

Week 16: Communicating Results

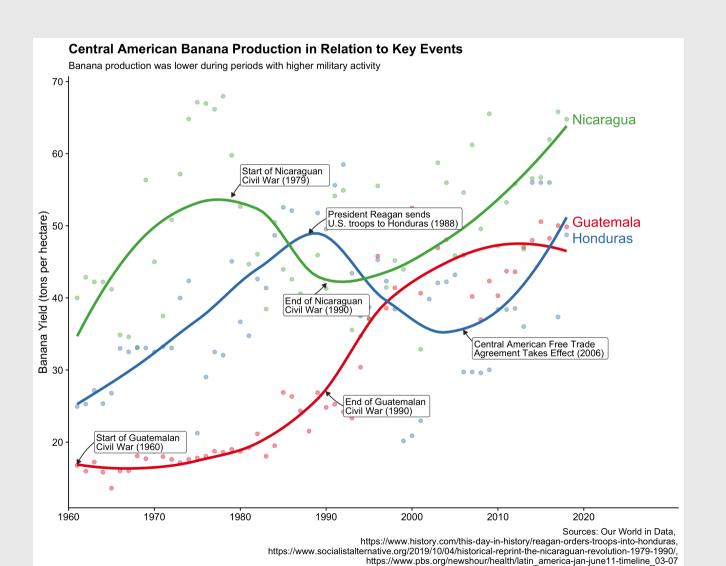
■ EMSE 4575: Exploratory Data Analysis

John Paul Helveston

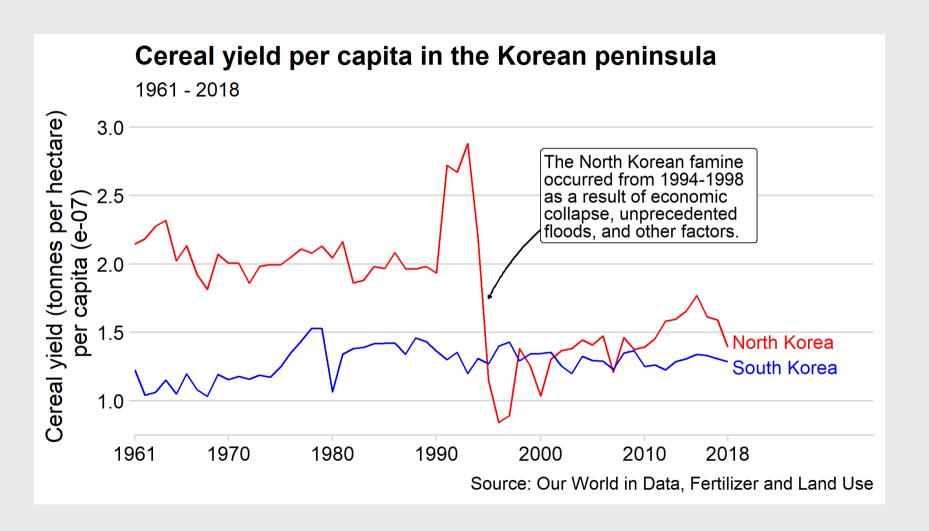
 April 28, 2021

Mini Project 3 Showcase!

