open climate change and health equity data: access and use

Public Health
Seattle & King County

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Health Community Planning and Partnership Team

open climate change and health equity data
– session overview –

- **intros** – you, us, session
- **topic flyover** – scope, notable examples
- **table discussions** –
  - application and use cases
  - cross-sector collaboration
  - serving ‘where needs are greatest’
- **closing activity –**
  - what building blocks are missing?
  - what are early steps in your community?

open climate change and health equity data
– intros –

- **name**
- **home community**
- **main job or volunteer role**

open climate change and health equity data
– **session objectives** –

1) **grow familiarity** with:
   - open data types and access platforms
   - applications, use cases, and value proposition

2) **grow access and use** by considering:
   - local use cases and applications
   - civic-sector collaboration ingredients

open climate change and health equity data
– scope –

- **climate changes –** historic, current, and forecasted
- **climate change exposure and effects –** over time and place
- **climate change mitigation –** lifecycle benefit and burden patterns of emission countermeasures (historic, current, and proposed)
- **climate adaptation –** vulnerability and resiliency characteristics of communities, their infrastructure, and supporting ecosystems
- **health equity –**
  - **built environment characteristics –** social determinants (by place)
  - **social vulnerability –** and harm exposure levels (by place)
  - **health outcomes –** where environmentally-influenced (by race and place)

open climate change and health equity data

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stakeholders, uses, and value proposition

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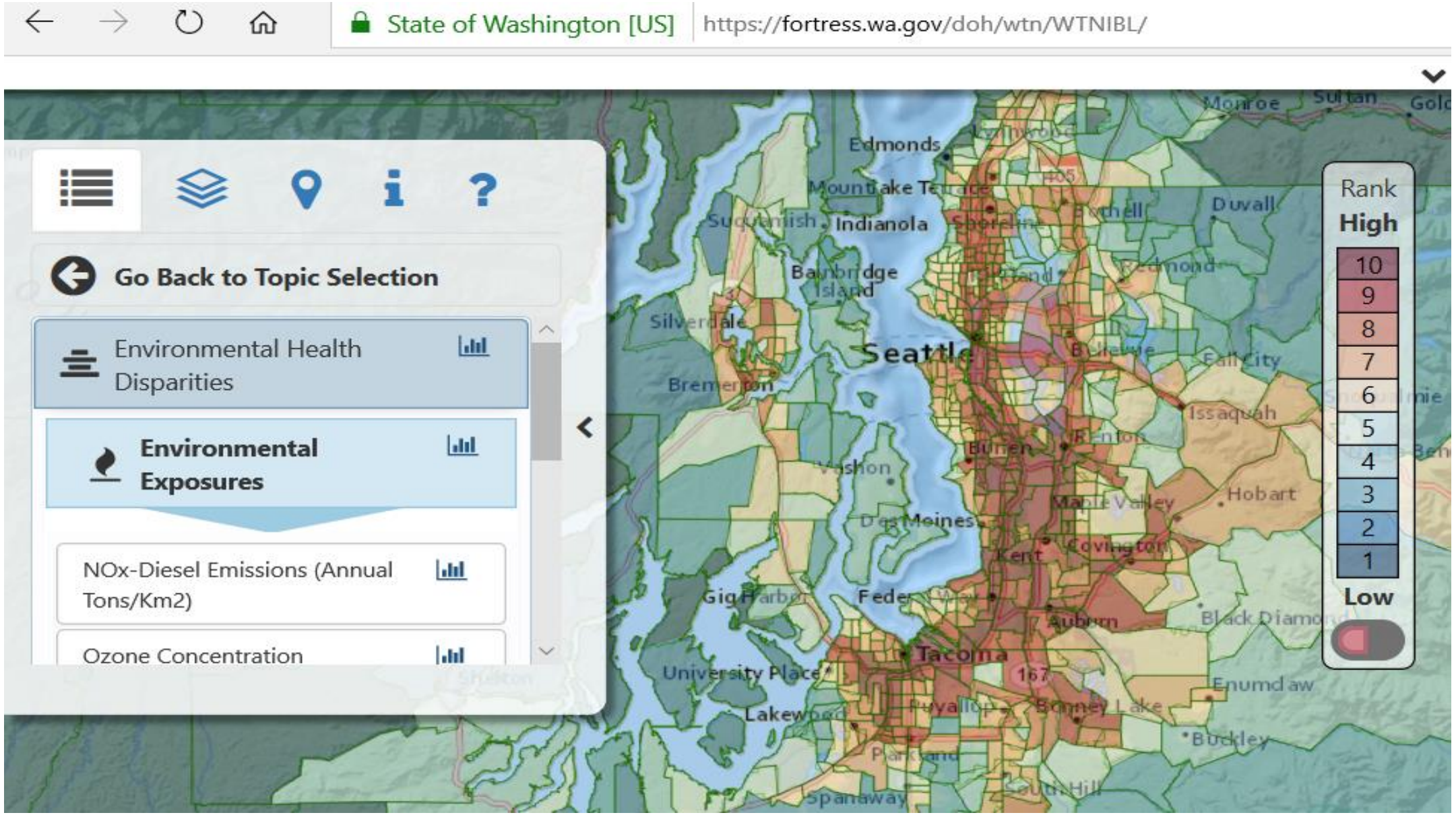
open climate change and health equity data
– notable national and regional examples –

