving:** This cluster addresses the region's critical health and social care needs and is expected to grow faster than average. It aligns with strategic goals such as minimizing greenhouse gas emissions and offering numerous family-sustaining jobs.

# 6. Industry Cluster Analysis

Figure 6.1 Potential Rate of Job Growth for Major Economic Sectors (2020-2030)



Note. Data sourced from California Employment Development Department (EDD). Overall employment growth is projected to be 7%.

# 6. Industry Cluster Analysis - Agriculture & Blue Economy

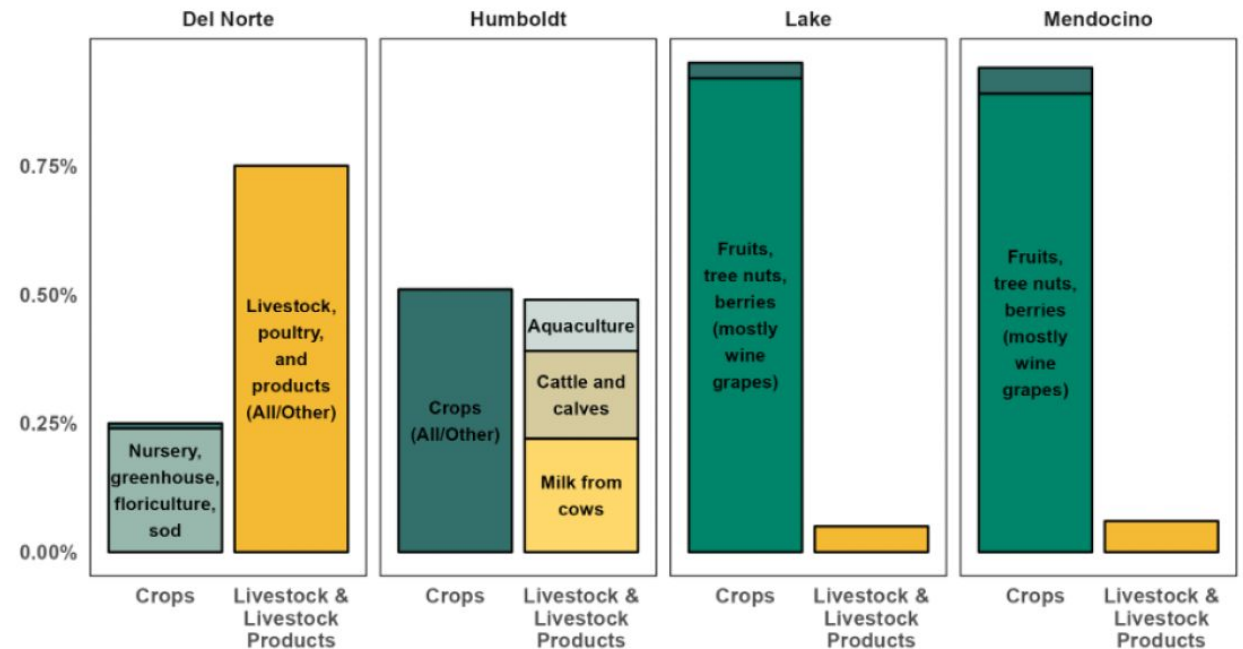
## Major Redwood Region Agriculture & Blue Economy traded commodities include:

- Livestock production (e.g., beef, dairy)
- Wine grapes & wine
- Cannabis
- Dungeness crab
- Oyster

**Aquaculture:** primarily oyster constituted a substantial portion of Humboldt's agricultural output at \$17.4 million in market value or 12% of statewide aquaculture production by market value

**Commercial fishing:** primarily Dungeness crab, remains a key commodity in the three coastal counties with an annual market value of \$37.4 million accounting for nearly 80% of the state's Dungeness crab landings

Figure 6.3 Intraregional Agriculture Specialization, Percent of Total Market Value Produced



Note. Data sourced from USDA Census of Agriculture County Profiles. Does not include commercial fishing. The 2022 data include hemp production.

# 6. Industry Cluster Analysis - Agriculture & Blue Economy Cluster Performance and Alignment with RRRISE

- Agriculture and Blue Economy represent key areas of regional **employment specialization & job growth**
- Fishing, Hunting, & Trapping in addition to Animal Production & Aquaculture have experienced **significant increases** in employment & specialization

Figure 6.4 Agriculture and Blue Economy Cluster Performance

	Employment	LQ	% Change In LQ	% Job Growth	Job-to-Job Multiplier	% Family Sustaining Job	GHG per Job (kq)	
Leather and Allied Product Manufacturin... (316)	91	3.6	316%	266%	1.2	0%	1,428	Specialization & Resilience
Beverage and Tobacco Product Manufactur... (312)	1,531	3.5	-13%	5%	1.7	46%	5,512	
Fishing, Hunting and Trapping (114)	2,990	84	59%	68%	1.1	6%	5,561	
Animal Production and Aquaculture (112)	1,429	8	26%	70%	1.5	3%	61,734	
Food Manufacturing (311)	1,438	1.0	4%	1%	2.6	8%	24,801	Other Industries
Textile Mills (313)	36	1.0	220%	70%	1.2	0%	13,073	
Crop Production (111)	3,165	2.6	5%	-22%	1.2	1%	25,964	

