

Data Collection Guide

Appendix of Transportation Access Data Sources



Clean
Mobility
Options



Introduction to Data Collection Guide: Appendix of Transportation Access Data Sources

Welcome to the Data Collection Guide: Appendix of Transportation Access Data Sources. This supplemental resource is meant to provide a high-level walkthrough of the various data sources shared in the Data Collection Guide. It includes step-by-step instructions on how to collect specific data from the described sources.

There are 3 main sections: [Recommended Data Sources](#), [On-the-Ground Data Collection](#), and [Additional Data Sources](#).

Recommended Data Sources include those specifically mentioned by the Implementation Manual and those recommended by the Program Administrator. These data sources relate directly to key characteristics for determining mobility patterns and transportation gaps within a community.

On-the-Ground Data Collection refers to methods to record data through in-person observations and activities. When done correctly, data collected can provide more local and accurate information about the community than data sources with a larger geographic scope.

Additional Data Sources provide other community characteristics and tools that can support one's understanding of community transportation needs. These are supplemental resources that are meant to provide a different approach to evaluating a community's transportation gaps.

The following page provides a quick overview of each section of the introductory page for the data sources and how to navigate this resource.

(1): Data Source Header: All pages with a blue header at the top indicate the introductory page for the data source

(2) Data Source Title: A direct link to the data source

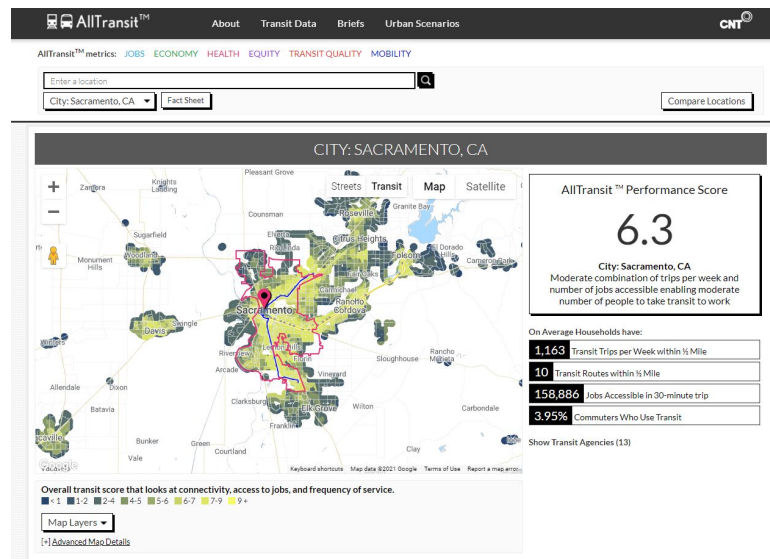
(3) Introduction: A short description of the data source and what information can be found through the data source

(4) Methods & User Guides: Any user guides or methodology reports to provide more in-depth information or step-by-step instructions for use

(5) Measures: What characteristics the data source covers - accessibility, affordability, or reliability

(6) Limitations: Describes any limitations of the data source to consider and be aware of when conducting your data collection and analysis

(7) Image: A screenshot of the data source webpage, dashboard or mapping tool to demonstrate what the data source will look like



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Recommended Data Sources

Transportation access data sources listed in the IM that measure accessibility, affordability and reliability

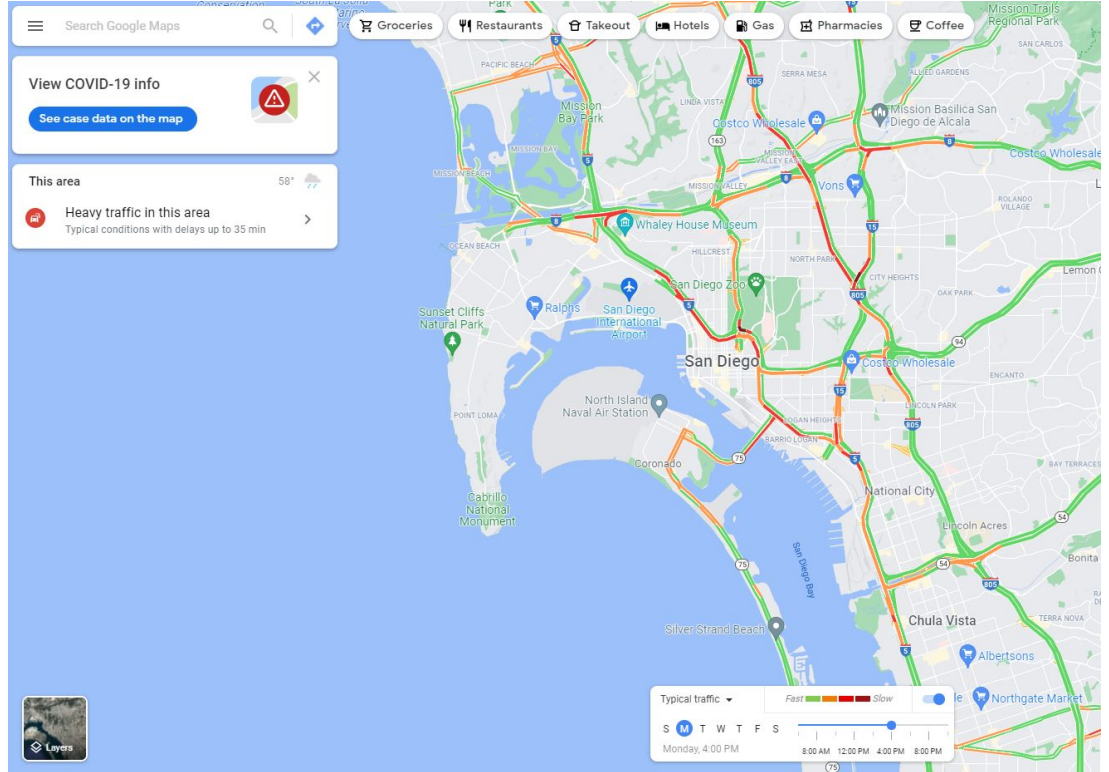
Google Maps

Introduction: Google Maps is a useful resource to determine distance (in miles) between transit stops and a particular origin. Google Maps can also be used to see previous conditions through Street View.

User Guide: [Google Maps Help](#)

Measures: Accessibility

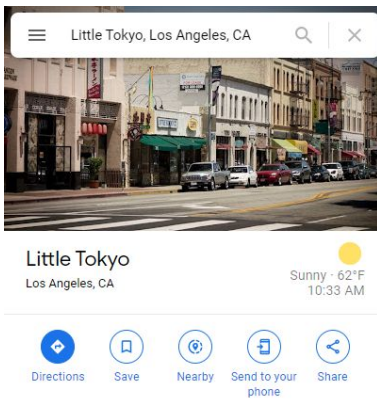
Limitations: Information often based on averages and estimations. Results can also vary depending on time of day



Google Maps

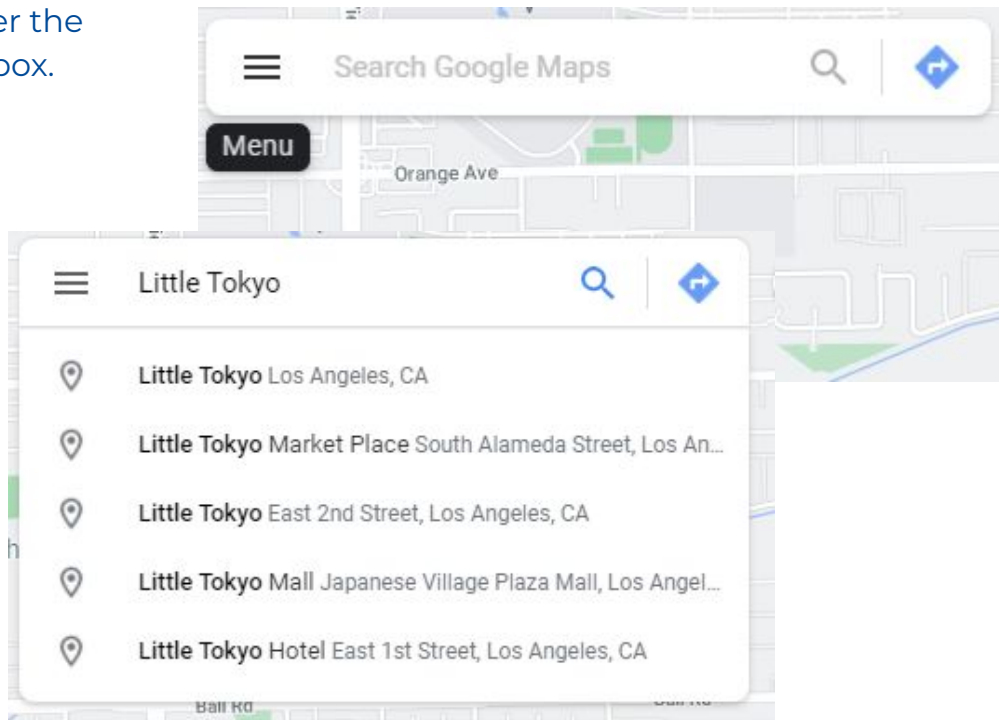
Step 1: Go to the Google Maps website. Enter the destination point in “Search Google Maps” box.

Step 2: Click “directions.”



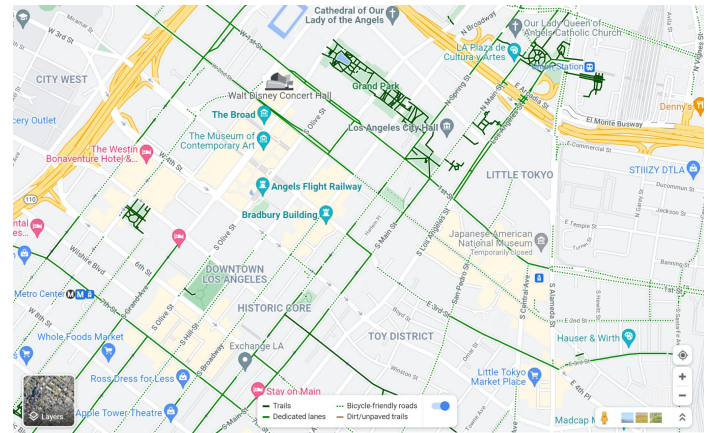
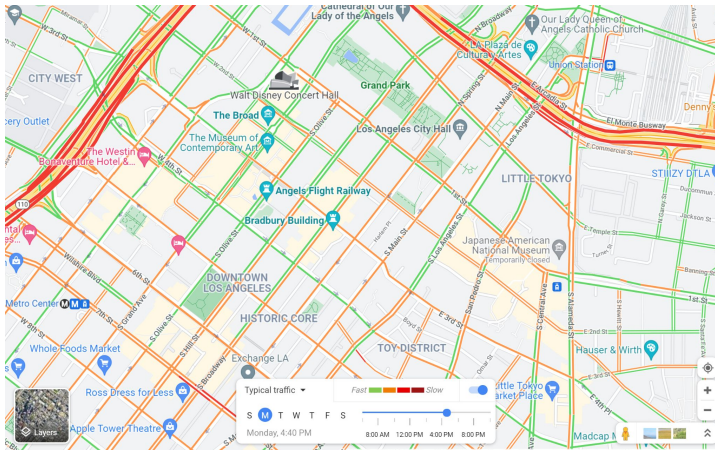
Quick facts

Little Tokyo also known as Little Tokyo Historic District, is an ethnically Japanese American district in downtown Los Angeles and the heart of the largest Japanese-American population in North America. [Wikipedia](#)



Google Maps

Bonus: Using the 'layers' icon in the bottom left of your screen, it's possible to add additional details to your map. Three relevant examples, from left to right, include: daily traffic conditions and commonly traveled bike routes.

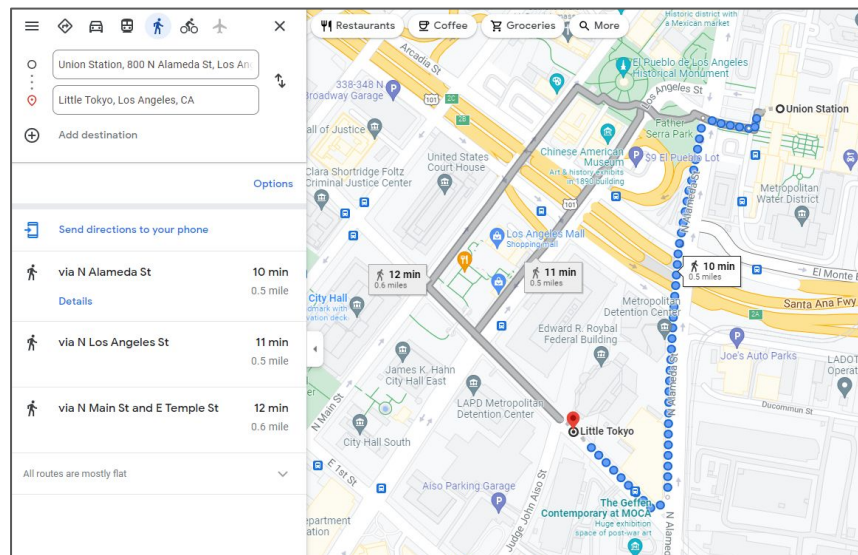


Google Maps

Step 3: Click which mode you want to measure in time and miles: car, public transit, walking, biking

Step 4: Make a list of the time it takes to travel a certain distance for each transportation mode. The list should be usable for analysis.

