How to Use the SDHEART Social Determinants of Health Dashboard

Nov 16, 2026 · Timothy Boyd

About this dashboard

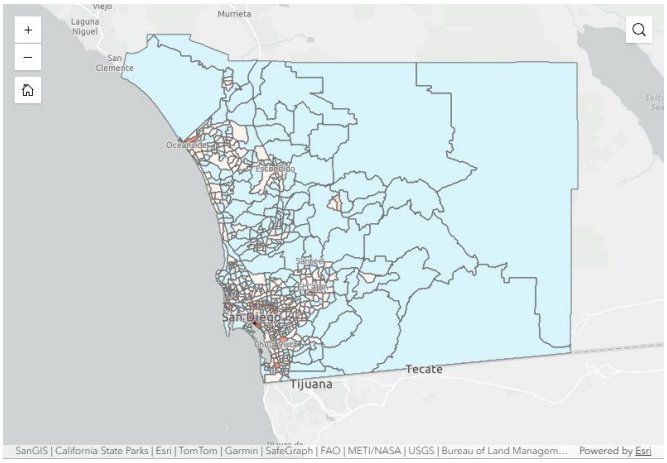
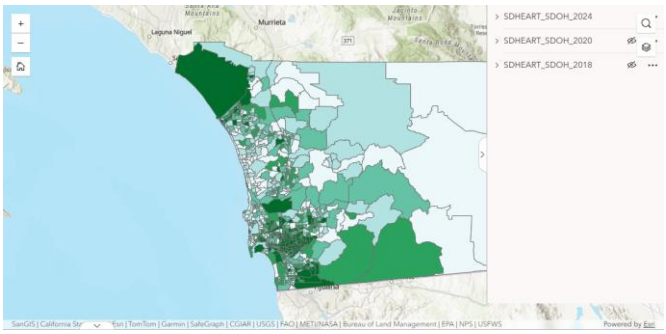
This dashboard compares where homeless encampments were counted in San Diego County with the neighborhood characteristics, or social determinants of health (SDOH), of each census tract. It covers the Point-in-Time Count (PITC) for 2018, 2020, 2024 and 2025. It was built by the NSF-funded SDHEART project at SDSU's HDMA Geography Center to support the Regional Task Force on Homelessness (RTFH), policymakers, and the general public.

Map	What it shows	Source
Left: PITC encampments	Encampments counted on the ground during the annual Point-in-Time Count, summarized by census tract	Regional Task Force on Homelessness (RTFH)
Right: Social determinants of health	10 census variables shown as rates for each tract	U.S. Census Bureau, American Community Survey 5-year estimates

The left map shows where encampments are. The right map shows what those neighborhoods are like. Viewing them side by side shows which neighborhood characteristics tend to occur where encampments are concentrated.

Getting around

Part	Where	What it does
Year tabs	Top left	Switch between PITC 2018, 2020, 2024 and 2025. Each tab loads that year's encampment map.

Part	Where	What it does
PITC map	Left	San Diego County census tracts shaded by encampment count. Use + and − or scroll to zoom, the home button to reset, and the magnifier to search an address. 
SDOH map	Right	The same tracts shaded by the social determinant you pick in the layer list. Darker means a higher value. 
Layers	Right edge of the SDOH map	Click the layers button (stacked squares) to open the list. Expand a year, then a variable, and turn it on. 
Variables panel	Below the left map	The 10 selected social determinants, grouped by whether they have a negative or positive relationship with encampments
Correlation chart	Below the right map	Compares how each variable relates to PITC encampments and to 311 encampment reports
Star button	Top right	Opens **Layer Sources**: where the data comes from and how it was processed

Part	Where	What it does
Info (i) button	Top right	Opens **Help**: what each dataset counts and how the variables were calculated
Help (?) button	Top right	Opens **How to Use**: a short version of this guide

Close any panel with the X in its top right corner.

Reading the two maps

Left map: PITC encampments

Each census tract is shaded by how many encampments were counted there during that year's Point-in-Time Count. Darker or redder tracts had more encampments. Tracts with none stay light.

Counts are summed to the tract rather than shown at exact locations, so the map shows which neighborhoods have encampments without pointing to where any individual person sleeps.

