



THE UNIVERSITY OF CHICAGO
**HARRIS SCHOOL
OF PUBLIC POLICY**

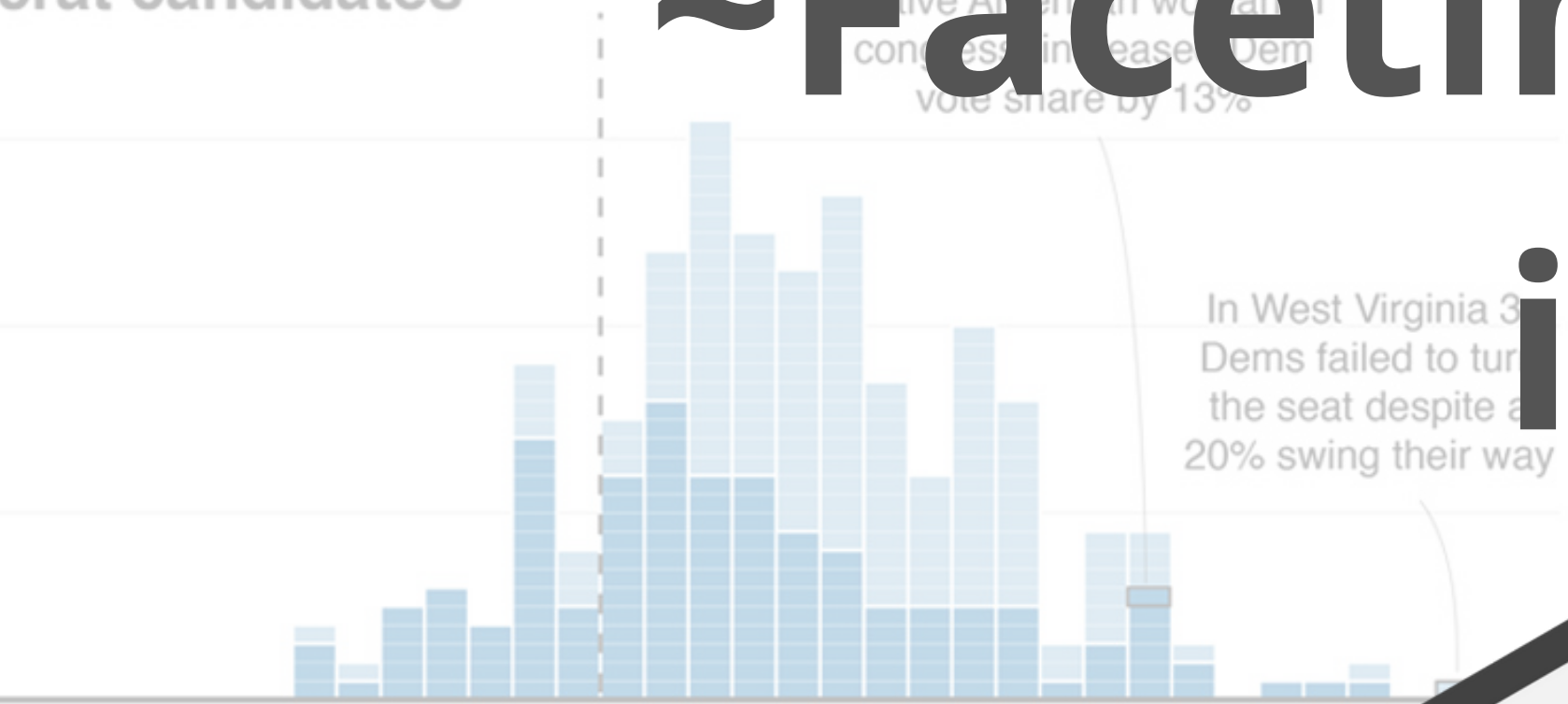