Mode	Distance	Time
Walking	0.5 miles	10 minutes
Public Transit	0.5 miles	17 minutes
Biking	0.5 miles	4 minutes
Car	0.5 miles	4 minutes



Introduction: This indicator shows the median household income and poverty rates within the community through Census data.

User Guide: [FAQ Page](#)

Measures: Affordability

Limitations: Census information depends on who and how many people fill out Census surveys.

Welcome to the new data.census.gov website

MENU

United States
Census
Bureau

Explore Census Data

The Census Bureau is the leading source of quality data about the nation's people and economy.

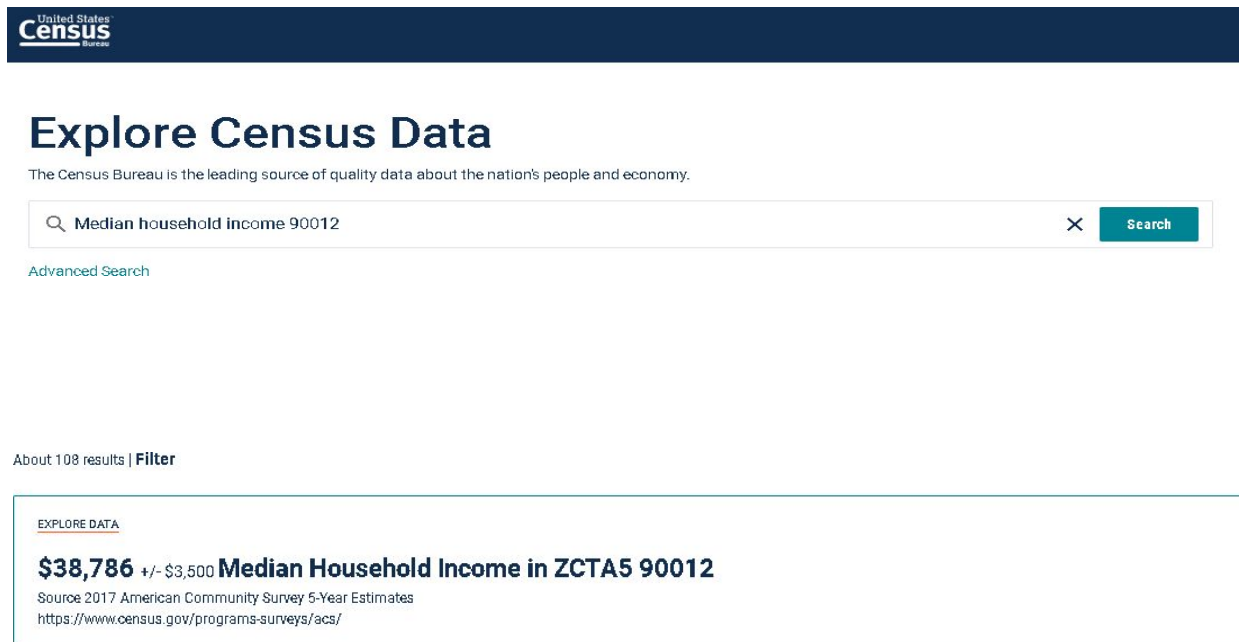
Find Tables, Maps, and more ...

Advanced Search ? Help Feedback

The screenshot shows the top navigation bar of the data.census.gov website. It includes a welcome message, a menu icon, and the United States Census Bureau logo. Below the navigation bar is a large heading 'Explore Census Data' followed by a sub-heading 'The Census Bureau is the leading source of quality data about the nation's people and economy.' A search bar is present with the placeholder text 'Find Tables, Maps, and more ...' and a magnifying glass icon. Below the search bar are links for 'Advanced Search', '? Help', and 'Feedback'.

Step 1: Go to the Census data website. Enter “Median household income” and the zip code, city or census tract of the area you would like to search

Step 2: Click on “explore data” box to view table



The screenshot shows the United States Census Bureau website. At the top left is the logo. The main heading is "Explore Census Data". Below it is a sub-heading: "The Census Bureau is the leading source of quality data about the nation's people and economy." A search bar contains the text "Median household income 90012" and a "Search" button. Below the search bar is a link for "Advanced Search". The results section shows "About 108 results | Filter". A box labeled "EXPLORE DATA" contains the following information:

\$38,786 +/- \$3,500 Median Household Income in ZCTA5 90012
Source 2017 American Community Survey 5-Year Estimates https://www.census.gov/programs-surveys/acs/

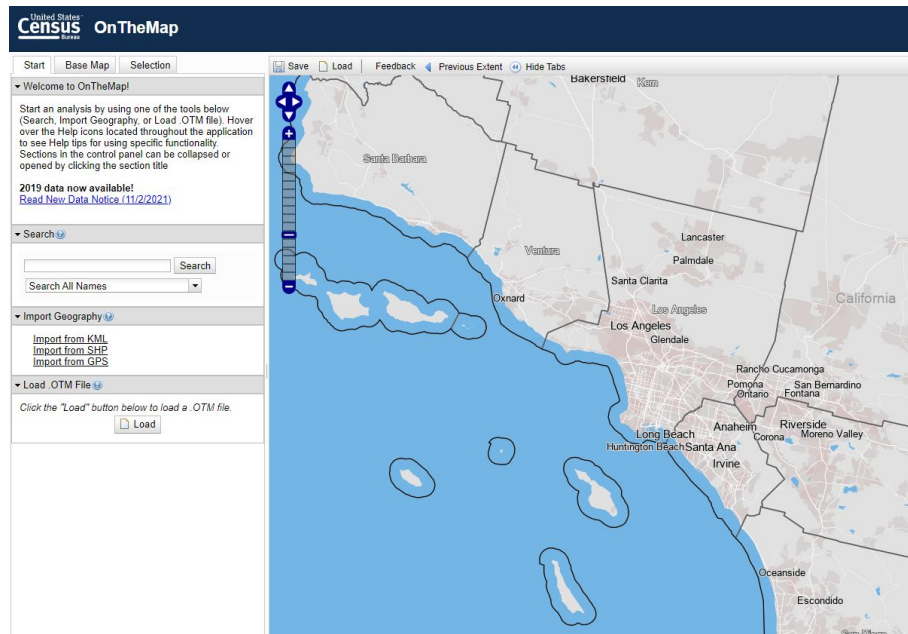
Census OnTheMap (LEHD-LODE)

Introduction: This dataset provides information on how many jobs are in a specific area. It also shows how many people commute in and out of a specified area for employment. This information can be useful to show how much people may rely on transportation when commuting to work.

User Guide: [OnTheMap Help and Documentation](#); [OnTheMap Data Overview](#)

Measures: Accessibility

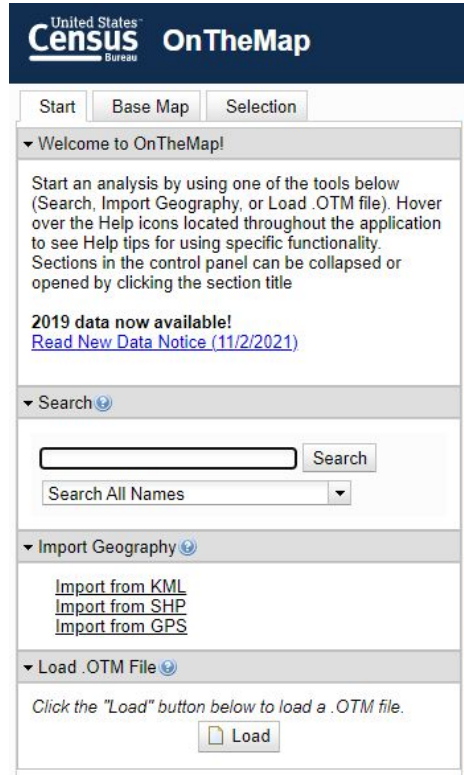
Limitations: Census information depends on who and how many people fill out Census surveys.



Census OnTheMap (LEHD-LODE)

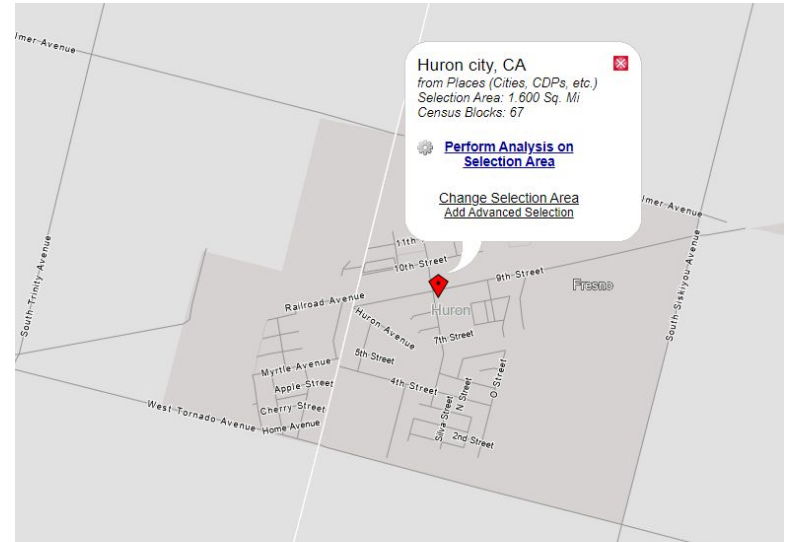
Step 1: Enter the city, town, county, or place you would like to search into the “Search” bar and select the appropriate location from the dropdown menu.

Make sure you selected the appropriate county, place, etc.



The screenshot shows the 'United States Bureau OnTheMap' interface. At the top, there are three tabs: 'Start', 'Base Map', and 'Selection'. Below the tabs is a 'Welcome to OnTheMap!' section with instructions on how to start an analysis. A 'Search' section contains a search bar, a 'Search' button, and a dropdown menu labeled 'Search All Names'. Below the search section is an 'Import Geography' section with links for 'Import from KML', 'Import from SHP', and 'Import from GPS'. At the bottom is a 'Load .OTM File' section with a 'Load' button and a note: 'Click the "Load" button below to load a .OTM file.'

Step 2: Once you selected the appropriate area, it should appear on the screen. Click on “perform analysis on selection area.”



Census OnTheMap (LEHD-LODE)

Step 3: On the right-hand column under “Job Type,” click the “Primary Jobs” button.

Since people may work second jobs at or during their primary place of employment (like a plumber working deliveries or baby-sitter answering phone calls), clicking this maintains the integrity of the data by analyzing the commute of the first job. Now click “Go!”

Analysis Settings

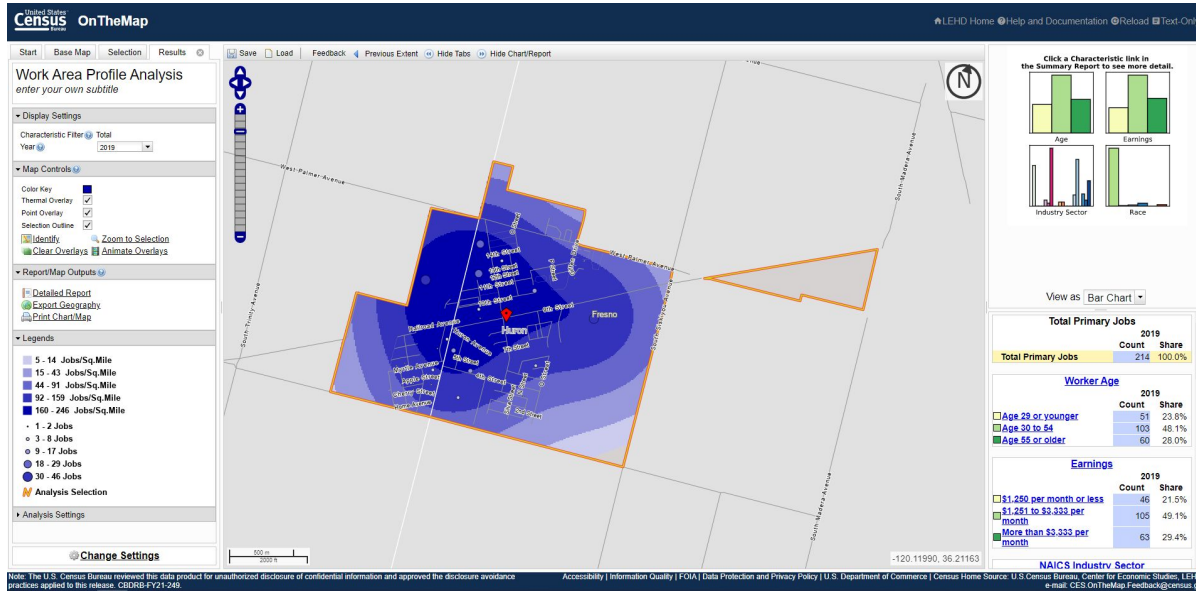
Area Profile Analysis in 2019 by Primary Jobs

