2/22/2023 8:51 AM
Ctrl-F to find text
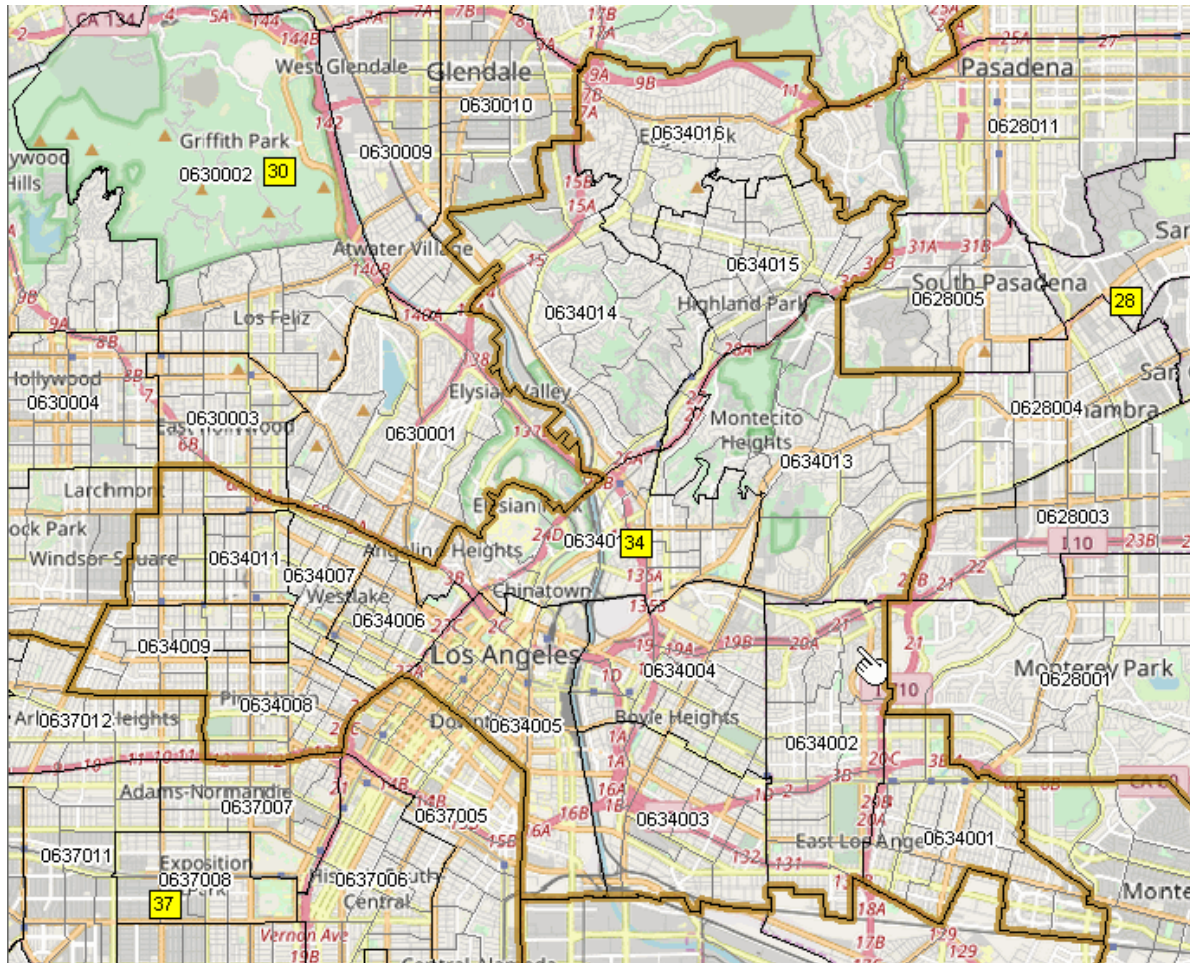F5 to reload page

Congressional Communities

a guide to examining Congressional Communities using VDA Web GIS

Visual Data Analytics Web Geographic Information System (VDA Web GIS)

A view of Congressional Communities and California Congressional District 34

the power of maps

Congressional Communities cover the U.S. and are subdivision of 118th Congressional Districts

Congressional Communities are developed and coordinated by Congressional Communities, a not-for-profit non-partisan civic engagement organization seeking to increase communication between Representatives and their constituents

Welcome to Congressional Communities!

We hope you will find the following pages helpful in showing you how the organizational structure that we are bringing to Congressional Districts will help communities, members of Congress, data scientists, journalists, academic researchers, advocacy groups, and average people learn more about the make-up of America.

We are out to educate members of various communities – not only the geographical ones that we identify in our creation of Congressional Communities (or CCs), but ones that revolve around issues and policy – with the goal that when we have fully built out a network of active CCs, that people advocating for change on any issue at all will have an identifiable audience to engage.

The goal of this page is to provide users with a tremendous amount of flexibility in setting the parameters for the datasets they are seeking to create and explore, in order to provide insights to their readers and audiences that might otherwise remain hidden from view.

We have a deep faith in the power of the individual to do good and to do good research. We are confident that giving as many people as possible access to these tools will benefit us all.

Dan Carracino
CEO
Congressional Communities, Inc.

Executive Summary

Overview: Congressional Communities, Inc., a 501(c)3 public charity, will grow into a national organization with the goal of fostering increased dialog between citizens and their representatives in Congress. We believe the current House representation model is bursting at the seams – members represent too many constituents, with no organization at the district level. This has led most Americans to disengage from meaningful discourse with their member of Congress, leaving a void often filled by extremes from both sides.

The Problem: The framers of the U.S. Constitution set out to have one representative for every 30,000 to 60,000 citizens. Over the past 230 years, the country's population has exploded while the number of seats in the House of Representatives has been fixed at 435 since 1929. Today, the average Congressional District has a population of over 750,000. Most citizens never have any contact with their elected representative. Meanwhile, members of Congress must vote on hundreds of pieces of legislation, spend more time meeting with special interest groups than with average voters, have a surprisingly small staff, and have no tool to figure out how the people they represent want them to vote.

Our Solution: We have organized each existing Congressional District into 15-20 Congressional Communities ("CC"). Each CC is drawn in a manner that retains neighborhood cohesiveness and contain approximately 30,000 to 60,000 constituents. The CCs will host regular meetings to discuss issues of importance, presented in a manner that welcomes all viewpoints. These meetings will offer constituents the opportunity to interact with their elected Congressperson or a member of their staff. The goal of each CC is to help the electorate determine the issues of importance to their community and to provide reliable and actionable information about those issues in order to give the average voter a meaningful way to make their voice heard. Our plan does not increase the number of members in Congress, it simply brings much needed organization to the existing Congressional districts.

