



ArcGIS Insights – Analysis & Reporting

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*2021 ESRI
DEVELOPER SUMMIT*

Today's Agenda

Deep Dive

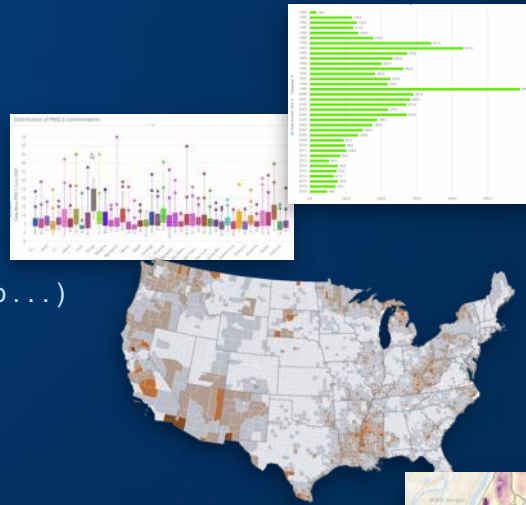
1. Product overview
2. Exploratory, spatial, & statistical analysis
3. Reporting and collaboration
4. Roadmap & resources

ArcGIS Insights

Interactive Visual Analytics

New & Improved

- Scheduling
- Presentation Options
- Analysis (Clustering, Density Ratio . . .)
- Web & Export Options



Labeling



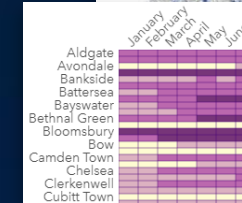
Auto-Generated Models

Link Analysis



Integrated Reporting

Dynamic Charts



Advanced Analysis

Statistical
Spatiotemporal
Link / Graph
Python / R Scripting . . .

Interactive Reports

Sharing (Internally and Publicly)
Embed in Web Pages
Scheduled Updates . . .

Visual Analytics

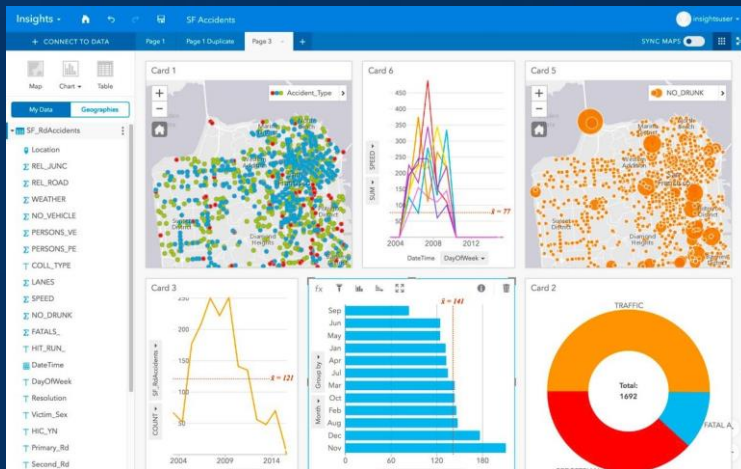
Maps, Charts and Tables
Exploratory Analysis
Dynamic Interactions . . .

Data

Dynamic Cleaning
Compound Joins
Calculations
GeoEnrichment . . .