Home/Work Area	Analysis Type	Year	Job Type
Determines whether the selection area is analyzed on where workers live ("Home") or where workers are employed ("Work"). <input type="radio"/> Home <input checked="" type="radio"/> Work	Determines the type of results that will be generated for the selected area. <input checked="" type="radio"/> Area Profile Labor Market Segment: All Workers <input type="radio"/> Area Comparison Areas to Compare: Places (Cities, CDPs, etc.) Labor Market Segment: All Workers <input type="radio"/> Distance/Direction <input type="radio"/> Destination Destination Type: Places (Cities, CDPs, etc.) <input type="radio"/> Inflow/Outflow Note: Home/Work choice does not affect results	Determines the year(s) of data that will be processed in the analysis. <input checked="" type="checkbox"/> 2019 <input type="checkbox"/> 2018 <input type="checkbox"/> 2017 <input type="checkbox"/> 2016 <input type="checkbox"/> 2015 <input type="checkbox"/> 2014 <input type="checkbox"/> 2013 <input type="checkbox"/> 2012 <input type="checkbox"/> 2011 <input type="checkbox"/> 2010 <input type="checkbox"/> 2009 <input type="checkbox"/> 2008 <input type="checkbox"/> 2007 <input type="checkbox"/> 2006 <input type="checkbox"/> 2005 <input type="checkbox"/> 2004	Determines the scope of jobs that will be processed in the analysis. <input type="radio"/> All Jobs <input checked="" type="radio"/> Primary Jobs <input type="radio"/> All Private Jobs <input type="radio"/> Private Primary Jobs

Cancel **Go!**

Census OnTheMap (LEHD-LODE)

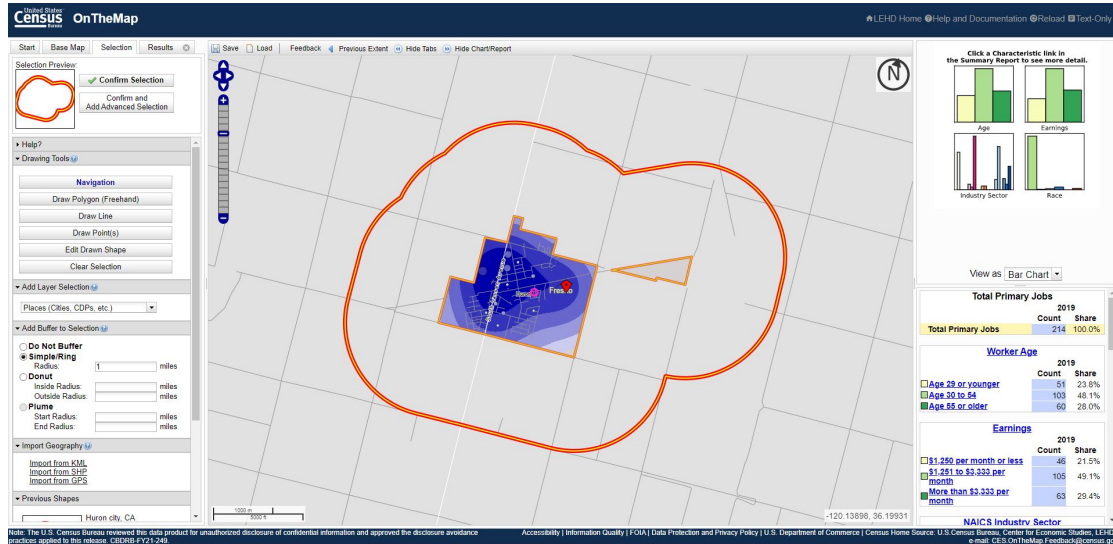
Step 4: If you followed steps correctly, your screen should look similar to the image below. If you scroll on the right side of screen, you should see jobs by “worker age,” “earnings,” industry sector, race, ethnicity, educational attainment, and worker sex. Now you know the types of jobs in your area.



Census OnTheMap (LEHD-LODE)

Step 5: The OnTheMap tool has other tools and functions that may be useful to you. If you select the tools on upper left-hand column, you can create a radius around an area to know how many jobs there are. In the example below, we made a one-mile radius around our previous area.

Follow the same steps to figure out how many jobs there are in that area.



Census OnTheMap (LEHD-LODE)

Step 6: OnTheMap can also show you how many people commute in and out of your area for employment. Knowing how people travel for work may be helpful in helping you develop your project.

Once you select the project area, on “Analysis Type,” click “Inflow/Outflow” and select “Primary Jobs” in the “Job Type” column. Click “Go!”

Analysis Settings

Inflow/Outflow Analysis in 2019 by Primary Jobs

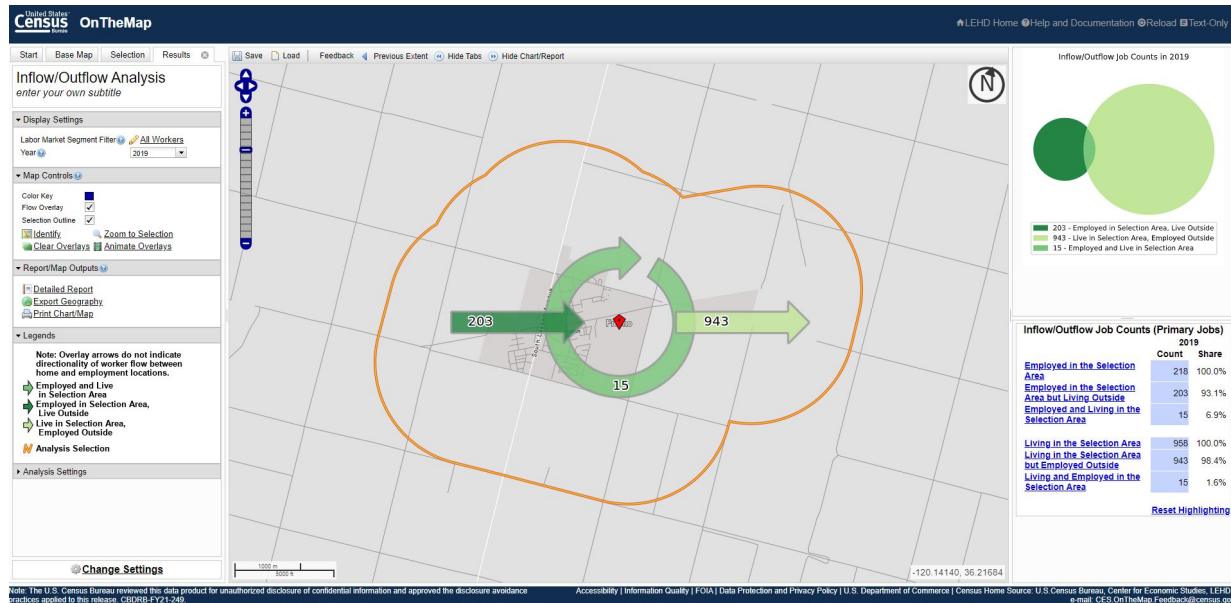
Home/Work Area	Analysis Type	Year	Job Type
Determines whether the selection area is analyzed on where workers live ("Home") or where workers are employed ("Work"). <input type="radio"/> Home <input checked="" type="radio"/> Work	Determines the type of results that will be generated for the selected area. <input type="radio"/> Area Profile Labor Market Segment: All Workers <input type="radio"/> Area Comparison Areas to Compare: Places (Cities, CDPs, etc.) Labor Market Segment: All Workers <input type="radio"/> Distance/Direction <input type="radio"/> Destination Destination Type: Places (Cities, CDPs, etc.) <input checked="" type="radio"/> Inflow/Outflow Note: Home/Work choice does not affect results	Determines the year(s) of data that will be processed in the analysis. <input checked="" type="checkbox"/> 2019 <input type="checkbox"/> 2018 <input type="checkbox"/> 2017 <input type="checkbox"/> 2016 <input type="checkbox"/> 2015 <input type="checkbox"/> 2014 <input type="checkbox"/> 2013 <input type="checkbox"/> 2012 <input type="checkbox"/> 2011 <input type="checkbox"/> 2010 <input type="checkbox"/> 2009 <input type="checkbox"/> 2008 <input type="checkbox"/> 2007 <input type="checkbox"/> 2006 <input type="checkbox"/> 2005 <input type="checkbox"/> 2004	Determines the scope of jobs that will be processed in the analysis. <input type="radio"/> All Jobs <input checked="" type="radio"/> Primary Jobs <input type="radio"/> All Private Jobs <input type="radio"/> Private Primary Jobs

Cancel Go!

Census OnTheMap (LEHD-LODE)

If you followed steps correctly, you should see something similar to the graph below.

The sample analysis shows 494 people come to the area for work, 38 people stay in the area for work, and 958 people leave the area for employment.



Note: The U.S. Census Bureau reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release. C1200-0724-246

Accessibility | Information Quality | FOIA | Data Protection and Privacy Policy | U.S. Department of Commerce | Census Home Source: U.S. Census Bureau, Center for Economic Studies, LEHD | e-mail: CES.OnTheMap.Feedback@census.gov

EPA Walkability Index

Introduction: The EPA National Walkability Index is a nationwide geographic data resource that ranks block groups according to their relative walkability.

The [EPA Smart Location Mapping webpage](#) provides more background information on the tool.

User Guide: [National Walkability Index Methodology and User Guide \(June 2021\)](#)

Measures: Accessibility

Limitations: Compares walkability of communities across the nation, including rural, urban and suburban communities, without much differentiation.

National Walkability Index

The National Walkability Index is a nationwide geographic data resource that ranks block groups according to their relative walkability. The national dataset includes walkability scores for all block groups as well as the underlying attributes that are used to rank the block groups. The [National Walkability Index User Guide and Methodology](#) describes how to use the index and the methodology used to derive the index and ranked scores for its inputs.

Figure 3 illustrates the National Walkability Index results for block groups in some Midwestern states, including the Chicago metropolitan area.

Access the Data

Links open in new tab.

[Interactive map viewer](#)

EXIT

[Download data for all areas with coverage \(ZIP file\)](#)

[Metadata](#)

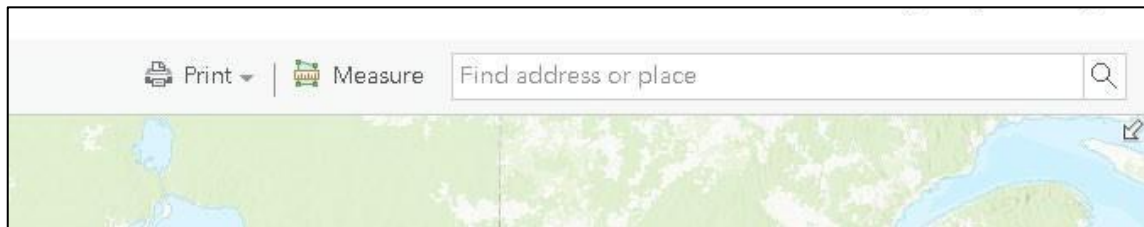
[Web services](#)



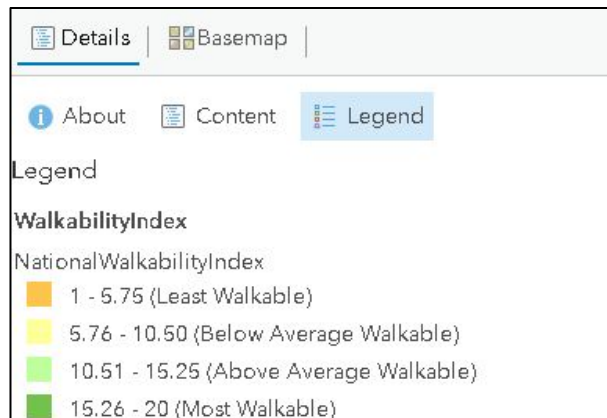
Figure 3: National Walkability Index block group scores in the Chicago metropolitan area

EPA Walkability Index

Step 1: Go to the EPA National Walkability Index website. Enter neighborhood or city in upper right of home page.



Step 2: Click on the “Legend” tab on the upper left of the screen to view the walkability index.

