





















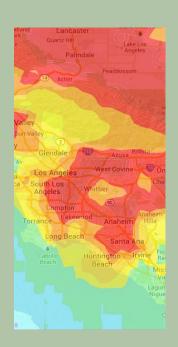


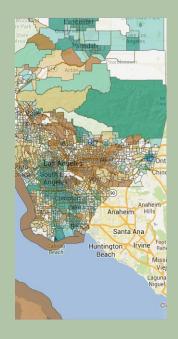
Community Resilience Mapping Tool

User Manual

SAHANA









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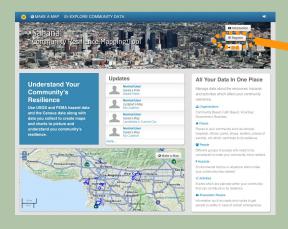
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Getting Started

To use Sahana, go to:

http://lacrmt.sahanafoundation.org

The Sahana Community Resilience Mapping Tool allows you to make maps and charts to picture and understand you community's resilience. It combines different sources of data about the people, hazards and places in your community along with your own Community Data which you can add and update.



And register an account

First Name: *			
not ramo.			
Last Name:			
E-mail: *	normaluser@example.com	1	
Password: *	•••••		
	You must enter a minimum o	f 4 characters	
Verify Password:			
*			
Organization:			\$
Coalition:		\$	
	Register Lo	gin	

For training and experimentation you can use the Sahana Demo Site:

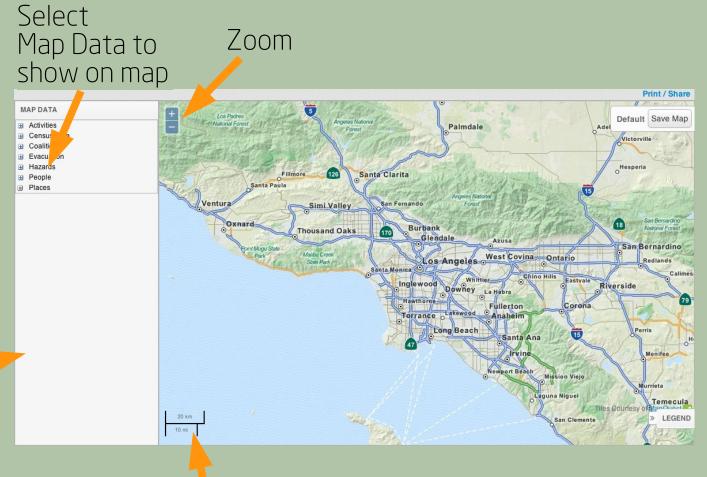
http://demo.lacrmt.sahanafoundation.org/

SAHANA BASICS

Make a Map

Sahana's interactive map allows you to explore different types of data.

You can make maps that show and compare information about the people, hazards and places in your coalition.



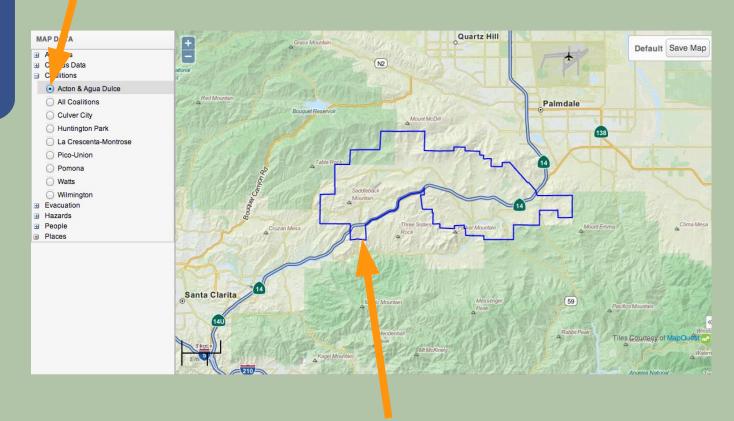


Scale

Maps: Coalitions

You can display the outline of your coalition on the map.