Empowering All Analysts with Spatial Capabilities

Easy to Learn and Use

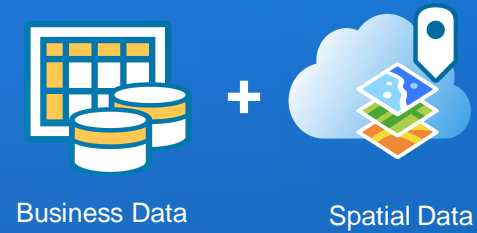


Smart Mapping

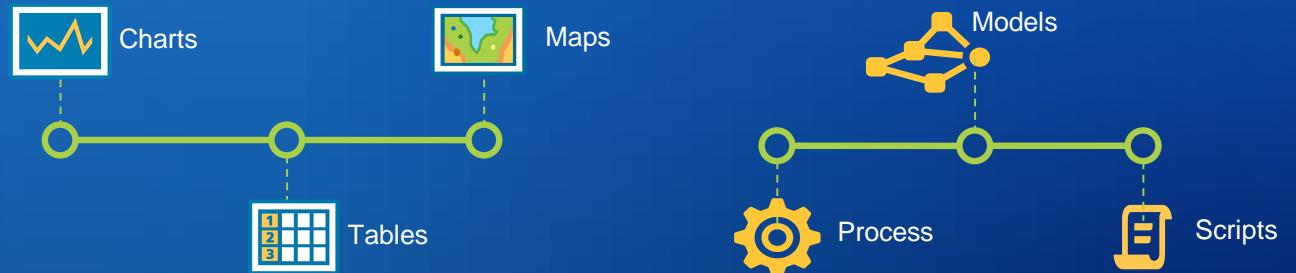


ArcGIS Insights

1. Connect to data



2. Visualize & analyze



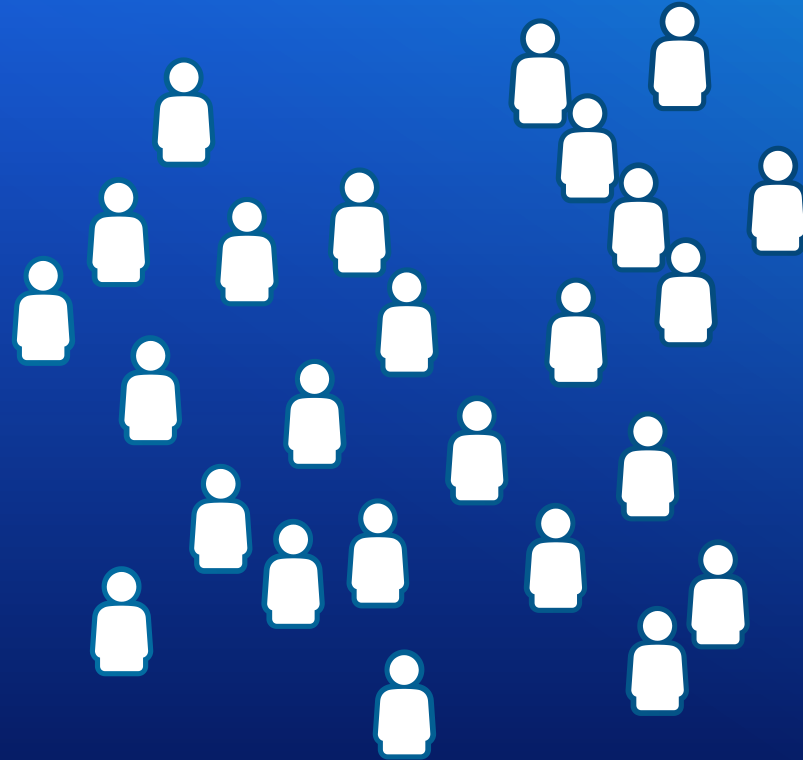
3. Share interactive reports



Bring the value of spatial analysis to all analysts



GIS Analysts



**Knowledge Workers
Business or Strategy Analysts
Data Scientists**

Connect to your data



Data Files

- File geodatabase
- Shapefile
- JSON and GeoJSON
- Excel and CSV
- OneDrive
- SharePoint



Enterprise GIS

- Feature layers
- ArcGIS Online / Enterprise
- Supports multiple orgs



Relational Databases

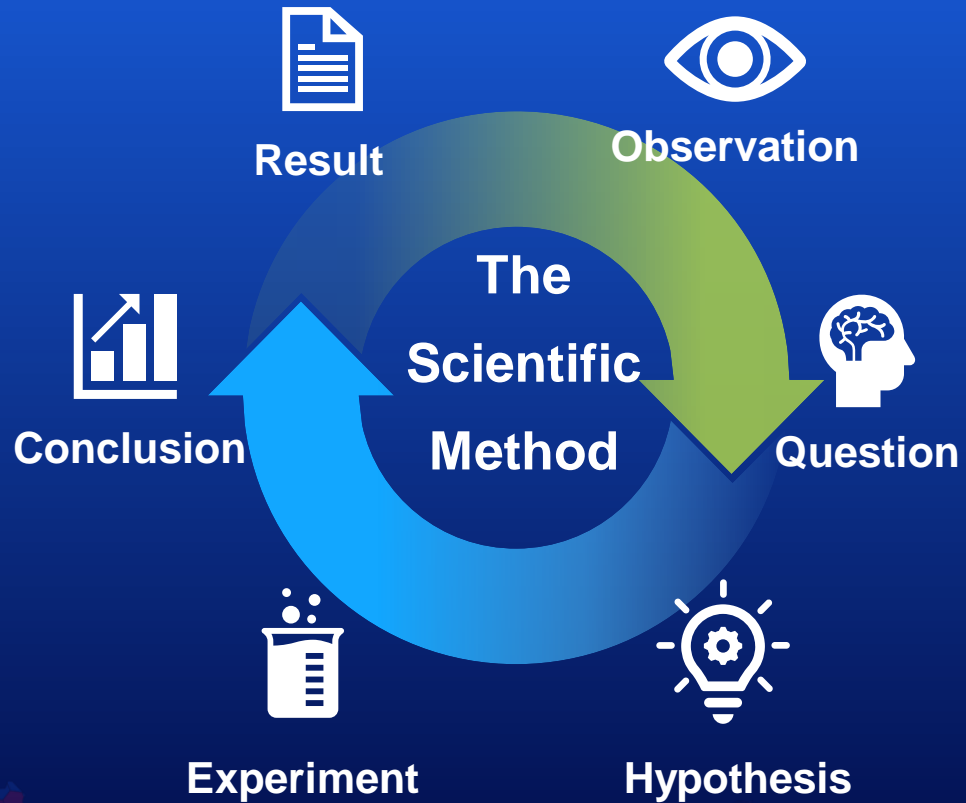
- Can be a geodatabase, or not
- Views are supported
- Oracle
- SQL Server (supports OS authentication)
- PostgreSQL / PostGIS
- SAP HANA
- Option to host any above in AWS
- Azure SQL Database



Python or R

- Pull data in with scripting

Analysis



Exploratory
Spatial &
Statistical

Visualize, discover, and find questions



Get Answers



Analysis



Exploratory



Spatial



Statistical



Analytic Models



Scripting

Exploratory Analysis



Maps

Data Table

Obs...	Date...	Date...	Date...	Date...	Date...	Date...
1	1970	Q1	January	5	Monday	12,400
2	1970	Q1	January	5	Monday	12,400
3	1970	Q1	January	5	Monday	12,400
4	1970	Q1	February	8	Friday	12,400
5	1970	Q1	March	23	Monday	12,400
6	1970	Q2	April	15	Wednesday	12,400
7	1970	Q2	April	22	Wednesday	12,400
8	1970	Q2	May	8	Friday	12,400
9	1970	Q2	May	15	Friday	12,400
10	1970	Q3	August	28	Friday	12,400
11	1970	Q3	August	31	Monday	12,400
12	1970	Q3	September	14	Monday	12,400
13	1970	Q3	September	28	Monday	12,400
14	1970	Q4	October	5	Monday	12,400

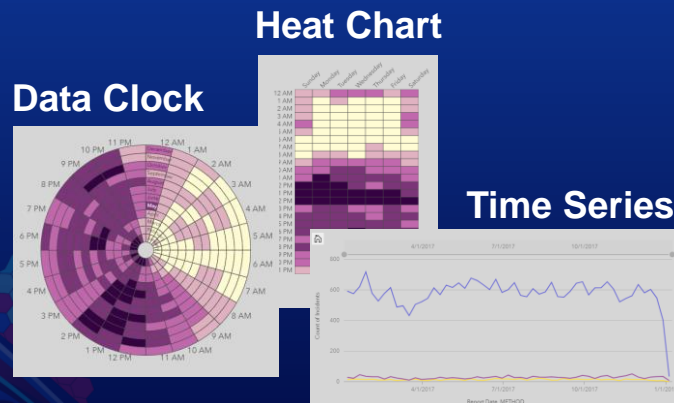
Summary Table

Shooter_Race	Wounds	Shooter_Age
<No Data>	SUM	SUM
Black	100	100
Some Other	32	32
Unknown	899	899
White	278	278
<No Data>	47	47
American Indian or Alaska...	6	114
Asian	187	2,611
Black	2	32
Native Hawaiian or Other...	19	572
Some Other		
Total	1,470	Total 15,542

