Geographic Analysis to
Stop the Schoolhouse to
Jailhouse Track

2011 Esri California / Hawaii / Nevada
Regional User Group Conference

ENTITIES INVOLVED

http://www.thestrategycenter.org

a think tank/ act tank for working class communities of color, focusing on civil rights, environmental justice, public health, global warming and the criminal legal system.

http://advancementproject.org

an innovative civil rights law, policy, and communications "action tank" advancing universal opportunity and a just democracy.

http://www.healthycity.org

supports data-driven decision making and planning by public officials, foundations and community organizations.

Everything shown was completed with an Esri ArcGIS 9 or 10 desktop multi-user ArcView License, Spatial Analyst Extension, and with Microsoft Excel 2003 or 2007, and SQL Server 2005.

The Schoolhouse to Jailhouse Track

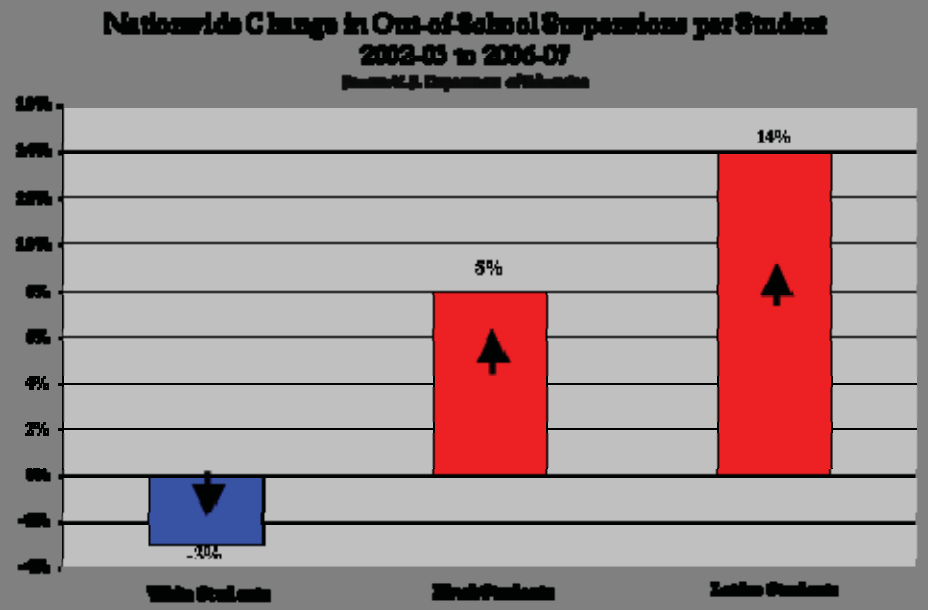
- In Richardson, Texas, a 14-year-old boy with Asperger's syndrome was given a $364 police citation in May 2009 for using an expletive in his classroom.

- A 12-year old student in Stuart, Florida, was arrested in November 2008 for "disrupting a school function." The "disruption" was that the student had "passed gas."

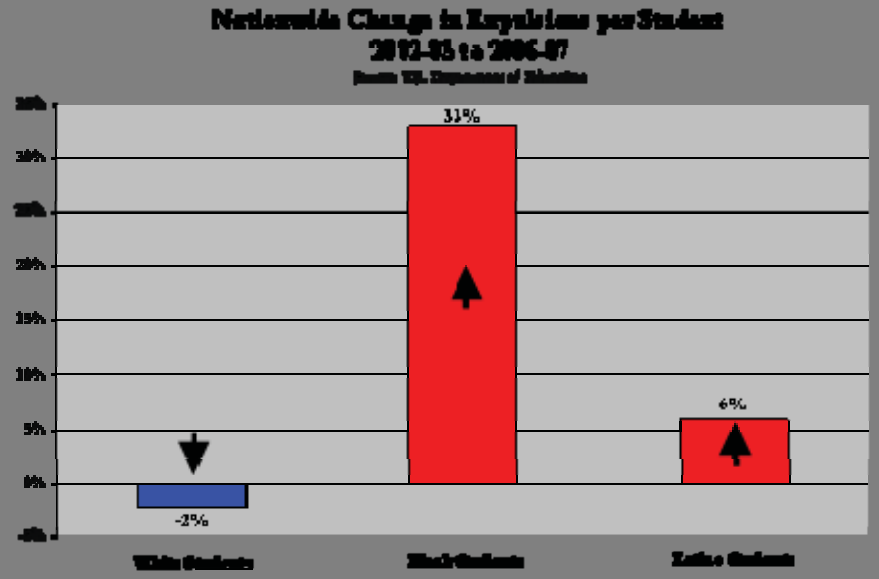
- In November 2009, 25 Chicago middle-school students were rounded up, arrested, taken from school, and put in jail after a food fight in the school cafeteria.

- In April 2007, a 13-year-old girl in New York City was removed from her school in handcuffs for writing the word "Okay" on her desk.

The Schoolhouse to Jailhouse Track



The impact of this crisis falls most heavily on students of color.



And these disparities are worsening.

The Schoolhouse to Jailhouse Track

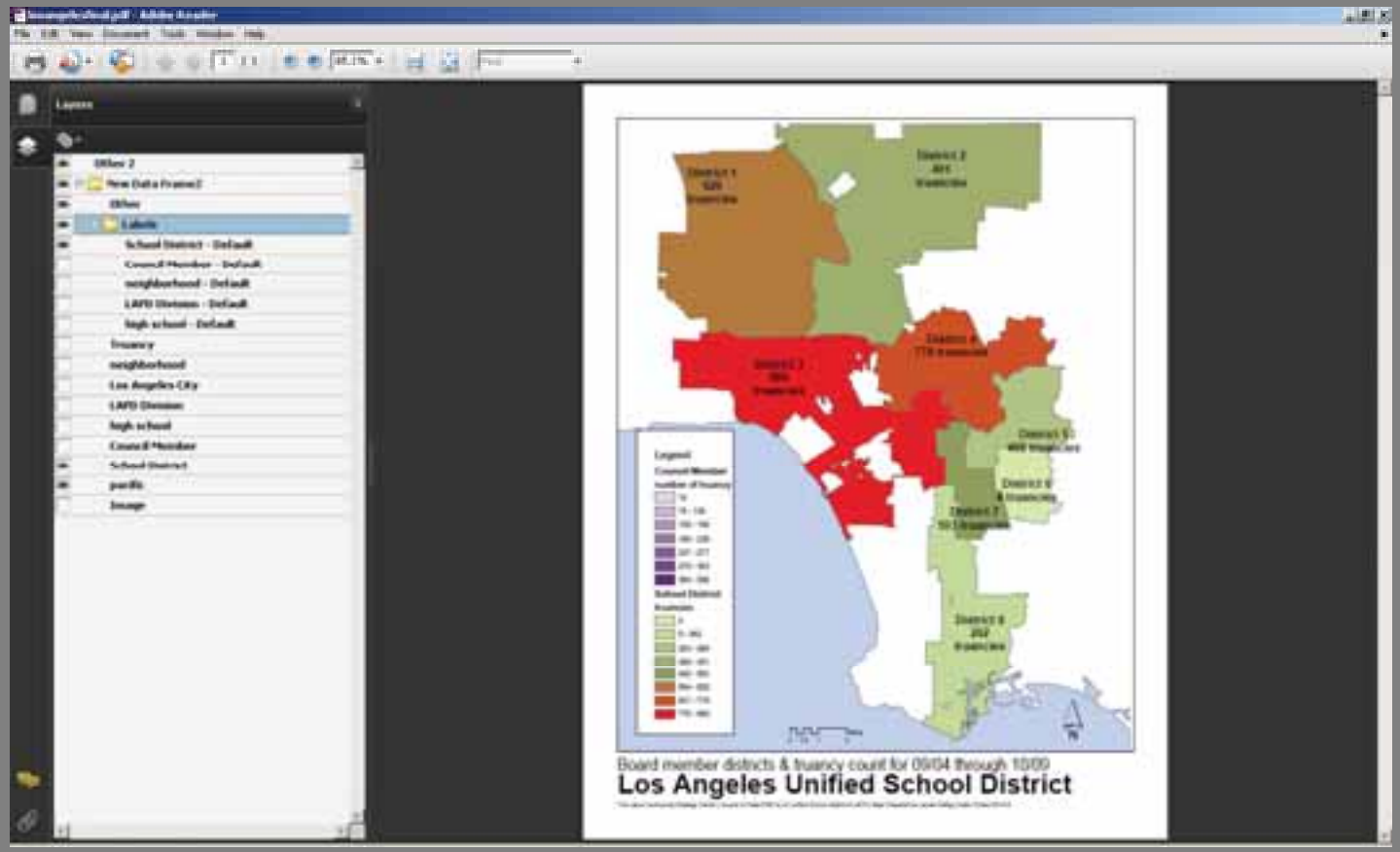
Across the country, school systems are shutting the doors of academic opportunity on students and funneling them into the juvenile and criminal justice systems. The combination of overly harsh school policies and an increased role of law enforcement in schools has created a "schoolhouse-to-jailhouse track," in which punitive measures such as suspensions, expulsions, and school-based arrests are increasingly used to deal with minor student misbehavior, and huge numbers of youth are pushed out of school and into prisons and jails.

