Notes from Geospatial/GIS Meetup
November 7, 2023

Rivera Library, Room 140 and Zoom

Attendees: Janet Reyes, facilitator;

In person: Elisa Cortez, Siddharth Kishore
Via Zoom: Adrienne Damicis, Amanda Trinh, Bart Kats,Chinyelu Ugwuanyi, Claudia Carlos, Cristina Gonzalez, Dana Simmons, Daniel Lee, David Lo, Eddie Helderop, Hannah Metz, Heiko Muehr, Jiaqi Shen, Lizette Brenes, Luis Barrios, Margarita Monge, Mike Cohen, Nikki Lee, Selena Hernandez, Xinyu Wang, Yanyi Djamba

Announcements

This meeting was recorded; video is available here. The passcode to view is R4GoCV?5

The Geospatial/GIS Quarterly now contains **a list of geospatial classes** being offered in Winter 2024.

Esri will hold webinars at 9:00 and 11:00 a.m. on November 9 regarding **What's New in ArcGIS Pro 3.2** .

Esri headquarters in Redlands will be the site of a meetup for the **Young Professionals Network** on November 9 at 6:00 pm.

Register to attend **UC GIS Week** November 14-16 for three days of virtual presentations and panels. Three of the presenters are from UCR.

The **City of Riverside** is hosting a GIS Day event on Wednesday, November 15 from 10:30 a.m. to 3:30 p.m. UCR affiliates are more than welcome to attend. There will be a drone demonstration in the late morning, and sometime around 1:30-2:00 GIS cake will be served!

Janet is offering an online workshop on **Introduction to ArcGIS Online** on Tuesday, November 21 from 2:00-3:00 pm.

Students: the call for papers (lightning talk and/or StoryMap competition) for the **Los Angeles Geospatial Summit** is open until Friday, December 1. The Summit will be held at the USC Hotel on Friday, February 23, 2024.

The **Inland Empire GIS User Group** will have its year-end meeting on the morning of Thursday, December 7 at Esri Headquarters in Redlands.

Students can apply for a **summer internship at Esri** by the end of December. Students can also apply to assist at Esri conferences, such as the User Conference in San Diego in July.

Shared links

Article on **life expectancy by region**:
https://www.politico.com/news/magazine/2023/09/01/america-life-expectancy-regions-00113369?

StoryMap on **Los Angeles Indigenous history**:
https://storymaps.arcgis.com/stories/b76cab116cbe4432a629d4791249a958

Presentation

Adrienne Damicis, Geospatial Data Lead at the Public Health Alliance of Southern California, presented on **The Healthy Places Index: Mapping to Advance Health Equity**. The Public Health Alliance consists of eleven counties in Southern California, with the mission of mobilizing "the transformative power of local public health for enduring health equity."

Note: Adrienne has made her content-rich slide presentation available to us. The slides contain tutorials for many of the HBI map features, and much more!

The goal of the HPI is to advance health equity. It incorporates many types of data relating to the social determinants of health, such as affordable housing and quality education. Many of these determinants are shaped by policies. The HPI uses a positive, asset-based frame, and tries to avoid stigmatizing communities.

The HPI is comprised of:
- the Index (a score of 23 weighted, combined community characteristics in 8 policy action areas; compiled using a peer-reviewed methodology)
- Policy Action Guides (evidence-based policy recommendations for each of the 23 HPI indicators)
- Map Platform (interactive display, containing all of the HPI information and additional layers).

All HPI measures are expressed as both a value and a percentile rank, the latter to be used for comparison to other locations. Colors on the map correspond to which quartile the index value or other measure falls in.

Adrienne gave a demonstration of the HPI map, viewing data in the Coachella Valley. Although the default display is by census tract, several other geographies are available. Clicking on a neighborhood is the best way to view its associated data (including Policy Action Areas) in a Community Conditions side panel. Race and ethnicity, as well as many other data types not included in the HPI, are also available.

A tool called View Indicators allows the user to change the layer being displayed on the map. Hundreds of "Decision Support" layers such as wildfire risk, health data, and others are available. Also, the user has the ability to filter the map to locate areas that meet one or more selected criteria. For instance, they could choose to display only the census tracts falling in the lowest quartile for home ownership. Filtering by race/ethnicity is another option, by itself or in combination with other filters.

It's also possible for the user to upload data (as a CSV or a shapefile) to the HPI map; making a free HPI account is required. Or, with a free API key, the user can download HPI data to use with their own tools.

The slides include a link to download guidance for best practices in using HPI data for academic or professional projects. They also include summaries of how people are using HPI data. Adrienne noted that HPI data has been used to inform the distribution of over $2.3 billion to California communities.

An Extreme Heat edition of the HPI map provides data to help assess impacts of climate change and the location of populations that are most vulnerable to its effects.

Future planning includes a series of story maps, which will provide qualitative context along with the quantitative data. Migrating California HPI map data to 2020 Census geographies is an effort in progress.

Discussion

David asked about how the HPI components were weighted, and what are the impacts of that weighting when assessing urban vs. rural environments. Adrienne said the method used is the weighted quantile sums regression model, and all indicators are correlated with life expectancy at birth. The weighting relates to how much correlation a factor has with life expectancy. It turns out that their model is more predictive of life expectancy in urban areas, but they are able to see trends in rural areas as well.

Bart wondered if there are counterparts of the HPI for other states. Adrienne replied that their team created a similar index for Utah, after the California HPI map was up and running. The Public Health Alliance is in talks with other states as well.

Janet asked Adrienne to talk about any specific mapping challenges they encountered. One challenge that came to mind was trying to standardize various types of data across different geographies. For instance, some users need to report their data by ZIP Code tabulation areas, but much of the source data is collected in other geographies. Boundary changes of Census tracts and other geographies over time also present challenges. IPUMS has helpful resources for dealing with these issues. The other large challenge relates to gaps in and the quality of the available source data, which may be skewed by collection methodologies that introduce bias.

Contact

adamicis@phi.org