Chart Critique

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April 28, 2021

Executive Summary

Understanding charts through **different stories**

- 2 Charts liked
- 2 Charts not liked
- 2 Clear charts
- 2 Muddled charts
- 2 Charts that deceive
- 3 Chart valuations
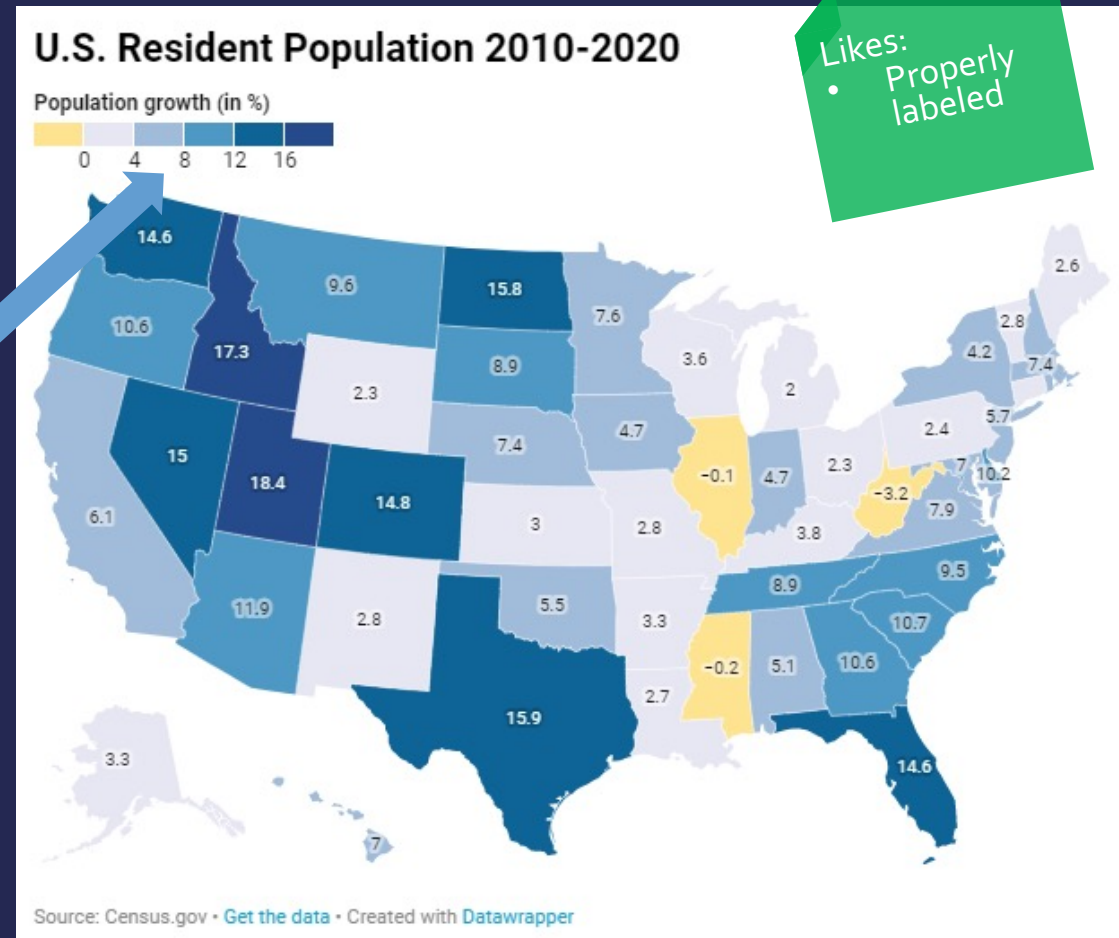
Scale of **Initial** Chart Thoughts

- Trending **Green** with happy face notes clear, concise and easy to read
- Trending **Red** with angry face notes muddled, overwhelming and difficult to read
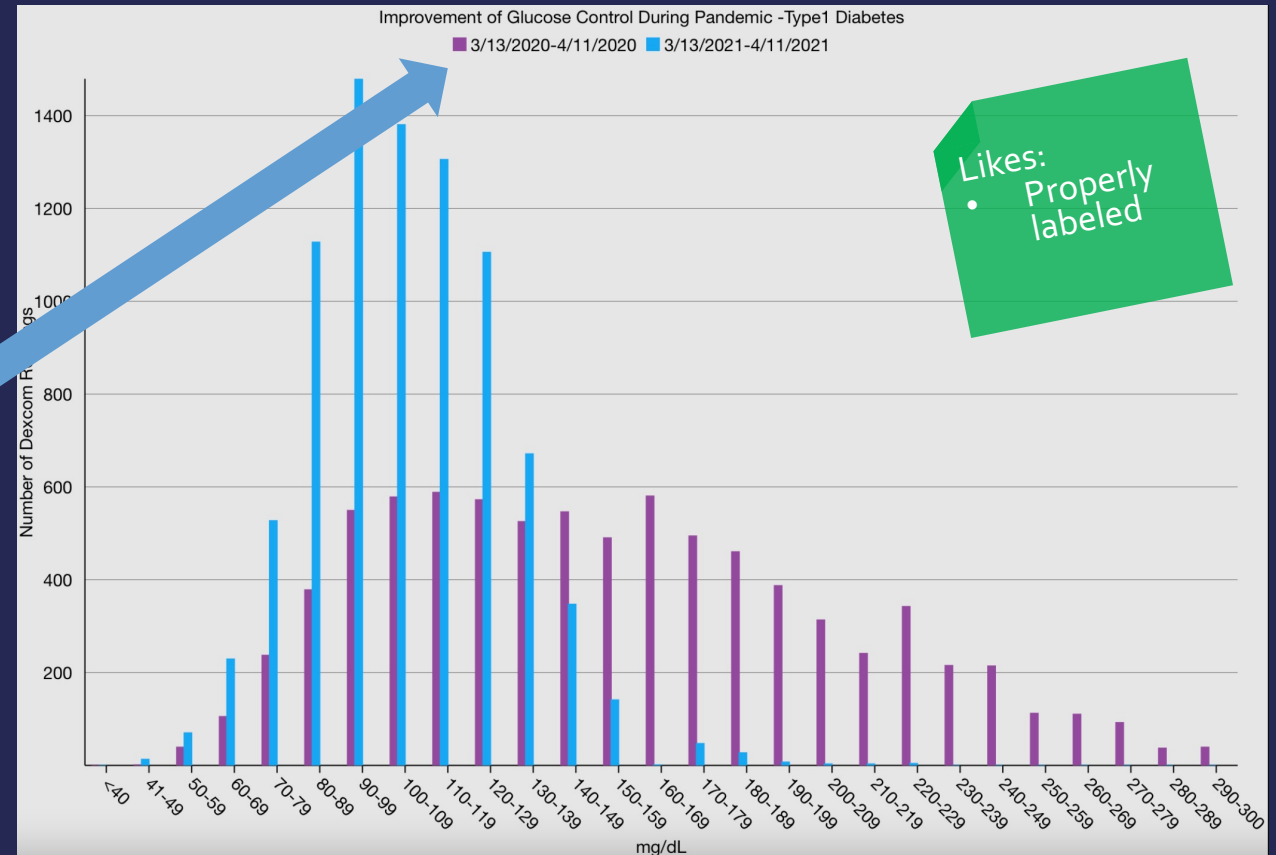
Liked Chart One