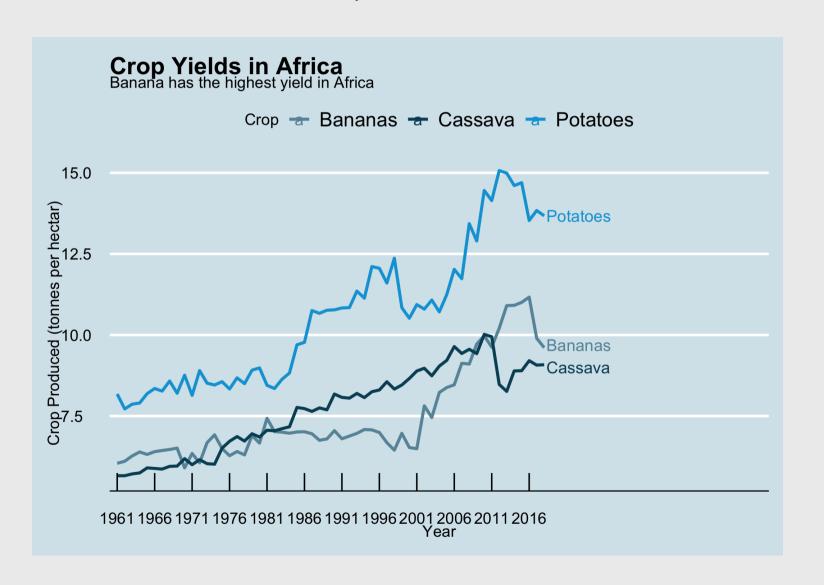
Good use of annotations



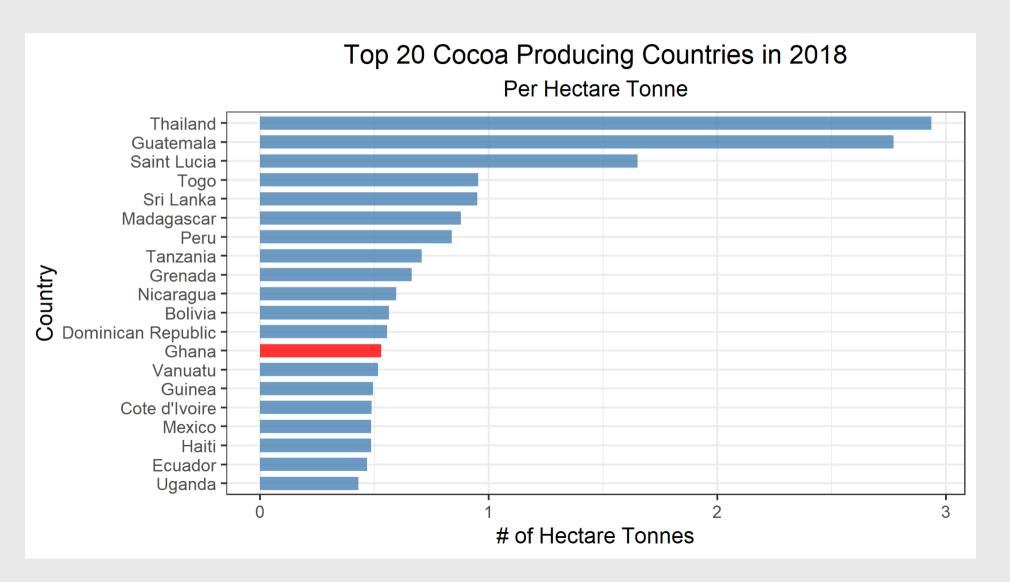
Good use of annotations



Pretty themes 🐆



Use of color



Week 16: Communicating Results

- 1. Telling a story
- 2. Designing slides
- 3. Giving a talk
- 4. "Final" thoughts

Download this cheetsheet for today's content

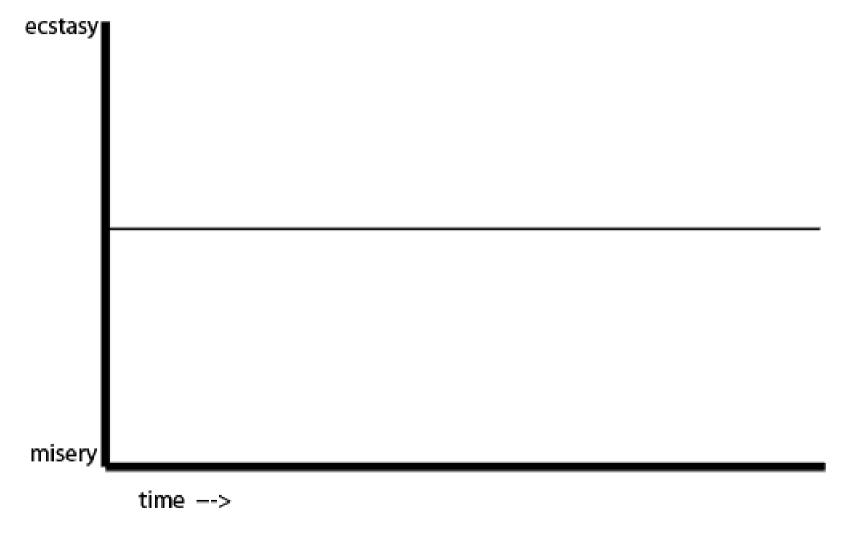
Week 16: Communicating Results

- 1. Telling a story
- 2. Designing slides
- 3. Giving a talk
- 4. "Final" thoughts

