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Cover Photos

Other than customary image cropping, the photos used on the cover of this report have not been modified.

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Appendices

Appendix A: North State Stakeholders

The table presented here represents current stakeholders in the North State Jobs First Collaborative as of June 2024.

Table 32. North State Jobs First Collaborative Stakeholders

North State CA Jobs First High Road Transition Collaborative (HRTC) June 2024	
3CORE, Inc.	Lassen County
Advancing Modoc Youth	Lassen Chamber of Commerce
Axiom Theater	Lassen County Healthcare Education Collaborative
Butte County Association of Governments (BCAG)	Lost Sierra Food Project
Butte County CTE	McConnell Foundation
Butte County Local Food Network	Modoc County
Butte County Resource Conservation District	Modoc Harvest
Butte Fire Safe Council	Nexus Beef
Butte Glenn Community College	NoRTEC
Butte Small Business Development Center	North State Labor Council/Federation
CA Heritage Youthbuild Academy	North State Together
California Alliance for Community Composting	North Valley Hispanic Chamber of Commerce
California Labor Federation	Northern CA Resource Center
Center for Regenerative Ag - CSU, Chico	Oroville Southside Community Improvement Association
Chabin Concepts	Paradise Chamber of Commerce
Chico Chamber of Commerce	Pit River Tribe
Community Housing Improvement Program (CHIP)	Plumas County
City of Alturas	Professor Food Science, CSU, Chico
City of Corning	RCRC - Rural County Representatives of California
City of Redding	Reach Higher Shasta
City of Shasta Lake	Red Bluff Chamber of Commerce
City of Tulelake	Resource Conservation District of Tehama County
City of Willows	Shasta Arts Council
Collins Pine Company	Shasta College Economic & Workforce Dev.
Colusa County Chamber of Commerce	Shasta County Office of Education
County of Butte	Shasta Economic Development Corp.
County of Glenn	Shasta-Tehama-Trinity Joint Community College District
Cradle to Career Siskiyou	Sierra Buttes Trail Stewardship
Crown H. Cattle Company	Sierra County
CSU, Chico Ecological Reserve	Sierra Nevada Alliance
CSU, Chico Office of Tribal Relations	Sierra Nevada Conservancy

North State CA Jobs First High Road Transition Collaborative (HRTC) June 2024	
Dignity Health	Sierra Strong
EB3 Development	Siskiyou Arts Council
Expect More Tehama	Siskiyou Economic Development Council
Fall River Resource Conservation District	Stonewall Alliance
Farmelot Farms	Superior CA Economic Development
Feather River Resource Conservation District	Susanville Indian Rancheria
Five Counties Central Labor Union	The Ford Family Foundation
Ford Family Foundation	The Watershed Center
Ford Family Foundation	Trinity Arts Council
Glenn 2 Greatness	Trinity County
Glenn County Resource Conservation District	Trinity County Superintendent of Schools
Golden Valley Community Broadcasters (KZFR)	Trinity River Lumber Co.
Guillon Brouhard Development	Trinity Together
Healthcare Alliance of Northern California	Trinity County Community Development Corporation
Healthcare Alliance of Northern California	UCANR - Modoc Cooperative Extension
Healthy Rural California	USDA Forest Service, Pacific SW Region
Hill Country Community Clinic	Viva Downtown Redding
Hospital Council	Western Shasta Resource Conservation District
IBEW Local 340	Work Training Center - Disabled Adults
Job Training Center	Youth for Change

Table 33. Engaged Tribal Partners

Category	Jobs First Collaborative Member	Organization Type	Jurisdiction
Tribal	Berry Creek Rancheria of Tyme Maidu Indians	Tribal	Butte
Tribal	Fort Bidwell Indian Community (FBIC)	Tribal	Modoc
Tribal	Karuk Tribe	Tribal	Siskiyou/Humboldt
Tribal	Enterprise Rancheria, Estom Yumeka Maidu Tribe	Tribal	Butte
Tribal	Wintu Tribe of Northern California (WTNC)	Tribal	Shasta
Tribal	Mechoopda Indian Tribe of Chico Rancheria (MIT)	Tribal	Butte
Tribal	Greenville Rancheria	Tribal	Tehama
Tribal	Pit River Tribe	Tribal	Modoc, Siskiyou, Lassen
Tribal	Susanville Indian Rancheria	Tribal	Lassen

Table 34. Engaged Labor Partners

Category	Jobs First Collaborative Member	Organization Type	Jurisdiction
Labor	North State Labor Federation	Labor Union	Butte, Sierra, Lassen, Plumas, Glenn
Labor	Five Counties Central Labor	Labor Union	Shasta
Labor	California Labor Federation, AFL-CIO	Labor Union	Statewide
Labor	IBEW Local 340	Labor Union	North State