- Regional climate and health monitoring report, Oregon
- Oregon Metro Data Resource Center
- Metro Regional Barometer
- Climate Change & Health Vulnerability Indicators for California
- Boston's Climate Vulnerability Dashboard
- King County Open Data Hub - Climate, Equity and Social Justice

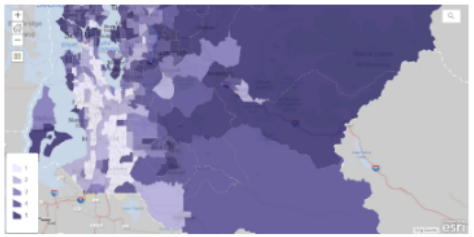
WA Tracking Network Environmental Health Disparities Map



King County maps of indexes provide robust set of indicators as backdrop to analyze services and programs

Open Data Hub | Equity Dashboards | People & Place | Community Indicators | Disparity Analysis | Glossary | Terms of Service

One method of calculating equity is to use indicators from many categories to have a broad view of conditions describing a geographic area. The following indexes include indicators from the **Census American Community Survey (ACS)**, **Centers for Disease Control and Prevention (CDC)**, **Public Health - Seattle & King County**, **Washington Tracking Network (WTN)**, and **EJSCREEN**.



CDC Social Vulnerability Index

CDC Social Vulnerability Index (CDCSVI)

The CDC Social Vulnerability Index shows which communities are especially at risk during public health emergencies because of factors like socioeconomic status, household composition, racial composition of neighborhoods, or housing type and transportation. It uses 15 U.S. census variables to identify communities that may need support before, during, or after disasters.

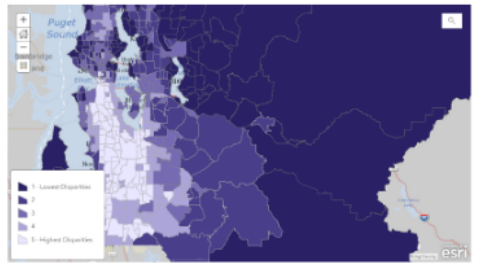
Source: **Centers for Disease Control and Prevention**, **American Community Survey (ACS)**, 2014-2018 (5-year)

Go to the map

Environmental Health Disparities Index (EHD)

Washington State Department of Health provides and index of Environmental Health Disparities for all the census tracts in Washington. The model is based on a conceptual formula of Risk = Threat * Vulnerability, where threat and vulnerability are based on several indicators. For this layer, the index has been recalculated for just the census tracts in King County.

Source: **Washington Tracking Network (WTN)**, **American Community Survey (ACS)**, 2013-2017 (5-year), **EJSCREEN**