Tables



Charts



Time & Date



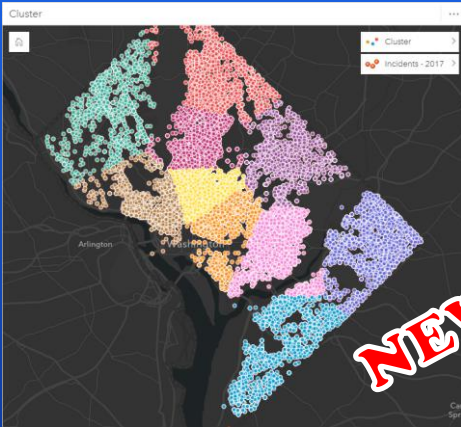
Interactivity



- Spatial
- Predefined
- Card
- Data

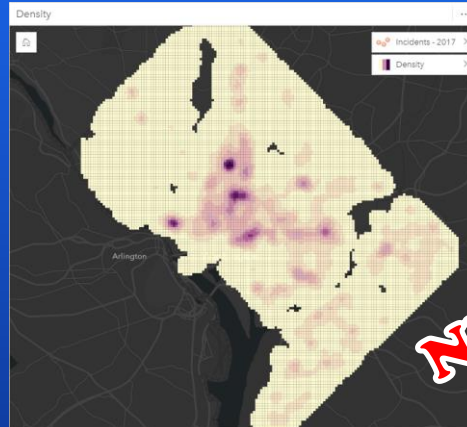
Filters

Spatial Analysis



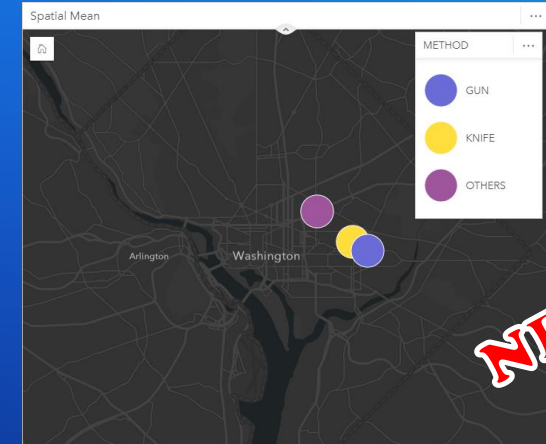
NEW!

K-means clusters



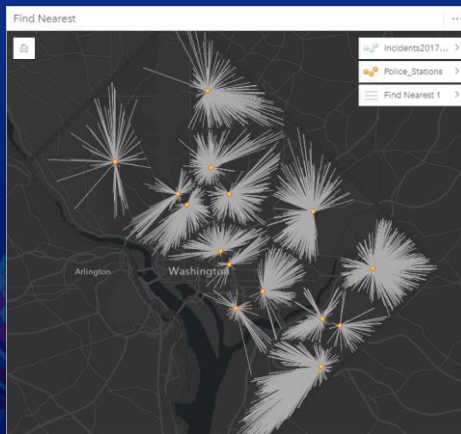
NEW!

Density ratio

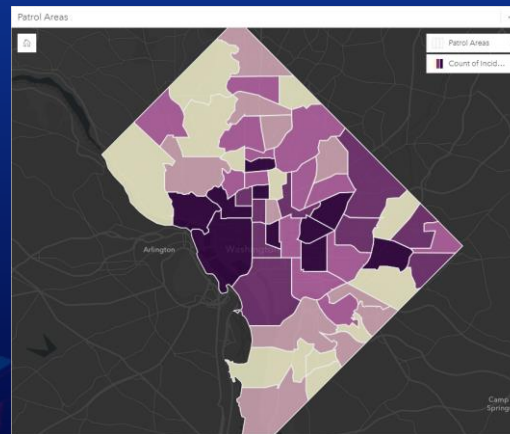


NEW!

Spatial mean



Find Nearest



Aggregate

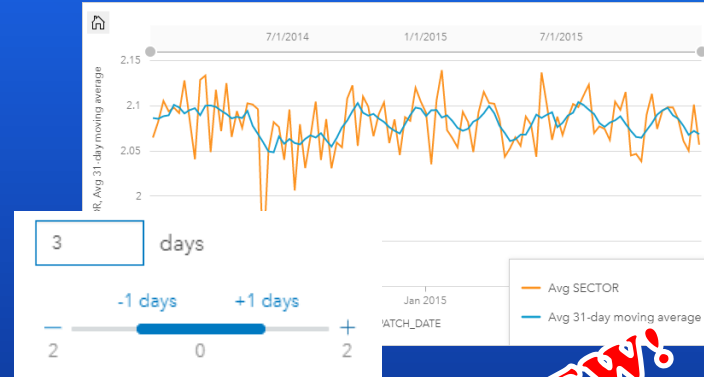
and more...

Statistical Analysis



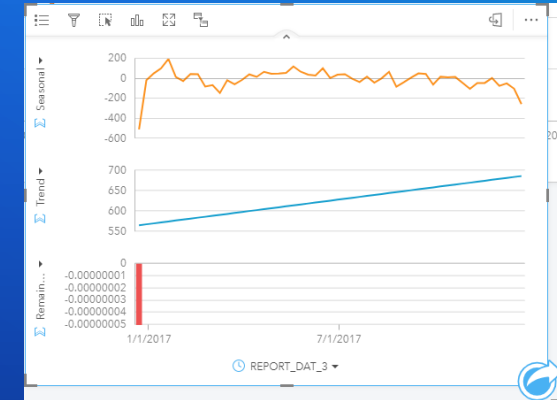
Forecasting

NEW!



