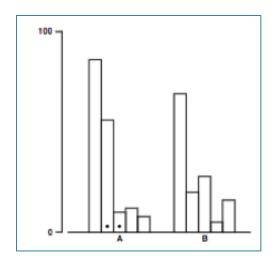
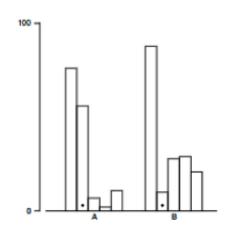
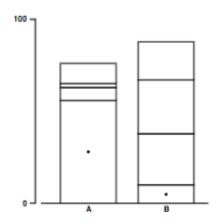
# **Basic Chart Types**

datascience@berkeley

### Which One?



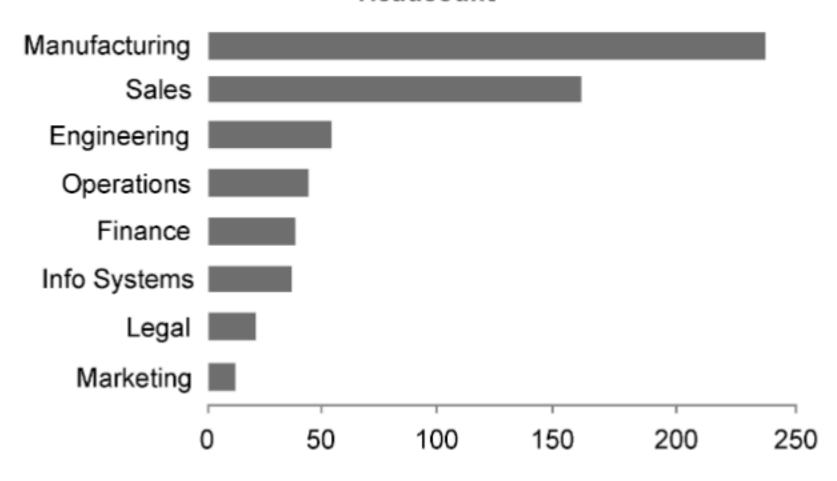




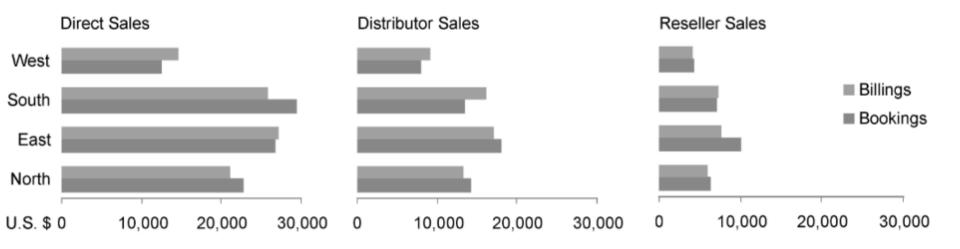
# **Bar Charts**

## Categorical + Ranked

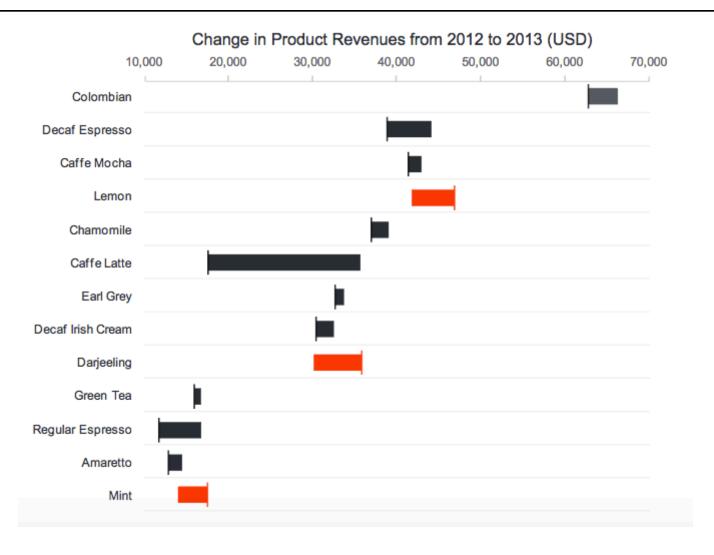
#### Headcount



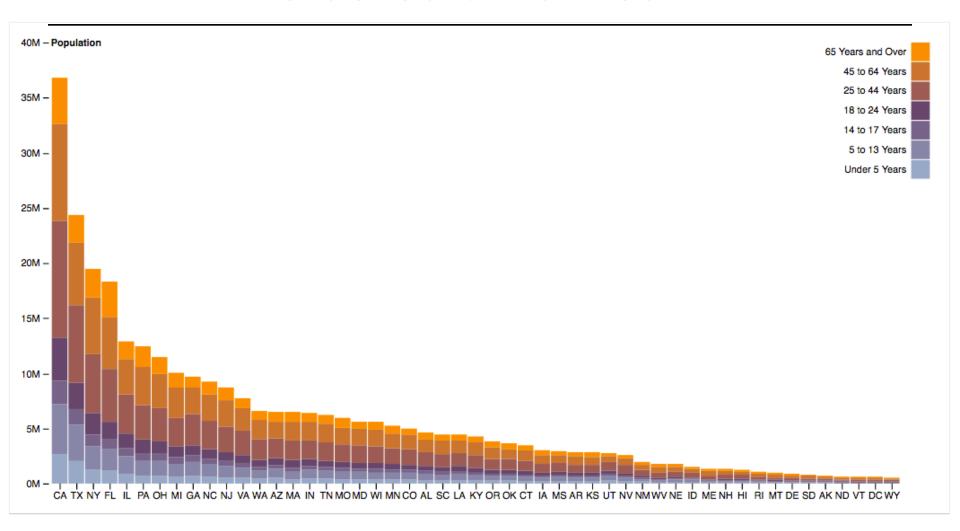