Appendix B: ICD-10 Codes

Table 35. International Classification of Diseases (ICD-10) Codes

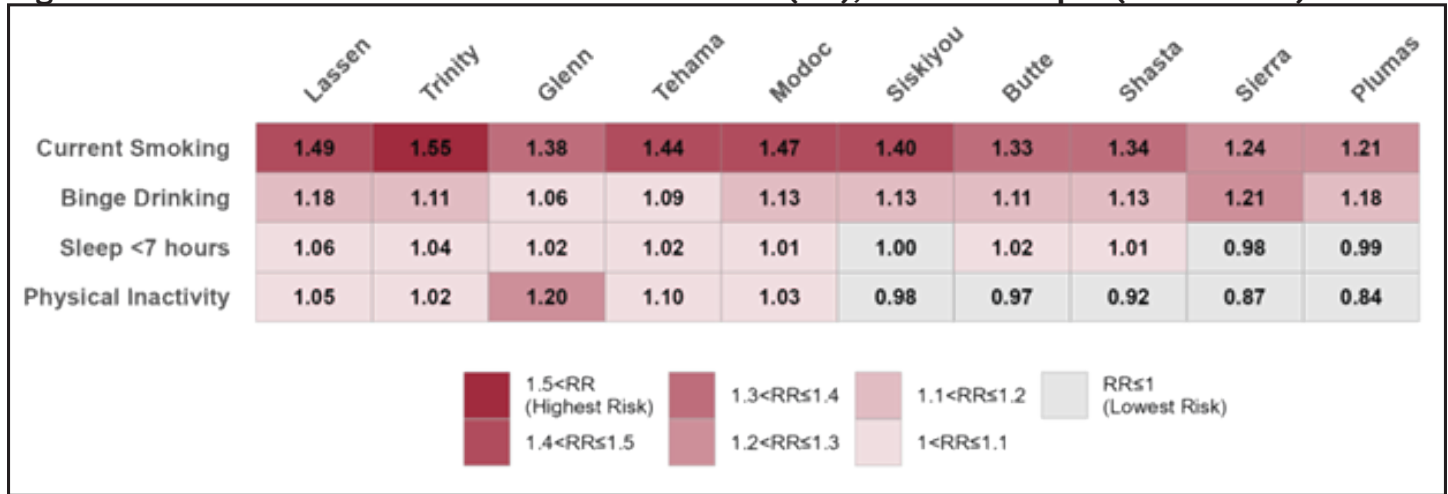
All Cancer Deaths	C00–C97
Colorectal Cancer	C18–C21, C260
Lung Cancer	C34
Female Breast Cancer	C50
Prostate Cancer	C61
Diabetes	E10–E14
Alzheimer’s Disease	G30
Coronary Heart Disease	I20–I25
Cerebrovascular Disease (Stroke)	I60–I69
Influenza and Pneumonia	J09–J18
Chronic Lower Respiratory Disease	J40–J47
Chronic Liver Disease and Cirrhosis	K70, K73–K74
Accidents (Unintentional Injuries)	V01–X59, Y85–Y86
Motor Vehicle Traffic Crashes	V02–V04(1, 9), V092, V12–V14(3–9), V19(4–6), V20–V28(3–9), V29–V79(4–9), V80(3–5), V811, V821, V83–V86(0–3), V87(0–8), V892
Suicide	U03, X60–X84, Y870
Homicide	U01–U02, X85–Y09, Y871
Firearm Related Deaths	U014, W32–W34, X72–X74, X93–X95, Y22–Y24, Y350
Drug Overdose Deaths	X40–X44, X60–X64, X85, Y10–Y14

Note: Codes sourced from CDPH County Health Status Profiles 2023.

Appendix C: Further Analysis of Health Risks

Health Risk Behaviors, SAE Estimation Techniques

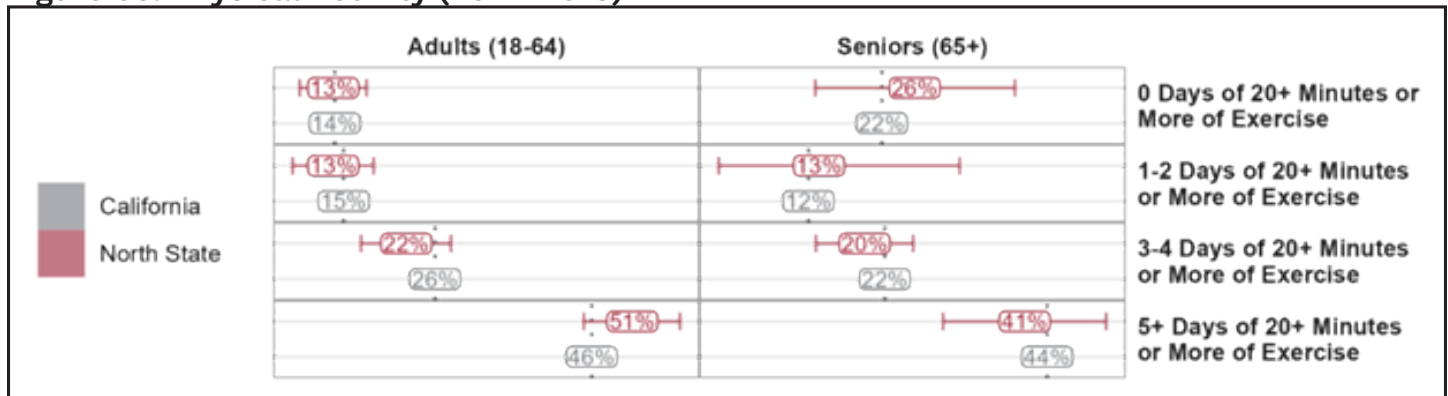
Figure 92. Estimated Health Behavior Risk Ratios (RR), SAE Technique (2019–2020)



Note. Data sourced from the Centers for Disease Control and Prevention’s 2022 release of the PLACES data set, PLACES: Local Data for Better Health, County Data. California estimates are not provided by the data source. California estimates were calculated by the author by taking a population-weighted average of all California counties using the population estimates provided in the data set. Risk ratios (RR) were calculated by taking the ratio of the local rate divided by the state rate. RR > 1 indicates higher risk relative to the state.

Physical Activity, Additional Indicators

Figure 93. Physical Activity (2017–2018)



Note. Data sourced from the CHIS.

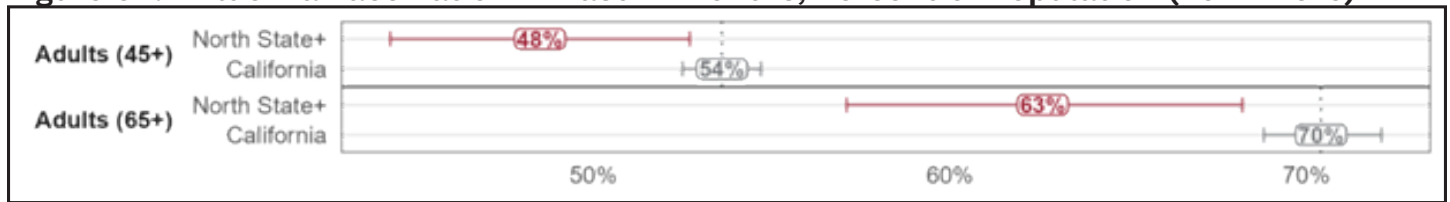
Influenza Vaccination

Age-adjusted mortality rates for influenza and pneumonia are elevated in several counties in the region. Nationally, mortality rates from influenza are quite low in comparison to pneumonia; however, influenza is a common cause of pneumonia, and the American Lung Association recommends influenza vaccination as a pneumonia prevention strategy (2023c). The CDC estimates that influenza vaccination during the 2019–2020 flu season prevented 105,000 influenza-associated hospitalizations and 6,300 deaths and, among those hospitalized with influenza, patients who were vaccinated had a 31% lower risk of death (CDC, 2023d). Moreover, just 3% of deaths from influenza or pneumonia occur before age 45, and 85% of these deaths occur in people 65 years or older (American Lung Association, 2015). Therefore, influenza vaccination appears to be an important factor particularly among the population 65 years and older.

