

1067-92-1137 **Suzanne Lenhart*** (1lenhart@math.utk.edu), U of Tennessee, Math Dept, Knoxville, TN 37996.
Modeling the Owned Cat Population in Knox County, Tennessee. Preliminary report.

Working with data from Young Williams Animal Center in Knoxville, Tennessee, to consider an approach to manage excess numbers of unwanted cats, we constructed a model of the owned female cat population in our county. Considering the age structure and breeding patterns, we constructed a system of difference equations. This model investigates the effect of spaying females at various ages and at different levels on the population growth. This project is in collaboration with Evan Lancaster, John New, Janelle Scott, John Ojogbo, Steven Rekannt, and Heidi Weimer. (Received September 19, 2010)