Stop The Schoolhouse to Jailhouse Track

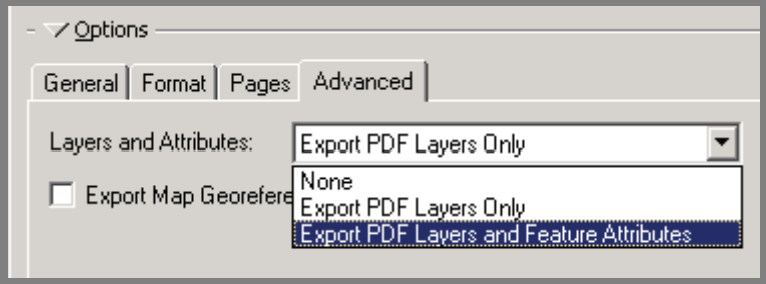
In Los Angeles punitive curfew laws can result in a $250 fine for being late to class.

Fearing that these fines were aimed primarily at low-income students of color, Center members filed a public records request releasing LAPD curfew violation ticketing data with records of tickets from several months of 2010.

EARLY DATA & ANALYSIS



The LCSC initially approached a Scripps student with the request to map the truancy data against political boundaries such as City Council Districts and School Board Districts. They created several maps in one .pdf by exporting the pdf layers and feature attributes in the option section of the export window.



EARLY DATA & ANALYSIS

The LCSC also commissioned student surveys for quantitative analysis.

CLEANING THE DATA

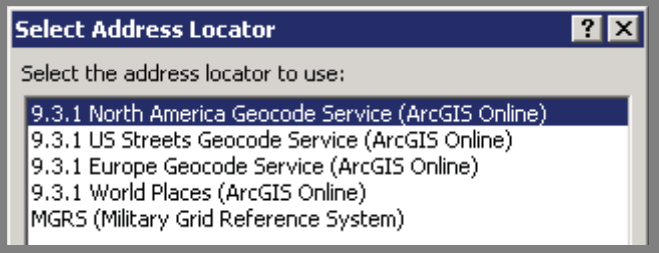
ADDRESS	
557 Fiugeroa St	90017
S Main St & E Elm St	Los Angeles

ADDRESS	CITY	ZIP
557 Figueroa St	Los Angeles	90017
S Main St & E Elm St	Los Angeles	90017

ADDRESS	CITY	ZIP	X	Y
557 Figueroa St	Los Angeles	90017	-117.438308	32.626373
S Main St & E Elm St	Los Angeles	90017	-118.4293	34.635911

After identifying records that would not geocode on the first try, we corrected misspellings, added ZIP Codes or City names found with Google Maps.

With an ArcGIS 9 license, we created multiple address locators and geocoded records with house numbers and records with intersections in separate files and then reconciled them. With an ArcGIS 10 license, we were able to use ArcGIS online address locators and could keep our records in fewer files.



GEOCODING THE DATA

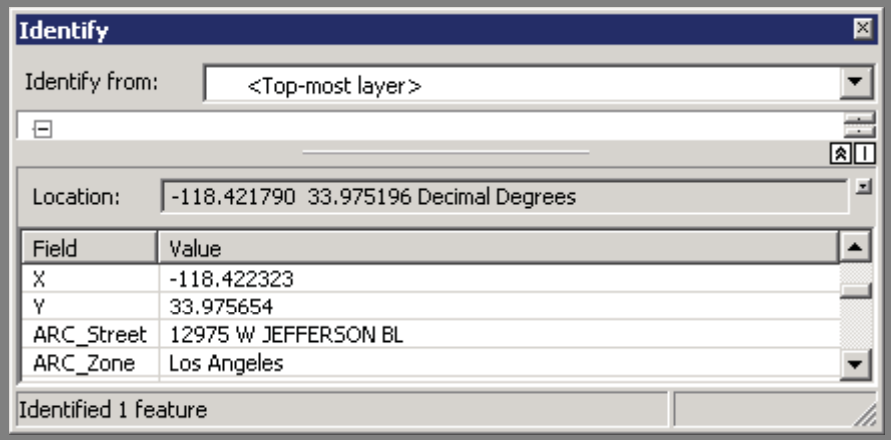
We manually matched several hundred records that failed ‘push-button’ geocoding. Because of limitations in the addresses in the data and address locators, we sometimes matched within 2 blocks of the target address.

Even after cleaning and geocoding data we had to drop hundreds of records that could not be matched for reasons such as:

1) the address/intersection lacked a city attribute and could be matched to more than one city

2) the address/intersection may have been misspelled, but the correctly spelled address could not be determined, or

3) the address/intersection did not match an address in an address locator or on Google maps.



ASSESSING THE GEOCODING QUALITY

Accuracy (%) = 1 – (errors in sample/sample)

0.9657 = 1 – (13/380)

0.9657 +/- .05 = (0.9157, 100)

Because we could not manually assure a match of each of the 35,000 records to their true address, we used simple random sampling to assess our confidence that geocoded points were matched to their true addresses.

We ran two samples; the other assessed whether tickets were given in the precinct of the officer on duty. The error rate was significantly higher, we learned because officers often travel with fellow officers from other districts on curfew 'sweeps.'

