

Enhancing graphics

Session 14

PMAP 8921: Data Visualization with R
Andrew Young School of Policy Studies
Fall 2023

Typical publication workflow

Create plot in R and ggplot2

Export plot as a vector

Edit the vector in an external program
to make it match in-house style
(or just be fancy and well-designed in general)

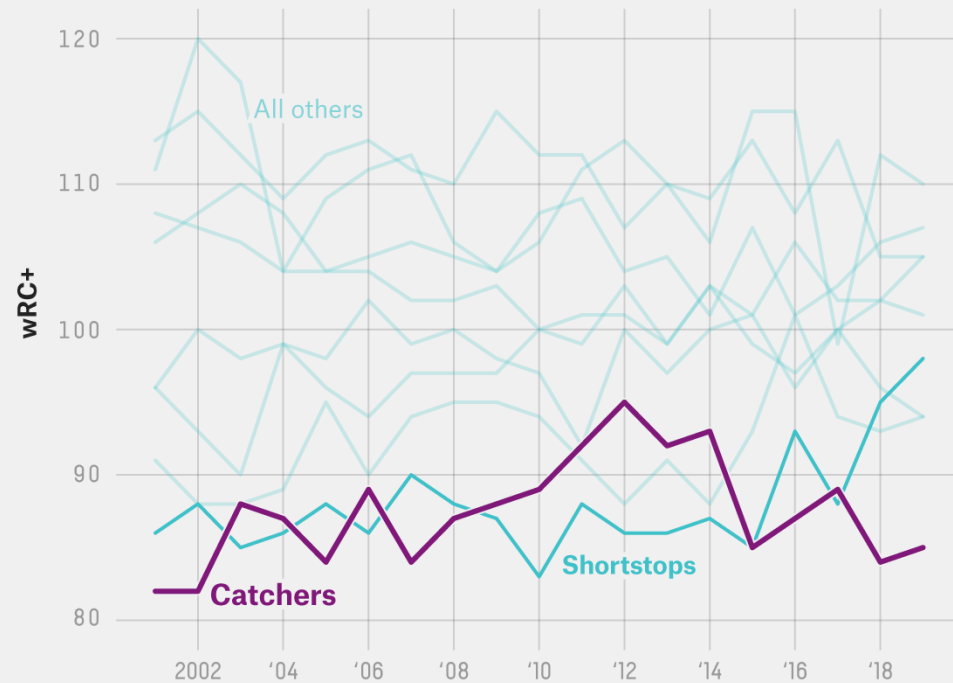
or

Extract parts of the vector for use in Javascript for interactivity

In-house styles

Catchers have taken over as the worst hitters in baseball

Offensive efficiency, as measured by weighted runs created plus (wRC+), by position in MLB since 2001

