2021 GIS/Valuation Technologies Conference
Optional Workshops (additional fee required, limited capacity)

Monday, March 22, 9:00 AM – 12:00 Noon Central Time
Registration Fee: $25
Uncovering Patterns and Modeling Relationships in Valuation Data Using Business Intelligence Tools and GIS

Instructor: Daniel Fasteen, PhD Product Specialist/ Research Scientist at Aumentum Technologies, Rosemount, MN

Visualization using interactive graphs, charts, and maps makes business intelligence tools powerful and robust applications for valuation professionals to understand the patterns within property data. This workshop will demonstrate data exploration, visualization and analysis capabilities using a powerful BI tool within the context of a real analysis. Learn how to dig deeper into your property and sales data to find inconsistencies and anomalies, as well as understand the distributions, patterns, and relationships of important variables that contribute to value within your jurisdiction.

The following topics will be discussed:
- Overview of Esri Insights
- Adding data and creating analysis (Data types, creating cards, joining data, analysis capabilities)
- Data exploration, manipulation, and transformation
- Sales ratio study analysis and summary statistics
- Time Trend Analysis
- Introduction to the R and Python Kernel to extend analysis
- Replicating analysis by publishing Insights models
- Exploring models and spatial valuation models

Monday, March 22, 9:00 AM – 12:00 Noon Central Time
Registration Fee: $25
Artificial Intelligence and Machine Learning in Assessment

Instructor: Paul Bidanset, Valuation Research Project Manager, IAAO, Virginia Beach, VA

As assessors are faced with an ever-increasing amount of technological “buzz words”, an intuitive understanding of what each is — and how each works — may very well be too daunting of a task with which to keep up. This presentation will clearly differentiate between the following terms used in the appraisal industry, and give applied examples of artificial intelligence and machine learning. This workshop will open the lid to the blackbox in which models are often contained, even demonstrating to audience members how machine learning algorithms may be used to value property for free using the open-source software R.

Monday, March 22, 1:00 – 4:00 PM Central Time
Registration Fee: $25
Using GIS to Achieve Racial Equity and Social Justice

Instructors:
Greg Babinski, MA, GISP, GIS Marketing & Business Development Manager, King County GIS Center, Seattle, WA
Nicole Franklin, Executive and Life Coach at Enhanced Interactions, LLC, Seattle, WA

This workshop will serve as an introduction to recent trends and practices related to using GIS for Equity and Social Justice (ESJ). GIS professionals are bound by the GIS Code of Ethics to consider the impact of their work
on society. For hundreds of years, mapping has sometimes been a tool for creating and preserving inequity. During the past 25 years, there have been some uses of GIS for issues related to equity or social justice.

We will explore critical race theory (CRT) and trends in critical race spatial analysis. We will review recent literature and academic programs around the topic of GIS for ESJ. Most importantly we will outline best practices for GIS professionals in doing GIS for ESJ work. This includes creating a data/mapping/application support framework both for their own work and to support the work on non-GIS professionals. Non-GIS professionals will become the largest community doing actual ESJ work with GIS. These non-GIS professionals include those who work for agencies, non-profits, and NGO's with an ESJ mission, as well as government policy professionals who want to use GIS to support an ESJ lens for developing upstream agency policies.

Thursday, March 25, 1:00 – 4:00 PM Central Time
Registration Fee: $25

Leading from the Middle
Instructor: Guy Thigpen, MPhil, MUSA, GISP, Senior Research Fellow, Drexel University Lindy Institute, Philadelphia, PA

This workshop is designed to support existing and emerging leaders who recognize their need for more adaptive leadership skills to effectively respond to rapidly changing environments. The COVID 19 pandemic shows that we live in a world that is volatile, uncertain, complex, and ambiguous (VUCA). The acronym was used to describe general conditions and situations in 1987, drawing on the leadership theories of Warren Bennis and Burt Nanus; The U.S. Army War College introduced the concept of VUCA to describe the multilateral world perceived as resulting from the end of the Cold War.