# **Splitting Comparison**



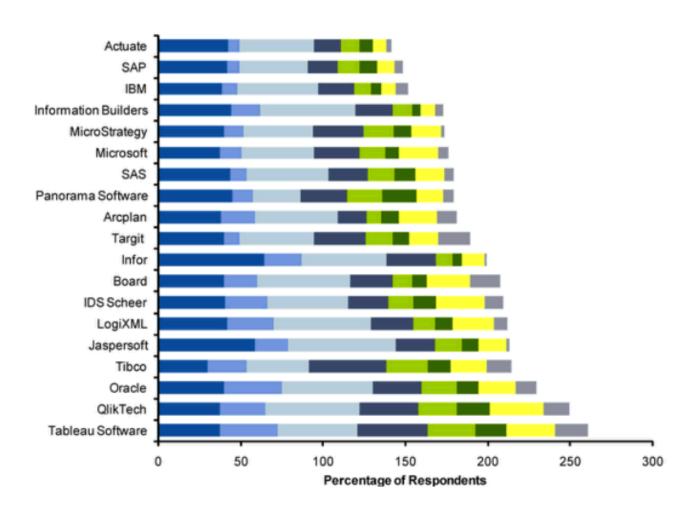
# Compare Change



### Stacked & Ranked



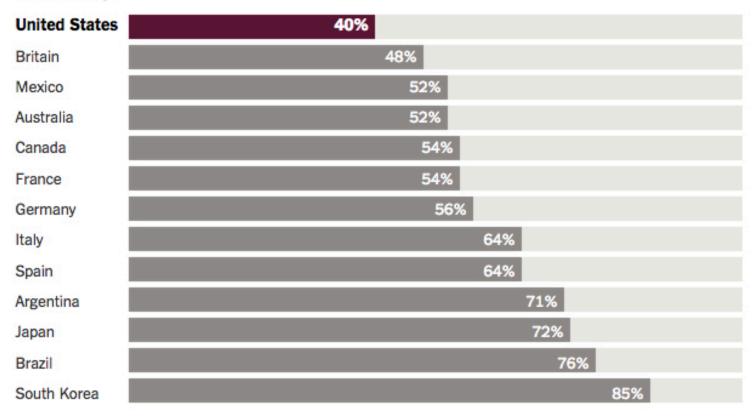
### Stacked & Ordered



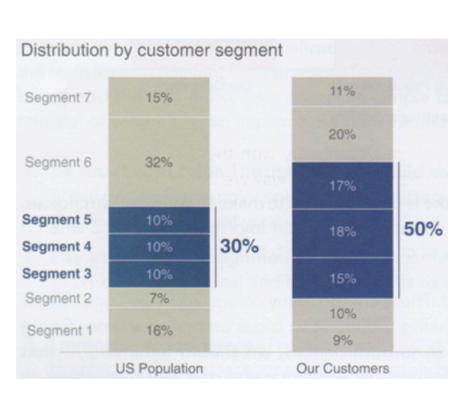
Source: https://www.tableau.com/blog/gartner-vendors-bi-activities

### How the World Sees Climate Change

Percentage of residents of each country who say "global climate change is a major threat" to their country

