

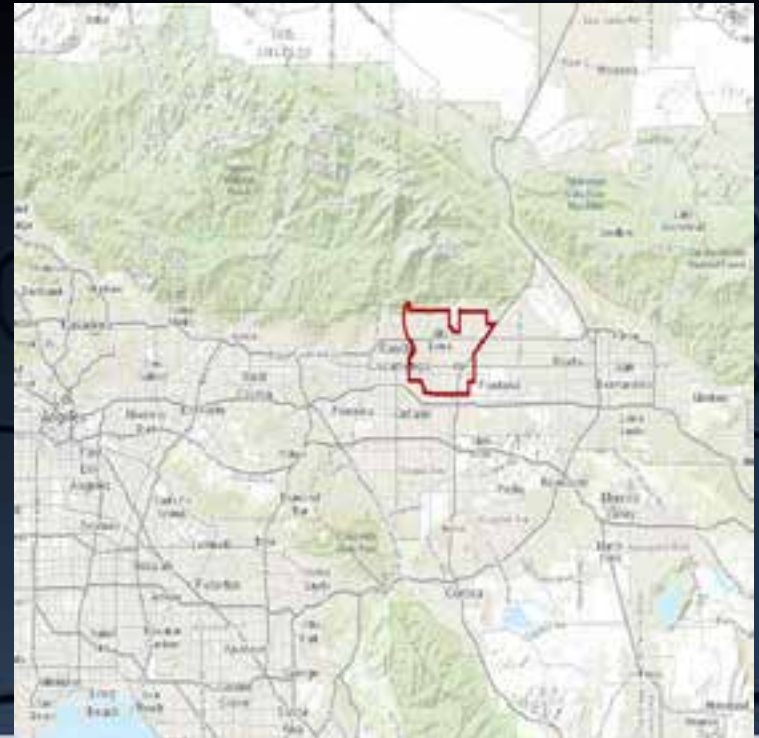


Community Risk Reduction

Bringing Data to Life

City of Rancho Cucamonga

- City Boundary = 39.5 square miles
- Fire District = 50 square miles
- 168,000 residents



Fireworks Enforcement Case Study

Background

1989 – All fireworks illegal in RC

Use of fireworks continued to increase



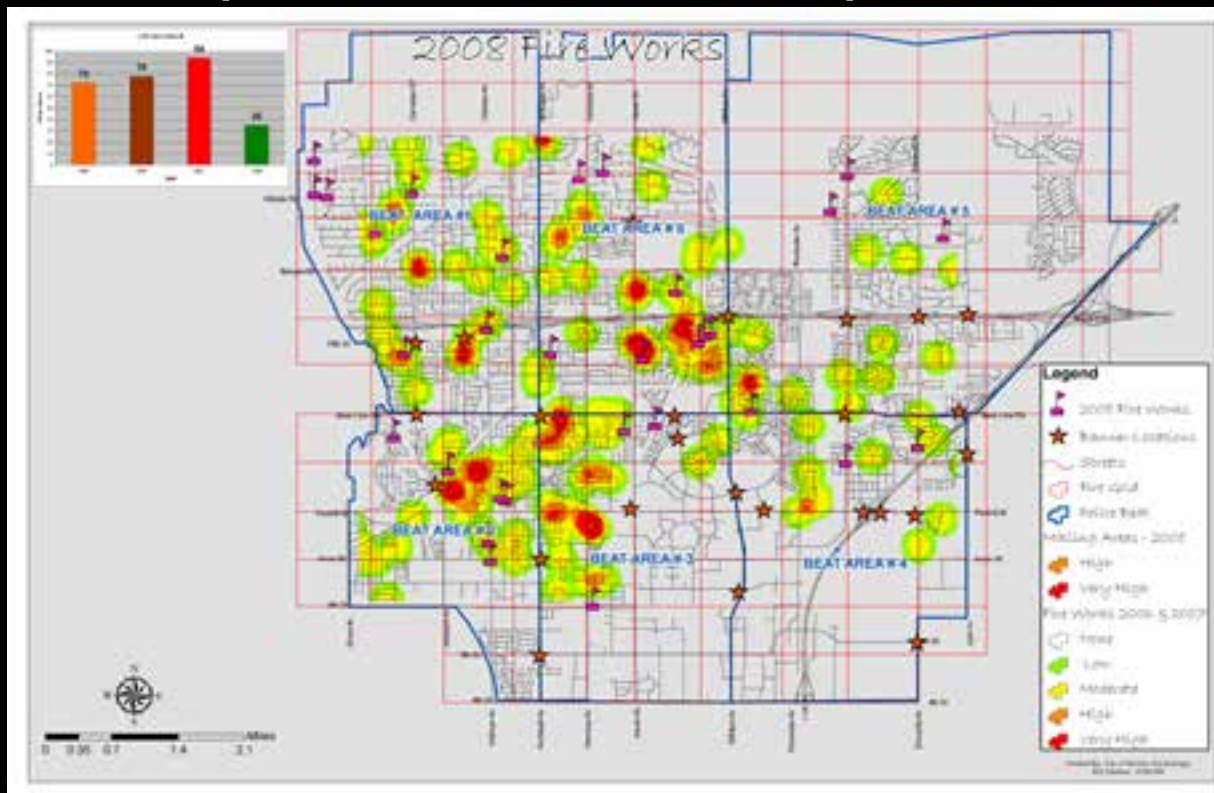
2007 – Year of Enforcement

- Community awareness prior to July 4th
- Multi-agency representatives in EOC
- Teams of FD/PPD personnel patrol (OT \$)