As shown below, significantly fewer adults in this age range have had a recent influenza vaccination compared to the state average. While smoking is a leading risk factor for influenza hospitalization

and pneumonia, lower rates of influenza vaccination may also be a contributing factor (Baskaran et al., 2019; Han et al., 2019).

Figure 94. Influenza Vaccination in Past 12 Months, Percent of Population (2014–2016)

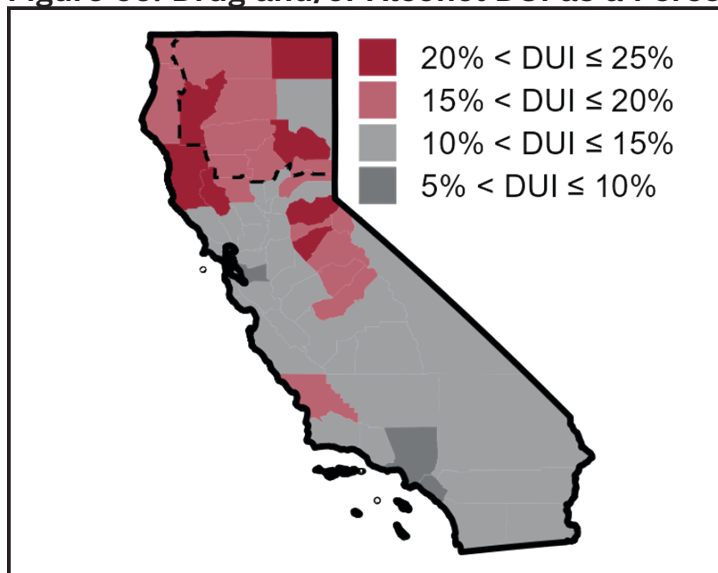


Note. Data sourced from the CHIS.

Alcohol-Involved Crashes and Fatalities, Additional Indicators

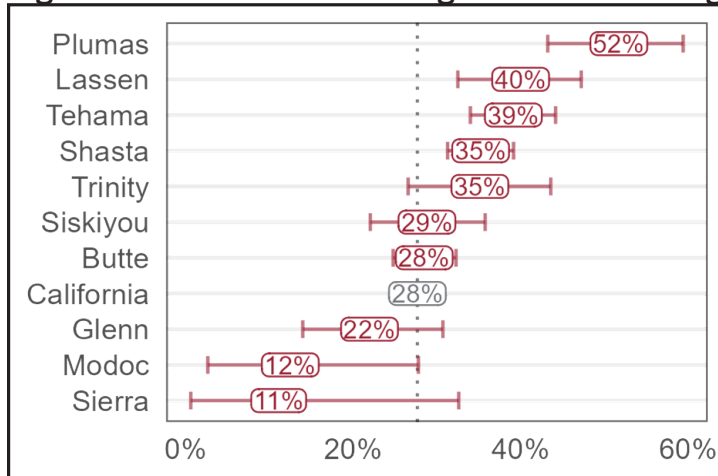
Two additional data sources highlight the role of substance use in traffic safety in the North State region. As shown below, driving under the influence (DUI) crashes account for a greater proportion of all vehicle crashes (including those without injury) compared to the majority of the state, while in most North State counties a greater proportion of fatal crashes involve alcohol.

Figure 95. Drug and/or Alcohol DUI as a Percent of All Crashes (2012–2021)



Note: Data sourced from TIMS. Includes both alcohol and drug DUIs.

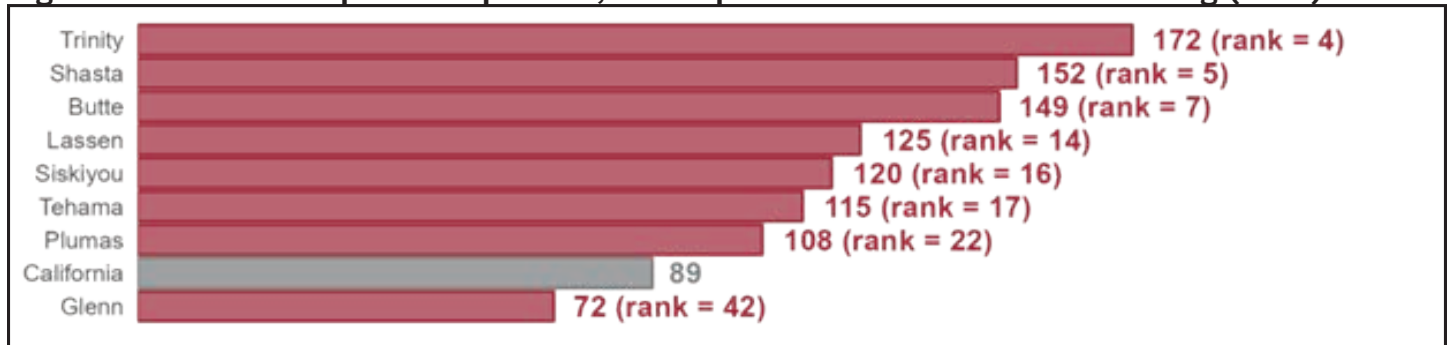
Figure 96. Percent of Driving Deaths Involving Alcohol (2016–2020)



Note: Data sourced from CHRR.