Week 12

DSC Graduate Development Program

ave

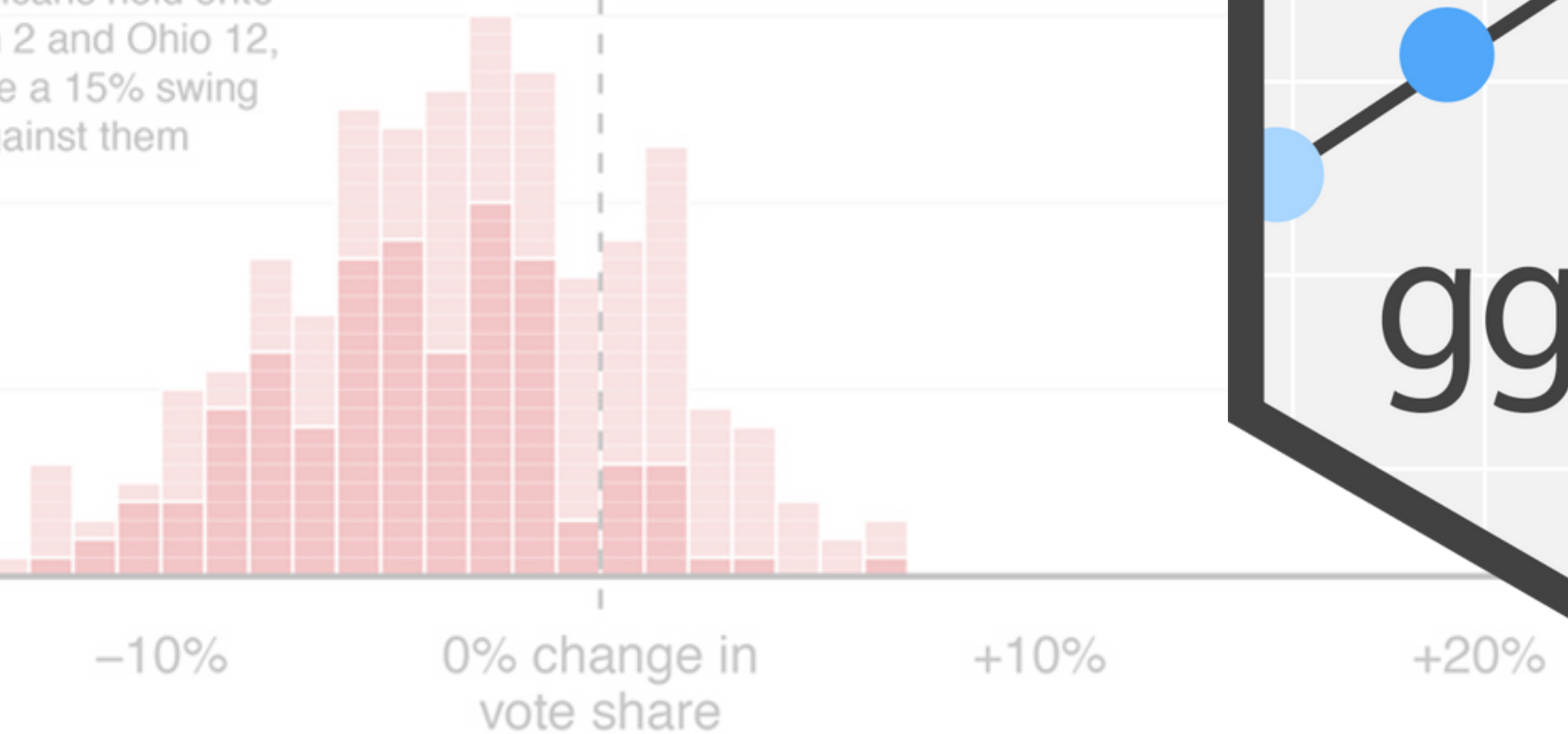