Organizational Structure: Congressional Communities, Inc. is the non-profit national organization that will oversee and provide support to the local CCs. Our organization divides Congressional Districts into smaller CCs, and will provide workshops and materials that can be used at meetings. We will also maintain a national marketing and coordination presence.

Each CC will have an advisory board comprised of members from the community who (a) work with the national Organization to figure out the issues most important to the community; (b) help members of the community determine specific concrete goals for each issue area; (c) set up task forces for each issue; (d) find people to fill various roles in the community, (e) coordinate communication between the community and Congress member's staff, local government, and other communities inside and outside the district, and (f) manage finances. While we want the CCs to work closely with their member of Congress and his or her staff, it is important that the CCs retain their independence and are not controlled by their member of Congress. In other words, CCs will not be asking the government for funding.

Proof of Concept: Our National Coordinator, Dan Carracino, started the first CC in 2018 in the Laguna Beach part of California's 48th Congressional District. You can read about it here. The pandemic put a halt to our development of additional CCs. But with nearly 150 people attending the first meeting a member of Congress had had in our town in at least three decades, we are confident that Americans hunger for a way to improve communication with Congress.

About this Document
This document reviews the scope of how you can use Geographic Information Systems (GIS) applications to gain insights into Congressional Community geographic, demographic, economic patterns. Drill-down to your CC(s) to learn more about CC, Congressional District (CD) and other geographic level demographics, which help you collaborate with constituents and stakeholders. See more about GIS.

Audience and Use. This document is intended for those who have an interest in Congressional Communities but may not be familiar with geographic or demographic data concepts or use. Users of this document might have no experience with GIS or be very experienced with GIS use. The central idea is to enable anyone to use the data and tools reviewed here to better make your voice heard in context of a Congressional Community. Best usage of this document is as a guide while proceeding through steps with the Congressional Communities GIS project using Visual Data Analytics Web Geographic Information System (VDA Web GIS). Access this document online via http://proximityone.com/cc/ccgis.pdf.

Videos in this document
 Navigation basics

Topics .. click a link to go to that section

- 00 Introduction

- 01 Using the Congressional Communities GIS Project
       .. describing step-by-step operations
       .. navigation basics

- 02 Examining My Congressional District
       .. see how you can examine your congressional district

- 03 Examining Congressional Community residents at risk from toxic substances
        .. reviewing a real example

 - 04 Congressional Communities "GIS Project" purpose, structure, content
        .. describing the structure of the GIS project

About VDA GIS
VDA Web GIS is a Web-based Geographic Information System that may be accessed with only a Web browser; nothing to install; GIS experience not required. VDA Web GIS has been developed and is maintained by Warren Glimpse, ProximityOne (Alexandria, VA) and Takashi Hamilton, Tsukasa Consulting (Osaka, Japan).

About Congressional Communities
Congressional Communities (CCs) are geographic areas that nest within Congressional Districts. CCs have been developed by Congressional Communities, Inc., a non profit organization. A methodology developed by Congressional Communities has been applied to develop the CCs as sets of census blocks based on geographic, demographic, economic and other criteria.

Support Using these Resources
Learn more about accessing and using demographic-economic data and related analytical tools. Join us in a Web session. Each informal session is focused on a specific topic. The open structure also provides for Q&A and discussion of application issues of interest to participants. join in the every Thursday web session for demos. Q&A, problem solving; get custom answers to your specific questions.

00 Introduction

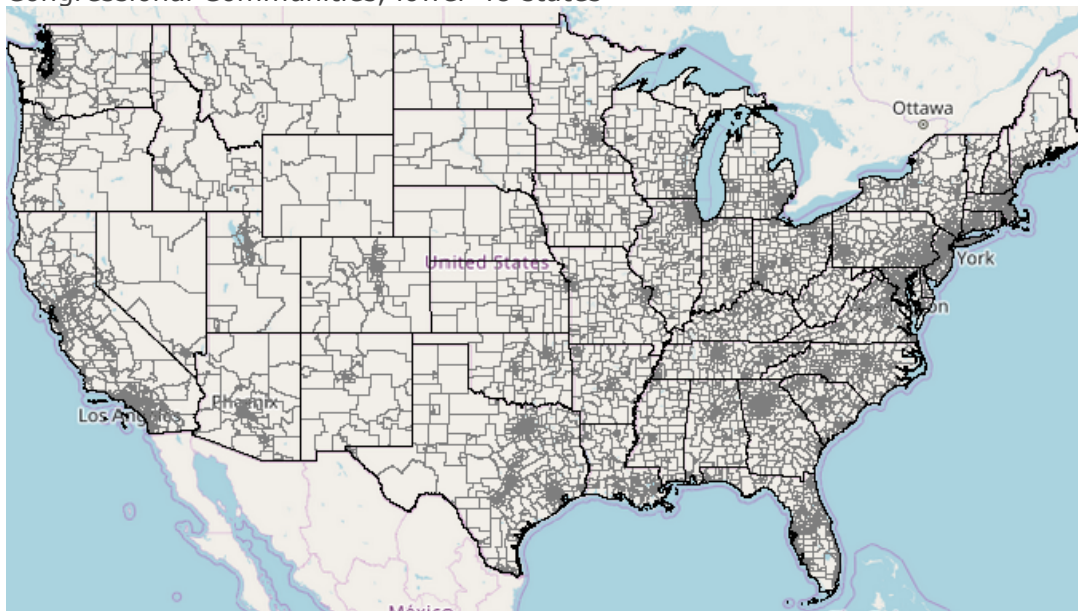### About Congressional Districts and Congressional Communities
The U.S. 118th Congressional Districts (in session Jan 3, 2023 to Jan 3, 2025) have an average population of approximately 763,000, larger than three states. The size and diversity of CDs can make it difficult to communicate effectively with Congress. Congressional Communities are subdivisions of Congressional Districts and can help Americans better have their voice heard by Congress. Learn more about the Congressional Communities program and how you can participate. A set of Congressional Communities nest within a Congressional District.

