Innovative Geospatial Tools and Technologies To Empower NWS Service Equity Success

Jarrod Loerzel (Research Social Scientist)

NOAA/NWS/OSTI/Social, Behavioral, and Economic Sciences Program

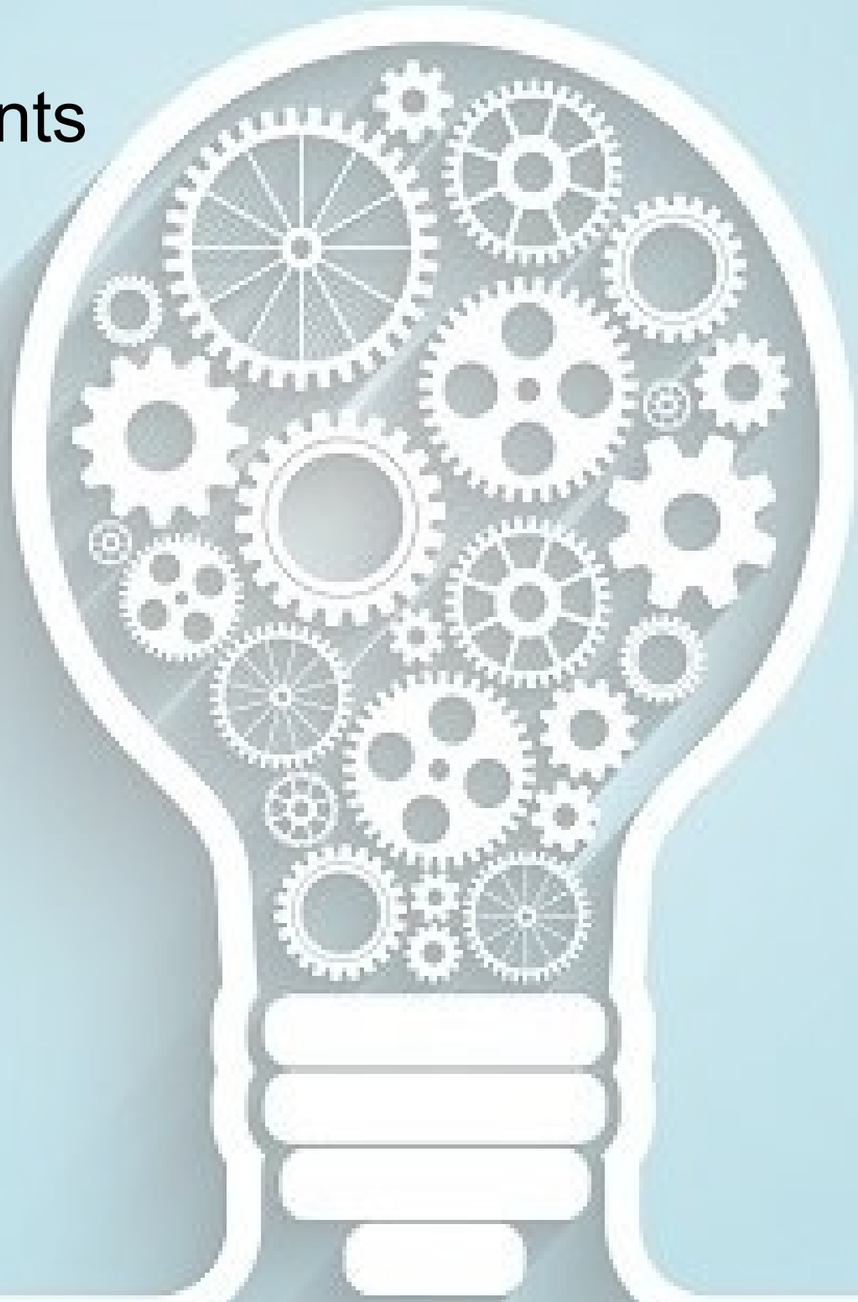
Matt Beitscher (Lead Meteorologist)

NOAA/NWS/St. Louis, MO

November 15, 2024

Overview

- Documenting Education & Outreach Events
  - Why?
  - How?
- Details of the CDC/ATSDR SVI
- Pros & Cons of the SVI
- Other Tools
- Final Thoughts

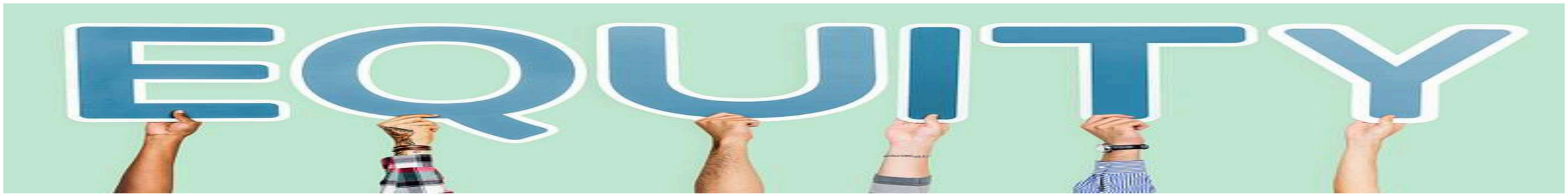


Why?