at Didn't win

crat candidates



Republican candidates

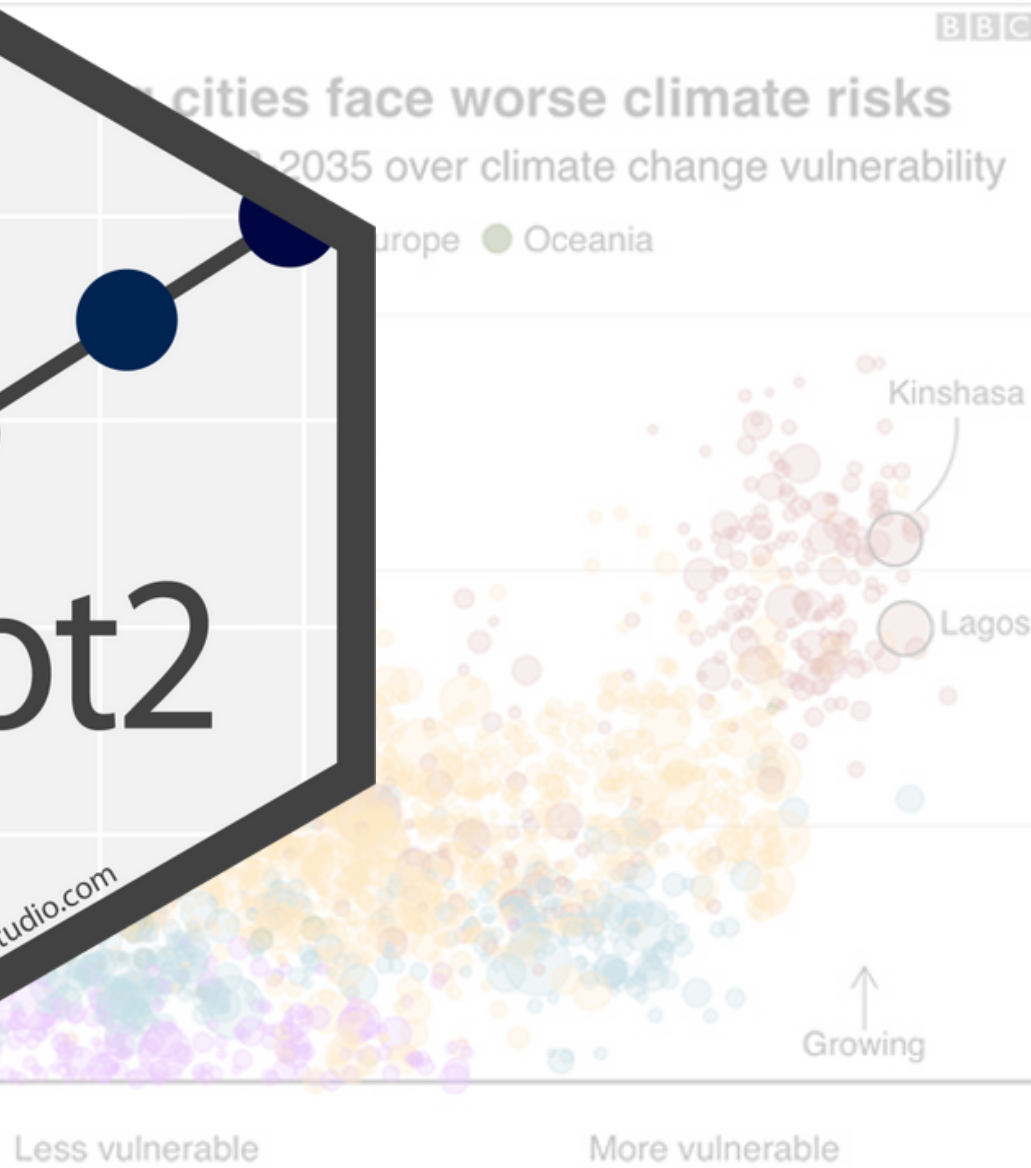