118th Congressional Districts, lower 48 states
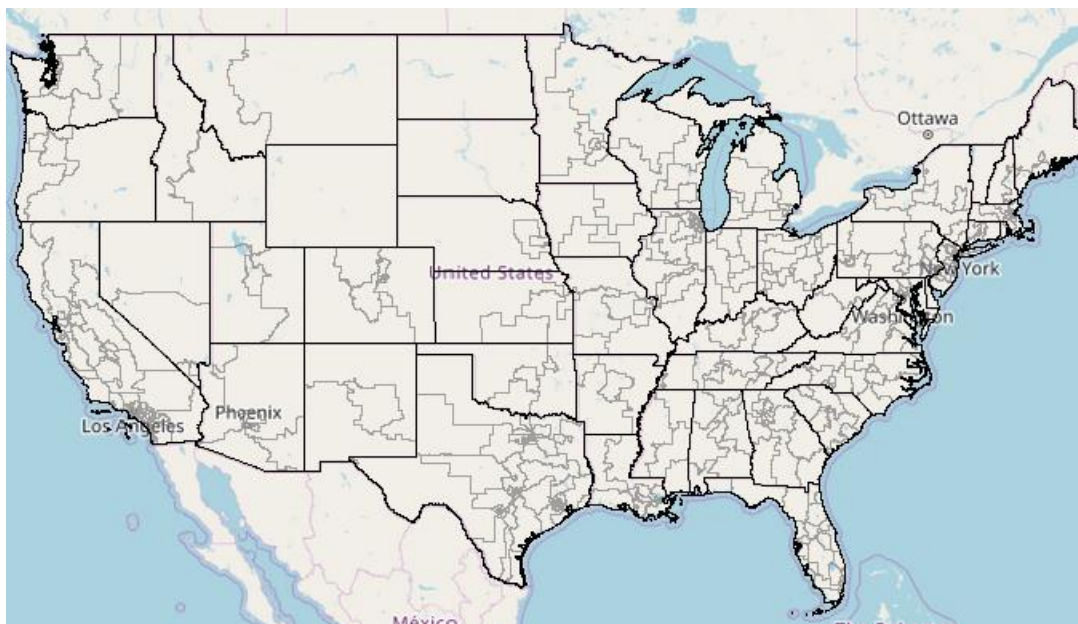
Congressional Communities, lower 48 states

Congressional Communities and Congressional Districts

Find your Congressional District

Cong District 118 Code ▾

☒ States	
☐ Locations, LA County	
☐ Primary Roads	
☐ Urban Areas	
☐ Cong District 118 Code	
☐ Cong District 118 Bold	
☐ Cong District 118 %HS G	
☐ Cong District 118 Party	
☐ Cong Community Code	
☐ Cong Communities	
☐ Cong Communities %Ma	

UID	65
Stab + State CD A4	CA34
Incumbent name	Jimmy Gomez
Party code for incumbent	D
Reserved	
State FIPS + State CD A4	0634
State USPS	

Find ZIP 91780 SelectCounty cd ca 34

Find your Congressional District & Demographics
.. start Congressional Community Project using VDA Web GIS
.. set active layer to Cong Districts Code
.. key in state CD Code (e.g. CA CD 34) in search box
.. press enter; more http://proximityone.com/ccgis.pdf

Leaflet | © OpenStreetMap contributors, CC-BY-SA.

Find your Congressional Community

Cong Communities ▾

☒ States	
☐ Locations, LA County	
☐ Primary Roads	
☐ Urban Areas	
☒ Cong District 118 Code	
☒ Cong District 118 Bold	
☐ Cong District 118 %HS G	
☐ Cong District 118 Party	
☐ Cong Community Code	
☐ Cong Communities	
☐ Cong Communities %Ma	

UID	549
CC Code A7	0634006
CC Code A7	0634006
State FIPS (A2) + 118CD (A2) e.g., 0401	0634
State FIPS (A2)	06
State USPS Abbreviation	CA
CC C20 Total Population	49098

Find ZIP 91780 SelectCounty 350 S Bixel St, Los Angeles, CA

Find your Congressional Community CC & Demographics
.. start Congressional Community Project using VDA Web GIS
.. key in address in search box; press enter
..CC profile shows in lower left
..see more http://proximityone.com/ccgis.pdf
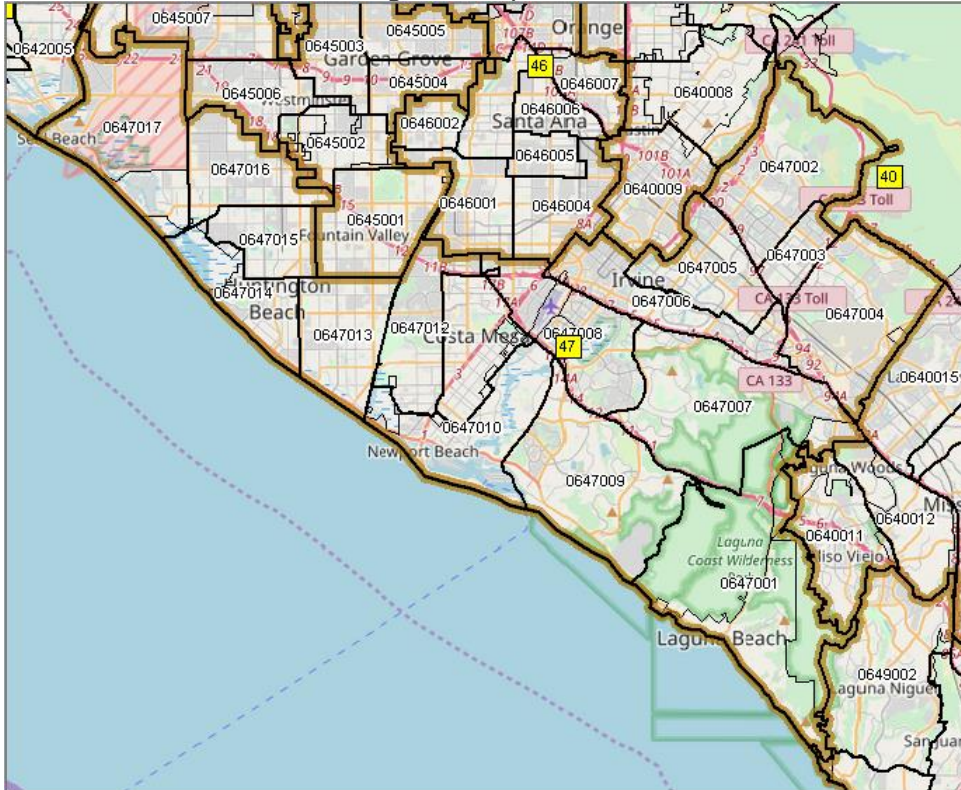.. https://congressionalcommunities.org

Leaflet | © OpenStreetMap contributors, CC-BY-SA.

Congressional Communities and Congressional Districts

What is a Congressional Community?
Congressional Communities are statistical geographic areas and subdivisions of congressional districts comprised of a set of contiguous Census 2020 census blocks. Congressional communities cover the U.S. from wall-to-wall. Congressional communities average between 20,000 and 70,000 population. Each congressional community is comprised of a set of contiguous census blocks. There are 7,458 congressional communities based on the 118th congressional districts. Congressional communities are not simply geographic sections of a congressional district. Congressional communities are developed using a number of factors including native American areas, other population groups, places, interstate and other roads, airports, parks, waterways and other considerations.