01   Likes

- Clear intent of the chart - Population
- Properly labeled with dates and percentage numbers
- Color scheme trends darker with population growth

U.S. Resident Population 2010-2020

Population growth (in %)

0   4   8   12   16

14.6
9.6
15.8
7.6
2.6
10.6
17.3
8.9
3.6
2.8
4.2
2.3
2
7.4
4.7
7.4
15
18.4
14.8
3
2.8
-0.1
4.7
2.3
2.4
5.7
7
10.2
6.1
11.9
2.8
5.5
3.3
3.8
-3.2
7.9
9.5
-0.2
5.1
10.6
10.7
15.9
2.7
3.3
14.6
7

Source: Census.gov • Get the data • Created with Datawrapper
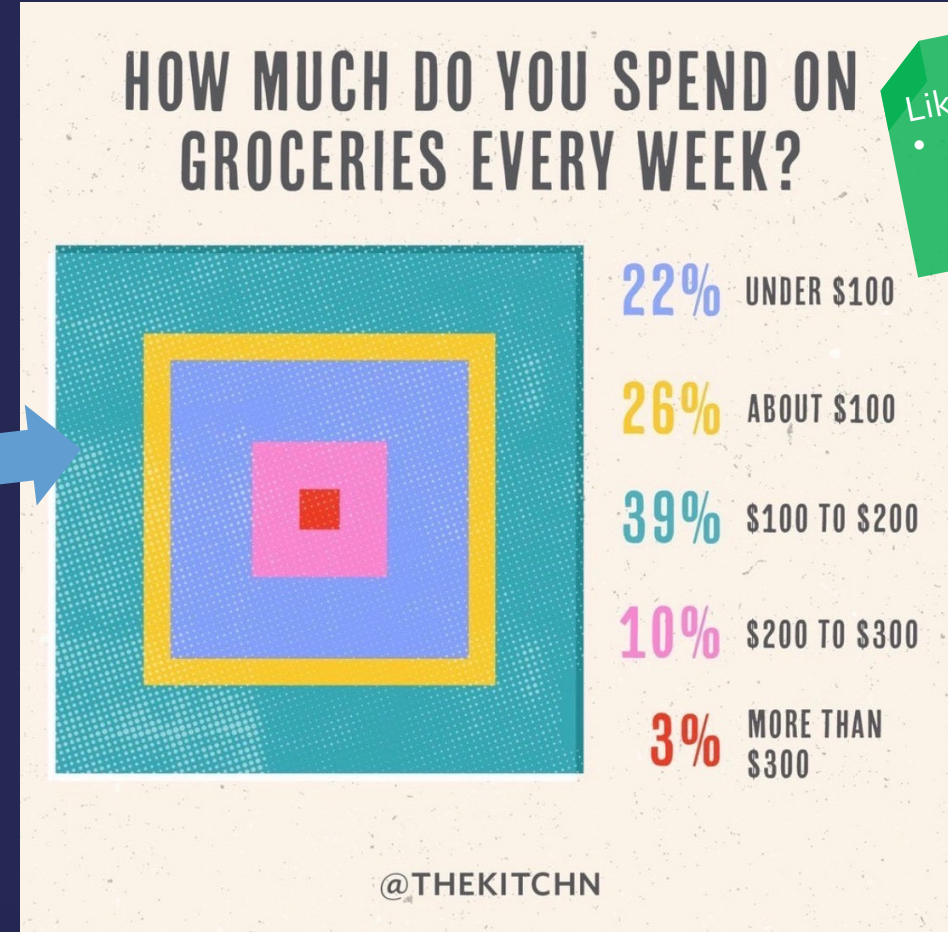
*Source Census.gov

Liked Chart Two

01 Likes

- Clear title, with clear data dates timeline
- Clear x-axis and y axis labeling
- Clear colors and background

Improvement of Glucose Control During Pandemic -Type1 Diabetes

■ 3/13/2020-4/11/2020 ■ 3/13/2021-4/11/2021

Likes:
- Properly labeled

Disliked Chart One

01 Dislikes

- Not in order
- Unclear labeling in box figure
- Missing mark of the main idea of how much is spent on weekly groceries

Likes:
- Color Scheme

HOW MUCH DO YOU SPEND ON GROCERIES EVERY WEEK?

