

Air Pollution and Mortality

Abstract

Researchers at General Motors collected data on 60 US Standard Metropolitan Statistical Areas (SMSAs) in a study of whether air pollution contributes to mortality. The dependent variable for analysis is age adjusted mortality (called "Mortality" in the data set). The data include variables measuring demographic characteristics of the cities, variables measuring climate characteristics, and variables recording the pollution potential of three different air pollutants. The original dataset, as well as some further information can be found here:

<http://lib.stat.cmu.edu/DASL/Stories/AirPollutionandMortality.html>

Notes

The pollution variables are highly skewed. A logarithm transformation makes them nearly symmetric. Various multiple regression models can be used to produce a thoughtful analysis of the question of the extent of the influence, if any, of air pollution on mortality in SMSA's in the US. Other likely predictors of mortality can be included, so the regressions can "account for" or "control for" their effects while assessing the influence of air pollution components.