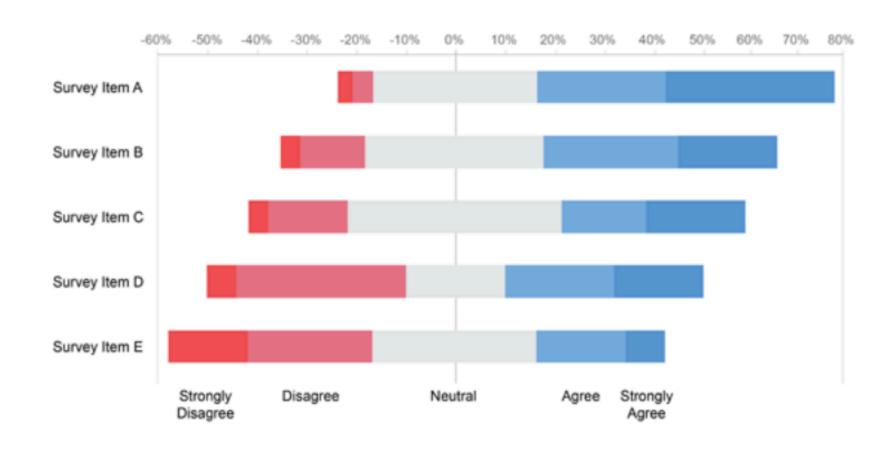


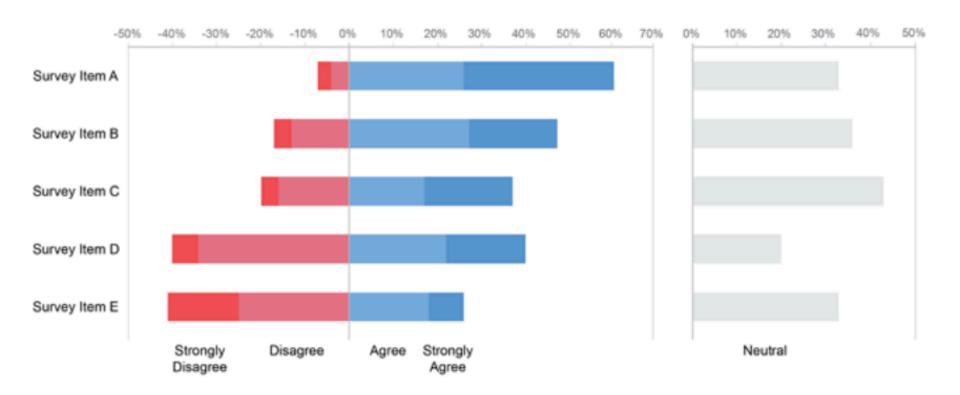
Source: Pew Research Center, June 2013

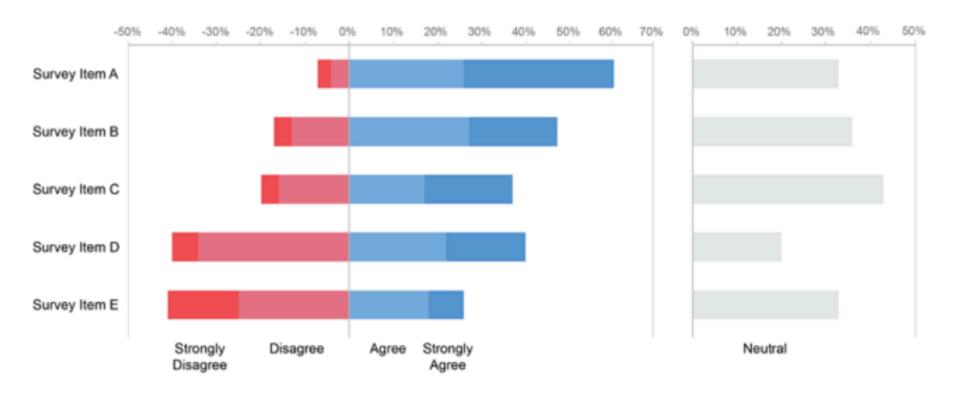


#### Distribution by Customer Segment

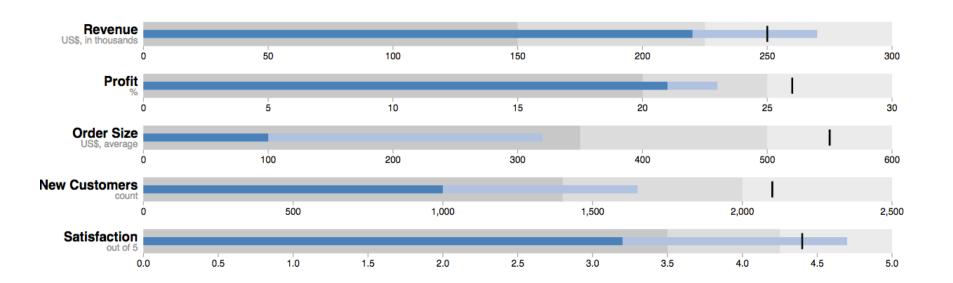








# **Bullet Graph**



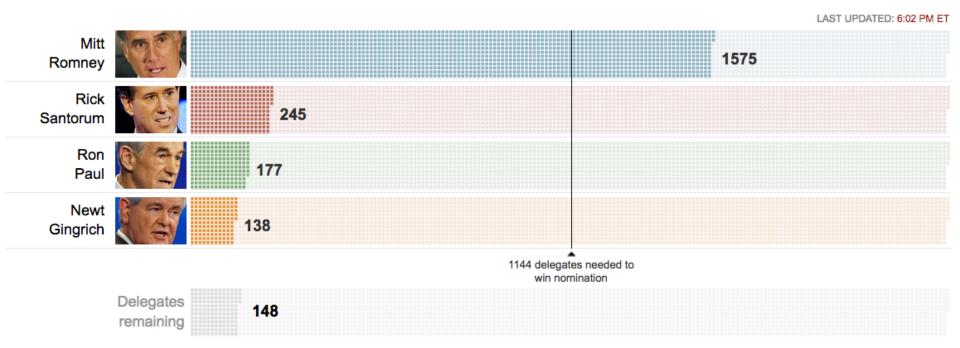
### **Republican Delegate Tally**

### The New york Times





Delegate totals are from The Associated Press, and include the preferences of superdelegates, Republican party leaders who are free to support any candidate.

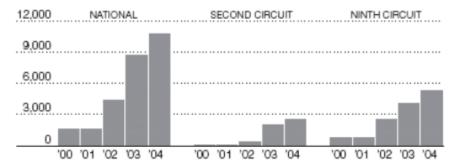


### **Time Series Comparison**

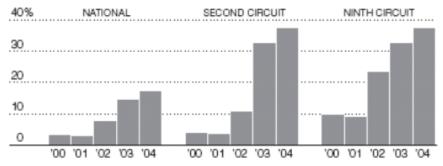