ANALYSIS PLAN

Symbolize , Compare, Analyze

Ticketing Data — Race/Ethnicity Data

LAPD — *Nielsen Claritas, Inc.*

Overlay & Summarize

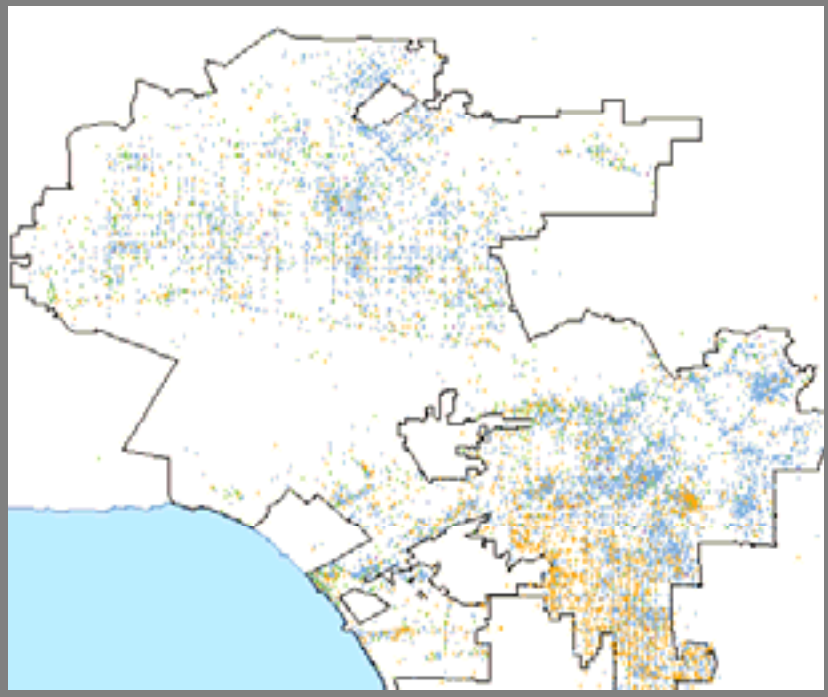
Political Boundaries & Locations

Government sources

Overlay
Basemap

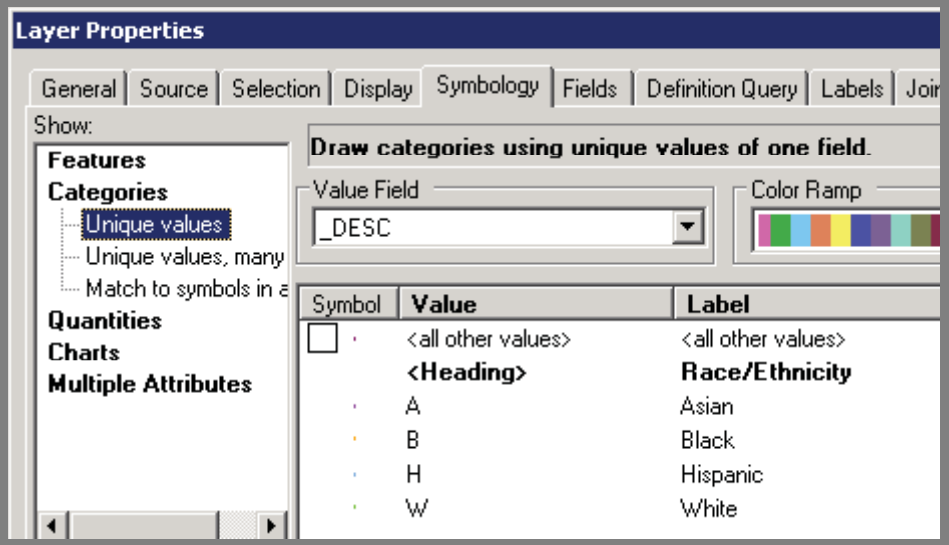
NAVTEQ

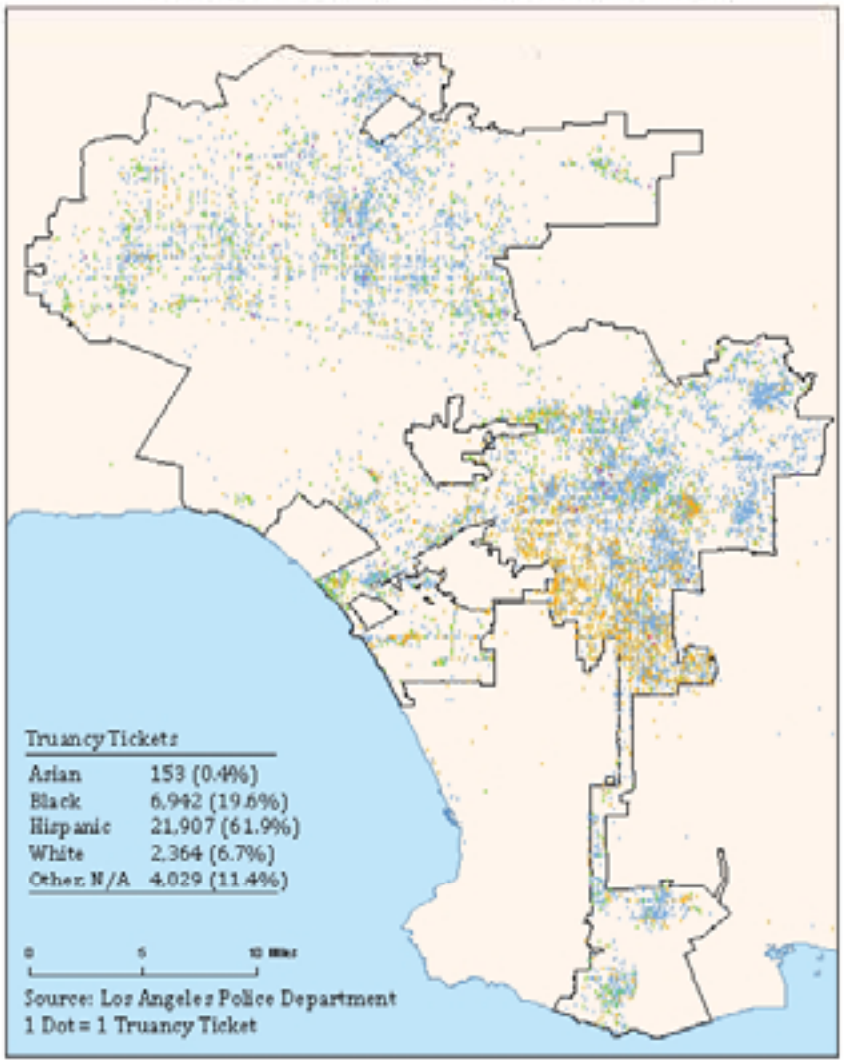
Eric Fischer map. Source: LA Times

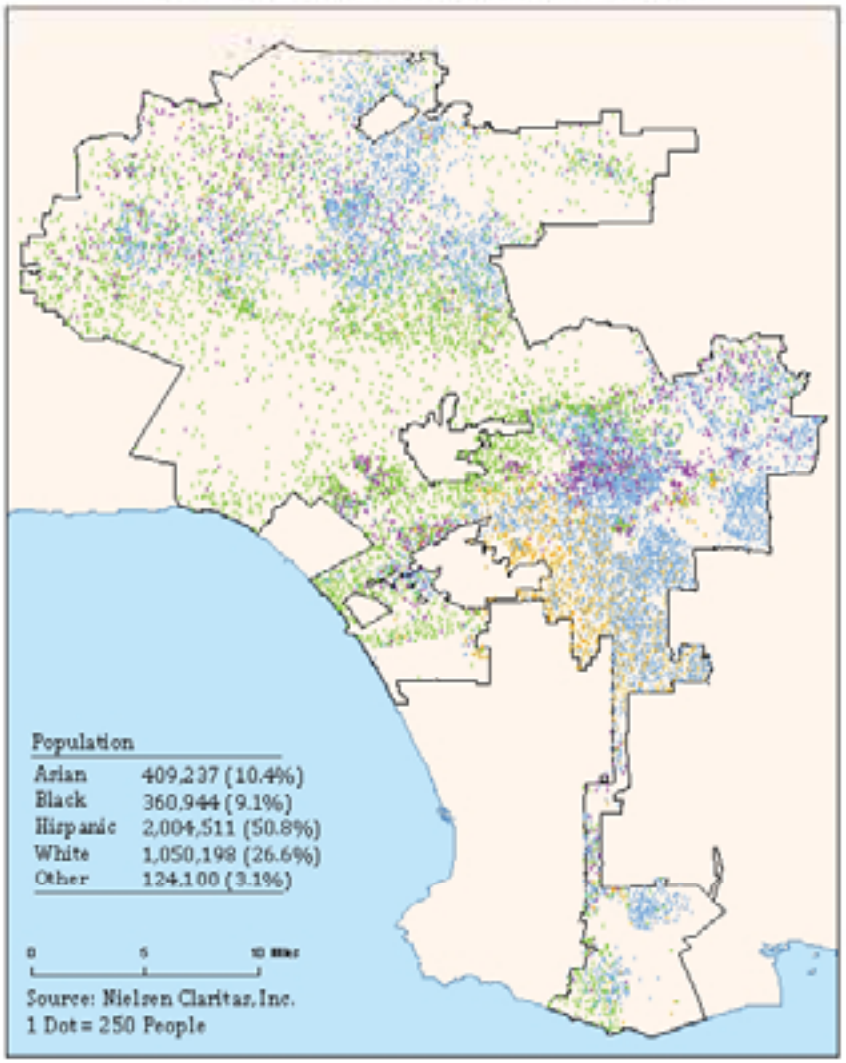