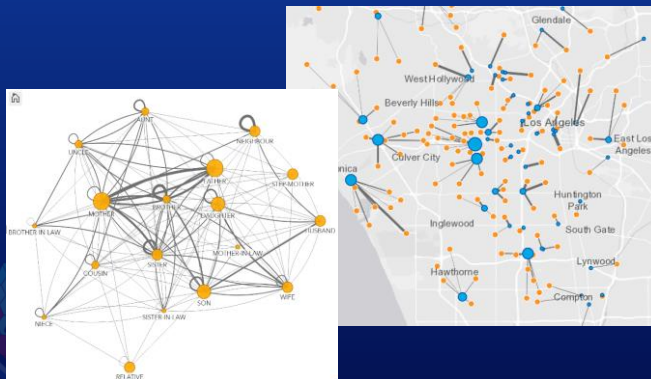
Moving average

NEW!



Temporal decomposition

NEW!



Link (graph) analysis



Regression & predict

and more...



DEMO

Analytics with ArcGIS Insights

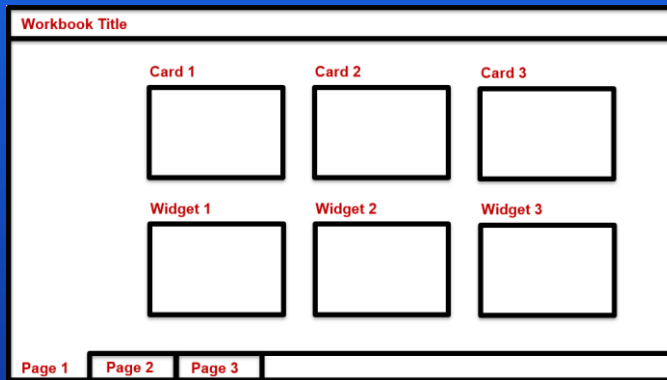


Sharing Pages & Workbooks

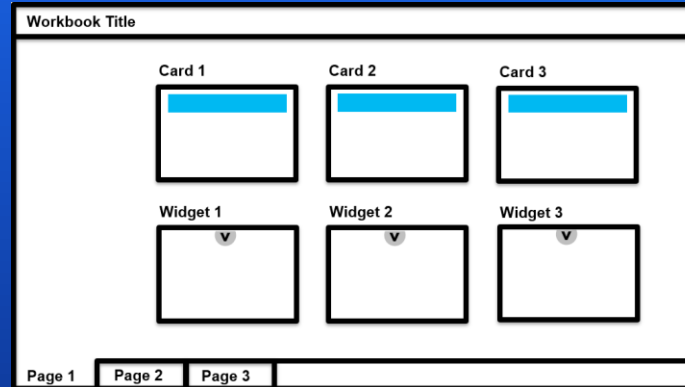


	Analyst	Viewer
Select & filter	Yes	Yes
Export data	Yes	Yes
Create new cards, analysis, and stories	Yes	No