Coalition selected



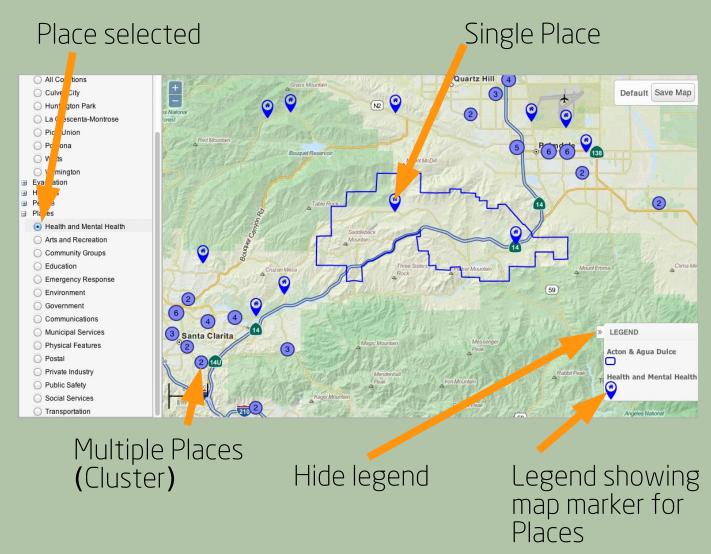
Coalition outline

Maps: Places

You can show different types of places on the map.

EXAMPLE:

Health and Mental Health Clinics

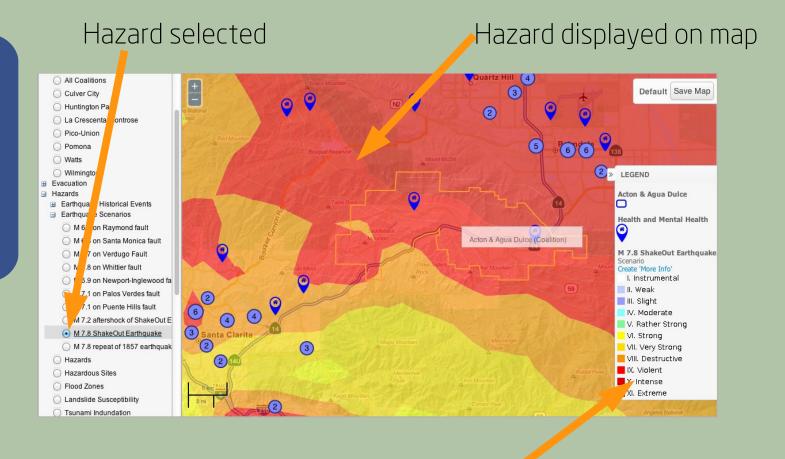


Maps: Hazards

You can show how different hazards might affect your community

EXAMPLE:

The intensity shake map of the 7.8
ShakeOut Earthquake scenario in the Acton Aqua Dulce community



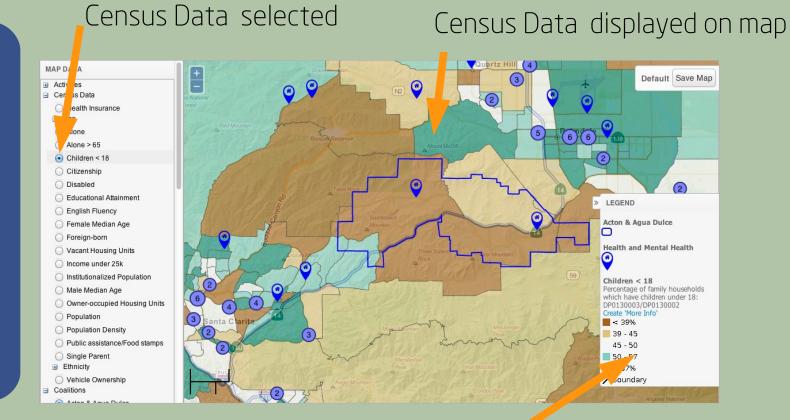
Legend explaining how the Hazard is displayed on the map

Maps: Census Data

You can map census data to show concentrations of different populations in your community

EXAMPLE:

This map shows the percent of households with children under 18

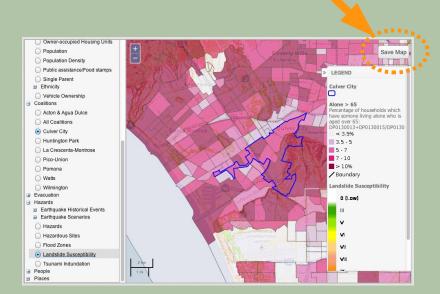


Legend explaining how the Census Data is displayed on the map

Save a Map

Once you have selected data to make a map, you can save it to review later or share with others.

