Where to Live Using ArcGIS

THE GOLDEN STATE VS. THE LAST FRONTIER

Group 1

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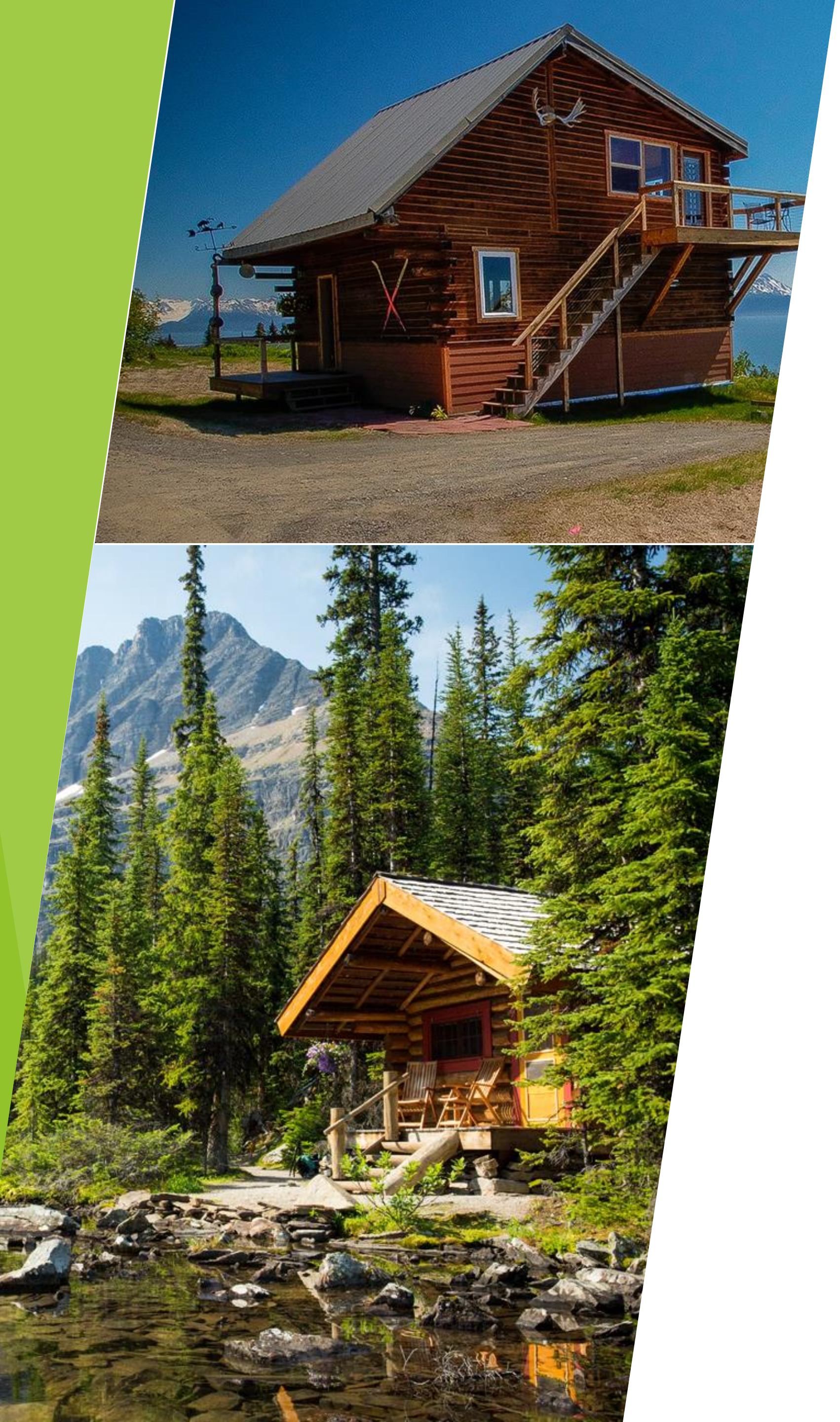
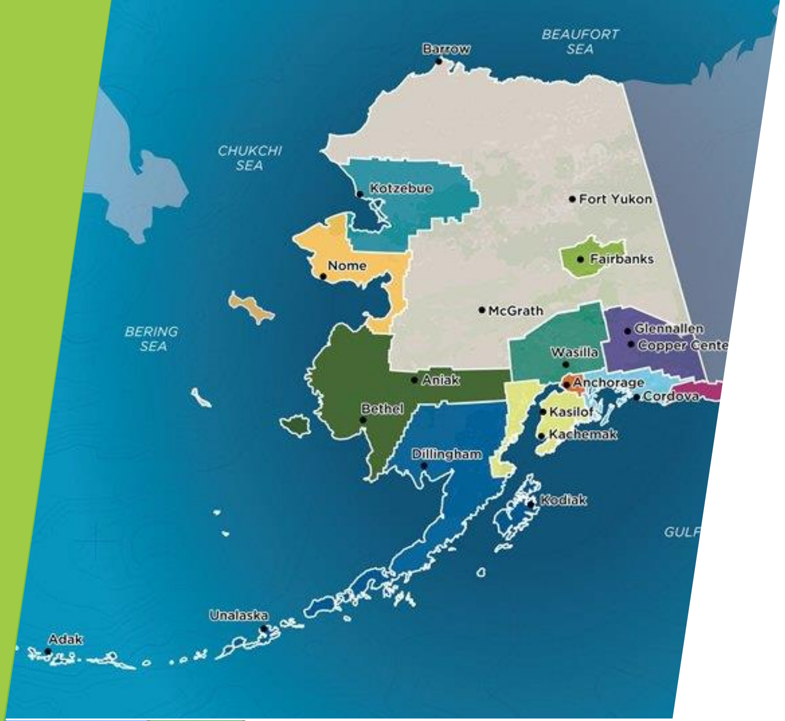


Our Interests

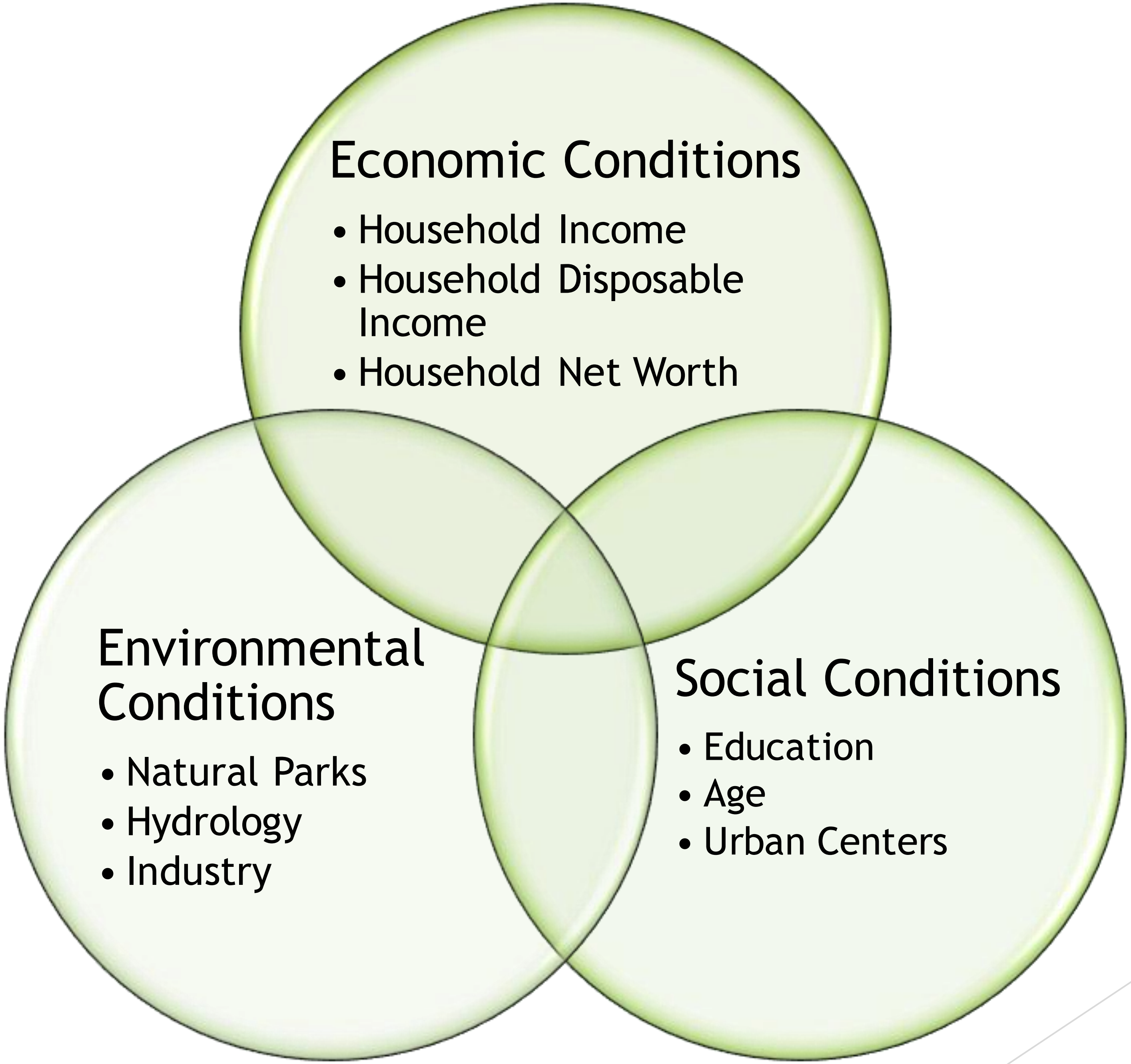
- Something off the beaten path
- Value privacy and natural beauty
- Wanted to be near a body of water


BEAUFORT SEA
Barrow
CHUKCHI SEA
Kotzebue
Fort Yukon
Fairbanks
Nome
McGrath
BERING SEA
Glennallen
Copper Center
Wasilla
Aniak
Anchorage
Cordova
Bethel
Kasilof
Kachemak
Dillingham
Kodiak
GULF
Unalaska
Adak

SISKIYOU
MODOC
TRINITY
SHASTA
LASSEN
TEHAMA
PLUMAS
GLENN
BUTTE
SIERRA
NEVADA
COLUSA
LAKE
YUBA
PLACER
SUTTER
YOLO
EL DORADO
ALPINE
SONOMA
AMADOR
SOLANO
CALAVERAS
MARIN
CONTRA COSTA
SAN JOAQUIN
TUOLUMNE
MONO
S.F.
ALAMEDA
STANISLAUS
MARIPOSA
SAN MATEO
SANTA CLARA
MERCED
SANTA CRUZ
MADERA
SAN BENITO
FRESNO
INYO
MONTEREY
TULARE
KINGS
SAN LUIS OBISPO
KERN
SANTA BARBARA
SAN BERNARDINO
LOS ANGELES
VENTURA