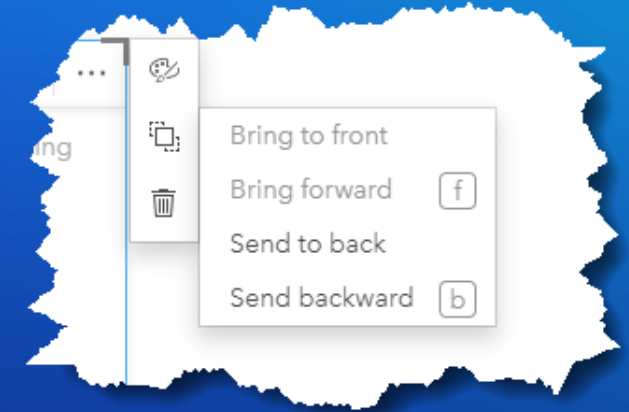
Design Compelling Reports



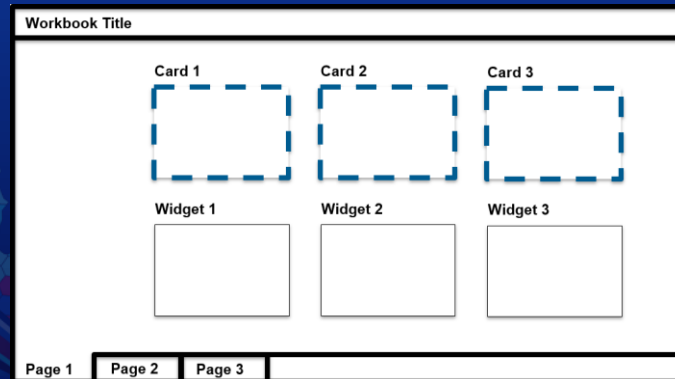
Titles – workbook, page, card, and axis



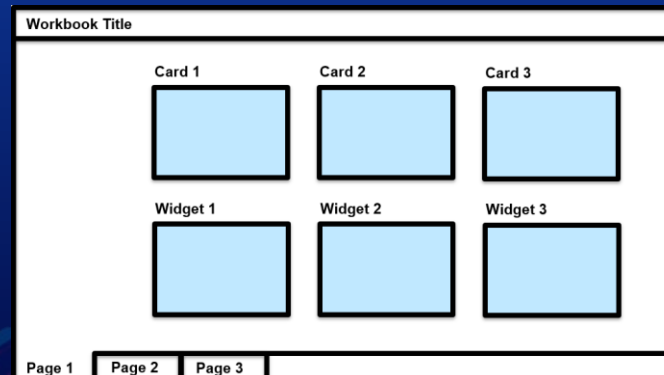
Toolbar Control – hide & color



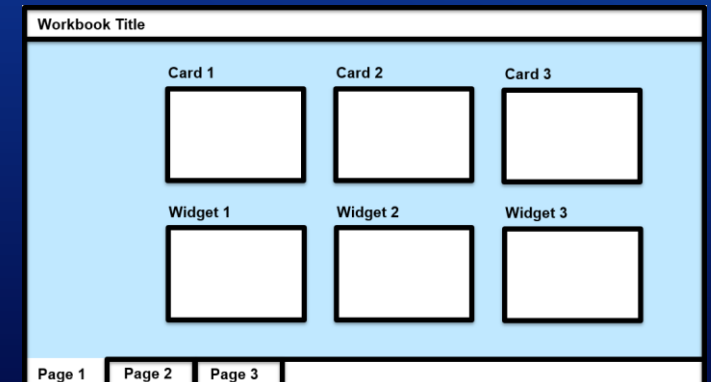
Card Ordering



Card Border

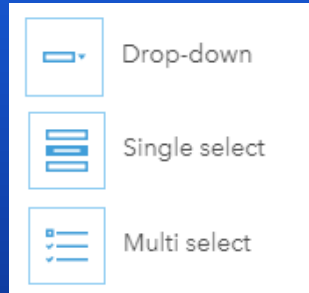


Card Colors

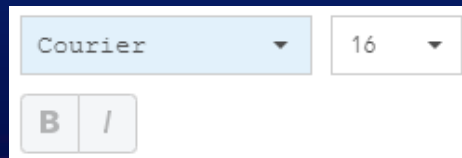


Page Background Color

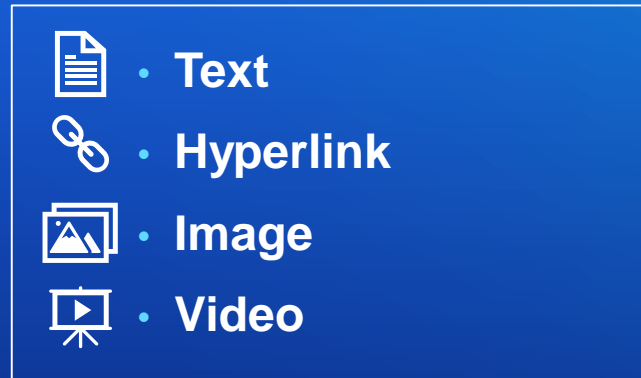
Design Compelling Reports (continued)



Predefined Filter



Font control – title & axis



Text & Media Widget


- **Apply a consistent standard**
- **Store settings** (colors, text, media, card types)
- **Import / export**

Theme

Embedding

Page shared successfully!

Here's what you can do with your page




View your shared page

https://dev0012503.esri.com/portal/apx

Go

Shared with


☒ ArcGIS Enterprise



Access your page item

https://dev0012503.esri.com/portal/hor

Go



Embed

<iframe src="https://dev0012503.esri.com/portal/apx" type="text/html" width="100%" height="100%">

