**SI 544 Group Project: Executive Summary**

**Group Members:**Manu Gupta, David Williams, Daniel DiNicola

**Title:** *Analyzing the Impact of War and other Parameters on Life Expectancy over time in Sub-Saharan Africa*

**Potential** **Countries:**Sierra Leone, Ghana, Senegal, and Chad

**Method:** General Regression (with potential to highlight specific countries).

**Regression Model (for 1 country):**Life Expectancy ~ Health Expenditure + Percentage of Population Undernourished + Sanitation + Water + War

**Abstract:** Each country has experienced some level of conflict within the last 30 years. Analysis will focus on the period of 1990-2012.

**Data Source:** We will leverage data from quandl.com, an online academic database with a long-term mission “to make all numerical data on the internet easy to find and easy to use. Quandl’s datasets pertaining to this topic span more than 25 years, allowing us to look at changes over time, considering year as a dependent variable.

**Programming Software:** We will use R to plot and analyze the data we derive.

Plots: Percent of Population undernourished over time in Sierra Leone (1991-2012) (<https://www.quandl.com/WORLDBANK/SLE_SN_ITK_DEFC_ZS-Sierra-Leone-Prevalence-of-undernourishment-of-population>)



Plot: Access to improved sanitation facilities over time in Sierra Leone (1991-2012)( <https://www.quandl.com/WORLDBANK/SLE_SH_STA_ACSN-Sierra-Leone-Improved-sanitation-facilities-of-population-with-access>)



Plot: Access to improved water sources over time (1991 – 2012): (<https://www.quandl.com/WORLDBANK/SLE_SH_H2O_SAFE_ZS-Sierra-Leone-Improved-water-source-of-population-with-access>)



Enrollment in lower secondary education over time in Sierra Leone (2001-2012) (<https://www.quandl.com/UN/UIS_LOWERSECONDARYEDUCATIONENROLMENTINALLPROGRAMMES__ALLGENDERS_SLE-Lower-Secondary-education-enrolment-in-all-programmes-All-genders-Sierra-Leone>)