22% UNDER $100

26% ABOUT $100

39% $100 TO $200

10% $200 TO $300

3% MORE THAN $300

@THEKITCHN

*Source The Kitchn

Disliked Chart Two

02   Dislikes

- Color labels do not match bar colors
- Mismatched labeling
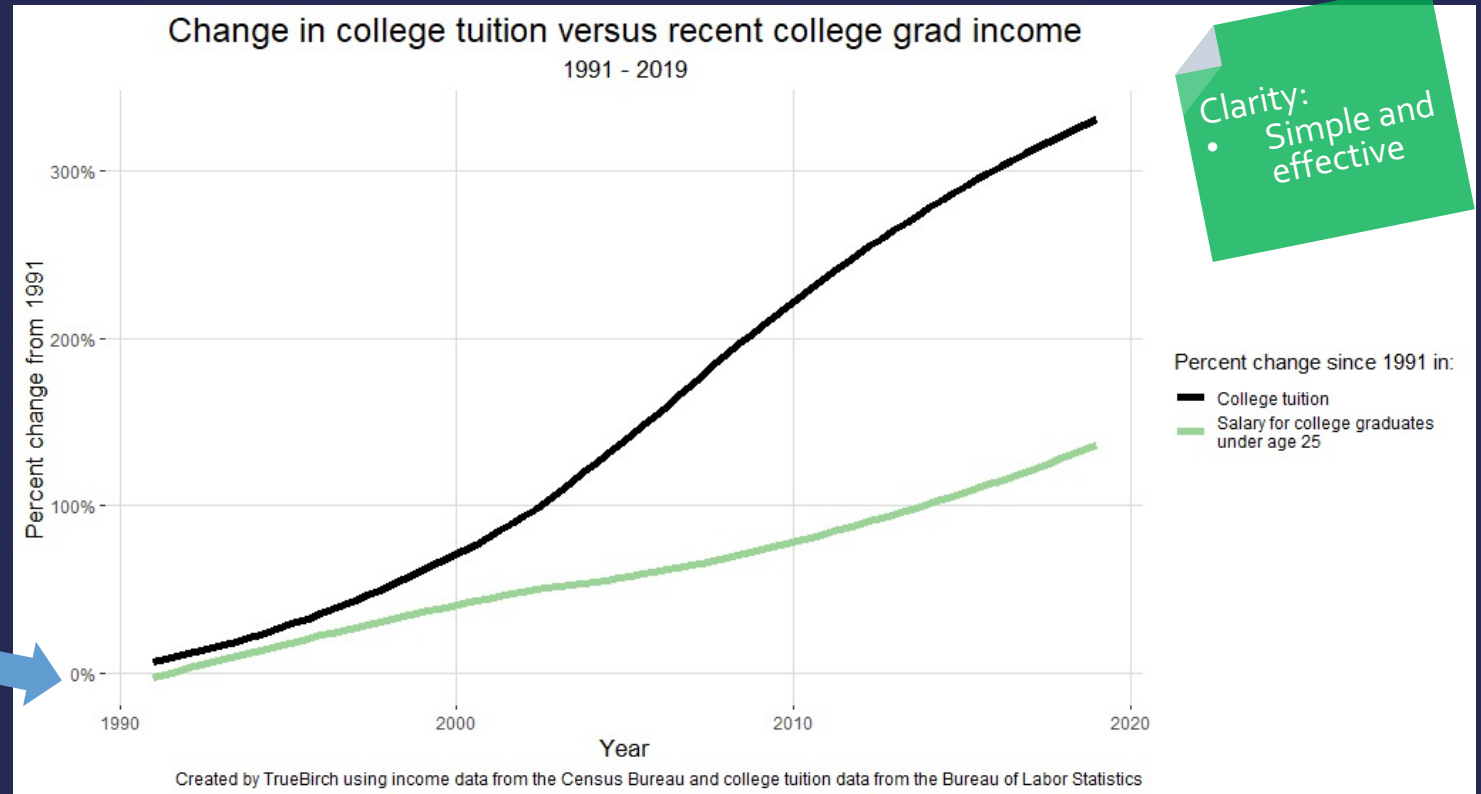- Y-axis is not clearly labeled
- X-axis is not clearly labeled

Likes:
- Simplicity

Shoe color Frequency

Clear Chart One

01 Attributes leading to of clarity

- Distinct colors matching legend
- Clear legend
- Y-axis clearly labeled
- X-axis clearly labeled

Change in college tuition versus recent college grad income
1991 - 2019

Percent change from 1991

300%

200%

100%

0%

1990   2000   2010   2020

Year

Percent change since 1991 in:
— College tuition
— Salary for college graduates under age 25

Clarity:
- Simple and effective

Created by TrueBirch using income data from the Census Bureau and college tuition data from the Bureau of Labor Statistics

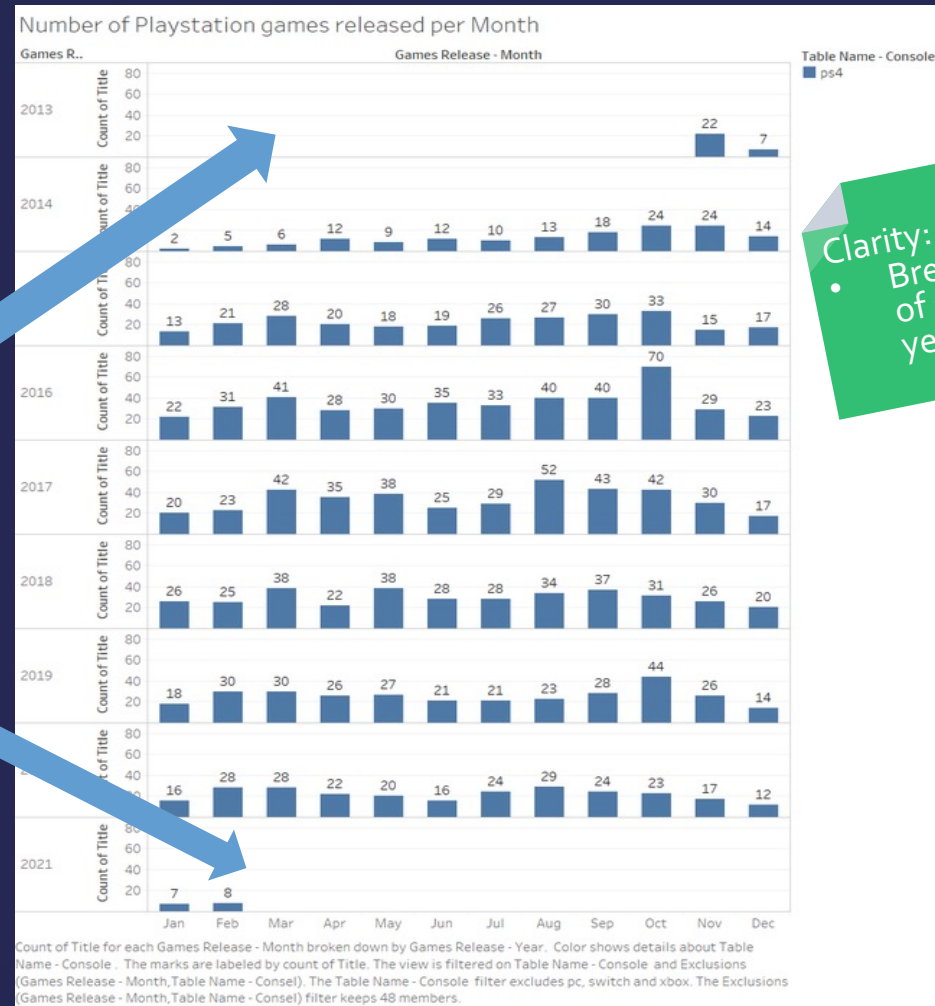# Clear Chart Two

02 Attributes leading to of clarity

- Distinct colors matching legend
- Clear legend
- Y-axis and X-axis clearly labeled
- Clear color scheme
- Distinct trend line is properly labeled