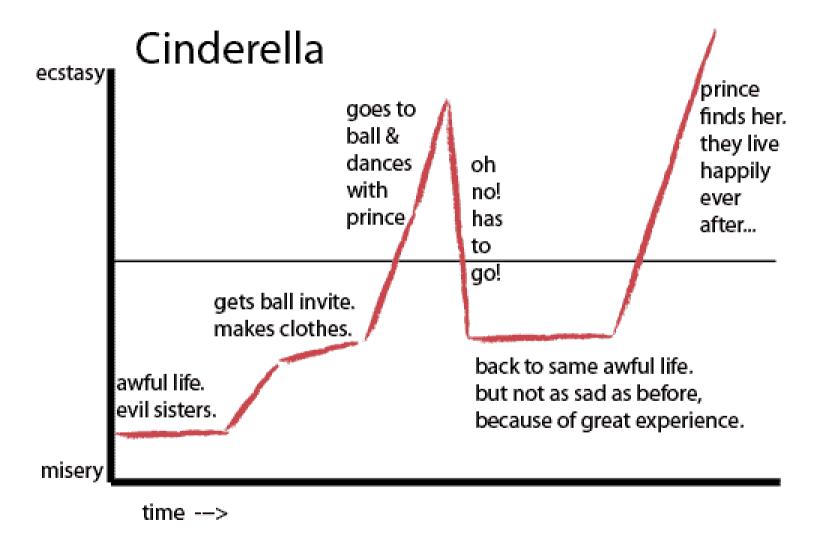
What is a story?

A story is a set of observations, facts, or events...that are presented in a specific order such that they create an **emotional reaction** in the audience.