- Make a map
- Click "Save Map"



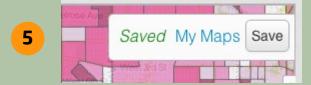
Name of Map
Save

Save as New Map?

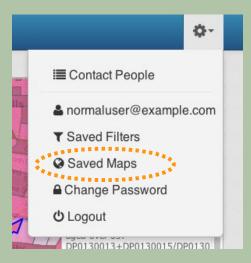
Enter a name for the map



Click "Save"



Map Saved



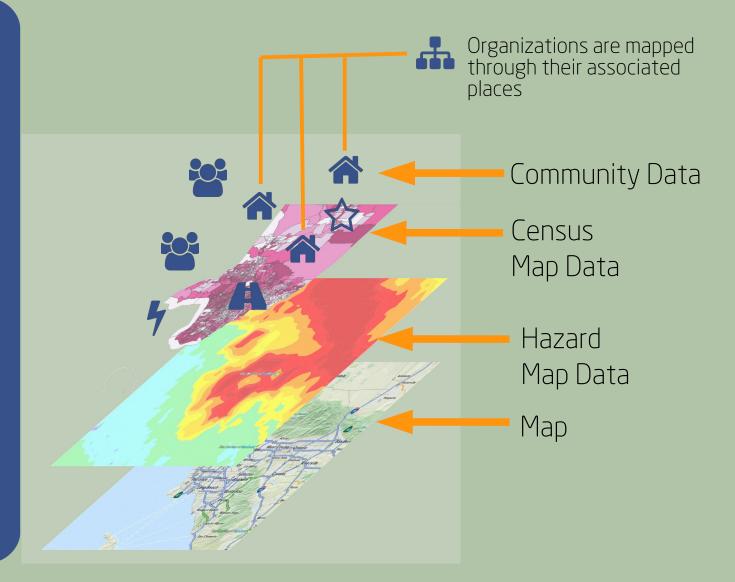
On the menu go to "Saved Maps" to see all your saved maps

Community Data

You can explore, update and add your own Community Data in Sahana. There are a number of different types of Community Data.

Sahana allows you to show Community Data on the map along with other Map Data such US Census and USGS Data.

Some community data has been added from outside sources, but if you have data you would like to add, please contact michael@sahanafoundation.org



Community Data Types



Organizations

Community Based, Faith Based, Volunteer, Government, Business which can serve as resources to your community



Places

Find the places in your community such as schools, hospitals, offices, parks, shops and shelters which contribute to its resilience



People

Identify the different groups of people who live in your community



Hazards

View the environmental factors or situations which pose as dangers to your community



Activities

Track the events which are planned within your community that will help strengthen it in the face of disasters



Evacuation Routes

Identify the roads and routes to get people to safety in case of certain emergencies.

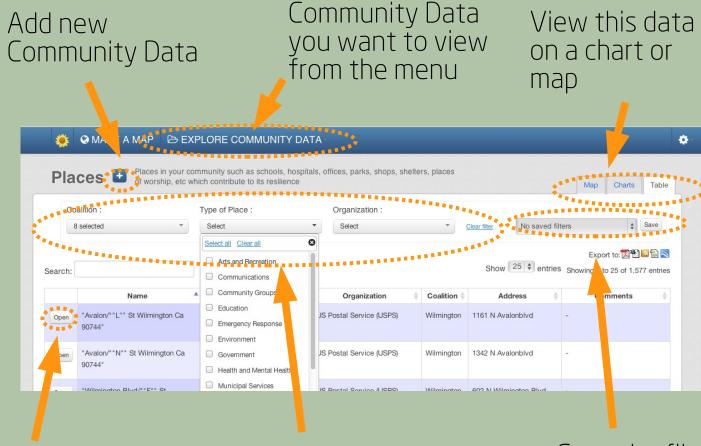
Community Data Table

From the menu you can select each type of Community Data to view on a table.