California and Alaska

- Decided to analyze California and Alaska
  - Large states = more land available
  - Expansive state and national parks
  - Long coast lines
  - Interested to assess two states with differing population/social dynamics



Economic Conditions

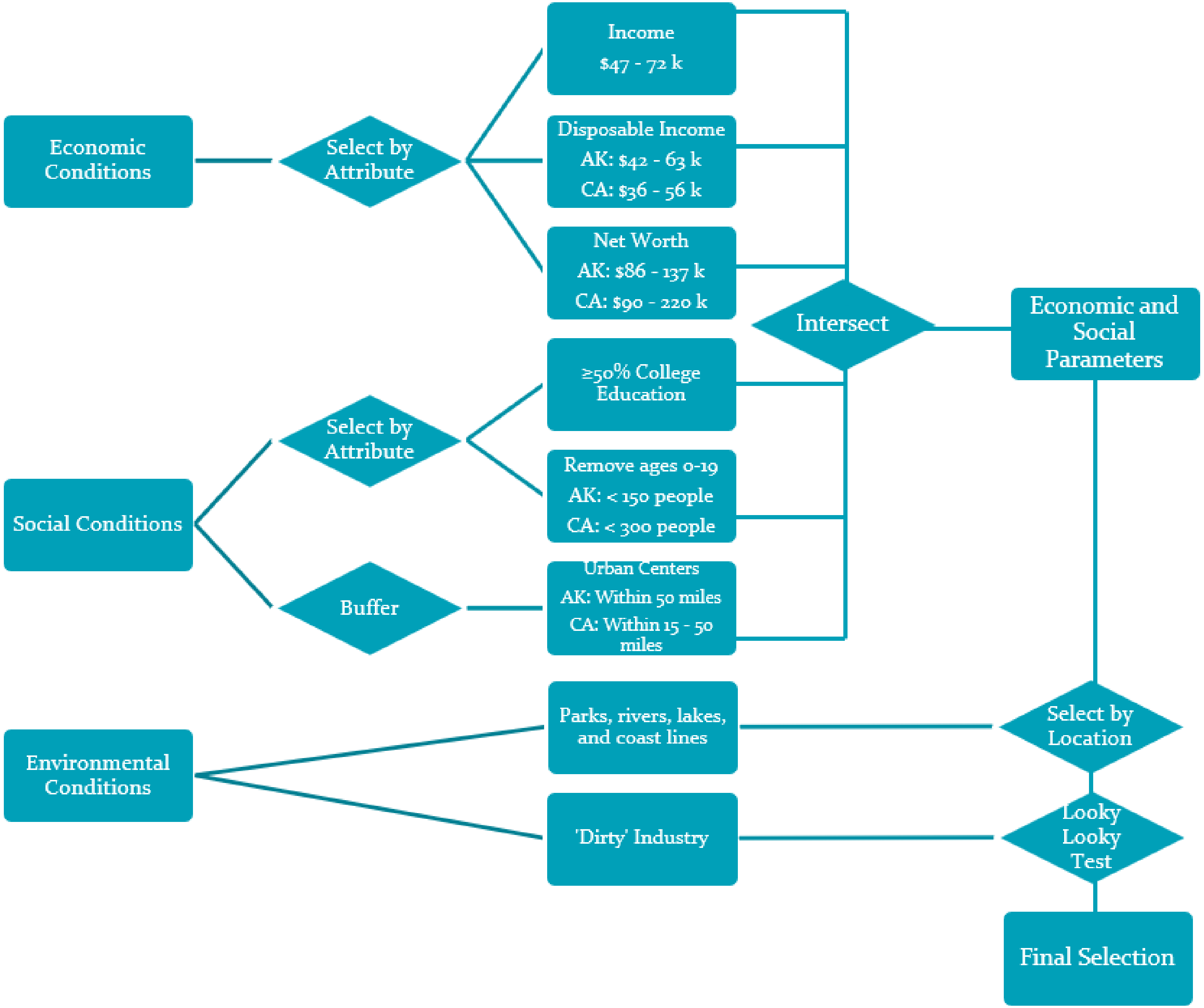
- Household Income
- Household Disposable Income
- Household Net Worth

Environmental Conditions

- Natural Parks
- Hydrology
- Industry

Social Conditions

- Education
- Age
- Urban Centers



Economic Conditions

Select by Attribute

Income
$47 - 72 k

Disposable Income
AK: $42 - 63 k
CA: $36 - 56 k

Net Worth
AK: $86 - 137 k
CA: $90 - 220 k

Social Conditions

Select by Attribute

≥50% College Education

Remove ages 0-19
AK: < 150 people
CA: < 300 people

Buffer

Urban Centers
AK: Within 50 miles
CA: Within 15 - 50 miles

Intersect

Economic and Social Parameters

Environmental Conditions

Parks, rivers, lakes, and coast lines

'Dirty' Industry

Select by Location

Looky Looky Test

Final Selection

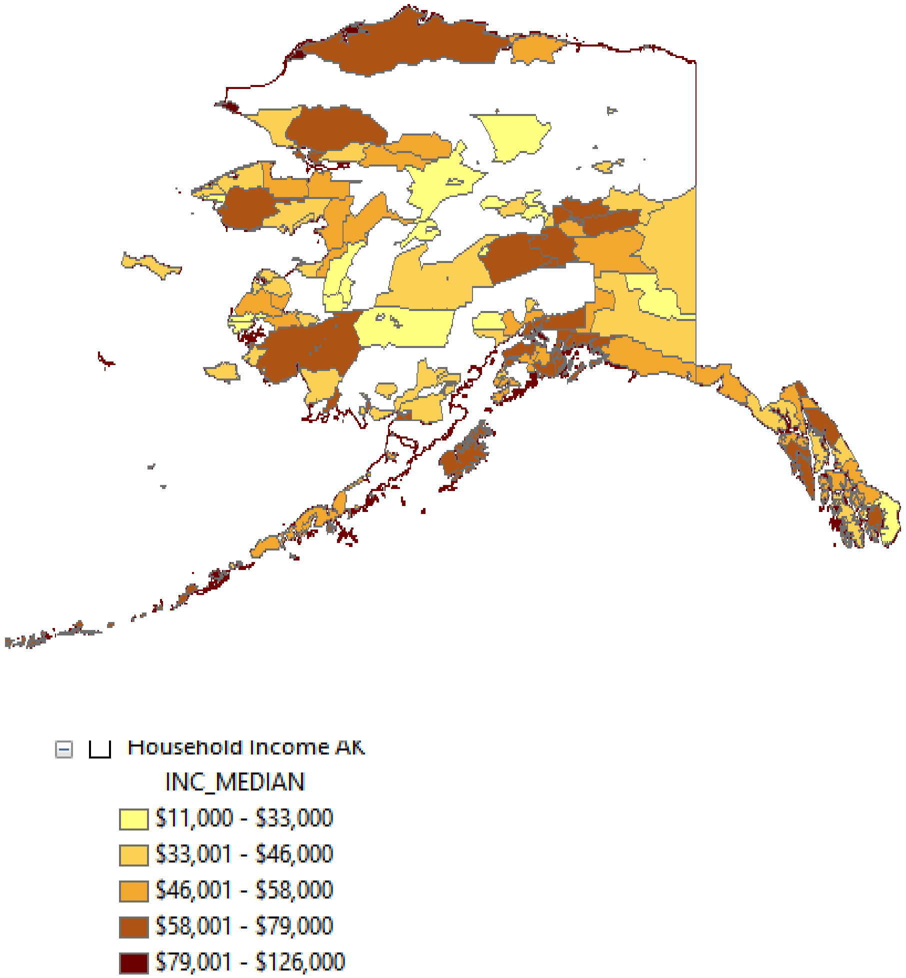
Economic Conditions

Economic parameters differed some between Alaska and California

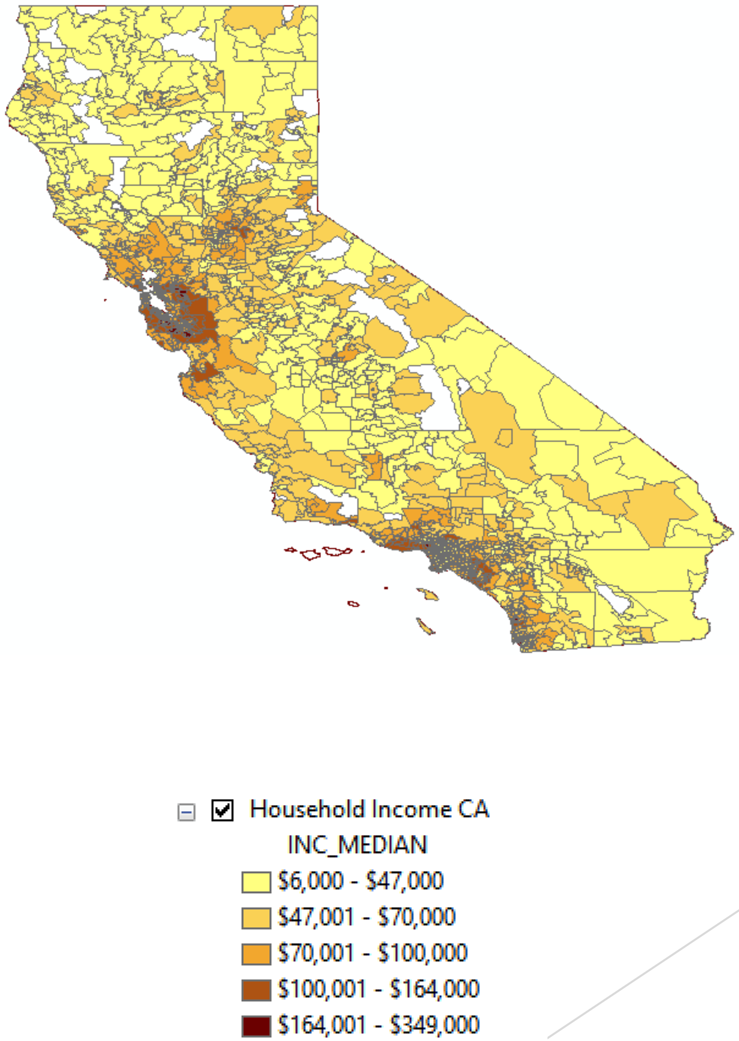
- Household Income
    - $47,000 to $72,000
- Household disposable Income
    - Alaska: $42,000 to $63,000
    - California: $36,000 to $56,000
- Household net worth
    - Alaska: $86,000 to $137,000
    - California: $90,000 to $220,000