CA CDs bold boundary, yellow label and nesting CCs black boundary yellow label
.. zoom to CD CA 47 in Orange County

Congressional Communities, Mapping and Geographic Information Systems (GIS)
Why would you want to use GIS with Congressional Communities and Congressional Districts? "A picture is worth a thousand words" ... our ability to absorb visual information can be faster and more comprehensive than using tabular data alone. Visualization of geographic patterns is more engaging than textual presentations. Geospatial visualizations, maps, can provide a more effective basis for collaboration and understanding. Only GIS enables us to look at different geographies and subject matter, simultaneously, to understand patterns and make compelling arguments.

Congressional Communities and the GIS Infrastructure
Using Congressional Community (CC) geography involves more than opening a CC shapefile with a GIS tool/software. Or, opening a CC shapefile with a 118th Congressional District (CD) shapefile with a GIS tool/software. To gain insights about CCs and collaborate on CC topics involves/requires an additional 10-15 shapefiles with other geography and subject matter. For example, it is important to be able to create pattern and reference maps depicting how census tracts intersect with CCs. This infrastructure is developed by organizing these shapefiles into a GIS project. This section is focused on one primary Congressional Communities GIS Project, though many variations might be developed.
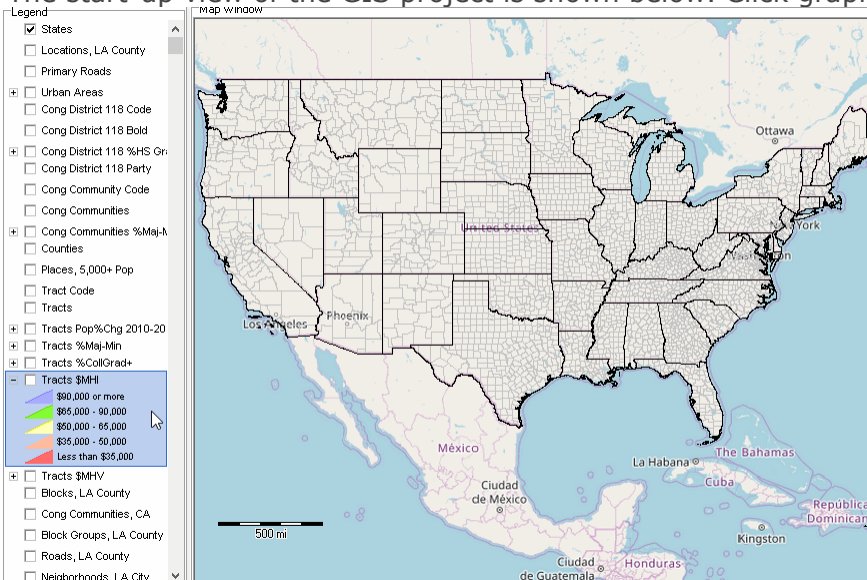
1. Using the Congressional Communities GIS Project .. goto topics

This section is focused on using the Congressional Communities (CC) project with the VDA Web GIS. The CC GIS project was developed using CV XE GIS and then shared for access on the VDA Web GIS server. You have nothing to assemble or develop. There is nothing required to use the CC GI project but a web browser. The same CC GIS project can be used with CV XE GIS and VDA Desktop GIS for use in a desktop environment.

1.1. Getting Started
  • Learn more generally about GIS
  • Learn about VDA Web GIS
  • Learn about Getting Started with VDA Web GIS
    - where the narrative suggests using MetroDynamics project, use the Congressional Communities project

  • Start VDA with any browser any device. -- https://vdagis.com
    - desktop or laptop recommended.
    - login .. the VDA interface displays
    - close the browser to end a session.

  • The start-up view of the GIS project is shown below. Click graphic for larger view.

Congressional Communities and Congressional Districts

- Viewing different geography and subject matter.
 .. do these steps on your computer after the map interface view starts.

  Patterns of economic prosperity by census tract
  .. click the checkbox on the Tracts $MHI layer in the legend panel at left of map.
  .. the following map view shows these patterns.
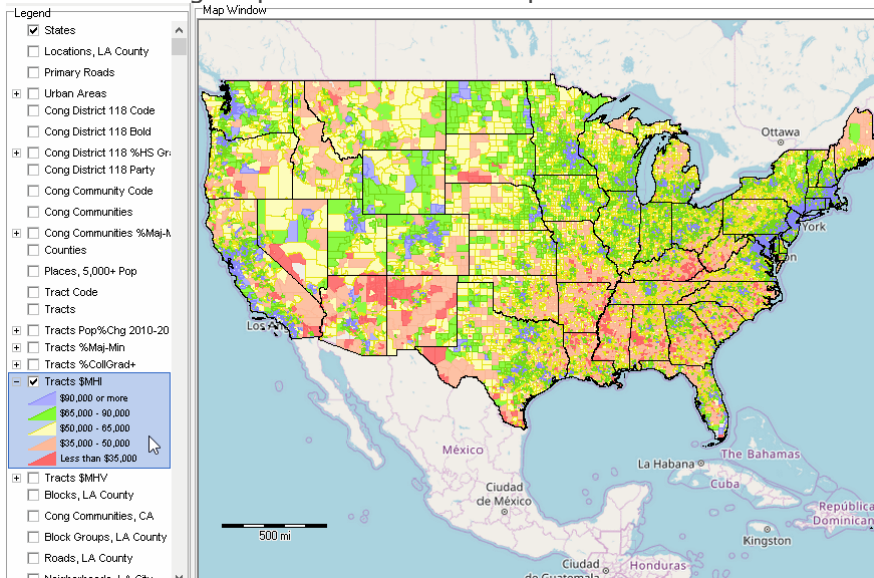
  Patterns of %majority-minority by congressional community
  .. uncheck the checkbox on the Tracts $MHI layer in the legend panel.
  .. click the checkbox on the Cong Communities %Maj-Min layer in the legend panel.
  .. the following map view shows these patterns.
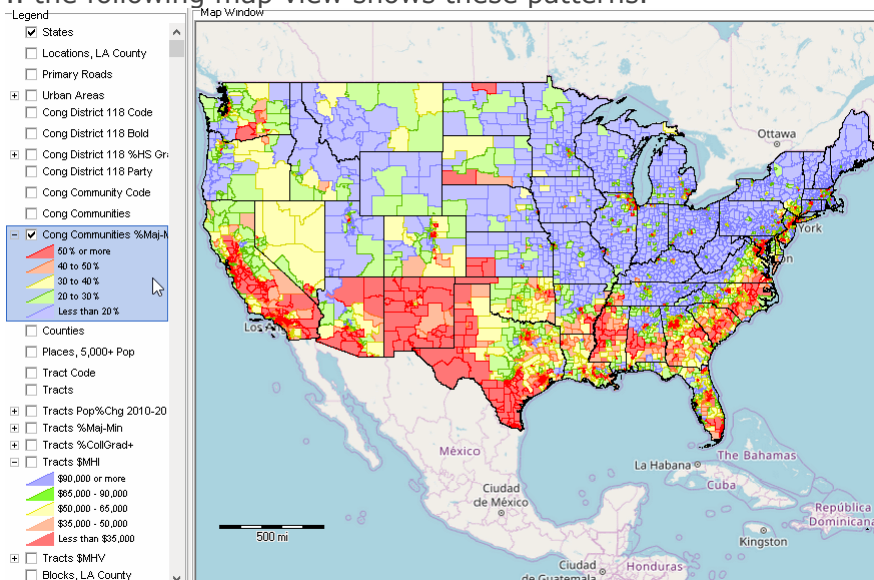
Congressional Communities and Congressional Districts

