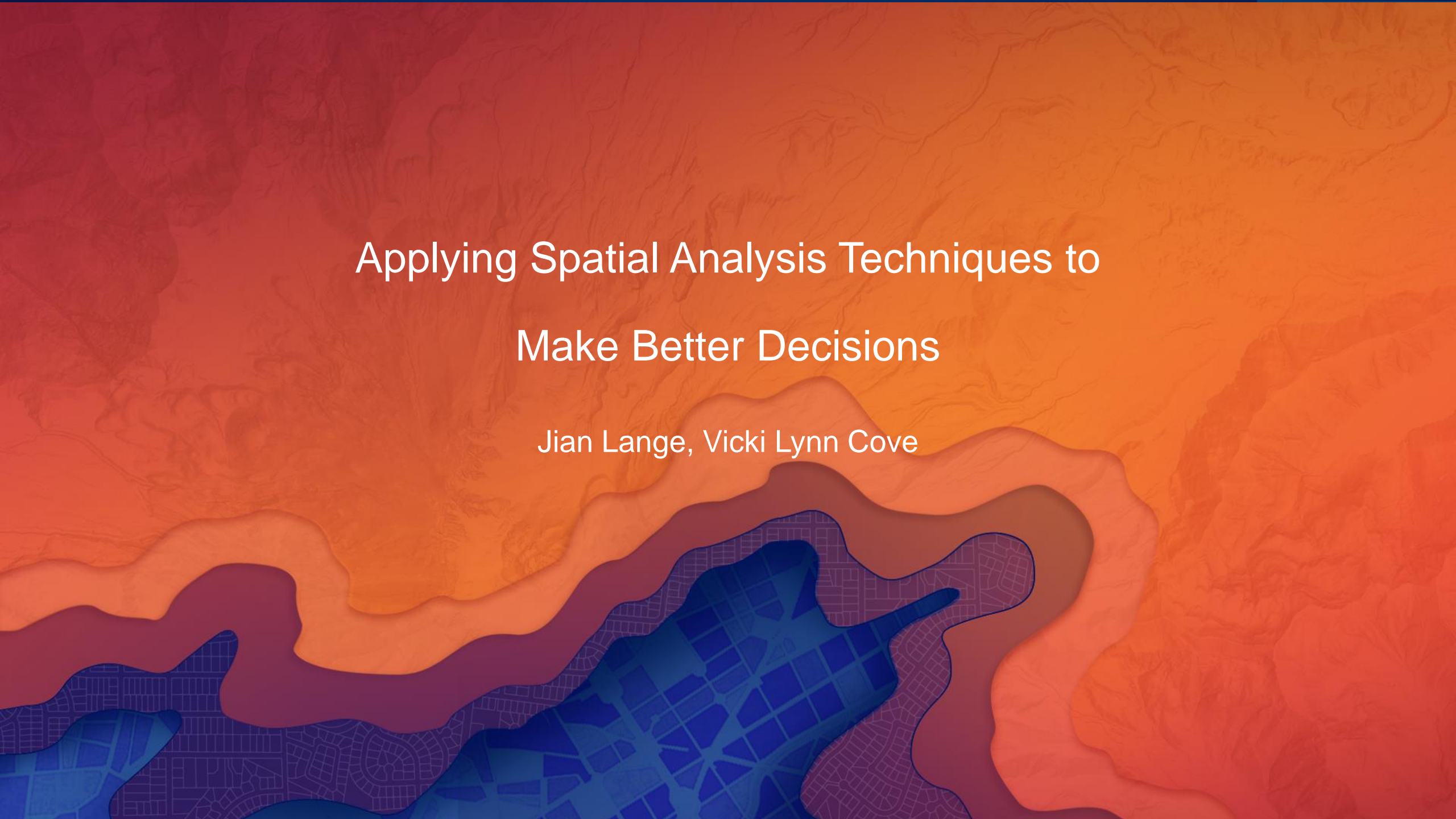


# Applying Spatial Analysis Techniques to Make Better Decisions

Jian Lange, Vicki Lynn Cove

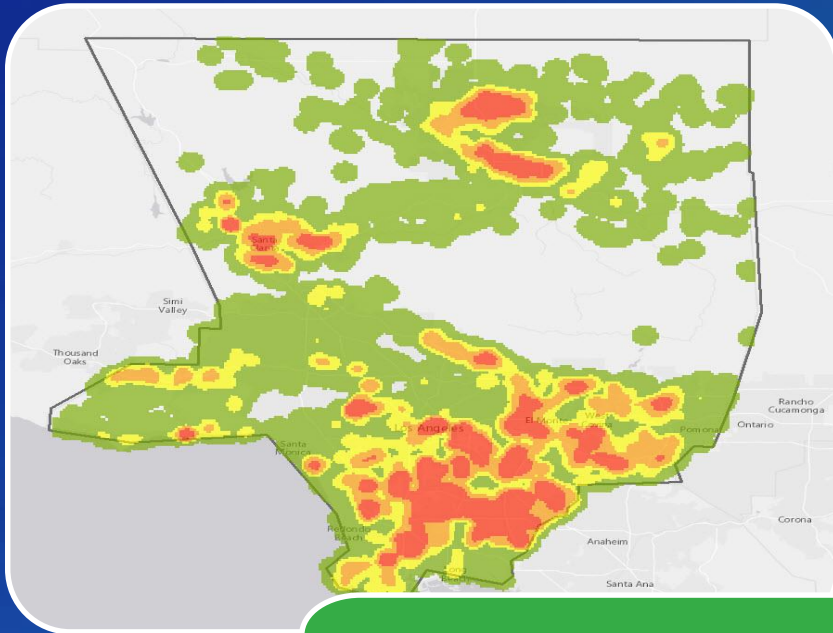


# Topics

- Introduction to spatial analysis
- Demos and examples
  - Various types of spatial analysis
  - From basic to more advanced
  - Mixed ArcGIS products
- Takeaway points