Size

Default


100

100

%

ArcGIS StoryMaps

Custom iFrame



Schedule an update

Not scheduled to update yet

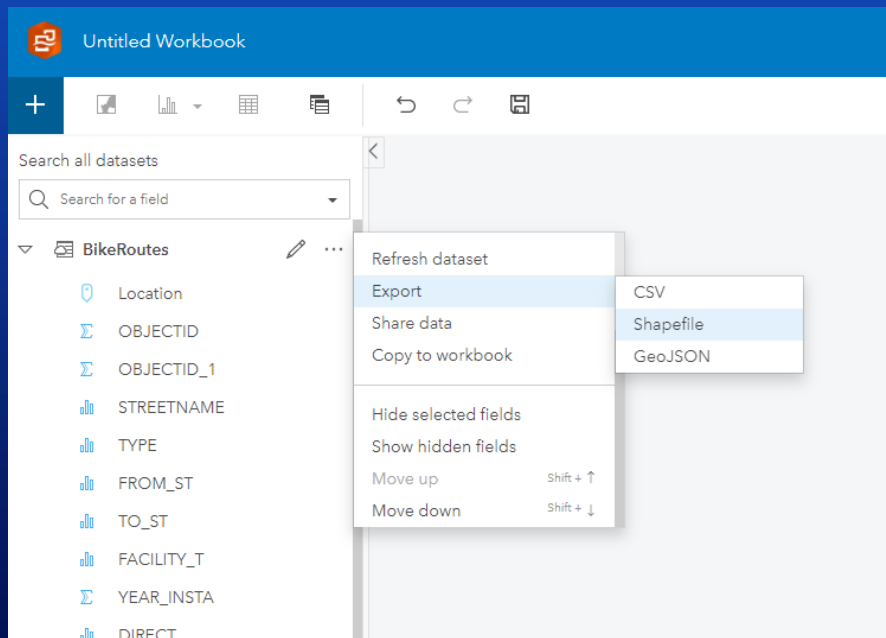
⌚

20 active schedules available

Close

Export Data

Analyst



Viewer

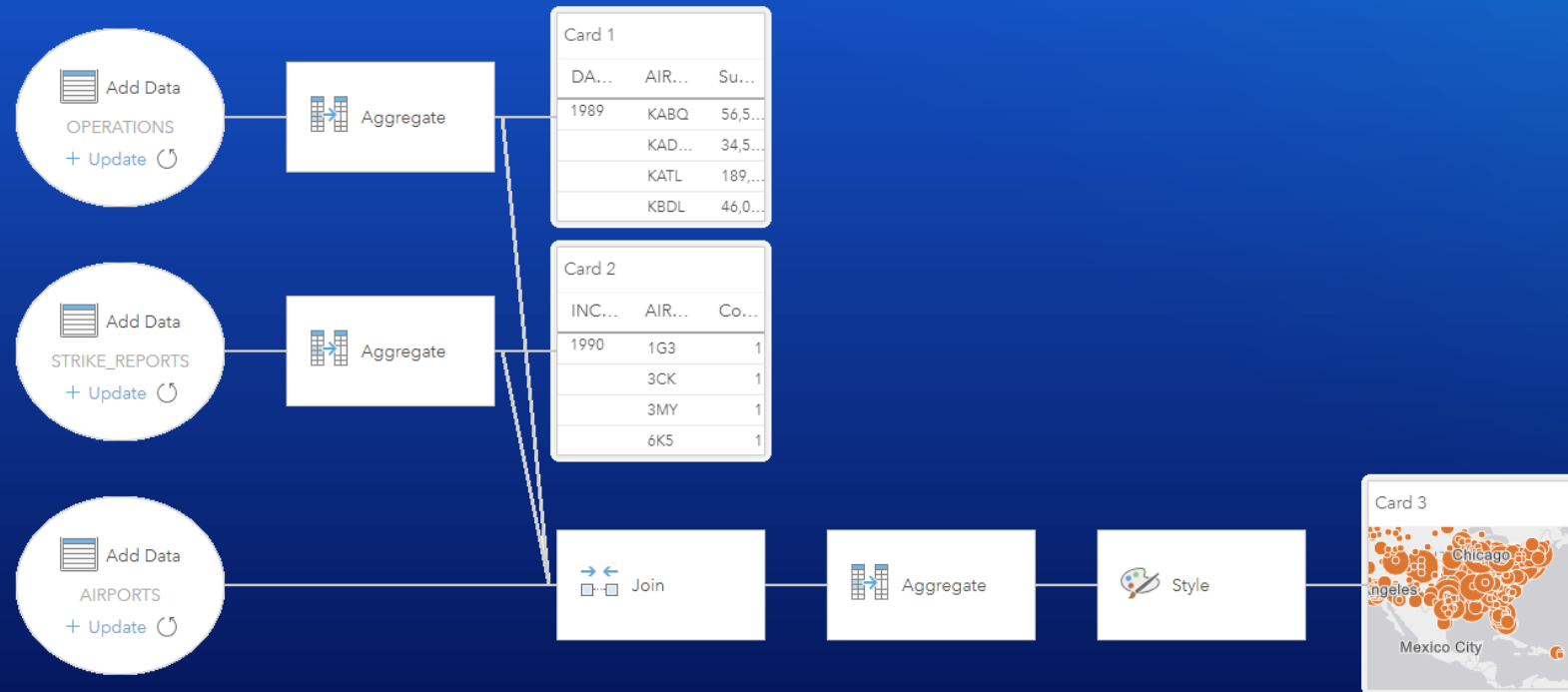
The screenshot shows the 'Viewer' view in Power BI. A data card titled 'Card 2' displays a table with two columns: 'STREETNAME' and 'Count of BikeRoutes'. The table contains 10 rows of data. Below the table, there is a preview of the data and an 'Export as .CSV file' button with a download icon.

STREETNAME	Count of BikeRoutes
<No Data>	84
10TH	16
11TH	18
14TH	44
15TH	20
16TH	43
17TH	63
19TH	8
20TH	40
21ST	8

Preview of **Export as .CSV file** (299 rows)

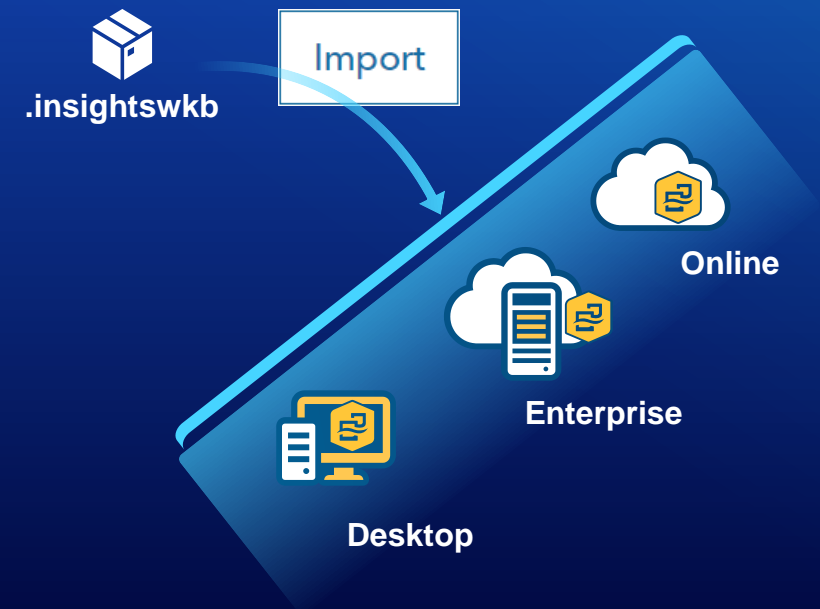
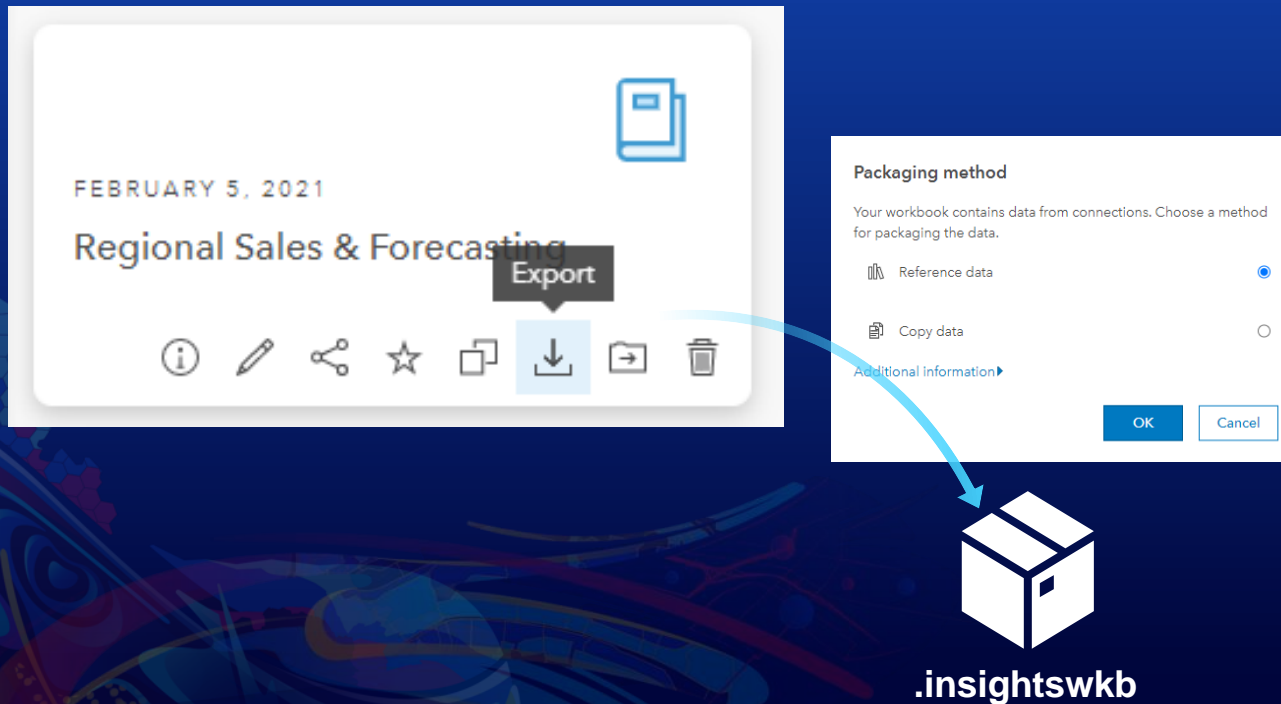
↓ CSV