How Risky was COVID-19
for Ages: 85 Years Old and Over

Weekly Risk of Dying from COVID-19

Sex
Male
Female

1 in 14K
1 in 12K
1 in 10K
1 in 8K
1 in 6K
1 in 4K
1 in 2K

2020-05   2020-07   2020-09   2020-11   2021-01   2021-03

Year-Month

Comparable Risks of Death per Week:
Heart Disease (1 in 5.3k)
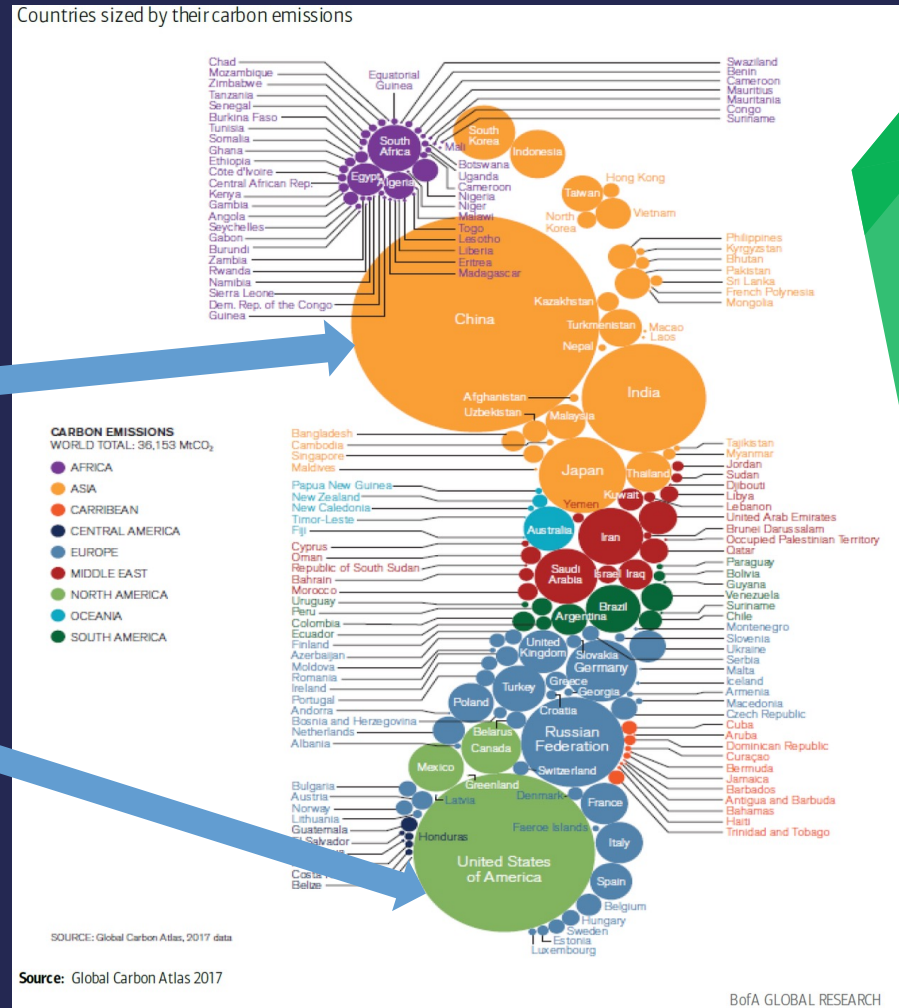
Muddled Chart Two

02   Attributes leading to lack of clarity

- Lacking simplicity
- Would be helpful to see the carbon emission percentages by population
- Difficult to read with small text

Countries sized by their carbon emissions

CARBON EMISSIONS
WORLD TOTAL: 36,153 MtCO₂

- AFRICA
- ASIA
- CARRIBEAN
- CENTRAL AMERICA
- EUROPE
- MIDDLE EAST
- NORTH AMERICA
- OCEANIA
- SOUTH AMERICA

SOURCE: Global Carbon Atlas, 2017 data

Source: Global Carbon Atlas 2017
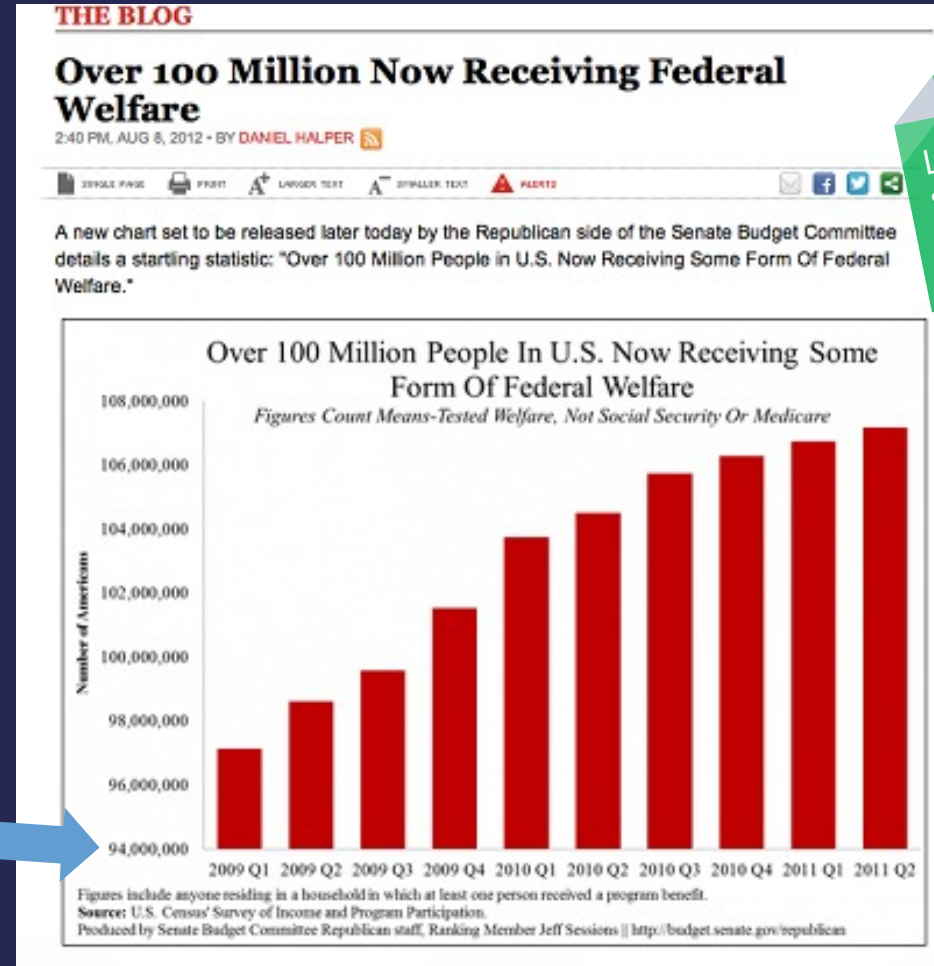
BofA GLOBAL RESEARCH