# Introducing Spatial Analysis

# Spatial Analysis



**Discover  
spatial  
patterns**



**Make informed  
decisions**



# Spatial Analysis

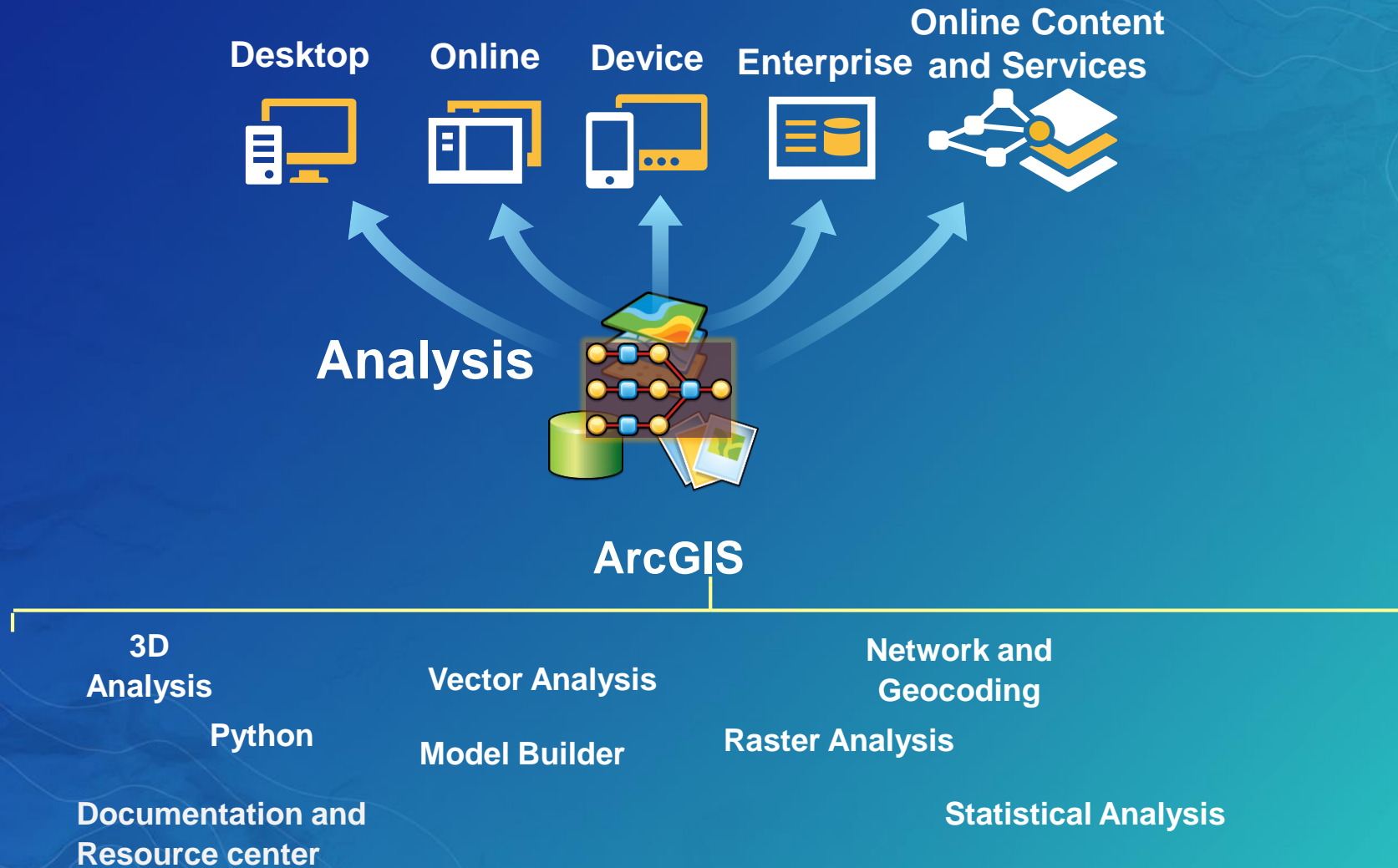
Power of  
GIS

Esri Core  
Competency

## Top spatial analysis trends



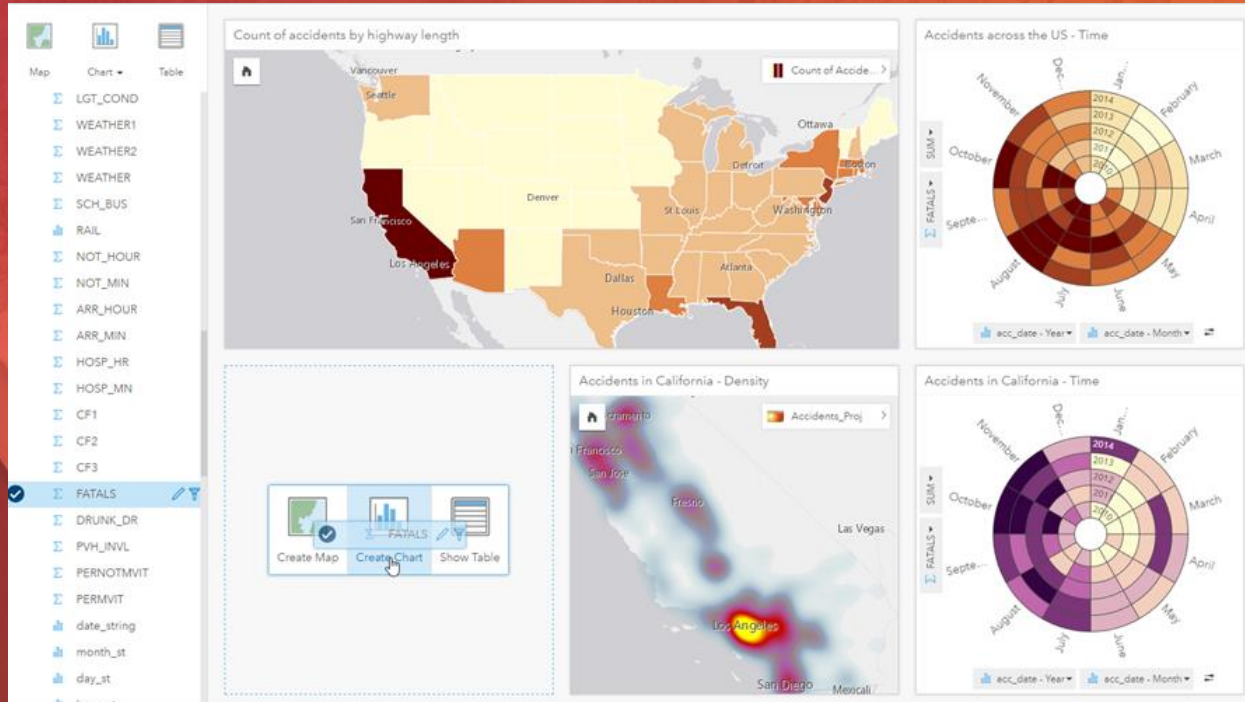
# Across the ArcGIS Platform



# Demos and Examples

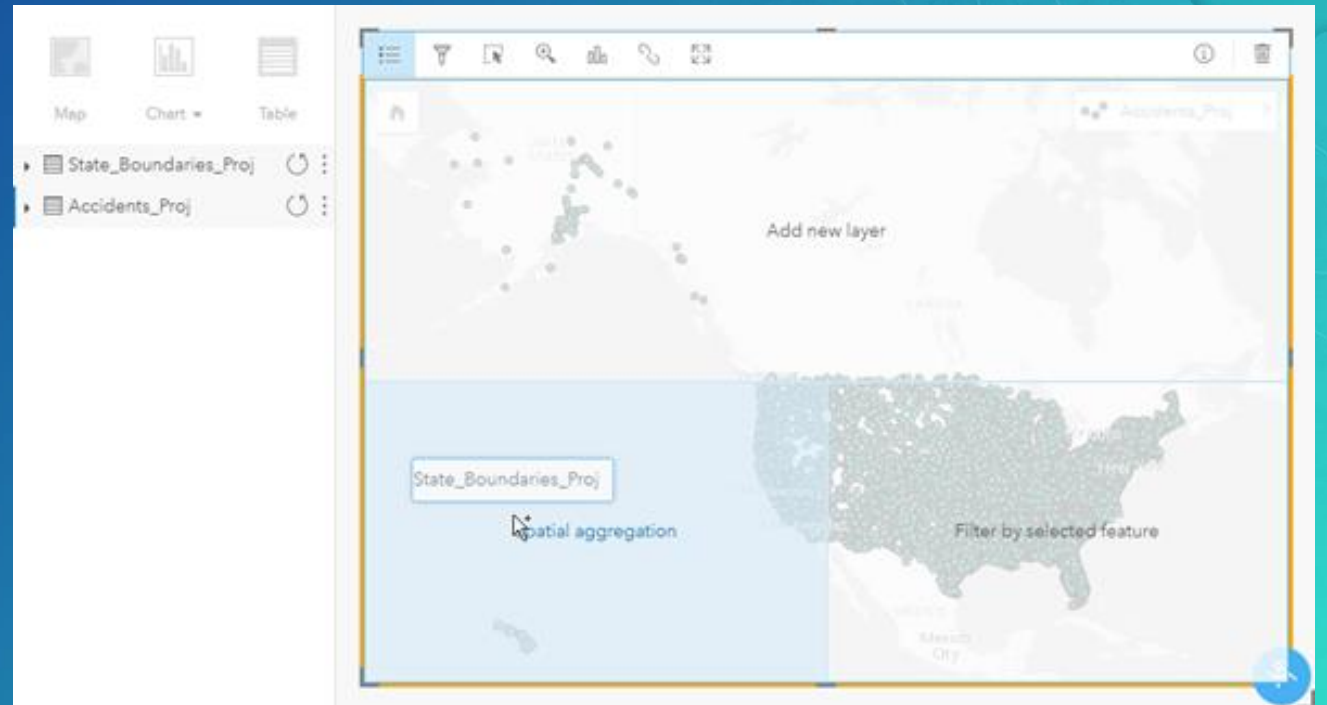