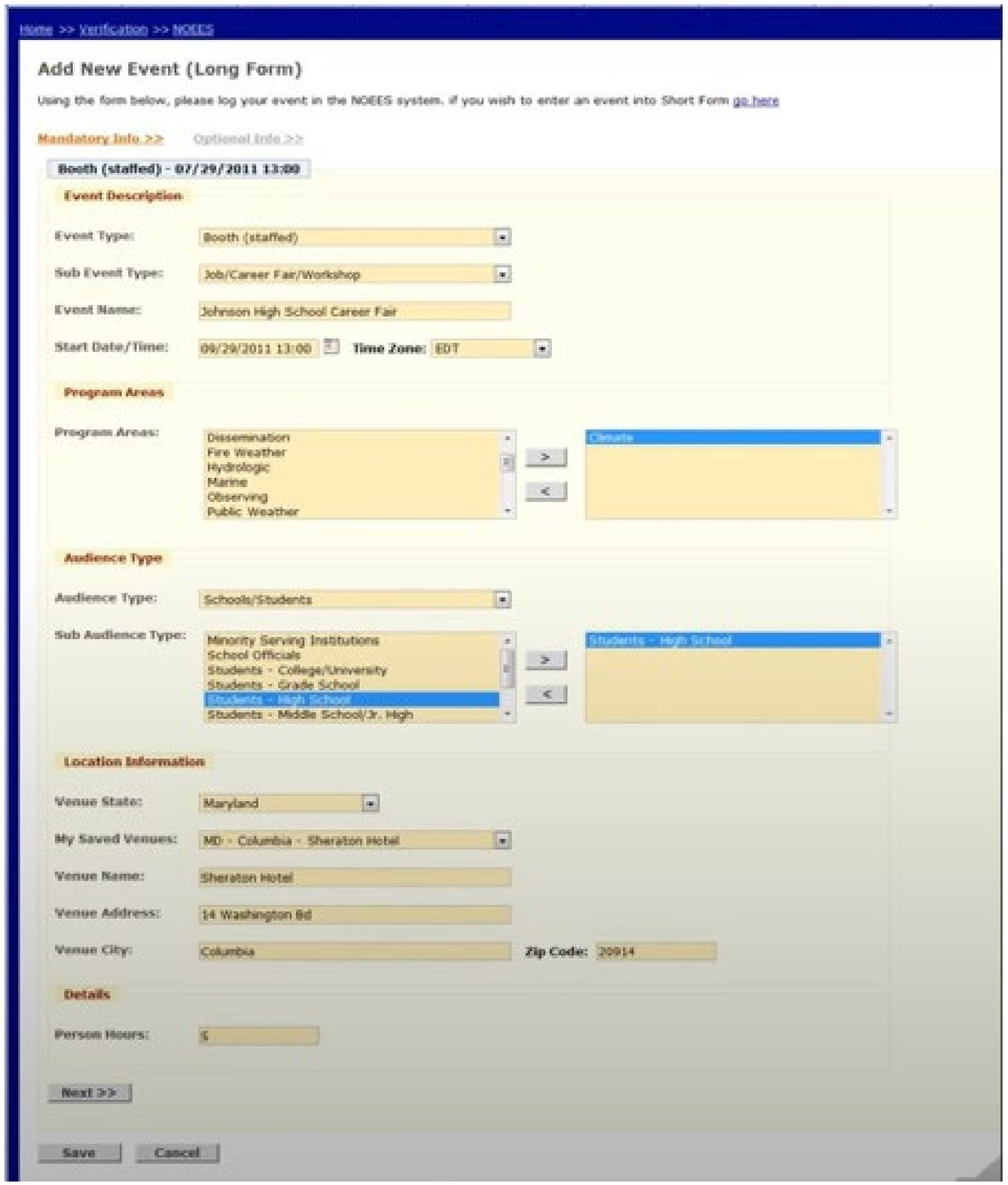
Drivers of Equitable Service Delivery

- Executive Order 13985: *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*
  - "...the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment"

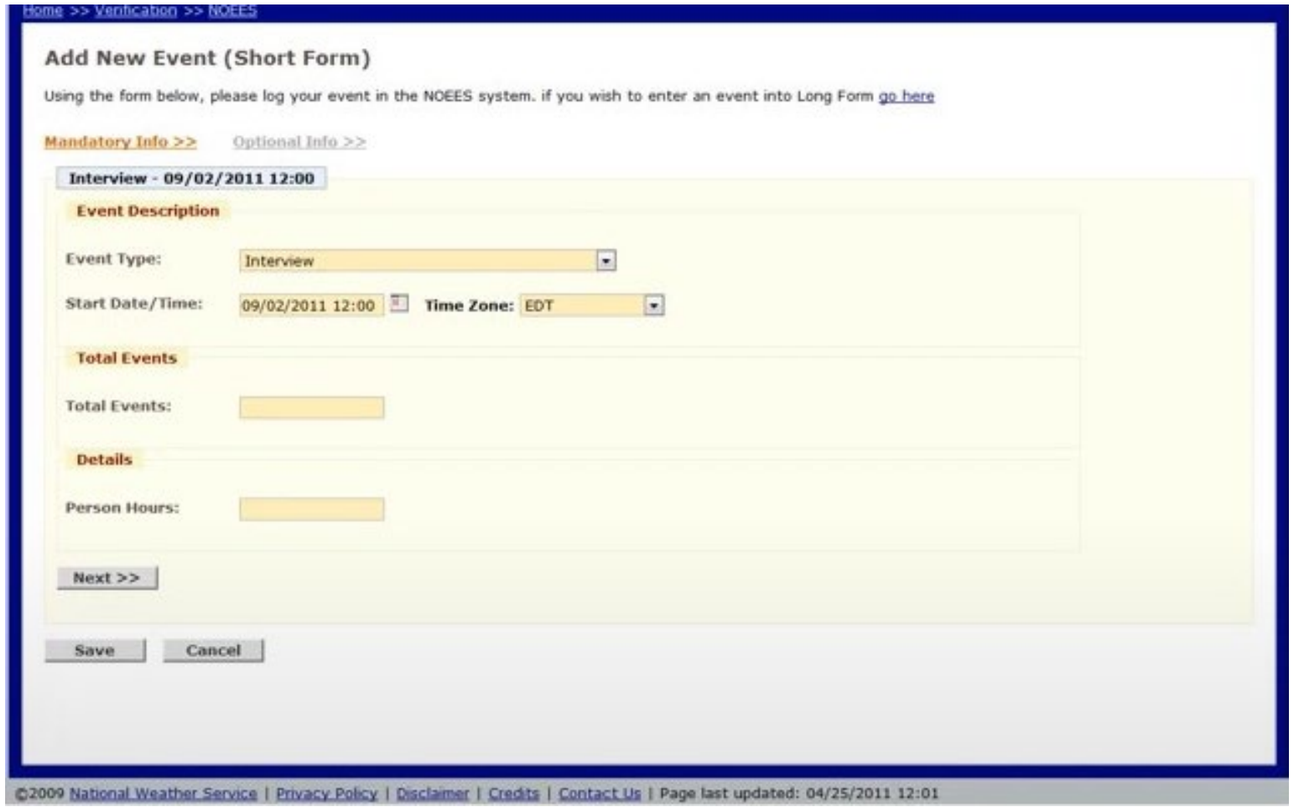
- NWS Service Equity Priority Actions 2023-2026
  - Implement GIS-based Social Vulnerability Impact Assessment Tool



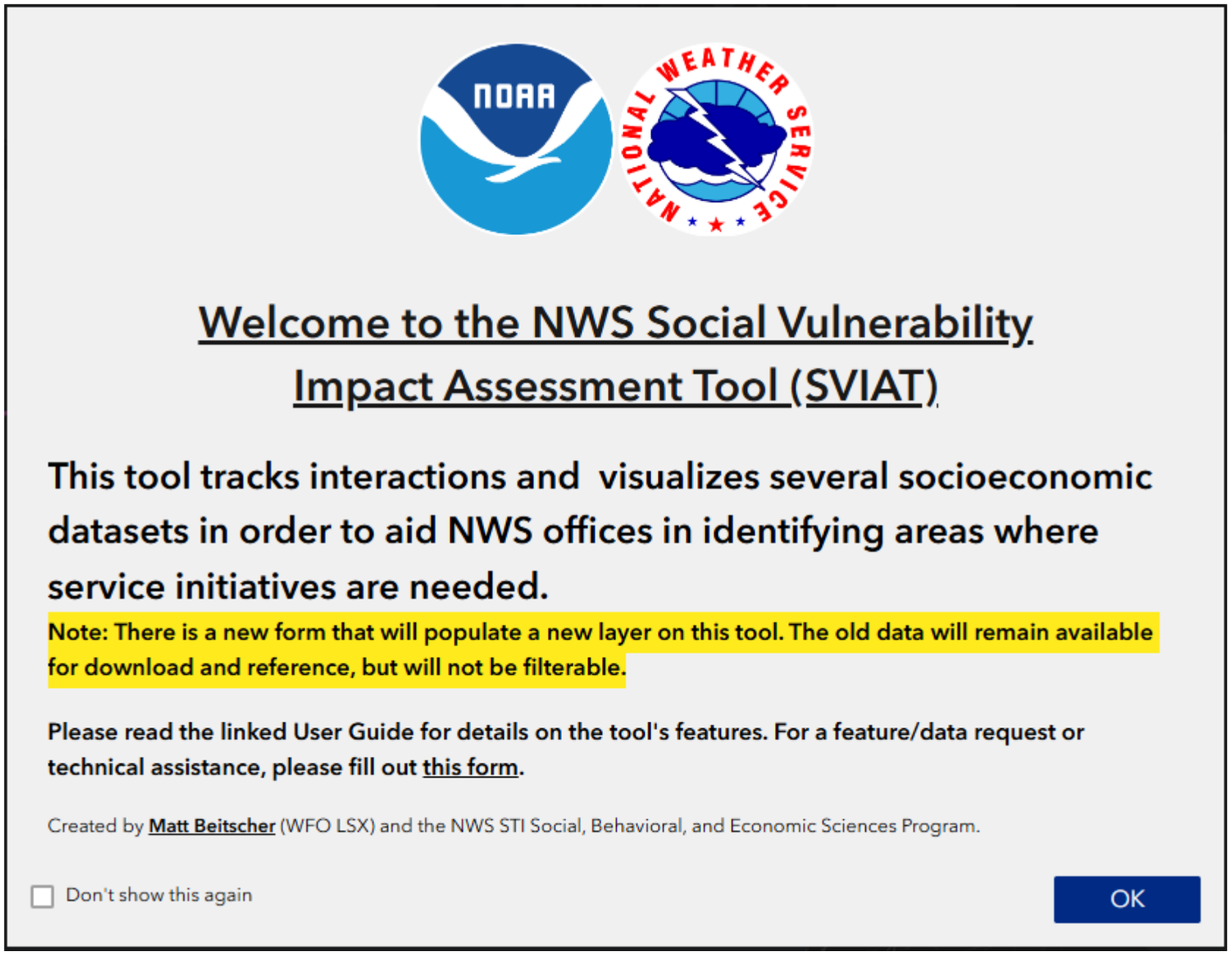
How – Current Tool



- How we do it
  - NWS Policy Directive 10-1804
  - Long form & Short form options
  - Text based input and output