More frequent use and discussion of the term "VUCA" began from 2002 and derives from this acronym from military education. It has subsequently taken root in emerging ideas in strategic leadership that apply in a wide range of organizations, from for-profit corporations to education. Assessors are affected by the same environment, calling for more agile operations and leadership on all levels.

We will weave leadership theory and practice in a highly experiential workshop so that participants can actively engage in a leadership lab including deep reflective thinking, rapid prototyping and experimenting with new behaviors and practices. Interactive planning as developed by Russel Ackoff in the 1950s will be the basis of developing approaches to be more effective in your workplace, even if you are not the one in charge. The purpose of the workshop is to evoke personal leadership at more impactful levels and improve organizational performance and personal satisfaction. The genesis of this workshop came from the field of organization dynamics as taught by Professor Stankard from the University of Pennsylvania. He was motivated by one of his graduate students commenting, “I am tired of waiting for my organization’s leaders to lead; how I can lead from the middle?”

Participants will examine their own, and others’, leadership theories by identifying assumptions about leading, creating a preferred model for individual leadership, and field-testing actual shifts in behavior. Participants will engage in an exploration over the course of the workshop: first, we will have an opportunity to examine our own models and those of the theorists in the field; second, participants will be asked to articulate and improve their own model.

This workshop is designed to create an 'action-learning' community in which you will integrate your professional experience. This seminar is also designed to strengthen your ability to lead, including as a colleague who can support leadership behavior in peers and as one who can promote leadership behavior in supervisors and subordinates.
Benefits of ArcGIS Pro and the Parcel Fabric

Instructors: Van O’Brien and Bill Wetzel, The Sidwell Company, St. Charles IL

This popular workshop will introduce and review intermediate-level topics associated with Esri's ArcGIS Pro Parcel Fabric data model. This workshop includes topics on detecting and fixing topology issues, utilizing quality control tools with add-ins and Data Reviewer extension, advance construction and clean-up techniques, control point management and adjustments, managing line symbology, and other tips and tricks.

It is recommended that users be familiar with the parcel fabric data model prior to attending this workshop.

Multi-Session/Multi-Day Course – please plan to attend the complete course for the full learning experience. Specific days and times are noted below.

Registration Fee: $150

Mass Appraisal Valuation Modeling in R or SPSS

Instructors: Kevin Keene; Robert Gloudemans; Daniel Fasteen PHD; Paul Bidanset; Joshua Myers; Jennifer Rearich; James Williams; Alex Raju; Guy Thigpen; Bindi Shakya

This workshop will introduce key concepts and practices for mass appraisal valuation modeling over eight sessions. Each session will include theoretical instruction, a hands-on lab and a Q&A wrap-up. Participants will learn how to build mass appraisal valuation models using a typical set of CAMA data using either R or SPSS. Participants will learn how to review, evaluate, and clean data; transform CAMA data for use in models; conduct time trend analysis and create time adjustments within a model; build and evaluate an additive model and build and evaluate a multiplicative model. In the lab sessions, participants will practice writing and executing model code.

By the end of this workshop, participants should understand how regression models are used in the mass appraisal of real estate and be able to build models using attributes found in most CAMA data files. They will leave with libraries of code that can be used to transform data and build regressions models.

Monday, March 22, 1:00 – 4:00 PM Central
- Session 1 – Modeling Fundamentals – Paul Bidanset and Kevin Keene
- Session 2 – Working with Data – Jennifer Rearich and Josh Myers

Thursday, March 25, 1:00-4:00 PM Central
- Session 3 – Transformations and Binary or Categorical Transformations – Jennifer Rearich and Kevin Keene
- Session 4 – Spatial Transformations – Guy Thigpen and Daniel Fasteen

Friday, March 26, 9:00 AM – 12:00 Noon Central
- Session 5 – Spatial Transformations – Guy Thigpen and Daniel Fasteen
- Session 6 – Time Trend Analysis and Adjustments – Bob Gloudemans and Alex Raju

Friday, March 26, 1:00 – 4:00 PM Central
- Session 7 – Building and Evaluating an Additive Model – Daniel Fasteen and Bob Gloudemans
- Session 8 – Building and Evaluating a Multiplicative Model – Bob Gloudemans and James Williams