Household Income

Alaska

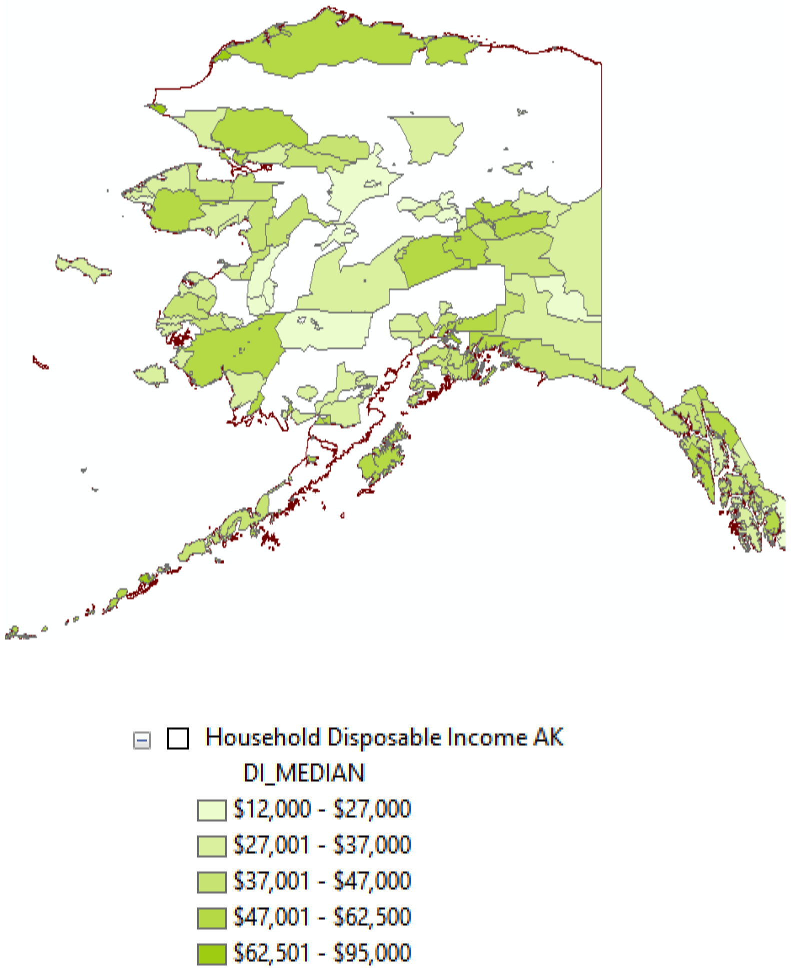

⊟ ☐ Household Income AK
INC_MEDIAN
$11,000 - $33,000
$33,001 - $46,000
$46,001 - $58,000
$58,001 - $79,000
$79,001 - $126,000

California

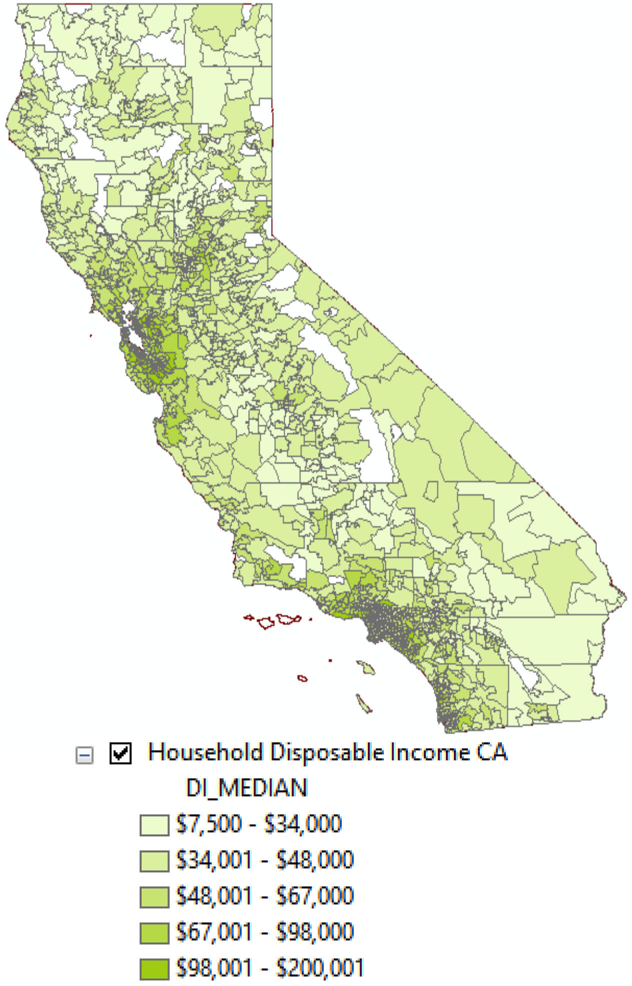

⊟ ☑ Household Income CA
INC_MEDIAN
$6,000 - $47,000
$47,001 - $70,000
$70,001 - $100,000
$100,001 - $164,000
$164,001 - $349,000

Household Disposable Income

Alaska

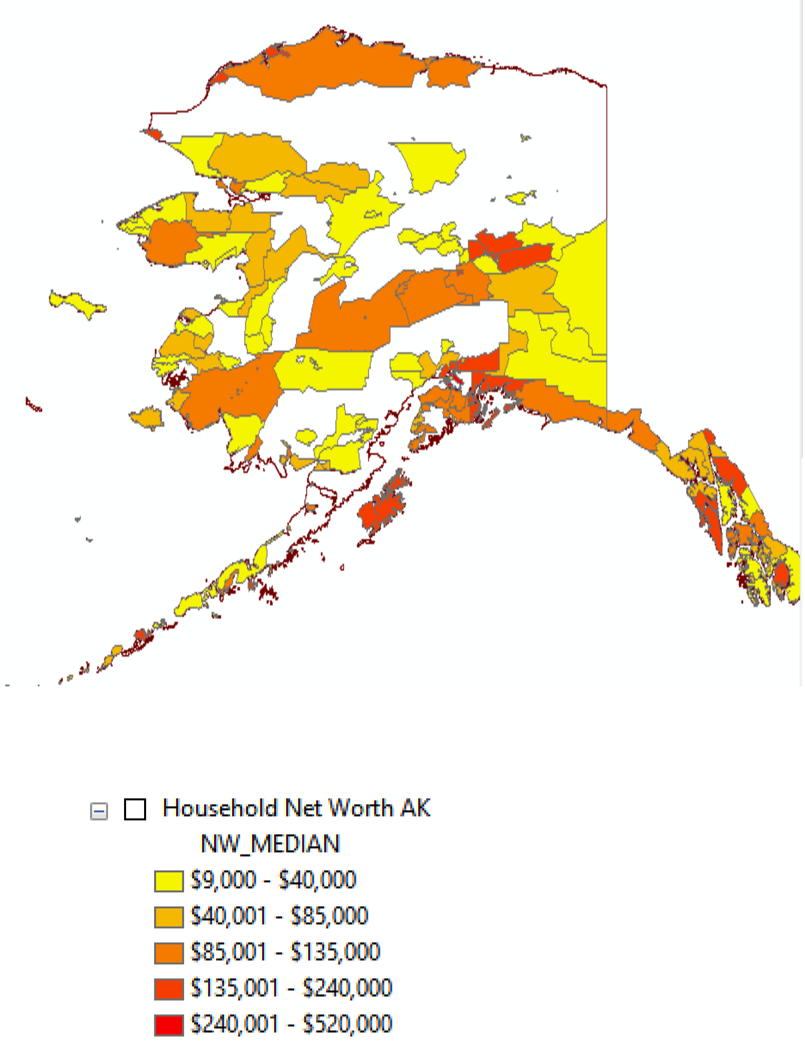

☐ Household Disposable Income AK
DI_MEDIAN
$12,000 - $27,000
$27,001 - $37,000
$37,001 - $47,000
$47,001 - $62,500
$62,501 - $95,000

California

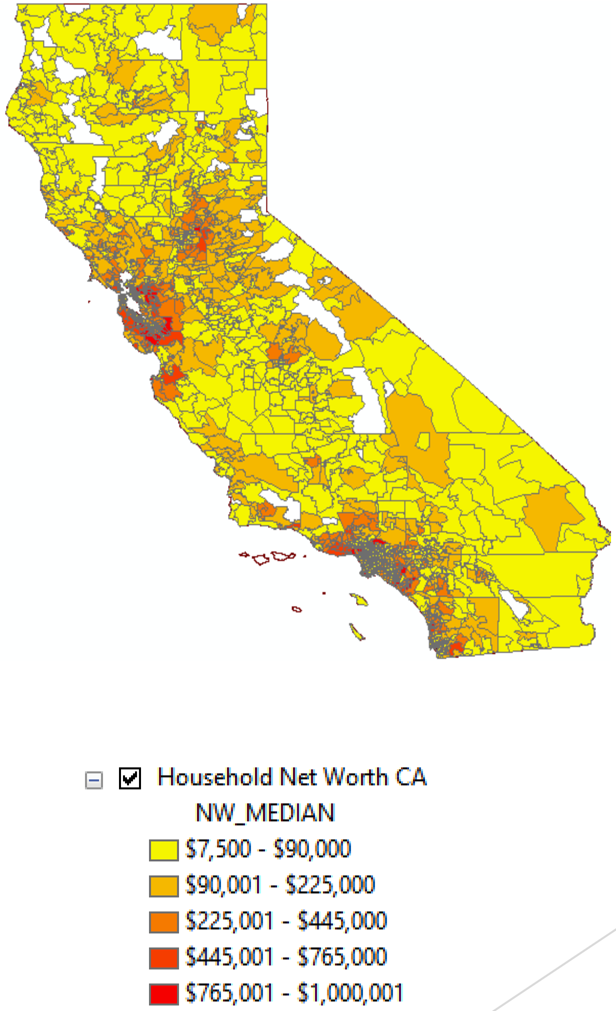

☑ Household Disposable Income CA
DI_MEDIAN
$7,500 - $34,000
$34,001 - $48,000
$48,001 - $67,000
$67,001 - $98,000
$98,001 - $200,001

Household Net Worth

Alaska


☐ Household Net Worth AK
NW_MEDIAN
$9,000 - $40,000
$40,001 - $85,000
$85,001 - $135,000
$135,001 - $240,000
$240,001 - $520,000