# Insights for ArcGIS



# A new way to perform spatial analysis

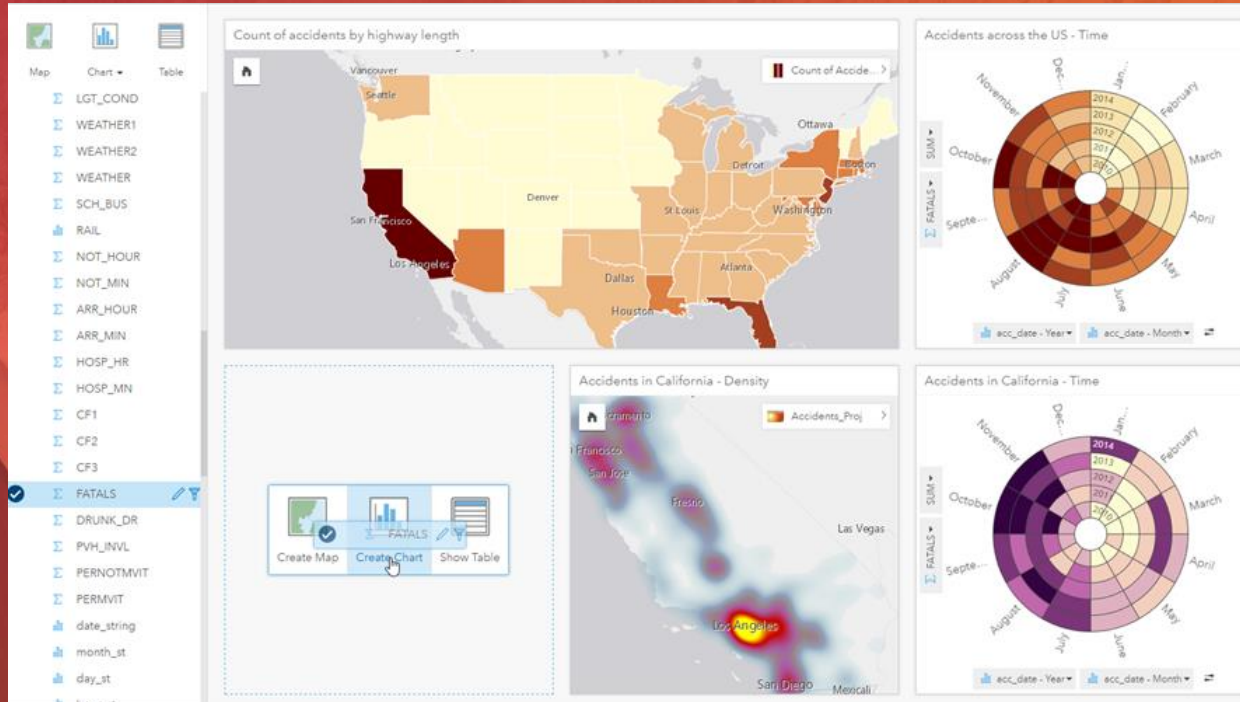
- Available with ArcGIS Enterprise 10.5 and later
- Exploratory analysis made easy
  - Drag and drop interface
  - Create maps, charts, and tables
  - Interactive and dynamic cards
  - Smart mapping and charting