From this page you are able to filter, update and add data as well as view it on a chart or map.

EXAMPLE:

This table shows all of the places that exist in the coalitions. Use the filters to select specific coalitions or types of places to view.



Select what

Open for more details or to update

Filter the table to view specific Community Data

Save the filter to reuse later

Community Data Charts

The charts allows you to compare each of the different types of Community Data.

EXAMPLE:

This chart shows the number of different types of places in the coalitions. Select what you Change the filter to select View this data want to show only some of the places on a table or map on the chart to view on the chart



Show table of chart data

Chart of Community Data

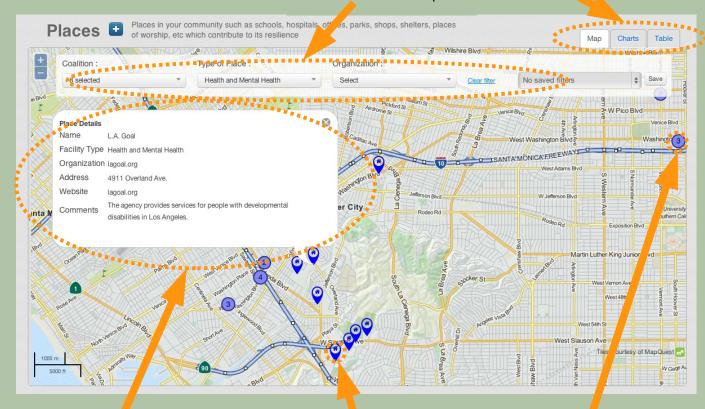
Community Data Map

The map allows you to see where each of the different types of Community Data are located.

EXAMPLE:

This chart shows the number of different types of places in the coalitions View this data on a table or chart

Filter the map



Popup showing details for a place

Location of a place

Location of multiple place

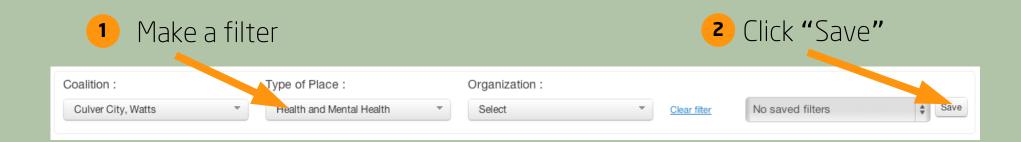
Save a Filter

Filters can be used to show a smaller selection of **Community Data.**

EXAMPLE:

- Only Places from Culver City and Watts
- Only Health and Mental Health Places

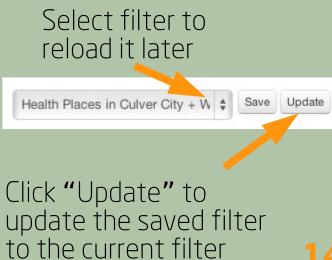
Once you have made a filter by selecting the coalitions and types of data you want to see you can save this filter to review later or share with others to gain a better understanding of your community's resilience.