4th Quartile (Highest Performing)
  3rd Quartile
  2nd Quartile
  1st Quartile (Lowest Performing)

*Note. Data source from IMPLAN. Author's calculations. 2022 data with 2013 growth comparison. NAICS codes shown in parentheses. Employment figures include proprietors and may differ substantially from QCEW data which include only employees.*

- The Region shows emerging potential in **leather goods manufacturing**, likely benefitting from connection to the local livestock industry
- Challenges include: **lower wages & higher environmental impacts** compared to other industries



# 6. Industry Cluster Analysis - Working Lands & Blue Economy: Overall Cluster Outlook



- Data from the California Employment Development Department (EDD) project positive **but slower-than-average** employment growth in the agriculture sector
- Employment growth is diminished by a **substantial decline in Crop Production employment** over the past decade
- Consistent with national trends, farmers in the region are aging. According to the latest Census of Agriculture, **46% of Redwood Region farmers are 65 years or older.**
- Groups/organizations including the Del Norte Community Food Council & Humboldt-based North Coast Growers Alliance have programming assisting new farmers & farmers of color to **acquire farmland & establish businesses**
- Despite these issues, **there are still opportunities for development, growth, & innovation** within certain commodities in the Agriculture & Blue Economy cluster.

# 6. Industry Cluster Analysis - Wood Products Cluster Performance and Alignment with RRRISE

- The Wood Products cluster maintains a high level of **employment specialization**.
- Despite a surge in market value, employment in core sectors like Forestry and Logging is experiencing **long-term stagnation or decline**.
- Conversely, industries higher up the value chain, such as Wood Products Manufacturing, show more **resilience** to these trends.

Figure 6.9 Wood Products Cluster Performance

	Employment	LQ	% Change in LQ	% Job Growth	Job-to-Job Multiplier	% Family Sustaining Job	GHG per Job (kq)	
Wood Product Manufacturing (321)	1,757	9	-9%	-2%	2.4	76%	22,985	Specialization & Resilience
Support Activities for Agriculture and ... (115)	2,743	1.7	61%	63%	1.2	44%	1,829	
Furniture and Related Product Manufactu... (337)	167	0.8	36%	13%	1.4	46%	2,735	
Furniture and Home Furnishings Stores (442)	410	0.8	5%	-3%	1.3	44%	352	Other Industries
Forestry and Logging (113)	931	22	-4%	-22%	1.6	75%	40,413	
Building Material and Garden Equipment ... (444)	1,903	2.3	1%	-3%	1.3	29%	757	

4th Quartile (Highest Performing)
  3rd Quartile
  2nd Quartile
  1st Quartile (Lowest Performing)

*Note. Data source from IMPLAN. Author's calculations. 2022 data with 2013 growth comparison. NAICS codes shown in parentheses. Employment figures include proprietors and may differ substantially from QCEW data, which include only employees.*

## 6. Industry Cluster Analysis - Wood Products: Overall Cluster Outlook

- EDD forecasts **below-average employment growth** in the Mining & Logging sector
- Coupled with employment declines in most Wood Products industries, the overall growth outlook for this cluster appears **uncertain**
- Despite the challenges, redwood stands out for its **valuable properties**, such as rot & insect resistance (The Redwoods of Coast and Sierra, n.d.) **offering substantial market advantages**
- The region's growing dominance in the California lumber market and near monopoly on redwood—a valuable, differentiated, and appreciating resource—provide **market power and competitive edge**
- **Challenge:**  
Preserving family-sustaining occupations while aligning with environmental rules & policies

## 6. Industry Cluster Analysis - Arts, Culture, and Tourism

- Tourism has been a significant industry for the region since the **mid 19th century**
- Historically, many industries within the sector deliver **low wages**, may lack in typical employee safety nets & upward mobility, defined by **gig & seasonal employment**
- With this important caveat in mind, the Arts, Culture, and Tourism industry cluster is a key economic sector in the region, **drawing significant visitor numbers and revenue**
- Encompassing agritourism, the Redwoods and coastal attractions, seasonal festivals and heritage sites celebrating indigenous and other local cultures, the cluster has both **well established regional assets and capacity and potential to develop more.**
- Annually, the area's state and national parks attract approximately **5 million visitors.**
- Overall, visitors generate about \$1.3 billion in spending (Dean Runyan Associates, 2023) — about \$4,081 per resident exceeding the statewide equivalent of \$3,433.97

# 6. Industry Cluster Analysis - Arts, Culture, and Tourism Cluster Performance and Alignment with RRRISE

- **Arts, Culture, & Tourism**, shows signs of employment specialization and resilience in two industries, including **Museums, Historical Sites, and Similar Institutions (712)** and **Performing Arts, Spectator Sports, and Related Industries (711)**.
- These industries have a **minimal carbon footprint**, but support few family-sustaining occupations.
- **Scenic and Sightseeing Transportation (487)** appears underdeveloped, providing the region's numerous natural attractions, with a location quotient of just 0.5. This industry supports a high proportion of family-sustaining occupations, with a moderate climate impact.