#### Rise in Immigration Cases

There has been a sharp rise in immigration cases on the dockets of the federal appeals courts, particularly the Second and Ninth Circuit Courts\*.

#### Total Immigration Appeals Filed



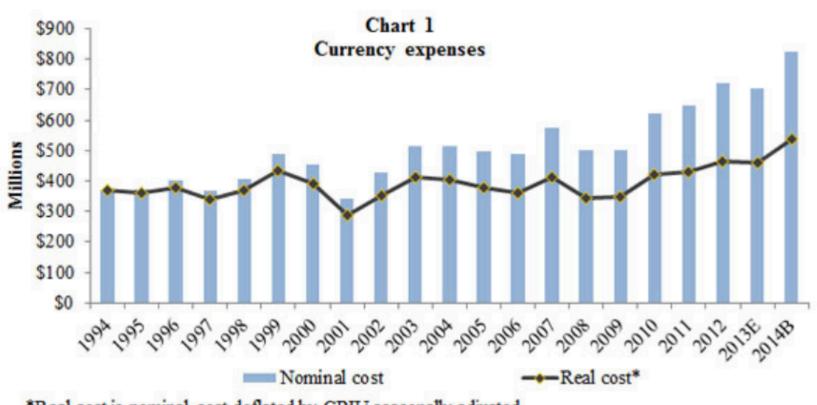
#### Immigration Appeals Filed as a Percentage of All Cases



\*Second Circuit: Connecticut, New York and Vermont. Ninth Circuit: Alaska, Arizona, California, Guam, Hawaii, Idaho, Montana, Nevada, Northern Mariana Islands, Oregon and Washington.

Source: Administrative Office of the United States Courts

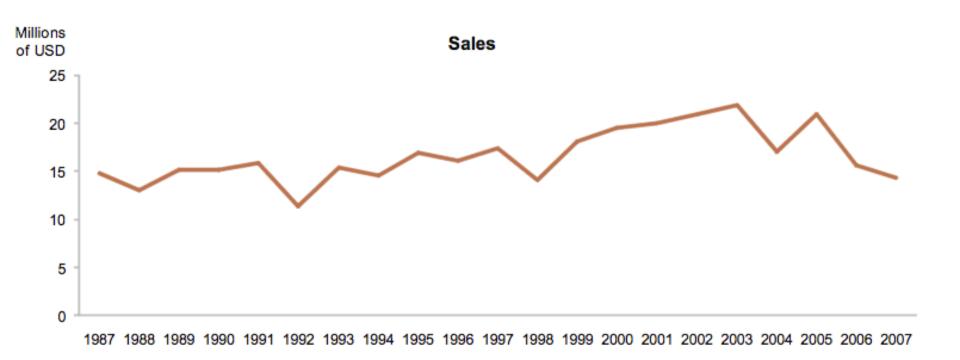
## Time Series Comparison + Trend



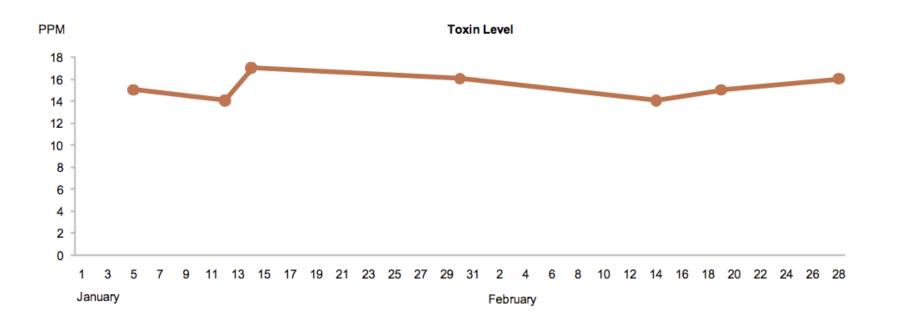
\*Real cost is nominal cost deflated by CPIU seasonally adjusted