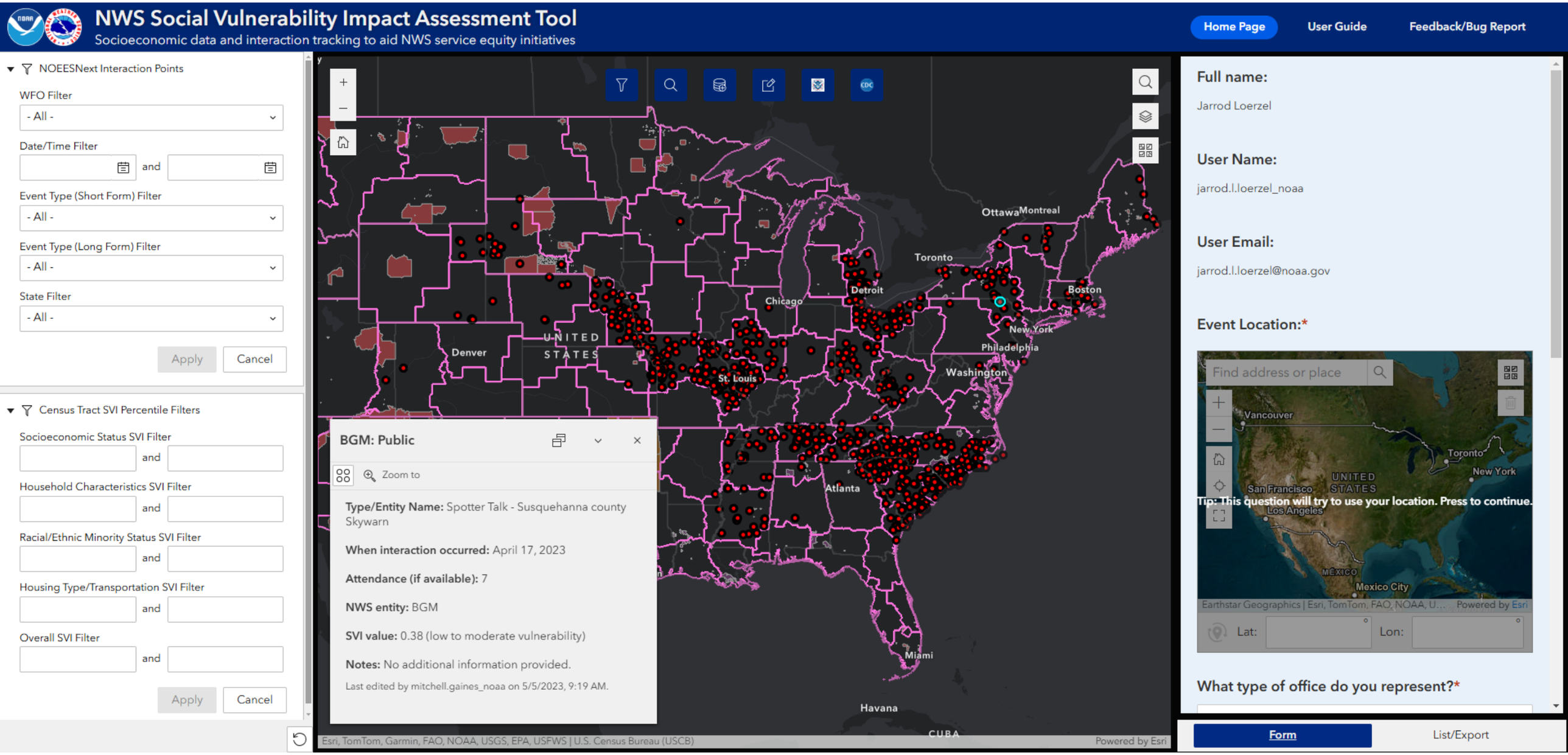


How – Future Tool



- Map-based User Interface
- Revamping of the old system
- Spatial associations
- Multiple data layers

How – Future Tool



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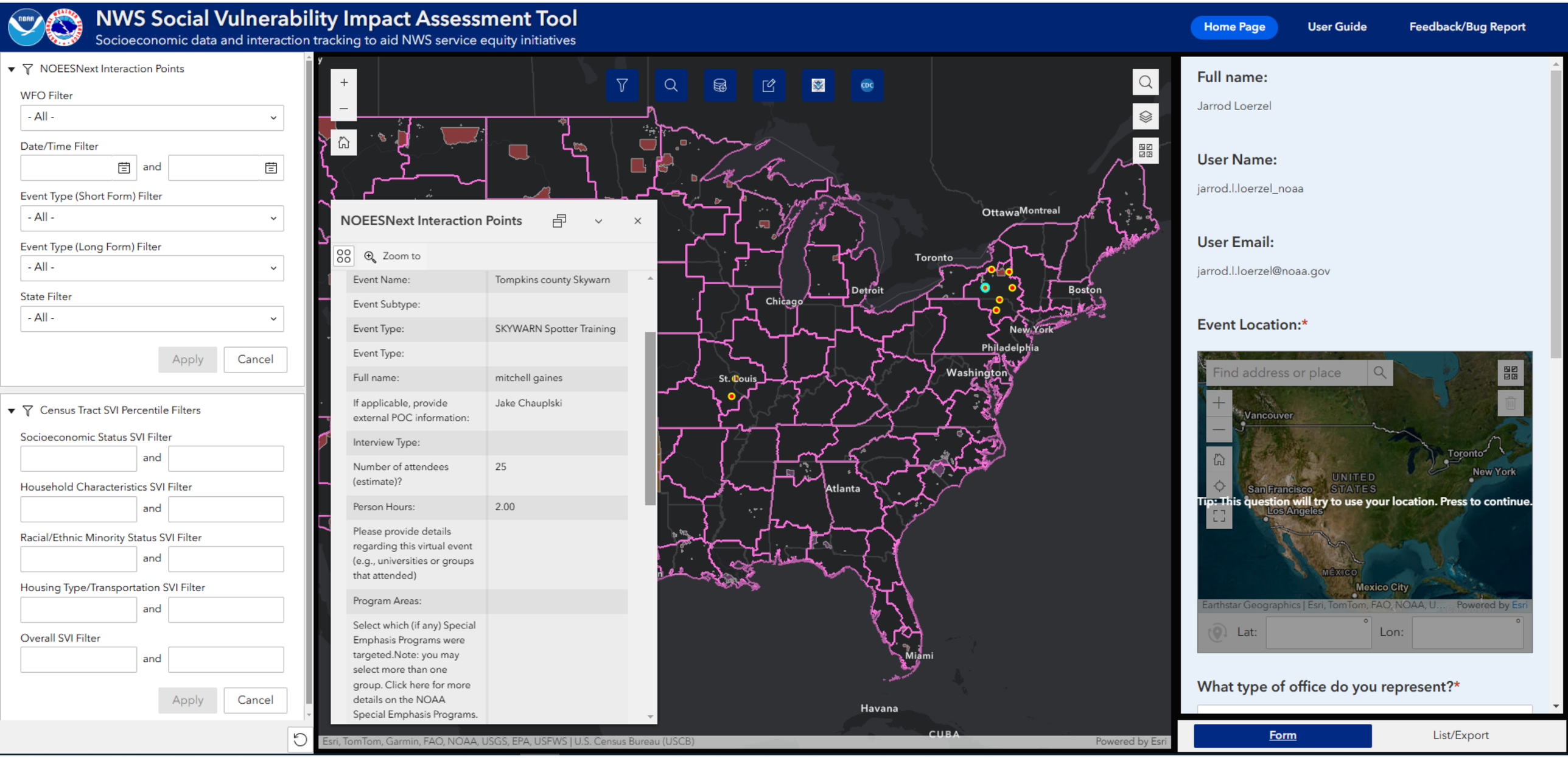

