

Billionaire Wealth

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Making a Billionaire

What **factors** contribute to billionaire wealth?

- Wealth category?
- Industry?
- Citizenship?

Data from Forbes 2014 World's Billionaires list

FORBES > LEADERSHIP

Forbes Releases 28th Annual World's Billionaires Issue

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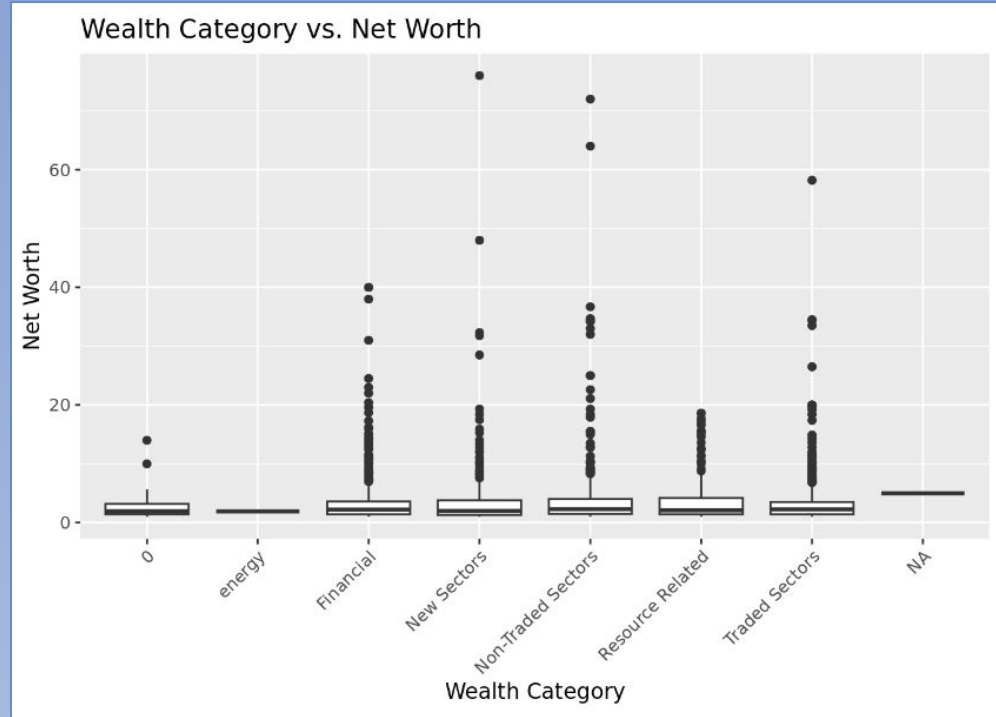
Mar 3, 2014, 07:18am EST

A Record 1,645 Billionaires Made the 2014 List of the World's Richest People with an Aggregate Net Worth of \$6.4 Trillion, Up from \$5.4 Trillion Last Year

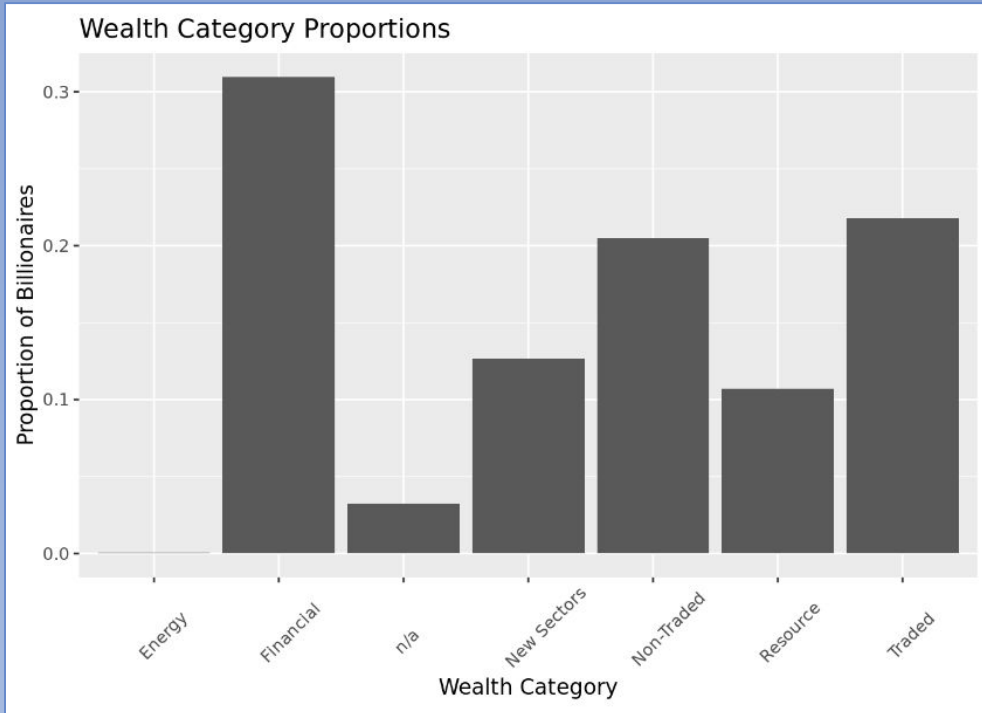
Bill Gates Topped the List With the #1 Spot; Gates Has Been #1 for 15 of the last 20 Years