Figure 6.10 Arts, Culture, and Tourism Industries Performance

	Employment	LQ	% Change in LQ	% Job Growth	Job-to-Job Multiplier	% Family Sustaining Job	GHG per Job (kg)	
Performing Arts, Spectator Sports, and ... (711)	2,364	1.0	28%	31%	1.4	1%	94	Specialization & Resilience
Museums, Historical Sites, and Similar ... (712)	114	1.2	59%	59%	1.3	18%	557	
Air Transportation (481)	246	0.7	573%	631%	2.3	89%	450,095	Other Industries
Broadcasting (except Internet) (515)	211	0.5	-42%	-24%	3.5	44%	122	
Scenic and Sightseeing Transportation (487)	379	0.5	-3%	15%	1.5	53%	3,565	
Publishing Industries (except Internet) (511)	121	0.1	-69%	-62%	1.5	32%	352	
Rail Transportation (482)	3.1	0.1	-19%	-47%	2.3	96%	316,974	
Other Information Services (519)	56	0.1	-15%	26%	2.9	25%	633	
Food Services and Drinking Places (722)	10,187	0.9	-6%	1%	1.2	13%	623	
Accommodation (721)	1,873	1.2	-10%	-7%	1.3	19%	941	
Transit and Ground Passenger Transporta... (485)	536	0.3	18%	279%	1.2	25%	4,273	
Motion Picture and Sound Recording Indu... (512)	177	0.1	-25%	-22%	1.7	2%	145	
Amusement, Gambling, and Recreation Ind... (713)	1,081	0.8	-21%	-28%	1.2	4%	777	

4th Quartile (Highest Performing)
  3rd Quartile
  2nd Quartile
  1st Quartile (Lowest Performing)

Note. Data source from IMPLAN. Author's calculations. 2022 data with 2013 growth comparison. NAICS codes shown in parentheses. Employment figures include proprietors and may differ substantially from QCEW data, which include only employees.

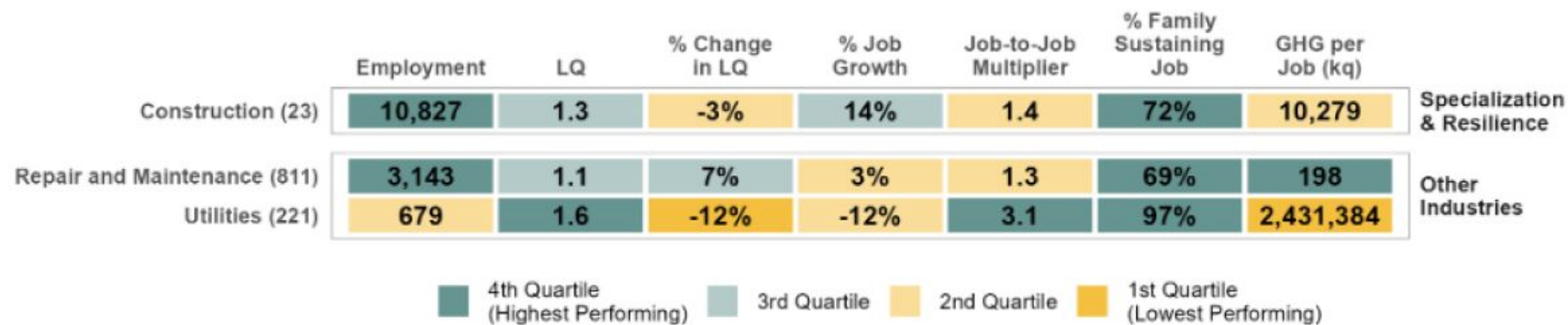
## 6. Industry Cluster Analysis - Arts, Culture, and Tourism: Overall Cluster Outlook

- While COVID-19, inflation, & other shocks may have caused **temporary disruptions**, the **outlook for this cluster looks strong**.
- From 2013 to 2022, **traveler spending** to the region increased 27.1% & **industry earnings** have increased 70.4% outpacing statewide figures of 20.3% & 53.6%.
- EDD projects that Redwood Region Leisure and Hospitality sector employment will grow faster than any other sector through 2030. **A challenge for the cluster** is translating this growth into family-sustaining occupations.
- **Industry-Specific Assets:**
  - Most current & proposed local & state investments in the sector are concentrated in **ecotourism**.
  - **Agri-tourism** in the cannabis, winery, and brewery industries, as well additional agricultural industries such as dairy, attract and serve tourists and provide a boost to the local and regional economy, creating cross-cutting opportunities with the Working Lands sector.