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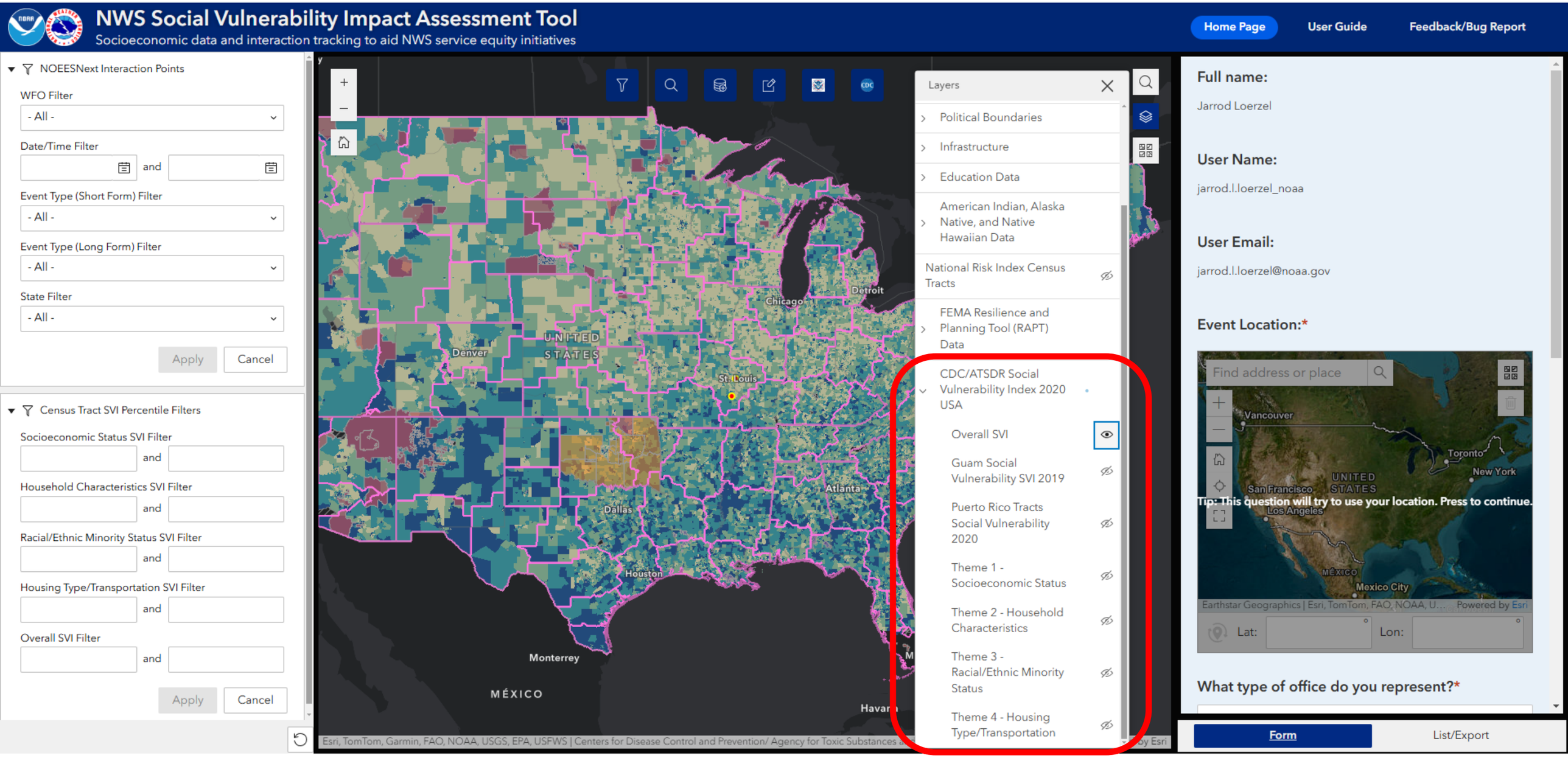

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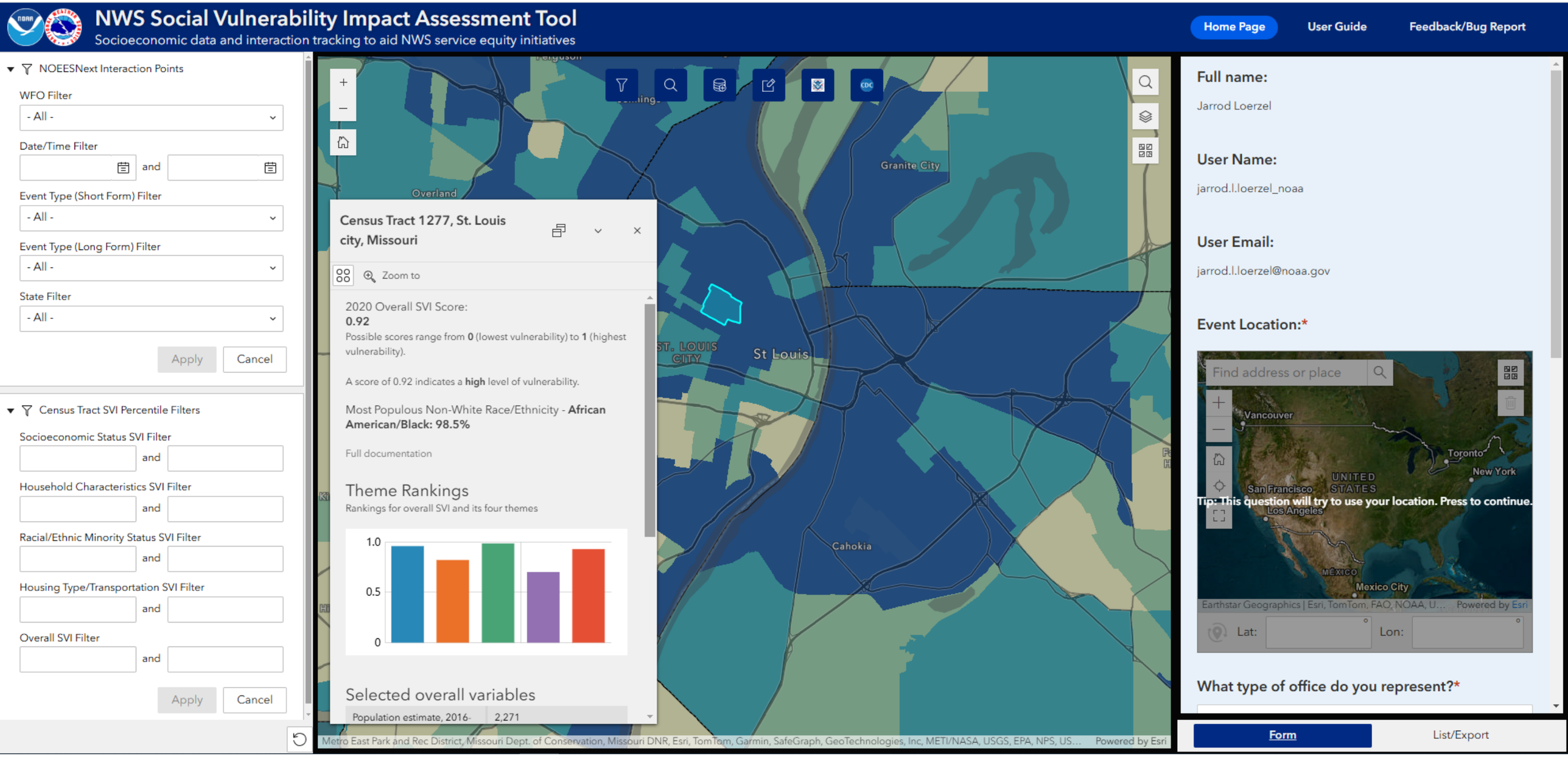

