Introduction to Spatial Analysis with ArcGIS Online

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Introduction
Agenda

• Introducing ArcGIS Online Spatial Analysis
• Workflows
• Scenarios
• Resources
ArcGIS is a Platform
Making mapping & analytics available across your organization
Spatial Analysis with ArcGIS Online

• Use analysis tools quickly, easily and intuitively
• Integrate analytics across your entire organization’s workflows
• Unlock the power to discover relationships, patterns and trends in data
• Help answer questions in a meaningful way
Analysis Tools
Summarize Data

- Calculate summary statistics for features and attributes
Find Locations

• Find features based on specified criteria
Data Enrichment

- Add detailed demographic, behavior, landscape (and more) data to your analysis
Analyze Patterns

- Identify, quantify and visualize spatial patterns in your data
Use Proximity

- Discover what is near what
Manage Data

- Manipulate and combine data prior to or after analysis
Prepare Data

- Evaluate analysis needs
- Search online resources
- Create, publish and filter data

Supported Data Types

- Feature service
- Map service with feature layers
- ArcGIS Online Map Notes
- ArcGIS Online route layers
- CSV files
- GPS Exchange Format
- Shapefile
- GeoRSS Web feed
Add to Map

- Bring data into ArcGIS Online web map viewer
- Symbology
- Save Map
Analyze Data

- Determine appropriate tool(s)
- Apply parameters

**Aggregate Points**

Using a layer of point features and a layer of area features, this tool determines which points fall within each area and calculates statistics about all the points within each area. For example:

- Given point locations of crime incidents, count the number of crimes per county or other administrative district.
- Find the highest and lowest revenues for franchise locations by state.
Review Results

• Added to web map
• Published as hosted feature layers
• Share the results
Analysis Scenarios
Scenario #1

- Where in the city could a mixed use development be built?
Scenario #1 Review
Where in the city could a mixed use development be built?

Add Data
- Light Rail
- Zoning & Planning

Prepare Data
- Filter (by Commercial Districts)

Perform Analysis
- Buffer
- Union
- Intersect
- Dissolve

Review Results
- Save/share web map
Scenario #2

- Who is affected most by high air pollution levels in the city?
Scenario #2 Review
Who is affected most by high air pollution levels in the city?

Add Data
- Air Quality
- Neighborhoods

Perform Analysis
- Interpolate Points
- Summarize Within
- Enrich Layer

Review Results
- Smart Mapping (two variables)
- Save/share web map
Summary

- Spatial analysis adds valuable insight by providing hosted tools that work with your data in your ArcGIS Online organization.

- Perform spatial analysis online is easy and intuitive.

- Using ArcGIS Online spatial analysis to discover geographic relationships, patterns, and trends.
What do you need?

- ArcGIS Online account
- Privileges
  - Create items
  - Publish hosted features
  - Spatial analysis (including Network Analysis, Geoenrichment)
- Supported Layer Types
- Credits
Resources

- https://esri.box.com/ArcGISSpatialAnalysis
- Online Course – Going Places with Spatial Analysis
- ArcGIS Online web help
- Analysis case studies and examples
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