

## Background

### Motivation:

- For Parkland Health to deploy tailored interventions based on specific community needs across Dallas county, a systematic method for identifying optimal locations for Parkland mobile units needed to be developed

### Objectives:

- Define areas for mobile unit locations using ~3 mile grid of Dallas county
- Locate high mobility locations where residents travel to for essential services
- Identify locations of community-based organizations (CBOs) for partnership

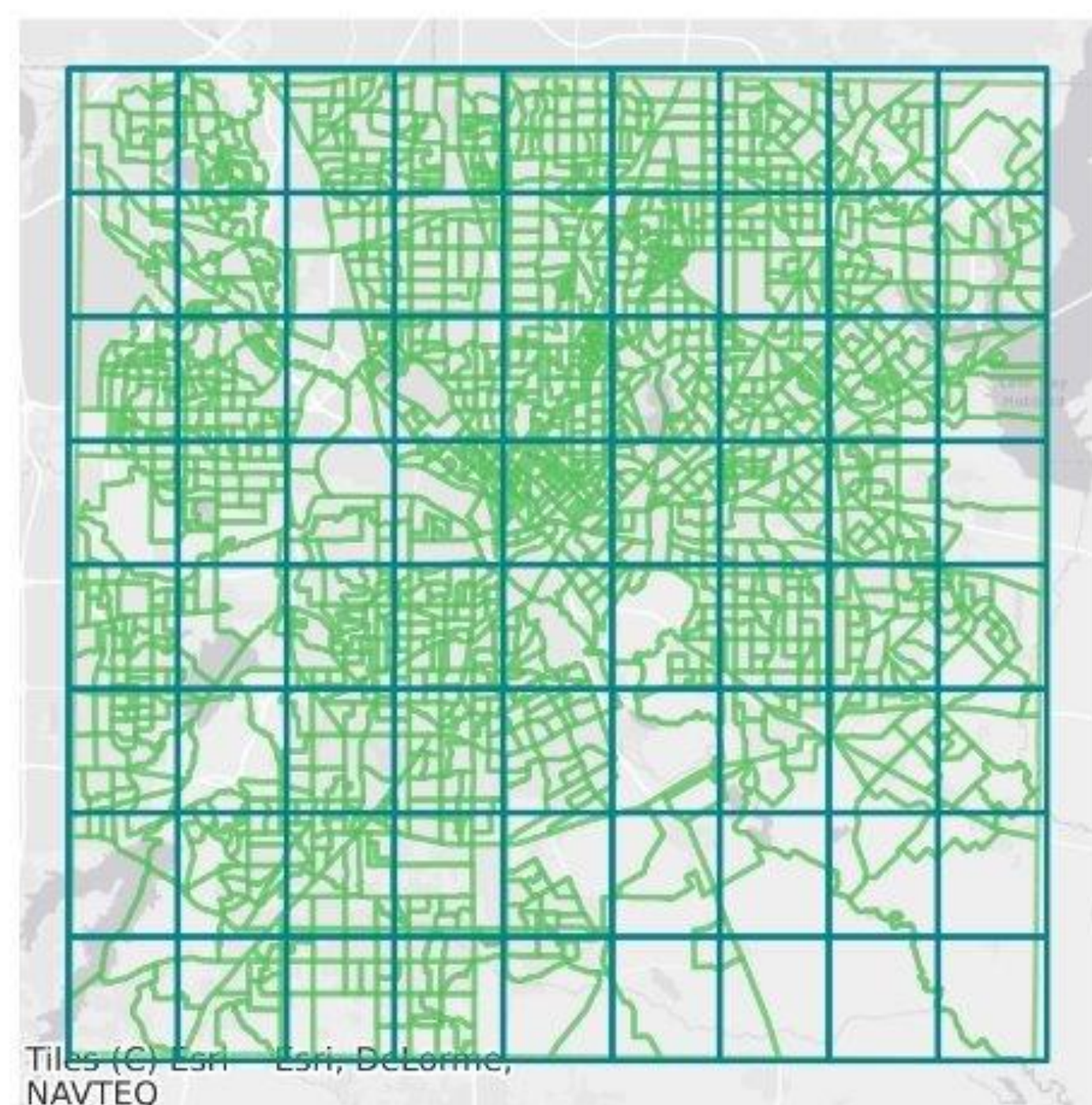
## Methods

### Data Sources:

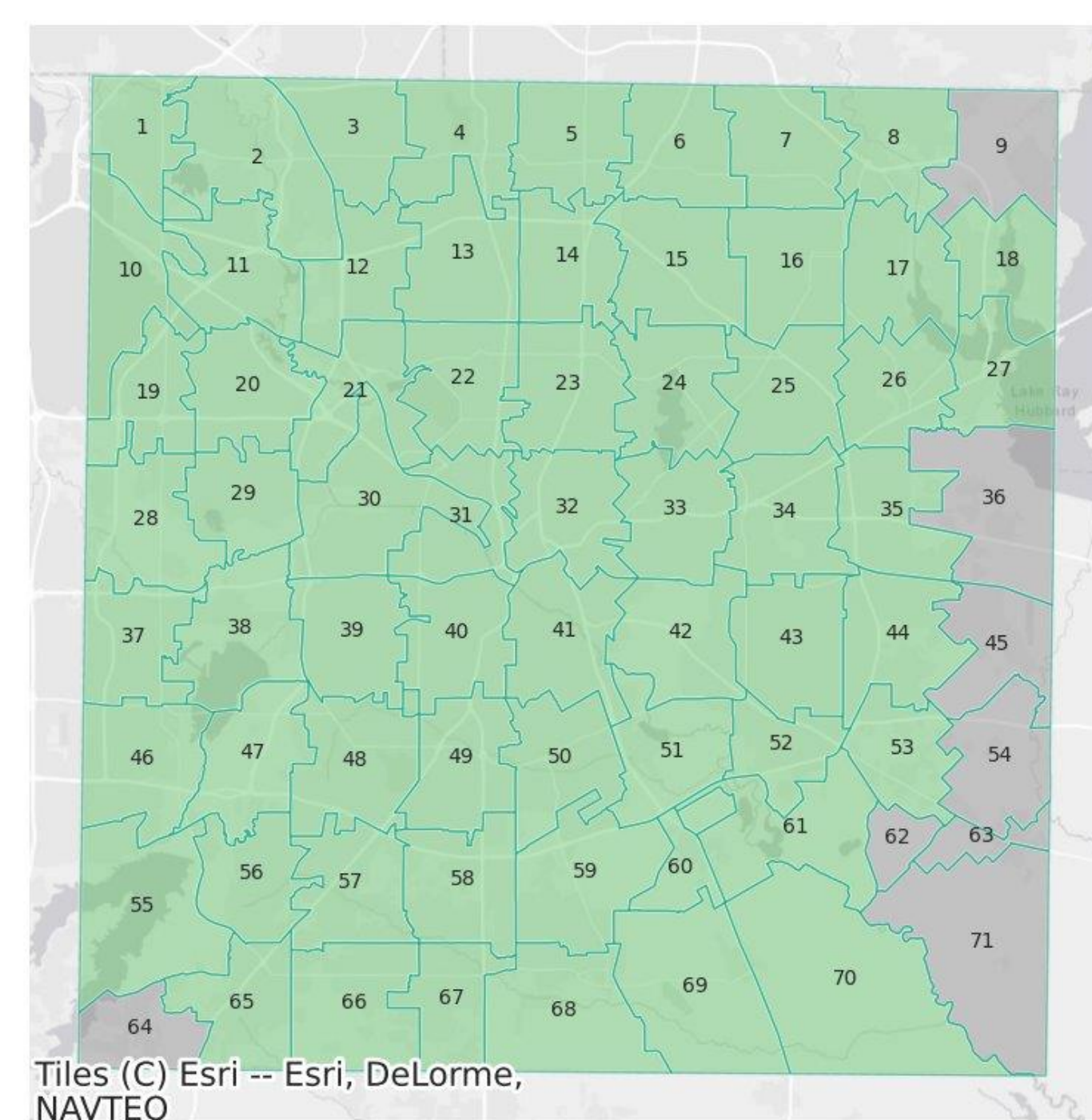
**Timeframe:** 2/01/2025-3/01/2025

- Advan Data:** Derives foot traffic based on cell phone pings aggregated to block group level
- SafeGraph Data:** Provides information about a business such as location type, hours of operation, etc.
- PCCI Community Vulnerability Compass (CVC):** Quantifies the vulnerability of a community based on various non-medical drivers of health (NMDOH) factors