Our map

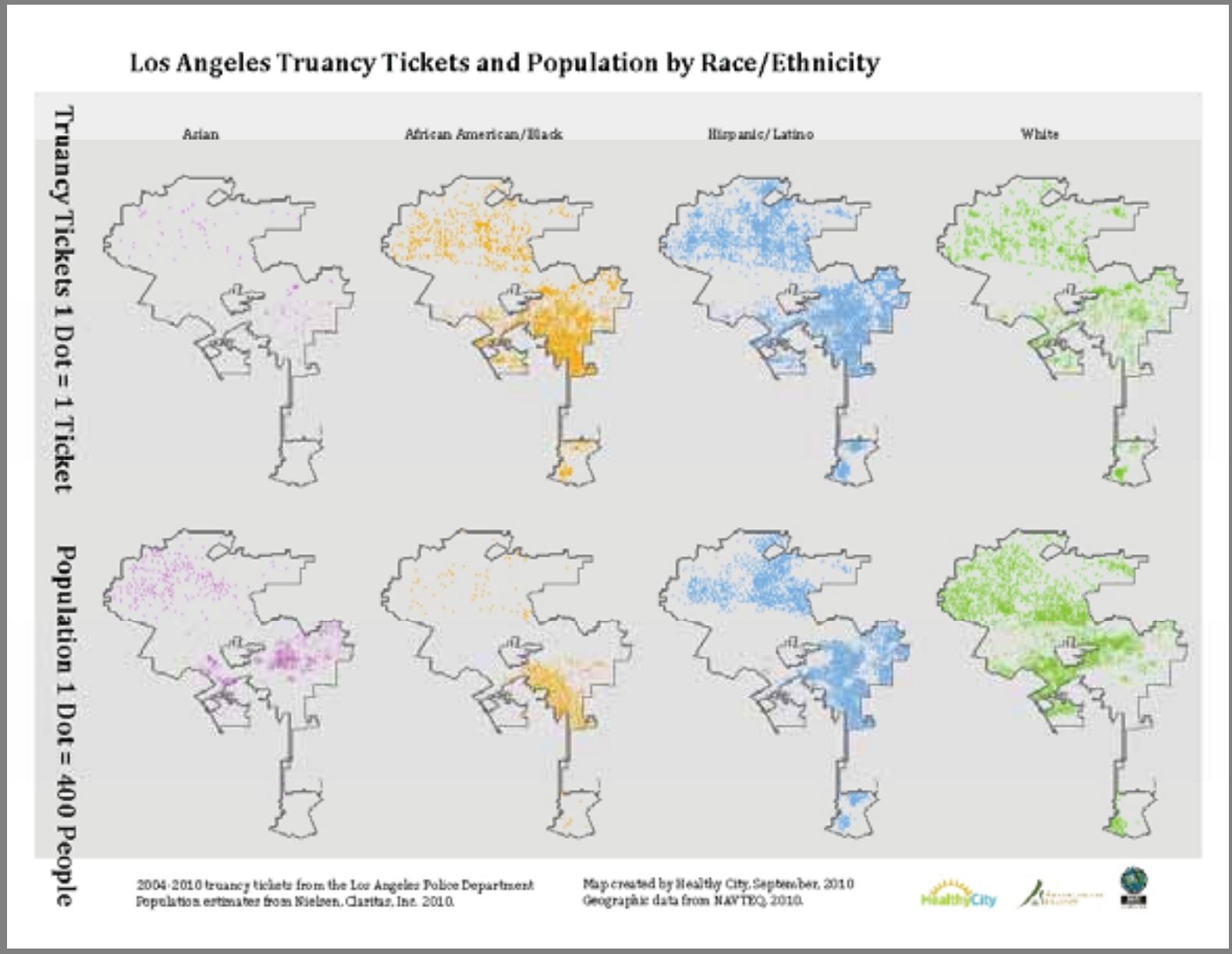
We mimicked the style of Eric Fischer's maps by symbolizing the ticketing data by race/ethnicity of the ticket recipient. We chose colored dots as did Fischer, though we chose different colors.



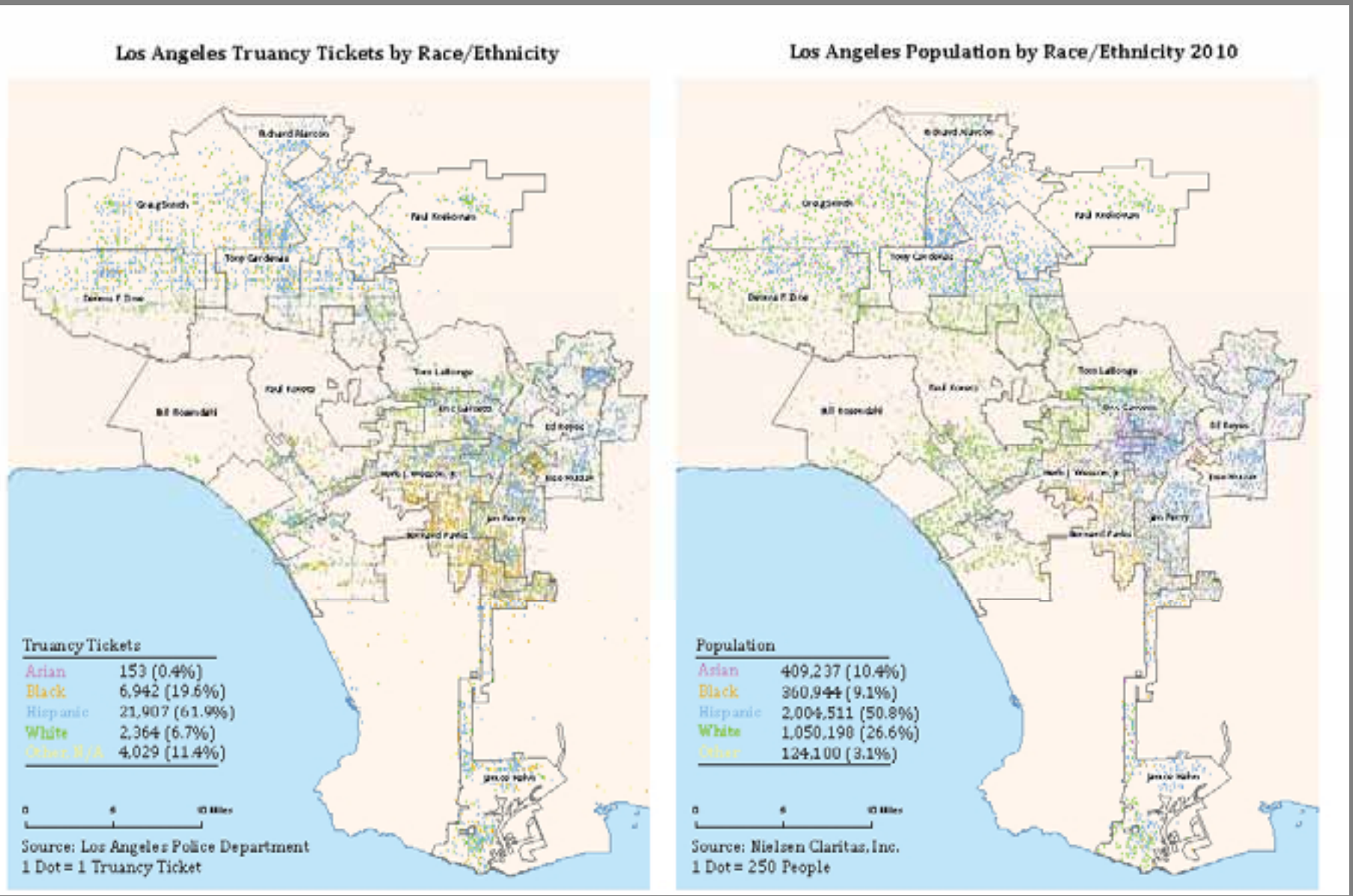




We compared the race/ethnicity of ticket recipients to the race/ethnicity of the population as a whole.



