Analysis of Suicides Worldwide for 2004

By: Tobi Bosede

Raw data compiled by combining source files on Suicides and Life Expectancy from http://www.gapminder.org/data/. Analysis completed in R. Explanations and code available upon request.
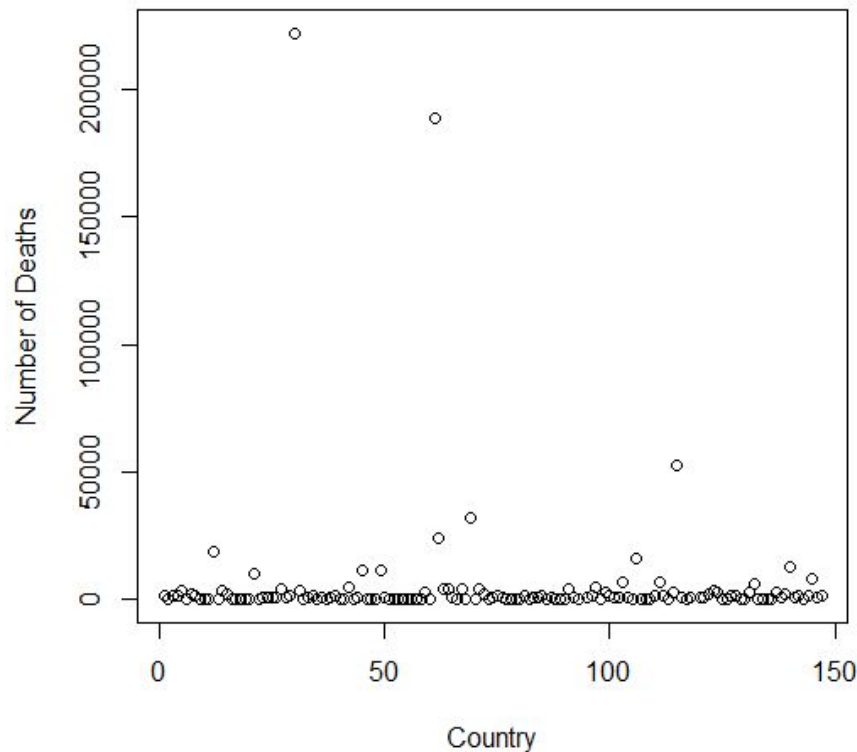
Summary Statistics of Number of Deaths in Raw Data

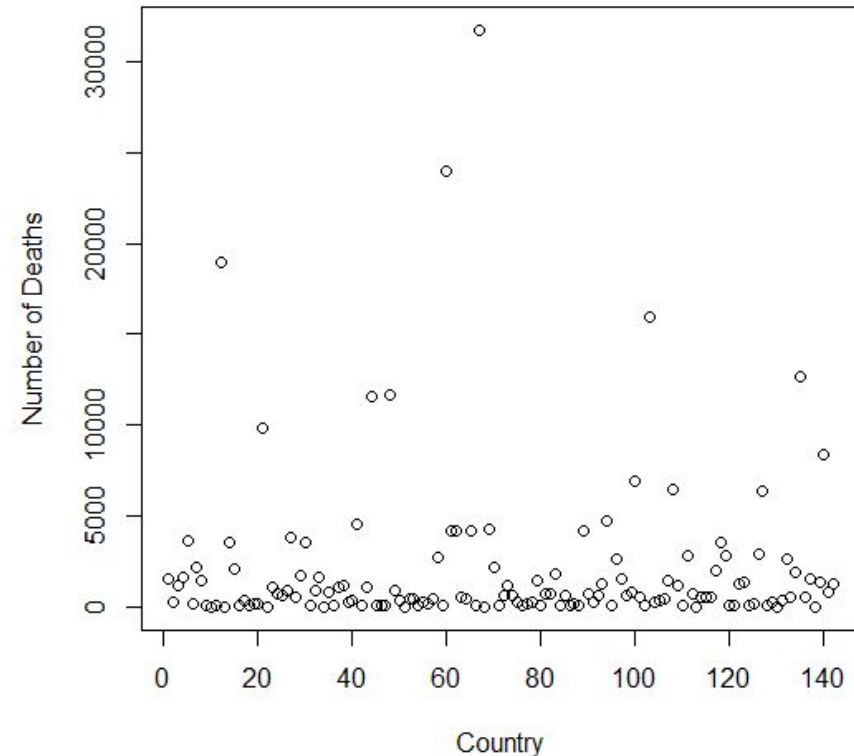| Region	Min	1st Qu.	Median	Mean	3rd Qu.	Max.
Amer	3.00	111.00	422.00	1377.00	1589.00	9851.00
EAP	3.00	47.50	1143.00	16080.00	5557.00	222211.00
EuCA	5.00	389.00	1080.00	3339.00	2702.00	52840.00
MENA	10.00	45.25	242.50	803.40	743.20	4200.00
SAs	40.00	795.00	2622.00	32530.00	17480.00	188524.00
SSA	23.00	136.50	633.50	1040.00	1253.00	6950.00