### Creation of 3 Mile Grid:



Overlay 3-mile grid over census block groups in Dallas county



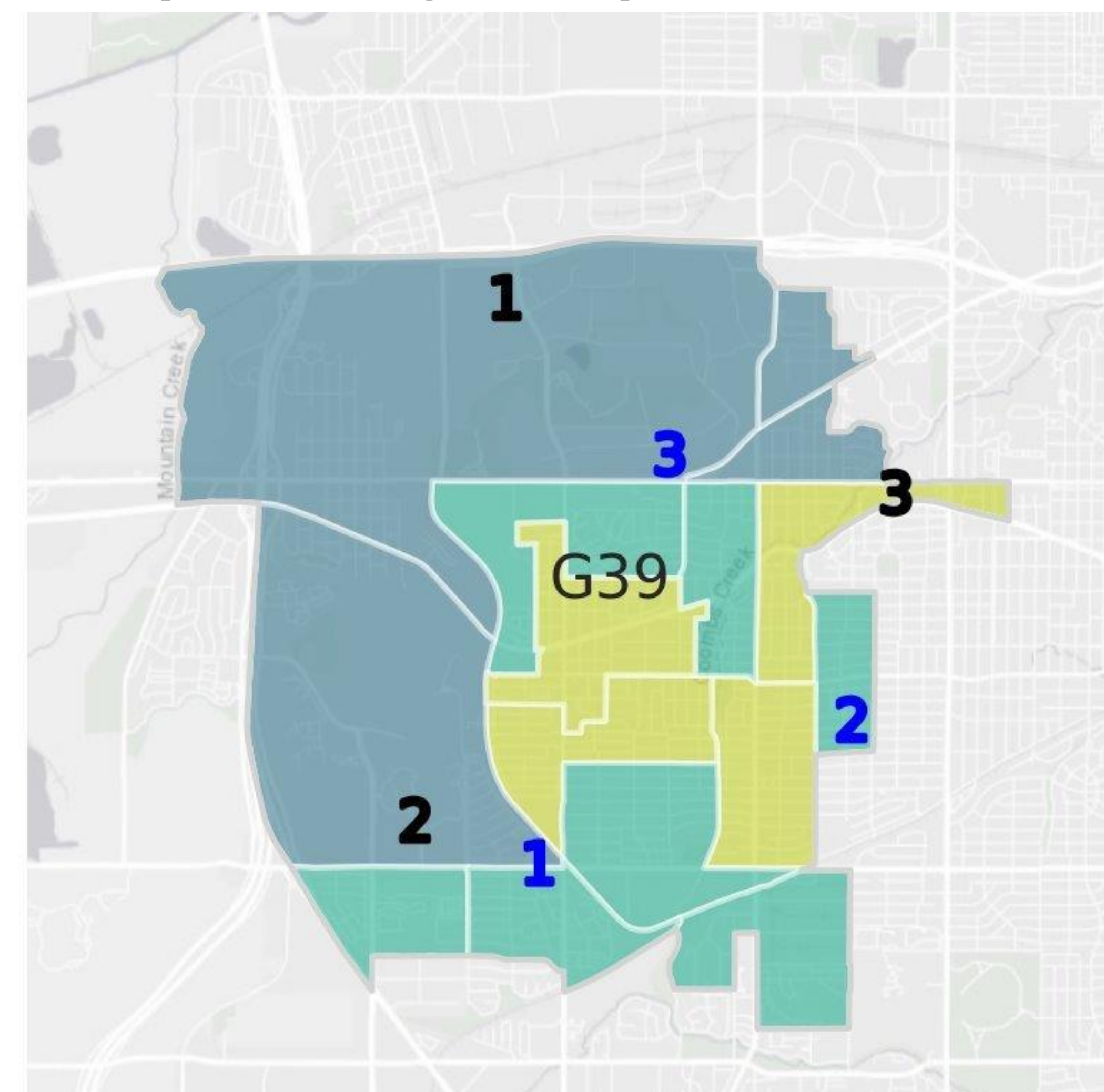
Redefine cells of grid based on a block group's area

## Citations

- Yolande Pengetnze, Venkatraghavan Sundaram, Yusuf Tamer, Albert Karam, Lance Rather, Olayide Adejumbi, Leslie Wainwright, Steve Miff, The Community Vulnerability Compass: a novel, scalable approach for measuring and visualizing social determinants of health insights, JAMIA Open, Volume 8, Issue 4, August 2025, ooaf059, <https://doi.org/10.1093/jamiaopen/ooaf059>
- Advan Research. Foot Traffic / Monthly Patterns [Dataset]. <https://advanresearch.com>

## Static Mapping of High Traffic Areas

### Top Mobility Hotspots for Cell 39



CVC Vulnerability  
Very Low | Low | Moderate | High | Very High

### Selecting Mobility Hotspots:

- High priority locations to place mobile units were determined for 63 cells in the grid
- Top locations are selected based on foot traffic and proximity to each other

### Final Results:

To maximize the accessibility of mobile units, analysis provided key information such as:

- Business name and location for mobility hotspots and CBOs
- Information relating to foot traffic such as visitor count, most visited day, and most visited time of day

### Top 3 Mobility Hotspots

Rank	Location	Address	Visitor Count	Most Popular Time
1	Pinnacle Park	4410 Dallas Fort Worth Turnpike, Dallas, Texas 75211	15700	Saturday Afternoon
2	Mountain View College	4849 W Illinois Ave, Dallas, TX, 75211	1500	Tuesday Morning
3	Kessler Plaza	2625 W Jefferson Blvd, Dallas, TX, 75211	1100	Saturday Afternoon

### Potential Community Partners

Rank	Location	Address	NAICS Code
1	Nuestra Senora Del Pilar Catholic Church	4455 W Illinois Ave, Dallas, TX, 75211	813110
2	Iglesia Roca De La Esperanza Iciar Usa	2754 Brandon St, Dallas, TX, 75211	813110
3	Tree of Life	4024 Rock Quarry Rd, Dallas, TX, 75211	813110