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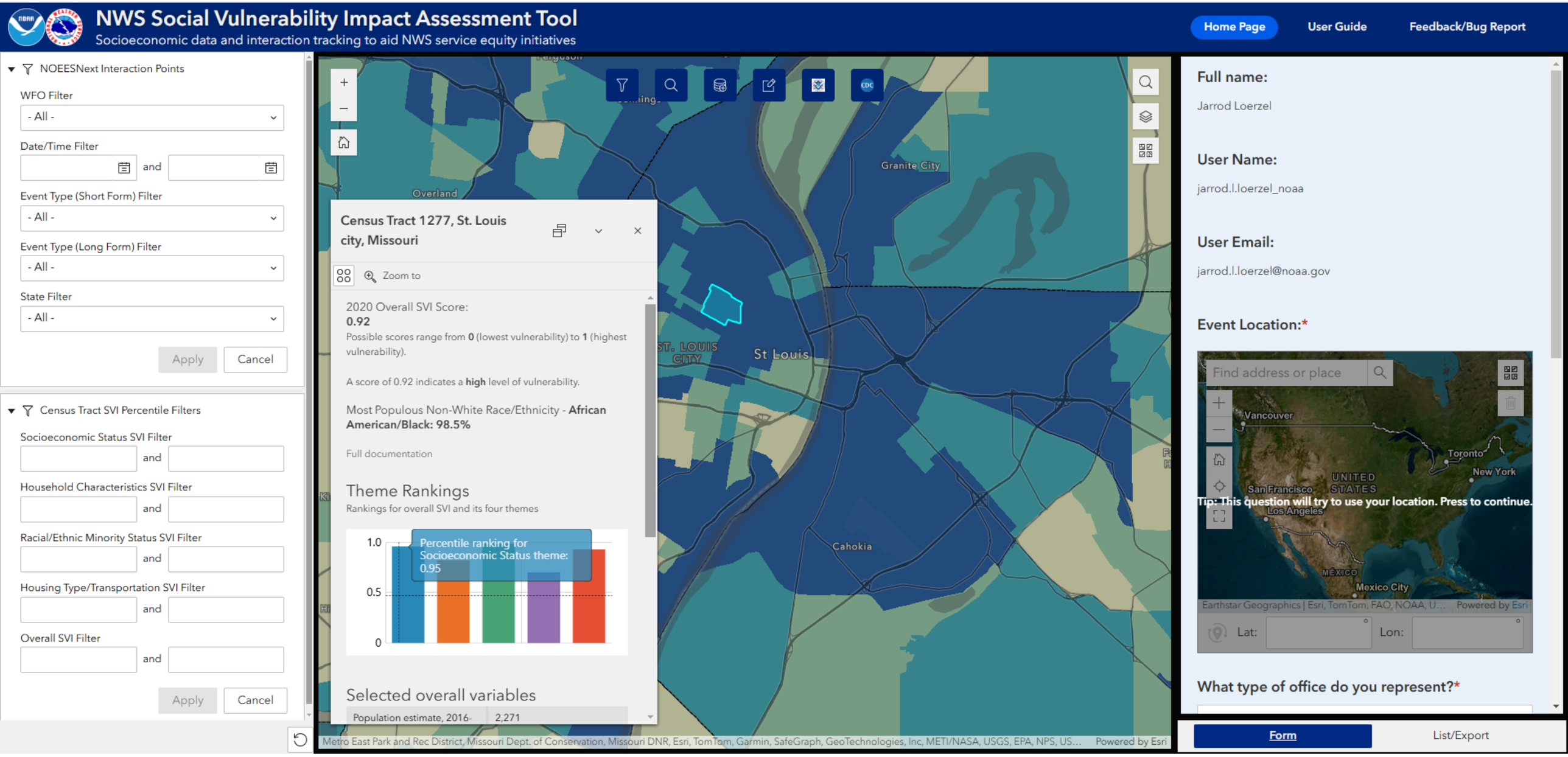

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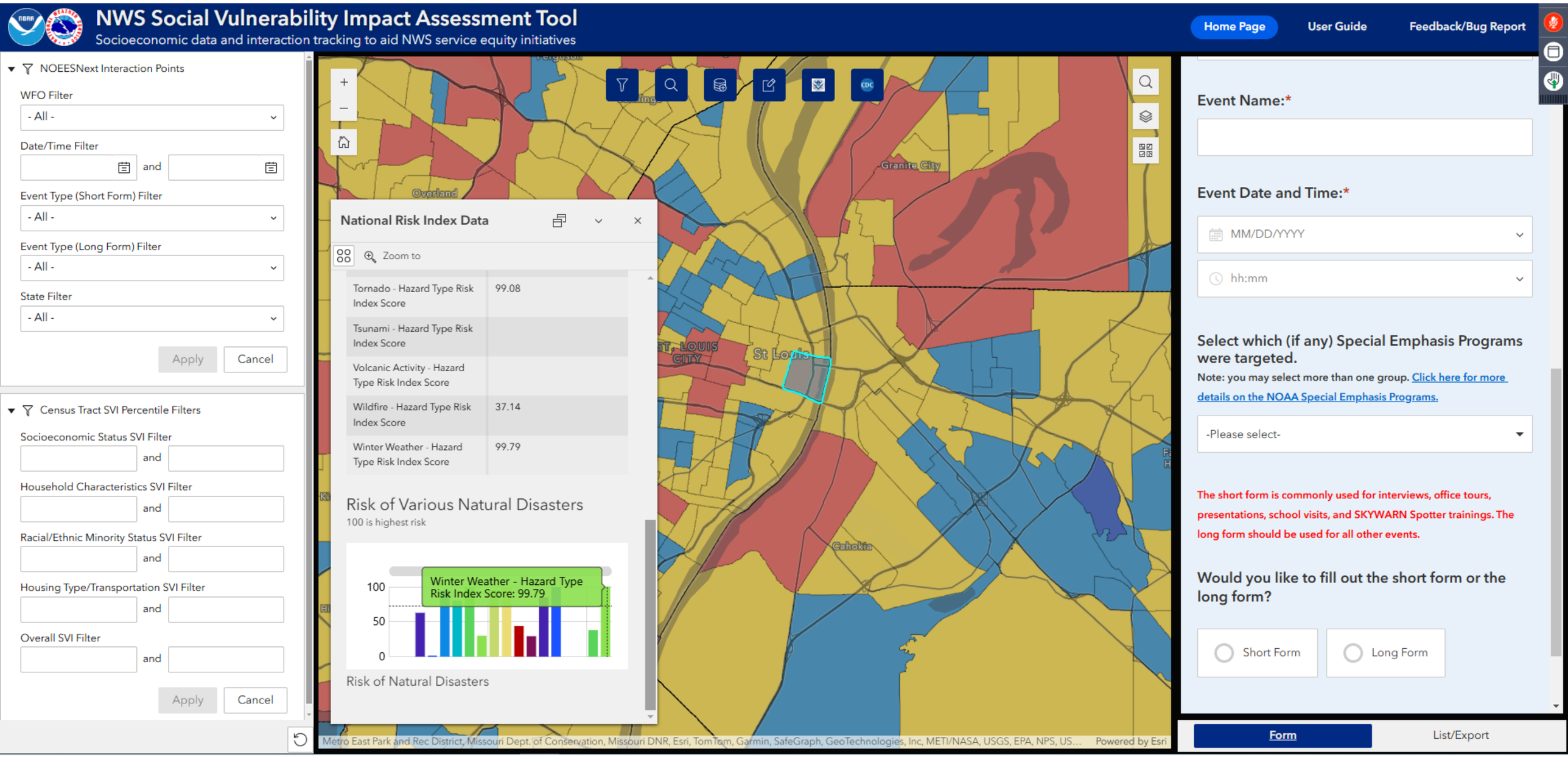