California

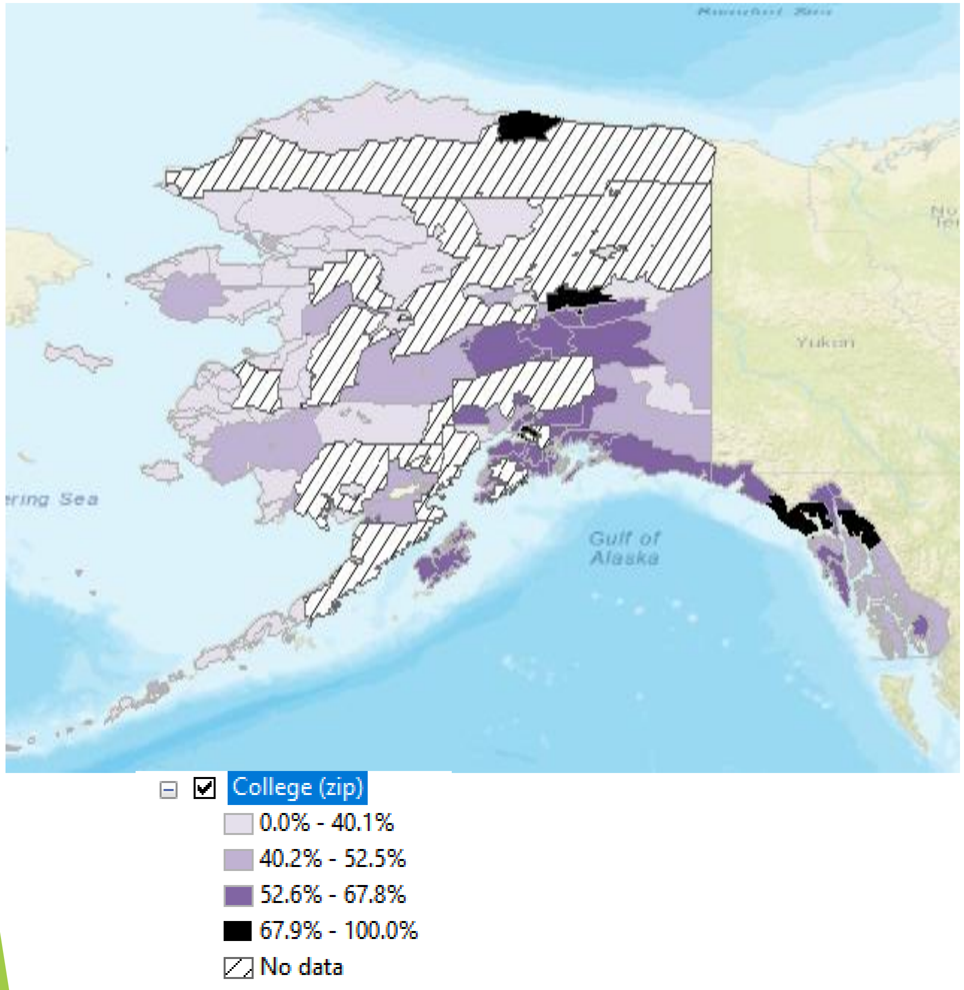

☑ Household Net Worth CA
NW_MEDIAN
$7,500 - $90,000
$90,001 - $225,000
$225,001 - $445,000
$445,001 - $765,000
$765,001 - $1,000,001

Social Conditions

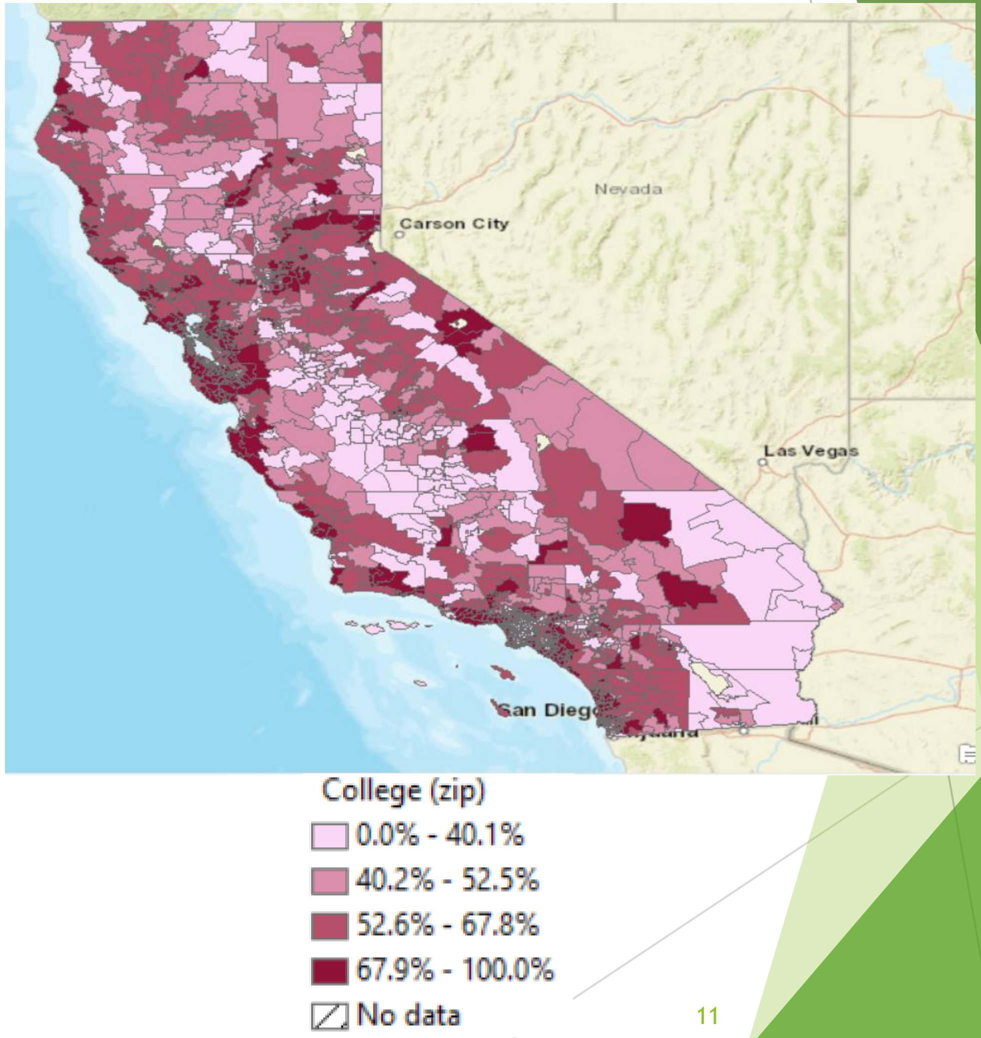
- Education
  - ≥50% college graduates
- Age (fewer than # age 0-19 yo)
  - Alaska: 150 people
  - California: 300 people
- Distance from urban centers
  - Alaska: Within 50 miles
  - California: Between 15 and 50 miles

Education Level (College Graduates)

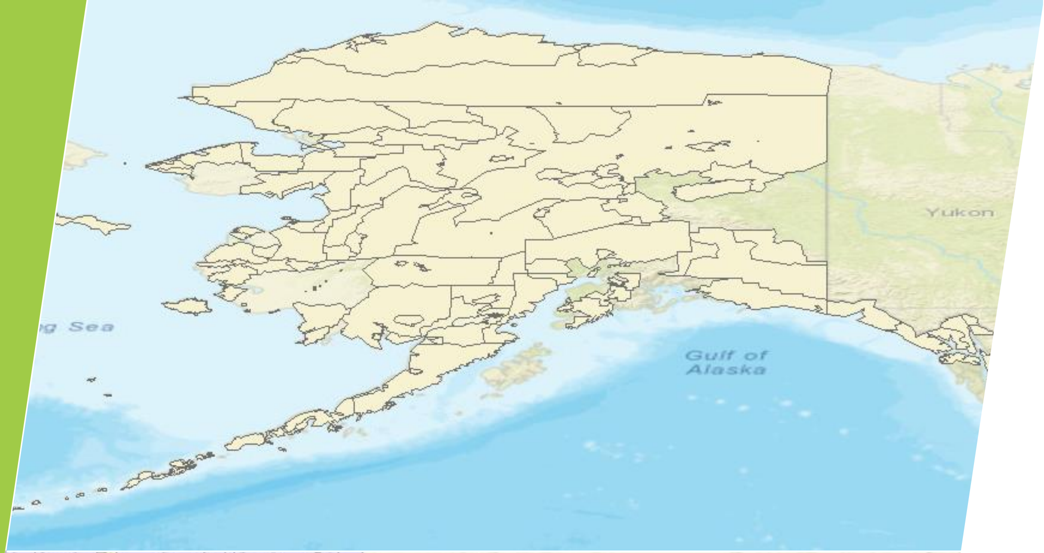
Alaska


Beaufort Sea
Yukon
Bering Sea
Gulf of Alaska
⊟ ☑ College (zip)
0.0% - 40.1%
40.2% - 52.5%
52.6% - 67.8%
67.9% - 100.0%
▨ No data

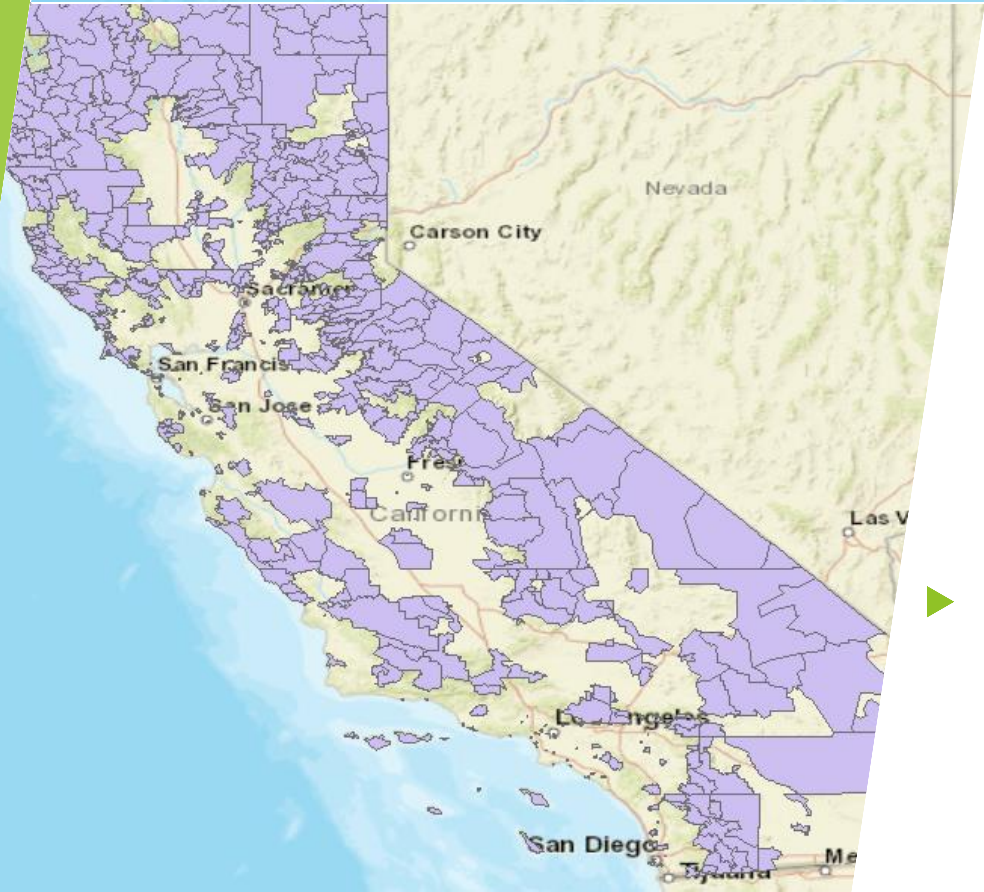
California


Nevada
Carson City
Las Vegas
San Diego
College (zip)
0.0% - 40.1%
40.2% - 52.5%
52.6% - 67.8%
67.9% - 100.0%
▨ No data