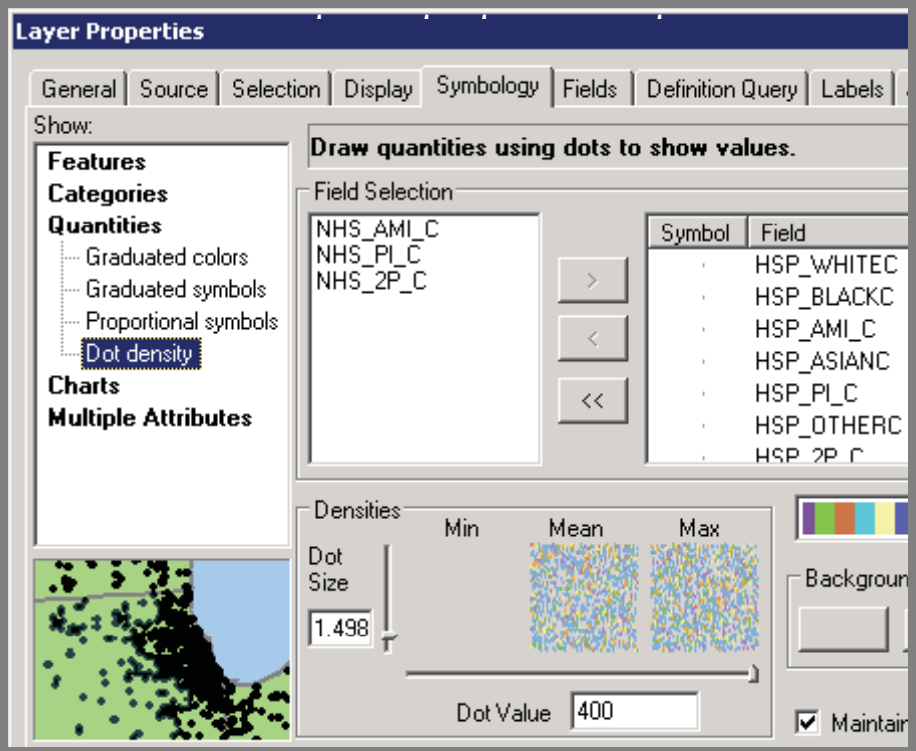
A side-by-side comparison gave further insight into the relationship between ticketing and population by race/ethnicity.

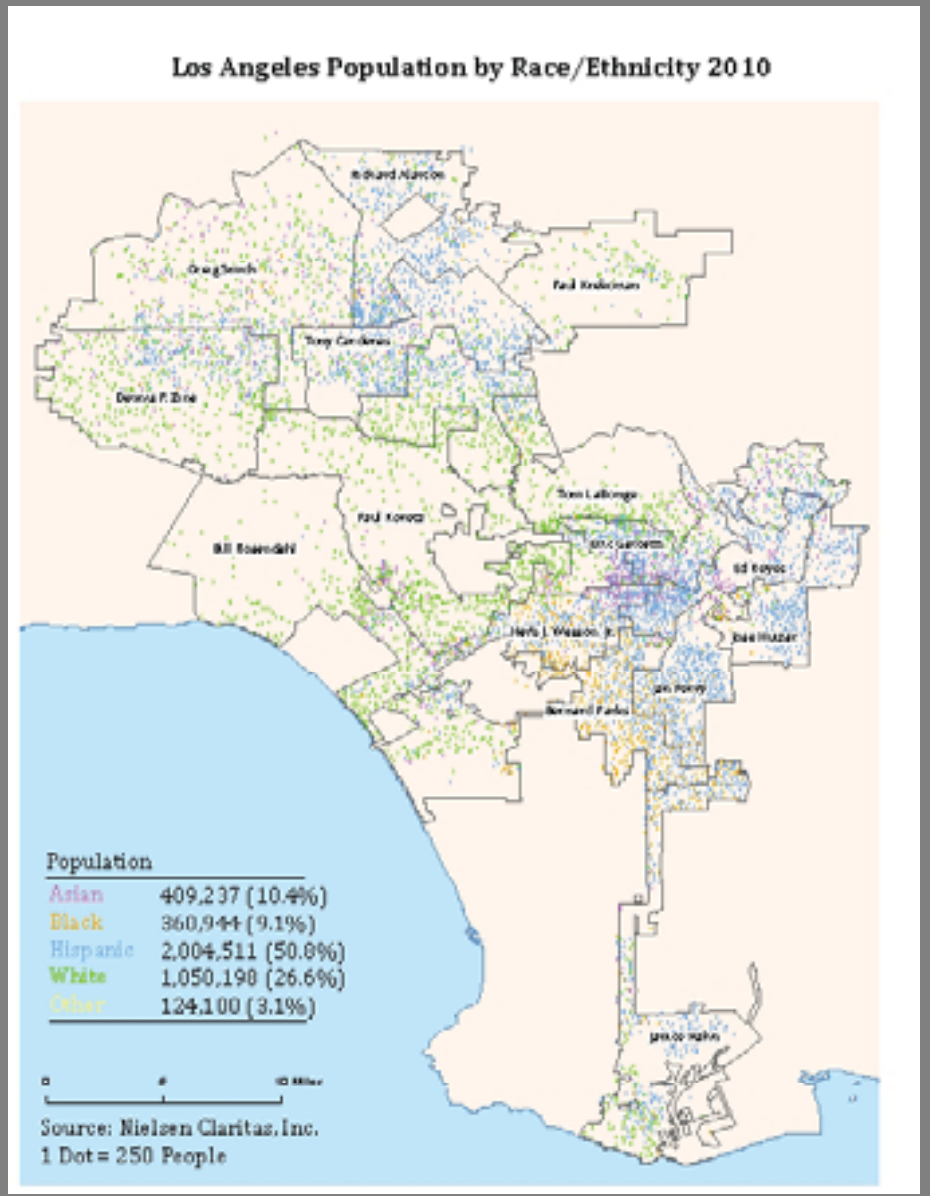


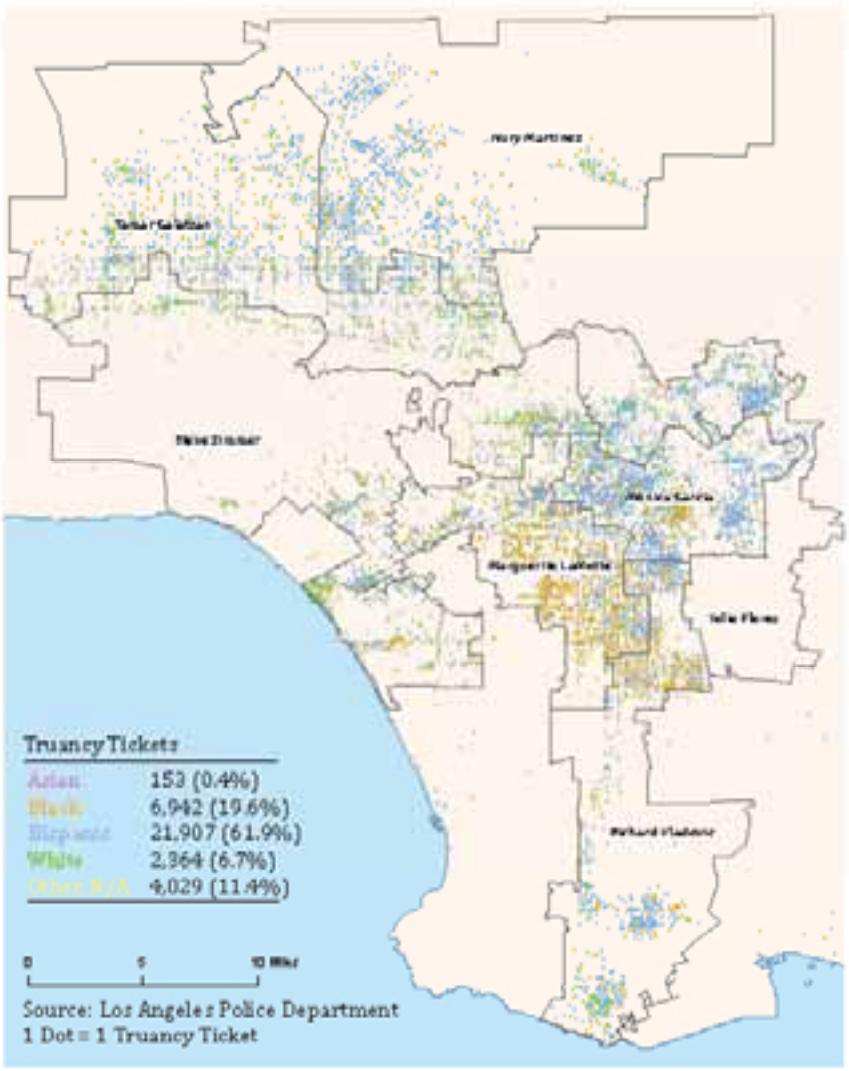
Then we overlaid political boundaries and calculated statistics by City Council District.