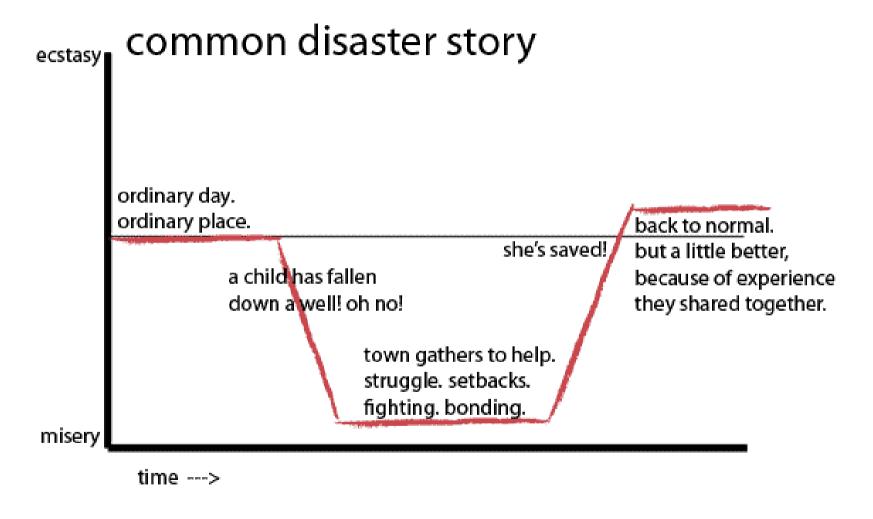
- Clause O. Wilke (2019), Chp. 29



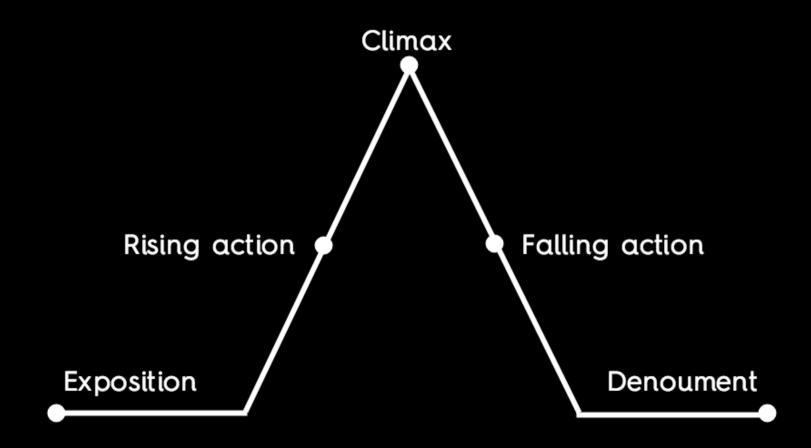
source 12 / 6



source 13 / 60



<u>Freytag's Pyramid</u>



Freytag's Pyramid: King Kong

Freytag's Pyramid: Research Project

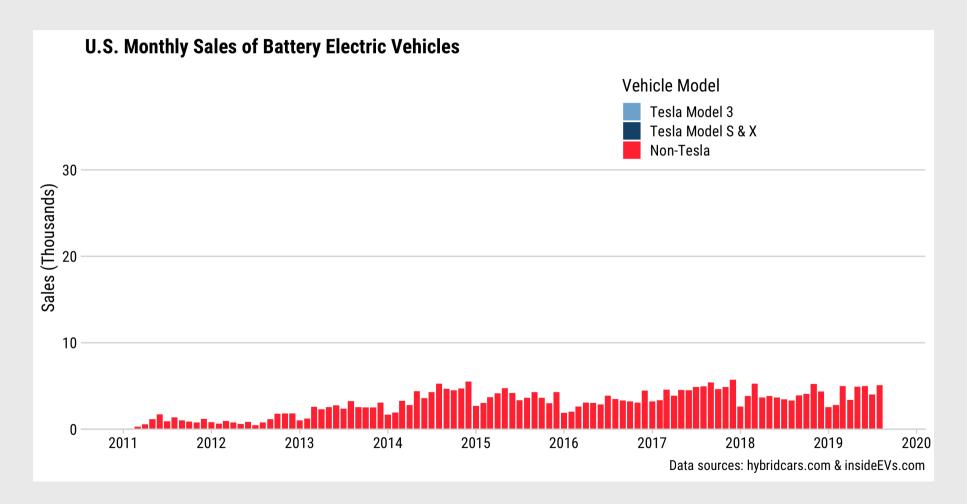
Freytag's Pyramid: Research Project

"A single (static) visualization will rarely tell an entire story"

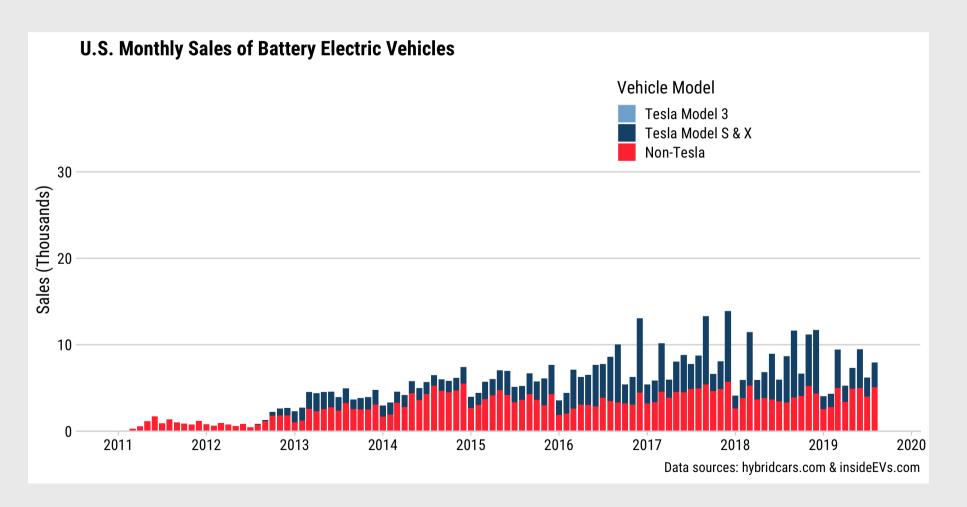
- Clause O. Wilke (2019), Chp. 29

Freytag's Pyramid: Research Project

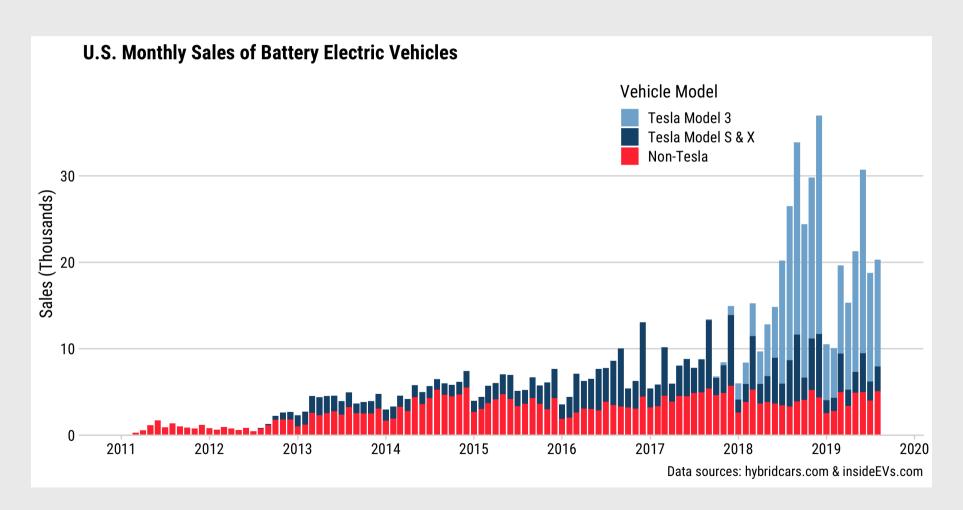
Use **layers** to build tension / provide context