Right map: social determinants of health

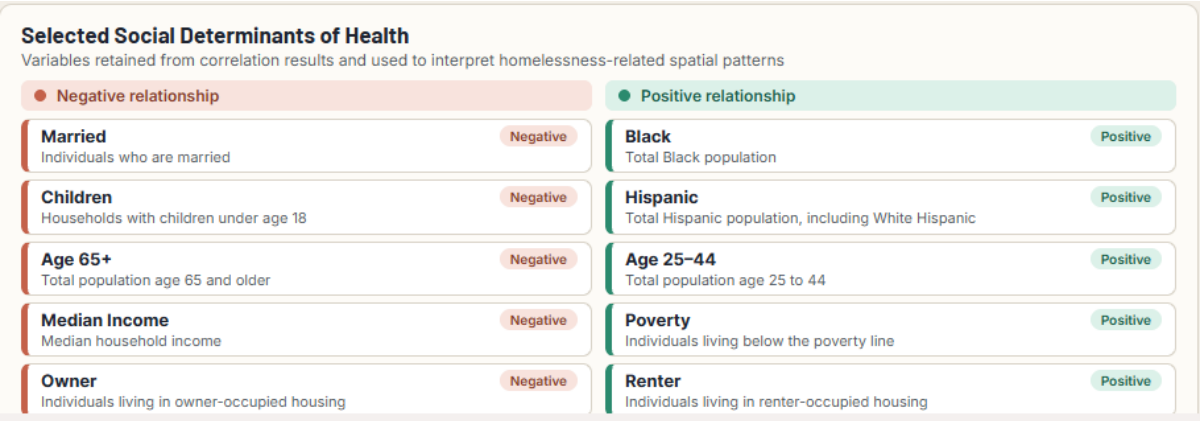
Each tract is shaded by the value of one census variable. Every variable is split into five classes with the same number of tracts in each (quantiles), so the darkest shade always means the top fifth of tracts in the county for that variable.

Variables are shown as shares, not raw counts. A raw count mostly reflects how many people live in a tract, while a share shows what the neighborhood is like. For example, Poverty is the share of residents below the poverty line, not the number of people.

Tip: turn on one variable at a time. Stacked layers hide each other.

The 10 social determinants

These variables were kept from Spearman correlation analyses between census characteristics and homelessness-related counts across several years and data sources.



Variable	Relationship	How it is measured
Married	Negative	Share of residents age 15 and older who are married
Children	Negative	Share of occupied households with children under 18
Age 65+	Negative	Share of total population age 65 and older
Median Income	Negative	Median household income. $250,001 is the Census top-code and means $250,000 or more
Owner	Negative	Share of occupied housing units that are owner-occupied
Black	Positive	Share of total population that is Black
Hispanic	Positive	Share of total population that is Hispanic, including White Hispanic
Age 25–44	Positive	Share of total population age 25 to 44
Poverty	Positive	Share of residents living below the federal poverty line
Renter	Positive	Share of occupied housing units that are renter-occupied

Negative means tracts with higher values tended to have fewer encampments. **Positive** means tracts with higher values tended to have more.

Common tasks

See where encampments match a neighborhood characteristic

1. Choose a year tab.
2. On the right map, open Layers and turn on the matching year (use 2024 for the PITC 2025 tab, the most recent ACS year).
3. Turn on one variable, such as Renter.
4. Compare the dark tracts on both maps. Positive variables should look similar to the encampment map, and negative variables should look like its opposite.

