**Data Day – Driving the Region Forward with Data**

**March 1, 2023**

**9:00 a.m. – 4:00 p.m.**

**Agenda:**

**9:00 a.m. – 10:30 a.m. – Opening Plenary Session**

**Title: Introduction to R**

**Description:** The open-source programming language and statistical tool, R, has been gaining in popularity. This feature session of Data Day will talk about why R is a good option for analytics and even visualizations. Attendees will gain exposure to some examples of how R can be used to help build dashboards and websites, automate the generation of reports, and how to enable data access through APIs.

**Speaker:** Dr. Anirudh Ruhil, Associate Dean for Research and Planning, Ohio University

**10:45 a.m. – 11:45 a.m. – Breakout Sessions**

**Title: The American Population Panel (APP) at the Five-Year Mark: The CHRR’s Exceptional Tool for Survey Scientists**

**Description:** The American Population Panel (APP), part of the portfolio of special projects administered by CHRR at The Ohio State University, recently celebrated its fifth birthday. The APP represents a group of 45,000+ volunteer members who agree to participate in social science and health related studies for research purposes. The APP has been used in a growing number of research projects that cover behaviors, attitudes, and opinions on topics as varied as youth sports, higher education, fatherhood, the impact of Covid-19, in vitro fertilization, and social justice issues. CHRR Director Steve Gavazzi will present information on the APP geared toward researchers and policymakers who are interested in a cost-effective way to fine tune their surveys and access survey respondents.

**Speaker:** Stephen Gavazzi, Ph.D., CHRR, The Ohio State University

**Title: Constructing a New Poverty Measure for Ohio Using Census Bureau Data**

**Description:** The Ohio Poverty Measure is a poverty measure that is designed to more accurately assess the resources and needs of people across Ohio. Using American Community Survey and Current Population Survey data, the Ohio Poverty Measure estimates the extent and prevalence of poverty in Ohio in a way that has never been done before. This session will talk about poverty measurement, the use of ACS and CPS data to construct the measure, and what approaches like this can do to use data to give key information to policymakers and the public.

**Speaker:** Rob Moore, Scioto Analysis

**Title: Using Data for Community Planning While Preparing for Development**

**Description:** Communities such as St. Albans Township, Etna Township, Alexandria, Hebron and others are preparing plans that will mold how future development will be shaped. Using data helps to remove emotion from decisions in a highly opinionized environment. Attendees will see how data plays a role in community planning to prepare for the impacts of the state of Ohio’s largest economic development project. Using data from school districts, water/sewer departments, census and other sources help shape the plans that guide future development.

**Speaker:** Jim Lenner, Neighborhood Strategies

**Title:** Winning Public Private Partnerships: A Case Study

**Description:**

**Speakers:** Steve Gruetter, Expedient & Michael Farrar, City of Dublin

**12:00 p.m. – 1:30 p.m. – Lunch Plenary Session**

**Story Telling – Michael Wilkos, United Way of Central Ohio**

**1:45 p.m. – 2:45 p.m. – Breakout Sessions**

**Title: Panel: Data for the Social Sector**

**Description:** The social sector is frequently overlooked as an important end user – and generator – of data resources. Various data solutions have been created for the private sector, and even public sector users, but what about the social sector? This panel of non-profits within the social sector will talk about a variety of topics like data usage and collaboration, struggles that accompany limited staffing and resources, redundancies in data collection and usage, and what some potential solutions may be.

**Speakers:** Hena Masood, Columbus Foundation; Danielle Sydnor, Rise Together Innovation Center; Adam Porr, MORPC; Carlie Boos, AHACO; Rachel Lustig, Catholic Social Services

**Title: ArcGIS Dashboards: Designing Effective Dashboards**

**Description:** Good dashboards provide key insights at-a-glance. They are effective in communicating what is important. In this session, you will learn tips for getting the most out of your dashboards with best practices specific to various patterns of use. Discover how to communicate status and evaluate performance. Get ideas for new ways to present information and visualize your data effectively.