Newly Reported Chronic Hepatitis C Data

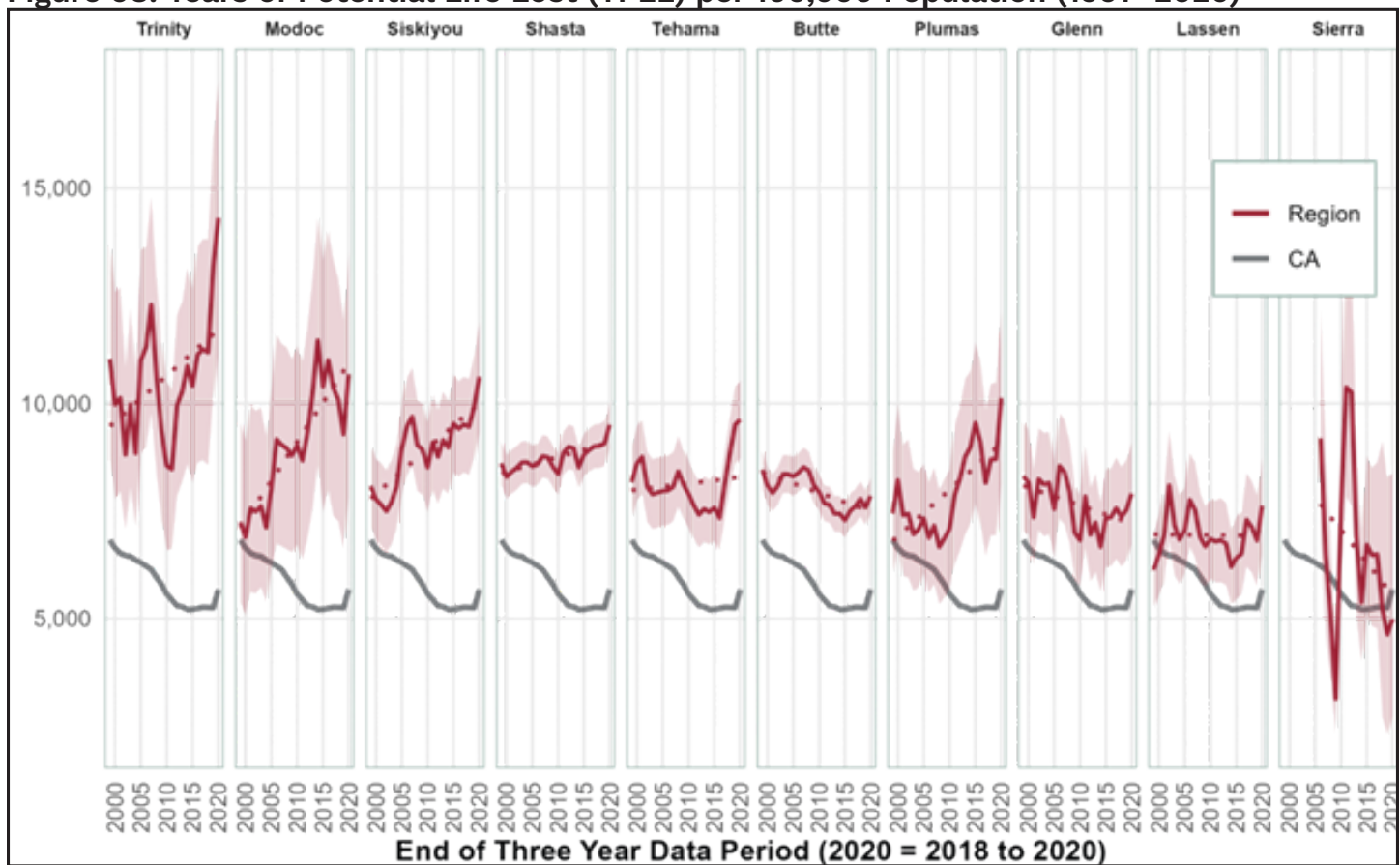
Figure 97. Chronic Hepatitis C per 100,000 Population and Statewide Ranking (2018)



Note. Data sourced from the CDPH. Counties are ranked on a scale of 1 to 58, with 1 representing the county with the highest rate and 58 representing the county with the lowest.

Trends in Mortality Rates

Figure 98. Years of Potential Life Lost (YPLL) per 100,000 Population (1997–2020)



Note. Data sourced from County Health Rankings and Roadmaps. YPLL is defined as the number of years of life lost due to deaths prior to age 75. For instance, the death of a 40-year-old would amount to 35 YPLL.

Figure 99. Age-Adjusted Mortality Rates per 100,000 (previous data 2017–2019)

	Shasta	Glenn	Tehama	Siskiyou	Butte	Lassen	Trinity	Modoc	Plumas	Sierra	CA
Accidents (Unintentional Injuries)	63.5*	56.4*	62*	81.3*	62.8*	64.8*	92.1*	84.7*	74.7*	76	34
Chronic Lower Respiratory Disease	71.8*	60.6*	51.7*	59.2*	44.6*	51.5*	37	54.6*	31	46	30
Motor Vehicle Traffic Crashes	17.9*	21.8*	24.7*	32.2*	15.3*	14	51.3*	15	20.6*	36	10
All Cancers	172.4*	171.2*	167.4*	163.9*	164.9*	154	103.8*	103	146	104	131
Suicide	27.9*	18.6*	19.7*	20.2*	19.9*	21.5*	37.9*	20	17	24	11
Lung Cancer	37.9*	44.6*	38.2*	42.1*	37.5*	38.1*	33	25	37.1*	9	24
Chronic Liver Disease and Cirrhosis	21.1*	17	21.7*	22.6*	18.4*	14	30.2*	28*	25.2*	15	12
Firearm Related Deaths	17.2*	18.6*	20*	16*	14.4*	12	29.1*	6	13	20	8
Coronary Heart Disease	119.2*	71	114.2*	81	83	96	71	74	88	68	81
Drug Induced Deaths	23.5*	13	10	18	25*	22	19	22	23	17	14
Colorectal Cancer	16.7*	14	16	10	12	10	10	12	15	25	12
Influenza and Pneumonia	20.3*	22	14	17	16	23.7*	11	12	7*	4	14
Cerebrovascular Disease (Stroke)	39	52.1*	29	37	40	38	36	30	22.4*	38	36
Alzheimer's Disease	53.3*	43	38	30	46.5*	10.7*	17.5*	17.4*	15.6*	15	35
Diabetes	23	28	22	22	19	25	17	39.8*	26		21
Female Breast Cancer	24	9	21	19	21	29	5*	13	7.9*		19
Homicide	6	9	8	8	4	3	14	8			5
Prostate Cancer	21	31	22	23	21	24	18	15	6.5*		18

Difference (X)

- 40 < X
- 30 < X ≤ 40
- 20 < X ≤ 30
- 10 < X ≤ 20
- 0 < X ≤ 10
- X ≤ 0

Note. Data sourced from the California Department of Public Health and the California Conference of Local Health's County Health Status Profiles report data. Asterisks (*) denote a statistically significant difference compared to the state rate. None of these causes include deaths where COVID-19 is the underlying cause of death.