3 Enter a name for the filter

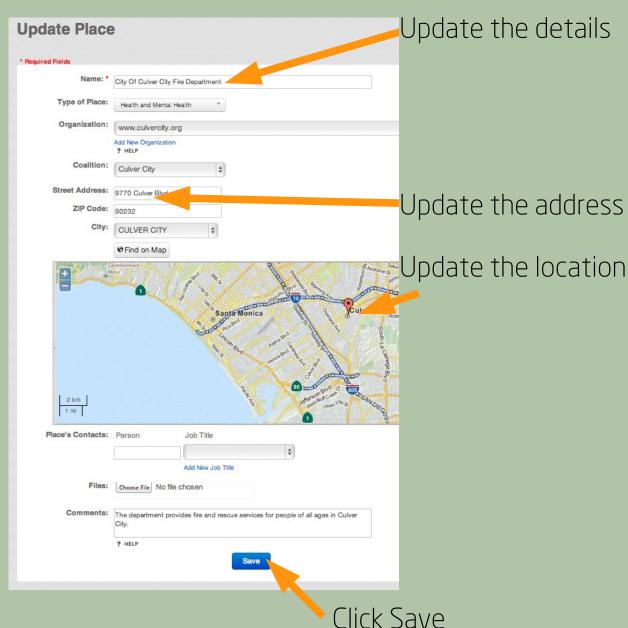


Click Save icon



Update Community Data

You can update you coalition's Organizations, Places, People, Hazards, Activities and Evacuation Routes which have been added.



Add Community Data

? HELP

You can add new Organizations, Places, People, Hazards, Activities and Evacuation Routes as Community Data to Sahana.

If you have existing data in your own databases or spreadsheets, please contact michael@sahanafoundation.org

Add Place

*Required Fields
Name: *

Type of Place: Select

Organization:

Coalition:

Street Address:

ZIP Code:

City: Select City

Find on Map

Place's Contacts: No entries currently available

Files: Choose File No file chosen

Comments:

Enter the details

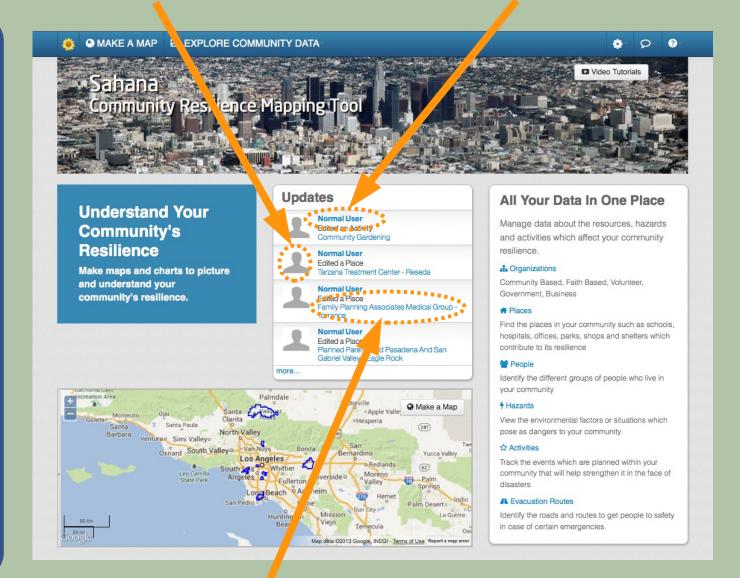
Click Save

Updates

User Profile Photo

User Name

Sahana keeps a track of all updates, added community data and saved maps and filters made by users and shares this on the homepage with your coalition and other users.



HOW TO USE SAHANA

Expanding Your Coalition

With Sahana you can record your coalitions partners, identify gaps in the sectors they represent and services they provide.

Update or add organizations that are members of your coalition

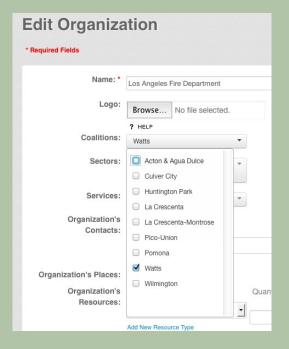
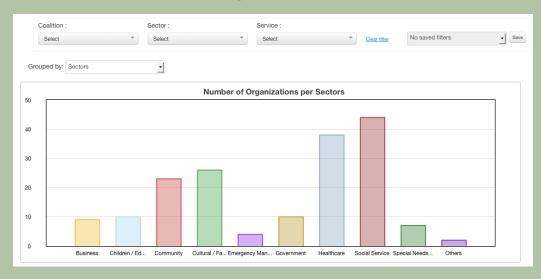