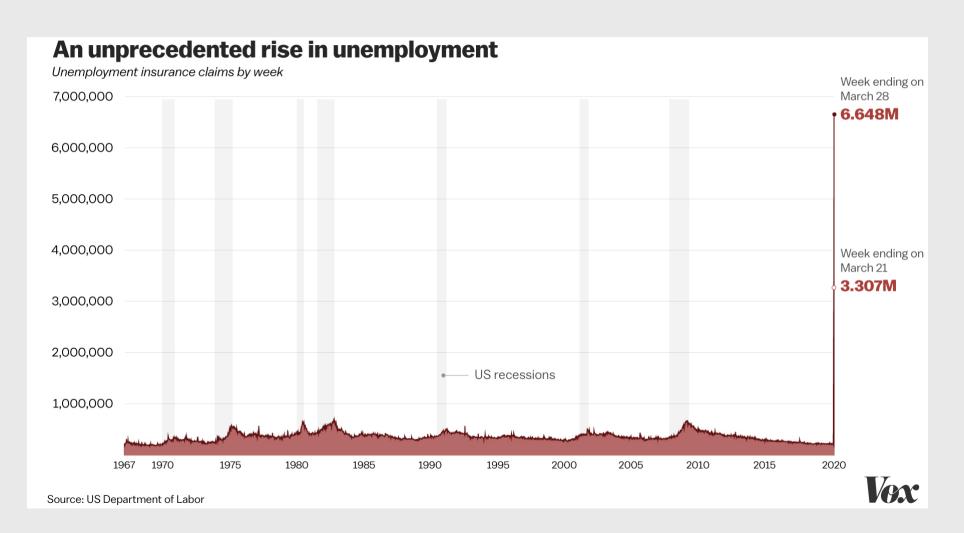
Use **layers** to build tension / provide context



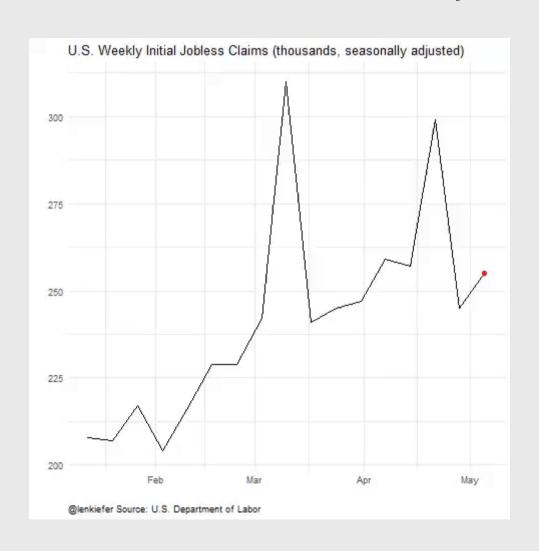
Use layers to build tension / provide context