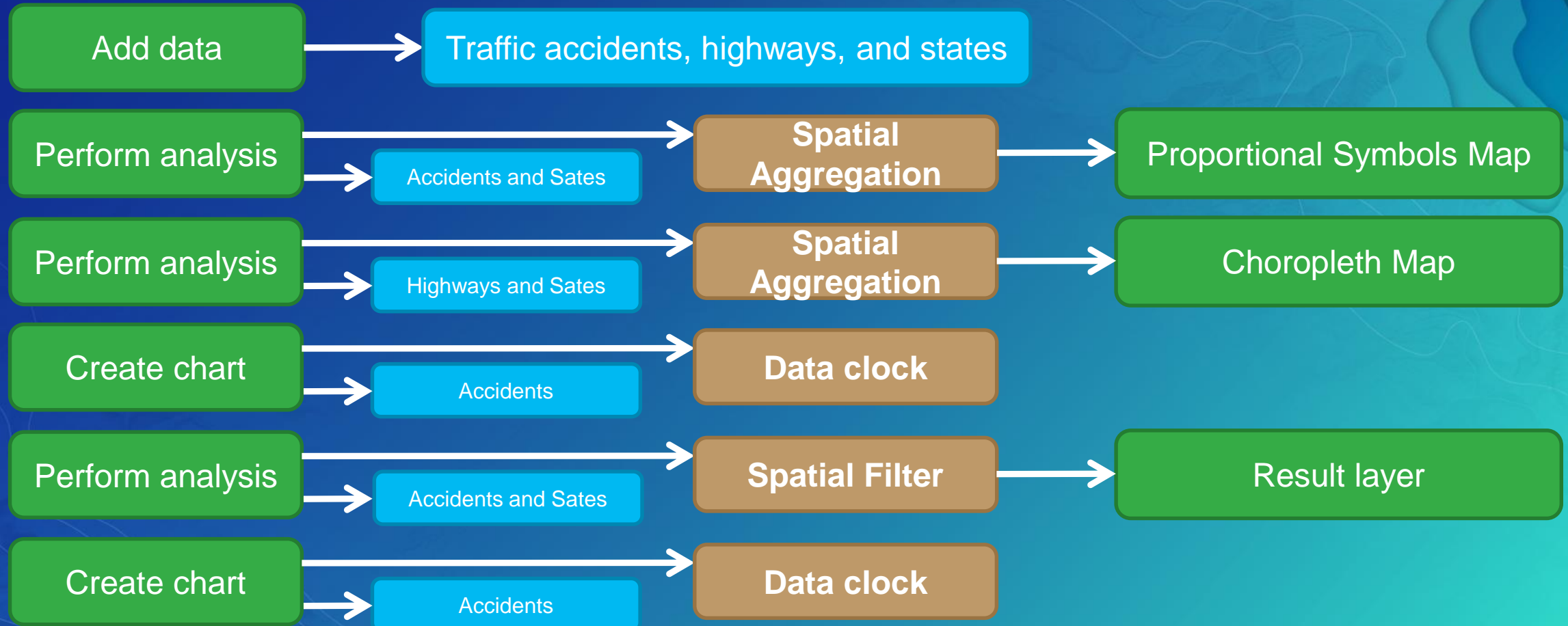


# Exploratory Analysis

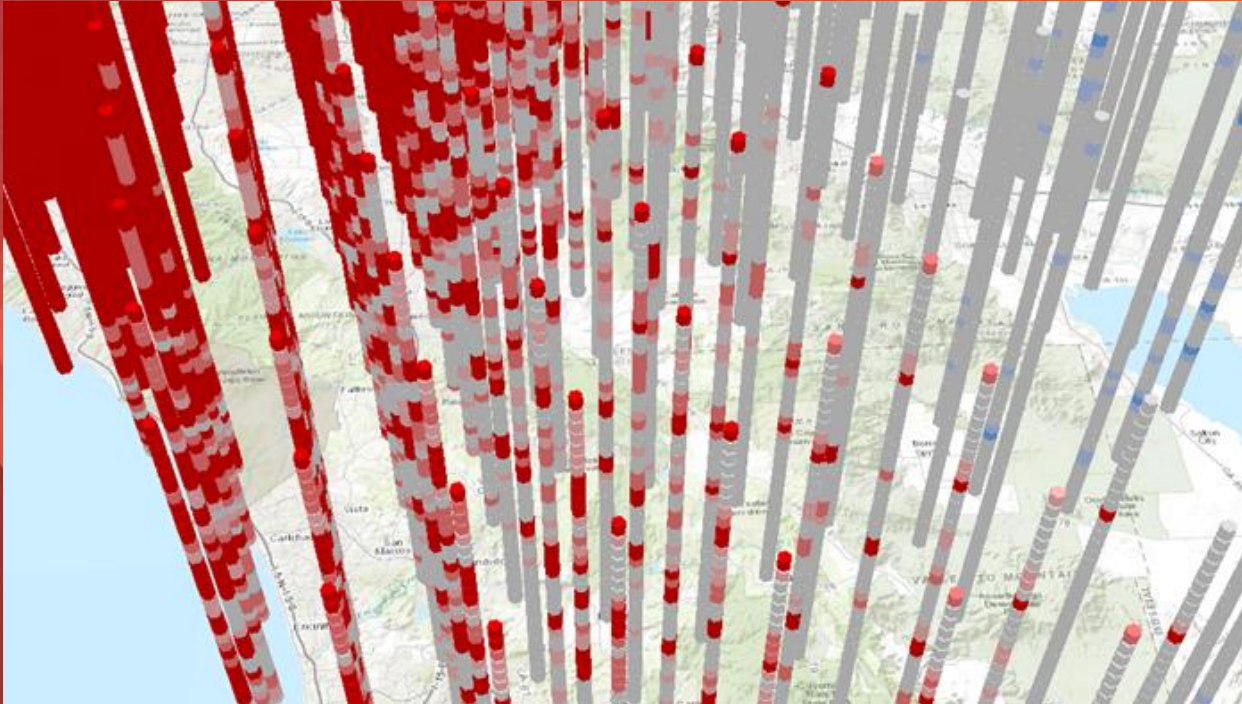
Explore traffic accident data in  
Insights for ArcGIS