Environmental Health Disparities Index

Go to the map

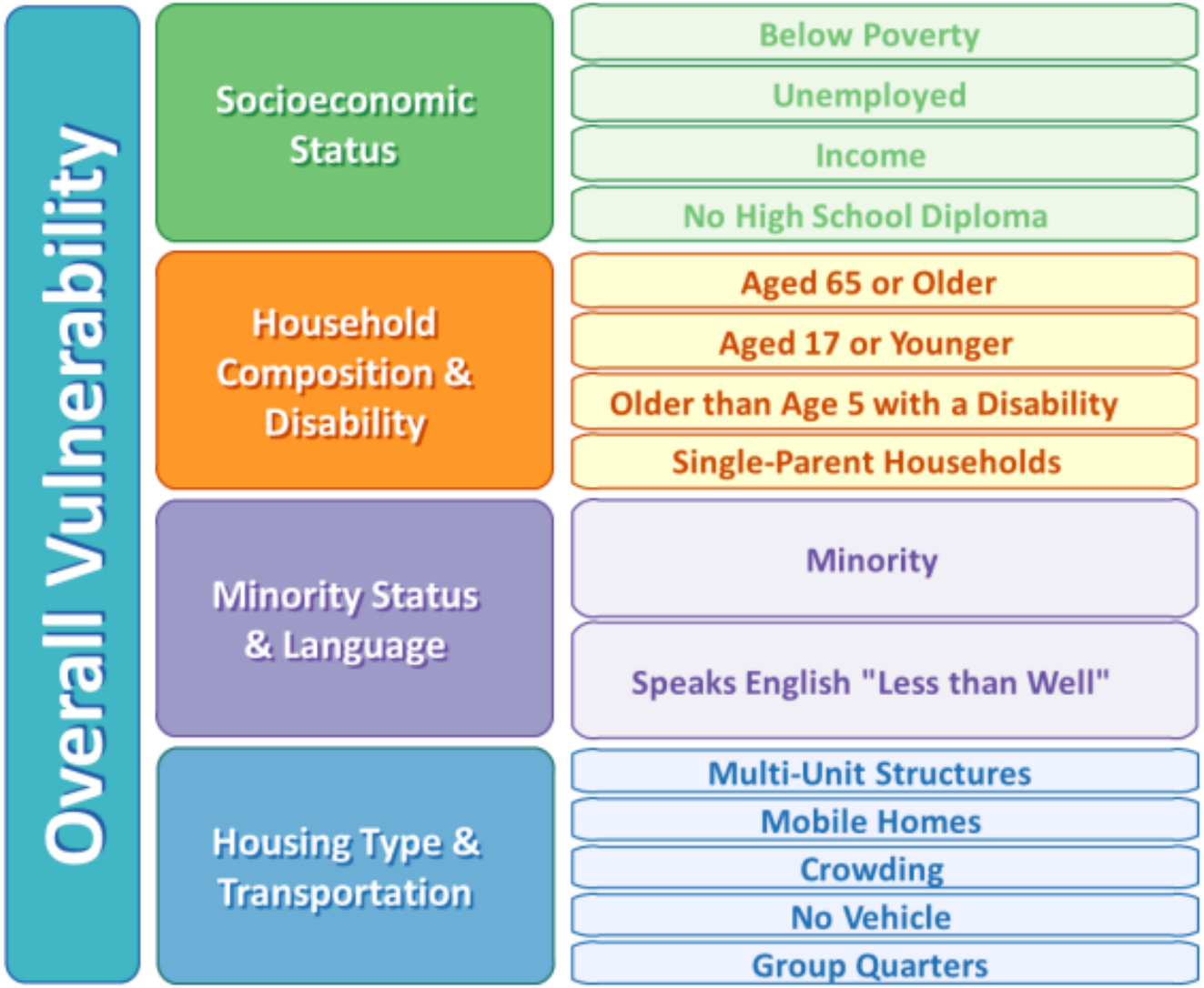
[Maps | Equity and Social Justice Open Data (arcgis.com)]

King County

What is the CDC Social Vulnerability Index?

Variables Used

American Community Survey (ACS), 2014-2018 (5-year) data for the following estimates:

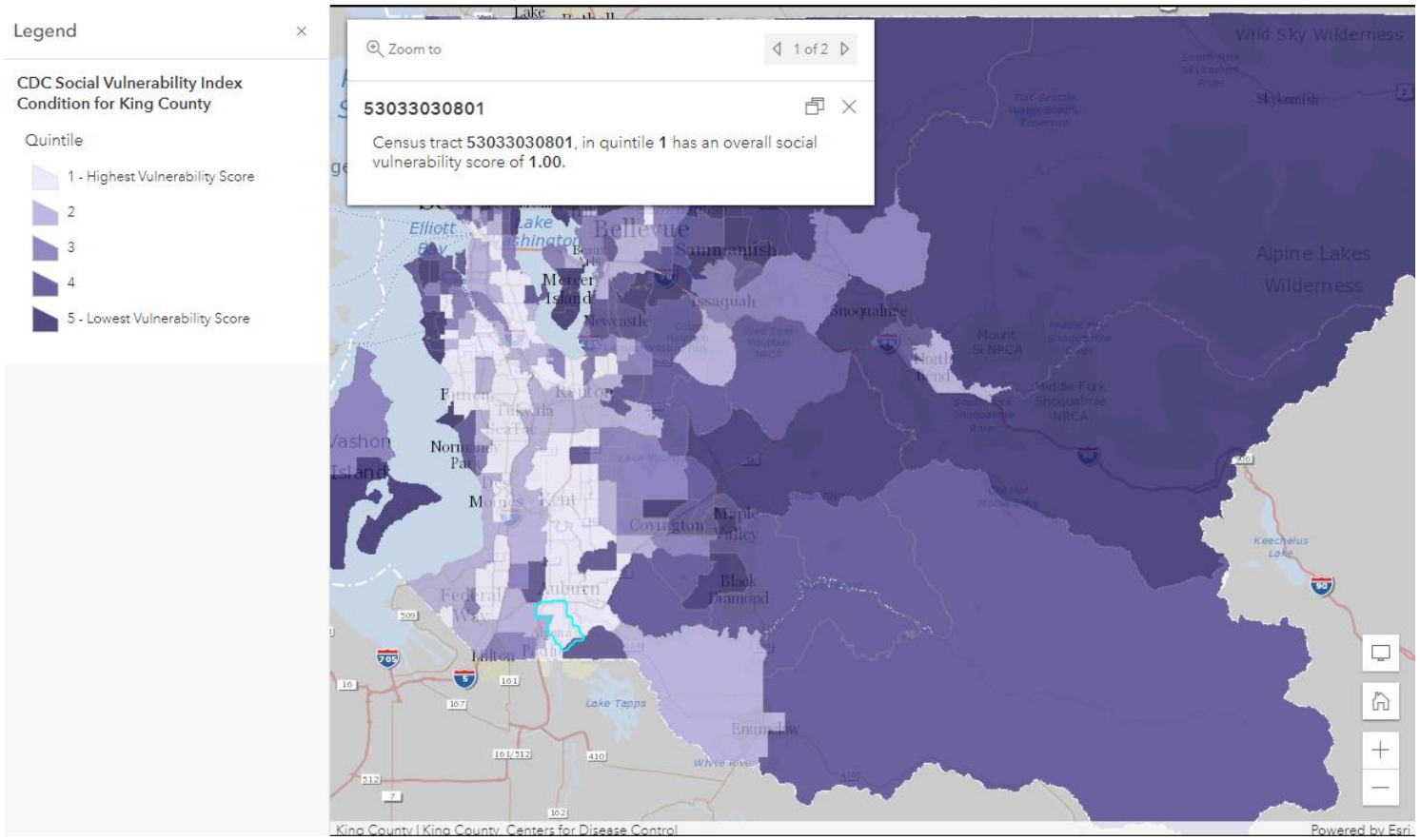


Video – Methods https://youtu.be/REKFHOryflA
Documentation - https://svi.cdc.gov/Documents/Data/2018_SVI_Data/SVI2018Documentation.pdf

King County SVI backdrop

Methodology

- Rank tracts by CDC Social Vulnerability score
- Divide tracts into 5 equal groups (quintiles)
- Assign quintile value of 1 to 5 - where 1 indicates highest vulnerability score and 5 indicates lowest vulnerability score