Figure 100. Change in Age-Adjusted Mortality Rate per 100,000 from 2017–2019 Period to 2019–2021 Period

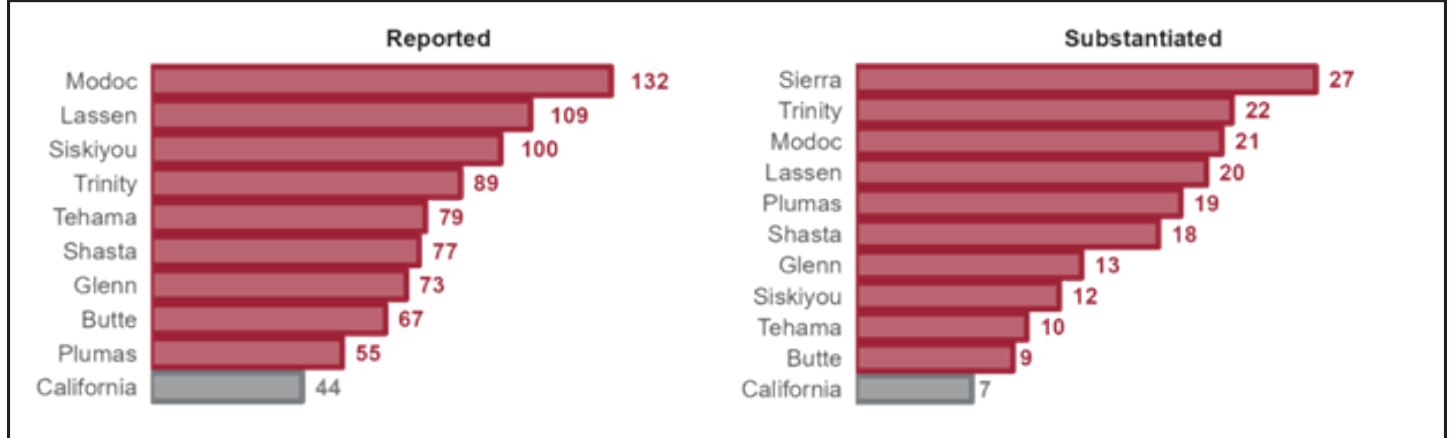
	Modoc	Trinity	Siskiyou	Butte	Tehama	Lassen	Shasta	Glenn	Plumas	Sierra	CA
Accidents (Unintentional Injuries)	+24.7	+58.1	+6.3	+22.5*	+8.0	+28.1	+10.9	+8.4	-6.7	-39.1	+9.3*
Drug Induced Deaths	+2.5	+20.8	+6.7	+15.6*	+7.5	+11.0	+8.5	+19.8	+3.5	-11.9	+7.1*
Coronary Heart Disease	+22.3	+5.9	-2.0	+8.2	-1.0	+4.4	-6.2	+13.9	+26.6	+9.4	-1.6*
Motor Vehicle Traffic Crashes	+19.3	+21.0	-1.8	+7.4*	-2.3	+10.8	-0.2	-6.4	-7.0	-7.5	+1.0*
Cerebrovascular Disease (Stroke)	+16.2	-9.7	+1.1	+1.2	+11.7	-3.7	-0.6	-18.6	+5.0	0.0	+1.3*
Chronic Liver Disease and Cirrhosis	-9.1	-7.7	+13.3	+2.3	+6.8	+2.1	+0.5	-2.3	-1.8	-2.0	+1.7*
All Cancers	+34.1	+9.6	+12.5	-1.6	+3.5	-19.0	-10.0	-25.7	-15.8	+11.8	-6.5*
Lung Cancer	+15.4	-0.7	-4.7	-4.3	+0.6	-13.6	-1.7	-7.3	-6.1	+17.1	-2.9*
Suicide	-15.1	-11.9	+8.5	+0.1	+0.9	+4.6	-1.3	-3.4	+4.7	-3.7	-0.4*
Influenza and Pneumonia	-8.4	+2.1	-1.2	-1.3	-0.1	-0.6	-2.4	-8.9	+1.0	-0.2	-2.2*
Colorectal Cancer	-4.8	-4.7	+6.5	+2.6	+3.4	+1.0	-4.8	-3.7	-5.5	-10.4	-0.4
Alzheimer's Disease	-2.6	-7.3	+6.9	-1.9	-2.4	-1.0	+5.8	-12.2	-4.8	-6.1	+1.4*
Firearm Related Deaths	+2.4	-9.9	+7.2	-3.1	-1.3	+1.7	-1.0	-6.3	-2.3	-14.2	+0.8*
Chronic Lower Respiratory Disease	-7.5	+11.0	-0.9	+0.6	-1.1	-18.6	-11.4	-18.0	+0.8	-7.4	-3.5*
Diabetes	-8.0	+8.5	+1.1	-1.4	+3.0	-12.2	+1.0	-9.4	+17.3		+1.8*
Female Breast Cancer	-0.7	+13.9	+4.7	-0.3	-0.8	+0.4	-2.9	-2.0	-0.1		-0.9*
Homicide	+0.6	-5.7	-2.7	+0.8	-0.1	+4.7	-0.6	+1.5			+0.9*
Prostate Cancer	+8.3	-5.6	-3.8	+1.8	+0.4	-1.4	+6.0	-19.7	+15.4		-0.1

- Increased More Than State
- Increased
- Decreased
- Decreased More Than State

Note. Data sourced from the California Department of Public Health and the California Conference of Local Health's County Health Status Profiles report data. Numerical values indicate change in age-adjusted mortality rates. Asterisks (*) denote a statistically significant change over time.