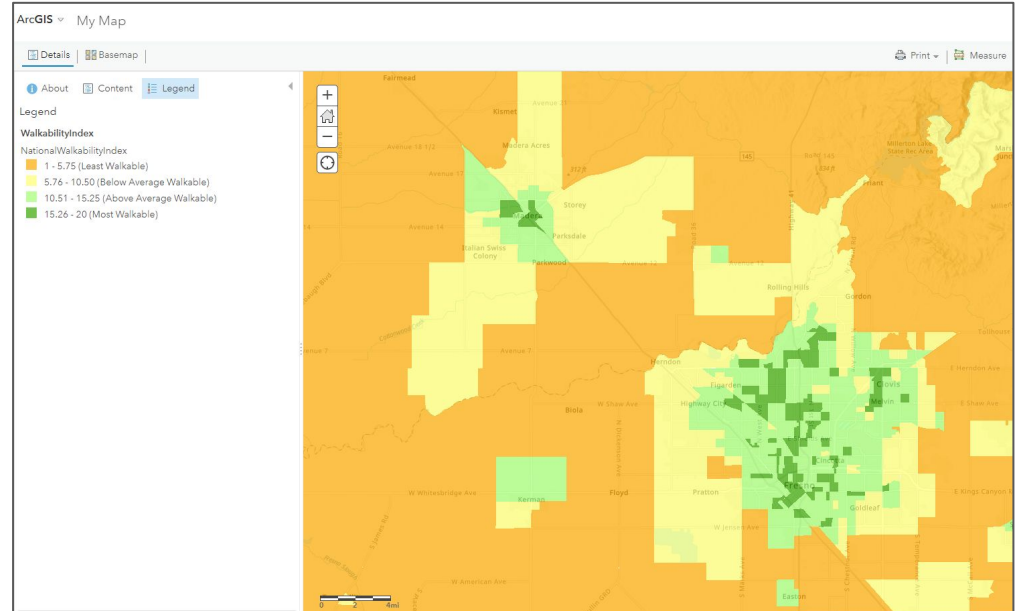


EPA Walkability Index

The data can be used to show how the project area, or particular areas within the project area, are walkable. It may be helpful to compare walkability index scores of communities with similar sizes or densities.

Ideally more detailed data can be obtained with on-the-ground observation within the project area.

See [Walk or Bike Audits](#) for instructions on how to assess and record on-the-ground observations.



AllTransit

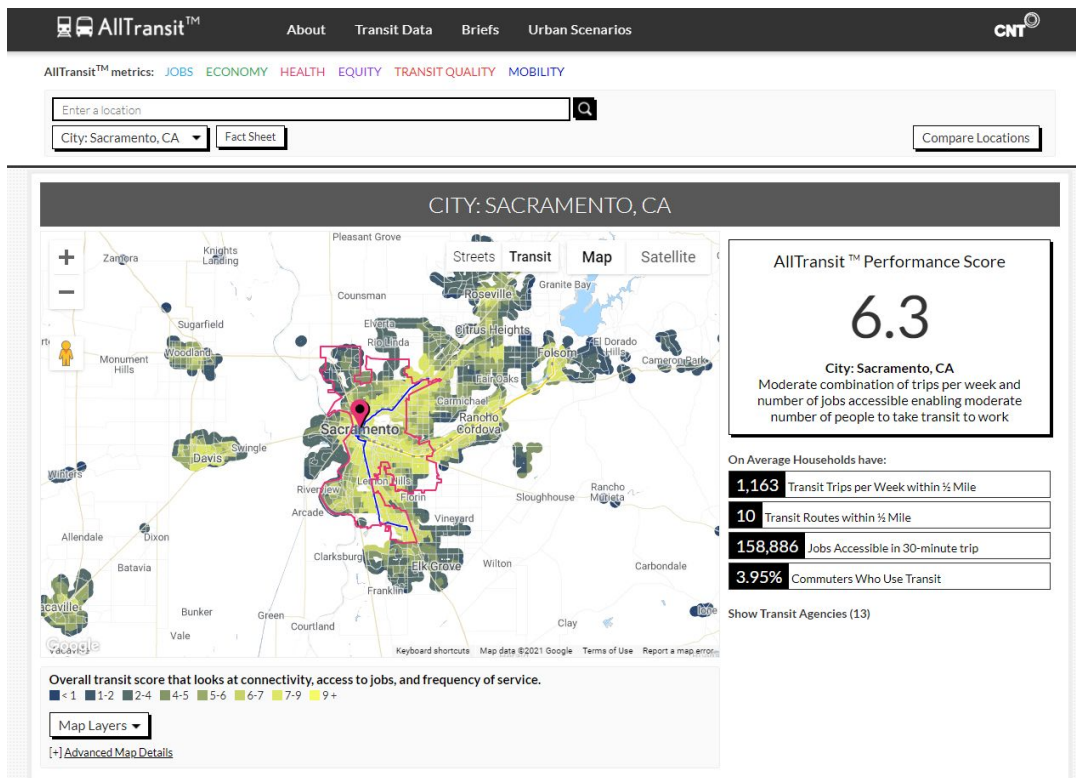
Introduction: This resource provides an overall transit access score and detailed data on job accessibility, transit access, and equity.

Methods & Data Sources: AllTransit™ Methods (March 2019)

Measures: Accessibility

Indicator:

Limitations: AllTransit contains data for metropolitan areas with a population over 100,000, and the tool may not generate reliable data for more rural locations or tribal areas.



AllTransit

Step 1: Go to the AllTransit website. Enter neighborhood or city information into search bar on the home page

Step 2: Look up Census Tract and/or Census Block Group number and MPO/COG. Click on the arrow next to the city name



Explore over 200 AllTransit™ metrics that reveal the social and economic impact of transit.

JOBS ECONOMY HEALTH EQUITY TRANSIT QUALITY MOBILITY

Enter a location

City: Manteca, CA Fact Sheet

Enter a location

Change Geographic Scope [x] close

City: Manteca, CA
County: San Joaquin, CA
The Stockton-Lodi, CA Metro Area
MPO: San Joaquin COG
Census Block Group: 060770051092
Census Tract: 06077005109

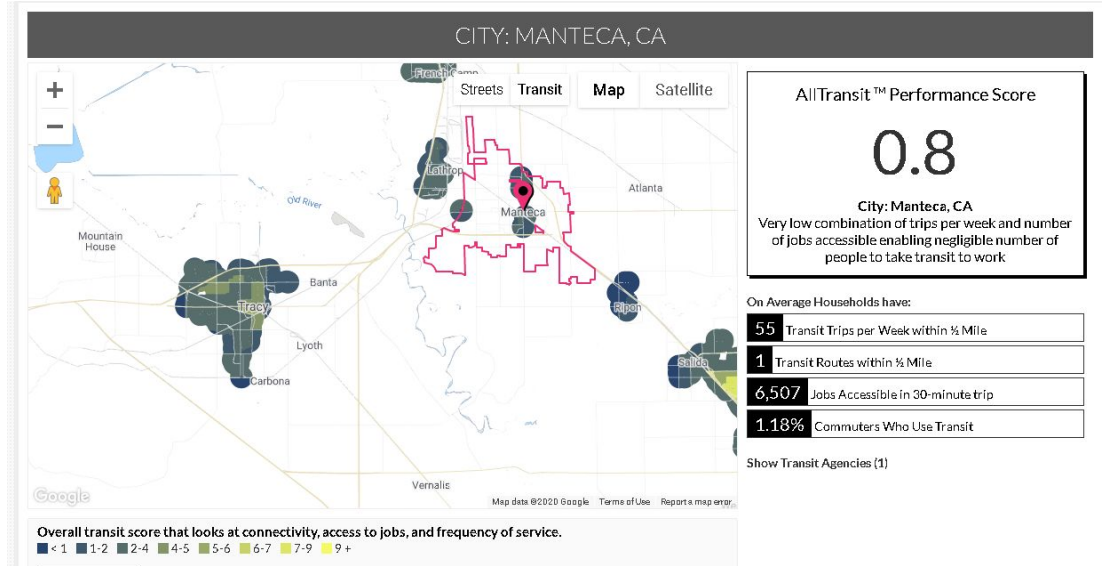
Local Political Districts

California U.S. House Congressional District 10
California State Senate District 5
California Assembly District 12

AllTransit

Step 3: Close the arrow selection and scroll down to view a map and the Performance Score of the address or city entered:

AllTransit™ Performance Score: Overall transit score that looks at connectivity, access to jobs, and frequency of service.



AllTransit

Step 4: Continue to scroll down past the map to view each AllTransit metric:



Jobs

- Transit Access to Jobs
- Transit access to workers
- Jobs nears transit
- Workers near transit

Economy

- Transportation costs
- Transit to customers

Health

- Commute by walking
- Walkable neighborhoods
- Neighborhood form
- Farmers market near transit
- Access to farmers markets

Equity

- Households near transit
- Households near high frequency transit
- Population near transit
- Population near high frequency transit
- Low income Housing Tax Credit (LIHTC)
- LIHTC units near transit

TRANSIT QUALITY

Transit Quality

- Transit performance score
- Transit connectivity index
- Transit access shed
- Transit trips per week

MOBILITY

Mobility

- Commuters
- Commuters near transit
- Carshare location nears transit
- Bikeshare location near transit
- Transit routes within ½ mile
- High frequency transit routes
- Transit stops near transit

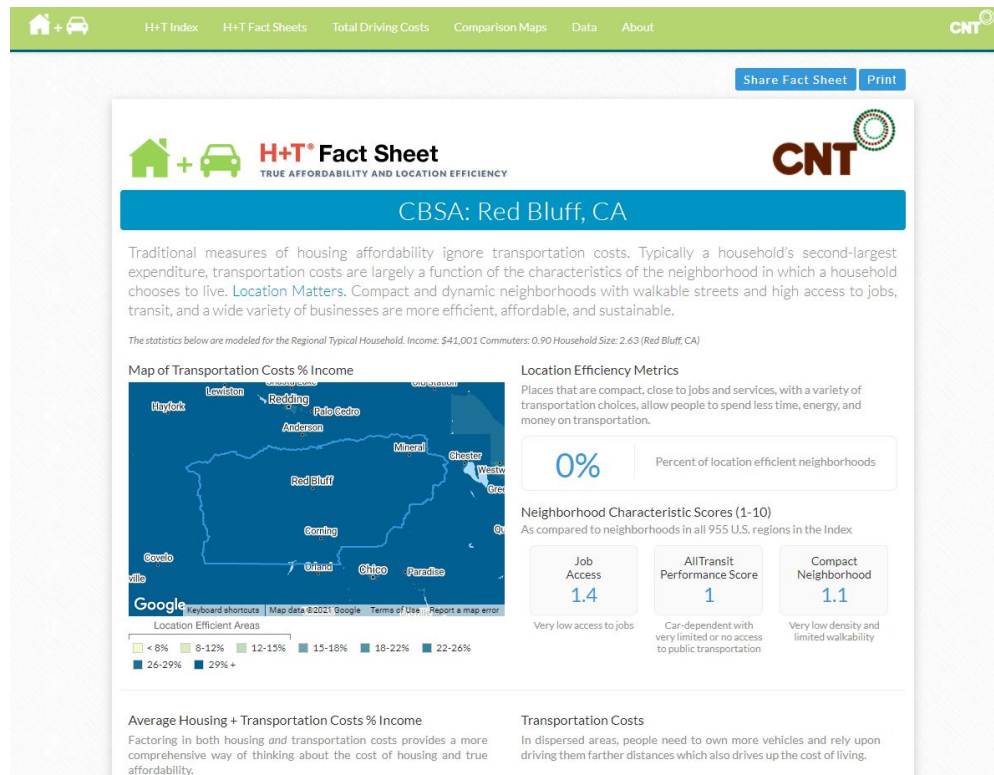
H + T Index

Introduction: This indicator provides details average housing and transportation costs. There is an opportunity to view this data both regionally and nationally for comparison. Census tract, census block group number or MPO/COG can be viewed through the H+T Index

User Guide: [User Guide](#)

Measures: Accessibility, Affordability

Limitations: Note that H+T Index specifically takes into account both housing and transportation costs and sets 45% of income as an affordable cost for households and identifies 26% neighborhoods as affordable.

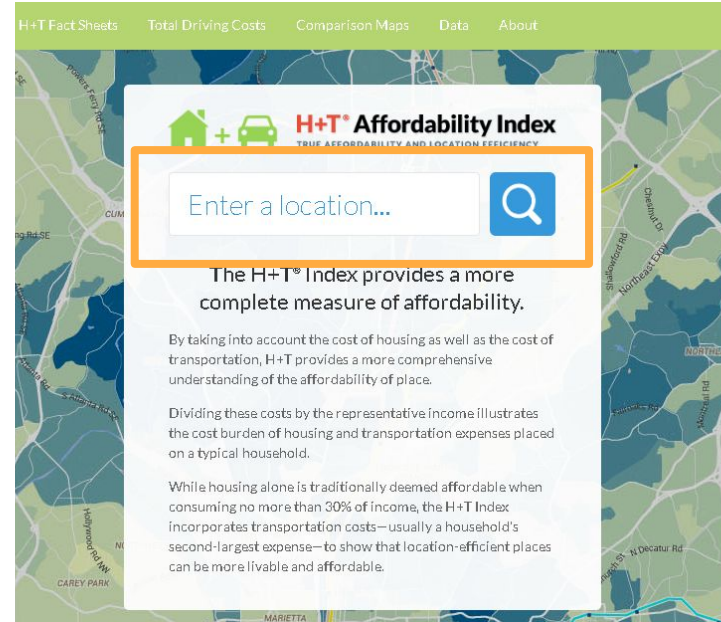


H + T Index

Step 1: Go to H + T Index website and click on “H+T Index”



Step 2: Enter the project location



H + T Index

Step 3: Once the information is entered, data will pop up on the left side of the screen which includes the Census Tract, Census Block Group Number and the name of the local MPO/COG

If this information does not automatically pop up, click the arrow below the name of the location:

lathrop, ca

Municipality: Lathrop, CA

H+T Costs % Income: 67%

Housing: 37% Transportation: 29%

lathrop, ca

- Block Group: 060770051302
- Tract: 06077005130
- Municipality: Lathrop, CA
- County: San Joaquin, CA
- CBSA: Stockton-Lodi, CA
- MPO: San Joaquin COG
- U.S. House District: California Congressional District 9

lathrop, ca

Municipality: Lathrop, CA

H+T Costs % Income: 67%

Housing: 37% Transportation: 29%

Housing + Transportation Costs % Income

Average: 67% Range: 45 - 75

Population	Household	Neighborhood
< 24%	0	0%
24-36%	0	0%
36-45%	0	0%
45-54%	438	2.2%
54-66%	9,423	46.5%
66-78%	10,407	51.3%
78-87%	0	0%
87%+	0	0%
Total	20,268	100%

Household: Regional Typical Regional Moderate National Typical

Income: \$53,274 Commuters: 1.17 workers Household Size: 3.16 people

Map showing Lathrop, CA location.