Chart of organization sectors



Filtered by your coalition to identify gaps



Mapping Vulnerable Groups

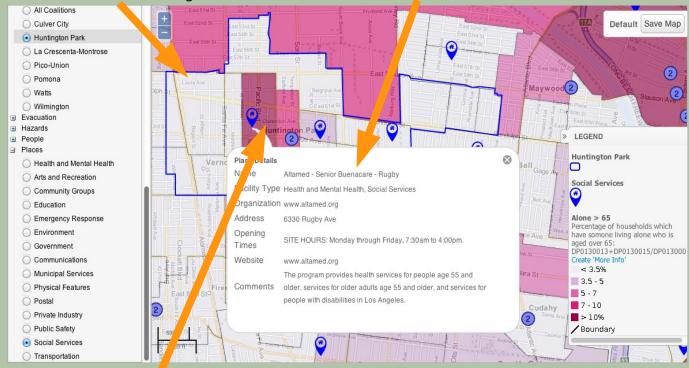
Sahana can be used to identify areas with vulnerable groups and find nearby resources.

Coalitions can now engage nearby resources or organizations to ensure that the vulnerable groups are included in resilience planning.

EXAMPLE:

In Huntington Park there is a area with a higher concentration of people over 65 living alone.

Sahana can be used to find nearby places that could connect with these people. Coalition Details of AltaMed Center that could boundary connect with people living alone



Area in the coalition with more people over 65 living alone

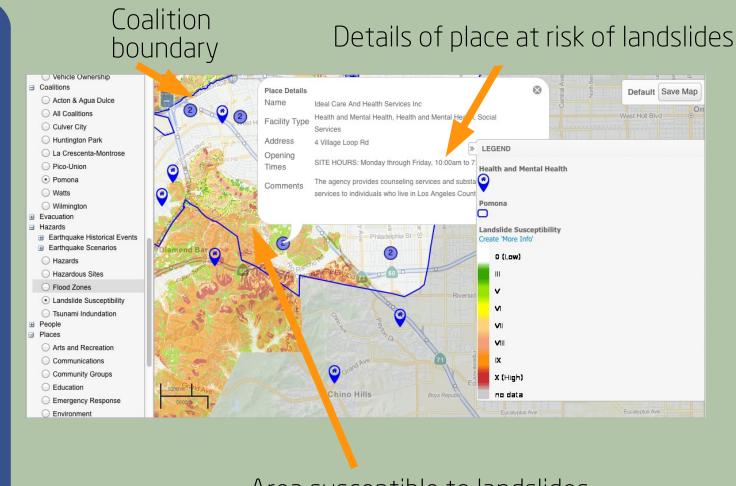
Mapping Hazards

Sahana can be used to identify places which could be affected by hazards.

Coalitions can then engage these organizations to ensure that they are aware of any risks and to take appropriate steps to mitigate them.

EXAMPLE:

From this map we can see that Ideal Care And Health Services Inc is located in a part of Pomona that is susceptible to landslides.

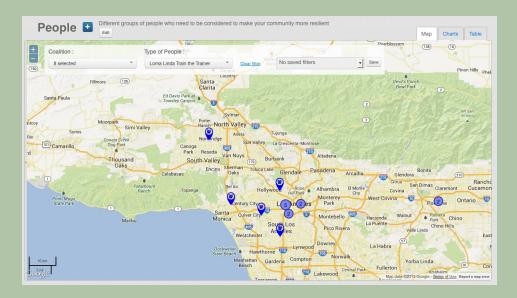


Managing Trainings

Coalitions can use Sahana to record training activities and the number of trained people to track their progress and ensure that enough people are being trained throughout the County.

This can help track the people who are engaged in community resilience.

Map showing locations of trainings



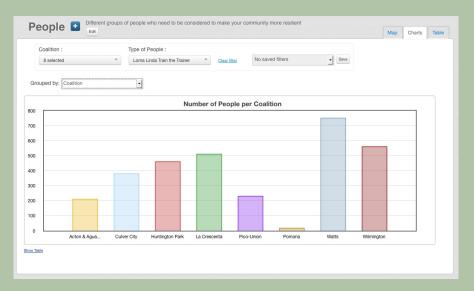
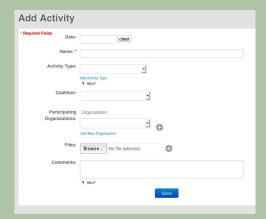


Chart comparing the number of trained people in different coalitions

Tracking Outreach

Coalitions can use Sahana to record outreach activities and the number of people they have engaged Add outreach activities to Sahana



Compare the number of outreach activities between coalitions



MAP DATA

This is a list of all the data that can be displayed on the map in Sahana and the source of that data.