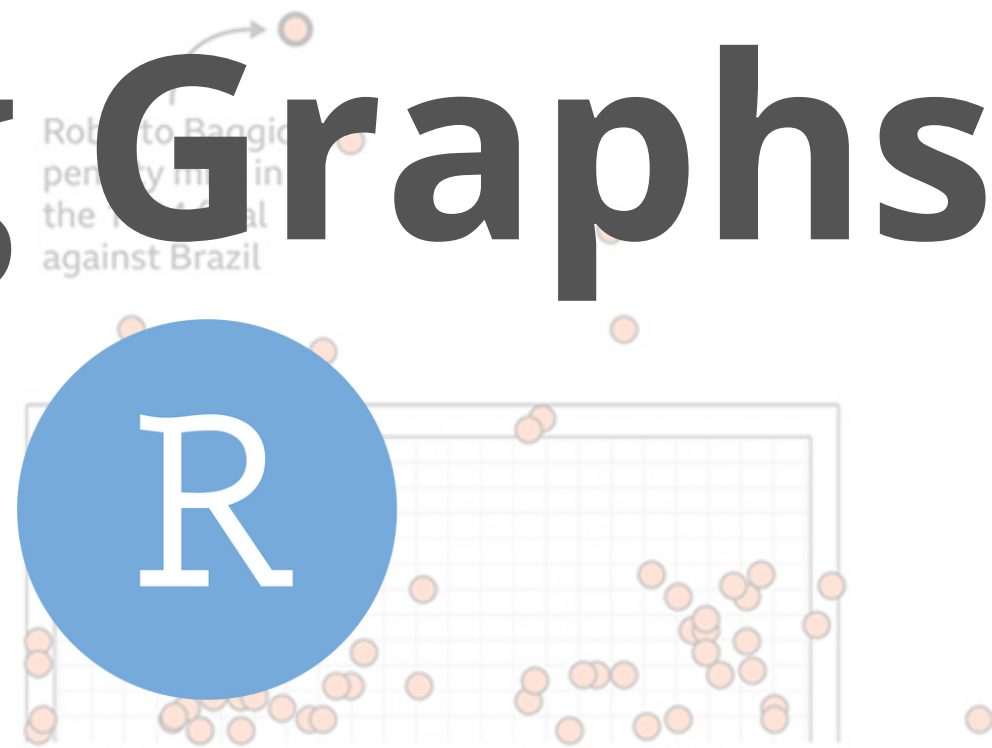
Republicans held onto 2 and Ohio 12, a 15% swing against them