Clarity:
- Easily identifies China & USA are pollution contributors
- Shows carbon FOOTprint

Deceptive Chart One

01 **Deceptive Techniques**

- This graph makes the welfare issue appear out of control
- Y-axis starts at 94 million
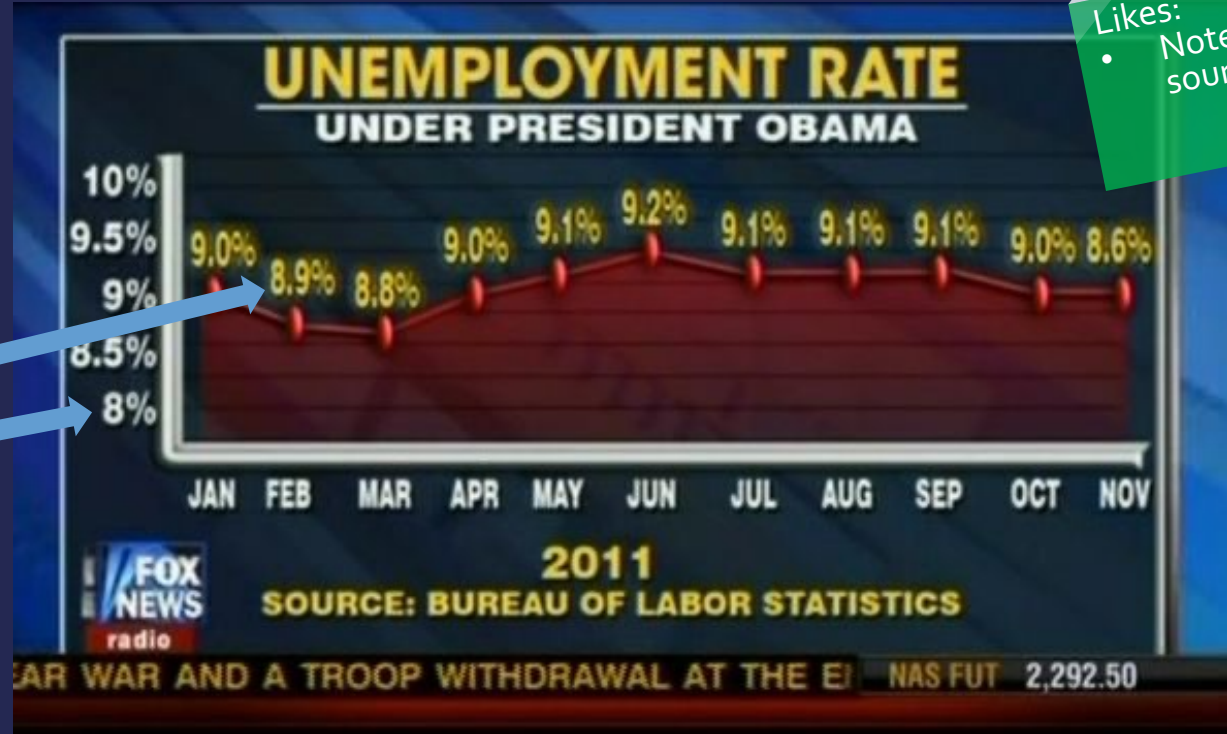- Does not note overall population to welfare recipients

Likes:
- Simplicity

Deceptive Chart Two

02 Deceptive Techniques

- Y-axis starts at 8%
- This graph makes unemployment rate look as a steep dip when it was a small .1% drop
- Employment trended up in Obama administration

Likes:
- Noted the source

UNEMPLOYMENT RATE
UNDER PRESIDENT OBAMA

10%
9.5%
9%
8.5%
8%

9.0% 8.9% 8.8% 9.0% 9.1% 9.2% 9.1% 9.1% 9.1% 9.0% 8.6%

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV

FOX NEWS radio

2011
SOURCE: BUREAU OF LABOR STATISTICS

AR WAR AND A TROOP WITHDRAWAL AT THE EI   NAS FUT   2,292.50

*Source: Fox News

Chart Critique One

01 Understand
Through Critique

- **Initial thoughts:** Pleasant color scheme, following application process
- **Intent:** Tracking job applications and their result - intent is clear
- **Misleading**: Misleading as to did the candidate or employer reject? The chart is unclear on who rejected.
- **Missing:** Labeling of the 2nd from the bottom labeling, initial applicant pool stem
- **3 Changes:**
  - 1) Font
  - 2) Label all items & add title
  - 3) Distinct color grouping