Category	Sub- Category	Name	Description	Source Name	Source URL
Places		Locations / Points of Interest		LA County	http://egis3.lacounty.gov/da taportal/2011/03/24/locatio nspoints-of-interest-lms- data/
Census Data	Age	Age < 5	Percentage of population aged under 5	2010 Census	http://www.census.gov/201 0census/
Census Data	Age	Age 5-19	Percentage of population aged between 5 and 19	2010 Census	http://www.census.gov/201 0census/
Census Data	Age	Age 20-39	Percentage of population aged between 20 and 39	2010 Census	http://www.census.gov/201 0census/
Census Data	Age	Age 40-64	Percentage of population aged between 40 and 64	2010 Census	http://www.census.gov/201 0census/
Census Data	Age	Age 65-79	Percentage of population aged between 65 and 79	2010 Census	http://www.census.gov/201 0census/
Census Data	Age	Age > 80	Percentage of population aged over 80	2010 Census	http://www.census.gov/201 0census/

Category	Sub- Category	Name	Description	Source Name	Source URL
Census Data	Ethnicity	American Indian or Alaskan	Percentage of population which is American Indian or Alaskan native and not Hispanic or Latino	2010 Census	http://www.census.gov/201 Ocensus/
Census Data	Ethnicity	Asian non- Hispanic	Percentage of population which is Asian and not Hispanic or Latino	2010 Census	http://www.census.gov/201 0census/
Census Data	Ethnicity	Black non- Hispanic	Percentage of population which is Black or African American and not Hispanic or Latino	2010 Census	http://www.census.gov/201 0census/
Census Data	Ethnicity	Children < 18	Percentage of family households which have children under 18	2010 Census	http://www.census.gov/201 0census/
Census Data	Ethnicity	Hawaiian or Pacific Islander	Percentage of population which is Native Hawaiian or Pacific Islander and not Latino	2010 Census	http://www.census.gov/201 0census/
Census Data	Ethnicity	Hispanic or Latino	Percentage of population which is Hispanic or Latino	2010 Census	http://www.census.gov/201 0census/
Census Data	Ethnicity	White non- Hispanic	Percentage of population which is White and not Hispanic or Latino	2010 Census	http://www.census.gov/201 0census/
Census Data		Population	Population	2010 Census	http://www.census.gov/201 0census/

Category	Sub- Category	Name	Description	Source Name	Source URL
Census Data		Population Density	Population per square mile of land	2010 Census	http://www.census.gov/201 0census/
Census Data		Alone	Percentage of households which have somone living alone	2010 Census	http://www.census.gov/201 Ocensus/
Census Data		Alone > 65	Percentage of households which have somone living alone who is aged over 65	2010 Census	http://www.census.gov/201 Ocensus/
Census Data		Citizenship	Percentage of population which is not a US Citizen	American Community Survey 2011	http://www2.census.gov/acs 2011_1yr/summaryfile/
Census Data		Disabled	Percentage of civilian non-institutionalized population which has a Disability	American Community Survey 2011	http://www2.census.gov/acs 2011_1yr/summaryfile/
Census Data		Educational Attainment	Percentage of population over 25 without a degree	American Community Survey 2011	http://www2.census.gov/acs 2011_1yr/summaryfile/
Census Data		English Fluency	Percentage of population over 5 which Speak English less than 'very well'	American Community Survey 2011	http://www2.census.gov/acs 2011_1yr/summaryfile/
Census Data		Foreign-born	Percentage of population which is foreign-born	American Community Survey 2011	http://www2.census.gov/acs 2011_1yr/summaryfile/
Census Data		Health Insurance	Percentage of civilian non-institutionalized population which has no health insurance	American Community Survey 2011	http://www2.census.gov/acs 2011_1yr/summaryfile/