Source: https://www.federalreserve.gov/foia/2014currency.htm

# Line Charts



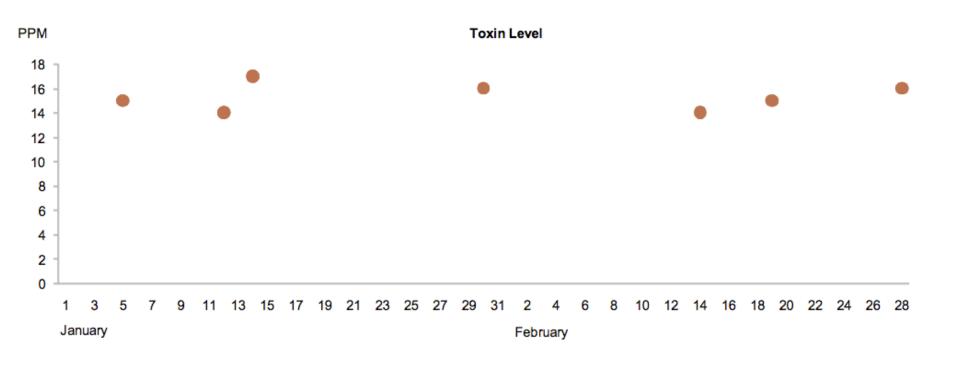
# Irregular Intervals

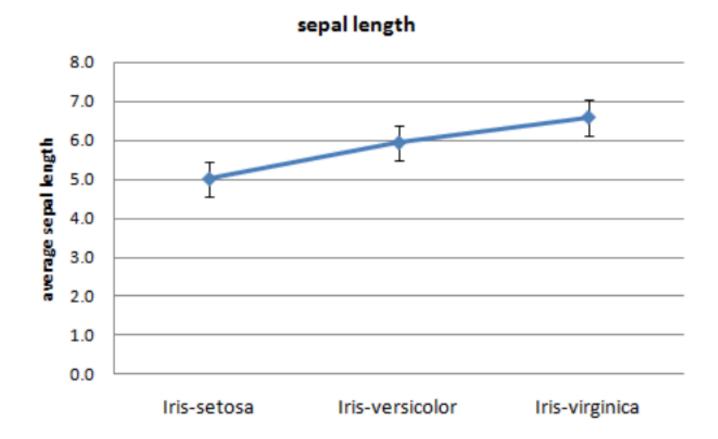


## Irregular Intervals



# Irregular Intervals

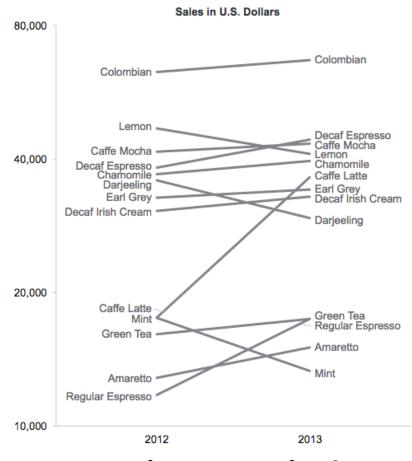




### Be careful of this!

Source: http://www.saedsayad.com/categorical\_numerical.htm

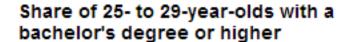
## Two Point Change

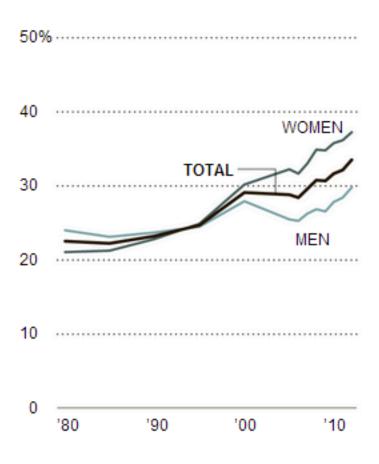


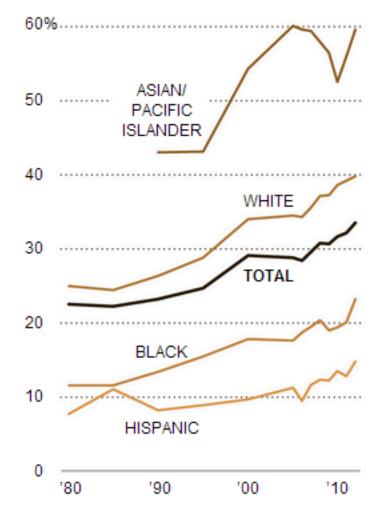
This works!