Watch Navigation Video ⊙   for next two topics
.. after viewing video use back arrow to return to this document.
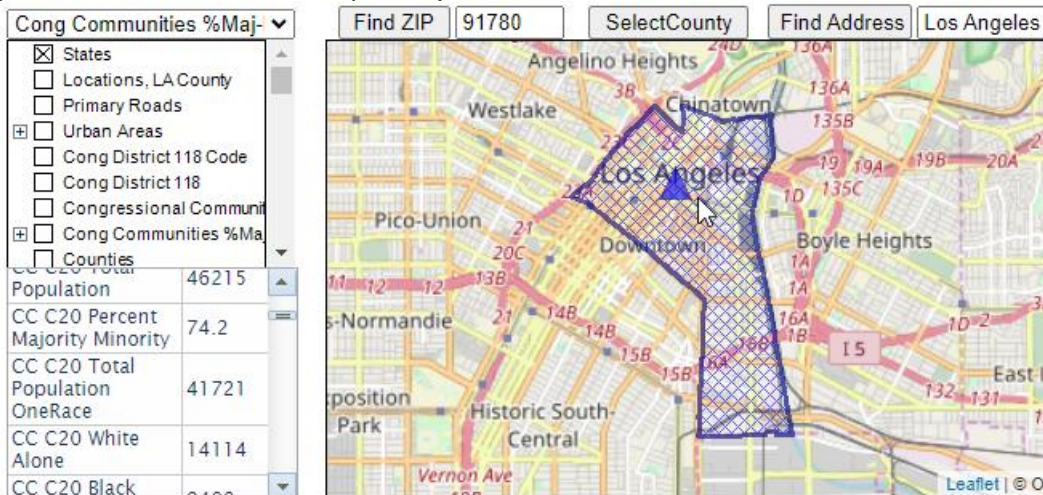
• **Some basics of navigation**
   - the "active layer" is set using the upper left dropdown.
      .. for the CC project the "active layer" is the Congressional Community layer.
   - the legend panel is located at left of map window.
      .. the legend panel shows all available layers in this project.
      .. the legend panel includes the layers reviewed in Section 3 below.
      .. click a checkbox on in the legend panel to make the layer visible in the map window.
      .. click the + by the layer name to show the layer intervals/sections.
   - to zoom in/out use +/- buttons below map window.
      .. or click in map window and drag to lower right to zoom in.
   - to drag the map view hold Shift key down and drag mouse.

• **Find your Congressional Community (CC) based on an address.**
   - enter an address in the Find Address edit box.
   - click the Find Address button.
   -- the map window zooms to that location and displays a blue marker.
      .. the associated CC displays with cross-hatch pattern.
      .. the lower left panel displays attributes for this CC.
   - click the HTML button below the lower left panel to view as HTML page.
      .. the content of this HTML page is reviewed elsewhere.
      .. optionally CTRL-A on HTML page, CTRL-C to copy, open Excel, CTRL-V paste.
      .. now optionally examine CC(s) using Excel.

An Example. Locate an address. Enter the address "Los Angeles" (illustrating you do not need an exact address) in the Find Address edit box and click the Find Address button. The map view zooms to this location and places a blue triangle on the map. Click the triangle, the CC shows cross-hatched and a CC profile shows in lower left panel (this location is in CC 0634005).

- **Get/View a CC-CD comparative analysis profile.**
  - continuing from above click Tools>Profiles>CC Profile.
  - this operation displays a comparative analysis profile: comparing the CC to the CD.

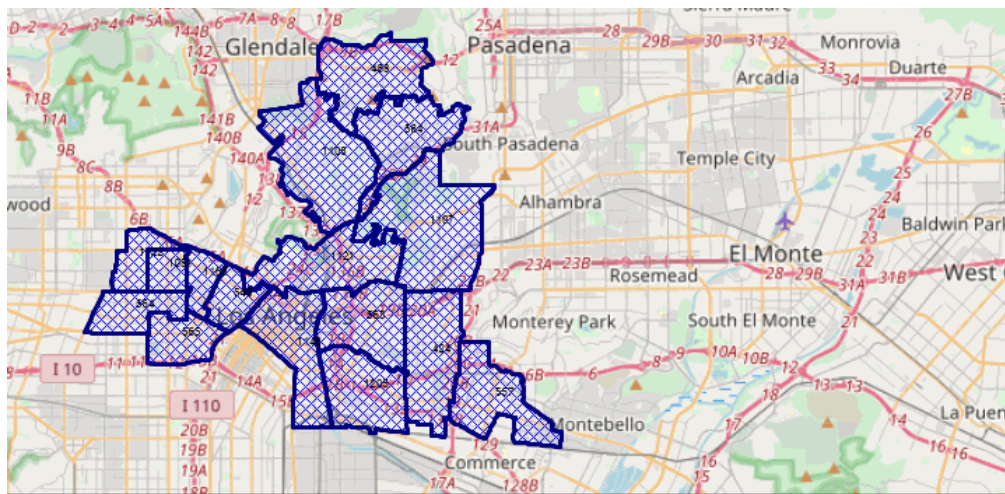| Subject Matter Item	Congressional Community 0634005 Value	Percent	118th Congressional District 0634 Value	Percent
Population by Race/Origin				
Total Population	46215	100.0	757694	100.0
Population, one race	41721	90.3	642247	84.8
White, one race	14114	30.5	146453	19.3
Black, one race	9409	20.4	32530	4.3
American Indian/Alaska Native, one race	527	1.1	20571	2.7
Asian, one race	10242	22.2	130517	17.2
Native Hawaiian, Other Pacific Islander, one race	133	0.3	772	0.1
Other, one race	7296	15.8	311404	41.1
Multirace	4494	9.7	115447	15.2
White, NonHispanic, one race	11940	25.8	82619	10.9
Black, NonHispanic, one race	9070	19.6	30360	4.0
Hispanic (all races)	12305	26.6	495566	65.4
Group Quarters Population				
Total Group Quarters	14272	100.0	28684	100.0
Institutional	5655	39.6	10002	34.9
Non-Institutional	8617	60.4	18682	65.1
Housing Characteristics				
Total Housing Units	23645	100.0	282075	100.0
Occupied Units (Households)	20585	87.1	265323	94.1
Vacant Units	3060	12.9	16752	5.9

See that the Hispanic population in CC 0634005 is 26.6% of the population whereas it is 65.4% for the total CD CA 34.