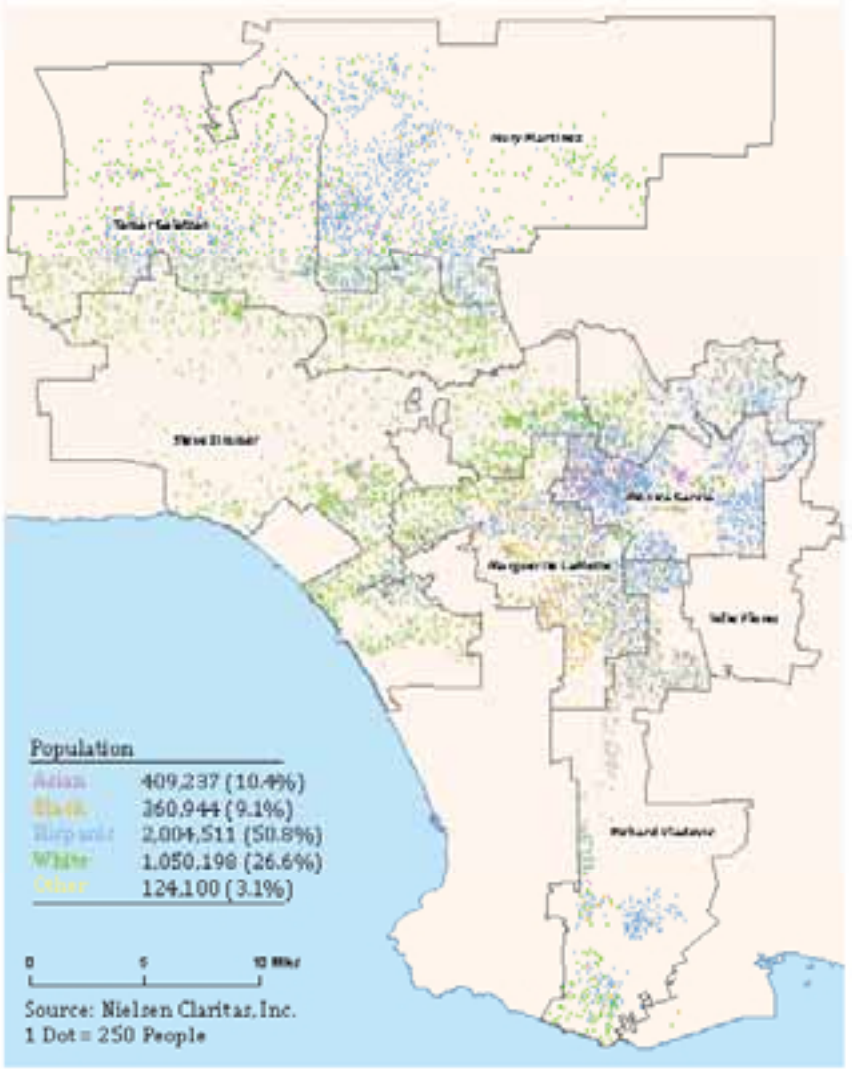
While the race/ethnicity of the ticket recipients was a single variable, the race/ethnicity of the total population is in multiple variables.

For that reason the symbolization technique is different for the total population data. Here we used a dot density symbolization.





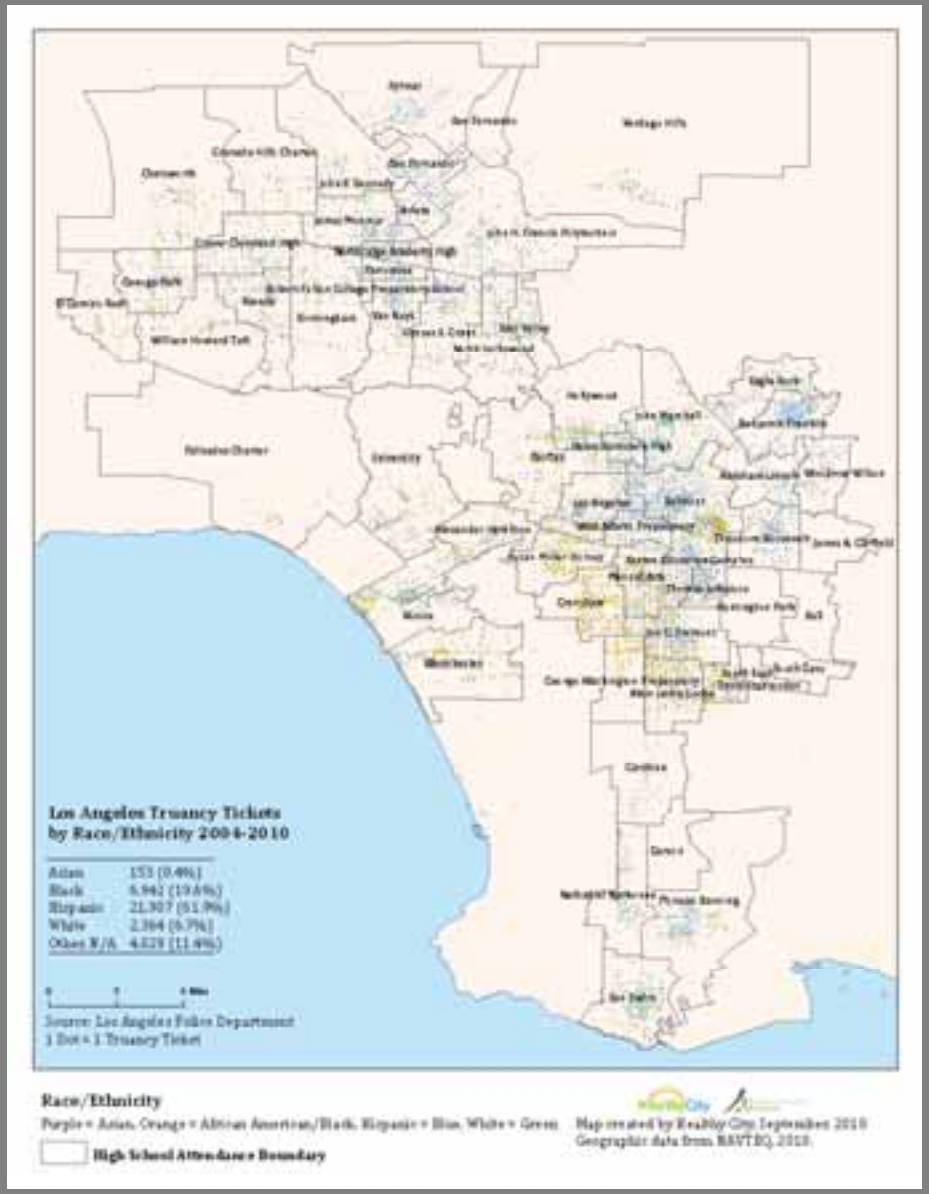




Then we overlaid political boundaries and calculated statistics by political district.

Number of Truancy Tickets (2004-2010) by School Board Member

Marguerite LaMotte	7,711	Tamar Galatzan	5,076	Yolie Flores	2,605
Monica Garcia	5,819	Steve Zimmer	4,364		
Richard Vladovic	5,288	Nury Martinez	3,582		