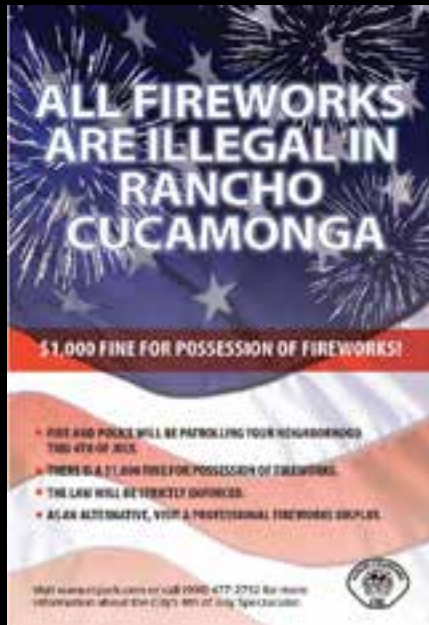


2007 – Data Driven Effort

- Previous years incidents logged on spreadsheets
- GIS produces heat maps for FD



2007 – Outreach Efforts



Direct Mail – 2,500



Newspaper Ads
4 days



15 banners placed
throughout the City



2007 - Outcome

- Patrols used Heat Maps
- 94 calls of fireworks usage – highest on record
- Large quantities of fireworks confiscated
- FD issued many Administrative Citations
- PD issued Criminal Citations, 1 arrest



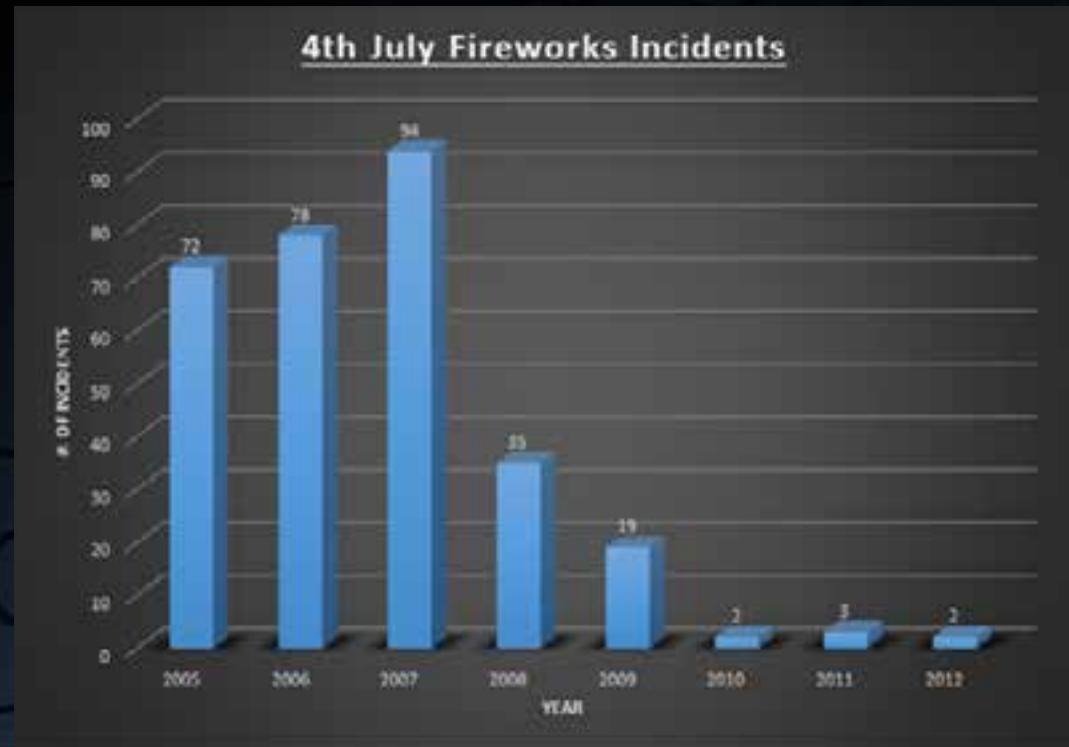
2008 – Success!