Congressional Communities and Congressional Districts

1.2. Using the Table Feature
The Table feature provides spreadsheet-like access to attributes of the "active layer" and more.

- click the Table/Query toggle button below the map window at right to view the table.
  - in the case of the CC project with default active layer this will show all CCs
  - each row is a CC with attribute items arrayed across the table as columns.
  - the header row shows the layer field/item name.
  - operations on the table do not permanently affect stored data.

- How to View CCs for a Congressional District.
  - what CCs comprise a CD? where are they? how do they relate?
    .. CD CA 34 is used as an example, used in application at top of this page.
  - place a query on the table
    .. enter <geoid like '0634%'> (no pointy brackets) in the SQL Filter edit box.
    .. click query button at the right
    .. the table refreshes; see at left below that there are 16 CCs in this district.
    .. the CCs in CD CA 34 are listed in the table.
  - show CCs in CA 34 in the map
    .. click the button below the table "highlight all that meet query"
    .. the map view zooms and shows these CCs.

SQL Filter	geoid like '0634%'					SORT	UID DESC		query
UID	CCN20	GEOID	STCD	STFIPS	STAB	POP20	MAJMINPCT	POP120	WH20
424	0634002	0634002	0634	06	CA	58675	97.8	47096	9506
488	0634016	0634016	0634	06	CA	30046	66.6	25111	11839
549	0634006	0634006	0634	06	CA	49098	92.1	42752	6811
557	0634001	0634001	0634	06	CA	60111	98.1	47582	10478
563	0634004	0634004	0634	06	CA	49868	96.8	40893	7194
564	0634009	0634009	0634	06	CA	62234	91.3	55901	8120
565	0634008	0634008	0634	06	CA	44808	95.5	38885	5060
584	0634015	0634015	0634	06	CA	50752	80.3	41757	14595
1081	0634011	0634011	0634	06	CA	38785	88.2	34708	6258
1107	0634013	0634013	0634	06	CA	55727	89.2	44491	11845
1108	0634014	0634014	0634	06	CA	45494	76.3	37597	14251

.. click graphic for larger view.

- How to Rank CCs and show selected items.
.. continuing from the previous operation ...
  - what subject matter items are available for the "active layer" (CCs)?
  - click "Select Field" button below table.
    .. a list of available subject matter items appear.
    .. this answers the question "what items are available in this layer?"
 - click CCN20 and POP20 checkboxes; then "Set & Close"

.. the table refreshes with only these columns showing.
- to rank these CCs based on POP20, key in "POP20 DESC" in the sort edit box above the table.
   .. click Query button; table refreshes showing CCs sorted on POP20.
   .. if necessary, drag column divider for better view of item values.

- where is the top-ranked CC?
   .. click the top row; it turns blue.
   .. click the button "click geography row to display" below the table.
   .. the map view zooms to that CC.

1.3. More Advanced Applications

Tracts in Los Angeles County with Median Household Income $200,000 .. click graphic for larger view
.. where are they and what are their codes?
.. this graphic shows the tract codes in the table below the map window.
.. tracts are located in the table and shown/highlighted in the map window.
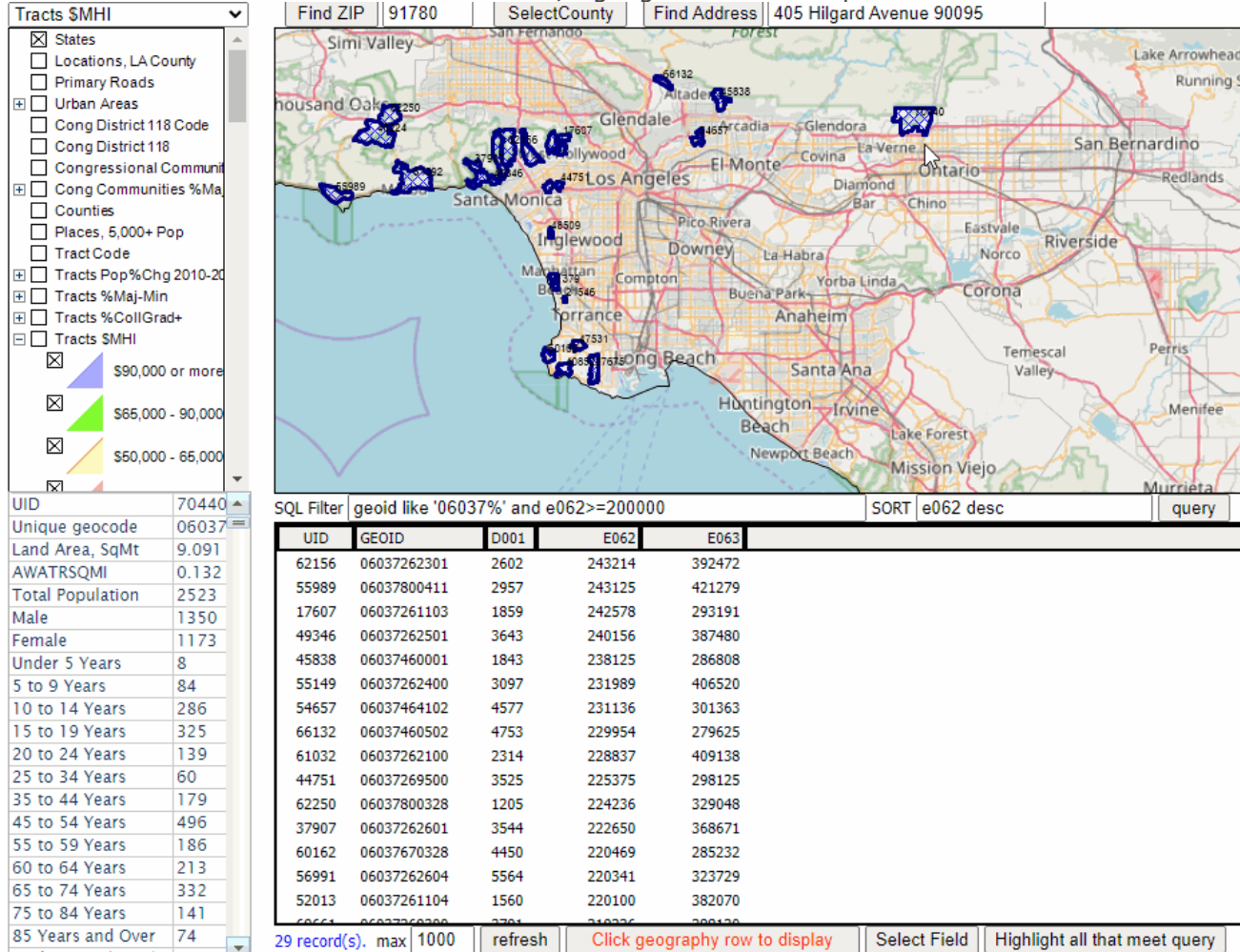
.. how to develop a similar view? See these steps.