# 6. Industry Cluster Analysis - Renewable and Resilient Energy Cluster performance and Alignment with RRRISE.

- The Region aspires to develop Renewable & Resilient (RRE) industry cluster centered around **energy efficiency & renewable energy**
- Industries supporting such an industry are: **Utilities, Construction, Repair & Maintenance**
- Industries support a **high proportion of family-sustaining occupations**, therefore additional economic activities in these industries is likely to consider to foster & promote family-sustaining occupations

Figure 6.11 RRE Enabling Industries Performance



*Note. Data sourced from IMPLAN. Author's calculations. 2022 data with 2013 growth comparison. NAICS codes shown in parentheses. Employment figures include proprietors and may differ substantially from QCEW data, which include only employees.*

## 6. Industry Cluster Analysis - Resilient and Renewable Energy: Overall Cluster Outlook

- The Redwood Region has great potential for developing the RRE sector, as both energy efficiency & renewable energy investments offer **significant potential for job creation & economic development**.
- Energy efficiency investments are often more **labor-intensive & tend to create more jobs per dollar invested** compared to renewable energy projects, & energy efficiency jobs are often **cross-sectoral & local** (in industries like construction, manufacturing, and installation/maintenance).



# 6. Industry Cluster Analysis - Health and Caregiving Cluster performance and Alignment with RRRISE.

The Health and Caregiving Sector encompasses several industries across the Redwood Region RISE region: ambulatory and acute medical care, behavioral health care, dental care, allied medical care, caregiving, and social care sectors.

Figure 6.12 Health and Caregiving Industries Performance

	Employment	LQ	% Change In LQ	% Job Growth	Job-to-Job Multiplier	% Family Sustaining Job	GHG per Job (kq)	
Hospitals (622)	3,999	1.6	12%	9%	1.7	76%	2,034	Specialization & Resilience
Social Assistance (624)	10,739	1.6	8%	29%	1.1	4%	177	
Ambulatory Health Care Services (621)	5,865	0.8	-6%	7%	1.4	61%	228	Other Industries
Nursing and Residential Care Facilities (623)	2,247	1.1	-2%	-2%	1.3	30%	419	
Health and Personal Care Stores (446)	946	1.0	-2%	-10%	1.3	18%	58	

4th Quartile (Highest Performing)
  3rd Quartile
  2nd Quartile
  1st Quartile (Lowest Performing)

*Note. Data sourced from IMPLAN. Author's calculations. 2022 data with 2013 growth comparison. NAICS codes shown in parentheses. Employment figures include proprietors and may differ substantially from QCEW data, which include only employees.*

## 6. Industry Cluster Analysis - Health and Caregiving Overall Cluster Outlook

- This cluster addresses the region's critical health and social care needs and is expected to **grow faster than average**. It aligns with regional strategic goals such as minimizing greenhouse gas emissions and offering numerous family-sustaining jobs.
- The primary challenge lies in **attracting, training, and retaining skilled professionals** to meet growing demands for healthcare and caregiving.

# 7. Labor Market Analysis



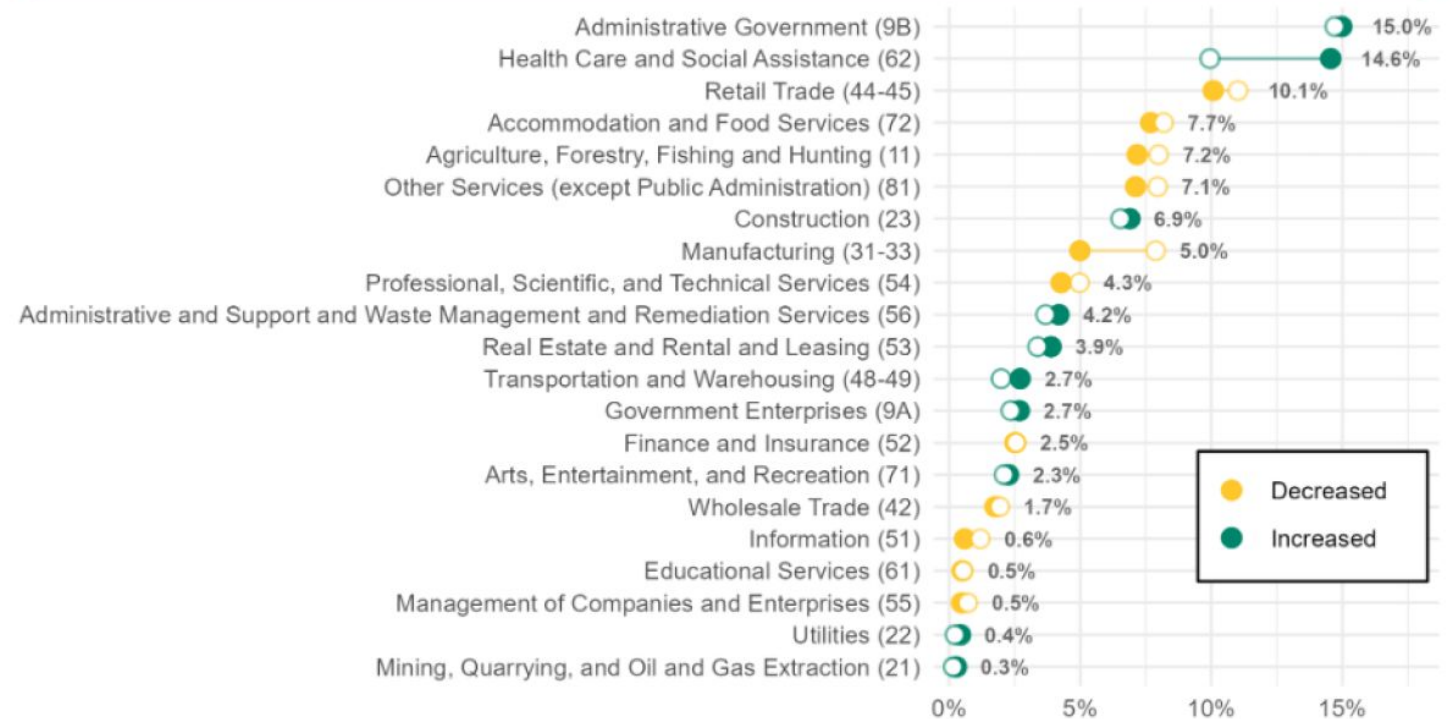
This chapter provides a snapshot of labor and workforce dynamics in the region. It discusses **occupations, wages, the impacts of recent economic and technological developments** and their effects on the labor market.