Age Parameters


g Sea
Gulf of Alaska
Yukon

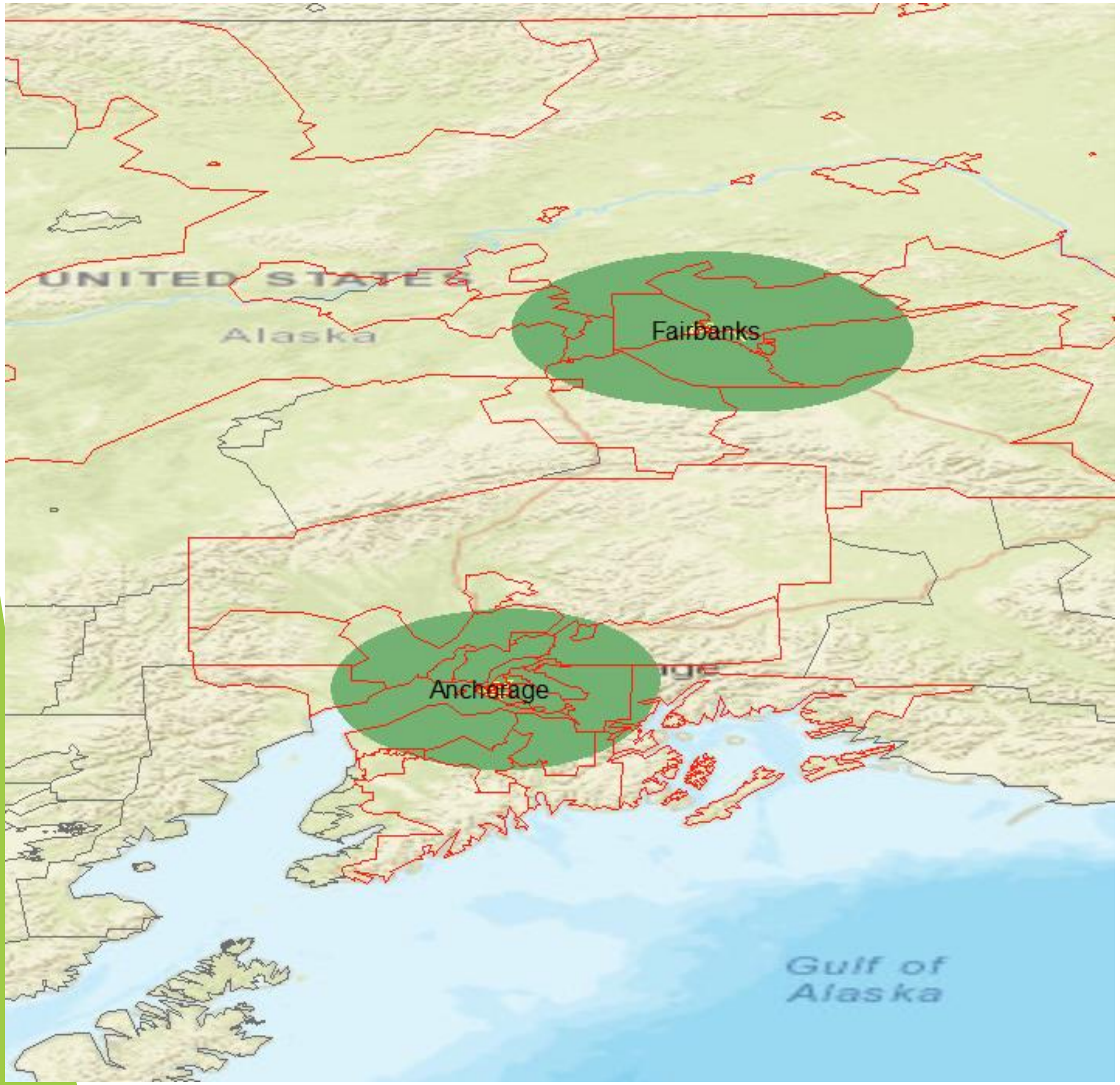
- Zip code with fewer than 150 people between the ages of 0 and 19


Nevada
Carson City
Sacramen
San Francis
San Jose
Fres
California
Las V
San Diego
Tijuana
Me

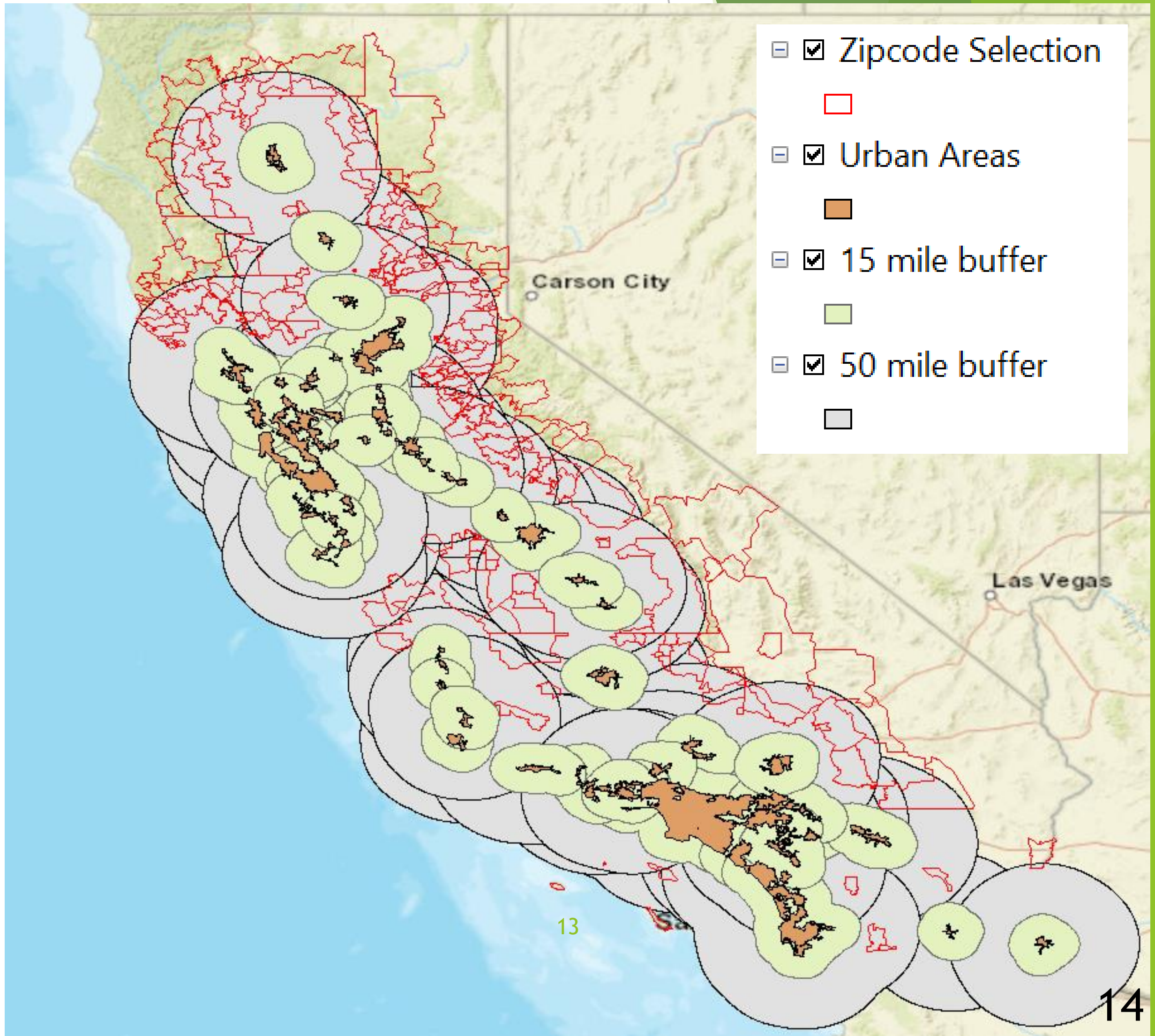
- Zip code with fewer than 300 people between the ages of 0 and 19

Urban Areas Buffer

Alaska


UNITED STATES
Alaska
Fairbanks
Anchorage
Gulf of Alaska

California

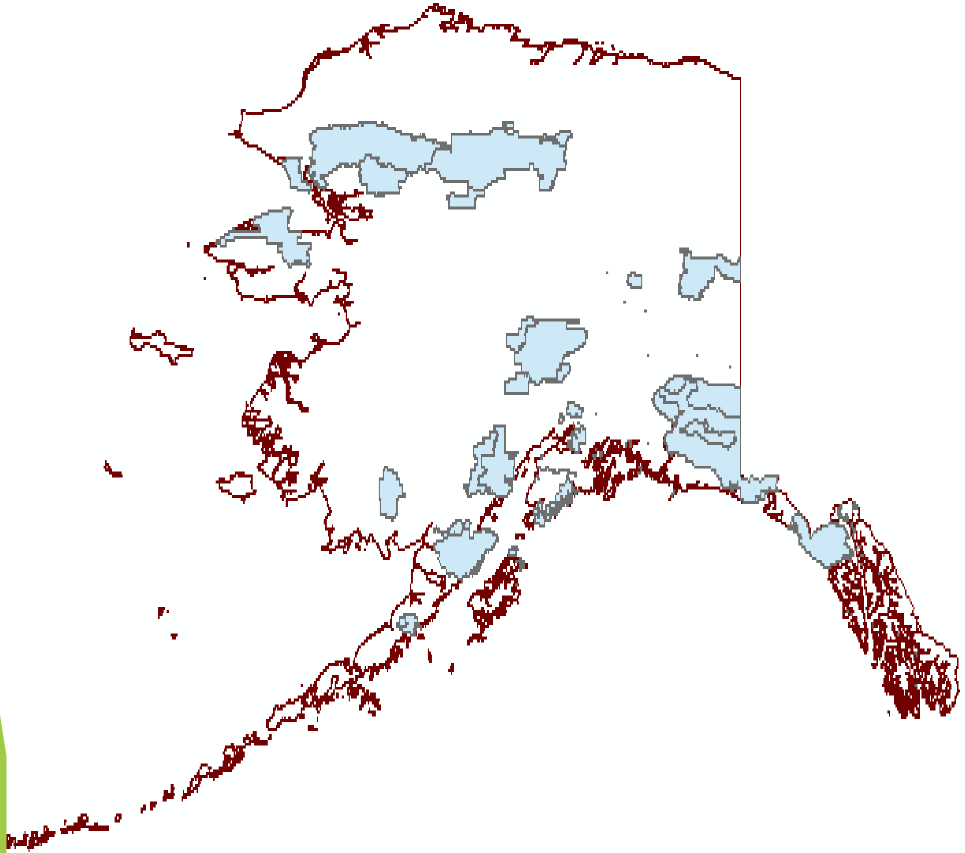

☑ Zipcode Selection
☑ Urban Areas
☑ 15 mile buffer
☑ 50 mile buffer
Carson City
Las Vegas