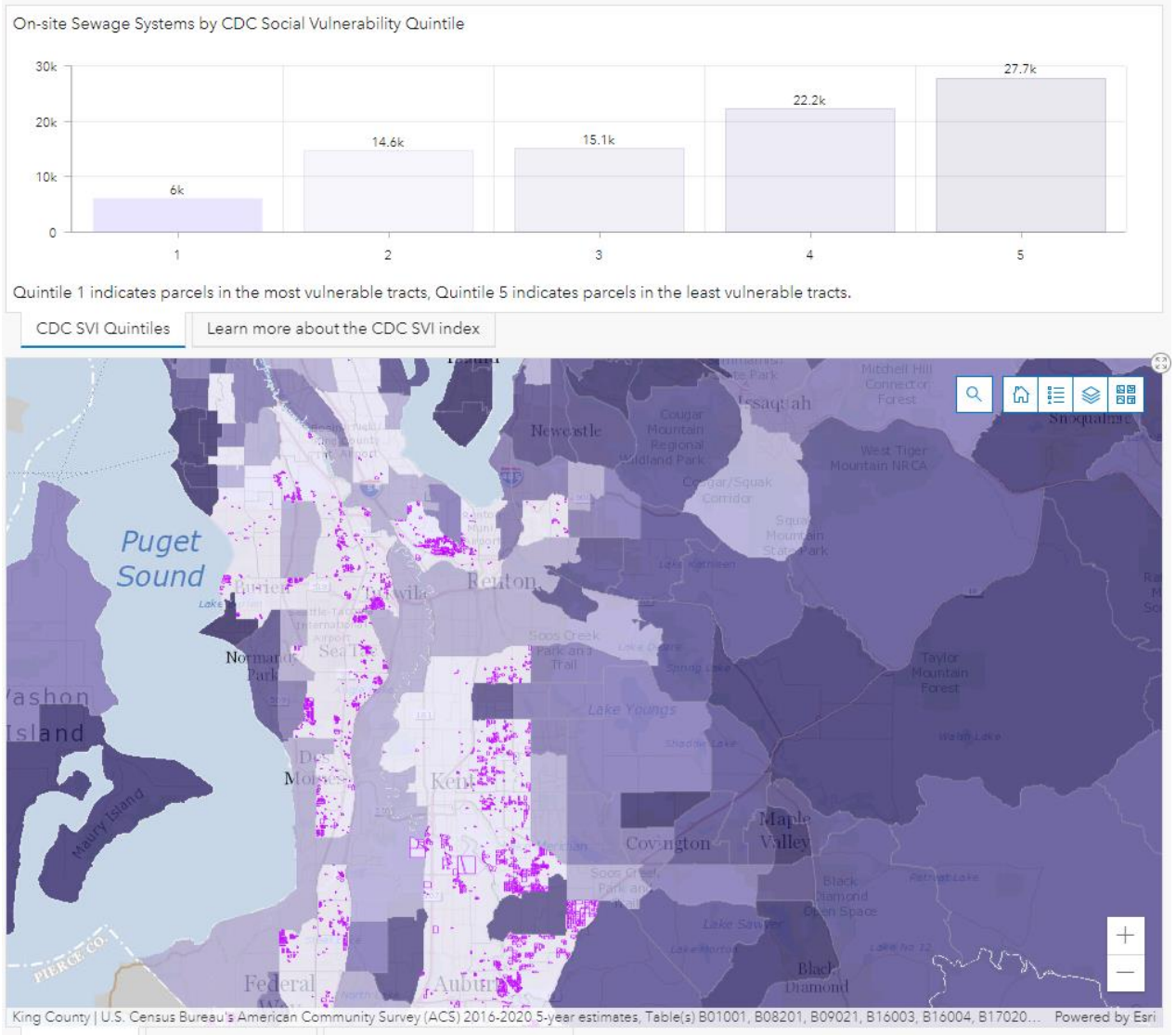


The symbology uses lighter colors for lower values (quintile 1) and darker colors for higher values (quintile 5) to avoid stigmatizing dark as bad.

OSS Vulnerability Dashboard

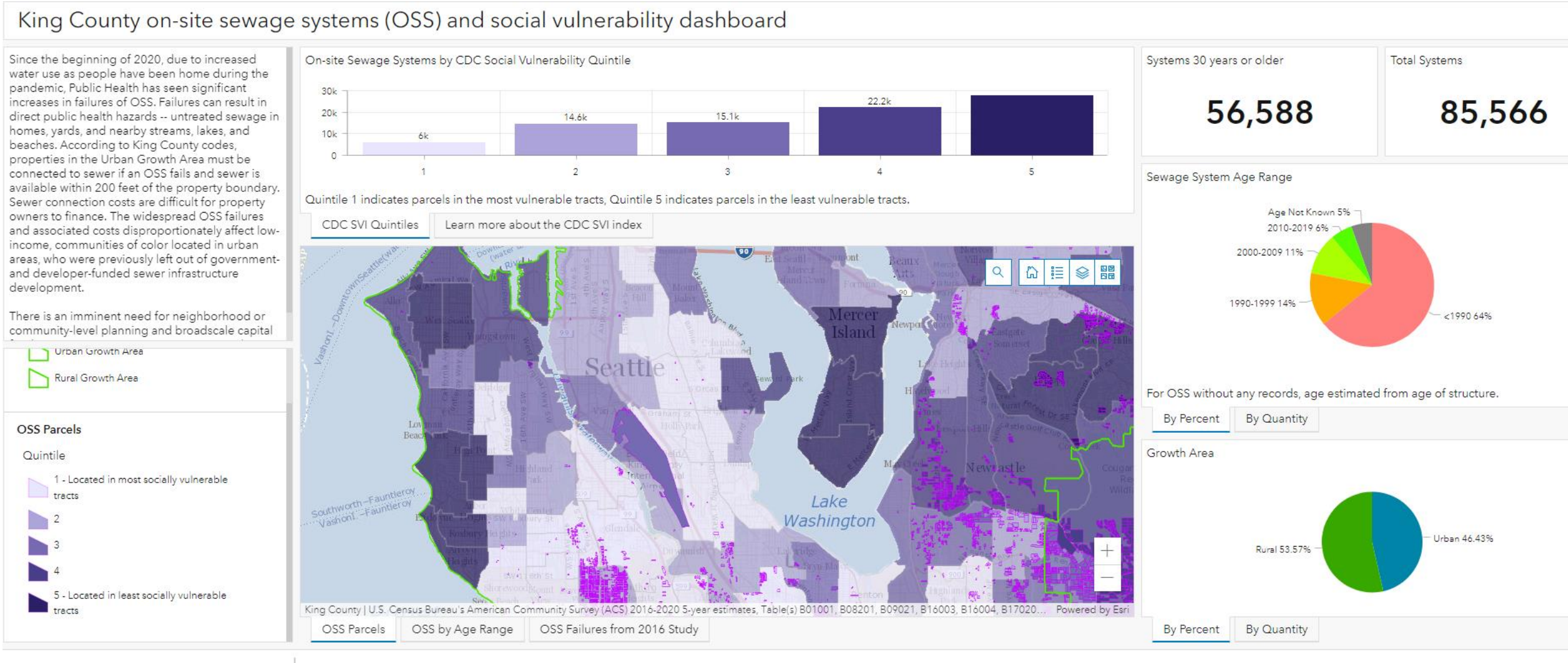
Perspectives
on where constraints and needs may be greatest