Analytical Models – Documented and Repeatable



Workbook Packages

- Export and import across all deployment options (Online, Enterprise, Desktop)
- Contains data, model, and report
- Data is either packaged or a reference





DEMO

Interactive Reporting with ArcGIS Insights



ArcGIS Insights | 3 releases in 2020 and one coming in March

FEBRUARY



2020.1

JULY



2020.2

SEPTEMBER



2020.3

MARCH



2021.1



ArcGIS Insights – 3 releases in 2020

DATA

- SharePoint connector
- OneDrive connector
- Packaging and sharing workflows
- MS SQL Server OS authentication
- Support for domains and subtypes
- Export data from data pane
- Multiple Enterprise connections

VISUALIZATION

- Maps with chart symbols
- Multiple time series on one chart
- Top or bottom n filters
- Map pop-up, legend, and zoom extents improvements
- Time series pan & zoom
- Combo chart axis synch
- Line chart smoothing
- Summary table collapse/expand header, reorder fields

ANALYSIS

- K-means clustering
- Kernel density analysis
- Density ratio
- Calculate geometric properties
- Spatial mean
- Scheduled refresh of analysis
- Time field calculations
- Python Pandas

REPORTING

- Cleaner and simpler UI
- Card labeling, configurability, animations, and z-ordering
- Hide chart and map toolbars
- Predefined filters as a drop-down
- Reorder page tabs
- Page and card font control
- Accessibility across Insights



ArcGIS Insights

Coming in March 2021

Data

- Snowflake and Google BigQuery
- JDBC data connections
- Reorder datasets in the data pane

Analysis & Visualization

- Manually re-order chart categories (bar and column charts)
- Number labeling (bar, column, and line charts)
- Forecasting
- Moving average
- Time series detail and bucketing with pan and zoom
- Temporal Decomposition, and vertically stacked axis chart

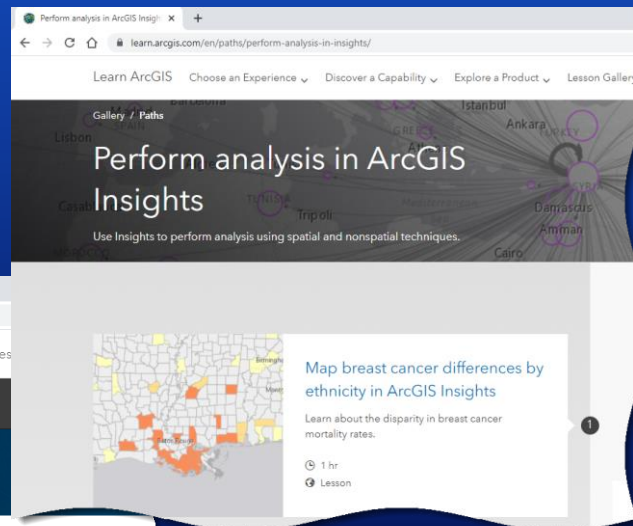
Interactive Reporting

- Embedding: iframe sizing options
- Export data as a viewer

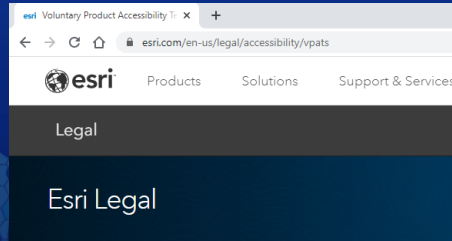
Training & Education

**NEW
CONTENT!**

Learn Path & Lessons



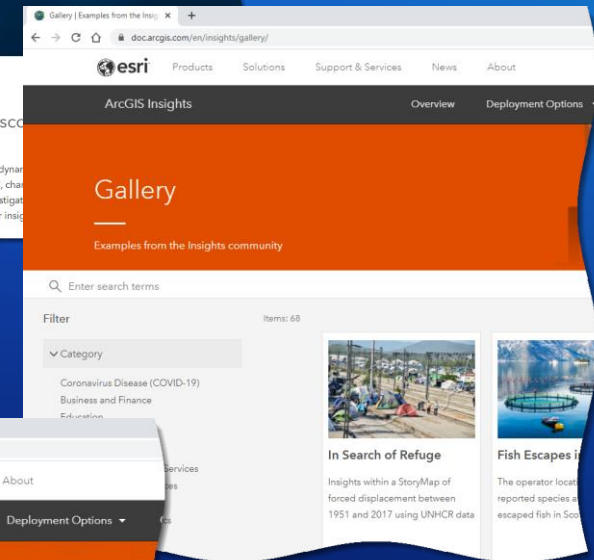
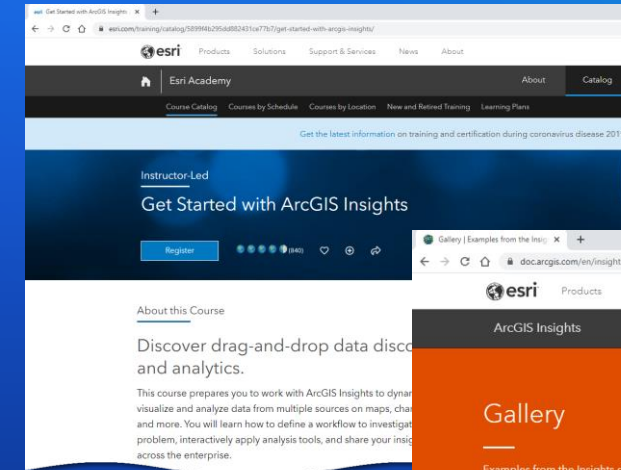
Accessibility