Likes:
- Color scheme

Dislikes:
- Do not understand color grouping
- Lots of whitespace

Ghosted: 5

Total Applications: 13

Final Round: 2

Offer: 1

Rejection after Final Round: 1

Rejection after Phone Interview: 1

Phone Interview: 1

Coding Challenge Received: 5

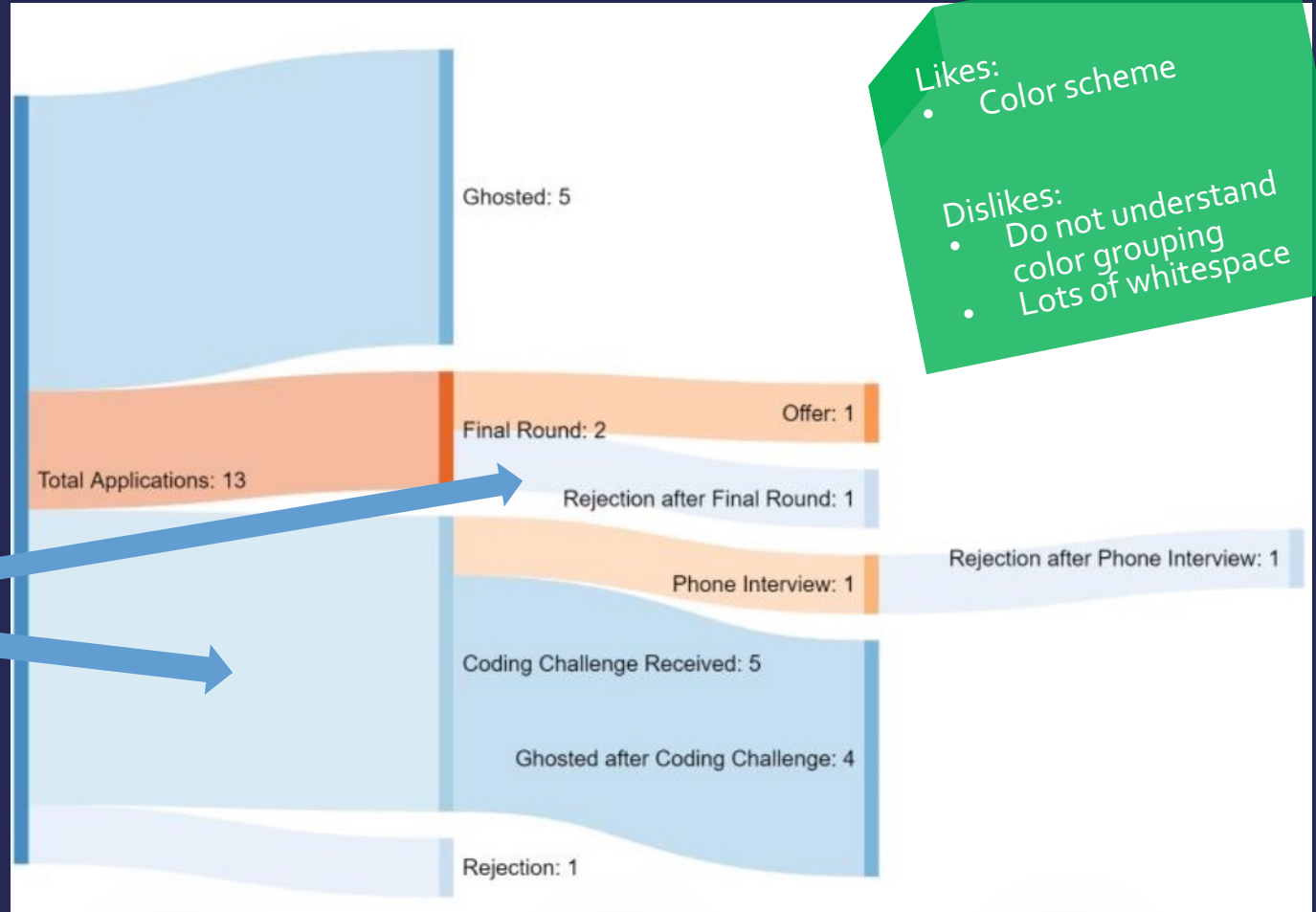Ghosted after Coding Challenge: 4

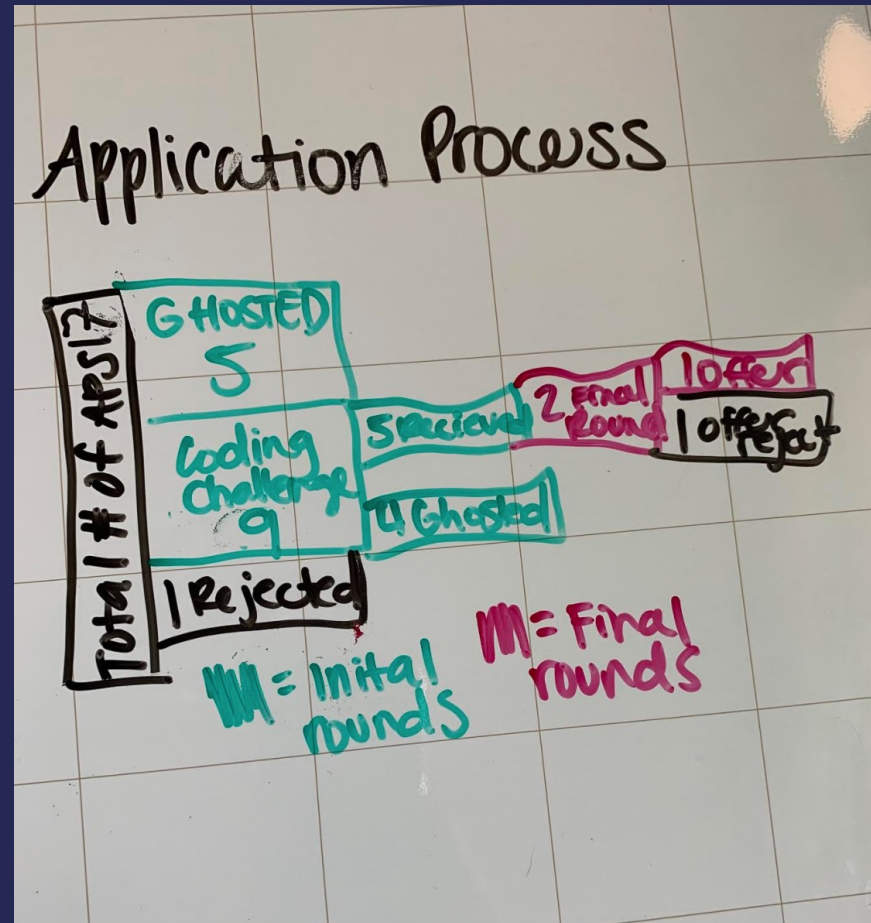Rejection: 1

Chart Critique One Sketch

Chart Critique Two

02 Understand
Through Critique

- <u>**Initial thoughts:**</u> Title is blatant
- <u>**Intent:**</u> Changing e-market trends – intent is clear
- <u>**Misleading**</u>: 670% and -77 % are huge gaps, wondering if 670% is due to disposable gloves and luggage, -77 is an investment piece (buy once)