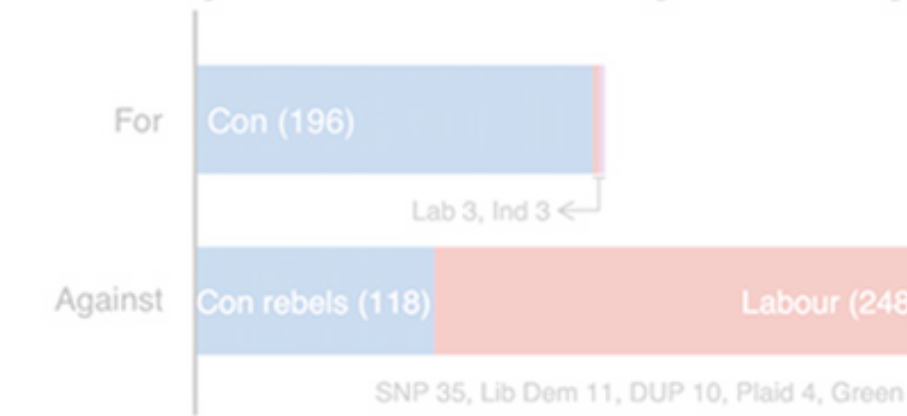
9:01 ET

Where penalties are saved

World Cup shootout misses and saves, 1982-2014

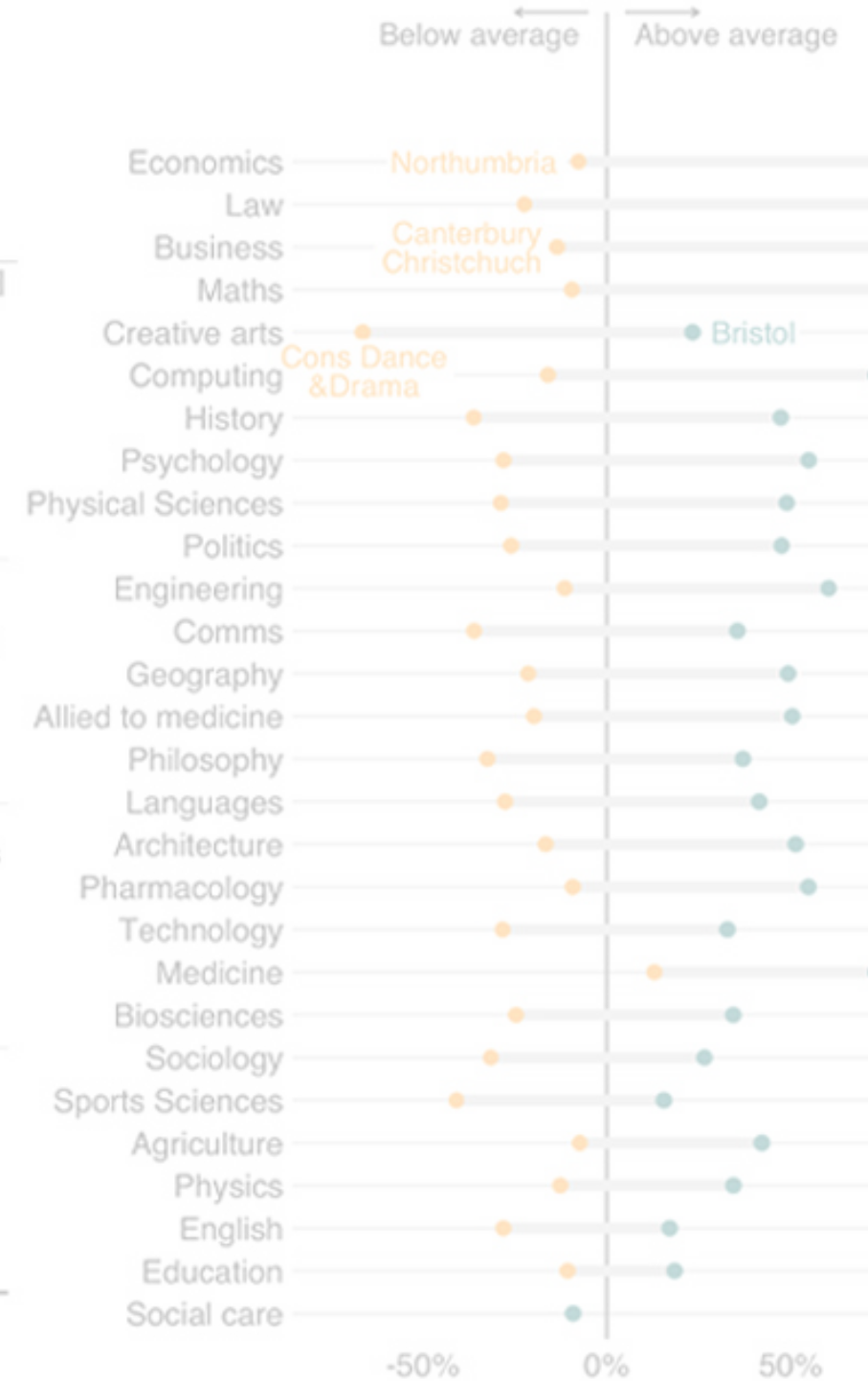


MPs rejected Theresa May's deal by