Environmental Conditions

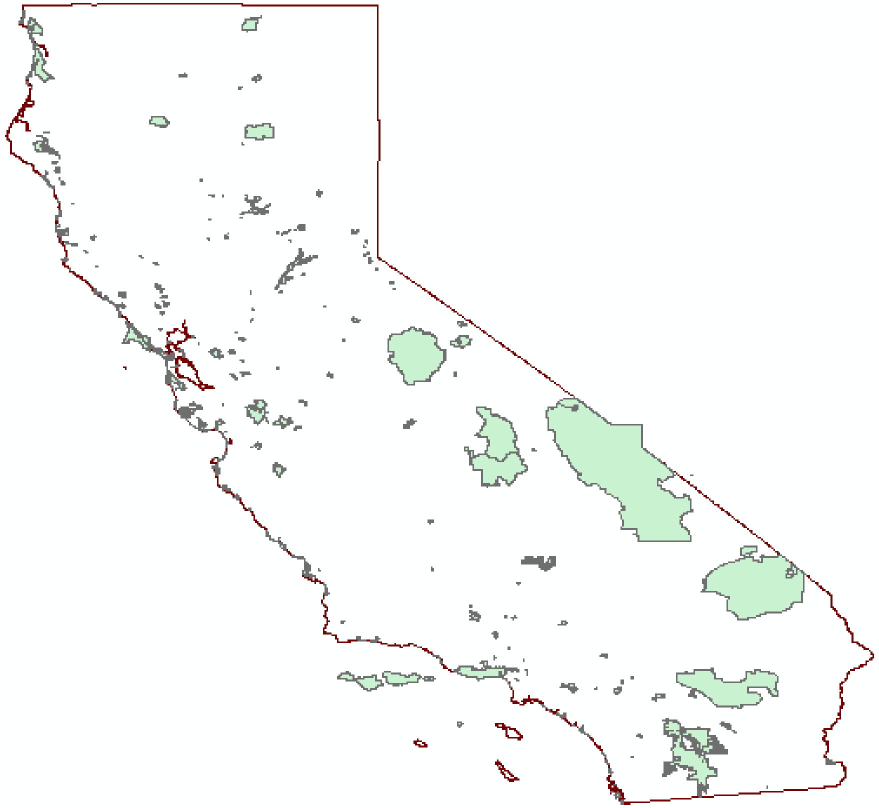
- Nearness to state and national parks
- Near bodies of water
  - Coastal
  - Lakes
  - Rivers
- Distance from industry
  - Alaska: Oil pipelines, coal fields, and mining operations
  - California: Military bases, major highways, and oil wells/ refineries