Wealth Category Boxplot

- Non-traded has highest median net worth
- New Sectors and Non-traded Sectors have greatest variation



Wealth Category Bar Chart



- The category billionaires have mostly built their wealth in is finance
- Energy has the smallest proportion of billionaires

Modeling Approach



Linear Regression

Common method to model dependent variables one or more independent variables, & can show significance of relationships between variables



Addition + interaction models

Used R^2 , adjusted R^2 , and AIC to select a model



Compared Single, Two, + Three Variables

One explanatory variable: 3 sets (3×1)
Two explanatory variables 3 sets (3×2)
Three explanatory variables: 1 set (1×2)

Single Variable model

Linear Regression Model of **Wealth Type**

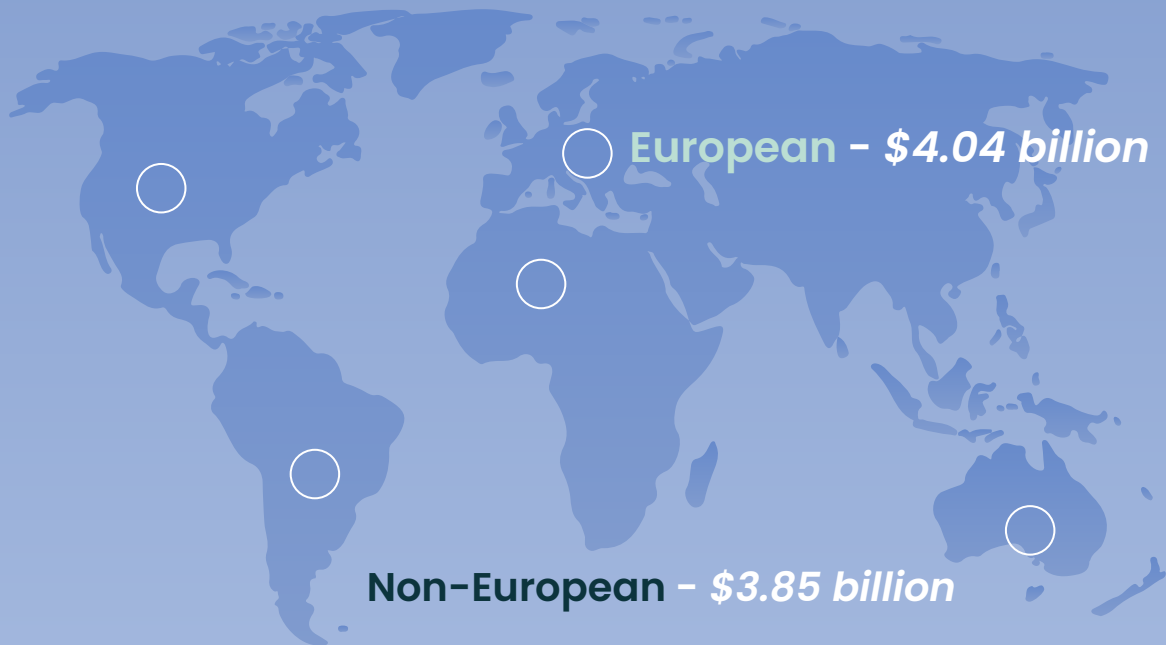
```
#l label: lin-reg-wealth-type

wealth_type <- linear_reg() |>
  set_engine("lm") |>
  fit(wealth.worth ~ wealth.type,
      data = billionaires_2014) |>
  glance() |>
  pull(AIC)
```

AIC = 10477.63

$$\widehat{wealth} = 4.04 - 0.193 * NotEurope$$

Our *conclusions*



Hypothesis:

Financial wealth ✕
European citizenship ✓
Inheritance ✓

= Billionaires with
higher net worths

Mean net worth = \$3.9 billion (Technology = \$5.23 billion)