- Continued efforts
 - Community outreach w/ GIS help
 - Patrols (OT \$)
- Achieved results
 - Fewer citations
 - Reports of Fireworks significantly decline

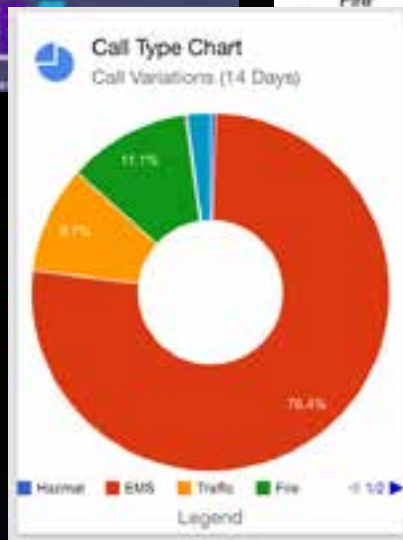
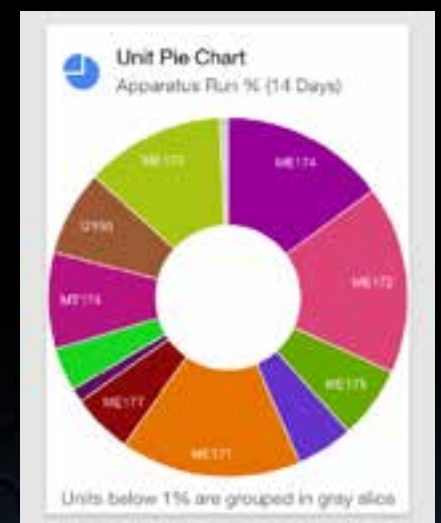
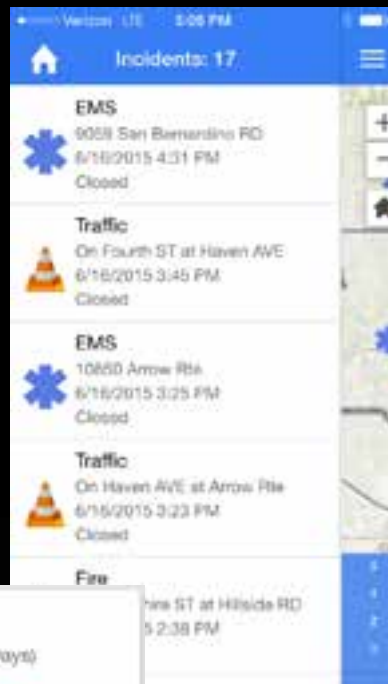


2009 and Beyond

- Community outreach with GIS support
- Utilized social media
- July 4th patrol – 1 (No OT \$)
- Very few calls reporting Fireworks



Partnership with GIS



Community Risk Reduction

Strategic Objective of the Fire District



Program Objectives

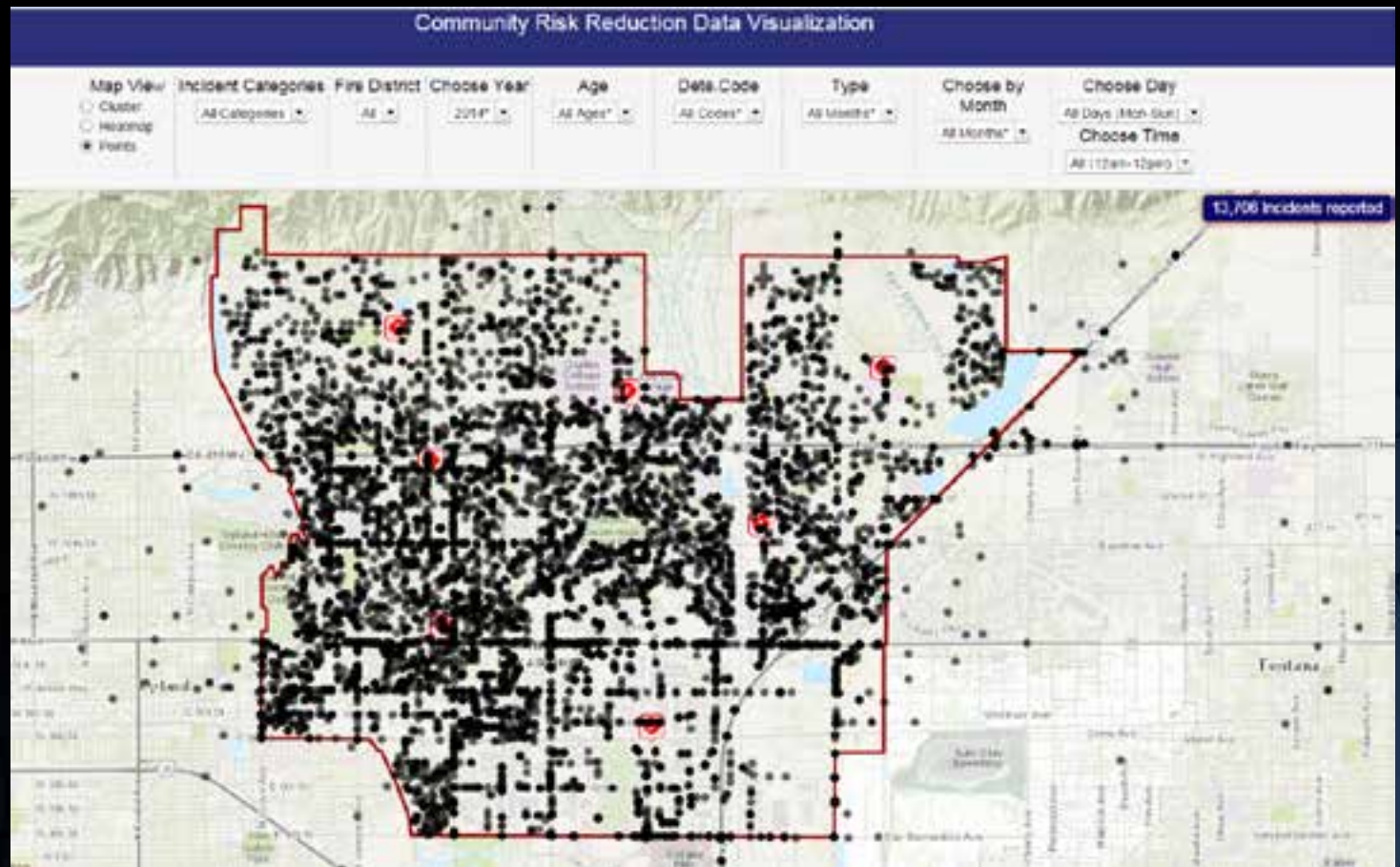
- Successful Program Implementation
- “Provide Premier Emergency and Non-Emergency Services”
- Reduce the Need for Emergency Responses
- Improve Quality of Life
- Increase Our Value
- Desired Achievements
 - Data-Driven Decision Making
 - Analytics Guiding Program Development