State and National Parks

Alaska

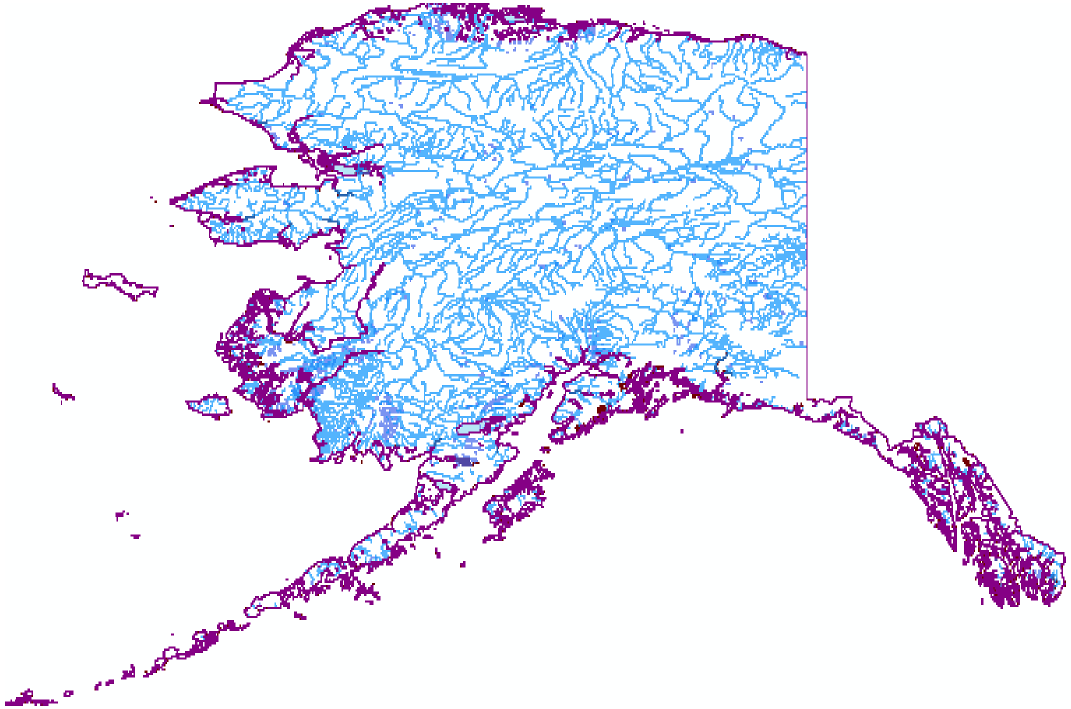


California

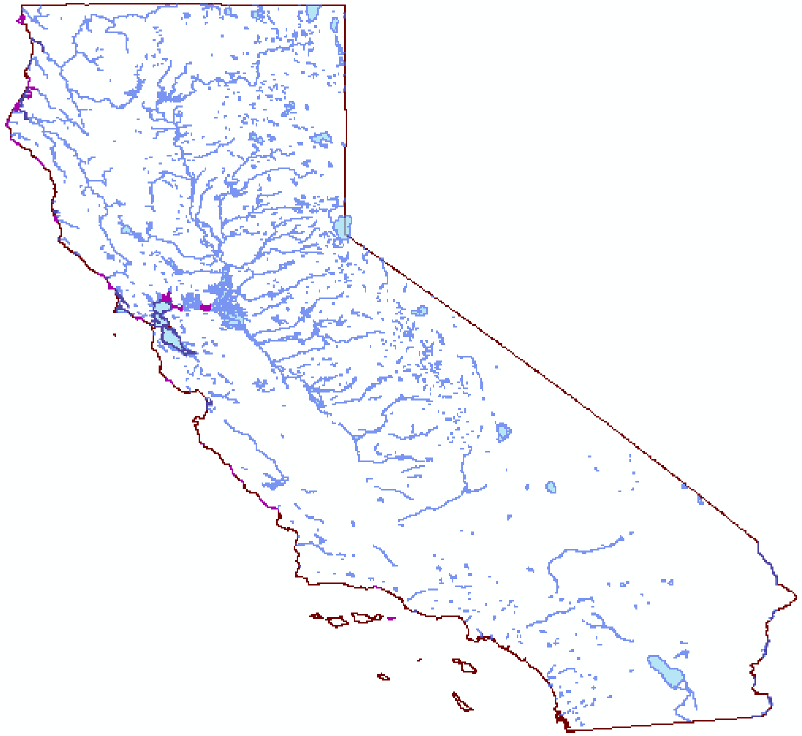


Hydrology

Alaska

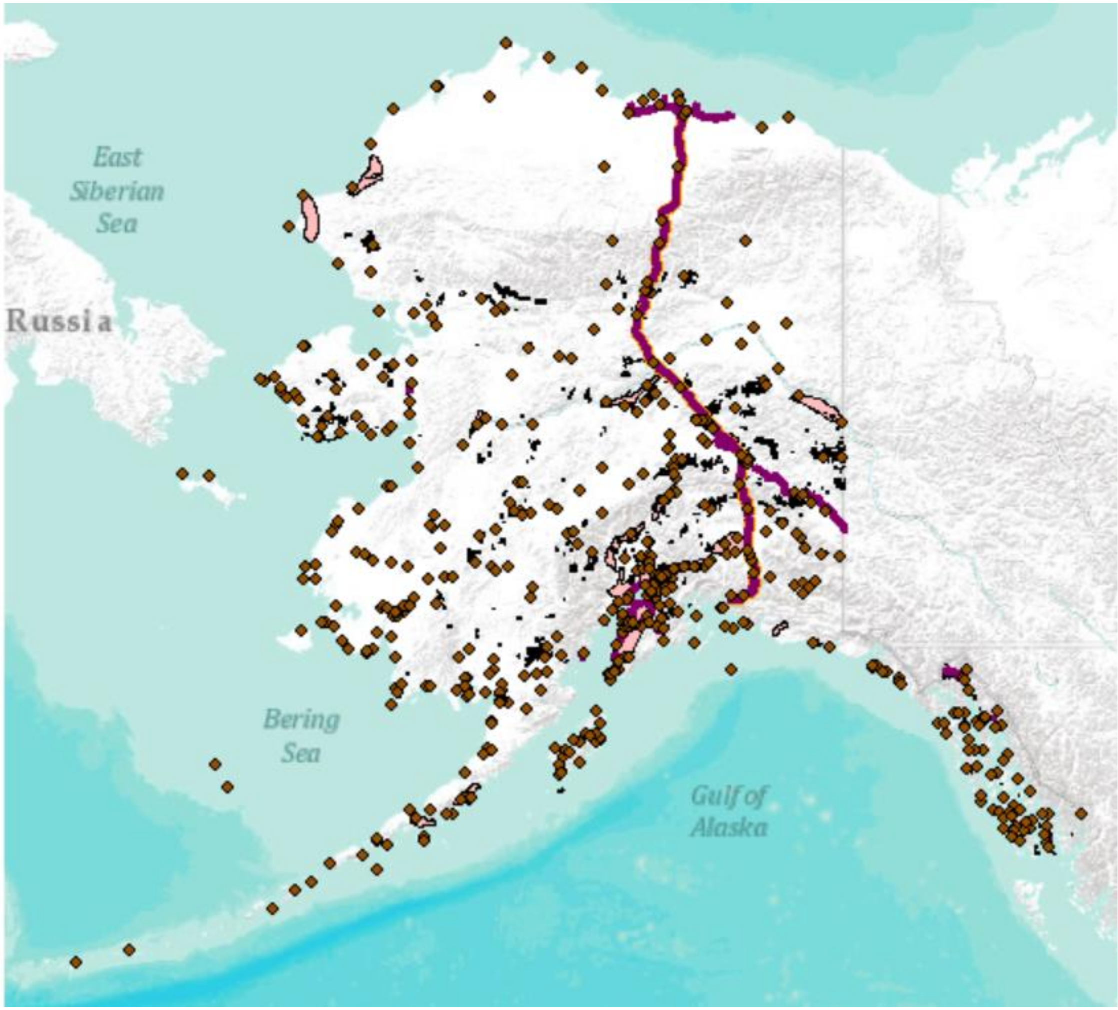


California

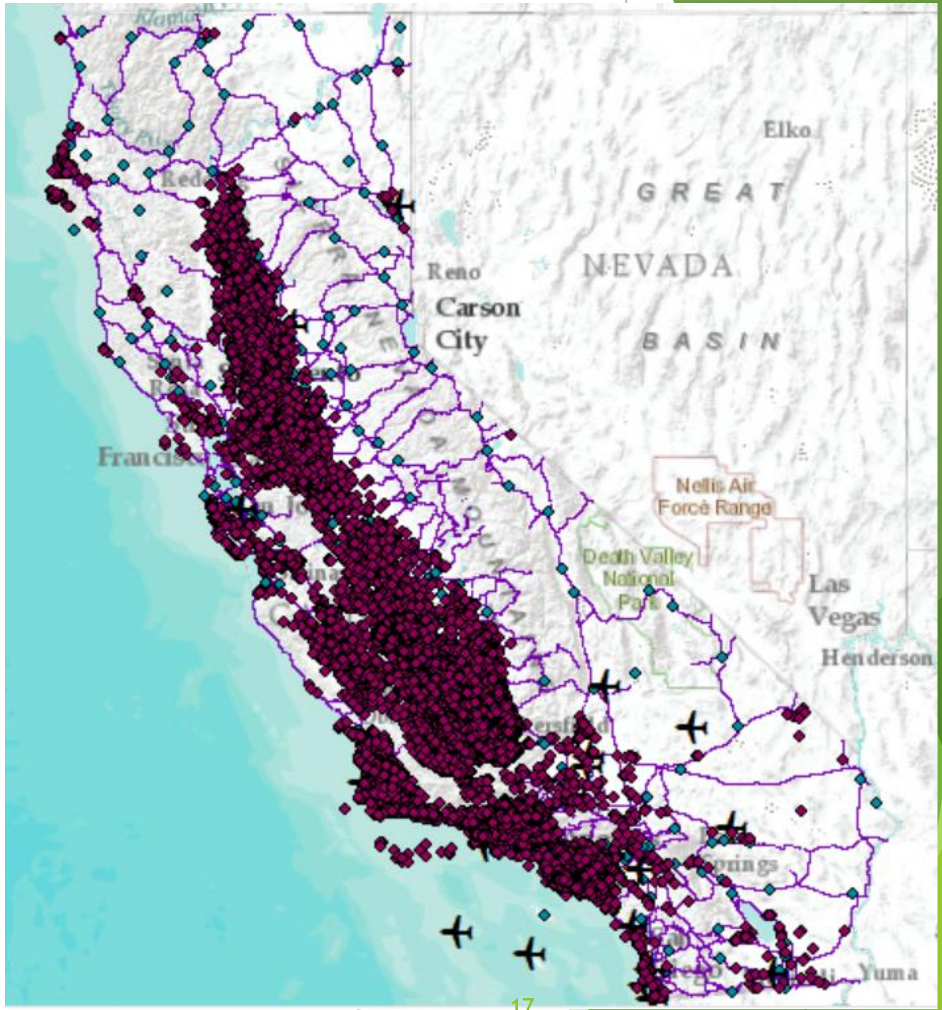


Industrial Areas

Alaska

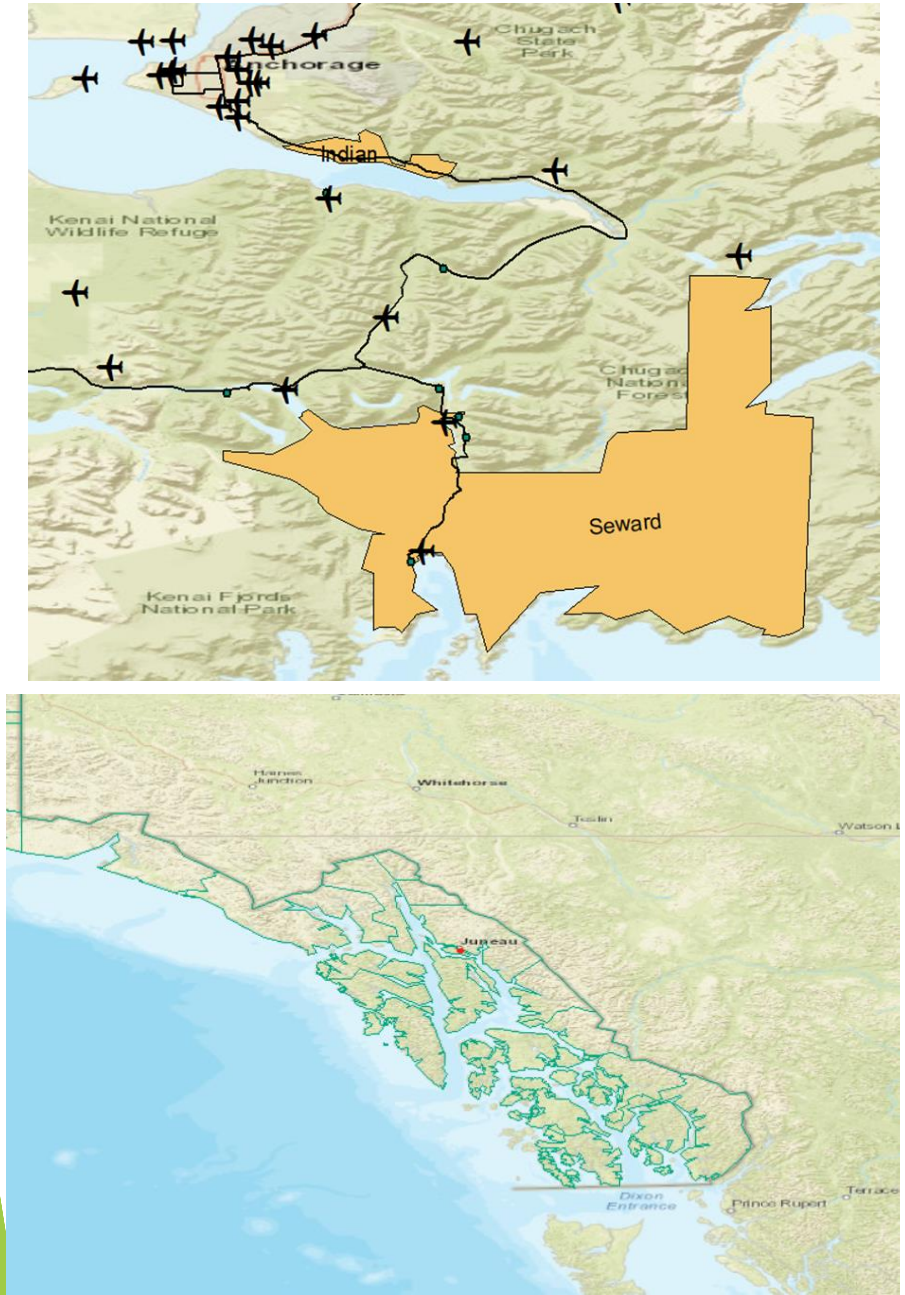

East Siberian Sea
Russia
Bering Sea
Gulf of Alaska

California

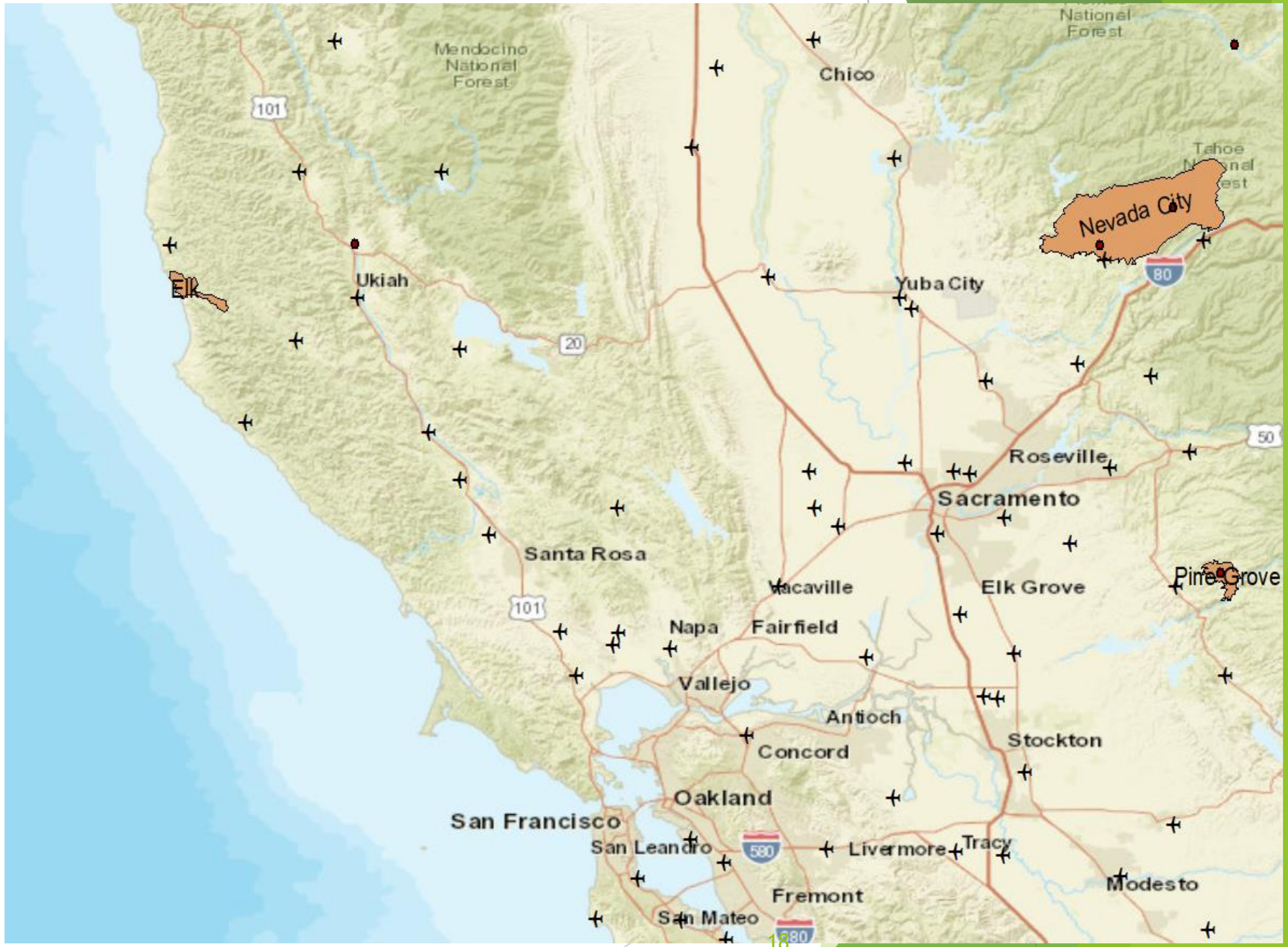

Elko
GREAT
NEVADA
BASIN
Reno
Carson City
Francisco
Nellis Air Force Range
Death Valley National Park
Las Vegas
Henderson
Yuma

Final Results

Alaska


Chugach State Park
Anchorage
Indian
Kenai National Wildlife Refuge
Chugach National Forest
Seward
Kenai Fjords National Park
Haines Junction
Whitehorse
Teslin
Watson L
Juneau
Dixon Entrance
Prince Rupert
Terrace

California


National Forest
Mendocino National Forest
Chico
101
Tahoe National Forest
Nevada City
Elk
Ukiah
Yuba City
80
20
50
Roseville