Without Outliers

With Outliers

(222211 in China, 52840 in Russia, and 188524 in India)

Plot of Suicides Worldwide
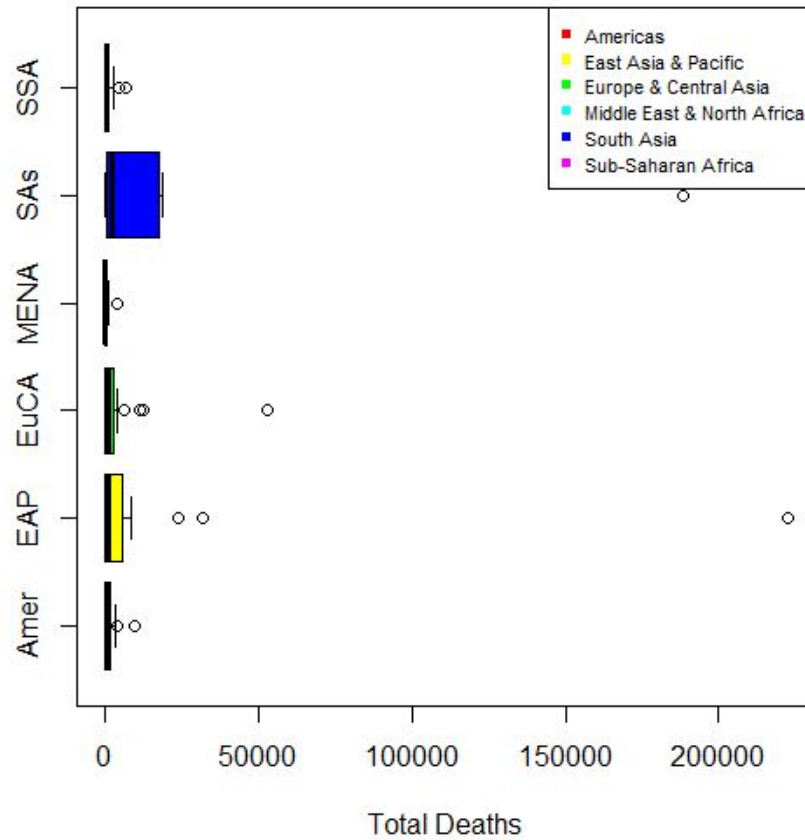

Plot of Suicides Worldwide
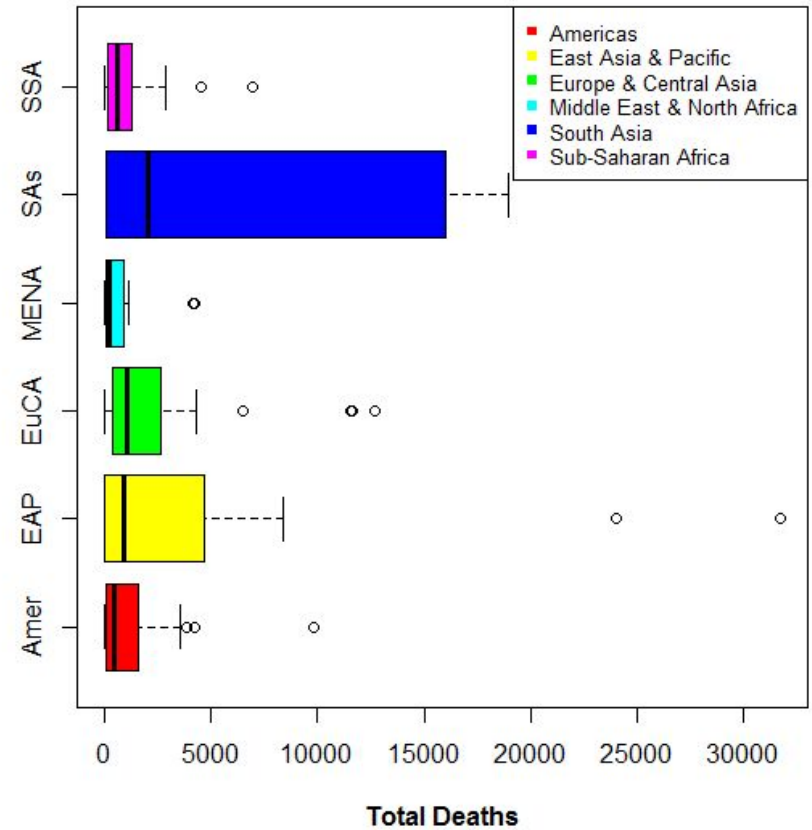
Analysis of Suicides Worldwide for 2004