**Speakers:** Ryan Sellman, esri

**Title: Best Practices for Visualizing Data**

**Description:** Data visualization is as much an art, as a science. We sometimes seek to explain or explore a phenomenon with our visualization choices. Other times we use visuals to persuade or excite an audience to make choices, pursue another path, or stay the present course. This session will review best practices for effectively visualizing data, sharing tips for selecting the right chart for your data, and formatting charts to emphasize key data.

Specifically, we will explore various chart families, beyond the simple bar chart or line graph, to learn alternative ways to compare categories, explore change over time, show relationships, examine distributions, showcase rankings, and more. We will review tool agnostic guidelines for creating impactful charts and graphs from visualization thought leaders, including Jonathan Schwabish, Cole Nussbaumer Knaflic, and Stephanie Evergreen. We’ll also review how to create some of these charts in different visualization software, including Tableau and Excel.

This session will sharpen your data visualization skills, helping you to share your data insights in the most efficient, impactful, and engaging way.

**Speakers:** Sarah Murphy, The Ohio State University

**Title:** Divining into Public Library Data

**Description**: One of the responsibilities of the State Library of Ohio is to collect data from all 251 public libraries in the state. This session will discuss how Ohio public libraries collect and use data to improve service for the public and how the State Library supports libraries using the data they collect.

**Speakers**: Kirstin Krumsee, State Library of Ohio

**3:00 p.m. – 4:00 p.m. Breakout Sessions**

**Title: Remind me again how we did that? Creating convenient and reproducible workflows using Jupyter Notebook**

**Description:** Attendees will be introduced to Jupyter notebooks and how they can be used to produce well-documented automated workflows using Python code. We will walk through an existing Jupyter notebook that makes use of the popular Pandas data analysis and manipulation library (among others) and its geographic extensions (i.e. GeoPandas) to retrieve geographic data and attribute data from the Census website, integrate the retrieved data, and perform a simple common analysis task using the data. We anticipate that attendees will already have experience downloading, integrating, and analyzing Census data using other tools (e.g., data.census.gov, Excel, ArcGIS), therefore this presentation will focus on the automation of this workflow using Jupyter and the efficiency, transparency, and reproducibility benefits that can be realized from this strategy. All of tools demonstrated during the presentation will be free and open source, and the notebook will be made available so that attendees can experiment with the workflow after the presentation. Basic familiarity with Python or other programming languages is beneficial to understand the workflow implementation, but not necessary to appreciate the primary learning objectives.

**Speakers:** Adam Porr, MORPC

**Title: Calculating a Residual Income Approach for Housing Affordability**

**Description:** Using the residual income approach, how does a community’s existing housing stock measure up to its median income and household income brackets. We’ll look at what housing affordability looks like in some Central Ohio communities after standard household expenses, and compare that to what the community’s existing housing values are to determine the level of affordability, and what that means for affordable housing.

**Speakers:** Jonathan Miller, MORPC

**Title:** **A Drive Into the Future: Data and Technology at ODOT**

**Description:** Data will be driving not only the digital transformation of business, but also of transportation. We will explore how ODOT will use data to make Ohio’s roads safer for the travelling public while the agency itself becomes more “digital.”

**Speakers:** Charles Ash, ODOT

**Title: Government Resource Center: An Overview of Statewide Public Data Resources**

**Description:** In partnership with state agencies, the Ohio Colleges of Medicine Government Resource Center (GRC) produces several statewide publicly available data resources which local governments, agencies, and nonprofit organizations can use to inform planning, policy, or community action. GRC projects with public-facing resources include datasets and/or dashboards from the Ohio Medicaid Assessment Survey (OMAS), the Ohio COVID-19 Survey (OCS), the Ohio Pregnancy Assessment Survey (OPAS), and the Ohio Opportunity Index (OOI). These resources contain ready-to-use data and data visualizations for users to better understand trends around health and healthcare, as well as the social determinants of health.

GRC researchers will share background information on GRC as well as each of these projects. They will also demonstrate the available resources with some examples of how the information can provide key contextual insights into trends facing Ohio residents or other analytical use cases.

**Speakers:** Robert Ashmead, The Ohio State University Wexner Medical Center; Nathan Doogan, The Ohio State University Ohio Colleges of Medicine, Government Resource Center; and Liz Whalen-Jackson, The Ohio State University Wexner Medical Center