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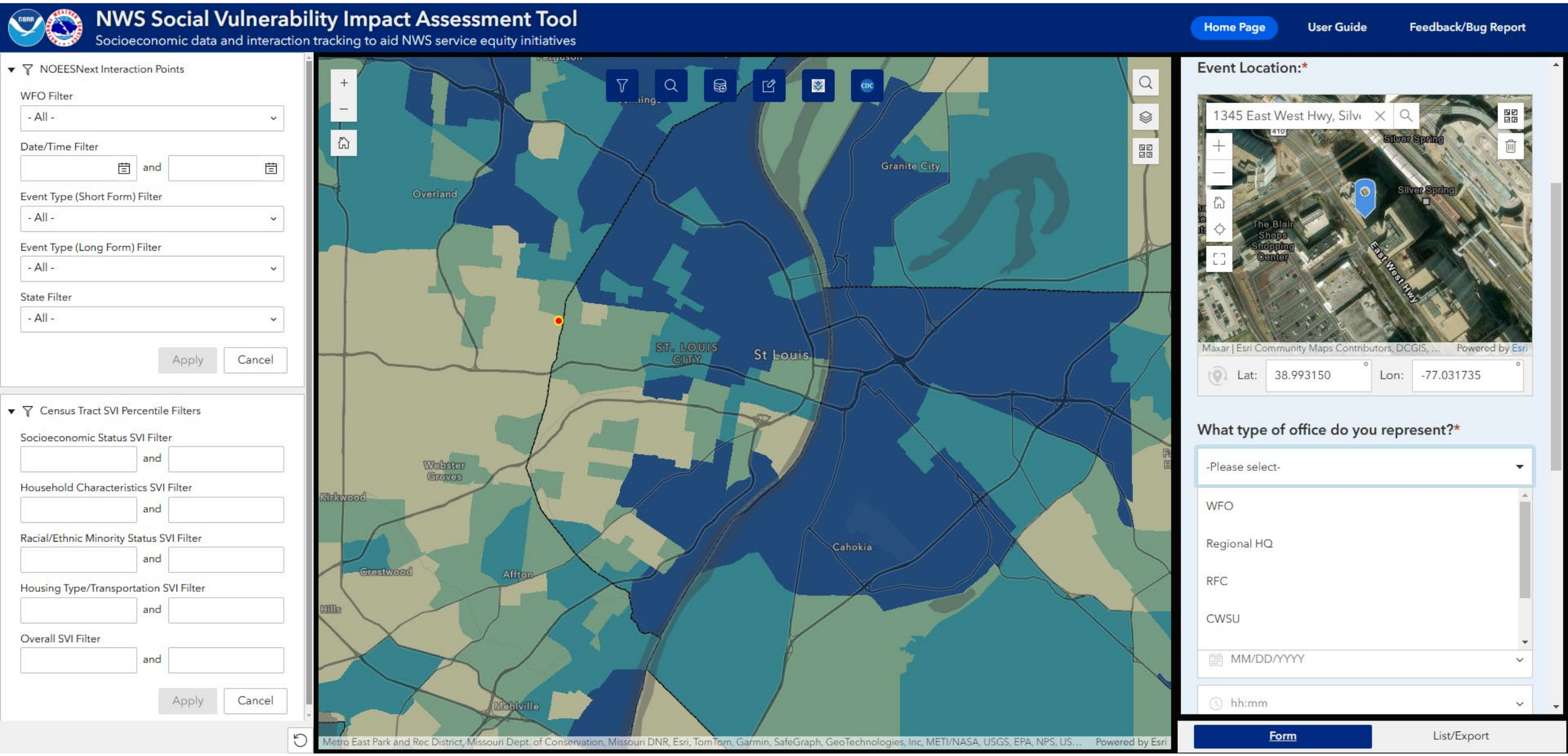
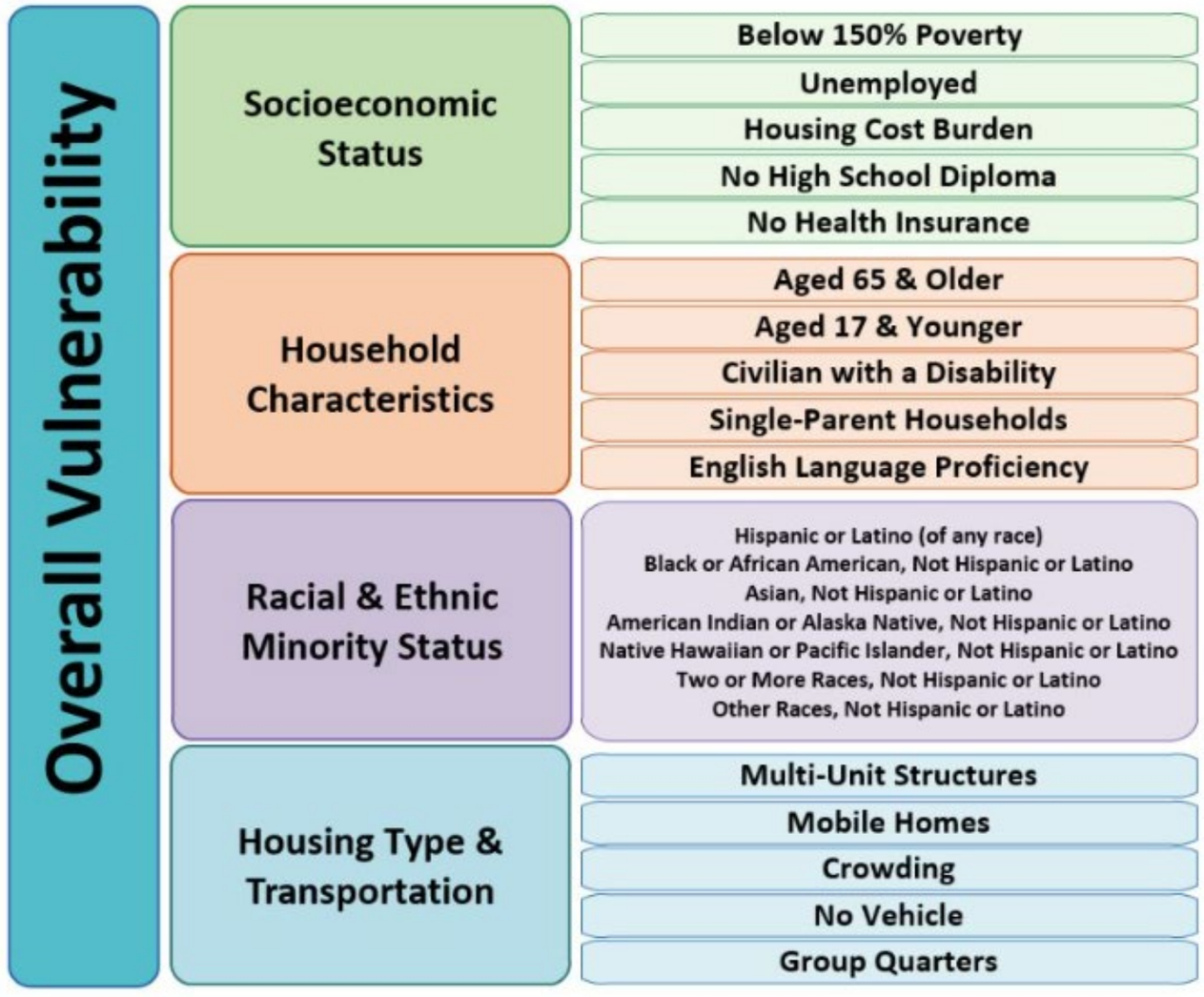