Source: https://www.perceptualedge.com/

## **Trend Comparison**





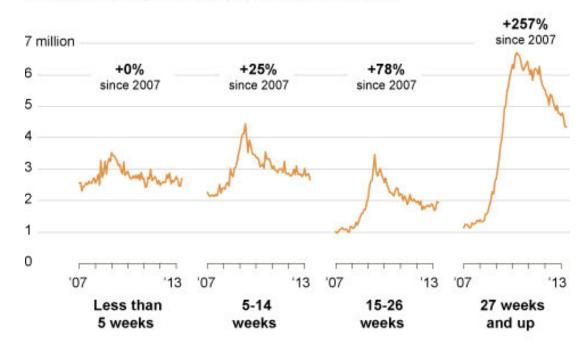


Source: https://tcf.org/

# **Trend Comparison**

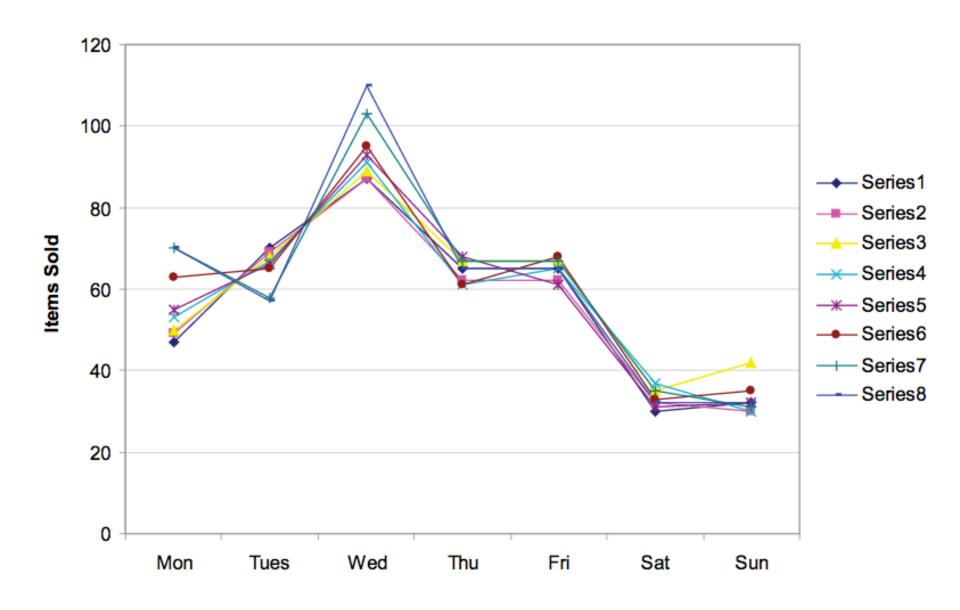
#### Persistent Long-Term Unemployment

Short-term unemployment is back at its pre-recession level, but medium-duration and especially long-term unemployment are still elevated.



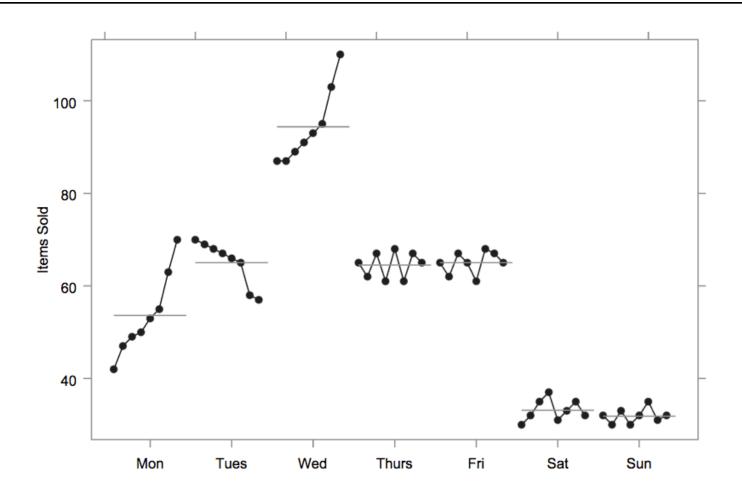
Note: For percentage change, the 2007 figure is calculated as a monthly average for the full year. The 2013 data is calculated as a monthly average for the past three months.