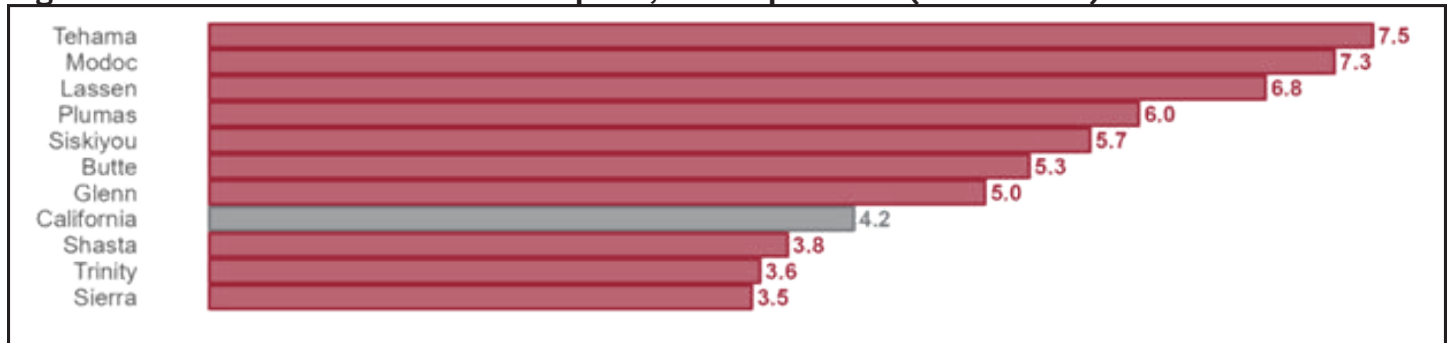
Appendix D: Further Context for ACEs, Child Abuse, Domestic Violence, and Incarceration Rates

Figure 101. Reported or Substantiated Abuse or Neglect per 1,000 Children Aged 0 to 17 (2020)



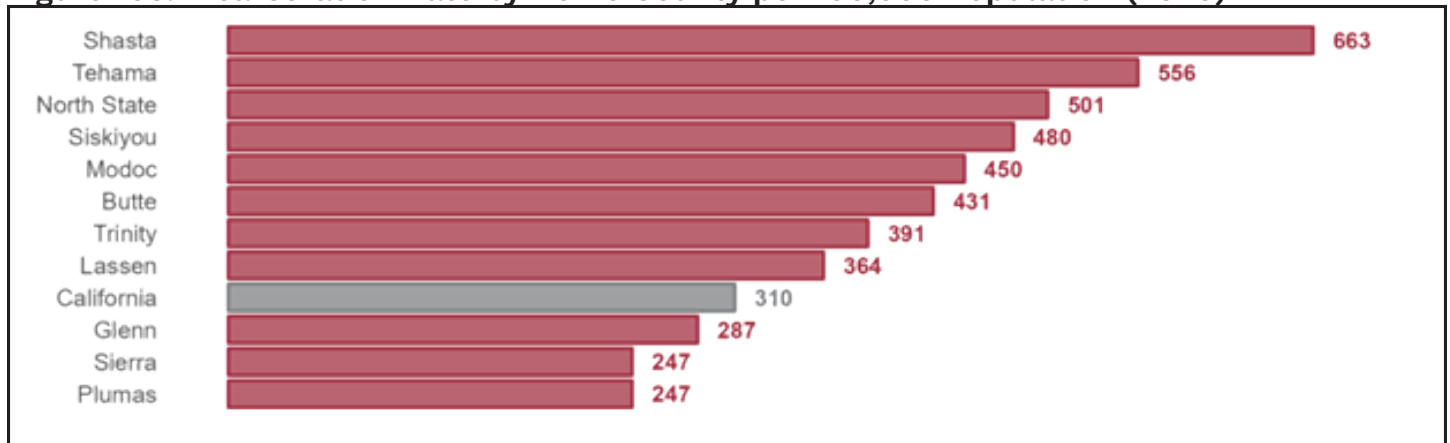
Note. For reported abuse, data sourced from KidsData’s 2020 data set titled “Reports of Child Abuse and Neglect”; for substantiated abuse, data sourced from KidsData’s 2020 data set titled “Substantiated Cases of Child Abuse and Neglect.”

Figure 102. Domestic Violence Calls per 1,000 Population (2016–2020)



Note. Domestic violence call totals sourced from KidsData.org. Population data are sourced from the ACS. Data were aggregated over a five-year period and rates were calculated by the author.

Figure 103. Incarceration Rate by Home County per 100,000 Population (2020)



Note. Data sourced from Prison Policy Initiative.

Appendix E: Additional Economic Data

Table 36. Top Employers in the North State

#	Company	Employees	County
1	Welltower Inc. (Senior Living)	5,162	Butte
2	State of California	2,896	Butte
3	Enloe Medical Center	2,851	Butte
4	County of Shasta	1,700	Shasta
5	Walmart Inc.	1,673	Tehama
6	County of Butte	1,514	Butte
7	Oroville Hospital	1,453	Butte
8	Chico Unified School District	1,226	Butte
9	Orohealth Corporation A Nonprofit Healthcare System	1,164	Butte
10	State of California	1,115	Shasta
11	Phoenix Parent Holdings Inc.	1,056	Shasta
12	Ocadian Care Centers, LLC	899	Shasta
13	Prime Healthcare Foundation, Inc.	850	Shasta
14	Commonspirit Health	843	Shasta
15	City of Redding	834	Shasta
16	County of Siskiyou	723	Siskiyou
17	Shasta-Tehama-Trinity Joint Community College District	716	Shasta
18	The County of Tehama	708	Tehama
19	Global Medical Response, Inc.	639	Shasta
20	Knauf Insulation, Inc.	624	Shasta
21	Walmart Inc.	613	Butte
22	Associated Students of California State University, Chico	602	Butte
23	Redding Rancheria	599	Shasta
24	Peterson Holding Company	586	Shasta
25	Enterprise Elementary School District	579	Shasta
26	Siskiyou Hospital, Inc.	560	Siskiyou
27	Sierra Pacific Industries Inc.	555	Tehama
28	PG&E Corporation	554	Shasta
29	Walmart Inc.	548	Shasta
30	Vibra Healthcare, LLC	503	Shasta
31	PG&E Corporation	501	Butte
32	Paskenta Band of Nomlaki Indians	493	Tehama
33	Walmart Inc.	489	Glenn
34	United States Postal Service	481	Plumas
35	Sierra Nevada Brewing Co.	477	Butte
36	County of Lassen	462	Lassen