Also discussed are **projected labor trends** in existing key industries and **common barriers that limit access to high-quality jobs** and relevant training programs and apprenticeships.

# 7. Labor Market Analysis - Employment (1)

- The Redwood Region has experienced **significant job losses in legacy industries** (forestry, agriculture, manufacturing).
- Workers in these regions, who typically have lower levels of educational attainment, face greater challenges when displaced from their jobs due to the area's **lack of diversity in employment opportunities** compared to urban areas.

Figure 7.1 Employment Concentration and Change Since 2001 (2001, 2022)

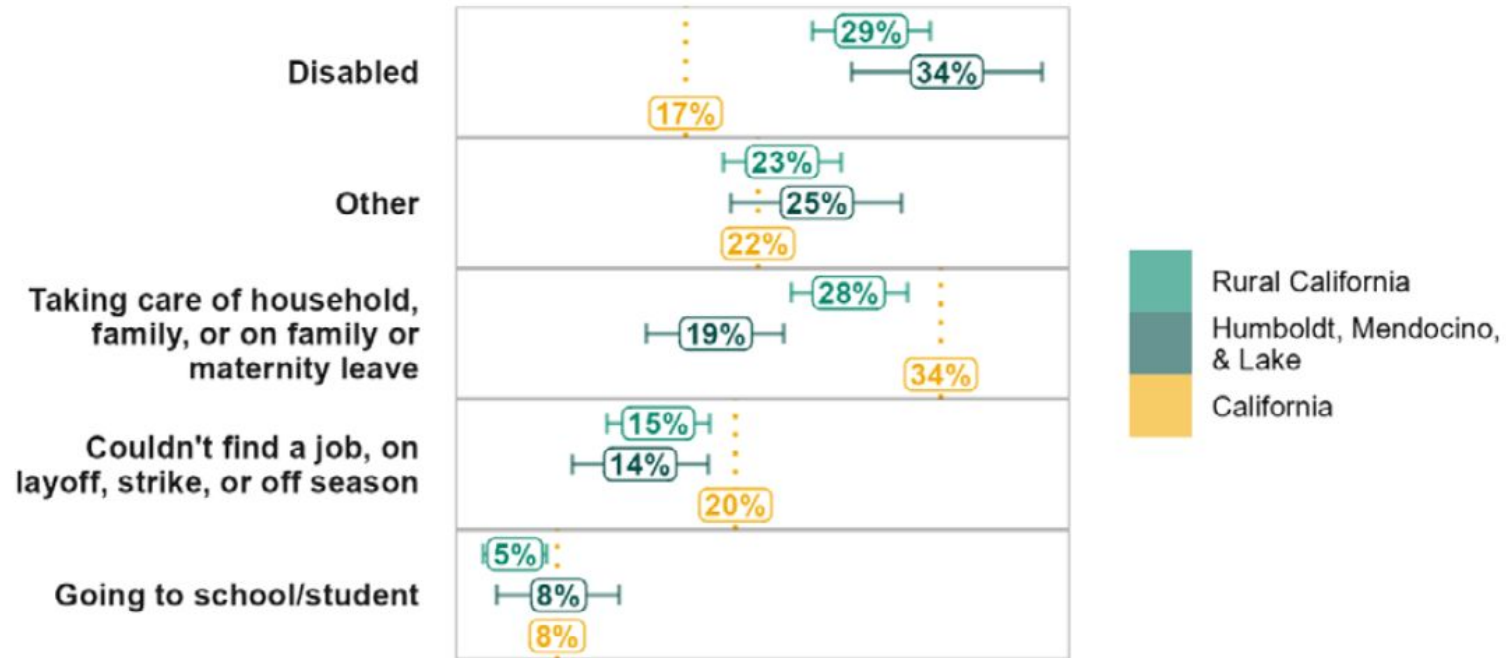


Note. Data sourced from IMPLAN.<sup>128</sup>

# 7. Labor Market Analysis - Employment (2)

A substantial proportion of prime-age adults who are unemployed or out of the labor force cite **disability** as their main reason for not working.

