

The background is a light green grid. Scattered around the text are several stylized green dollar bills with white outlines and a white dollar sign in the center. The bills are floating at various angles.

# **The Secret to Becoming a Billionaire** **The Meanies**

Kaitlyn Bumpers, James Cruikshank, Jayden Ko, Christina Lee

# Topic & Motivation

- **Topic:**
  - Billionaires
- **Research Motivation:**
  - Interest in the distribution of wealth as economic inequality becomes an increasingly pressing issue
- **Research Question:**
  - What are the commonalities and differences between billionaires relating to their gender, sector, location, means of inheritance, etc?





# Billionaire Data



"Forbes World's Billionaires" lists from 1996-2014 (\*tidied by 2014\*)  
Caroline Freund and Sarah Oliver (Peterson Institute for International Economics)

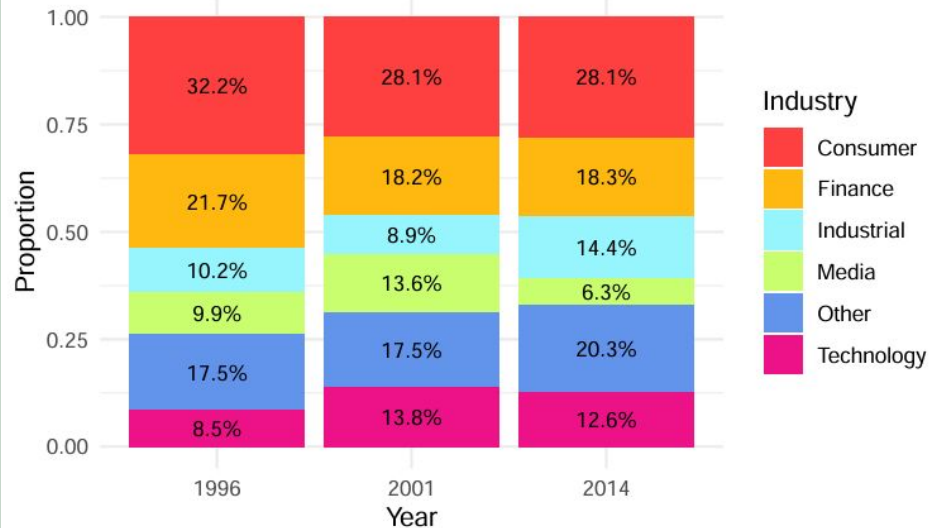
<b>company.sector</b>	The industry most associated with the billionaire's listed company
<b>location.region</b>	The region of the world where the billionaire lives.
<b>wealth.worth in billions</b>	The number of billion dollars (USD, not inflation-adjusted) that the billionaire is worth
<b>wealth.how.inherited</b>	The way in which a billionaire's wealth was inherited (or not inherited)
<b>demographics.gender</b>	The gender of the billionaire
<b>demographics.age</b>	The current age of the billionaire. Ages that are represented as -1 stand for ages that were not available in the data that was collected

# Exploratory Data Analysis

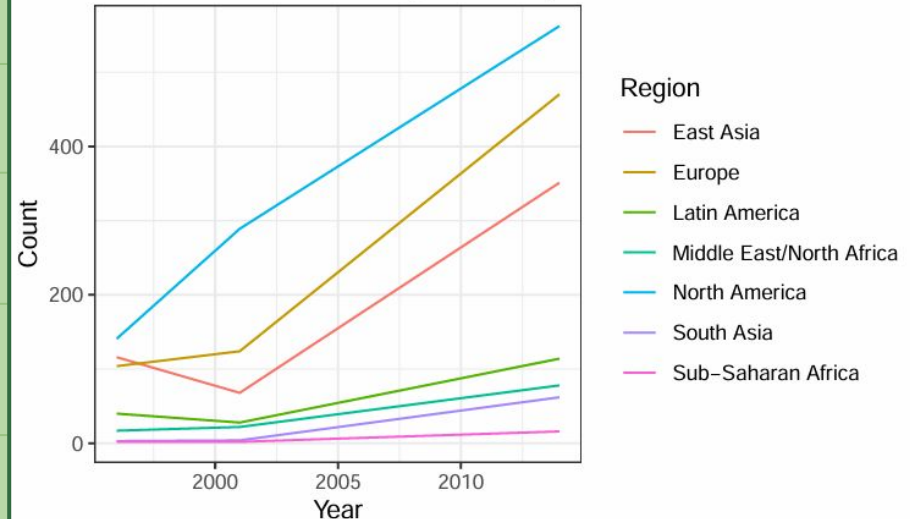
How do the proportions of billionaires in each industry change from 1996 to 2014?

How has the number of billionaires in each region of the world changed over time?