#	Company	Employees	County
37	Butte-Glenn Community College District	426	Butte
38	State of California	419	Siskiyou
39	Sierra-Cascade Nursery, Inc.	400	Lassen
40	Government of The United States	382	Lassen
41	Willows Unified School District	381	Glenn
42	Urban Park Concessionaires	373	Tehama
43	Crain Walnut Shelling, LP	369	Tehama
44	Red Bluff Union Elementary School District	368	Tehama
45	Government of The United States	358	Siskiyou
46	State of California	321	Tehama
47	Roman Catholic Bishop of Sacramento	313	Tehama
48	Waste Management, Inc.	308	Plumas
49	Glenn County Office of Education	300	Glenn
50	Bell-Carter Olive Packing Company, Inc.	300	Tehama
51	Sunsweet Growers Inc.	300	Tehama
52	County of Trinity	294	Trinity
53	State of California	287	Lassen
54	Eastern Plumas Health Care Foundation, Inc.	270	Plumas
55	County of Plumas	268	Plumas
56	Siskiyou Joint Community College District	250	Siskiyou
57	County of Glenn	245	Glenn
58	Corning Union Elementary School District	241	Tehama
59	Commonspirit Health	228	Tehama
60	Sierra Pacific Industries Inc.	227	Plumas
61	Feather River Community College District	223	Plumas
62	State of California	222	Trinity
63	Outback Contractors, Inc.	221	Tehama
64	Big Valley Joint Unified School District	220	Lassen
65	Lassen Union High School District	215	Lassen
66	State of California	213	Plumas
67	Red Bluff Joint Union High School District	208	Tehama
68	Rolling Hills Casino	203	Tehama
69	State of California	200	Glenn
70	Plumas Hospital District	200	Plumas
71	Plumas Unified School District	189	Plumas
72	Lassen Community College	180	Lassen
73	Yreka Union School District	178	Siskiyou
74	Orland Unified School District	174	Glenn

#	Company	Employees	County
75	Walmart Inc.	164	Siskiyou
76	United Parcel Service, Inc.	158	Trinity
77	Susanville School Dist	150	Lassen
78	Trinity River Lumber Company	145	Trinity
79	Mountain Communities Health Care District	142	Trinity
80	City of Susanville	141	Lassen
81	Lake Siskiyou Golf Resort Inc	140	Siskiyou
82	Government of The United States	139	Plumas
83	Government of The United States	132	Trinity
84	Seneca Healthcare District	130	Plumas
85	United States Postal Service	130	Siskiyou
86	C & K Market, Inc.	129	Siskiyou
87	PG&E Corporation	122	Glenn
88	North State Grocery, Inc.	111	Plumas
89	Trinity County Office of Education	111	Trinity
90	Chedraui USA, Inc.	110	Glenn
91	United States Postal Service	107	Lassen
92	Collins Pine Company	107	Plumas
93	Rumiano Cheese Co.	106	Glenn
94	Government of The United States	105	Glenn
95	Siskiyou Union High School District	101	Siskiyou
96	R Joy Inc	100	Plumas
97	Siskiyou Development Company, Inc.	100	Siskiyou
98	Siskiyou Opportunity Center Inc	100	Siskiyou
99	Walmart Inc.	95	Lassen
100	United States Postal Service	89	Sierra
101	Atlas Operations Group	85	Modoc
102	United States Postal Service	83	Glenn
103	County of Sierra	83	Sierra
104	Lake Elementary School District	75	Glenn
105	Fall River Joint Unified School District	75	Lassen
106	D-M-L-S Corporation	75	Lassen
107	Tops Industries	73	Trinity
108	Surprise Valley Health Care District	72	Modoc
109	Eastern Plumas Health Care	68	Sierra
110	Select Harvest USA, LLC	65	Glenn
111	Weaverville Elementary School	65	Trinity
112	Mountain Valley Unified School District	61	Trinity

#	Company	Employees	County
113	Sierra Nevada Cheese Company, Inc.	58	Glenn
114	Ninja Credit Consultants LLC	39	Trinity
115	Douglas City Elementary School District	36	Trinity
116	Teach Inc	34	Modoc
117	Ace Hardware Corporation	34	Trinity
118	Super 8 Motel	32	Modoc
119	Shasta View Academy, Inc.	31	Modoc
120	I'Sot (inc)	30	Modoc
121	Pizza & Pasta Place, Inc.	29	Modoc
122	City of Loyalton	28	Sierra
123	Surprise Valley Electrification Corp.	27	Modoc
124	Government of The United States	25	Sierra
125	California Property Owners Association	24	Modoc
126	Alturas Rural Fire Protection District	24	Modoc
127	Antonios Cucina Italiana	23	Modoc
128	Strong Family Health Center	23	Modoc
129	Likely Volunteer Fire Protection District	23	Modoc
130	Tulelake Basin Joint Union School District	22	Modoc
131	Alturas Ranches, LLC	20	Modoc
132	Sierra County Office of Education	19	Sierra
133	Sierra City Fire District	15	Sierra
134	Rhonda's Lil' Frosty	14	Sierra
135	Herrington's Sierra Pines	13	Sierra
136	Tahoe Heating	10	Sierra
137	Sierra Valley Cogen LLC	10	Sierra
138	Incorporated Senior Citizens of Sierra County	10	Sierra

Note: Data sourced from NoRTEC in Chico, CA. Data is current as of 2022.