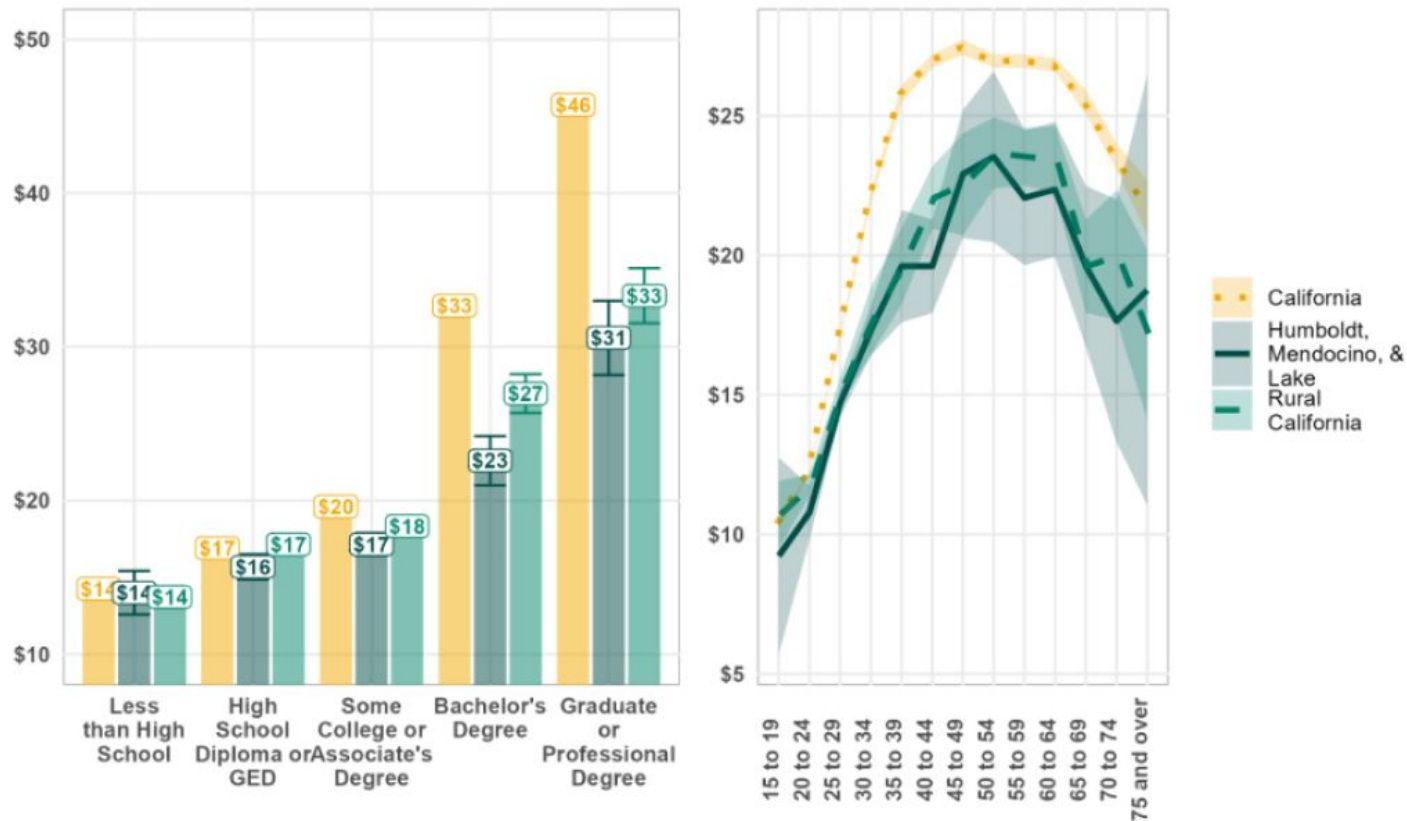
Figure 7.3 Main Reason Not Working, Prime Age Adults



Note. Data sourced from California Health Information Survey. Data years include 2011-2022.<sup>131</sup>

