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Research Area: Computational Sciences and Engineering

This project will develop a quality assurance project plan (QAPP) that will apply a LandScan USA high resolution population distribution model to a metropolitan area selected by EPA to produce population distribution estimates with the spatial resolution of the model. It will simulate commuting behavior in Philadelphia buses by mode of transportation and time of day. It will implement the refined high-resolution population distribution model utilizing the commuting-based algorithms to estimate grid cell-specific daytime and nighttime population distributions for the metropolitan area selected by EPA.

The research tasks are to collect data in order to determine bus routes, stop locations, and stop times for Philadelphia, PA city buses to consolidate in a single database and use ArcView GIS to input the data, by means of identification number, to show a digital model of the bus routes, stop locations, and stop times.

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