Pilot Program Objectives

REFINED OBJECTIVE

To develop a tool that provides predictive analytics



Predictive Analysis Tool

Community Risk Reduction Data Visualization

Map View

- Cluster
- Heatmap
- Points

Incident Categories

All Categories

Fire District

All

Choose Year

2014*

Age

All Ages*

Date Code

All Codes*

Type

All Months*

Choose by Month

All Months*

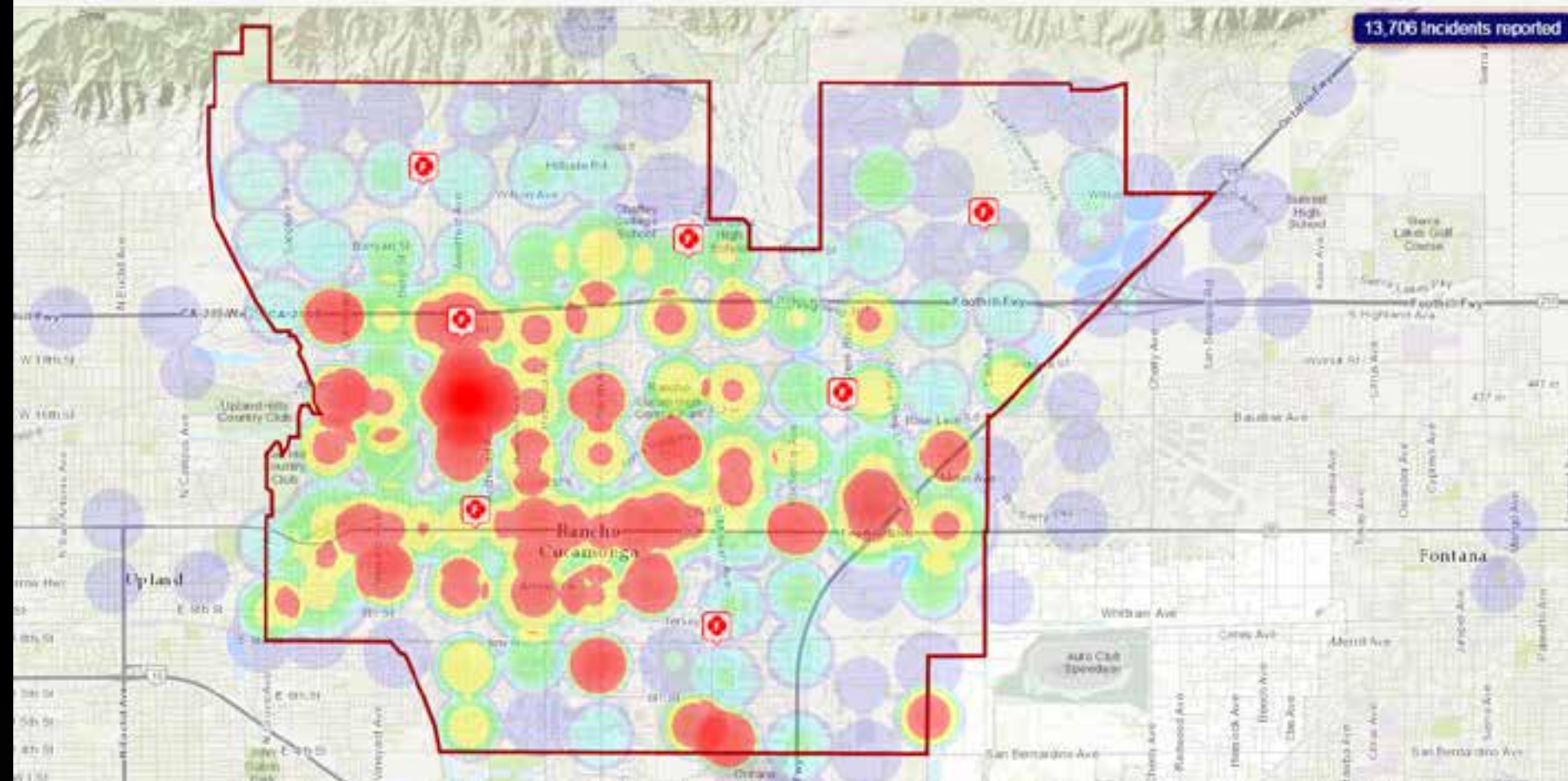
Choose Day

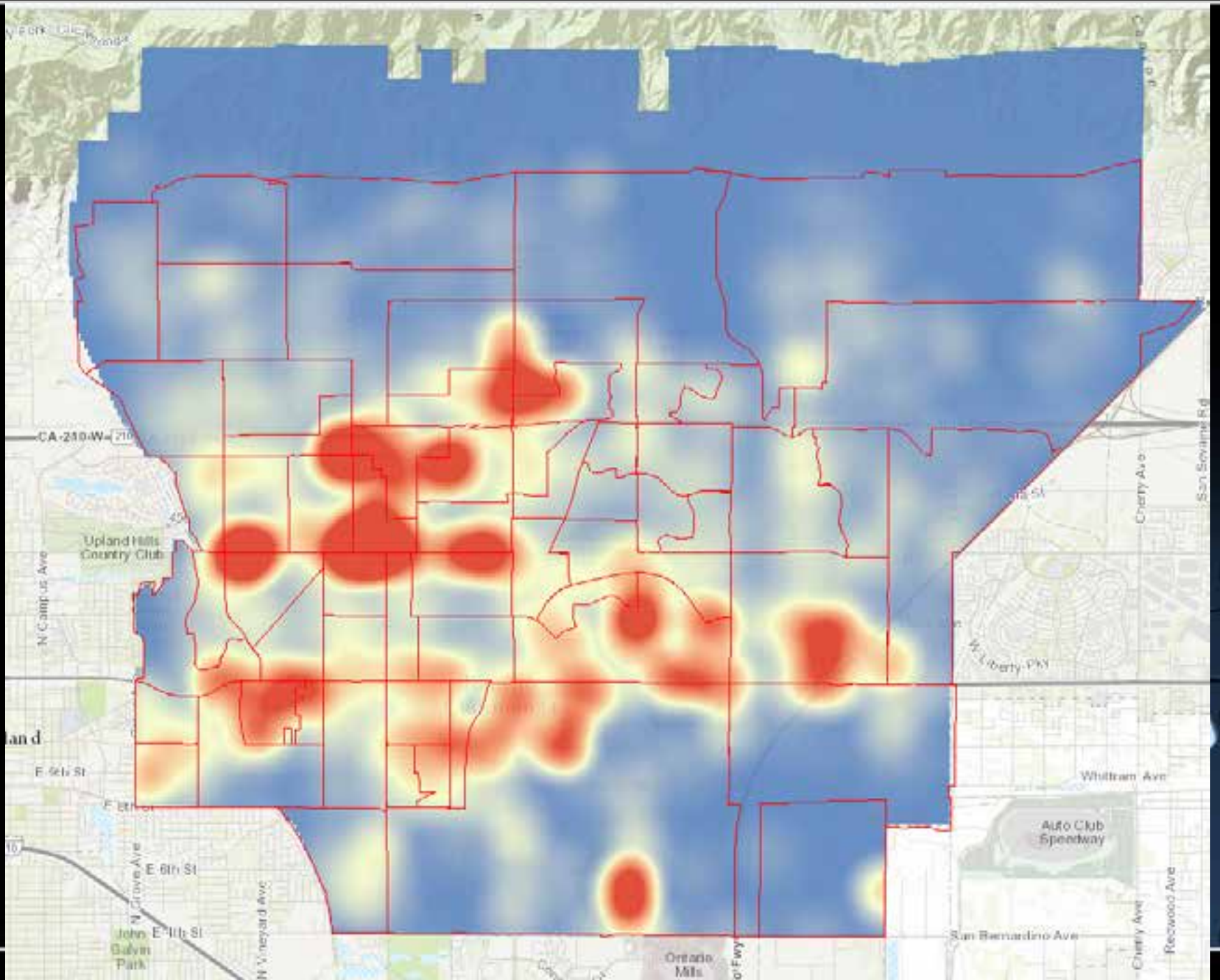
All Days (Mon-Sun)

