### An Example R Markdown Document

(A Subtitle Would Go Here if This Were a Class)

Steven V. Miller

Department of Political Science



# Sheena Easton and Game Theory

Sheena Easton describes the following scenario for her baby:

- 1. Takes the morning train
- 2. Works from nine 'til five
- 3. Takes another train home again
- 4. Finds Sheena Easton waiting for him

Sheena Easton and her baby are playing a zero-sum (total conflict) game.

- Akin to Holmes-Moriarty game (see: von Neumann and Morgenstern)
- Solution: mixed strategy

# Rick Astley's Re-election Platform

#### Rick Astley's campaign promises:

- Never gonna give you up.
- Never gonna let you down.
- Never gonna run around and desert you.
- Never gonna make you cry.
- Never gonna say goodbye.
- Never gonna tell a lie and hurt you.

Whereas these pledges conform to the preferences of the **median voter**, we expect Congressman Astley to secure re-election.

# Caribbean Queen and Operation Urgent Fury

Billy Ocean released "Caribbean Queen" in 1984.

- Emphasized sharing the same dream
- Hearts beating as one

"Caribbean Queen" is about the poor execution of Operation Urgent Fury.

• Echoed JCS chairman David Jones' frustrations with military establishment.

Billy Ocean is advocating for what became the Goldwater-Nichols Act.

 Wanted to take advantage of economies of scale, resolve coordination problems in U.S. military.

## The Good Day Hypothesis

We know the following about Ice Cube's day.

- 1. The Lakers beat the Supersonics.
- 2. No helicopter looked for a murder.
- 3. Consumed Fatburger at 2 a.m.
- 4. Goodyear blimp: "Ice Cube's a pimp."

#### This leads to two different hypotheses:

- $H_0$ : Ice Cube's day is statistically indistinguishable from a typical day.
- $H_1$ : Ice Cube is having a good (i.e. greater than average) day.

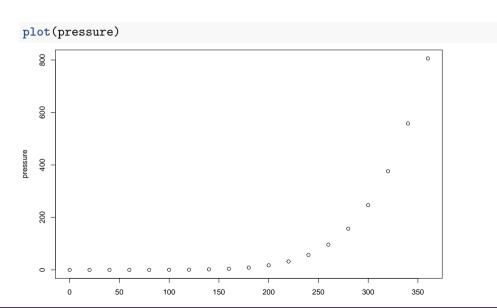
These hypotheses are tested using archival data of Ice Cube's life.

## Example R stuff

#### summary(cars)

```
##
       speed
                  dist
##
   Min. : 4.0
               Min. : 2.00
##
   1st Qu.:12.0 1st Qu.: 26.00
##
   Median: 15.0 Median: 36.00
##
   Mean :15.4 Mean : 42.98
   3rd Qu.:19.0 3rd Qu.: 56.00
##
##
   Max. :25.0
               Max. :120.00
```

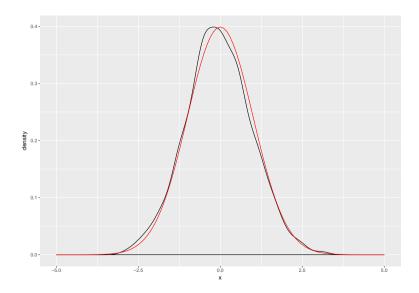
### Slide with Plot



#### ggplot code

```
df <- data.frame(x = rnorm(1000))
x <- df$x
base <- ggplot(df, aes(x)) + geom_density() + scale_x_continuous(limits = c(-5, the stat_function(fun = dnorm, colour = "red")</pre>
```

# Another Plot



#### Table of Contents

Pop Songs and Political Science

Example R code