Sacramento
Santa Rosa
Vacaville
Elk Grove
Pine Grove
101
Napa
Fairfield
Vallejo
Antioch
Concord
Stockton
Oakland
San Francisco
San Leandro
580
Livermore
Tracy
Modesto
Fremont
San Mateo
880

Alaska

Seward (99664)

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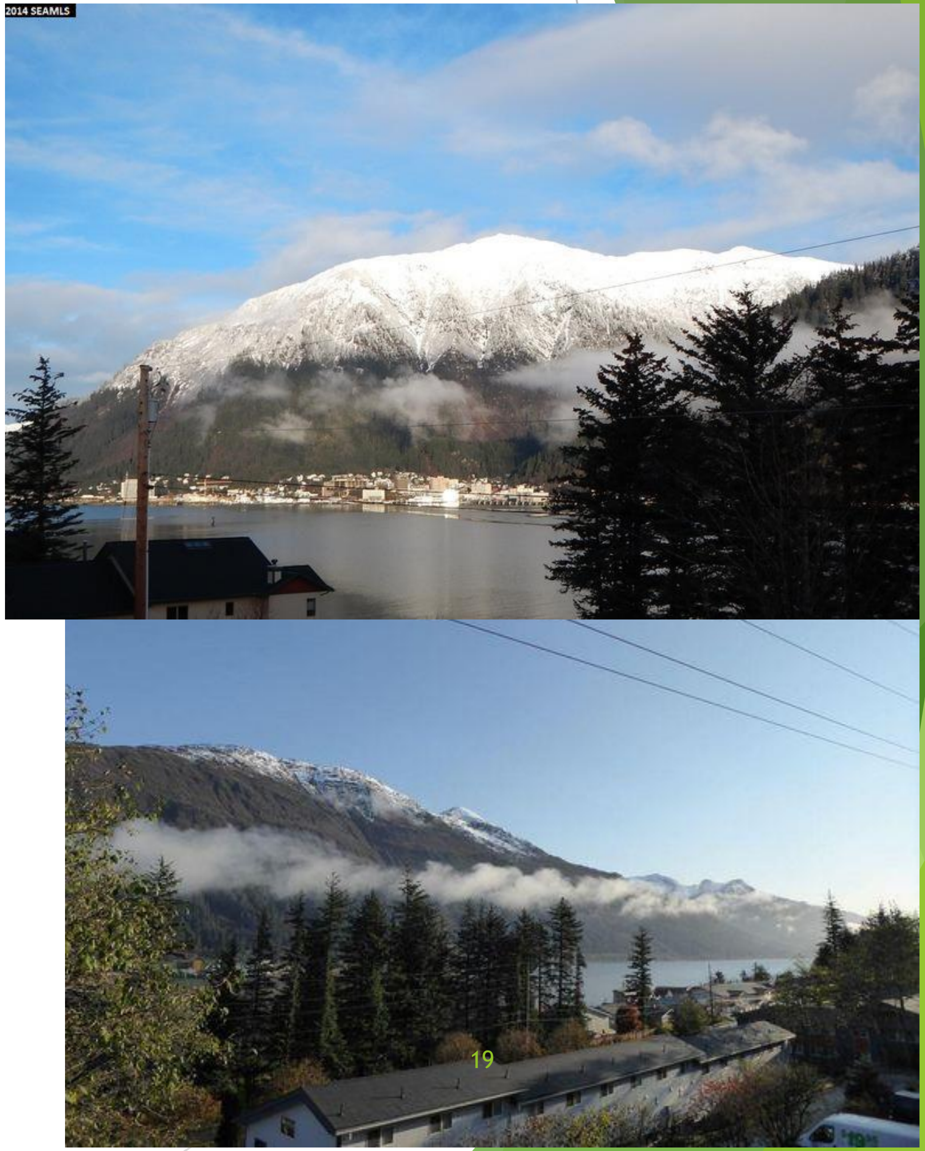
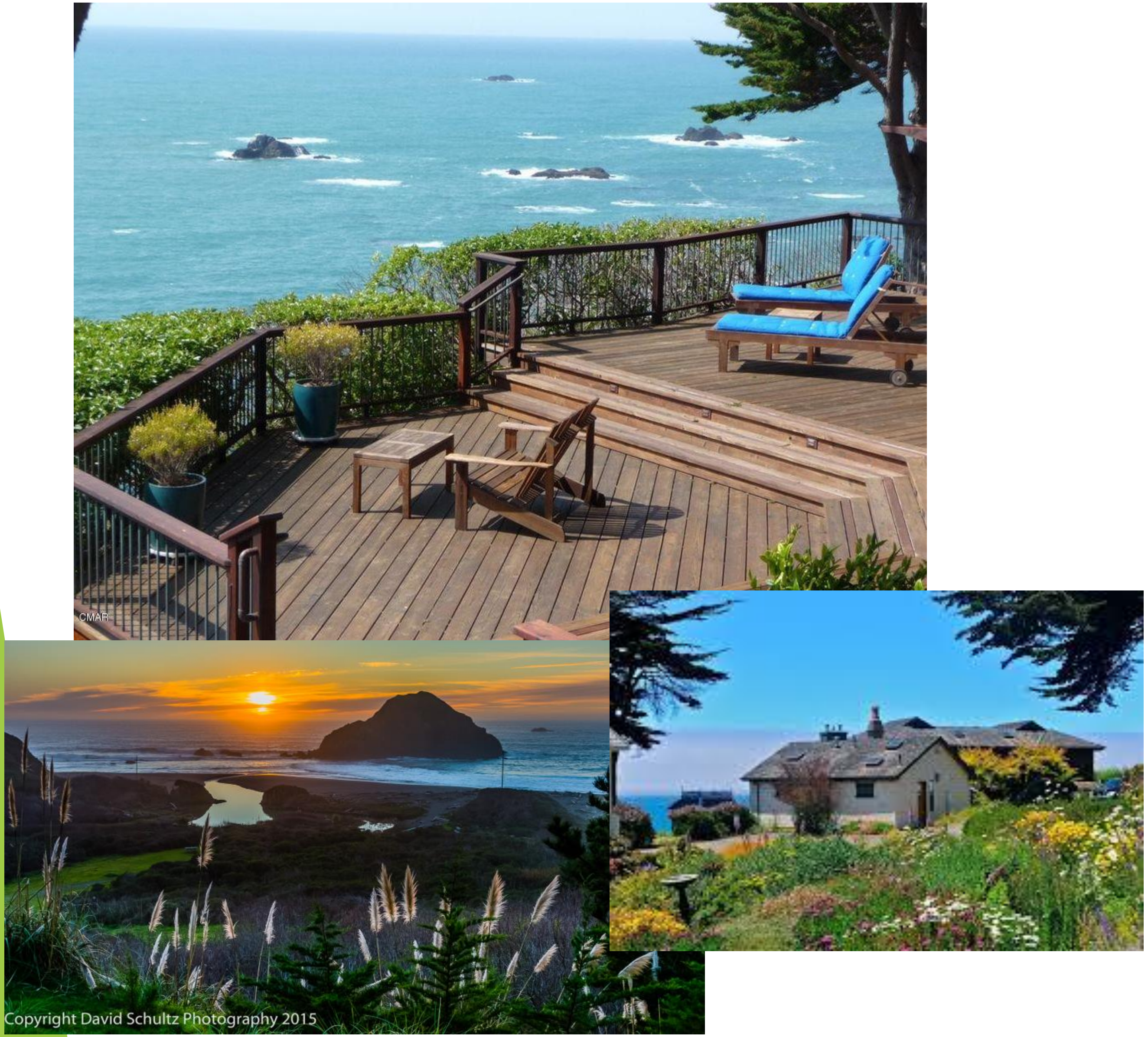
Douglas (99824)


2014 SEAMLS
19

California

Elk (95432)


CMAR
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Nevada City (95959)

20
NEVADA COUNTY
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Citations

- Juna’s Data
- http://www.asgdc.state.ak.us/#1400
- http://dnr.alaska.gov/mdfiles/og_statewide_unit_tracts.html
- http://www.dot.ca.gov/hq/tsip/gis/datalibrary/Metadata/Airports.html
- https://catalog.data.gov/dataset/california-zip-code-areas
- https://geodata.lib.berkeley.edu/catalog?utf8=%E2%9C%93&q=california+industrial&bbox=-180%20-89.81531%20180%2089.456192