Use animation to build tension / provide context

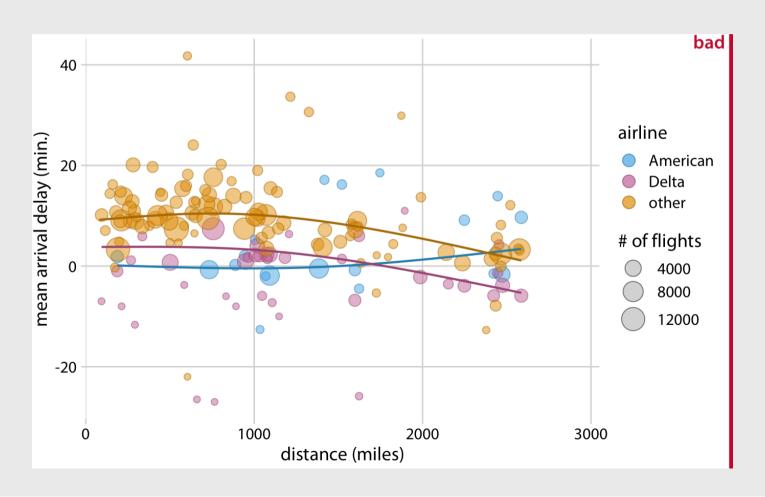


Use animation to build tension / provide context



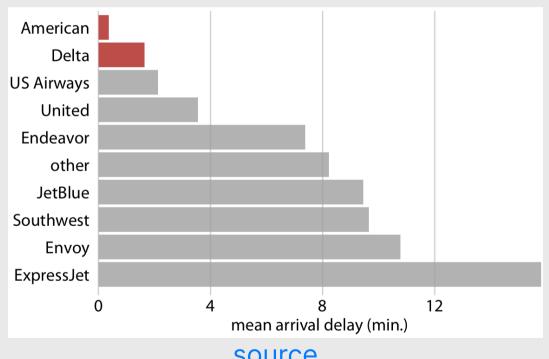
Make charts for the generals

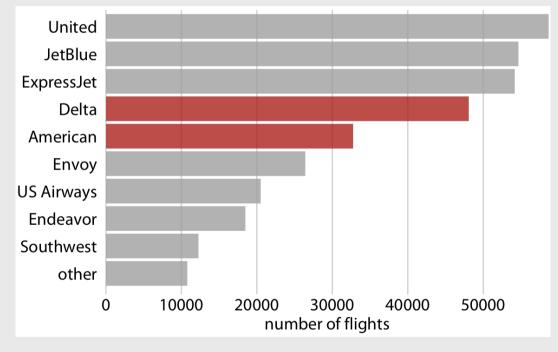
(i.e. keep it simple)



Make charts for the generals

(i.e. keep it simple)