## Demonstration review





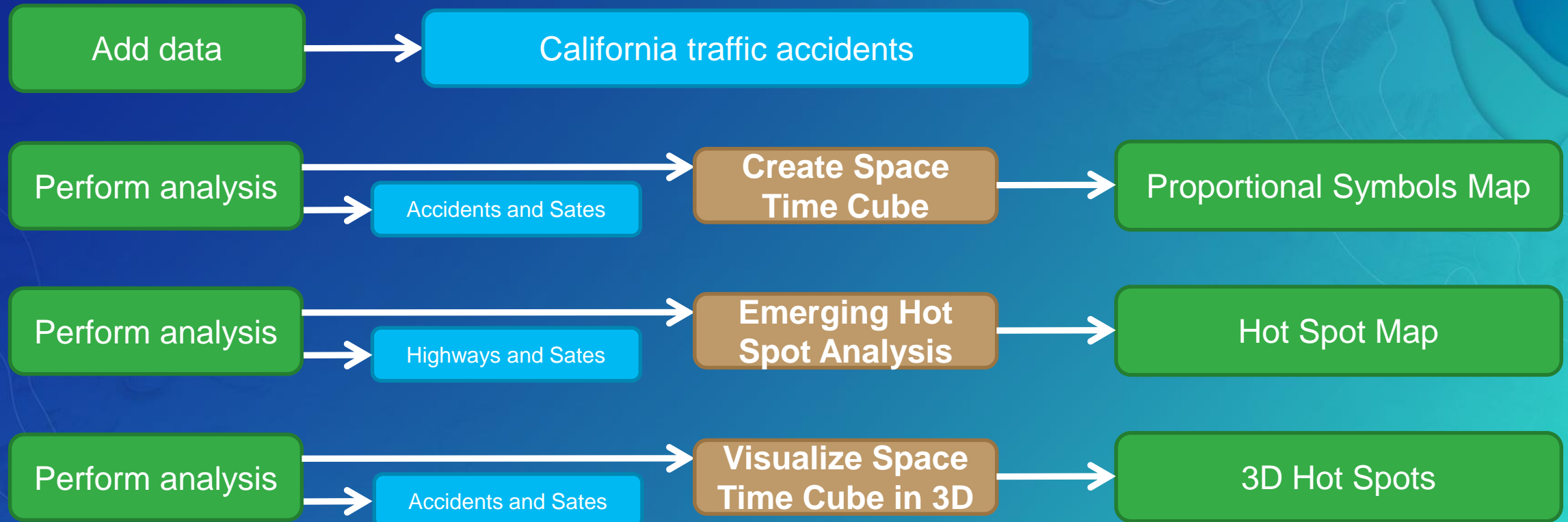


# Space-time analysis

Analyze traffic accidents in both space and time



# Demonstration review

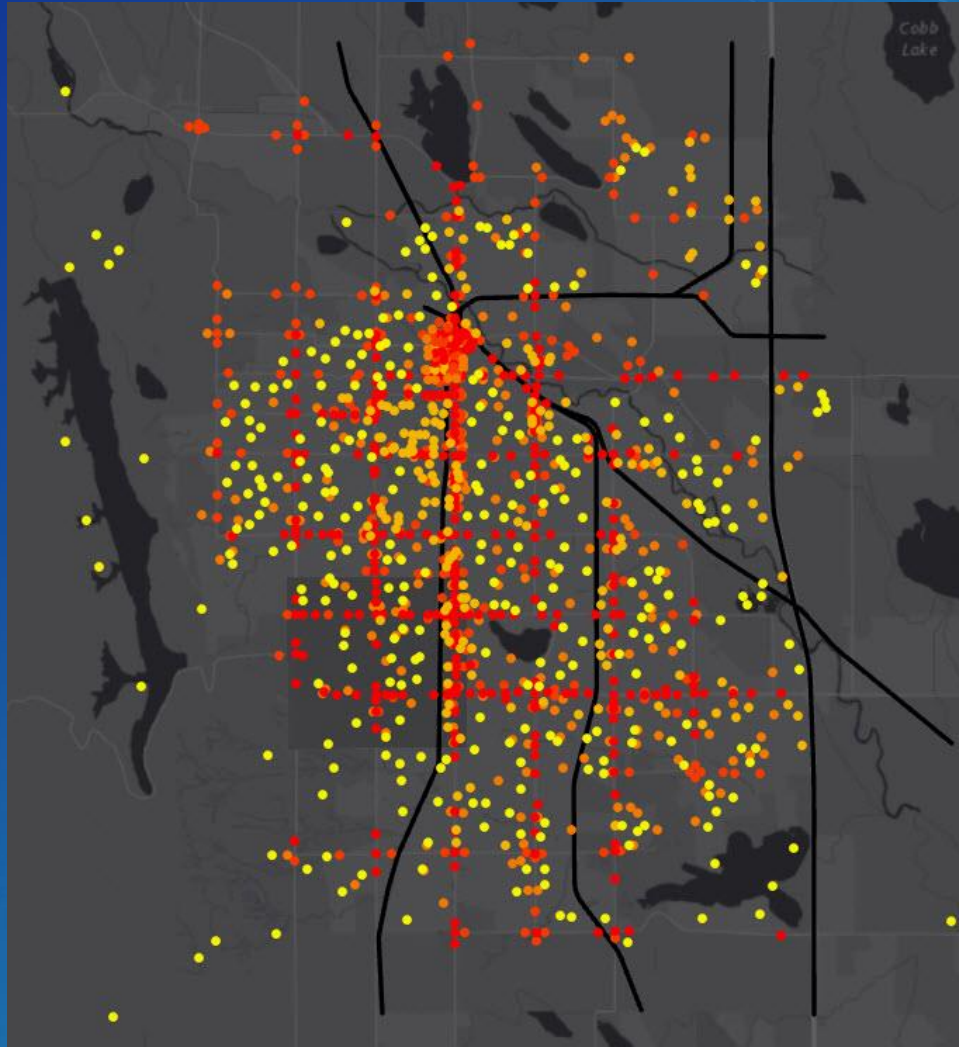




# Spatial Interpolation

Empirical Bayesian Kriging & EBK  
Regression Prediction

## Demo Scenario



**Predict the noise pollution level for the whole city**



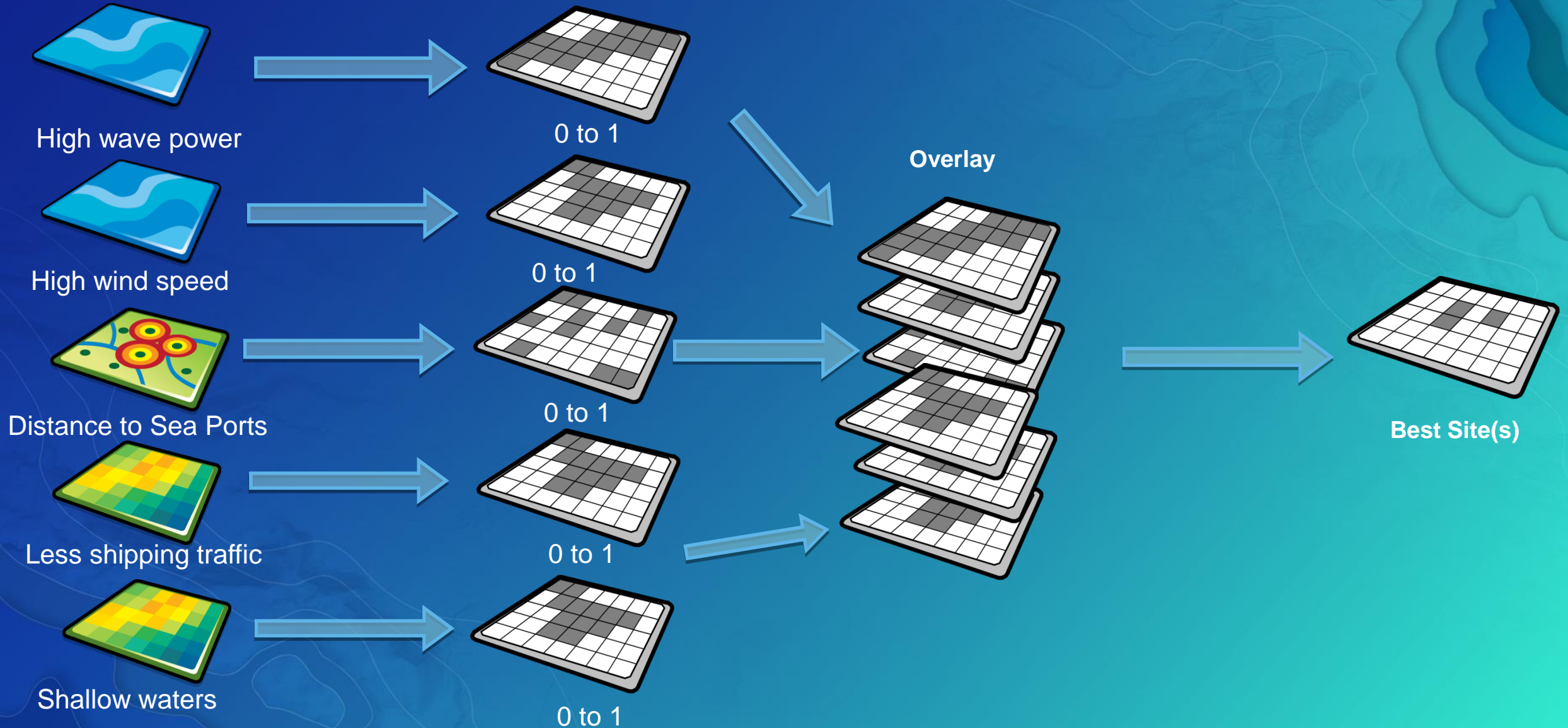
The background of the slide is a stylized map. The upper portion is a warm, textured orange-red gradient. The lower portion features dark blue and purple wavy lines representing topographic contours or water bodies. In the bottom-left corner, a small section of a city grid is visible in a lighter blue color.