Source: Commons Votes Services. Excludes 'tellers', the Speaker and

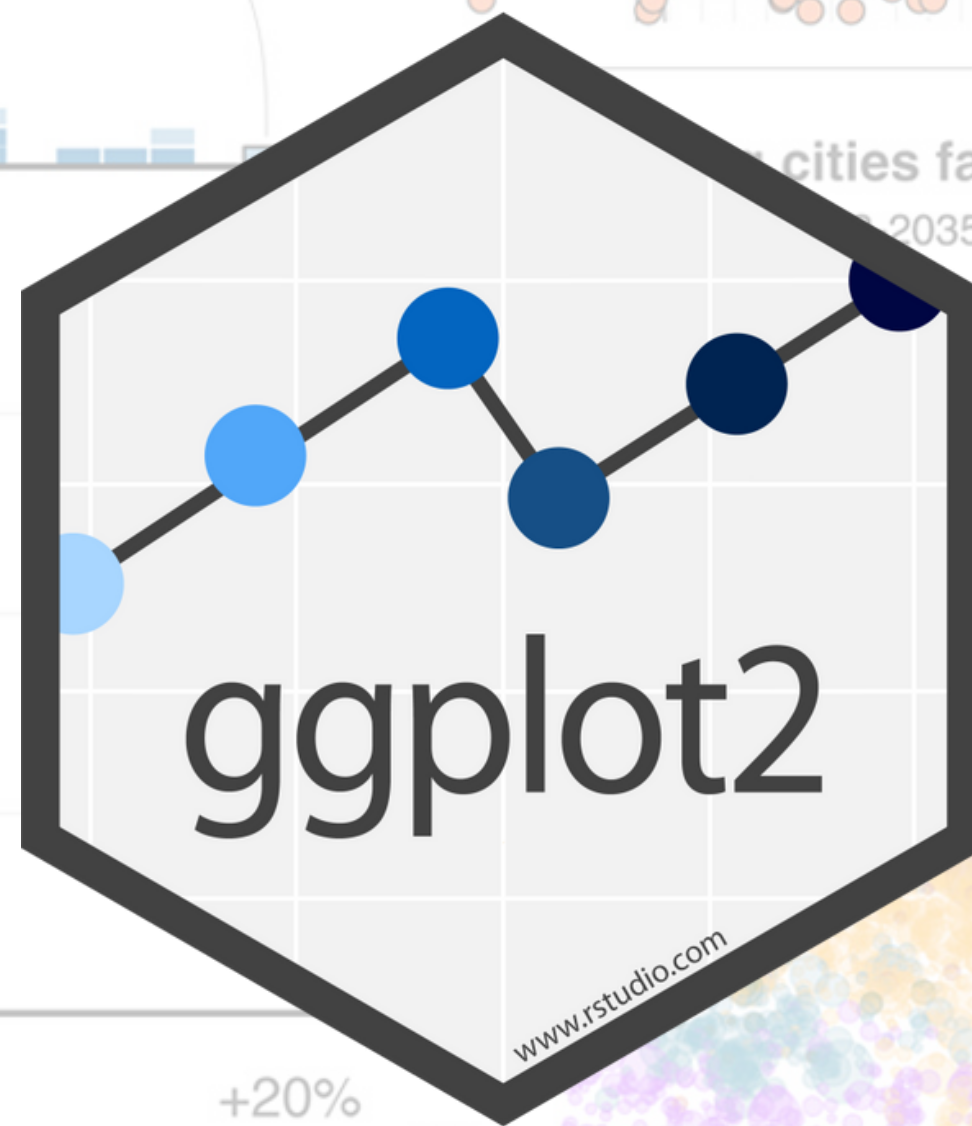
Earnings vary across units even with Impact on men's earnings relative to the average