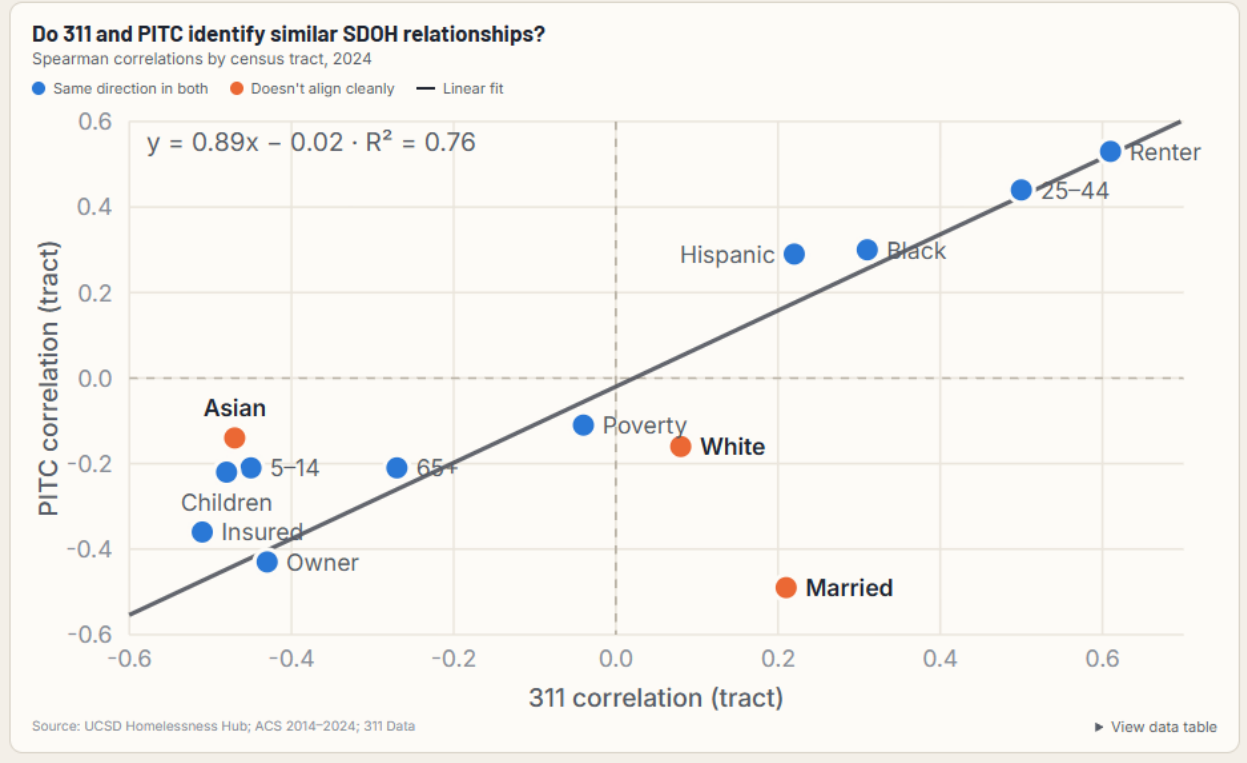
Check one neighborhood

1. Zoom in on both maps. They are linked, so panning or zooming one moves the other.
2. Click a tract on either map to see its values.

Compare years

1. Note the pattern on one year tab.
2. Switch to another year tab and turn on the same variable for that year.
3. Look for neighborhoods that gained or lost encampments, and whether their characteristics changed.

Reading the correlation chart



The chart asks whether two different data sources, PITC encampment counts and City of San Diego 311 encampment reports, point to the same neighborhood characteristics. Each dot is one census variable.

- **Horizontal axis:** the variable's Spearman correlation with 311 encampment reports by tract.
- **Vertical axis:** the variable's Spearman correlation with PITC encampment counts by tract.
- **Upper right:** positive in both sources, such as Renter and Age 25–44.
- **Lower left:** negative in both sources, such as Owner and Children.
- **Blue dots** move in the same direction in both sources. **Orange dots**, such as Asian and White, don't align cleanly.
- **The line** is a linear fit. $R^2 = 0.76$ means the two sources largely agree on which characteristics relate to homelessness.

Hover over any dot to see its exact values.

What the numbers do and don't mean

- **These are associations, not causes.** A variable with a positive relationship does not cause homelessness. It describes the kinds of neighborhoods where encampments were counted.
- **PITC is a one-night count.** It counts encampments seen on a single night in January, so it misses people who move or stay out of sight.
- **311 counts reports, not people.** Areas with more foot traffic can produce more reports for the same number of encampments.

- **ACS values are estimates.** They come from a survey averaged over five years and have margins of error, especially in tracts with small populations.
- **Tract boundaries changed in 2020.** Compare 2018 with 2020 and 2024 by overall patterns, not tract by tract.
- **Colors are relative.** Quantile classes are set within each variable and year, so the same shade can mean a different value on another layer.

Sources and credit

- PITC data: Regional Task Force on Homelessness, San Diego County Point-in-Time Count, 2018, 2020, 2024 and 2025.
- 311 data: City of San Diego Get It Done public datasets, filtered to reports in the Encampment category.
- Census data: U.S. Census Bureau, American Community Survey 5-year estimates (2018, 2020, 2024), census tract level.
- Project: SDHEART, funded by the NSF Build and Broaden (B2) Program, Award #2417568. More at sdheart.sdsu.edu.