# Suitability analysis

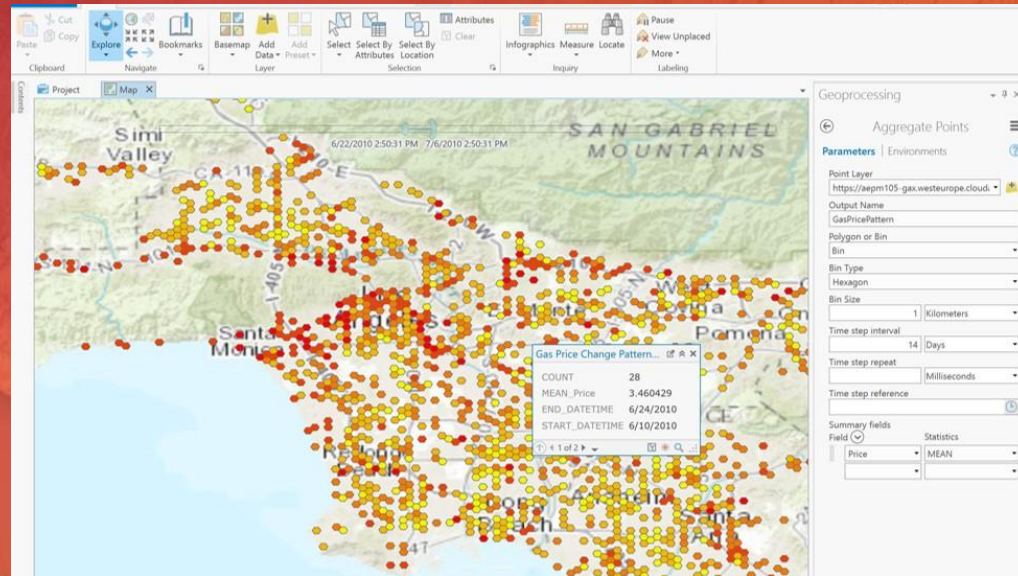
What is the best place for...

## Demo Scenario:

Where is the best place to build a wind farm in the North Sea area?