- <u>**Missing:**</u> Group category labeling and dates
- <u>**3 Changes:**</u>
  - 1) Modest title size
  - 2) Different color than purple for title and icon
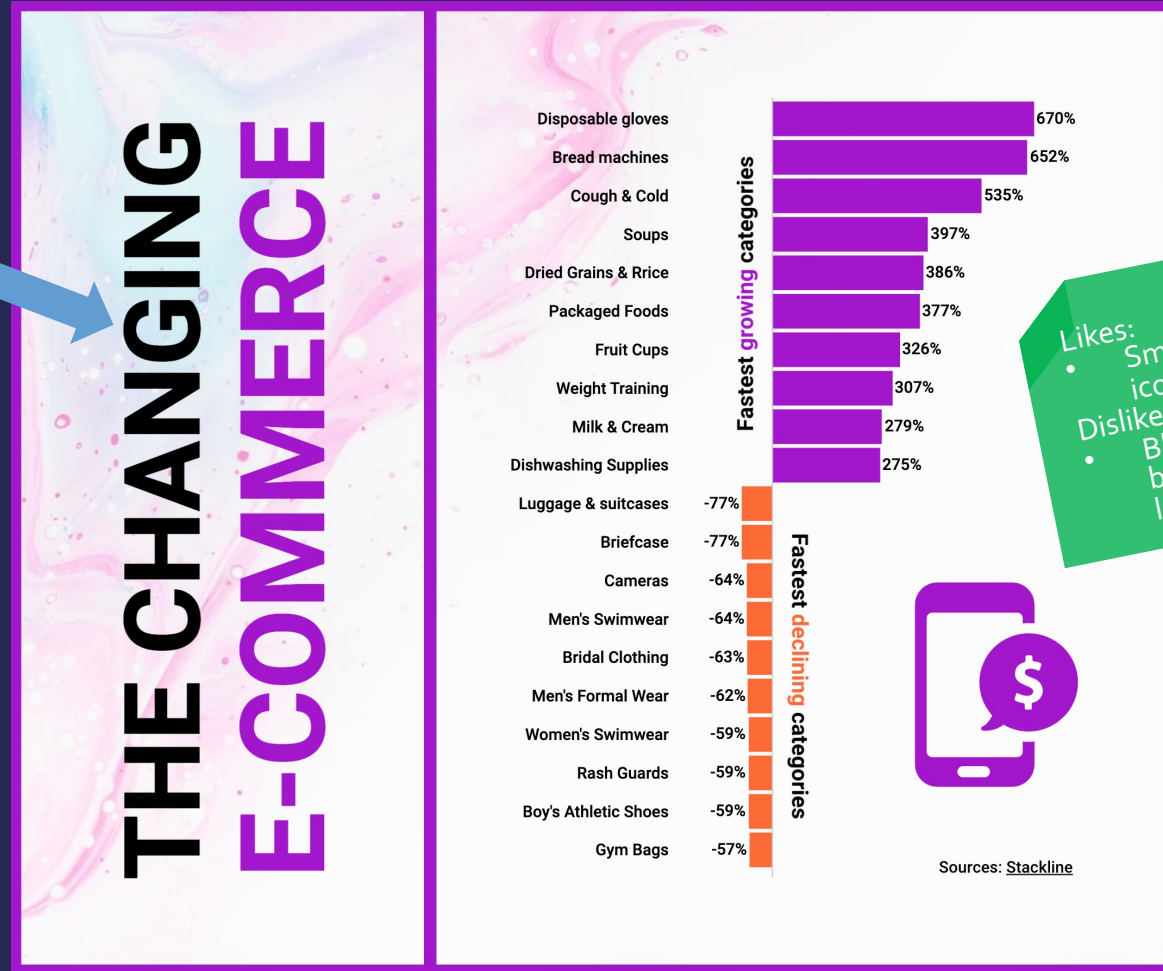 - 3) Category labeling

THE CHANGING E-COMMERCE

Fastest growing categories

Category	%
Disposable gloves	670%
Bread machines	652%
Cough & Cold	535%
Soups	397%
Dried Grains & Rrice	386%
Packaged Foods	377%
Fruit Cups	326%
Weight Training	307%
Milk & Cream	279%
Dishwashing Supplies	275%

Fastest declining categories

Category	%
Luggage & suitcases	-77%
Briefcase	-77%
Cameras	-64%
Men's Swimwear	-64%
Bridal Clothing	-63%
Men's Formal Wear	-62%
Women's Swimwear	-59%
Rash Guards	-59%
Boy's Athletic Shoes	-59%
Gym Bags	-57%