Source: Institute for Fiscal Studies

~Faceting Graphs

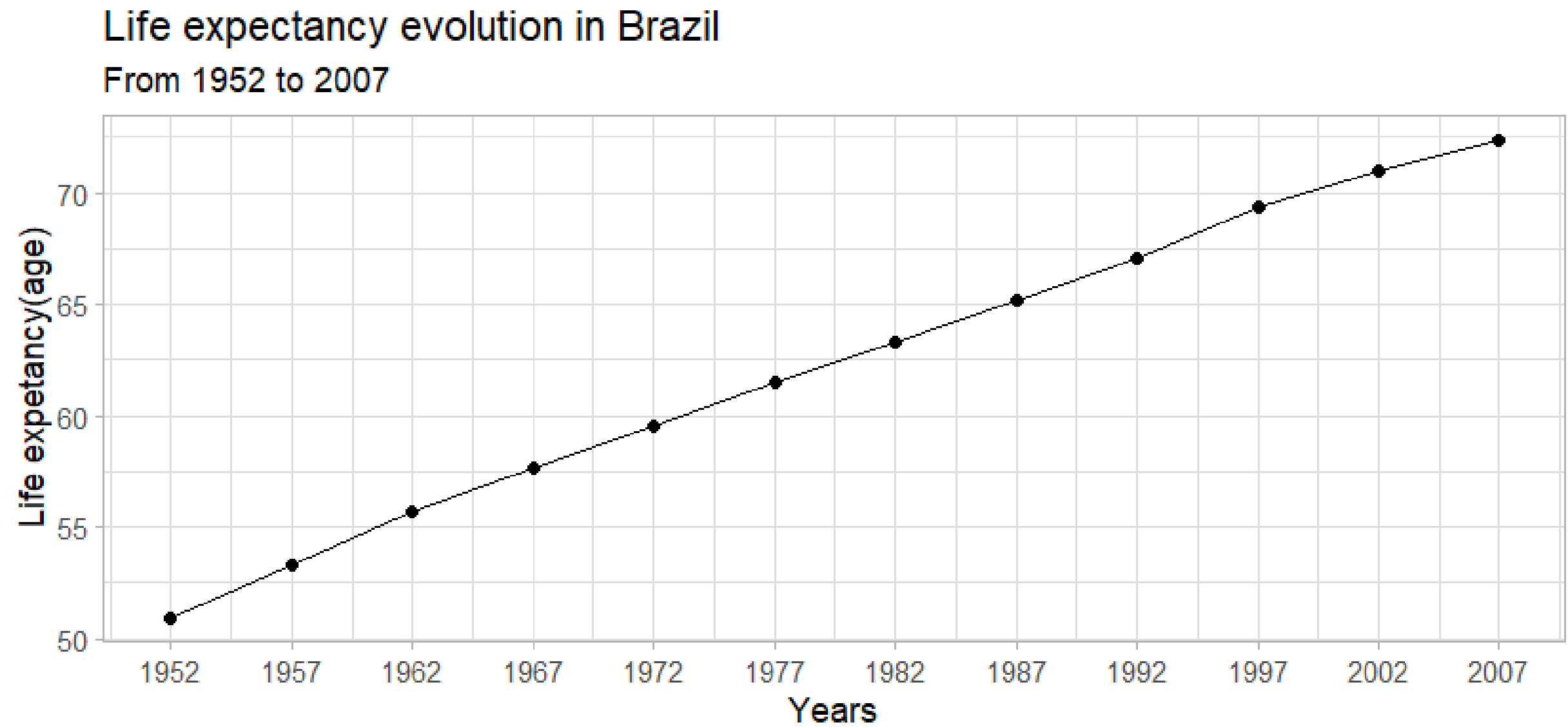
in R



... if you recall, this code:

```
## Data + Aesthetics
gapminder2 %>%
  ggplot(aes(x = year, y = lifeExp)) +
  geom_point() +
  labs(title = 'Life expectancy evolution in Brazil',
        subtitle = 'From 1952 to 2007',
        x = 'Years',
        y = 'Life expectancy(age)',
        caption = 'Source: gapminder dataset') +
  theme_light() +
  scale_x_continuous(breaks = seq(1952, 2007, by = 5)) +
  geom_line()
```

produced this...