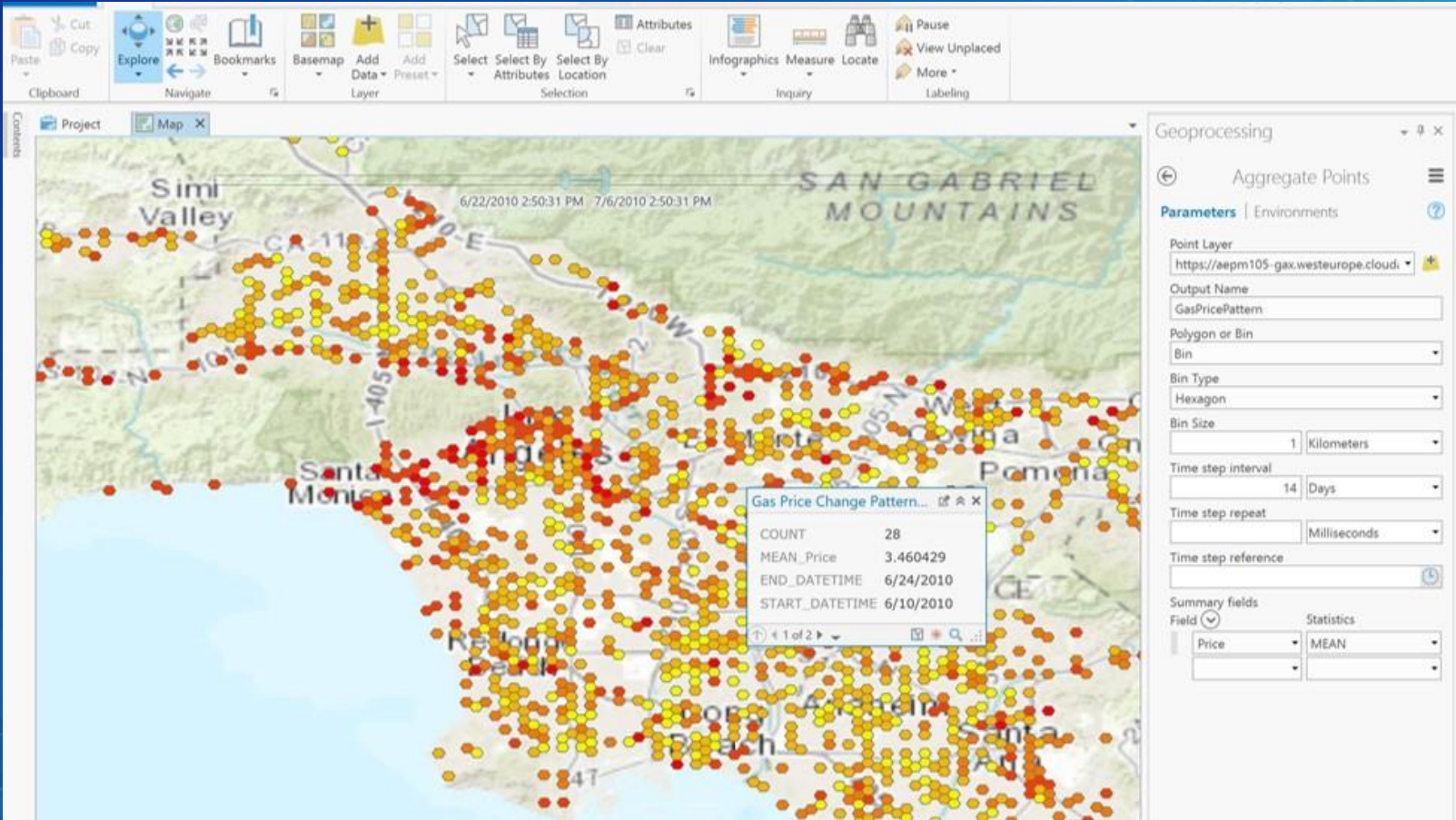






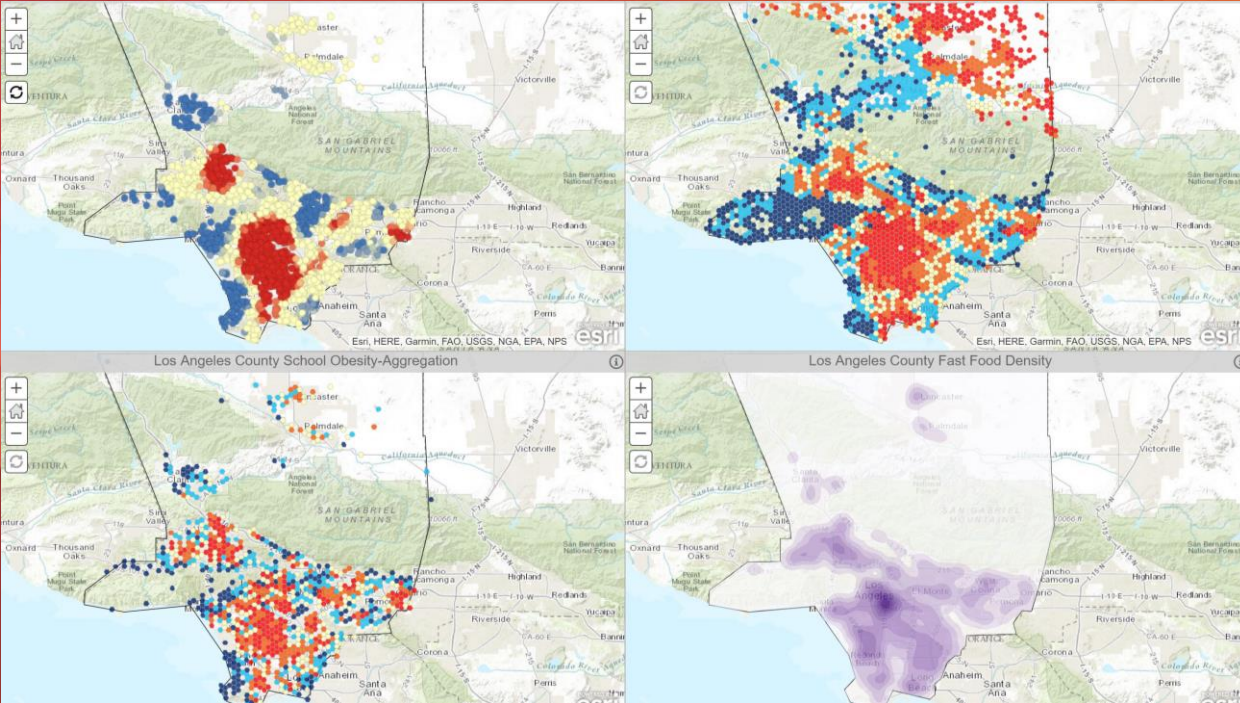
# Analyze Big Data

# Demo Scenario



Analyze gas price pattern change over time

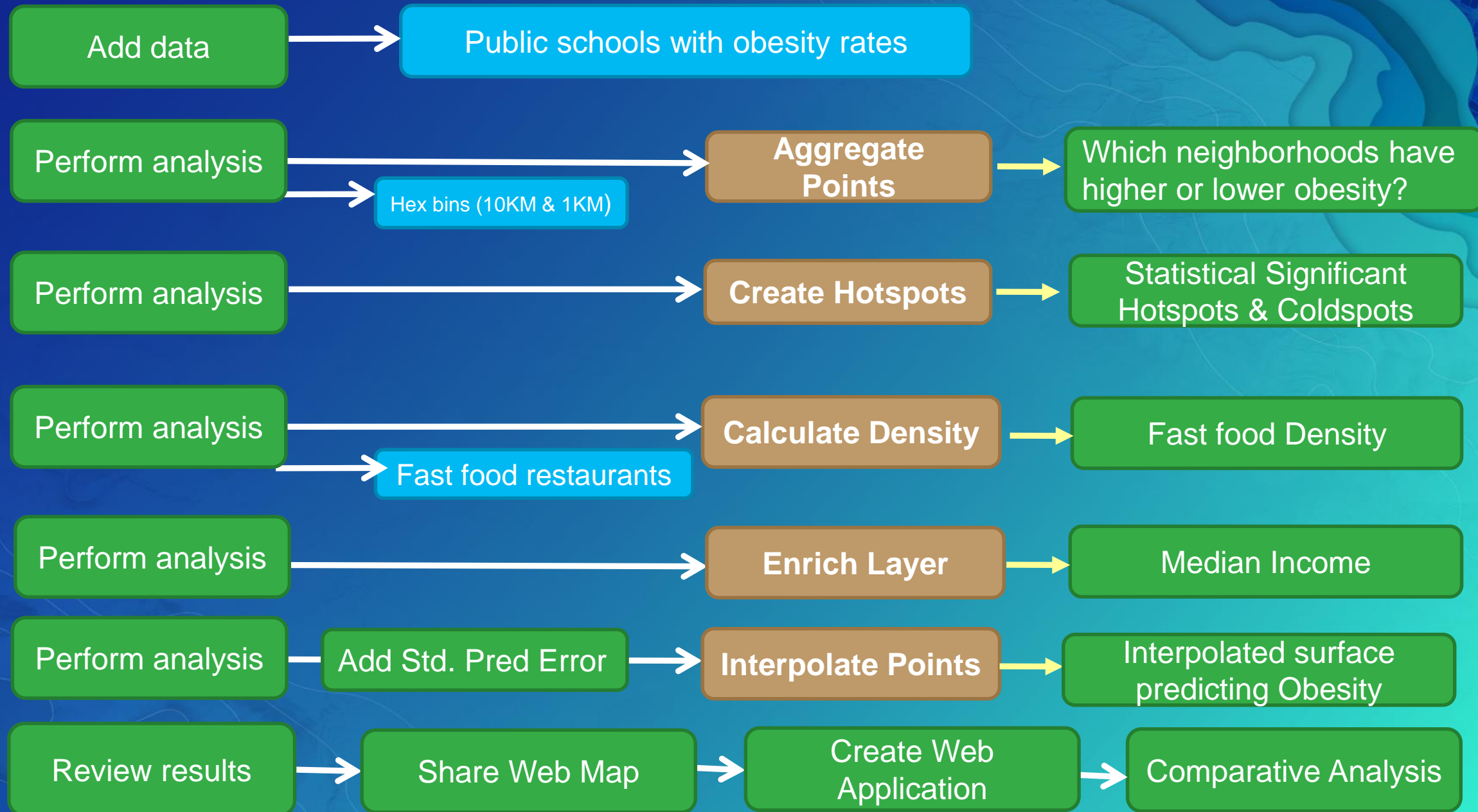




# Demo

## School Obesity Analysis

# Demonstration review

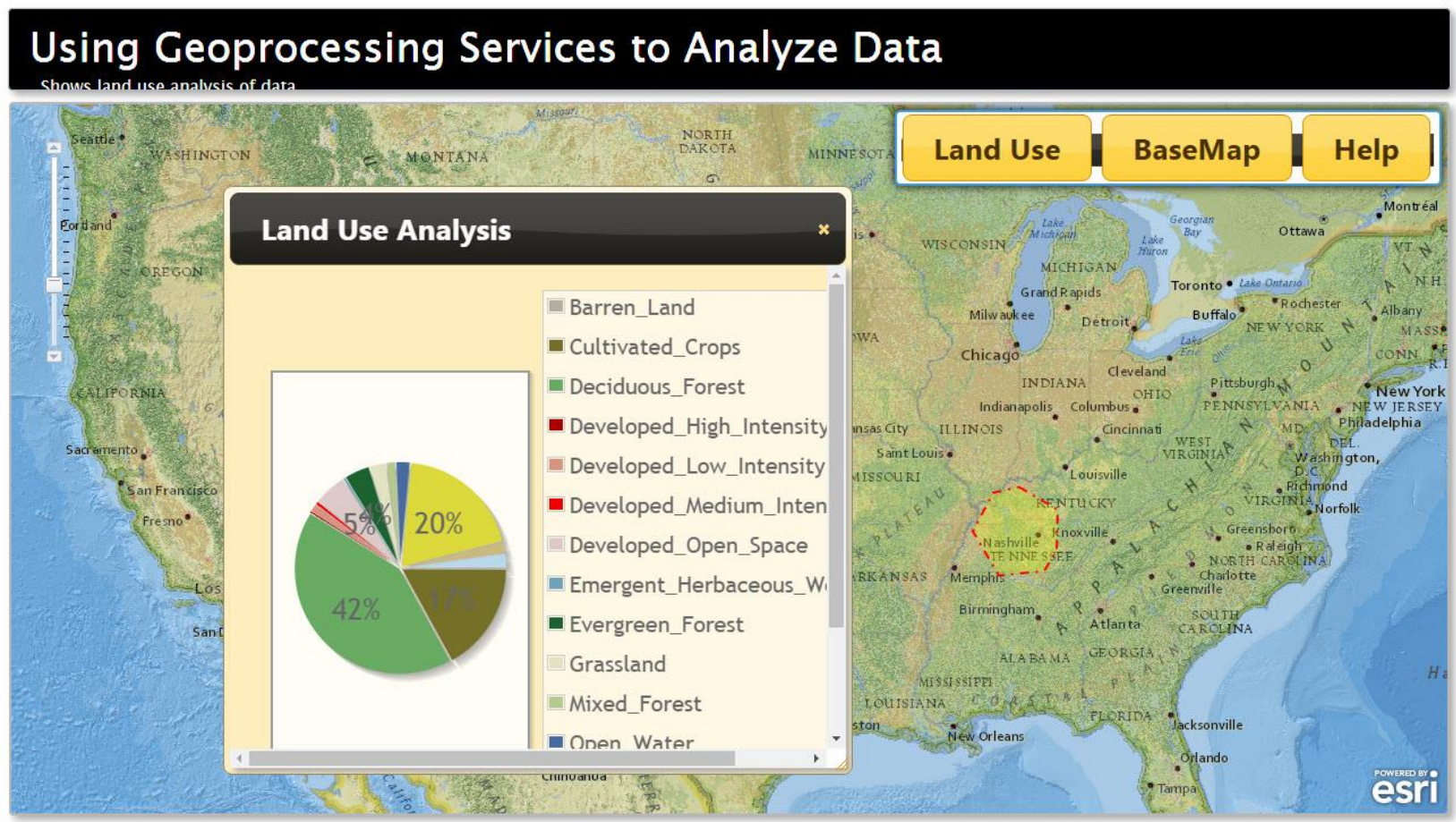








# Demo Scenario



**Take away points**

## Takeaway points...

- **Spatial analysis brings the true power of GIS**
- **Jump start spatial analysis with Insights for ArcGIS**