By: Tobi Bosede

Boxplot With Outliers   Boxplot Without Outliers
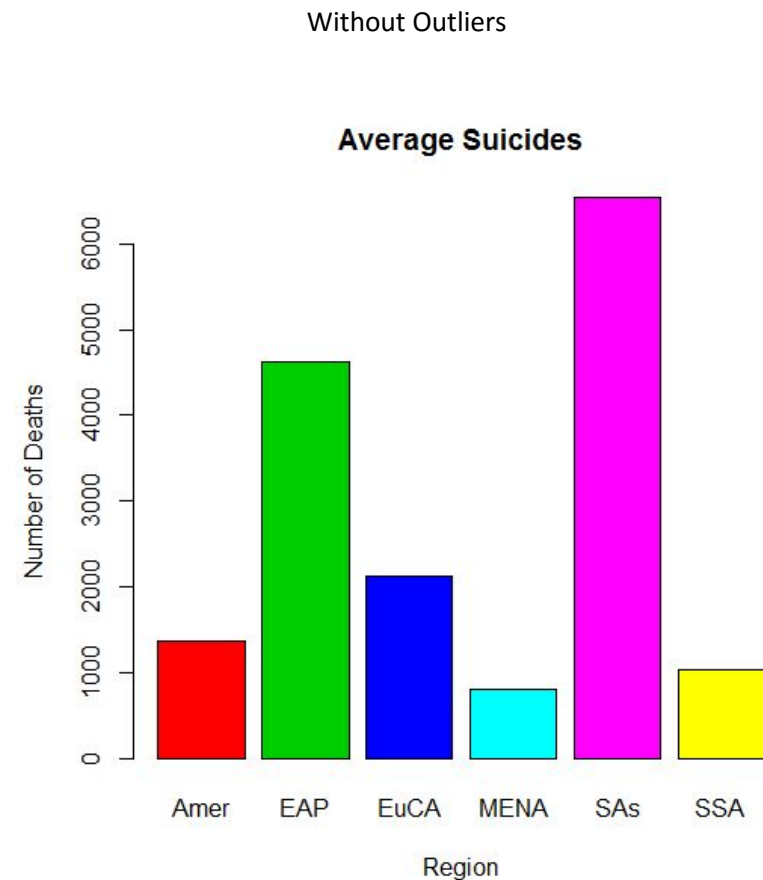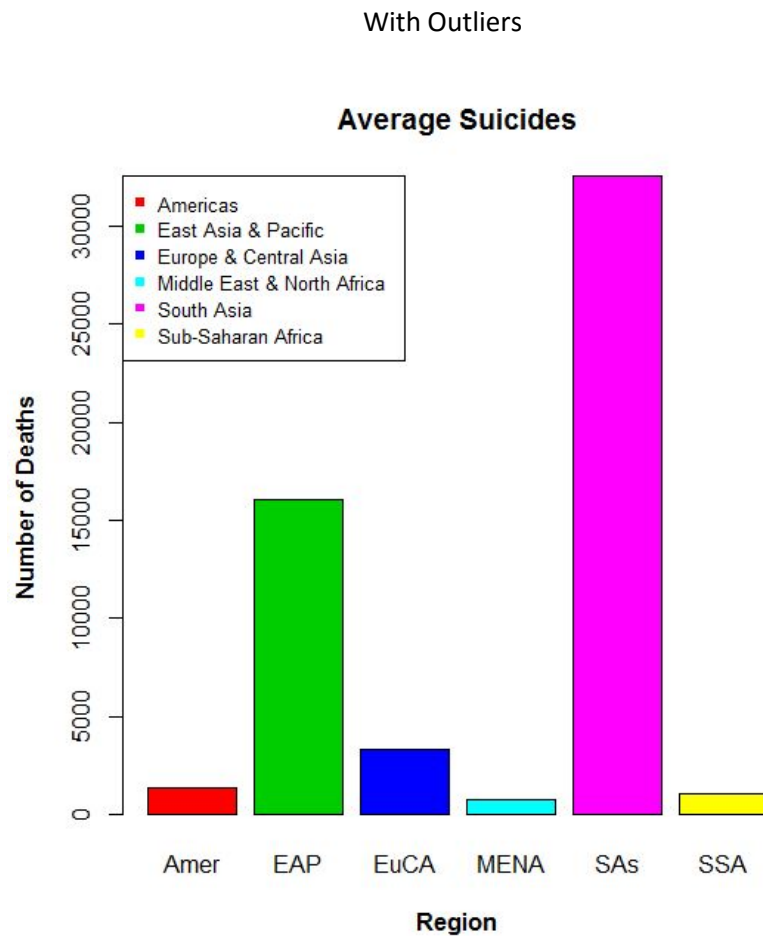

Note the scale change of the vertical axis, from tens of thousands to thousands as the max goes from 30,000 to 6,000 when outliers are removed.

Analysis of Suicides Worldwide for 2004

By: Tobi Bosede

With Outliers

Without Outliers

Though the outliers were removed to get a more representative idea of the 2004 suicide trends in each region, it is important to note that the countries skewing the data—China, Russia, and India --are known to have a history of stressful political, economical, and social environments which may explain their extreme suicide counts in 2004.

Analysis of Suicides Worldwide for 2004

By: Tobi Bosede

We might wonder, is there a significant relationship between the Number of Suicides and Life Expectancy? *Well the answer is no, since when we test the original data (outliers included) for correlation the p-value is not below .05. Furthermore, the absolute value of the correlation coefficient is not close to 1. In fact it is close to 0.*

    Pearson's product-moment correlation

data: MeanLifeExp and MeanSuicide

t = -0.2515, df = 4, p-value = 0.8139

alternative hypothesis: true correlation is not equal to 0

95 percent confidence interval:

 -0.8502308 0.7641801

sample estimates:

    cor

-0.124746

Even just by looking you can see that Life Expectancy does not decrease much with higher suicide rates in each region, although South Asia, the region with the highest suicides, has the 2nd lowest life expectancy.

Region	MeanSuicides	MeanLifeExp
Amer	1376.520	74.16440
EAP	16075.421	72.17521
EuCA	3339.262	75.83955
MENA	803.375	73.26631
SAs	32533.429	65.90286
SSA	1039.611	55.92083