Source: gapminder dataset

Creating **facets** inside **ggplot**

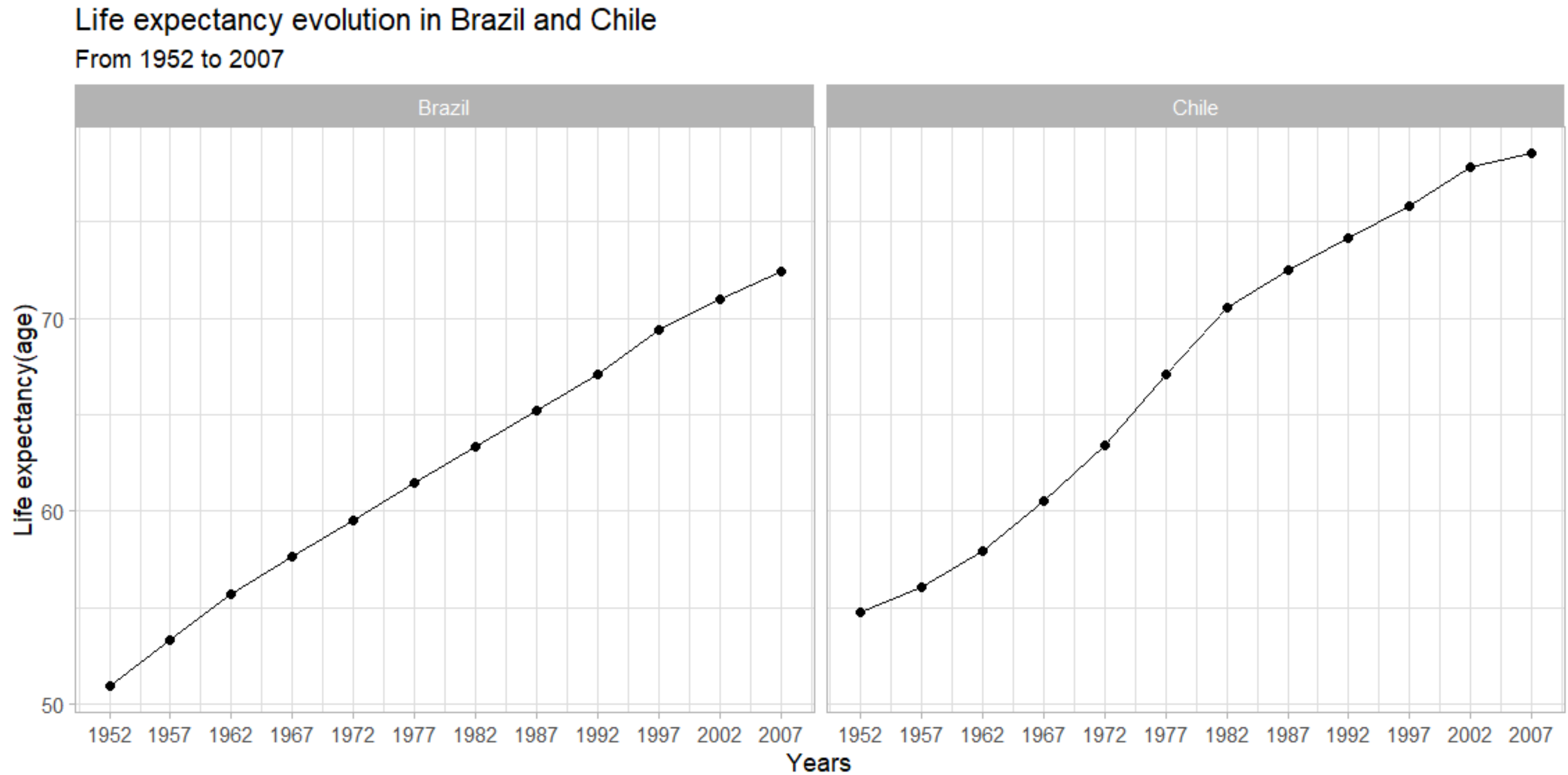
- First, change the **data!**

```
## Transforming the data
gapminder2 <- gapminder %>%
  filter(country %in% c('Brazil', 'Chile'))
```

- Now... add 9th layer: **facet_wrap**

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  labs(title = 'Life expectancy evolution in Brazil',
        subtitle = 'From 1952 to 2007',
        x = 'Years',
        y = 'Life expectancy(age)',
        caption = 'Source: gapminder dataset') +
  theme_light() +
  scale_x_continuous(breaks = seq(1952, 2007, by = 5)) +
  geom_line() +
  facet_wrap(~country)
```

Creating **facets** inside **ggplot** ('~' = 'by')



Source: gapminder dataset

Tidyverse useful functions

- **Slicing our dataframe (variations):**
 - `slice()`

```
## Getting the first 100 rows  
gapminder %>%  
  slice(1:100)
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- `colnames()`

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## Change the name of the first col  
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- `distinct()`

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- **Picking columns as vectors:**

- `pull()`

```
## Getting the 'pop' col as a vector
gapminder %>%
  pull(pop)
```