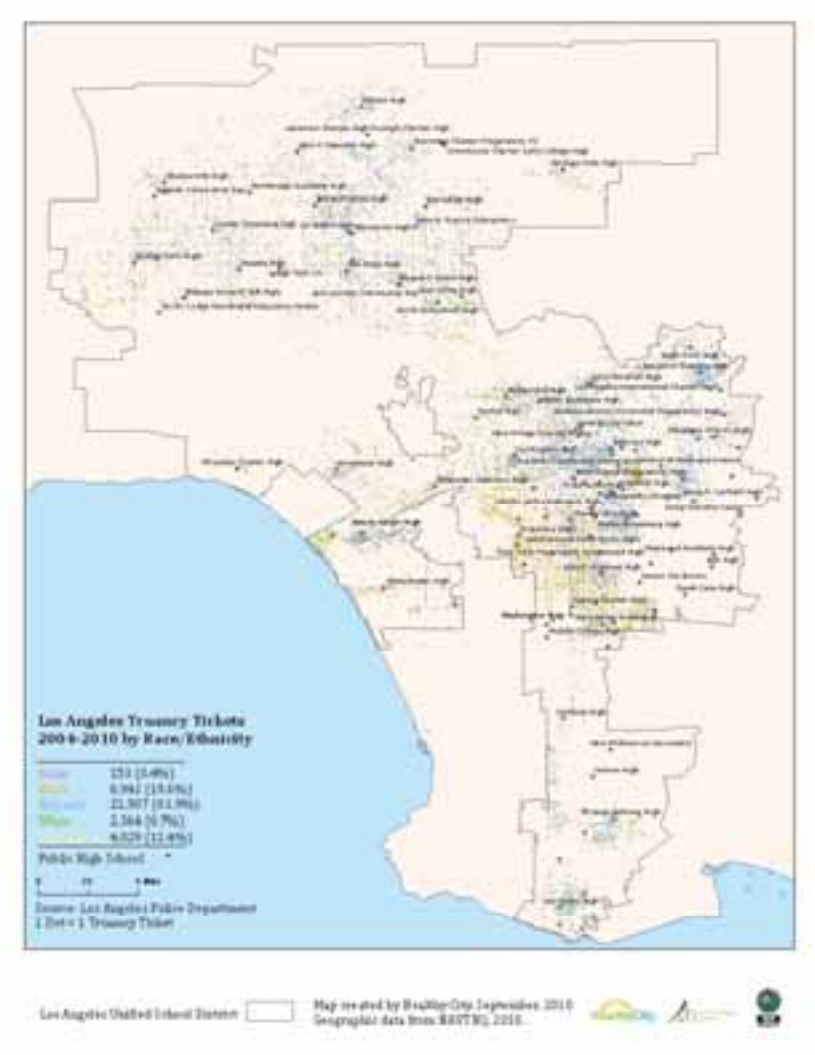
And by High School Attendance Boundaries.

High School Attendance Boundaries are more helpful than the ZIP Code, Census Tract, or neighborhood a school is in, because those geographies don't portray as accurate a picture of what students attend a particular school.

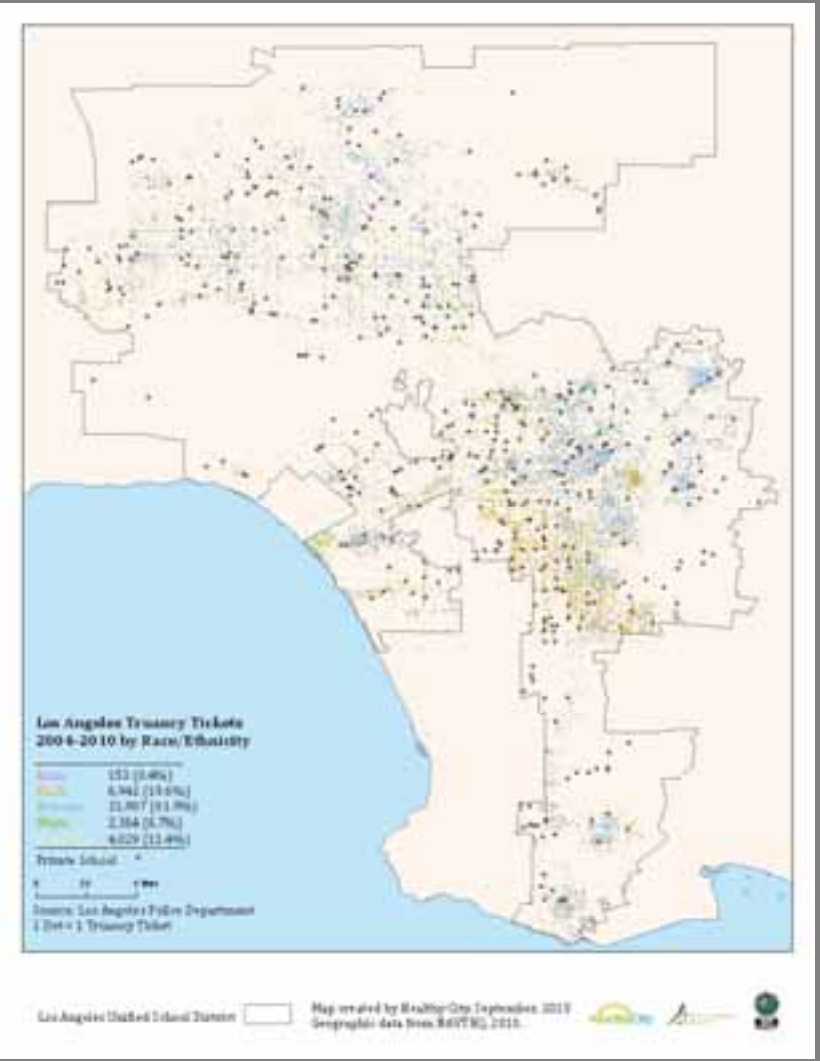
Middle and Elementary School Boundaries are too numerous to show clearly at this scale.

Note: Other high schools are in the attendance boundaries, but are charters, private schools, etc.