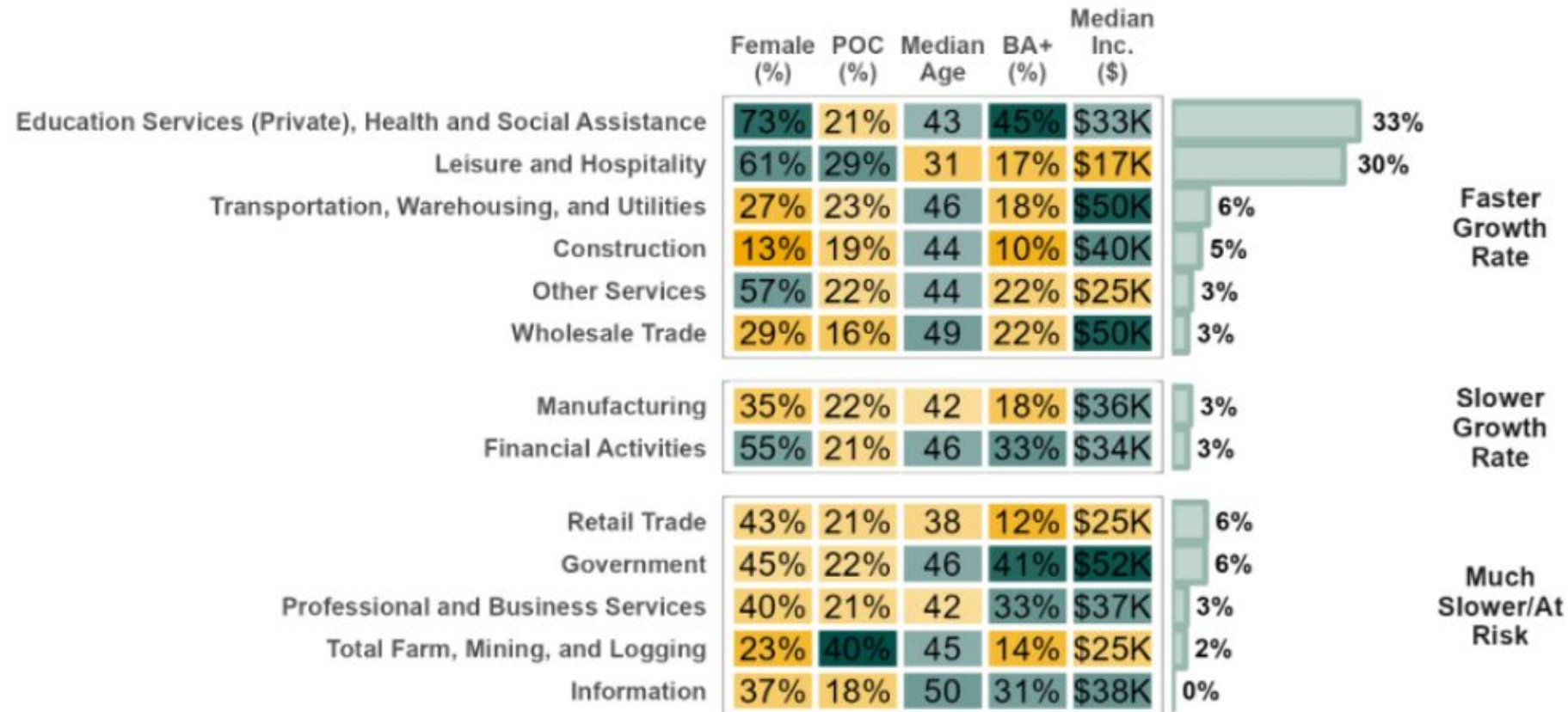
# 7. Labor Market Analysis - Failure to Gain Career Momentum

Figure 7.4 Hourly Wage by Education and Age



Note. Data sourced from Census PUMS data 2017-21 5-year estimates. Bars on the left panel and shared region on the right panel represent 95% confidence intervals. See footnote for detailed methodology.<sup>132</sup>

**Figure 7.6 Workforce Demographics (Left) and Percent Breakdown of All Projected Jobs Created (Right) from 2020–2030**



■ > Average/Median    ■ ≤ Average/Median

*Note. Projection data sourced from EDD. Demographic data sourced from Census PUMS data 2017–21 5-year estimates. Demographic data do not include Del Norte.<sup>139</sup> Job growth does not sum to 100% due to rounding. Median income includes labor income only.<sup>140</sup> Bars illustrate the total percentage of all jobs created in each sector. Growth rates (see classification on the right) categorize sectors based on their percentage job growth rate.<sup>141</sup>*

# 7. Labor Market Analysis - Barriers to Workforce Participation

Identifying workforce barriers was a key goal of the 355 listening sessions the RRRISE Outreach and Engagement team conducted with residents.

The primary barriers identified were:

1. **Transportation**
2. **Health**
3. **Childcare**
4. **Cost of Living**
5. **Working Culture and Job Access**
6. **Educational opportunities**



# 7. Labor Market Analysis - Projected Workforce Development

- The majority of family-sustaining job growth is in occupations that **do not require a bachelor's degree**, and so **relevant training programs are available locally**.
- In many cases, **completion rates** from these programs do not keep pace with the demand for workers in those program's areas.