Source: Bureau of Labor Statistics THE NEW YORK TIMES



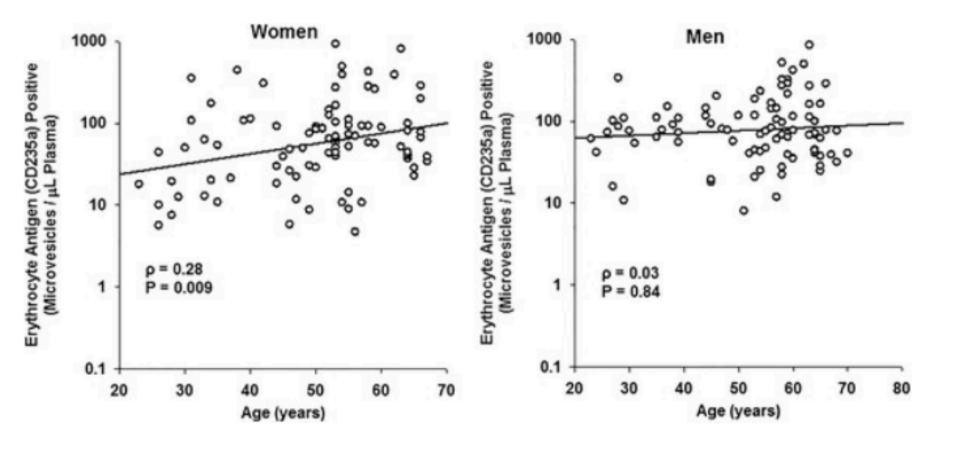
Source:https://www.perceptualedge.com/articles/guests/intro\_to\_cycle\_plots.pdf

# Cycle Plot

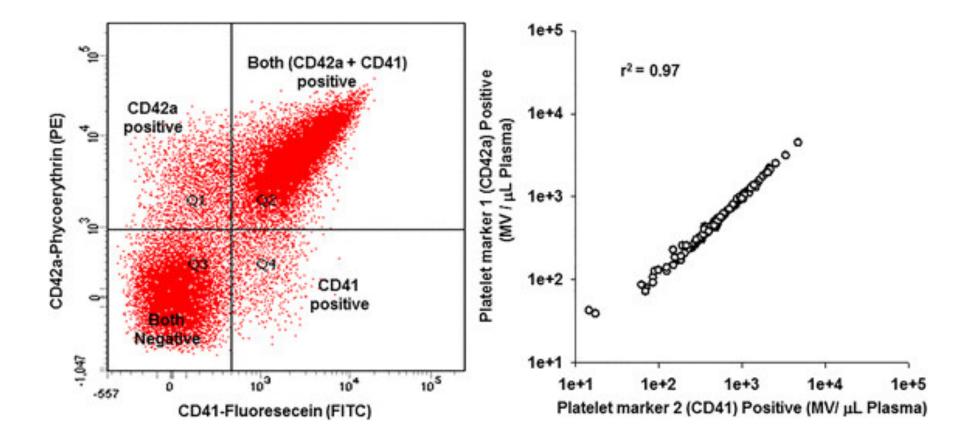


Source:https://www.perceptualedge.com/articles/guests/intro\_to\_cycle\_plots.pdf

