AEA Coffee Break Webinar Series
Introduction to Using Geographic Information Systems for Evaluation with Duncan Meyers

This handout is intended to provide webinar participants with some basic definitions and descriptions of geographic information systems (GIS) and related concepts. A brief resources list is included which participants can use to learn more.

What is a geographic information system (GIS)?

A system which consists of computer software and data used to view and manage information about geographic places, analyze spatial relationships, and model spatial processes. In other words, GIS uses software to take your spreadsheet-based data and plot it on a map.

In what ways can GIS enhance evaluations?

At a very basic level GIS can be used to identify where important sites or events are located. Not only is this useful when planning an intervention and its associated evaluation, it can also be a tool to present data in a compelling manner and engage stakeholders in a data-informed discussion.

(e.g., where are resources located in relation to community needs?)

GIS can be used to identify and help answer research questions. There are multiple ways in which GIS can be used to a) graphically display data such that relationships can be better hypothesized and b) to actually measure or create variables of interest to be used for the evaluation.

(e.g., to what extent does the distance a family lives from a given community resource relate to the frequency with which the family utilizes that resource?)

Geocoding:

Geocoding is a basic GIS process that takes an address and converts it to map coordinates. In this way, you can take an address which is relevant to your evaluation (e.g., location of participant households, location of local resources) and plot it on a map.

Resources:

ARC GIS Explorer: http://www.esri.com/software/arcgis/explorer/index.html

Free GIS software that you can use to explore, visualize, and share GIS information.

Google Earth: http://earth.google.com/

Explore geographic content with this free software. You can also perform some basic geographic-related functions that can enhance your evaluation and help you share maps you create.

Tableau Public: http://www.tableausoftware.com/public/

Free software that can help you create maps and other data visualizations from your spreadsheet data.

BatchGeo: http://www.batchgeo.com/

This free geocoder is basic and user-friendly and can transform your Excel spreadsheet into a sharable map or even a Google Earth document.