Housing + Transportation Costs % Income

Legend: < 24% 24-36% 36-45% 45-54% 54-66% 66-78% 78-87% 87%+

H + T Index

Step 4: On the same page, click on “Fact Sheet” to view details, including charts and graphs on the Average Housing + Transportation Costs % Income and general transportation costs

lathrop, ca

Municipality: Lathrop, CA

H+T Costs % Income: 67%
Housing: 37% Transportation: 29%

Housing + Transportation Costs % Income

Fact Sheet

H+T Fact Sheet
TRUE AFFORDABILITY AND LOCATION EFFICIENCY

CNT

Municipality: Lathrop, CA

Traditional measures of housing affordability ignore transportation costs. Typically a household's second-largest expenditure, transportation costs are largely a function of the characteristics of the neighborhood in which a household chooses to live. Location Matters. Compact and dynamic neighborhoods with walkable streets and high access to jobs, transit, and a wide variety of businesses are more efficient, affordable, and sustainable.

The statistics below are modeled for the Regional Typical Household. Income: \$53,274 Commuters: 1.17 Household Size: 3.16 (Stockton-Lodi, CA)

Map of Transportation Costs % Income

Location Efficiency Metrics

Places that are compact, close to jobs and services, with a variety of transportation choices, allow people to spend less time, energy, and money on transportation.

0% Percent of location efficient neighborhoods

Neighborhood Characteristic Scores (1-10)
As compared to neighborhoods in all 955 U.S. regions in the Index

Job Access 0.5 Very low access to jobs	AllTransit Performance Score 1.8 Car-dependent with very limited or no access to public transportation	Compact Neighborhood 3.7 Low density and limited walkability
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Average Housing + Transportation Costs % Income

Factoring in both housing and transportation costs provides a more comprehensive way of thinking about the cost of housing and true affordability.

Transportation Costs

In dispersed areas, people need to own more vehicles and rely upon driving them farther distances which also drives up the cost of living.

Location Efficient Areas

< 8%	8-12%	12-15%	15-18%	18-22%	22-26%	26-29%	29% +
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Transportation Injury Mapping System (TIMS)

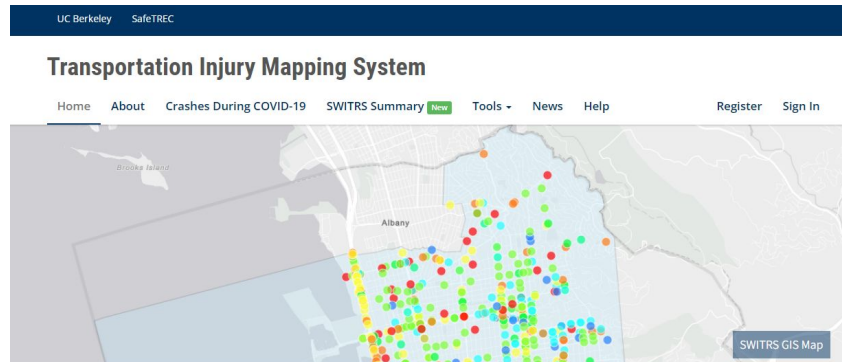
Introduction: TIMS is used to quantify or map bicycle and pedestrian collisions in an area over a period of time, which can identify dangerous streets or intersections for people biking and walking. This tool can also provide data to support or challenge resident attitudes about the safety of biking or walking.

UC Berkeley SafeTREC has a [Tribal Road Safety Program](#) that may have more accurate information for tribes.

User Guide: [Help Document](#)

Measures: Accessibility

Limitations: The data source is the Statewide Integrated Traffic Records System (SWITRS) which is a database of information entered by law enforcement about traffic collisions.



About TIMS

The Transportation Injury Mapping System (TIMS) has been developed over the past five-plus years by SafeTREC to provide quick, easy and free access to California crash data, the Statewide Integrated Traffic Records System (SWITRS), that has been geocoded by SafeTREC to make it easy to map out crashes.

[Learn More](#)

Latest News

- Sep 14 2021 [2019-2020 SWITRS Update](#)
- Jun 15 2021 [2019-2020 SWITRS Update](#)
- Mar 16 2021 [2020 SWITRS Data Added](#)

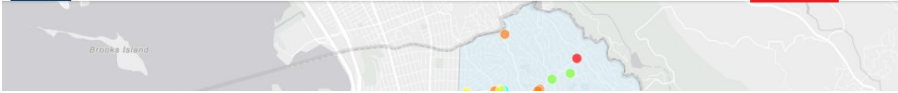
[More News](#)

Transportation Injury Mapping System (TIMS)

Step 1: Go to the Transportation Injury Mapping System data website. Create a free account.

Transportation Injury Mapping System

Home About Crashes During COVID-19 SWITRS Summary **New** Tools ▾ News Help **Register** Sign In



Welcome to TIMS

Transportation Injury Mapping System

Register a new account

Already Signed Up? Click Sign In to login your account.

First Name Last Name

Email

Verify Email

Password
Passwords must contain at least eight characters, including uppercase, lowercase letters and numbers.

Verify Password

Step 2: Once you have an account, log in and select under “Available Tools” - “SWITRS Query and Map”

Available tools

SWITRS Query & Map
A basic tool for accessing fatal or injury crashes from the California Statewide Integrated Traffic Records System (SWITRS).

SWITRS GIS Map
The Geographic Information Systems (GIS) offers an interactive map with capability of multiple tasks including Rank by Intersection, Crash Diagram, etc.

Crash Diagram
The Crash Diagram tool allows users to generate an interactive crash diagram. The Crash Diagram is accessible through SWITRS GIS Map.

SRTS Map Viewer
Provide a pedestrian and bicycle crash map within half-mile radius of public schools in California.

ATP Maps & Summary Data
Utilize multiple crash maps to find pedestrian and bicycle crashes hot spot and generate data summaries within specified project and/or community limits.

Motorcycle Crash Map
Provide a simple means to explore motorcycle crashes in California by selected county and/or city.

Available tools

SWITRS Query & Map
A basic tool for accessing fatal or injury crashes from the California Statewide Integrated Traffic Records System (SWITRS).

By Collision Severity

Number of Collisions by Collision Severity

867 Collisions

Collision Severity

- 1 - Fatal
- 2 - Injury Severe
- 3 - Injury Other Visible
- 4 - Injury Complete or Pains

Transportation Injury Mapping System (TIMS)

Step 3: Specify your date range and location. For TIMS, the data from the previous two years is potentially incomplete, law enforcement has two years to finalize incident reports in SWITRS.

You must first select the County, then City for your project area. You may select the entire county if your project area is

1. Please specify date and location

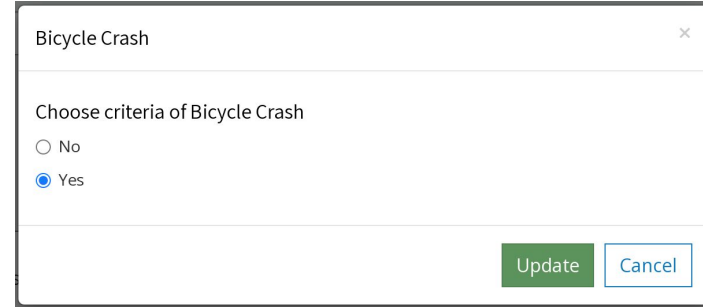
[New Query](#) / [Query by Case ID\(s\)](#) / [Help](#)

Date	01/01/2014	to	12/31/2018	* 2009 to 2020 is available (2019 - 2020 is provisional and subject to change.)
County	Ventura	<input checked="" type="radio"/> City	<input type="radio"/> State Route	City Fillmore Moorpark Ojai Oxnard Port Hueneme Santa Paula Simi Valley

Transportation Injury Mapping System (TIMS)

Step 4: Specify your Crash, Party, and Victim filters. The simplest way to see all crashes involving a pedestrian or bicyclist is click “Crash Filters” and select “Bicycle Crash.”

When the menu pops up that reads “Choose criteria of Bicycle Crash,” select “Yes” and then “Update.”



Bicycle Crash

Choose criteria of Bicycle Crash

No

Yes

Update Cancel

If you also want to find out about crashes involving pedestrians, you can select “Pedestrian Crash” under “Crash Filters and select “yes” in the menu that pops up.

2. (OPTIONAL) Narrow down your results by adding specific filters to the query.



Crash filters - All filters selected

Alcohol Involved Bicycle Crash Crash Severity Day of Week Hit And Run Injured Victims Intersection Killed Victims Lighting Location Type Motor Vehicle Involved...

Motorcycle Crash PCF Violation Pedestrian Action **Pedestrian Crash** Ramp Intersection Road Condition Road Type State Highway Time Truck Crash Type of Crash

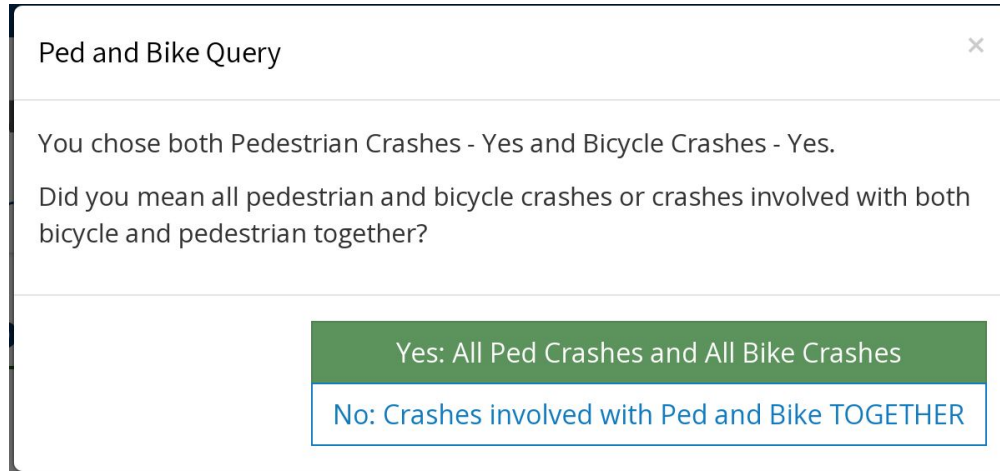
Weather

Transportation Injury Mapping System (TIMS)

Step 5: Select “Show Result.”

A menu will pop up that reads “You chose both Pedestrian Crashes - Yes and Bicycle Crashes - Yes. Did you mean all pedestrian and bicycle crashes or crashes involved with both bicycle and pedestrian together?”

Click “Yes: All Ped Crashes and All Bike Crashes”

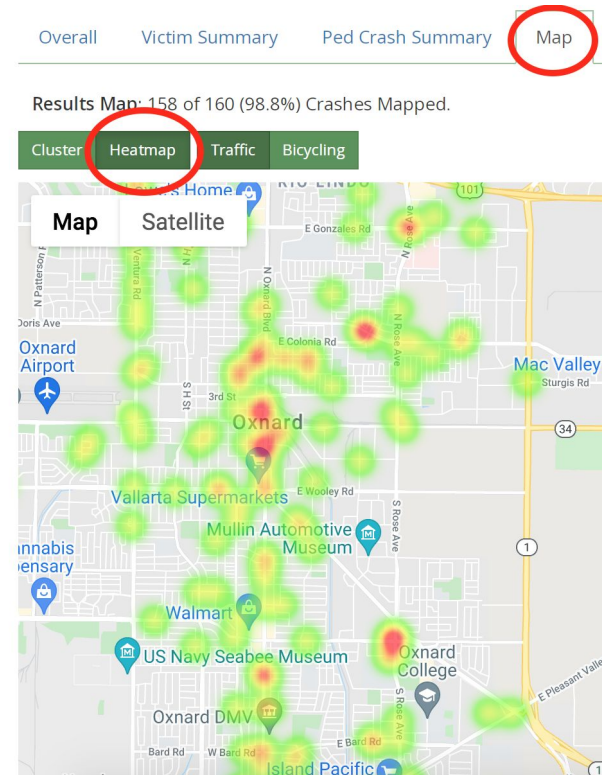


Transportation Injury Mapping System (TIMS)

Step 6: The next window will be the summary of filtered collision data showing bicycle and pedestrian collisions in your selected time span.