Sources: Stackline

Likes:
- Small phone icon

Dislikes:
- Blatant title being too large
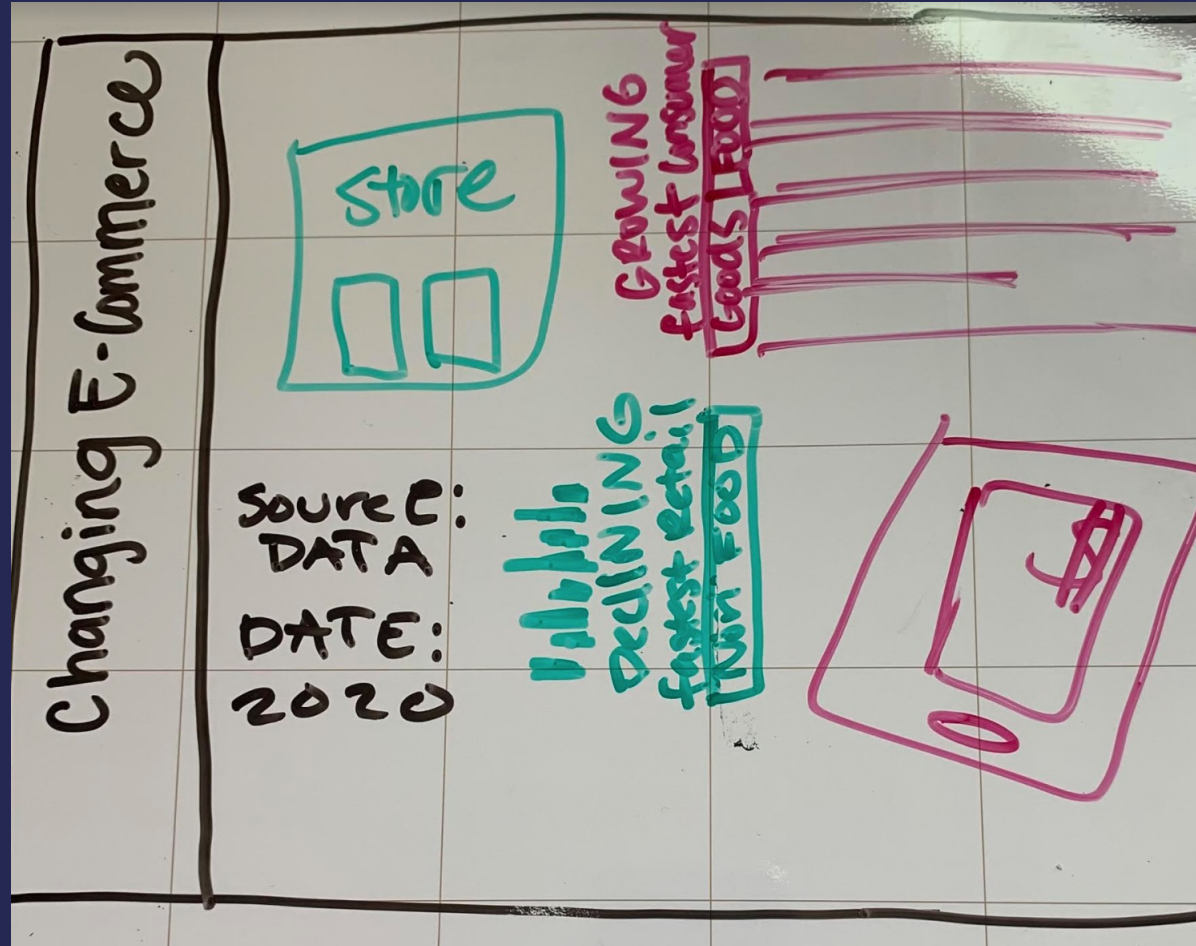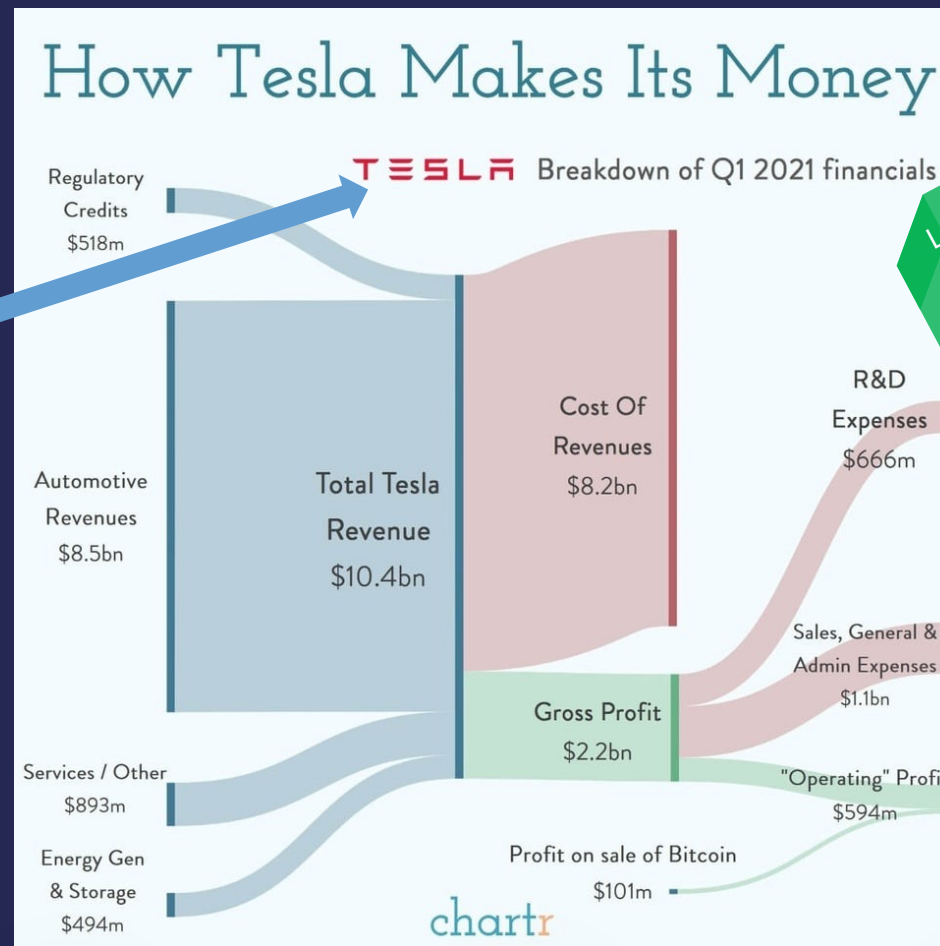
Chart Critique Two – Sketch

Chart Critique Three

03 **Understand Through Critique**

- **Initial thoughts:** Revenue costs are high at $8.2 billion, low margins
- **Intent:** Tesla's Q1 FY21 breakdown – intent is clear in title
- **Misleading:** Would like to understand more of the gross profit and 'operating profit' and why not grouped together
- **Missing:** Would be interesting to also see corporate taxes as Tesla also takes $518 million regulatory credits
- **3 Changes:**
  - 1) Bolder font
  - 2) Totals total
  - 3) Costs totals

Likes:
- Red is costs
- Green is profits
- Groupings
Dislikes:
- Missing taxes breakout

How Tesla Makes Its Money

TESLA Breakdown of Q1 2021 financials

Regulatory Credits $518m

Automotive Revenues $8.5bn

Services / Other $893m

Energy Gen & Storage $494m

Total Tesla Revenue $10.4bn

Cost Of Revenues $8.2bn

Gross Profit $2.2bn

R&D Expenses $666m

Sales, General & Admin Expenses $1.1bn

"Operating" Profit $594m

Profit on sale of Bitcoin $101m

chartr

How Tesla makes it's Money
Q1 FY 2021

Totals

Revenue $10.4bn

COST OF REV $8.2bn

TAXES

R&D

ADMIN

PROFIT

BITCOIN