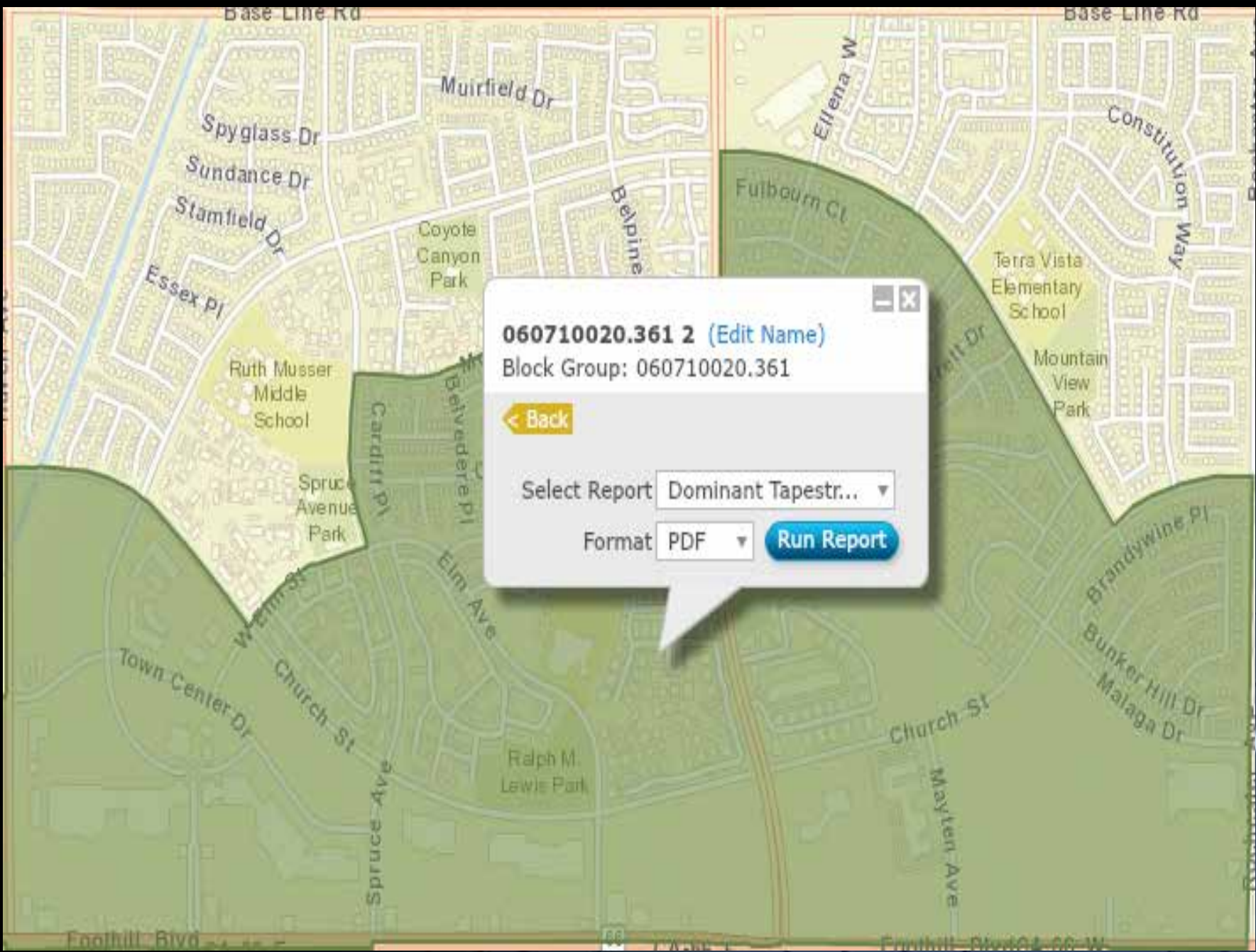
Choose Time

All (12am-12pm)

13,706 incidents reported







060710020.361 2 (Edit Name)

Block Group: 060710020.361

[< Back](#)

Select Report

Format [Run Report](#)



esri

Dominant Tapestry Map

060710020_361
060710020361
Geography: Block Group



Tapestry LifeMode

- | | |
|----------------------------|-------------------------|
| 11. Affluent Executives | 18. Middle Ground |
| 12. Wealthy Academics | 19. Senior Executives |
| 13. Midclass Professionals | 20. Family Outcasts |
| 14. Family Landowners | 21. Midclass Singles |
| 15. Beachfront | 22. Millennials |
| 16. City Country | 23. Next Wave |
| 17. Urban Enclaves | 24. Suburban and Sprawl |



Source: Esri

June 11, 2015



Tapestry

TAPESTRY SEGMENTATION

The Fabric of America's Neighborhoods



UNITED STATES OF AMERICA
 Total Population: 324,629,999 Median Income: \$51,000 Total Households: 124,448,448
 Total Households: 124,448,448 Median Age: 37.1 Average Household Size: 2.14
 Median Age: 37.1 Total Income: \$16.7T Average Income: \$134,000



Legend

- 1. Affluent Elites
- 2. Affluent
- 3. Upper Middle Class
- 4. Family Landscapes
- 5. Suburban
- 6. Urban
- 7. Ethnic Enclaves
- 8. Rural
- 9. Senior Style
- 10. Burgeoning Middle Class
- 11. Metropolitan
- 12. Homeowners
- 13. Next Wavy
- 14. Scholars and Families

Methodology

Based on the 2000 Census, this segmentation is based on a combination of demographic, attitudinal, and behavioral data. The segmentation is based on a combination of demographic, attitudinal, and behavioral data. The segmentation is based on a combination of demographic, attitudinal, and behavioral data.