Keep in mind that there may be a different number of victims than collisions, and that using this filter alone, you will be including injuries to parties inside of motor vehicles that experience some kind of injury.

You can view this data in a variety of ways, for example as a heat map as shown in the image on the right.



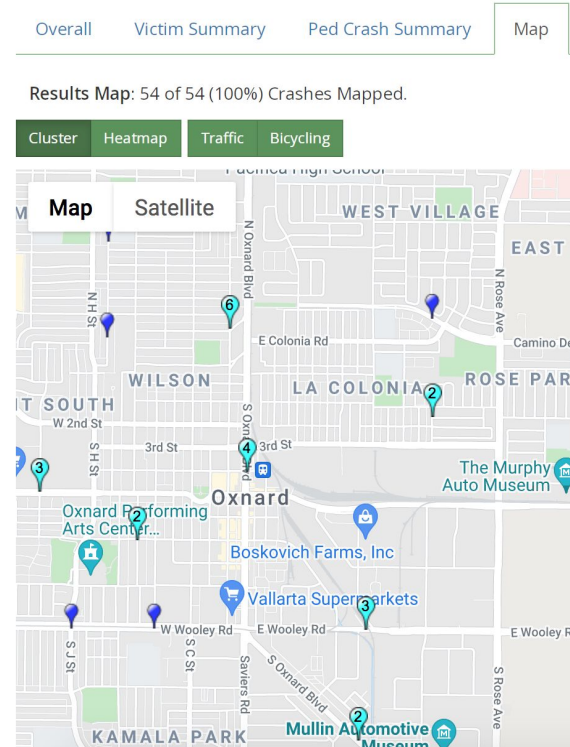
Transportation Injury Mapping System (TIMS)

Or, you can add more filters and view the data differently.

The image on the right shows bicycle and pedestrian collisions filtered for “Crash Severity” to show crashes that were fatal or caused serious injury, presented as clusters.

Step 7: Capturing this data as presented usually requires taking a screenshot of your computer.

Remember to do your best to present the data that is relevant to your project area, zooming in on the map can help you frame your screenshot.



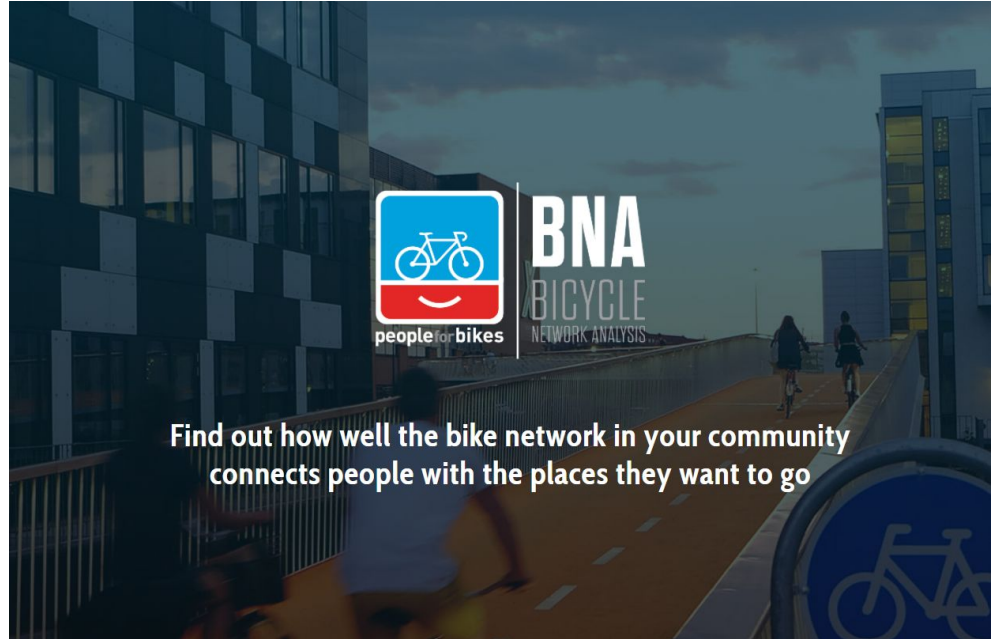
People for Bikes Bicycle Network Analysis (BNA)

Introduction: This tool can help visualize bicycle infrastructure (or lack thereof) in your project area, and see how they connect to destinations like hospitals, dentists, major transit hubs, and more.

User Guide:

Measures: Accessibility, Safety

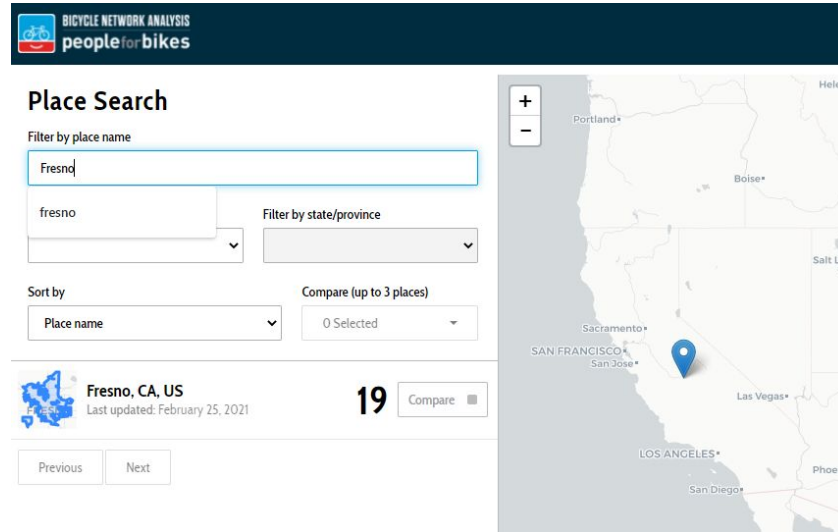
Limitations: The People for Bikes BNA only has information for cities that submitted their data to be included in the People for Bikes City Rankings.



People for Bikes Bicycle Network Analysis (BNA)

Step 1: Go to the People for Bikes BNA website, and select “All Places”

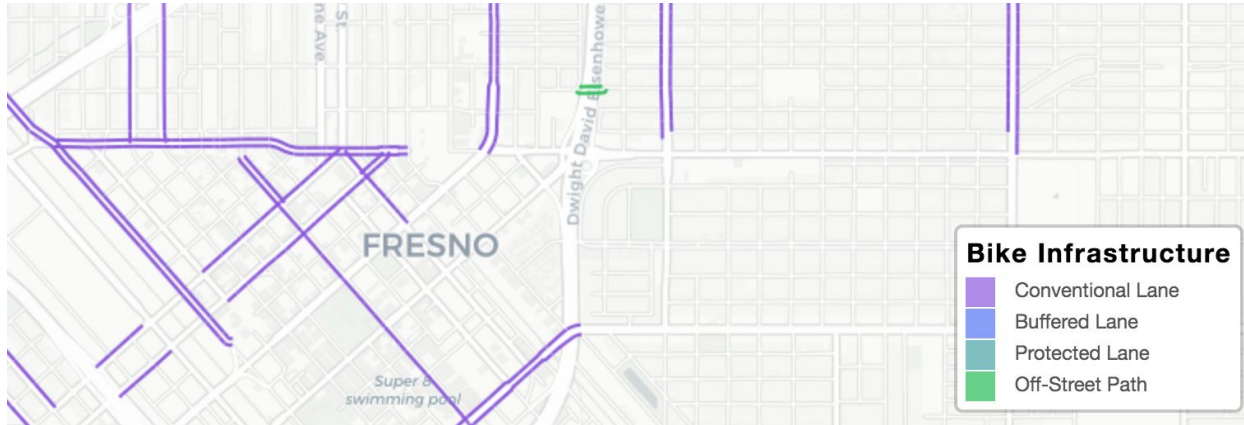
Step 2: Enter the name of the City where your project area is under “Filter Place by Name,” and click on your city if it pops up (note: The People for Bikes BNA only has information for cities that submitted their data to be included in the People for Bikes City Rankings.)



The screenshot displays the 'BICYCLE NETWORK ANALYSIS' website interface. At the top left is the 'peopleforbikes' logo. The main section is titled 'Place Search'. It features a search bar with 'Fresno' entered, a dropdown menu showing 'fresno', and a 'Filter by state/province' dropdown. Below this are 'Sort by' and 'Compare (up to 3 places)' options. The search results for 'Fresno, CA, US' are shown, including a small map of California, the text 'Last updated: February 25, 2021', a large number '19', and a 'Compare' button. Navigation buttons for 'Previous' and 'Next' are at the bottom left. On the right, a map of the United States shows a blue location pin over Fresno, California, with labels for various cities like Portland, Boise, Sacramento, San Francisco, San Jose, Los Angeles, San Diego, Las Vegas, Phoenix, Salt Lake City, and Helena.

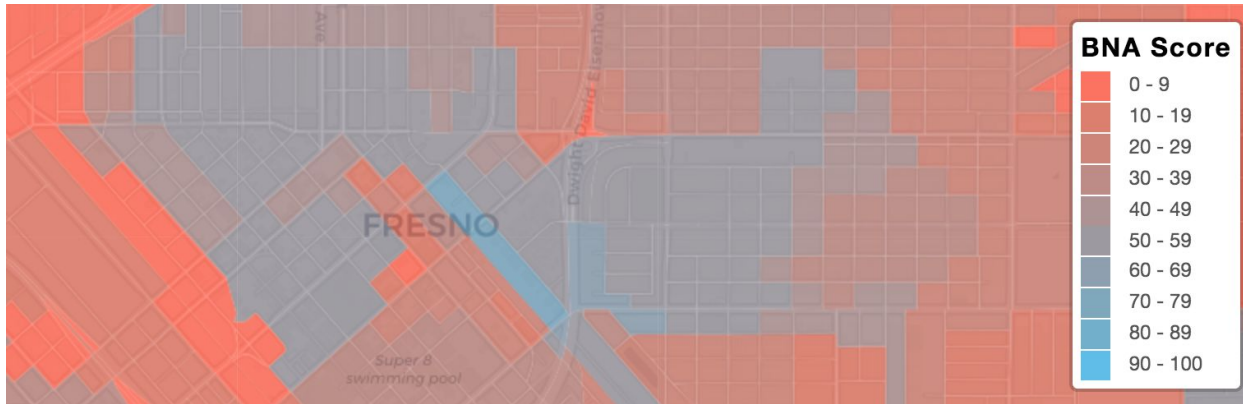
People for Bikes Bicycle Network Analysis (BNA)

The Bike Infrastructure selection will show bike lanes of each Class on the map. Note this does not include Class III Bike Lanes: those marked with signage or on-street markings (sharrows):



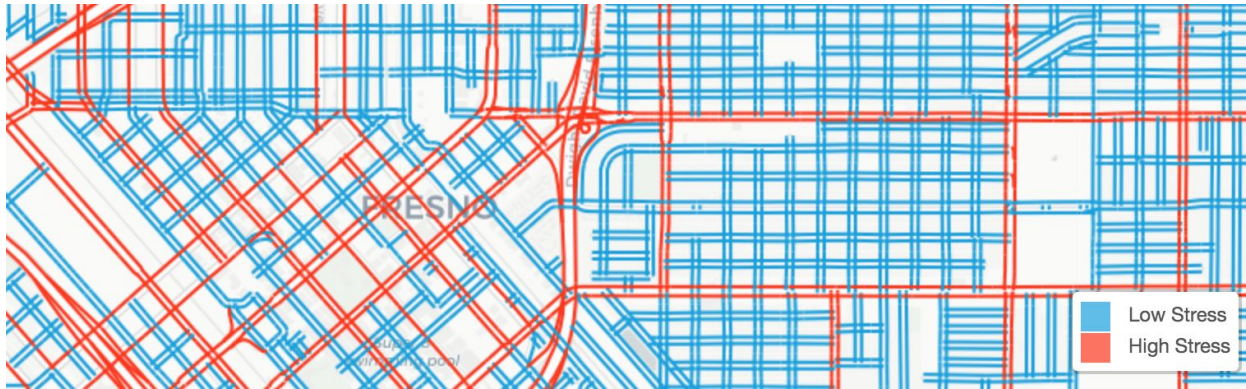
People for Bikes Bicycle Network Analysis (BNA)

The Census Blocks with access selection shows the BNA score for Census Blocks. The BNA score combines several data sets to assess the bikeability of that area. More information on the BNA scoring methodology can be found [here](#). Below is an example of how it appears:



People for Bikes Bicycle Network Analysis (BNA)

The Stress Network is meant to convey the comfort level of a typical adult that has an interest in riding bikes (so, not a daily commuter) would have riding their bike. Factors here include traffic speeds, bicycle infrastructure, and other street characteristics. It is broken down into two categories of “High Stress” and “Low Stress”:



Step 4: Capturing this data as presented usually requires taking a screenshot of your computer. Do your best to present the data that is relevant to your project area, zooming in on the map can help you frame your screenshot.