Dashboard is lighting up parcels with On-site Sewer Systems in CDC Social Vulnerability quintile 1, where responses (e.g. technical assistance) will be pro-equity



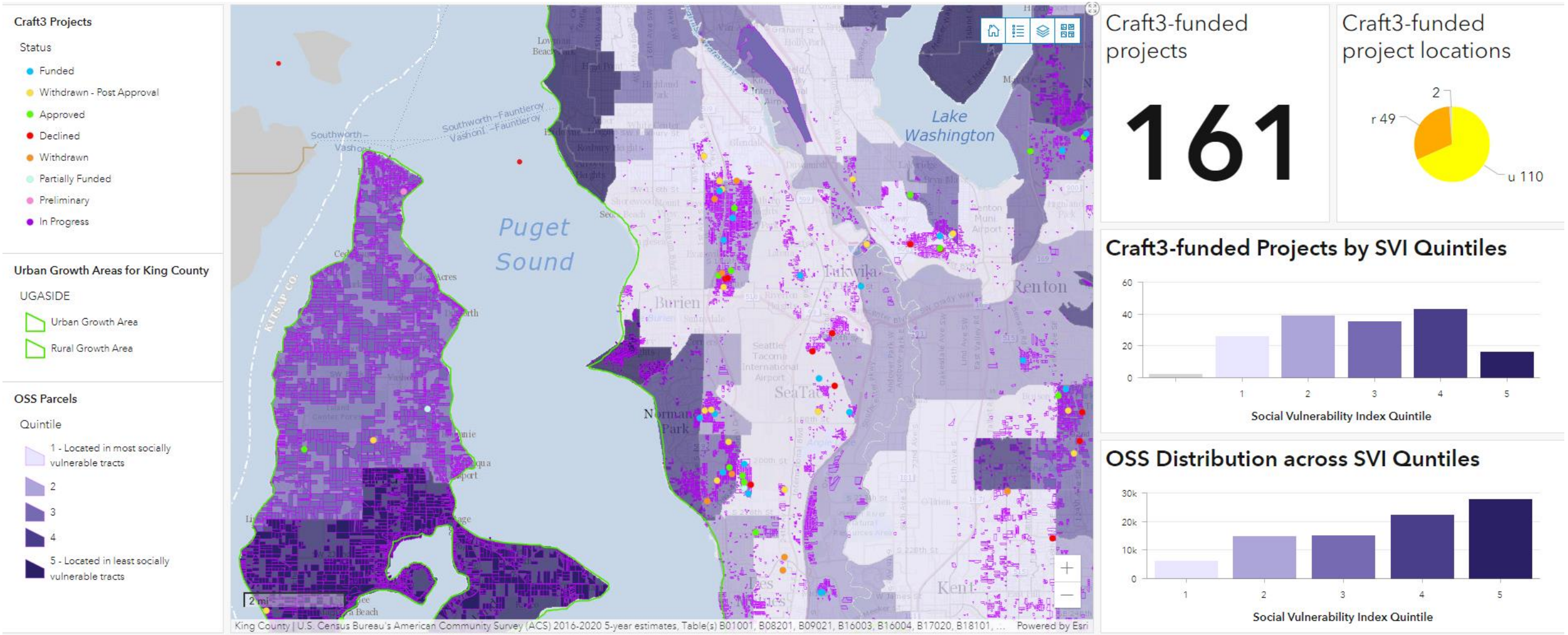
Dashboards typically configured to present: 1) disparity predicament today, and 2) how actions are landing against this backdrop