.. the pointer is at tract 06037400205 .. see profile for tract 06037400205 (xls)

Congressional Communities and Congressional Districts

2. Examining My Congressional District .. goto topics
.. an illustrative application in Los Angeles

Examine characteristics of any Congressional District by Congressional Community using this GIS tool/project/data as shown in graphics below.

Zoom-in View of California Congressional District 34
.. CD CA 34 bold boundary, yellow labels, CCs shown with black boundaries, white labels.
.. zoom to the area and click checkboxes on for layers: Cong District 118 Code, Cong District 118 Bold, Cong Community Code and Cong Communities.

Patterns of Economic Prosperity in California Congressional District 34
.. similar to the above view, the following graphic shows patterns of median household income based on American Community Survey 2021 by census tract. The view can be developed by checking the checkbox on the "Tracts $MHI" layer in the legend panel. Using this GIS tool/project/data it is easy to see how and where different CCs and tracts in the district vary by economic prosperity.

Congressional Communities and Congressional Districts

3. A Call to Action in Congressional Community 0634002 ..

.. an illustrative application in East Los Angeles
.. collaborate with stakeholders in your Congressional Community
.. share your collective voice with Congress
.. Congressional leadership .. learn more about CC constituent areas
.. just one example.

As reviewed in the Los Angeles Times residents are at risk from toxic substances in the East LA area that includes Congressional Community (CC) 0634002, part of Congressional District CA 34. Note, the CC code 0634002 refers to FIPS state 06, 118th CA CD 34, specific CC in that CD 002. The map below, developed using the Congressional Communities Geographic Information Systems (GIS) project, shows the location (see pointer) of a census tract highlighted in the story. That tract is contained in CC 0634002 and CD CA 34. See more about GIS. The clean up area is also shown in this graphic

Tract 06037530603 in Context of CC 0634002 .. click graphic for larger view
CCs shown with red bold boundaries labeled with CC code; census tracts shown with black boundaries.
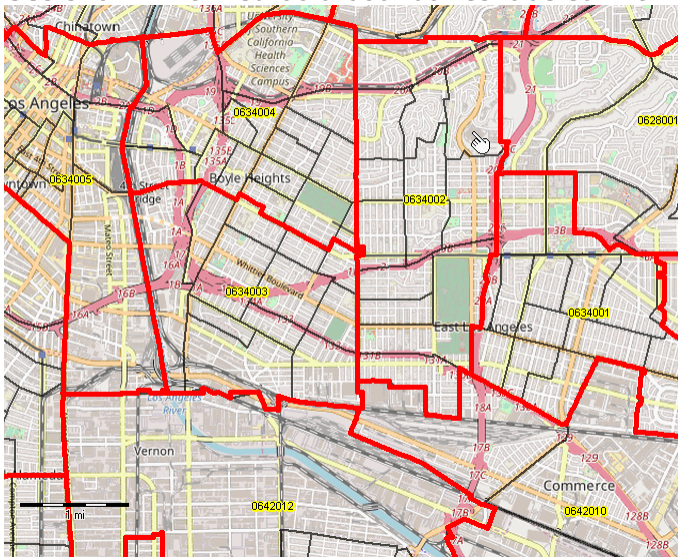
Knowing more about Tract 06037530603 and CC 0634002 .. click graphic for larger view
Tract $MHI clicked on, showing patterns of economic prosperity by median household income by tract.
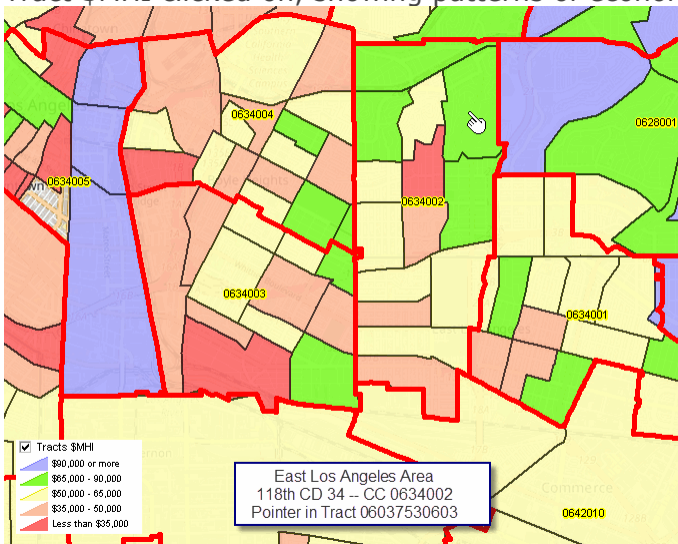
Congressional Communities and Congressional Districts

4. Congressional Communities GIS Project .. Structure and Orientation .. goto topics
A national scope Congressional Communities GIS Project has been developed that you can use with VDA Web GIS using only a Web browser .. use with any device (desktop/laptop recommended) .. nothing to install. The same GIS project can be used with the desktop GIS software CV XE GIS and VDA Desktop GIS. This GIS project is a starting place, though a robust one. Many GIS project variations can be developed to meet a particular need.

Structure of the Congressional Communities GIS Project .. goto topics
Layers in the Congressional Communities GIS Project
Most of the layers contain subject matter items that can be displayed/mapped and otherwise examined.
The following layers are shown in the legend panel to the left of the map window.

1 States

2 Locations, LA County
.. residential locations used for illustrative purposes.
.. show similar point or location data for your areas.

3 Primary Roads
.. national scope primary roads

4 Urban Areas
.. national scope 2020 urban areas

5 Cong District 118 Code
.. national scope 118th congressional districts
.. these layers contain these subject matter items (xls)
.. use this layer to show CD codes

6 Cong District 118 Bold
.. use this layer to show CDs with bold boundary

7 Cong District 118 %HS Grad
.. use this layer to show CDs with %High School Graduates ACS21

8 Cong District 118 Party
.. use this layer to show CDs by party of incumbent

9 Congressional Communities Code
.. national scope congressional communities
.. these layers contain these subject matter items (xls)
.. use this layer to show CC codes

10 Congressional Communities
.. use this layer to show CC boundaries

11 Cong Communities %Maj-Min
.. use this layer to show patterns of %majority-minority population

12 Counties
.. national scope counties

13 Places, 5,000+ Pop
.. national scope cities/places

14 Tract Code

Congressional Communities and Congressional Districts

.. national scope [census tracts](#)
.. use this layer to show tract codes
.. tract layers (except Tracts Pop %Chg 2010-20) contain [these subject matter items](#) (xls)

