

Short Bio:

Dr. Rose is a population research scientist in the Geographic Information Science and Technology (GIST) group at Oak Ridge National Laboratory (ORNL), and also serves as the Population and Land Use Theme Lead for the ORNL Urban Dynamics Institute (UDI). Her work is focused on geocomputational methods in the areas of spatiotemporal modeling, with an emphasis on population distribution and dynamics, small area estimation, and spatial demography. She is most interested in characterizing the spatiotemporal and demographic patterns of populations to inform a variety of applications including urban resiliency, human health and security, and climate change impacts. Dr. Rose is currently the co-developer of the LandScan Global Population Distribution Database, as well as the Principal Investigator for LandScan USA, which is a very high resolution population distribution database for the U.S. that includes diurnal and demographic variations. She is also the co-developer for LandCast, a spatially explicit and locally adaptive population futures database. In addition to her population modeling work, Dr. Rose is currently developing data fusion methods for global building characterization to support consequence assessment and disaster planning.