Example here: % of parcel with an On-site Sewer System by CDC Social Vulnerability Index



Dashboards typically configured to present: 1) disparity predicament today, and 2) how actions are landing against this backdrop

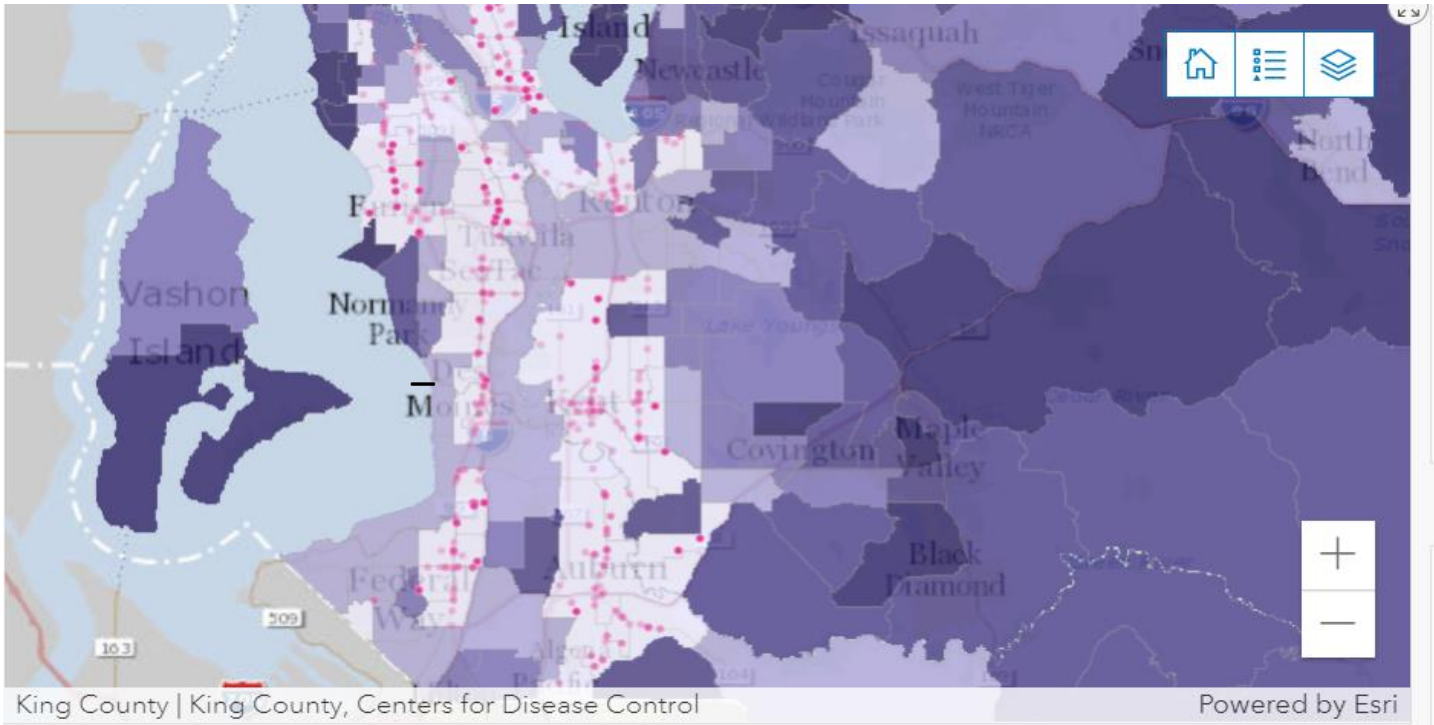
Example here: How 'Craft3 funding' (technical assist resource) is landing against CDC SVI backdrop