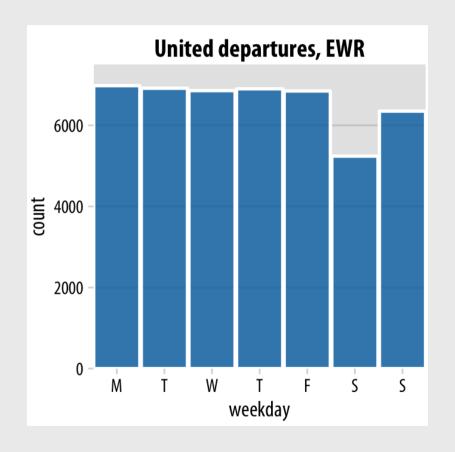




source

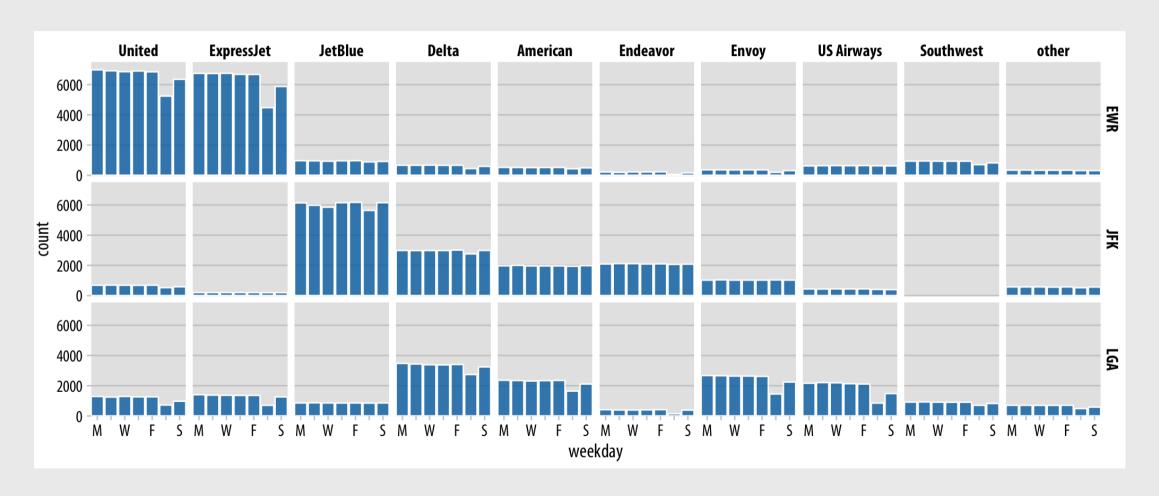
source

Build up towards complex figures



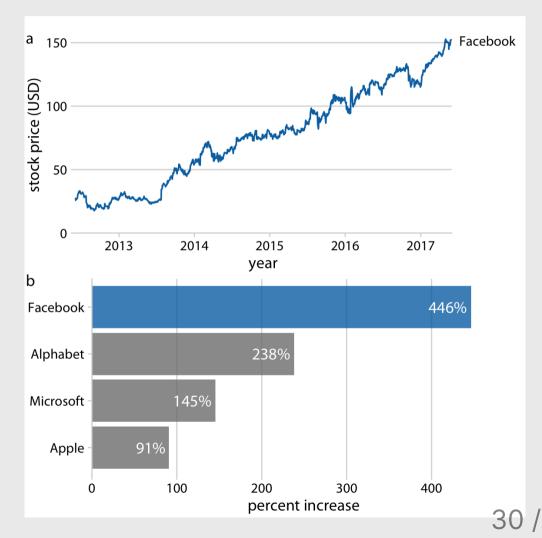
source

Build up towards complex figures



Be consistent, but don't be repetitive





Week 16: Communicating Results

- 1. Telling a story
- 2. Designing slides
- 3. Giving a talk
- 4. "Final" thoughts

Hitchcock's rule



Hitchcock's rule

The size of any object in your frame should be proportional to its importance to the story at that moment

Watch this example

Hitchcock's rule

The size of any object in your frame slide should be proportional to its importance to the story at that moment

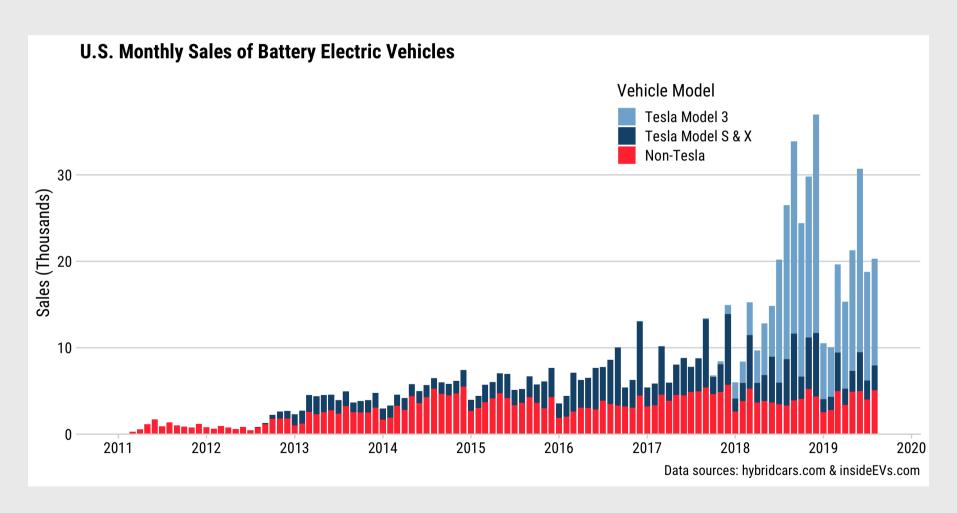
You will read this first

and then you will read this

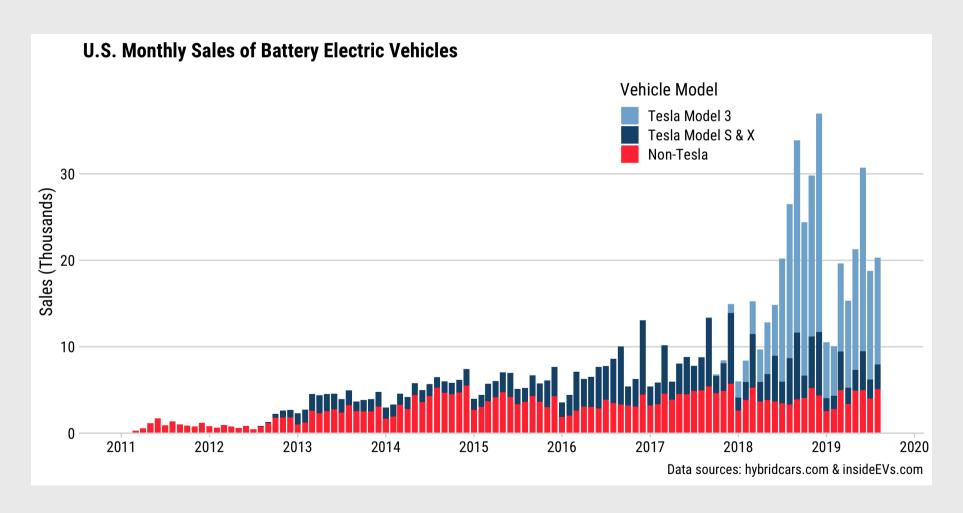
Put main point at top and use big font size!