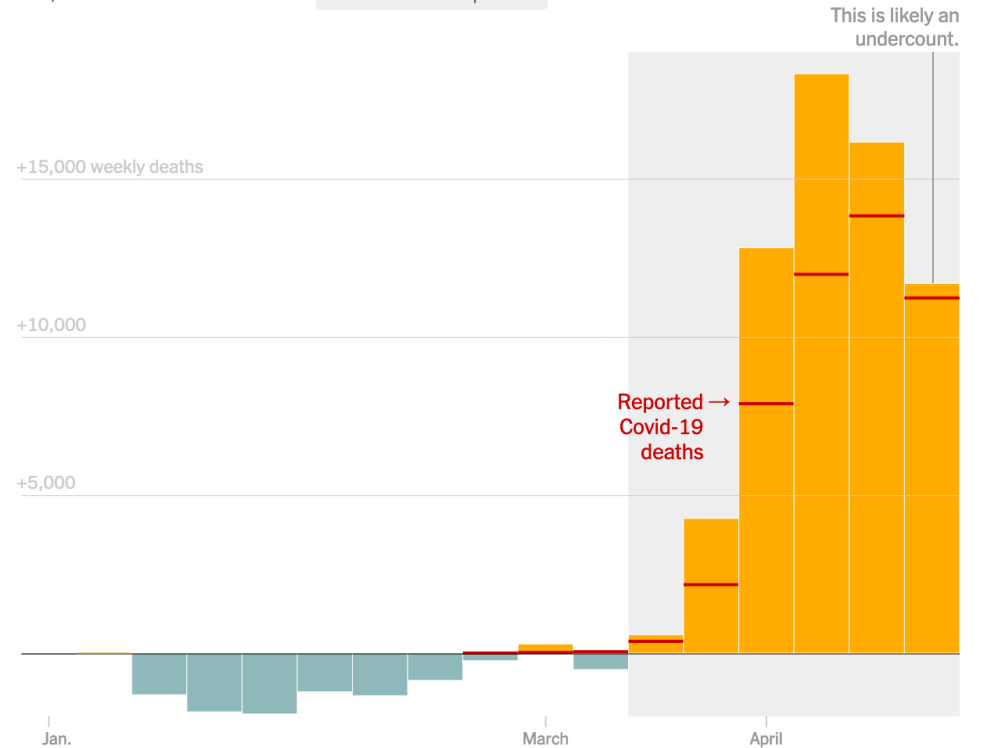


FiveThirtyEight

SOURCE: FANGRAPH'S

U.S. Deaths Above or Below Normal

63,700 excess deaths from March 15 to April 25



Note: The chart shows the difference between measured deaths and expected deaths each week. Overall deaths above the expected number are considered to be "excess deaths." This chart does not include eight states with unreliable data.

Hot dogs

Winners from Nathan's Hot Dog Eating Contest

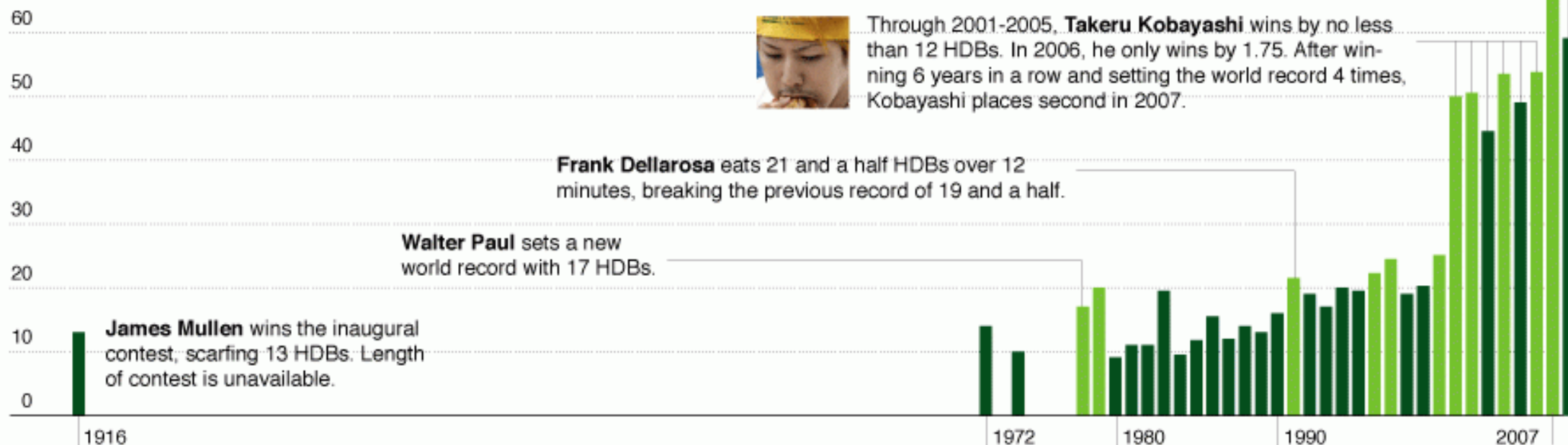
It's that time of year again. Since 1916, the annual eating competition has grown substantially attracting competitors from around the world.



For the first time since 1999, an American reclaims the title when **Joey Chestnut** consumes 66 HDBs, a new world record. Chestnut repeats in 2008.