On-the-Ground and Local Data Collection

On-the-ground strategies to supplement and complement transportation access data sources

Walk or Bike Audits

Introduction: Walk or bike audits are a systematic approach to measuring the safety and accessibility of walking and biking infrastructure within a community. This may be a helpful way to validate or verify potentially outdated or inaccurate information from other transportation access data sources.

User Guides: [Walkability Checklist \(NHTSA\)](#); [Walk Audit Guide \(SRS\)](#); [Bikeability Checklist \(NHTSA\)](#)

Measures: Accessibility

Limitations: This process does take a lot of time and requires training potential staff or volunteers to conduct the audits and record the information correctly.



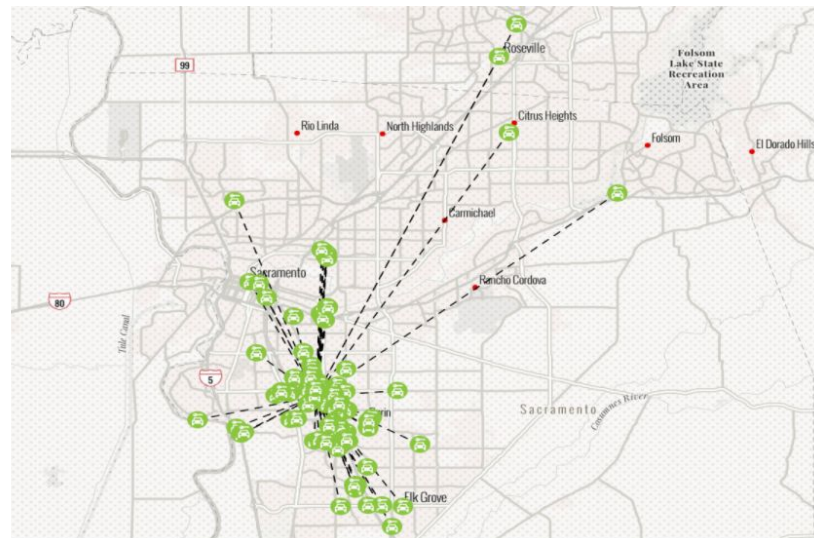
Community or Asset Mapping

Introduction: Community or asset mapping is a strategy that allows community members to identify information such as areas of concern, important locations they frequently visit, observations on public transit stops, or commutes to work or school.

User Guides: [Asset Mapping Guide \(LISC\)](#); [Asset Mapping Guide \(UCLA\)](#)

Measures: Accessibility, Reliability, Affordability

Limitations: This process does take a lot of time, potentially requires a facilitator to lead the mapping activity, and outreach and engagement to community members. This can be conducted either online or in-person.



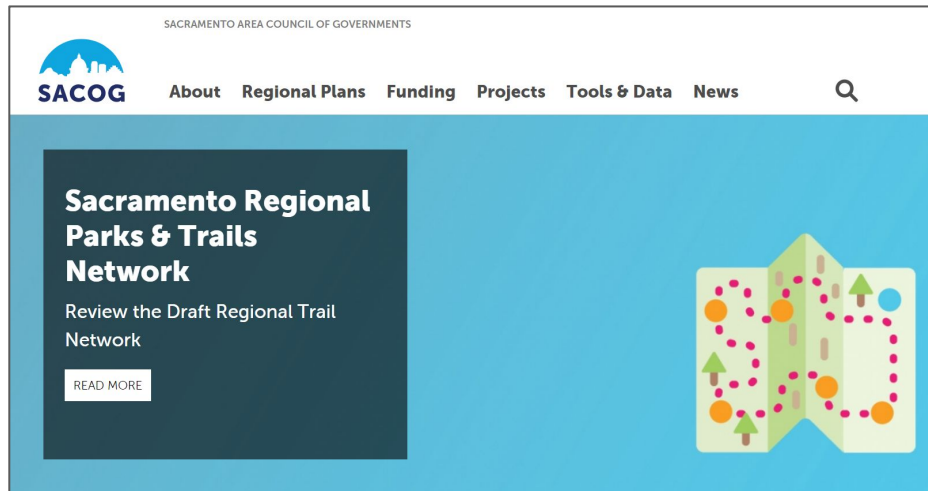
Metropolitan Planning Organizations & Council of Governments (MPOs & COGs)

Introduction: MPOs and COGs are government entities that support regional planning for housing, transportation, economic development, and population growth. MPOs or COGs often have reports or surveys outlining all the available transportation options in the proposed project area along with feedback from users about their service. MPOs and COGs can be found when searching an address in [AllTransit](#) or [H & T Index](#).

User Guide: [MPO and RTCA Map \(CalTrans\)](#)

Measures: Accessibility

Limitations: Any information provided in reports or in surveys may have a different scope or goals than your needs assessment.



Local Transit Provider

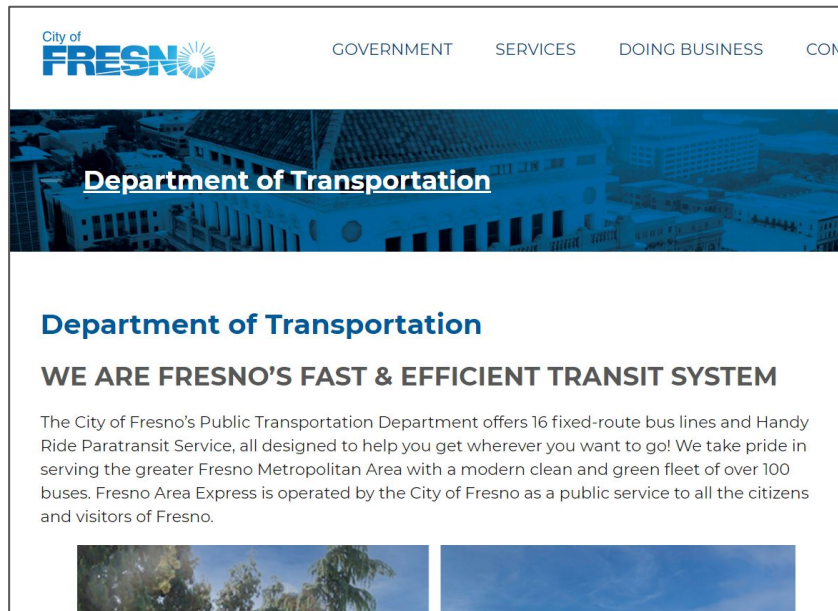
Introduction: Local transit providers also collect information from their users and may have insights to share. They may have publicly available existing data sets that track how often their services are unavailable or late. If their datasets are not available to the public, applicants can inquire about any strategies or plans they have to address these potential issues.

AllTransit lists transit agencies. After searching for an address, select “Show Transit Agencies (#)”

American Public Transit Association also provides a list of transit providers by county and city.

Measures: Accessibility, Reliability, Affordability

Limitations: Any information provided in reports or in surveys may have a different scope or goals than your needs assessment.



The screenshot shows the City of Fresno website's Department of Transportation page. At the top, the City of Fresno logo is on the left, and navigation links for GOVERNMENT, SERVICES, DOING BUSINESS, and COM are on the right. Below the navigation is a blue-tinted image of a city building with the text "Department of Transportation" overlaid in white. Underneath this is a heading "Department of Transportation" in blue, followed by a sub-heading "WE ARE FRESNO'S FAST & EFFICIENT TRANSIT SYSTEM" in bold black. The main text describes the city's public transportation services, including 16 fixed-route bus lines and Handy Ride Paratransit Service, and mentions a fleet of over 100 buses. At the bottom of the page, there are two small images: one of trees and a blue sky, and another of a blue sky.

On-the-Ground Observations

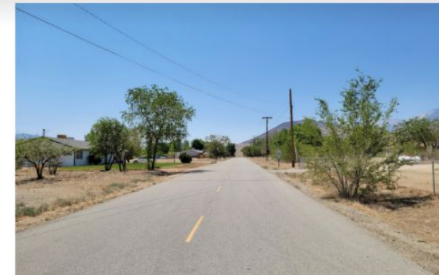
Introduction: Similar to a walk audit however with a less systematic or methodical approach, have a staff or team member take photographs and write down observations. While a walk audit or bike audit focuses on sidewalks, crosswalks, bike lanes and streets, on-the-ground observations can have other focus areas such as on bus rides, at transit stations, at major intersections, etc.

Measures: Accessibility, Reliability, Affordability

Limitations: As a more ad-hoc method of data collection through photographs or written observations, it may be easy to have gaps in understanding if not planned or structured



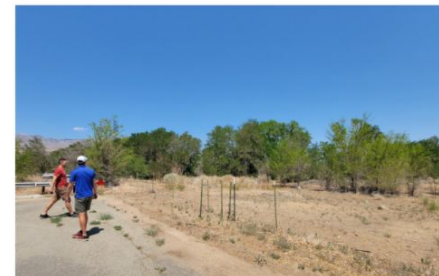
Missing sidewalks and bike facilities along School Street



Possible sidewalks along Watson Street



Opportunity for multi-use path along Baker Ln



Opportunity for multi-use path and creek crossing

Additional Data Sources

Additional data sources that may provide a more comprehensive understanding of transportation gaps

AAA Gas Cost Calculator

Introduction: This calculator provides the average cost per week for fueling a vehicle.

User Guide:

Measures: Affordability

Limitations: Only provides pre-selected starting and ending locations and uses the national average price of gas.

The screenshot shows the AAA Gas Prices website. At the top, there is a navigation bar with the AAA logo and the text "GAS PRICES". To the right of the logo are links for "About AAA", "Join AAA", "Visit AAA", and "Contact Us", along with social media icons for Facebook, Twitter, YouTube, Google+, LinkedIn, and Instagram. Below the navigation bar is a dark blue header with the text "GAS PRICES", "GAS COST CALCULATOR", "NEWS", "TOP TRENDS", and "CONTACT AAA", followed by a search bar. The main content area is titled "AAA GAS COST CALCULATOR". On the left, there is a red circular badge that says "Today's AAA National Average" and "\$3.338", with "Price as of 12/9/21" below it. To the right of the badge are two sections: "WHERE ARE YOU GOING?" and "WHAT ARE YOU DRIVING?". The "WHERE ARE YOU GOING?" section has three dropdown menus labeled "A Select starting location", "B Select destination", and "C Add additional destination". The "WHAT ARE YOU DRIVING?" section has dropdown menus for "Make", "Year", and "Model", followed by "or" and a dropdown for "MPG", and a blue "Calculate" button. At the bottom of the page is a wide landscape photograph of a coastline with a blue ocean, a sandy beach, and a rocky cliffside under a clear blue sky.

Food Access Research Atlas

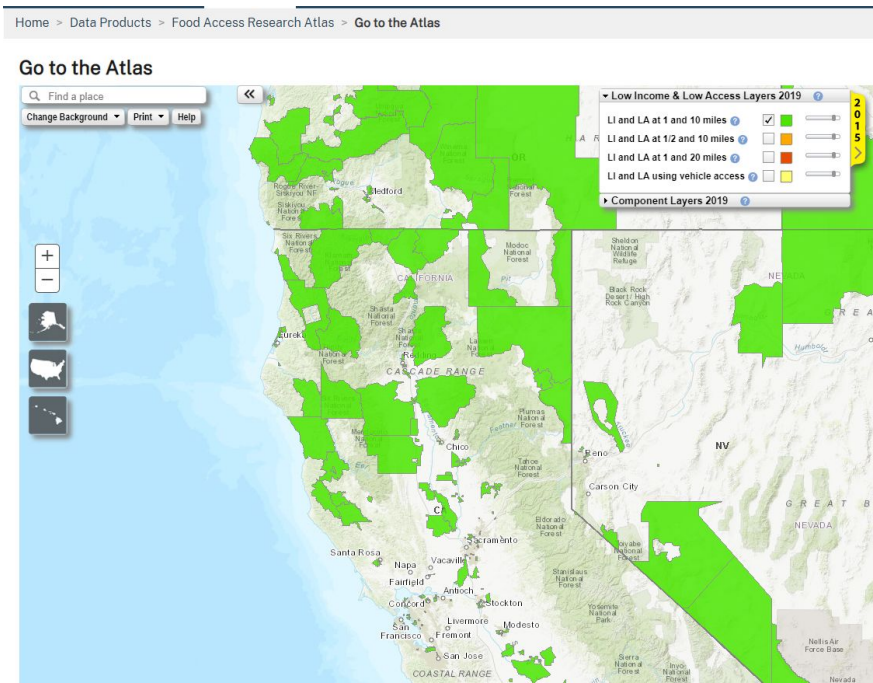
Introduction: This tool shows areas where there is limited food access as defined by proximity to food stores which includes large grocery stores, supermarkets and supercenters.

User Guide: [Food Access Research Atlas Interactive Guide](#)

Measures: Accessibility

Limitations: This does not account for military commissionaires, warehouse club stores, dollar stores, convenience stores, drug stores, or farmers markets.

Recommended Citation: Economic Research Service (ERS), U.S. Department of Agriculture (USDA). Food Access Research Atlas, <https://www.ers.usda.gov/data-products/food-access-research-atlas/>



Park Access Tool

Introduction: This tool shows 2020 neighborhood-level park access through two methods. One shows neighborhood areas without a park within a half mile distance. The second shows the ratio of park acres per thousand residents.