(see Stephanie Evergreen's blog post "So What?")

Except for Tesla, EV adoption in the U.S. is **flat**



Tesla's Model 3 is a Game Changer for EVs



> 40pt font for titles

> 24pt font for all other text

(Exception: footer text can be small)

Think of fonts as pre-attentive attributes

San-serif fonts for most text

"Italic, serif fonts for quotes"

- Prof. Helveston

Consider using a light-colored background (tan / gray)

Use high contrast between font and background color

Dark text on a light background works well

Light text on a dark background also works well

Use high contrast between font and background color

Yellow text on a white background is horrible

Blue text on a black background is horrible

Use high contrast between font and background color

```
821134907856412043612
304589640981709812734
123450986124790812734
029860192837401489363
123479827961203459816
234009816256908127634
123459087162342015237
123894789237498230192
```

```
821134907856412043612
304589640981709812734
123450986124790812734
029860192837401489363
123479827961203459816
234009816256908127634
123459087162342015237
123894789237498230192
```

Avoid fonts like

Comic Sans

Papyrus

They make your work look amateurish

1 slide, 1 idea

Break up main points into multiple slides

Number your slides!



Remove "chart junk" from your slides

Exceptions in slider footer:

- References / data sources
- © Symbol

Example of an acceptable slide footer



If you are in person, consider using handouts (1-2 pages)

Week 16: Communicating Results

- 1. Telling a story
- 2. Designing slides
- 3. Giving a talk
- 4. "Final" thoughts

What are the first words you should say in a speech?

Watch this video to find out



How to start a speech

- 3. With a question that matters to the audience ("Have you ever...?")
- 2. With a shocking factoid ("There are more people alive today than have ever lived...").
- 1. Tell a story, talk about **people** ("Imagine...")

Development and Adoption of Plug-in Electric Vehicles in China

Presented by:

John Paul Helveston, Ph.D.
Postdoctoral Fellow
Institute for Sustainable Energy
Boston University

January 26, 2018





3) With a question that matters to the audience:

"What's the current federal subsidy for buying an electric car in the US?"

2) With a shocking factoid

"50% of the world's EVs are made by Chinese automakers"

1) Tell a story, talk about **people**

"Whenever I talk with people about electric cars, they usually ask about Tesla..."

Your turn



Brainstorm different strategies for how to start your presentation for your projects:

- 1. Tell a story, talk about **people** ("Imagine...").
- 2. With a shocking factoid ("There are more people alive today than have ever lived...").
- 3. With a question that matters to the audience ("Have you...?").

Afterwards, we will go around the "room" and one person from each team will practice giving their start to their presentation.

Project teams:

- 1. Gender pay gap (Katie, Alexa, Gabriel)
- 2. Poverty and sustainability (Eliese, Michael, Kazi)
- 3. EIA EV sales forecasts (Helena, Bridget)
- 4. Is Hamilton the fastest F1 driver? (Cooper, Matthew, Omar Al-za'atreh)
- 5. National GDP & Olympic performance (Izzy, Alejandro, Omar Alkhadra)
- 6. NFL player suspensions (Kareemot, Ebun, Kyara)
- 7. National climate performance (David, Kaveena, Carolyne)
- 8. Local protectionism in China's EV industry (Lujin)
- 9. Public attitudes towards autonomous vehicles (Leah)

Week 16: Communicating Results

- 1. Telling a story
- 2. Designing slides
- 3. Giving a talk
- 4. "Final" thoughts

Final Reports (Due 05/02...you have 4 days!)

- Read prompt carefully
- Be sure to include a copy of the data you're using
- Use a theme \(\frac{1}{2} \)
- Don't forget to publish your report on RPubs
- Check for spelling errors:

```
spelling::spell_check_files("report.Rmd")
```

Final Presentations (Due 05/04)

- We'll watch these during class period on May 05
- 9 projects x 10 mins each
- At the end, we'll announce awards:
 - Janitor Award: For most intense wrangling of messy data
 - Shiny Award: For single most impressive visualization

Final Interviews (05/05 - 05/07)

- Schedule for a 10-minute interview using this link (also posted in Slack)
- I'll be emailing you a list of questions
- Suggestions from Prof. Mazzuchi:
- 1. Bring water to drink it will calm you when you are nervous and your mouth dries up. You can also pause and think while you drink.
- 2. Don't answer right away think a bit.
- 3. Answer the question asked. Don't try to impress or I will ask more questions.
- 4. Don't say "I don't know." Try and I will help you.