Table 37. Nonhazardous Waste and GHG Added per \$1 Million in Added Value, All Industries

Industry	Non-Hazardous Waste (kg)	Greenhouse Gases (kg)
Insurance Carriers & Related Activities	13,169	848
Repair and Maintenance	6,845	1,496
Motion Picture & Sound Recording Ind	7,492	1,580
Internet Publishing and Broadcasting	11,662	1,631
General Retailers	47,440	1,797
Professional and Technical Services	17,172	2,078
Ambulatory Health Care Services	5,972	2,150
Lessors, Nonfinancial Intangible Assets	1,496	3,345

Industry	Non-Hazardous Waste (kg)	Greenhouse Gases (kg)
Broadcast and Telecomm	13,100	4,054
Performing Arts and Spectator Sports	32,108	4,554
Food and Beverage Stores	119,872	4,669
Nursing and Residential Care Facilities	11,923	5,343
Social Assistance	36,275	6,195
Warehousing and Storage	31,798	7,203
Telecommunications	14,303	7,748
Management of Companies and Enterprises	9,467	8,129
Monetary Authorities - Central Bank	7,889	8,361
Financial Investment & Related Activity	10,125	11,062
Motor Vehicle and Parts Dealers	39,875	11,226
Food Services and Drinking Places	52,526	11,465
Personal and Laundry Services	19,251	11,779
Administrative and Support Services	32,931	12,179
ISPs, Search Portals, & Data Processing	32,147	13,561
Hospitals	8,222	14,662
Credit Intermediation & Related Activity	16,185	18,425
Agriculture & Forestry Support Activity	12,347	25,137
Membership Organizations & Associations	14,527	27,919
Museums, Parks and Historical Sites	273,062	31,953
Electrical Equipment and Appliances	6,409	33,191
Scenic and Sightseeing Transportation	7,535	33,430
Computer and Electronic Product Mfg	6,452	36,126
Transit and Ground Passenger Transport	13,638	46,319
Rental and Leasing Services	11,402	47,687
Beverage & Tobacco Product Manufacturing	4,245	47,816
Accommodation	93,526	52,470
Miscellaneous Manufacturing	19,311	53,174
Machinery Manufacturing	13,570	67,076
Furniture and Related Product Mfg	34,654	67,261
Educational Services	35,023	71,030
Postal Service	27,369	71,949
Paper Manufacturing	5,892	78,958
Amusement, Gambling & Recreation Ind	299,262	86,828
Apparel Manufacturing	125,527	92,059
Transportation Equipment Manufacturing	25,525	107,916
Plastics & Rubber Products Manufacturing	11,850	122,343
Fabricated Metal Product Manufacturing	36,094	203,597

Industry	Non-Hazardous Waste (kg)	Greenhouse Gases (kg)
Funds, Trusts & Other Financial Vehicles	376	213,068
Construction	747,295	242,962
Printing and Related Support Activities	20,125	250,809
Couriers and Messengers	17,822	267,149
Leather and Allied Product Manufacturing	111,775	292,889
Waste Management and Remediation Service	9,017	304,093
Wood Product Manufacturing	52,879	413,114
Textile Product Mills	63,365	449,384
Mining (except Oil and Gas)	2,242	476,140
Water Transportation	1,857	540,986
Textile Mills	28,580	617,254
Animal Production and Aquaculture	3,032	629,023
Pipeline Transportation	862	675,795
Food Manufacturing	36,934	708,964
Crop Production	8,653	758,358
Forestry and Logging	26,284	970,692
Air Transportation	3,106	991,975
Support Activities for Mining	21,123	1,043,502
Fishing, Hunting and Trapping	4,755	1,058,724
Rail Transportation	30	1,206,080
Truck Transportation	17,331	1,725,611
Nonmetallic Mineral Product Mfg	13,973	1,866,889
Oil and Gas Extraction	3,723	2,109,133
Petroleum & Coal Products Manufacturing	1,259	2,572,377
Chemical Manufacturing	8,620	2,641,185
Utilities	135,325	4,204,091
Primary Metal Manufacturing	77,869	8,430,165

Note: Data sourced from IMPLAN and EFA. Negative numbers mean waste is exported to another region or captured or recycled in net. Industries are sorted by their ascending level of GHG emissions.

Appendix F: Normalizing GHG Emissions Methodology

For emissions data from GHGi from 5+ years ago, the data was scaled to 2020 using demographic and emissions trends. Note that this process was used as a means of estimation and has a high margin of error.

For emissions trends, percent change $[(\text{final value} - \text{initial value}) / \text{initial value}]$ in California state-wide emissions between the GHGi year and 2020 was calculated. Emissions trends data was acquired from the California Air Resources Board (CARB), linked here. For transportation emissions, CARB's transportation parameter was used. For residential and non-residential emissions, CARB's electric power generation parameter was used.

For demographic trends, the percent change in employment and population data between the GHGi year and 2020 was calculated. Residential energy was normalized using population by county, based on Census data. Non-residential energy was normalized using the number employed by the county, based on labor market information from the California Employment Development Department. Transportation emissions were normalized using service population, the sum of each county's population, and the number employed.

To scale the GHGi data to 2020, the following formula was used for each of the three sectors (residential energy, non-residential energy, and transportation): $\text{unscaled emissions} * (1 + \% \text{ change in emissions}) * (1 + \% \text{ change in demographics})$. Estimated total emissions were calculated by finding the sum of the three sectors.

Below is a walkthrough of the calculations for Alpine County, starting with the initial emissions data from their 2014 GHGi.

Data Year	Residential Energy	Non-Res Energy	Transportation	Solid Waste	Potable/Wastewater	Total Emissions
2014	4972	4156	31442	357	285	41212

First, find the percent change in emissions between 2014 and 2020 using CARB Emission Trends.

Sector	2014	2020	% change ('14-'20)
Transportation	157.7	135.8	$(135.8 - 157.7) / 157.7 = -13.89\%$
Electric Power Generation (Res & Non-res)	89.8	59.5	-33.74%

Then, find the percent change in county-specific demographics – population, employment, and service population – between 2014 and 2020.

Demographic	2014	2020	% change ('14-'20)
Population (Res)	1083	1119	3.32%
Employment (Non-res)	470	460	-2.13%
Service Population (Transportation)	1553	1579	1.67%

Lastly, scale the GHGi data to 2020 using both emission trends and demographic changes:

Data Year	Residential Energy	Non-Res Energy	Transportation	Solid Waste	Potable/Wastewater	Total Emissions
2020	$(4972 * (1 + [-33.74\%]) * (1 + 3.32\%) = 3404$	2695	27529	x	x	33628

Appendix G: Existing Regional Planning Documents

This appendix lists existing regional planning documents (such as CEDS) that include counties in the North State.

- [3CORE CEDS \(2022-2027\)](#)
- [Karuk Tribe CEDS \(2021-2026\)](#)
- [NoRTEC WIOA Regional Plan \(2021-2024\)](#)
- [Sierra Economic Development District CEDS \(2023-2027\)](#)
- [Superior California Economic Development District CEDS \(2021-2026\)](#)