Billionaires' wealth by industry, 1996–2014



Number of billionaires by world region, 1996–2014



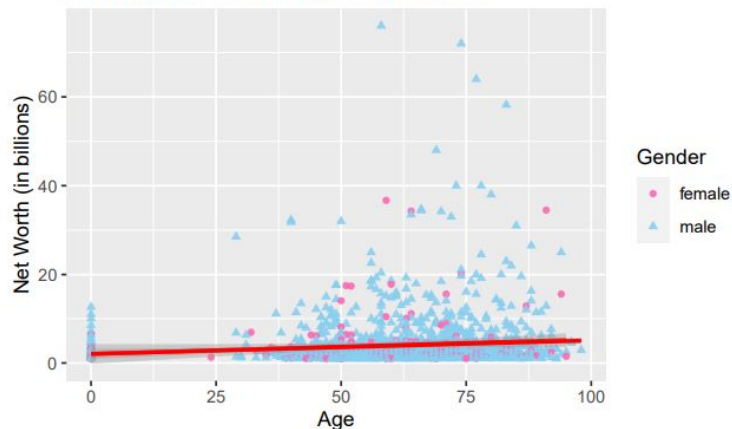
# Predicting a billionaire's wealth from age & inheritance of wealth

1. **Positive correlation** between wealth & age
2. **Relational proximity** to the source of wealth matters
  - Inheriting wealth from a **spouse** or **father** suggests greater wealth

```
# A tibble: 7 x 2
```

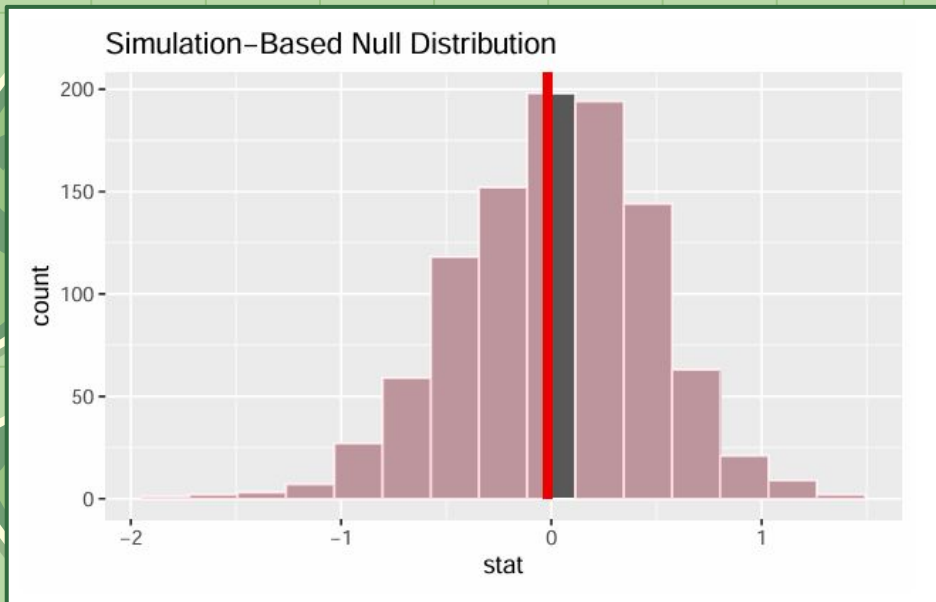
term	estimate
<chr>	<dbl>
1 (Intercept)	2.30
2 demographics.age	0.0302
3 wealth.how.inherited4th generation	-0.958
4 wealth.how.inherited5th generation or longer	-0.802
5 wealth.how.inheritedfather	0.447
6 wealth.how.inheritednot inherited	-0.443
7 wealth.how.inheritedspouse/widow	0.698

Net Worth Based on Age and Gender



Ex: A billionaire who inherited their wealth from their spouse/widow has an income of \$698M higher, on average, than a billionaire who inherited their wealth from the 3rd generation.

# Hypothesis Testing + 95% CI



$$H_0: \mu_m = \mu_f$$

$$H_a: \mu_m \neq \mu_f$$

Let  $\mu_m$  = the true mean wealth of male billionaires in 2014

Let  $\mu_f$  = the true mean wealth of female billionaires in 2014

**P-value = 0.878**

# Conclusions & Future Work

## Conclusions:

- Commonalities:
  - Generated wealth in **Consumer** and **Finance** industries
  - Live in **North America** and **Europe**
  - No difference in mean wealth among male and female billionaires
- Differences:
  - Inheriting wealth from **father** or **spouse** leads to greater wealth
  - As **age** increases, **wealth** tends to increase

## Future Work:

- Analyze more recent data (post-2014)
- More numerical observations
- Consider media as an industry (content creation on the rise)
- Demographic (progressive) changes, race, education level, etc





**Thank you!**