ENVIRONMENTAL IMPACTS

Environmental impact studies seek to identify and quantify the effect of environmental conditions on human and ecological health. For example, extreme heat poses a threat to public health by creating conditions conducive to hyperthermia. Likewise, extreme cold poses a threat to public

health via conditions suitable to hypothermia. Extreme weather events (tornados, typhoons, etc.)

also pose an obvious threat to public health. A less understood environmental variable that, hypothetically, may also pose a threat to public health is the concentration of pollution (air quality).

In an effort to understand the impact of the environment on human health, the dataset

EnvironmentalImpacts.txt contains environmental and socio-economic information for 60 different cities in the U.S. The collected variables are given in the Table below.

Variable Description

AnnPrecip Mean annual precipitation

MeanJanTemp Mean January temperature (in degree F)

MeanJulyTemp Mean July temperature (in degree F)

PctGT65 Percent of population greater than 65

PopPerHouse Population per household

School Median school years completed

PctSound Percent of housing units that are “sound”

PopPerSqMile Population per square mile

PctNonWhite Percent of population that is nonwhite

PctWhiteCollar Percent of employment in white-collar jobs

PctU20000 Percent of families with income under $20000

Hydrocarbons Relative pollution potential of hydrocarbons

Nitrogen Relative pollution potential of oxides in nitrogen

SO2 Relative pollution potential of oxides in sulfur dioxide

RelHumid Annual average relative humidity

AAmort Age adjusted mortality (estimated annual no. of deaths per 100,000)

The goal of this analysis is to determine which, if any, of the above environmental and socioeconomic

variables contributed to the mortality rate.