# Scatter & Dot Plot

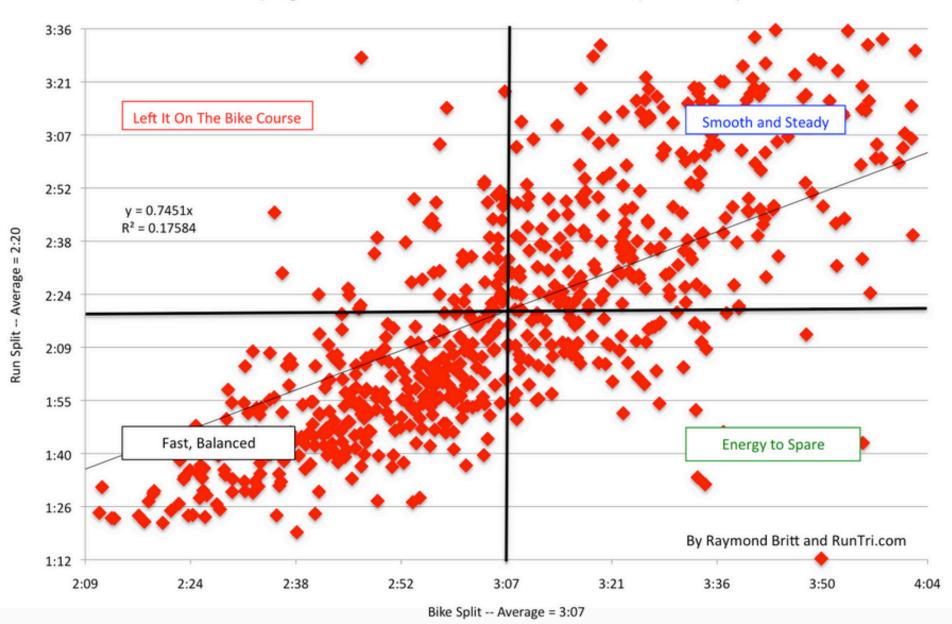


Source: Gustafson et al., 2015



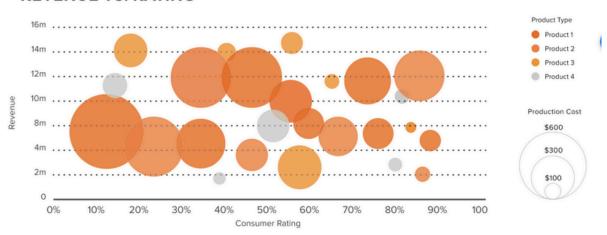
Source: Gustafson et al., 2015

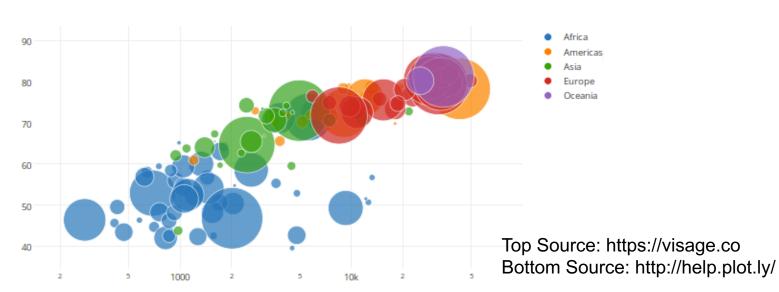
#### Buffalo Springs Lake Half Ironman: Correlation Between Bike Split and Run Split



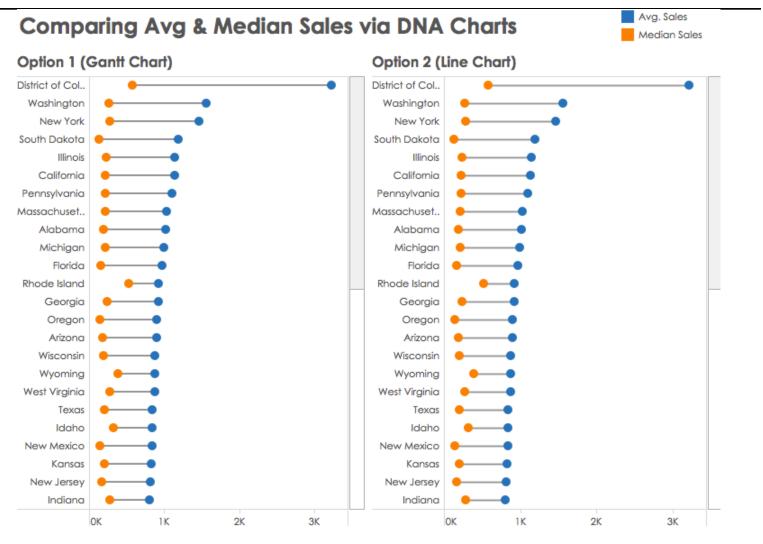
### **Bubble Plot**

#### **REVENUE VS. RATING**



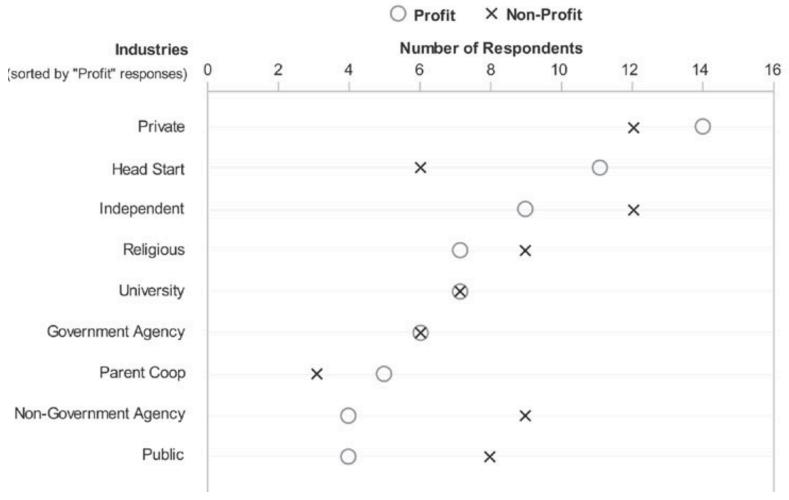


### Dumbbell / DNA Chart



Source: https://public.tableau.com/views/DNACharts/

Profit vs. Non-Profit Breakdown by Industry of Child Care Center Teachers
Who Responded to the Survey



Source: https://www.perceptualedge.com/

# Berkeley school of information