Tapestry | Income | Age | Population Density

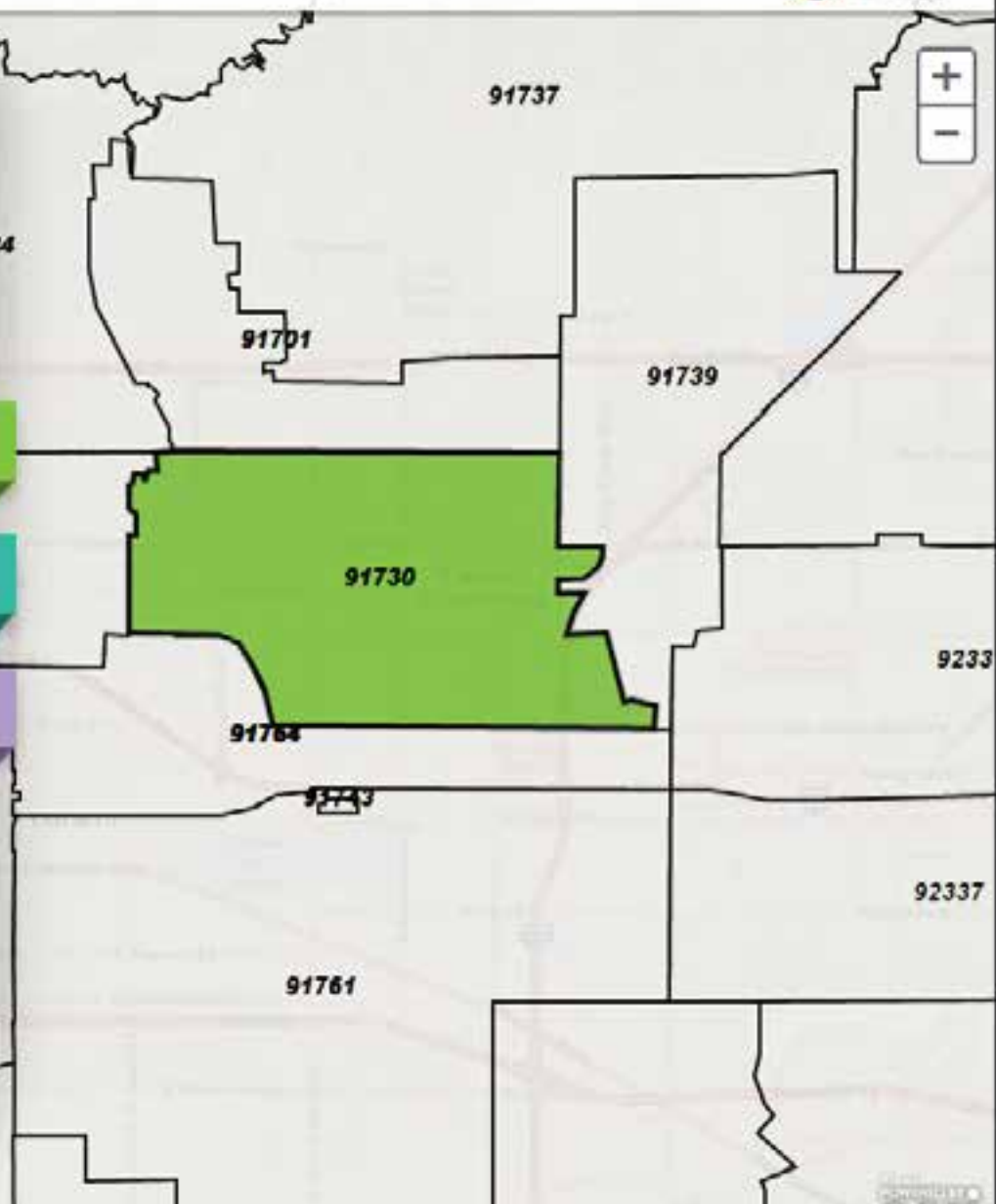
For ZIP Code

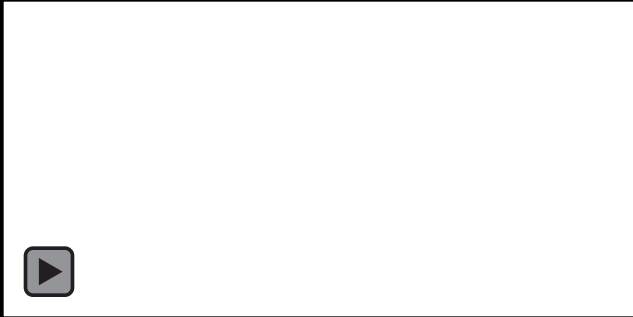
Top Tapestry™ Segments

- 21% **Enterprising Professionals** ▼
- 14% **Young and Restless** ▼
- 12% **American Dreamers** ▼

Want to know more? Esri's Tapestry™ Lifestyle Segmentation classifies the US population into 67 market segments and provides comprehensive lifestyle details.