Public High Schools

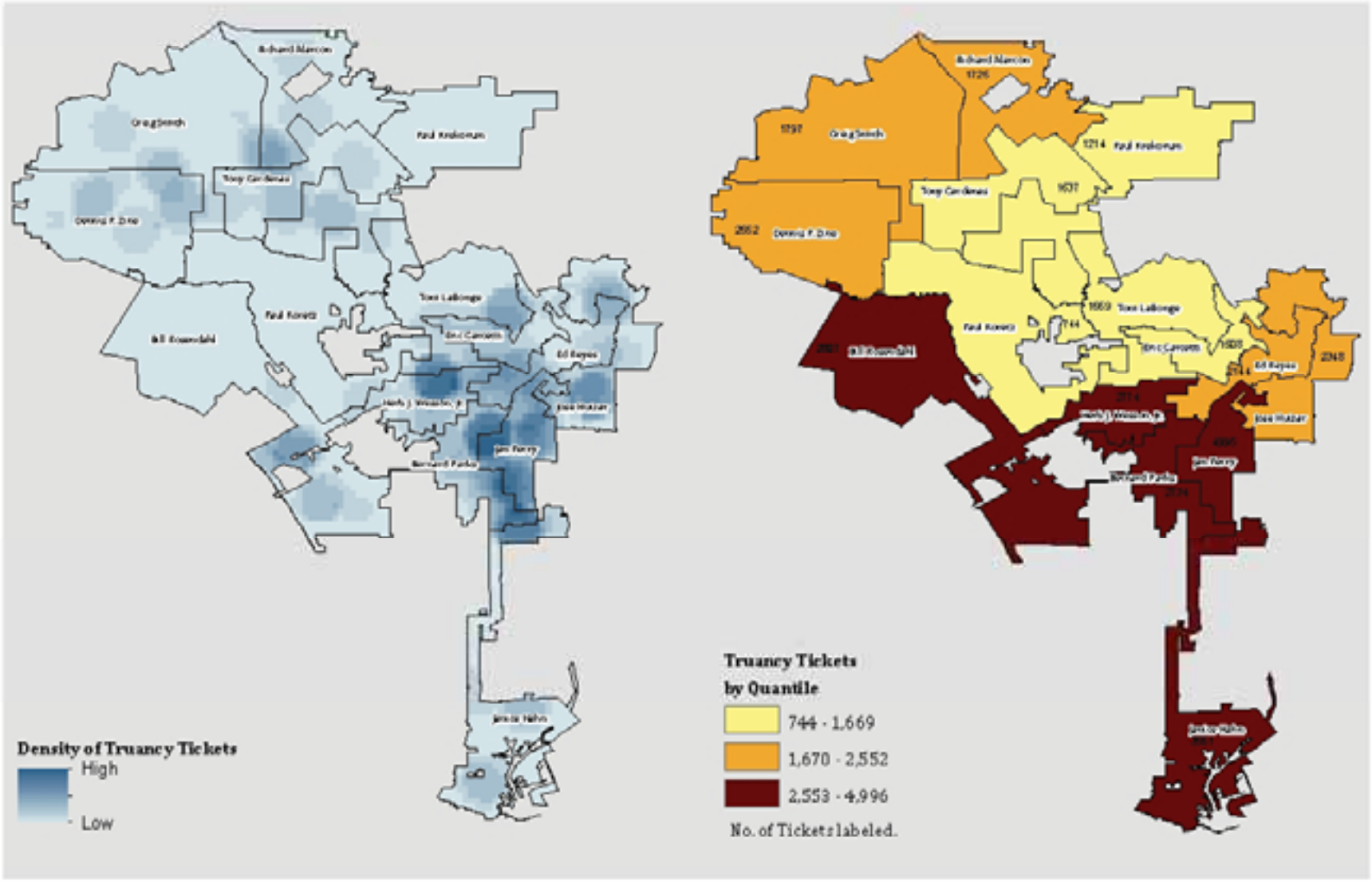


Private Schools



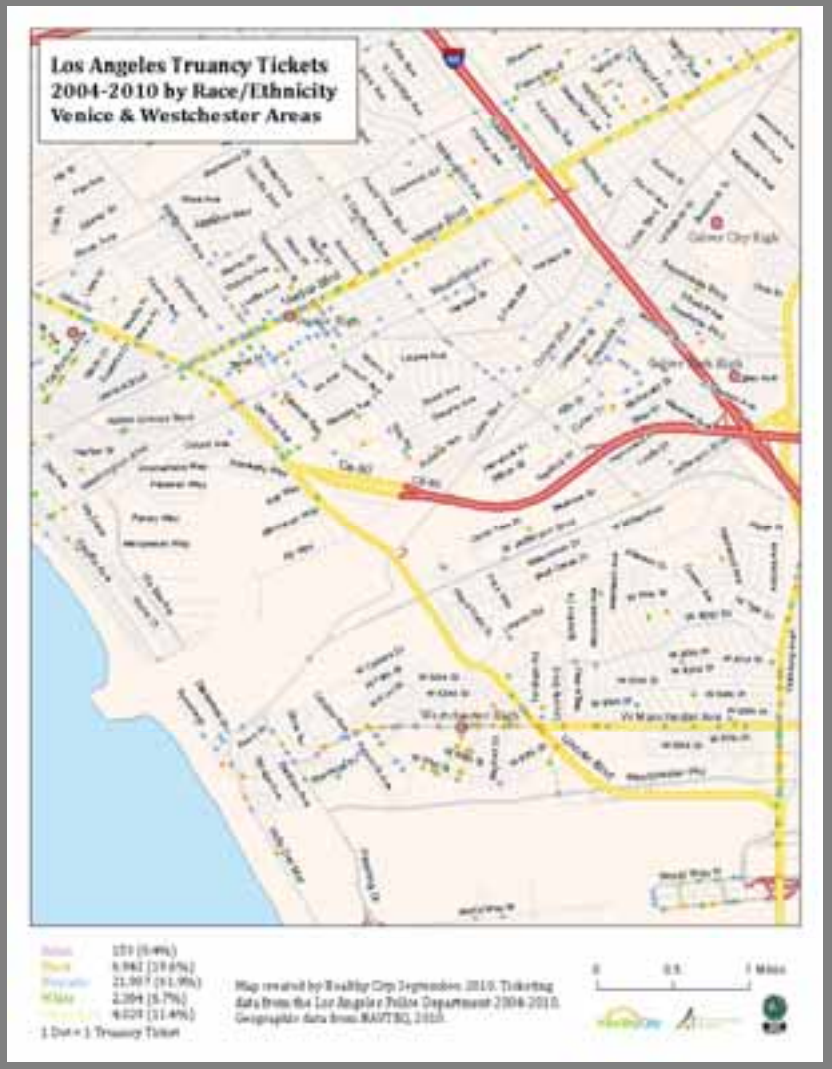
We looked at tickets and the locations of public and private schools.

Density and Number of Los Angeles Truancy Tickets by City Council District



Next we created a density surface and choropleth maps.

Different symbolizations change the appearance of the pattern of ticketing.



We zoomed in to a particular area in the city of Los Angeles where LCSC performed intensive qualitative analysis.

Positive Steps

LAPD has reviewed curfew enforcement and identified flaws to fix.

LAPD is working to add a directive ending ticketing in front of or in school.

City Councilmen have supported LCSC after being swayed by the maps and data, marking a reversal from earlier efforts to make ticketing easier in schools.

Next Steps

Submit this work as part of a report to an upcoming public safety commission meeting.

Begin work analyzing patterns at newly opened attendance improvement centers (AICS).

Continue to advocate for student's rights, and the equitable treatment of all people.

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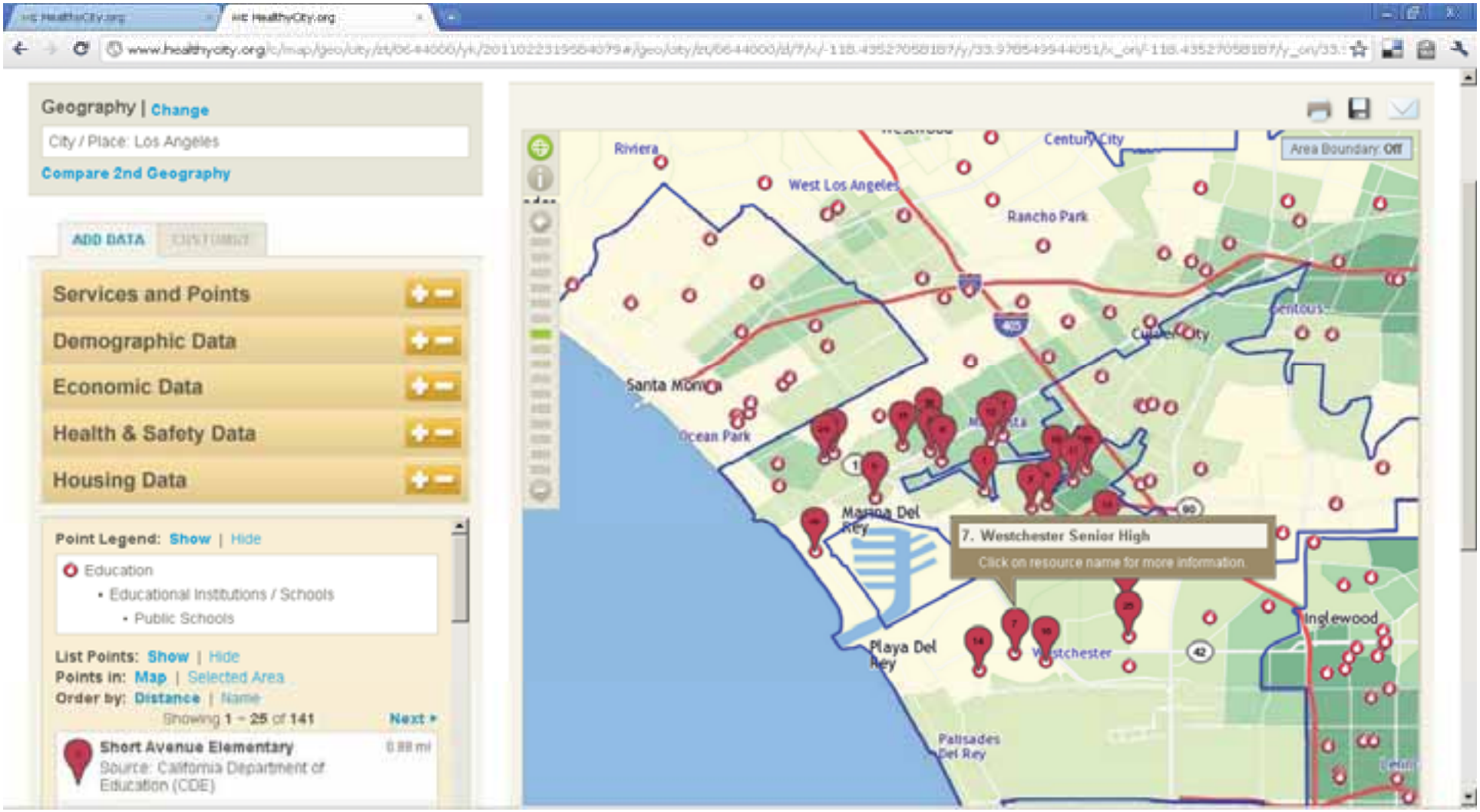
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Order by: Distance | Name
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Next »
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Source: California Department of Education (CDE)
Area Boundary: Off
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West Los Angeles
Century City
Rancho Park
Santa Monica
Ocean Park
Marina Del Rey
Playa Del Rey
Westchester
Inglewood
Palisades Del Rey
7. Westchester Senior High
Click on resource name for more information

THANK YOU

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