Details of the CDC/ATSDR SVI

CDC/ATSDR Social Vulnerability Index

- 4 Themes
  - Socioeconomic
  - HH Composition/Disability
  - Minority Status and Language
  - Housing Type and Transportation
  - Overall Score
- Generally uses the ACS data
- Additive, Percent Ranking Index
  - 0-1 Index (0 = Low to 1 = High)

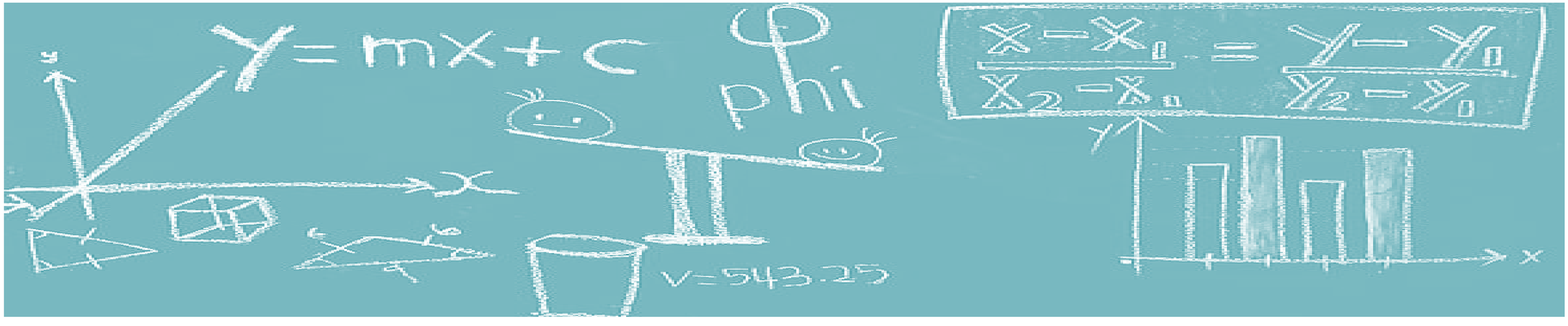


Calculating the CDC/ATSDR SVI

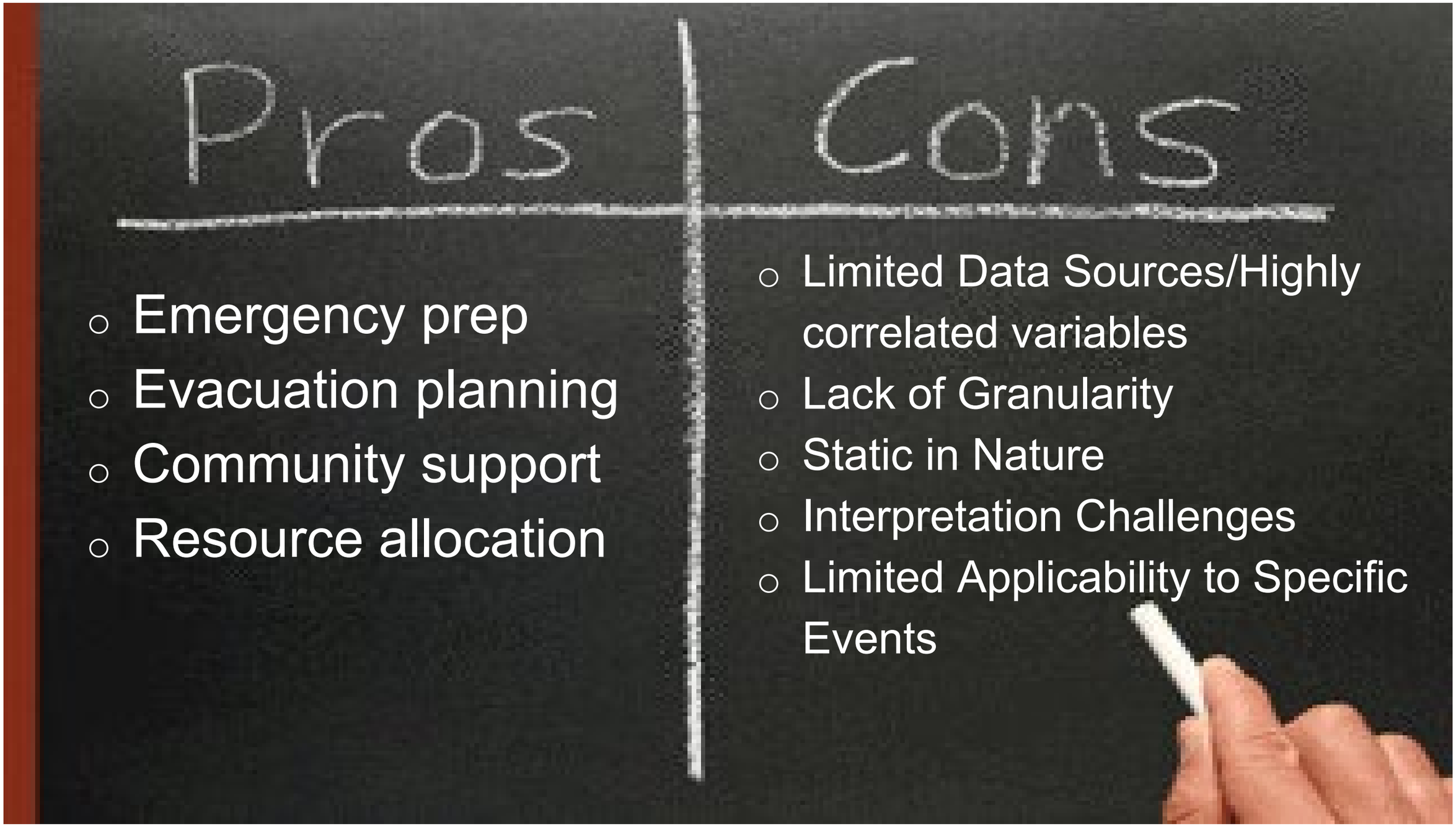
CDC/ATSDR Social Vulnerability Index

1. 15 variables* ranked highest to lowest across all Census tracts
2. Percentile rank calculated for each census tract & each variable
3. Tract-level percentile ranks calculated for four domains based on sum of percentile ranks of variables within that domain
4. Overall percentile rank for each tract calculated as the sum of the domain percentile rankings