[More about Tapestry](#) [Contact Us](#)





What We Have Learned

- Predictive Analytics
- Danger of Assumptions
- Using actual data increases organizational value by becoming prevention focused.
- Design and implement programs based on data-derived trends, community values, and preventive needs.



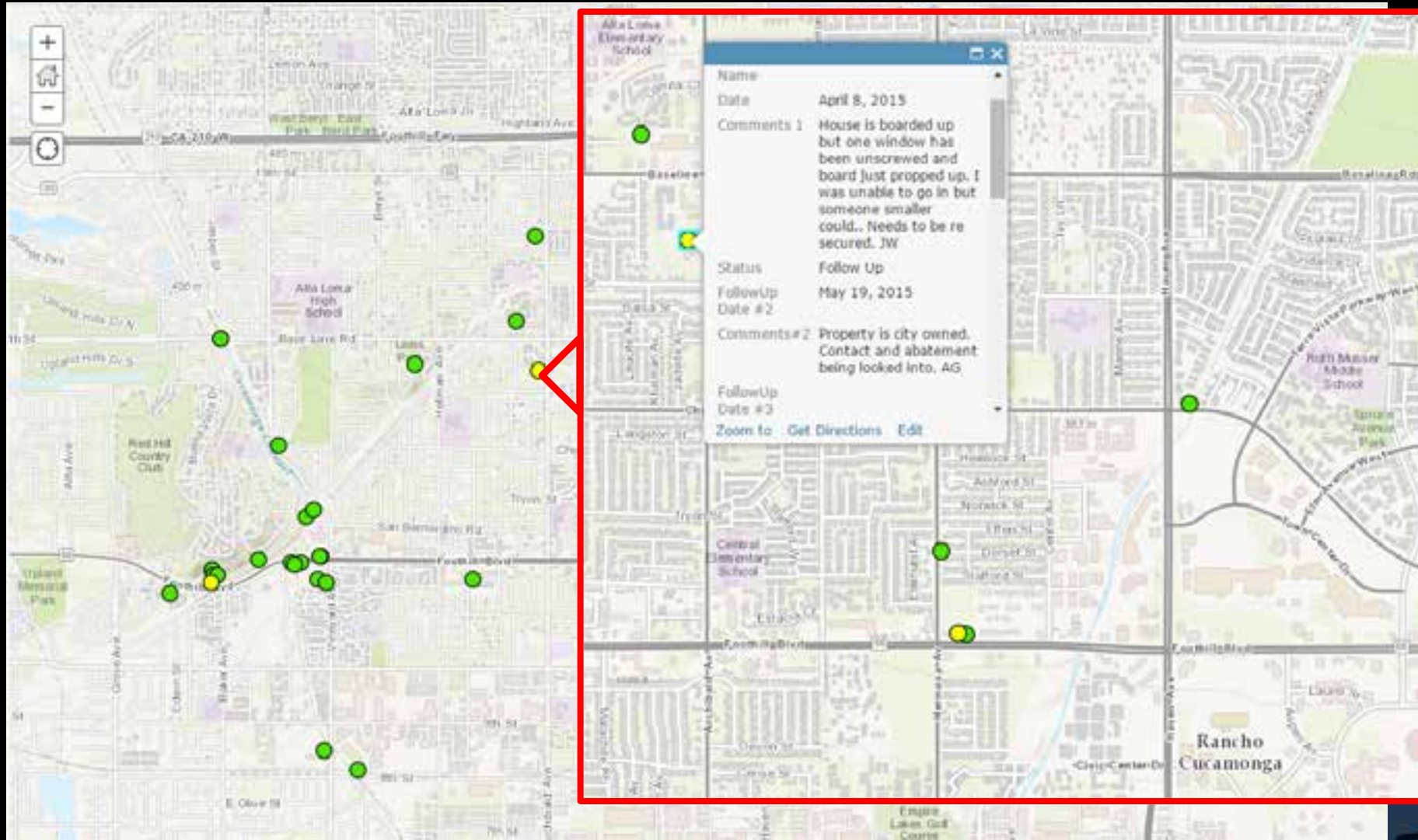
Other Uses for Technology



- Website
- Community Information Cards
- QR Codes
- Tablets and iPads
- Social Media



Feedback/Community Engagement



What's Next?

Historic Data

Analyze historical data for hidden trends and needs

Current Data

Continue to analyze current data to find short-term trends and immediate needs.

Establish
Thresholds

Determine risk thresholds and implement tool with push notifications

Internal
Deployment

Share tool throughout the department to explore new opportunities for community engagement

Share
Externally

Share this tool with external agencies to help others analyze their data in a dynamic fashion.



Culture Shift





Time For
QUESTIONS?