70 Hot dogs and buns (HDBs)

NEW WORLD RECORD



*Data between 1916 and 1972 were unavailable.

Source: Wikipedia and Nathan's Famous

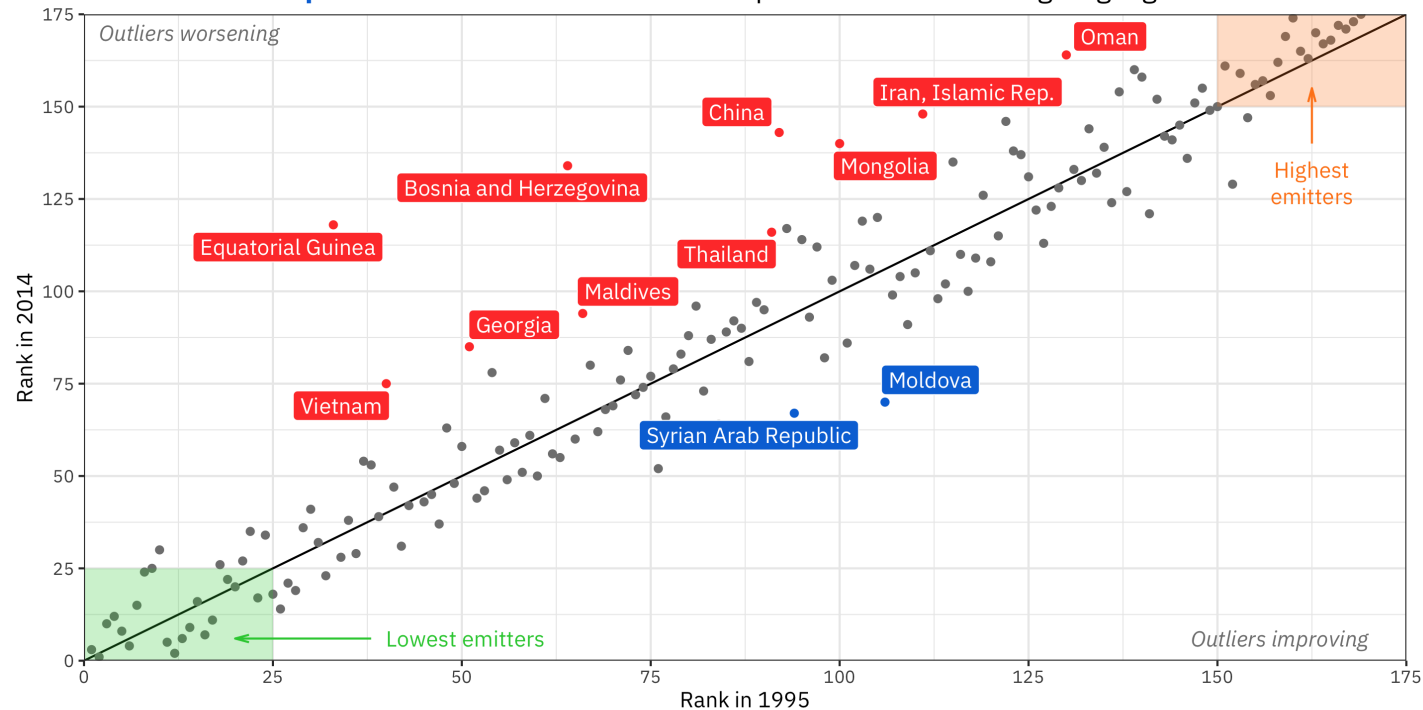
FlowingData

This is all changing though!

This was made 100% in R and ggplot!

Changes in CO₂ emission rankings between 1995 and 2014

Countries that **improved** or **worsened** more than 25 positions in the rankings highlighted



Source: The World Bank.
Countries with populations of less than 200,000 excluded.

The way of the future

**{patchwork} and {ggtext}
are removing the need to edit
graphs by hand in Illustrator**

You can replicate an entire in-house graphic style with R alone nowadays

**Interactivity not quite at the same level,
but it's getting there with {plotly}**