***except per capita income**

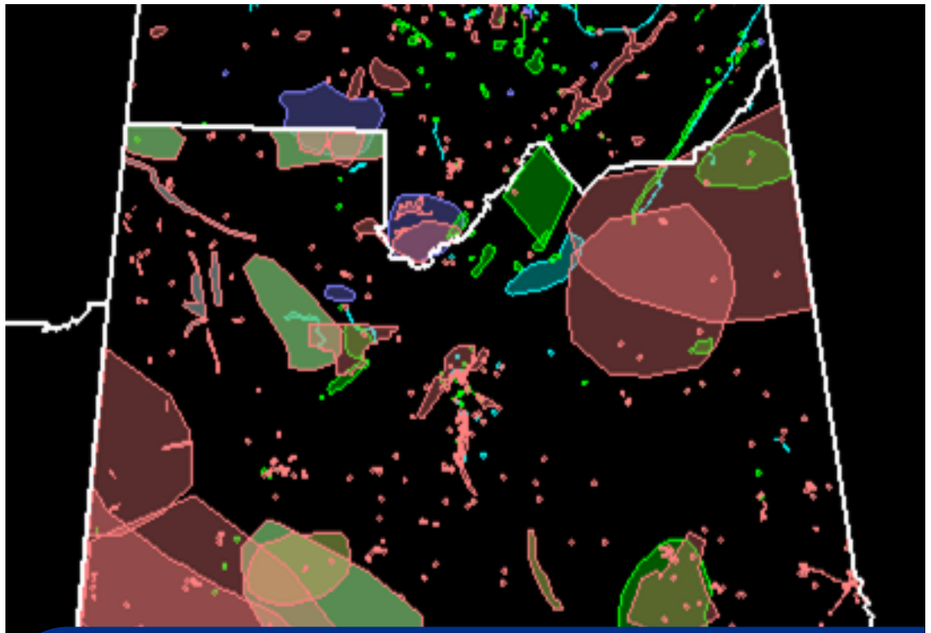


Pros & Cons of the CDC/ATSDR SVI



Other Tools for Understanding the Population

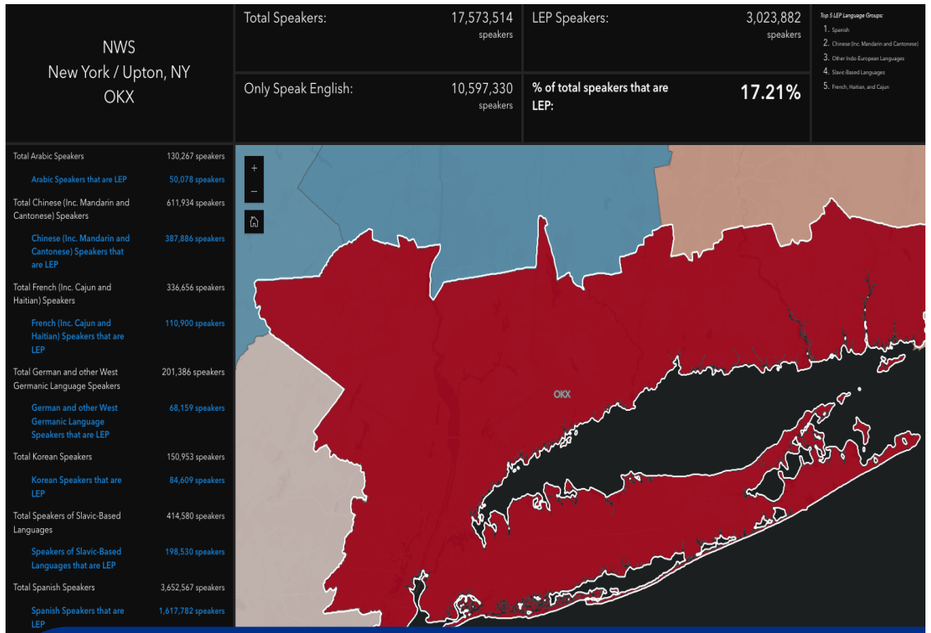
SVI isn't the silver-bullet vulnerability tool



Brief Vulnerability Overview Tool (BVOT)

- **Uses knowledge-derived approach to vulnerability data**
- **Locally-developed to highlight unique vulnerabilities**

Learn more about BVOT here



NWS LEP Dashboard

- **Highlights Limited English Proficiency (LEP) groups across the nation by percentage of population within a County Warning Area (CWA)**

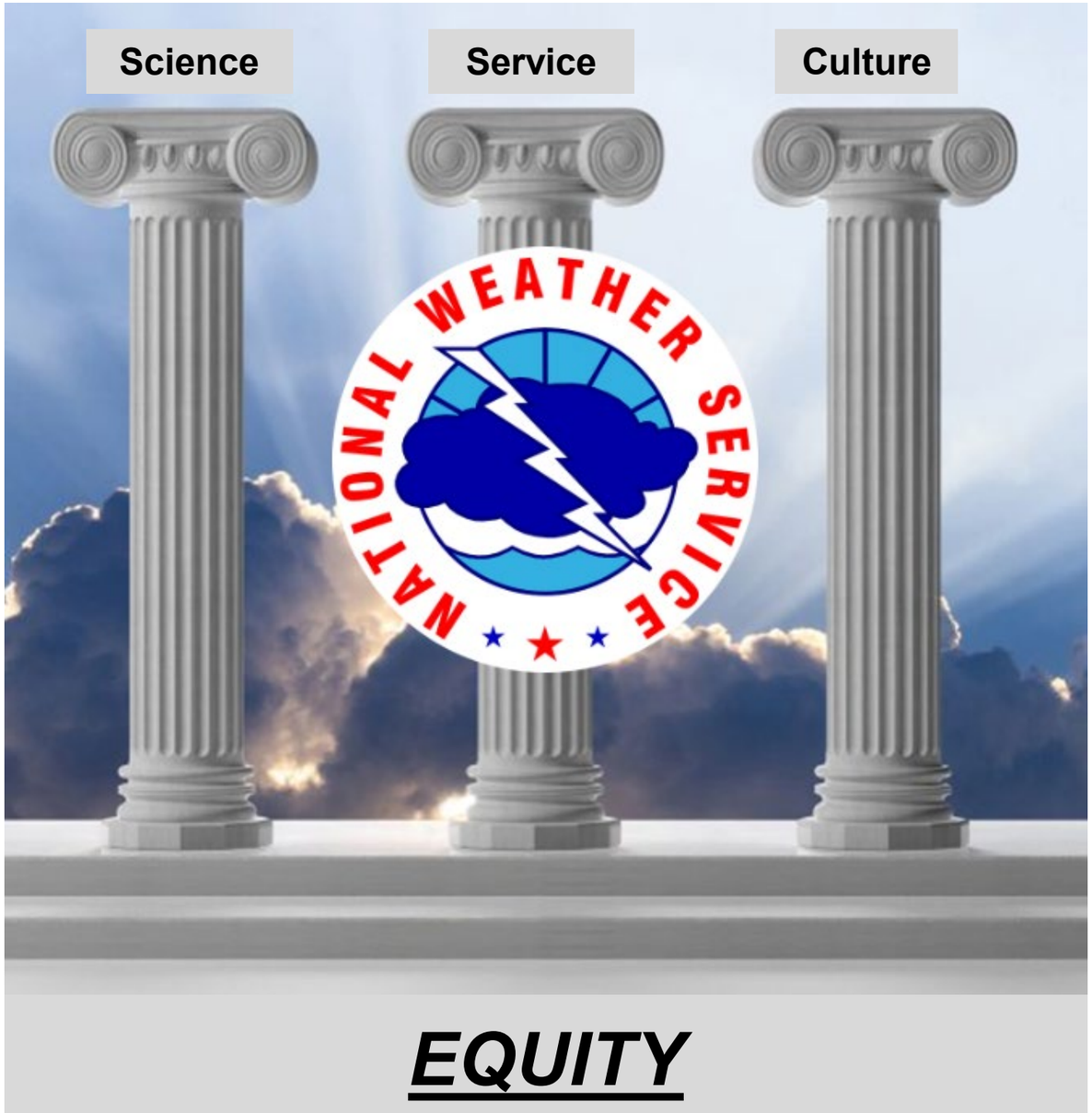
For more information, email monica.bozeman@noaa.gov

Final Thoughts

Equity is never automatic

- Internally or externally, we cannot ignore the importance of equity.
- The task is daunting, **but data and equity-informed actions based on that data can help us.**
- GIS tools and analysis are powerful tools to leverage: they can unveil vulnerabilities you never knew existed.

Nothing replaces human interaction: the data just gets you started!



Thank You!!

Jarrod Loerzel – jarrod.l.Loerzel@noaa.gov
Matt Beitscher – matthew.beitscher@noaa.gov

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