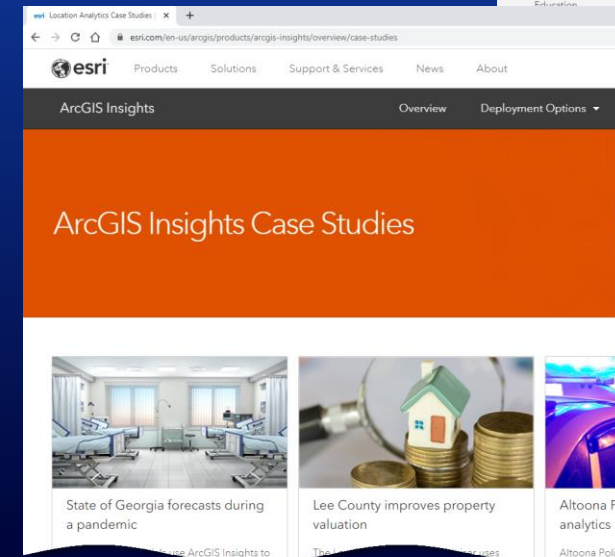
Voluntary Product Accessibility Templates (VPATs)

Product	Version
ArcGIS Insights [PDF]	2020.3
ArcGIS StoryMaps [PDF]	October 2020
ArcGIS Survey123 [PDF]	3.11

Instructor Led Training



Case Studies



Live Examples

For more Insights...

- **ArcGIS Insights: Scripting with Python and R**
 - Thursday 10:15 – 11:15
- **ArcGIS Insights: Configuring Data Connections**
 - On-Demand



Holistic Testing Event - ArcGIS Insights 2021.1

Open to customers, partners, distributors, and Esri staff



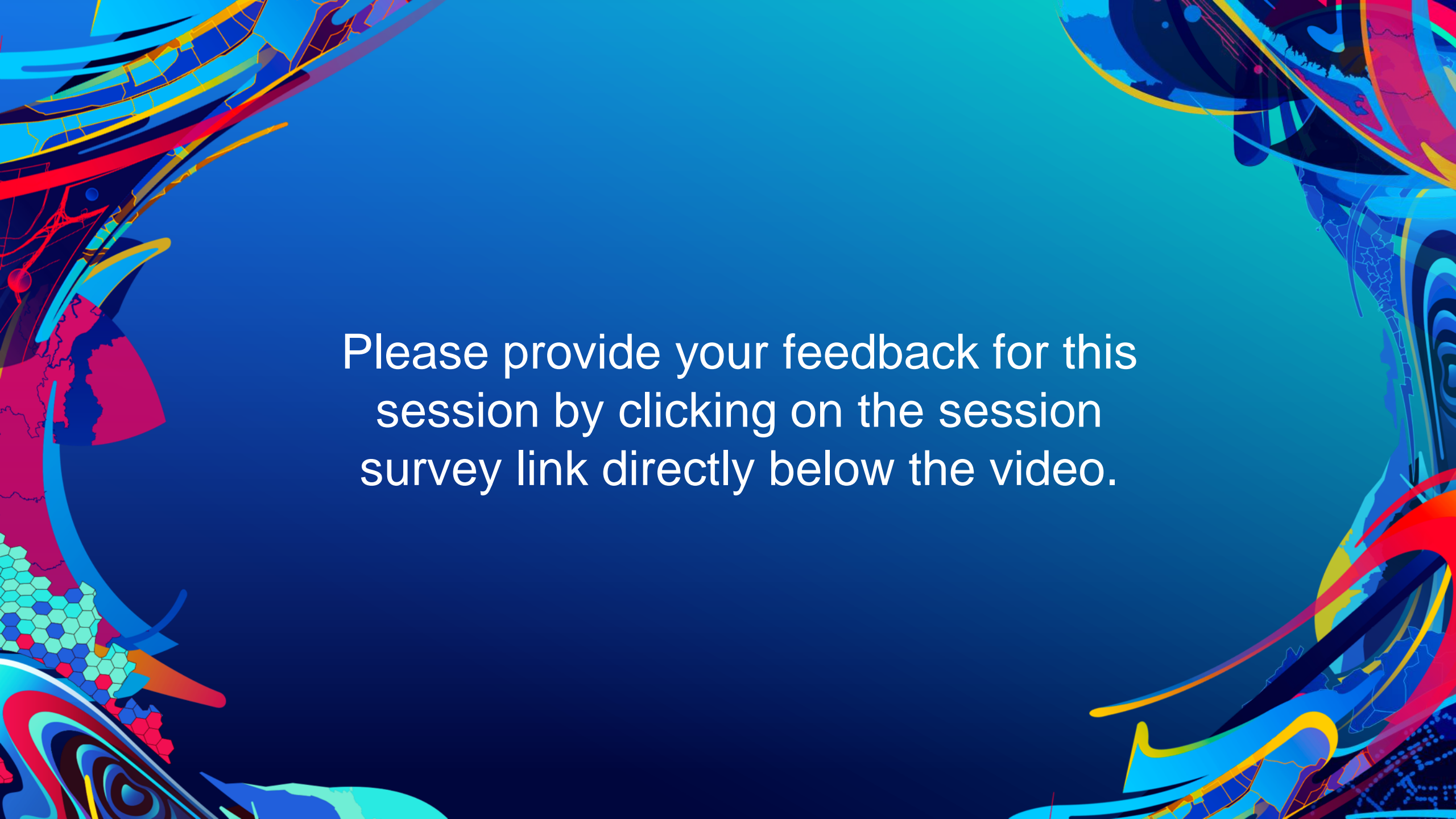
April 13th & 14th

holistictesting@esri.com



esri®

THE
SCIENCE
OF
WHERE®

The background is a vibrant, abstract composition. It features a central area of solid blue and teal. This is framed by dynamic, swirling patterns in shades of red, yellow, and dark blue. On the left side, there are geometric elements, including a hexagonal grid in light blue and green, and a series of red and blue dots. The overall effect is energetic and modern.

Please provide your feedback for this session by clicking on the session survey link directly below the video.