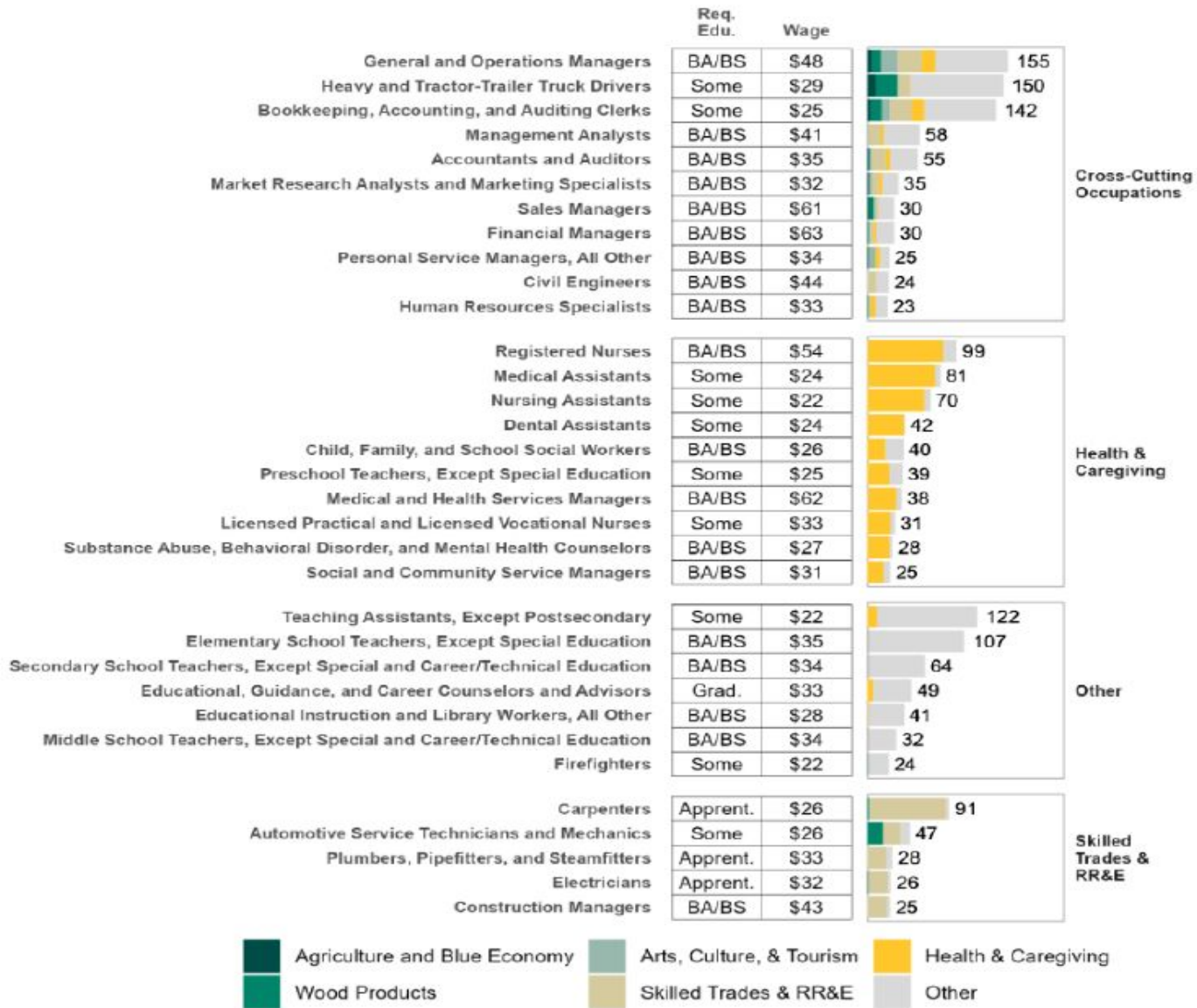
# 7. Labor Market Analysis - Skill Shortages, Barriers to Entry

- There are several areas that the Redwood Coast is **lacking education and professionals in**, including:
  - Healthcare
  - Education, specifically teachers
  - Skilled trades
  - Academic preparedness
    - Students are less academically prepared for college compared to statewide averages
    - Less than a third of Redwood Region high school graduates have completed the admission requirements for admission to the UC or CSU system
    - Test scores in reading and math proficiency lag behind state averages

*(Registered Nurse Shortage Areas in California - Registered Nurse Shortage Areas - California Health and Human Services Open Data Portal, n.d.; High-Need Subject Areas, n.d.; California Community Colleges Chancellor's Office, Data Mart)*



**Figure 7.7 Top Projected Living Wage Openings Requiring Postsecondary Education or Training, Projected Openings per Year<sup>146</sup>**



# 7. Labor Market Analysis - Projected Living Wage Openings

*Note. Labor market projections (total amounts) sourced from the California EDD. Component breakdowns based on IMPLAN data.<sup>147</sup> Wages sourced from IMPLAN. 2020 to 2030 projections. Only occupations paying living wages are shown.*

# Q&A: Questions, Feedback, Thoughts...

Ask Us Anything!



# Join our next Collaborative Meeting:

***We will be in-person, in your local communities, to discuss Regional Strategies! Stay tuned!***

[Redwood Region RISE Calendar](#)

Please contact us with any questions or concerns: [ccrp@humboldt.edu](mailto:ccrp@humboldt.edu)