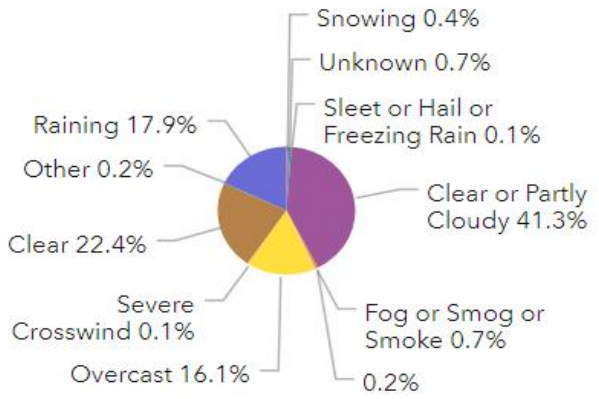


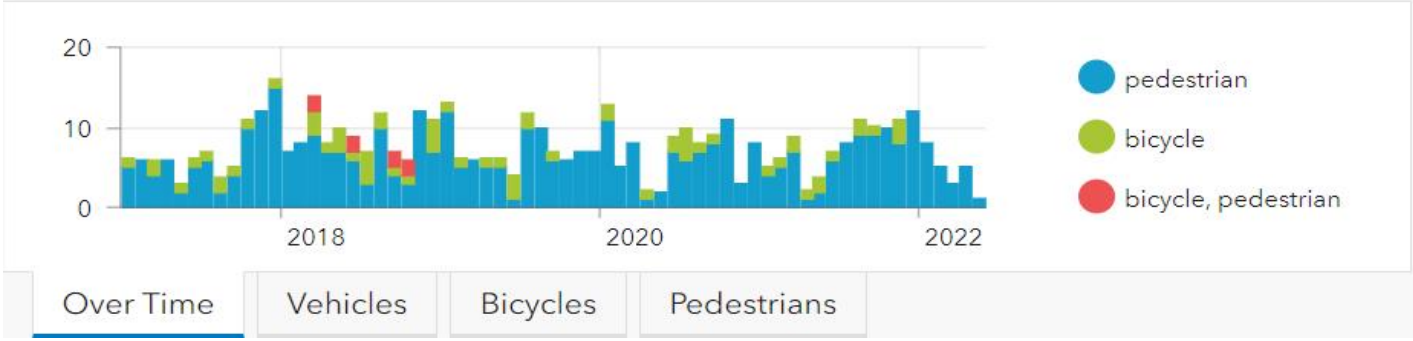
Standard method for considering 'where needs are greatest', using quintiles of CDC Social Vulnerability Index (SVI), or King County Environmental Health Disparity index (local recalc of WA State Environmental Health Disparity Index)

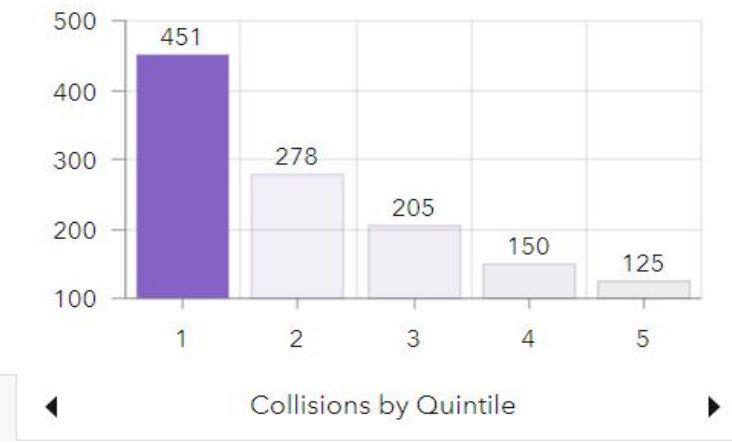
Example here: Occurrences of traffic injuries and deaths ('17-'22) within SVI quintile 1 – highest vulnerability

** Note % of total within Quintile 1*









– questions? –

– table discussions –

1 – “….at my jurisdictional scale, a promising use case or application domain is/might be….. ”

2 – “in my example, stakeholders who are/maybe relevant include ….”

3 – “ to empower those whose needs are greatest might require ….”

– report outs –

1 – use cases and application areas

2 – stakeholder considerations

3 – empowerment tools

– full group popcorn –

common barriers and countermeasures – to access and use

- local/municipal
- county
- regional/multi-county/mpo
- state

potential collaborators – to build shared capacity

baby steps – for me/us

– contact info –

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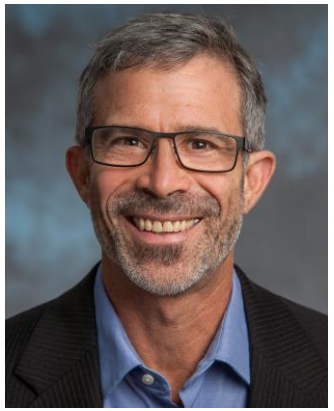

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