User Guide: Park Access Methods

Measures: Accessibility

Indicator: Park Access

Limitations: The park access tool looks at the distance to parks and does not evaluate the quality or size of parks.

Parks for All Californians
Local Park Access Planning and Grants

Home Park Access SCORP About

Park Access Tool

The California Department of Parks and Recreation is proud to provide 2020 neighborhood-level park access and demographic information. Two standard methods are available to help identify areas in need of additional parks.

Living within a half mile of a park

- Left map: Identifies neighborhood areas that do not have a park within a half mile.

Park acres per one thousand residents

- Right map: Displays the ratio of park acres per thousand residents. For a more specific analysis of a potential project site, use the Community FactFinder

City, county, congressperson, representative, region

Find your state or congressional representatives by typing their names.
Or find everyone in a given chamber by typing "Senate".

Get GIS Data

21% of residents of California live further than a half mile from a park. [Methods](#)

61% of residents of California live in areas with less than 3 acres of parks or open space per 1,000 residents. [Methods](#)

Medford* Eureka* Chico* Reno* Carson City* Sacramento* SAN FRANCISCO* Oakland* San Jose* NEVADA

STREETS SATELLITE

California School Campus Database

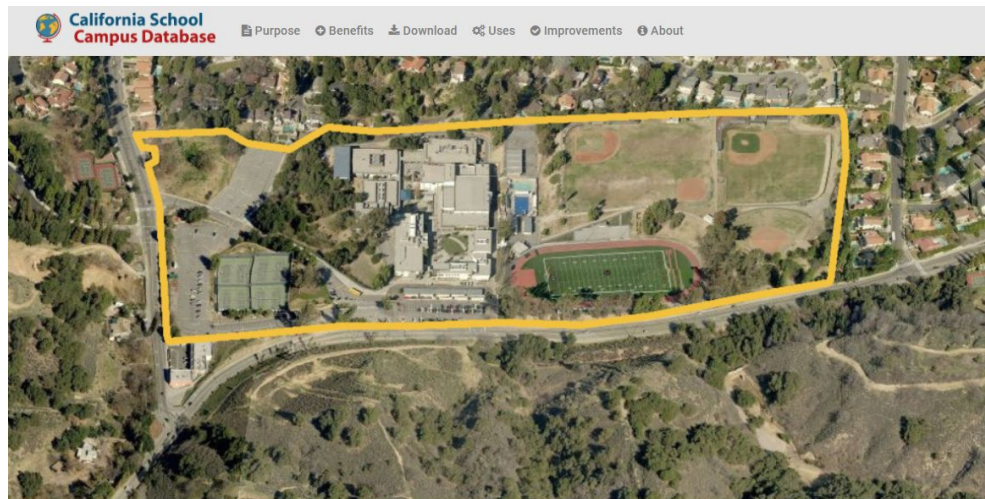
Introduction: This GIS dataset shows all public schools and universities in California.

User Guide: [California School Campus Database Manual](#) (March 2021)

Measures: Accessibility

Indicator: School Access

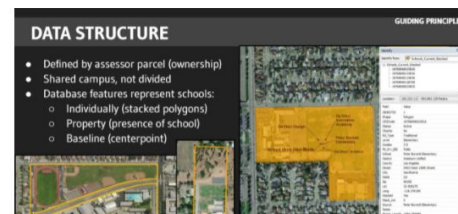
Limitations: Only shows the location of schools campuses. There is no built-in analysis or spatial comparison points. Need to be used with other information to show insights.



The **California School Campus Database (CSCD)** is now available for all public schools and colleges/universities in California.

CSCD is a GIS data set that contains detailed outlines of the lands used by public schools for educational purposes. It includes campus boundaries of schools with kindergarten through 12th grade instruction, as well as colleges, universities, and public California community colleges. Each is accurately mapped at the assessor parcel level. CSCD is the

California School Campus Database (CSCD) Introduction



Zero Emission Vehicle and Infrastructure Statistics

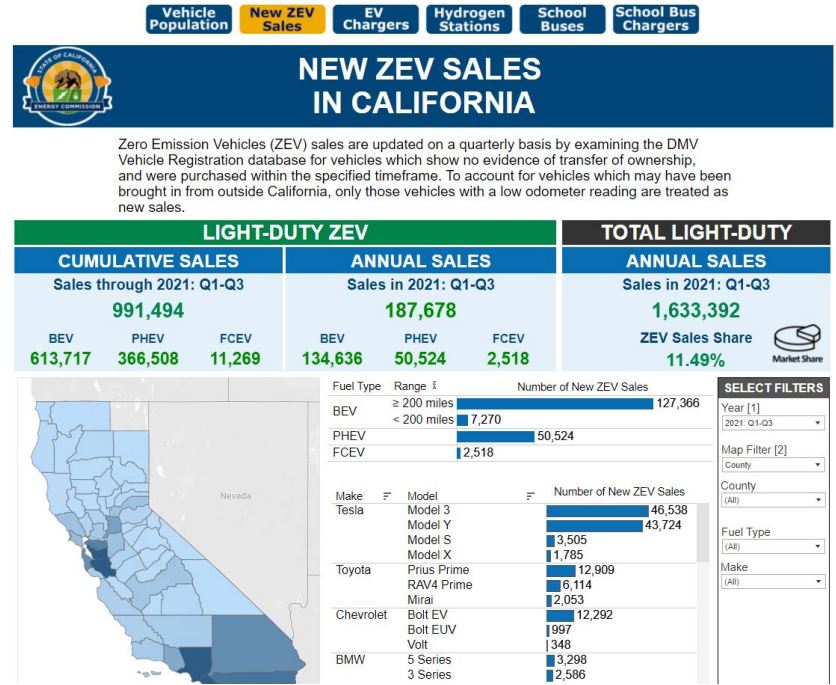
Introduction: This dashboard shows electric vehicle (EV) population, EV sales, EV chargers, and hydrogen refueling stations. The dashboard shows other breakdowns such as zero emission vehicle (ZEV) population and non-ZEV population, and specific makes and models of vehicles.

Measures: Accessibility, Reliability

Indicator: ZEV Access, Charger Access

Limitations: Only shows data by county, zip code or metropolitan statistical area (MSA).

Recommended Citation: California Energy Commission (2021). California Energy Commission Zero Emission Vehicle and Infrastructure Statistics. Data last updated [insert date last updated]. Retrieved [insert date retrieved] from <https://www.energy.ca.gov/zevstats>



Alternative Fuels Center Data

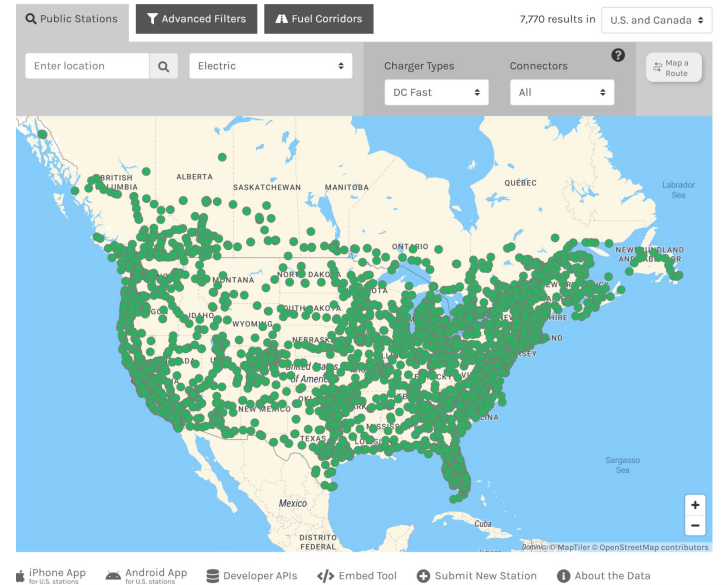
Introduction: The National Renewable Energy Laboratory (NREL) collaborates with industry groups to maintain an open database of ‘alternative’ fueling stations. While mainly for electric vehicles, this also includes stations using natural gas, biodiesel, ethanol, hydrogen, and propane.

Measures: Accessibility, Reliability

Indicator: Charger Access

Limitations: New station data in the Alternative Fueling Station Locator is submitted on a rolling basis while existing stations are verified at least annually. NREL recommends using secondary sources to verify a station open and available to the public.

Recommended Citation: Alternative Fuels Data Center. 2021b. “Alternative Fueling Station Locator.” Retrieved [insert date retrieved] from <https://afdc.energy.gov/stations/#/find/nearest>



The California Healthy Places Index (HPI)

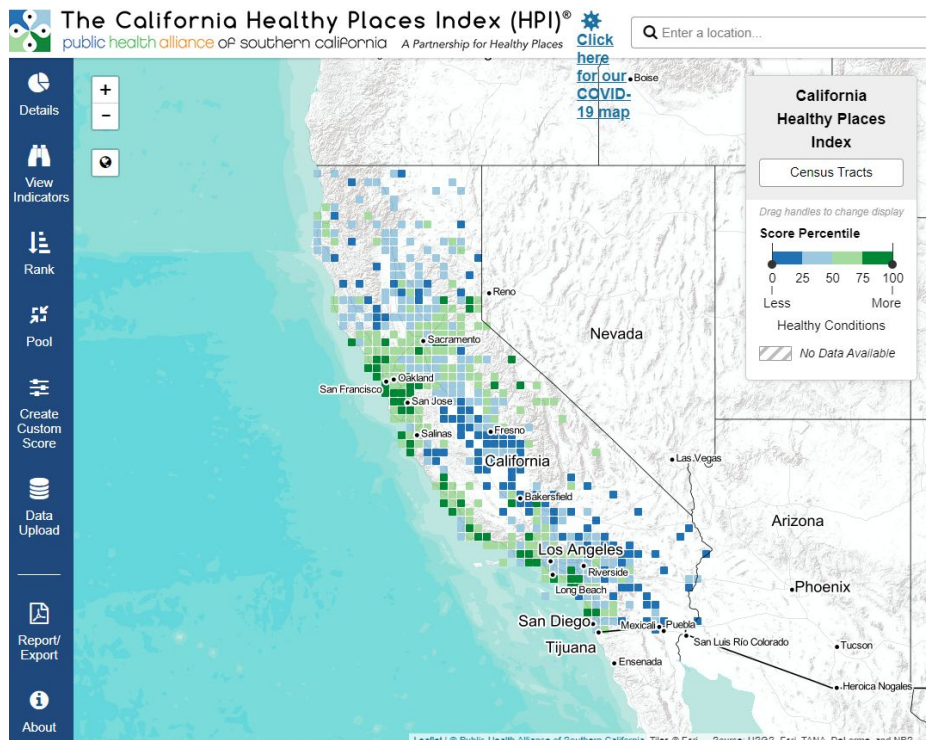
Introduction: The Health Places Index tool uses various local indicators to develop a healthy places index score for communities on the census tract level that captures health impacts from housing, transportation, education, and other local factors.

How-To Videos: [Get Started](#)

User Guide: [Healthy Places Index \(HPI 2.0\) Technical Report \(April 2021\)](#)

Measures: Accessibility

Limitations: The HPI tool measures and compares many indicators and factors across California so it may not capture rural and tribal area as accurately.



National Equity Atlas

Introduction: The National Equity Atlas summarizing key economic indicators in the largest 100 cities and 150 regions.

User Guide: Getting Started (May 2021)

Measures: Accessibility, Affordability

Limitations: The National Equity Atlas may not be as applicable to smaller jurisdictions, and rural and tribal communities.

The screenshot shows the National Equity Atlas website. At the top, the title "National Equity Atlas" is on the left, and a navigation menu with a search icon and links for "Indicators", "Research", "Lab", "Data in Action", and "About" is on the right. Below the navigation are six content tiles arranged in a 2x3 grid:

- Indicators:** A photo of a young boy and girl smiling. Below the photo is the word "Indicators".
- Research:** A photo of a city skyline at sunset. Below the photo is the word "Research".
- Racial Equity Data Lab:** A photo of a large crowd of people holding signs. Below the photo is the text "Racial Equity Data Lab".
- ANALYSIS:** A dark blue tile with the text "September 28, 2021: Fewer and Fewer Small Businesses Are Getting Federal Contracts" and a photo of a woman working at a desk.
- ANALYSIS:** A dark blue tile with the text "Rent Debt Dashboard" and a photo of people holding "STOP EVICTIONS HOUSING IS THE CURE" signs.
- PROJECT:** A dark blue tile with the text "Advancing Workforce Equity" and a photo of a young man studying at a desk with a bar chart overlay.

Transportation Disparities Mapping Tool (Draft)

Introduction: UCLA developed a method and produced a statewide Transportation Disparities Mapping Tool that shows transportation disparities for communities in California through various factors and indicators. Based on multiple data sources, the tool includes over three dozen indicators that fall into five categories: transportation, accessibility, sociodemographics, housing, and health.

User Guide: [Transportation Disparities Mapping Tool User Guide \(May 2021\)](#); [Full Report \(March 2022\)](#)

Measures: Accessibility, Reliability, Affordability