- **ArcGIS spatial analysis capabilities help users to make better decisions in social science and health research with sophisticated analytical tools**
- **Providing spatial analysis online reduces the learning curve and helps to reach a wider audience**



# Please Take Our Survey on the Esri Events App!

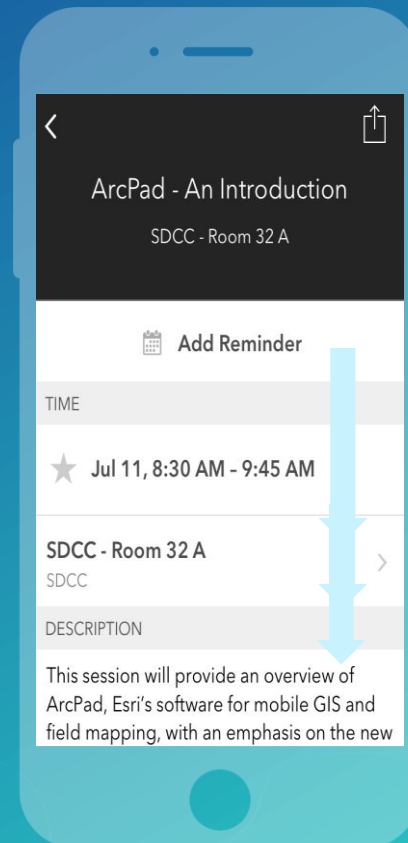
**Download the Esri Events app and find your event**



**Select the session you attended**



**Scroll down to find the survey**



**Complete Answers and Select "Submit"**





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OF  
WHERE