Evaluating the Effectiveness of Location Tracking Technologies used in COVID-19 Contact Tracing Systems

**Faculty Advisor:** Dr. Peter Kedron, Assistant Professor in the School of Geographical Sciences and Urban Planning

**Research Project Overview:** While public health systems in the United States have the ability to conduct manual contact tracing, they do not have the capacity to trace individuals at the scale needed to respond to the COVID-19 pandemic. Consequently, work is underway to develop contact tracing applications that use the mobile tracking technologies (e.g., GPS, Bluetooth) in personal devices to gather, store, and retrieve an individual’s location and contact history. As public health officials expand contact tracing systems in response to COVID-19, it is essential understand when and where those systems are likely to be effective and what their long term societal consequences might be. To meet these needs, this project will catalog and evaluate the contact tracking technologies as they are deployed and developed across the United States.

The research assistant(s) will work with Dr. Kedron to collect data about the digital contact tracing systems being deployed around the country. The successful applicant(s) will be responsible for gathering and data from public health departments related to contact tracing efforts and for developing a catalog of the geospatial technologies (e.g., GPS, Bluetooth) uses in different digital contact tracing systems. All work will be completed remotely, but the research assistant(s) will work in a collaborative online environment with the larger project team.

**Any pre-requisites needed?** The ability to use and edit spreadsheets or databases is helpful. Familiarity with geospatial technologies (e.g., GIS, GPS) is a plus, but is not required.

**Research available for scholarship ($1000)?** Yes

**Research available for course credit (45 hours per credit)?** Yes

**Research opportunity available to ASU Online Students:** Yes