

Stepwise Regression in R

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# World Happiness Report

# Load in Packages

library("IDPmisc")

# Assump on Tes ng

# Data Wrangling

worldHappiness1 <- NaRV.omit(worldHappiness)

worldHappiness2 <- worldHappiness1[,3:9]

# Backward Elimina on

FitAll = lm(Score ~., data=worldHappiness2)
summary(FitAll)

## First four are significant, but not the rest - GDP, social support, healthy life expectancy, freedom

step(FitAll, direc on="backward")

## The smaller the be er on the AIC - and it is not absolute value

# Forward Selec on

fitstart = lm(Score ~ 1, data=worldHappiness2)
summary(fitstart)

step(fitstart, direc on='forward', scope=(~GDP.per.capita + Social.support + Healthy.life.expectancy +
Freedom.to.make.life.choices + Generosity + Percep ons.of.corrup on))

## Ended up with GDP, freedom, social support, healthy life expectancy, and corrup on - so the first four that
were originally sig.

# Hybrid

step(fitstart, direc on="both", scope=formula(FitAll))

## Same ones come up again
```