Category	Sub- Category	Name	Description	Source Name	Source URL
Census Data		Income under 25k	Percentage of households with an Income In The Past 12 Months of less than 25,000 (2011 Inflation- Adjusted) Dollars	American Community Survey 2011	http://www2.census.gov/acs 2011_1yr/summaryfile/
Census Data		Institutionalize d Population	Percentage of population which is institutionalized	2010 Census	http://www.census.gov/201 Ocensus/
Census Data		Male Median Age	Male Median Age	2010 Census	http://www.census.gov/201 0census/
Census Data		Female Median Age	Female Median Age	2010 Census	http://www.census.gov/201 Ocensus/
Census Data		Owner- occupied Housing Units	Percentage of occupied housing units which are owner-occupied	2010 Census	http://www.census.gov/201 Ocensus/
Census Data		Public assistance/Foo d stamps	Percentage of households which were in receipt of Public Assistance Income Or Food Stamps/Snap in the Past 12 Months	American Community Survey 2011	http://www2.census.gov/acs 2011_1yr/summaryfile/
Census Data		Single Parent	Percentage of households which have a single parent	2010 Census	http://www.census.gov/201 Ocensus/
Census Data		Vacant Housing Units	Percentage of housing units which are vacant	2010 Census	http://www.census.gov/201 0census/
Census Data		Vehicle Ownership	Percentage of households which don't have access to a vehicle	American Community Survey 2011	http://www2.census.gov/acs 2011_1yr/summaryfile/

Category	Sub- Category	Name	Description	Source Name	Source URL
Hazards	Earthquake Historical Events	Northridge, 1994	Actual Earthquake	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/Northridge
Hazards	Earthquake Historical Events	San Fernando, 1971	Actual Earthquake	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/San_Fernando
Hazards	Earthquake Historical Events	Whittier Narrows, 1987	Actual Earthquake	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/Whittier_Narrows
Hazards	Earthquake Historical Events	Sierra Madre, 1991	Actual Earthquake	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/Sierra_Madre
Hazards	Earthquake Historical Events	Diamond Bar, 2008	Actual Earthquake	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/14383980
Hazards	Earthquake Scenarios	M 6.7 on Verdugo Fault	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/Verdugo6.7_se
Hazards	Earthquake Scenarios	M 7.2 aftershock of ShakeOut Earthquake	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/ShakeOut2_AS2_se
Hazards	Earthquake Scenarios	M 7.8 ShakeOut Earthquake	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/shakeout2_full_se
Hazards	Earthquake Scenarios	M 7.1 on Puente Hills fault	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/Puente_Hills_se
Hazards	Earthquake Scenarios	M 6.5 on Raymond fault	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/Raymond6.5_se

Category	Sub- Category	Name	Description	Source Name	Source URL
Hazards	Earthquake Scenarios	M 6.8 on Whittier fault	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/Whittier6.8_se
Hazards	Earthquake Scenarios	M 7.8 repeat of 1857 earthquake on San Andreas fault	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/1857_se
Hazards	Earthquake Scenarios	M 7.1 on Palos Verdes fault	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/Palos_Verdes7.1_se
Hazards	Earthquake Scenarios	M 6.9 on Newport- Inglewood fault	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/Newport_Inglewood6.9 _se
Hazards	Earthquake Scenarios	M 6.6 on Santa Monica fault	Scenario	USGS	http://earthquake.usgs.gov/ earthquakes/shakemap/sc/s hake/StaMonica6.6_se
Hazards		Flood Zones	FEMA FIRM (Flood Insurance Rate Maps) from 2013-04-16	FEMA Flood Zones	http://dpw.lacounty.gov/wmd/floodzone/
Hazards		Landslide Susceptibility		California Geological Survey	ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/MS58/Susdata.zip
Hazards		Tsunami Indundation	Potential Tsunami Indundation Area	California Geological Survey	http://www.quake.ca.gov/g maps/WH/tsunamimaps.htm