**Ad – Mapping Crime Data in R, March 2025**

**Duration**: 2-Day Event  
**10/02/2025 (11:00 - 12:30)**: Interactive Introduction (1.5-hour presentation)  
**11/02/2025 (11:00 - 13:00)**: Hands-on Coding (2-hour live demonstration in R/RStudio)

**Facilitator**: Emma Green or Gill Meadows?

**Max Number of Participants**: 75

**Unlock the Power of Crime Mapping in R**

Do you want to visualize crime data on maps but don’t know how?

Crime data often contains spatial components that reveal geographic patterns. Displaying these patterns on a map is incredibly insightful—but it can feel overwhelming if you've never worked with spatial or GIS data before.

This workshop is designed to help you bridge that gap. Learn how to use R, a powerful statistical and graphical environment, to map open-source police crime statistics onto geographic representations.

### ****What You'll Learn****

* Understand the fundamentals of GIS and how they connect to crime data analysis.
* Explore open-source crime data and spatial data like shapefiles.
* Learn to download, import, and process spatial data for mapping.
* Use R packages like **ggplot2**, **sf**, and **tmap** for data visualization.
* Discover methods for joining crime data with spatial data.
* Gain insights into classification techniques for mapping crime rates.
* Get a brief overview of spatial autocorrelation, interpolation, and multivariate analysis methods.
* Explore the use of census data for enhancing crime maps.

### ****Key Features****

* **Interactive Presentation**: Engage with surveys and visual tools for an interactive learning experience.
* **Practical Coding Demonstration**: Watch step-by-step coding in RStudio, with downloadable materials to follow along.
* **Pre-Workshop Resources**: Receive setup instructions, a GitHub link for materials, and recommended reading to get started ahead of time.
* **Hands-On Focus**: Troubleshoot common errors, such as data loading issues and coding glitches, to ensure smooth execution.

**Prerequisites**

* Familiarity with R: Participants should know how to set the working directory, read in data, write basic functions, and save files.
* Installed Software: R and RStudio should be installed and operational.
* No prior GIS or spatial data experience is required.

**Target Audience**  
Researchers and anyone interested in analysing crime and spatial data.

**Additional Information**  
Coding materials, including detailed setup instructions, will be available mid-February via our [GitHub page](https://github.com/UKDataServiceOpen/Crime_Data_in_R).

This event will be livestreamed via the UKDS YouTube channel.