15 Tracts
.. use this layer to show tract boundaries

16 Tracts Pop %Chg 2010-20
.. use this layer to show how tract population changed from 2010 to 2020

17 Tracts %Maj-Min
.. illustrative patterns of %majority-minority population by tract

18 Tracts %CollGrad+
.. use this layer to show patterns of %college graduates by tract

19 Tracts $MHI
.. use this layer to show patterns of median household income by tract

20 Tracts $MHV
.. use this layer to show patterns of median housing value by tract

The following layers are provided for drill-down applications.
.. most CC applications will be at the county or subcounty area.
21 Blocks, LA County
.. Census [2020 census blocks](#)

22 Cong Communities, CA
.. Congressional communities, California subset

23 Block Groups, LA County
.. Census [2020 census blockgroups](#)

24 Roads, LA County
.. Intersect to intersection roads [2022 TIGER edges](#)

25 Neighborhoods, LA City
.. LA Times city neighborhoods

26 Neighborhoods, LA County
.. LA Times county neighborhoods

27 Parcels, LA County
.. LA County Tax Parcels

28 County
.. national scope county layer for use as a base layer
29 ZIP Codes
.. Census 2020 ZIP Code tabulation areas
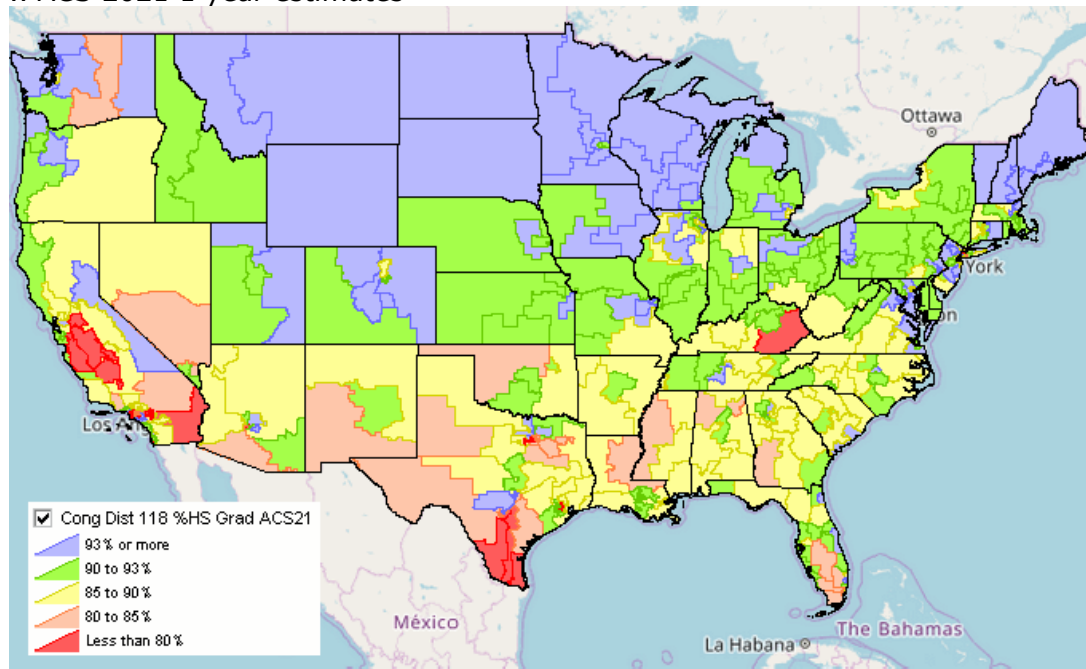30 BaseLayer1
.. Open Street Maps topology
31 States1
.. for use as a base layer

Other Illustrative Views and Operations

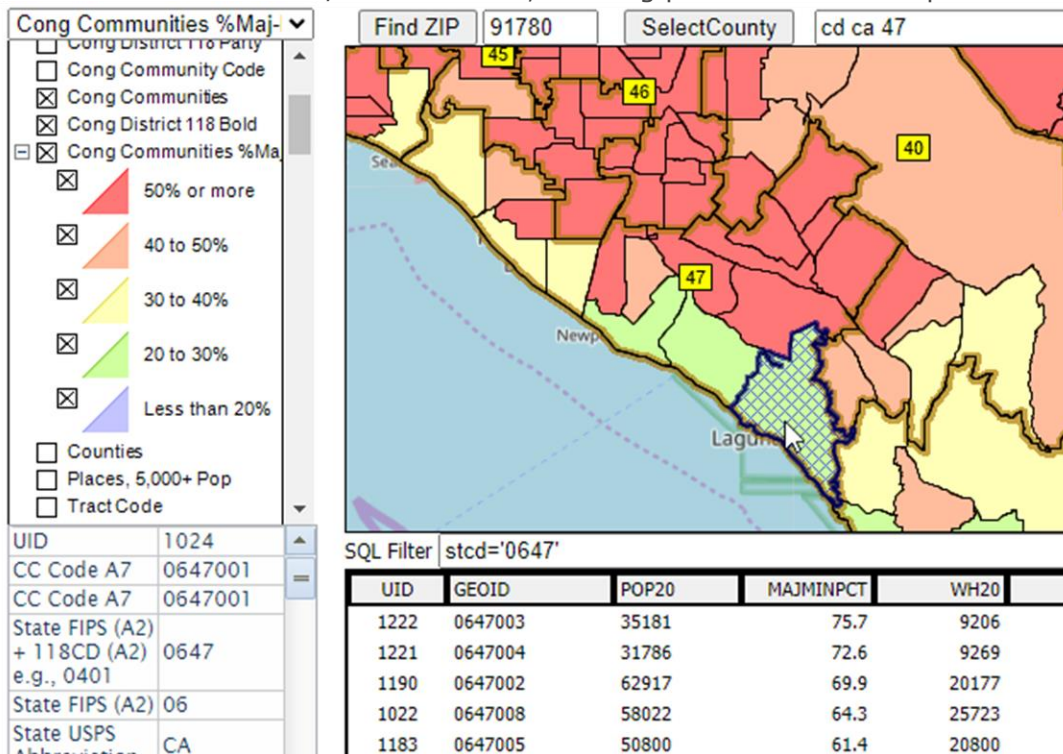**Percent High School Graduate by 118th CD**
.. ACS 2021 1 year estimates

Zoom to CD CA 47; patterns of %majority-minority population by CC
.. CD CA 47 ranked in descending order; top 5 highest %MajMin show in table
.. CC 06047001 selected/cross-hatched, showing profile in lower left panel.

UID	GEOID	POP20	MAJMINPCT	WH20
1222	0647003	35181	75.7	9206
1221	0647004	31786	72.6	9269
1190	0647002	62917	69.9	20177
1022	0647008	58022	64.3	25723
1183	0647005	50800	61.4	20800

Closing Page