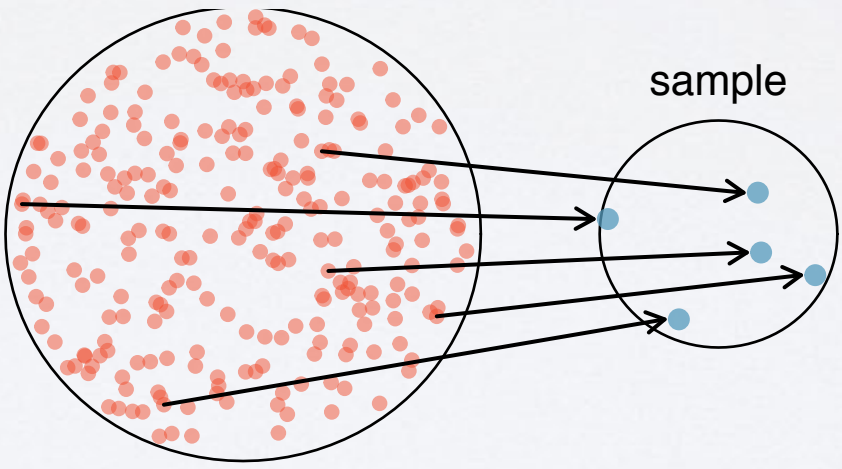
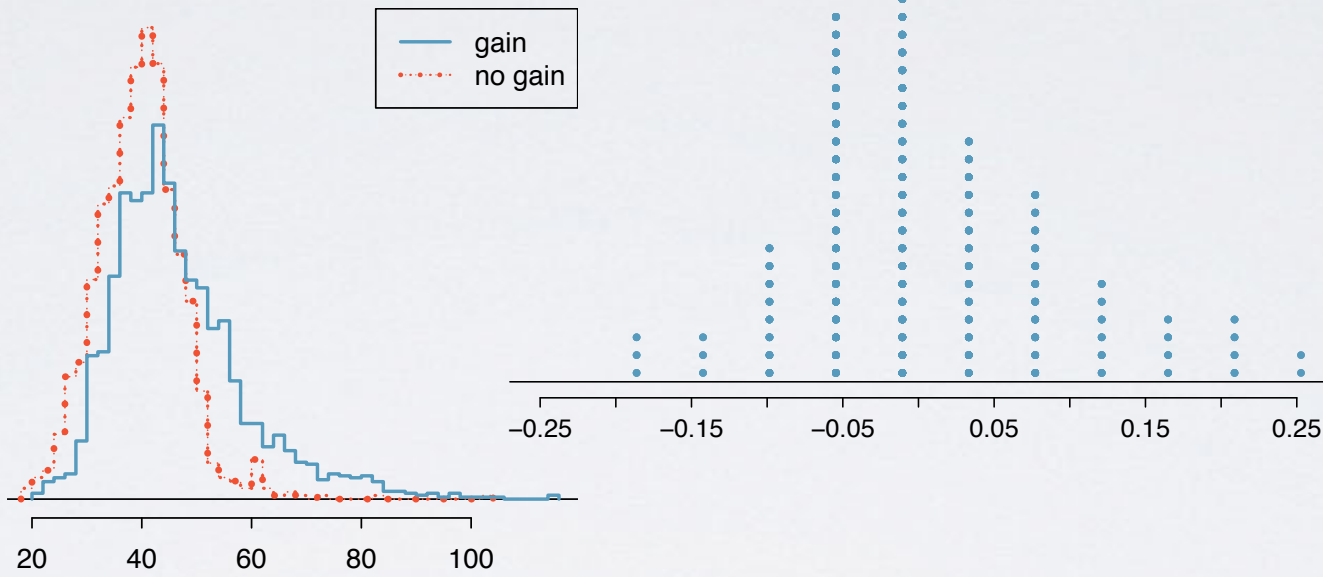
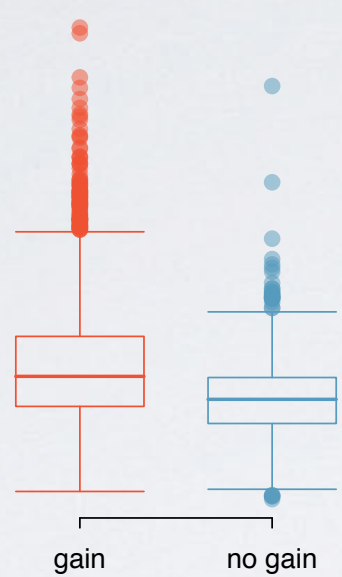
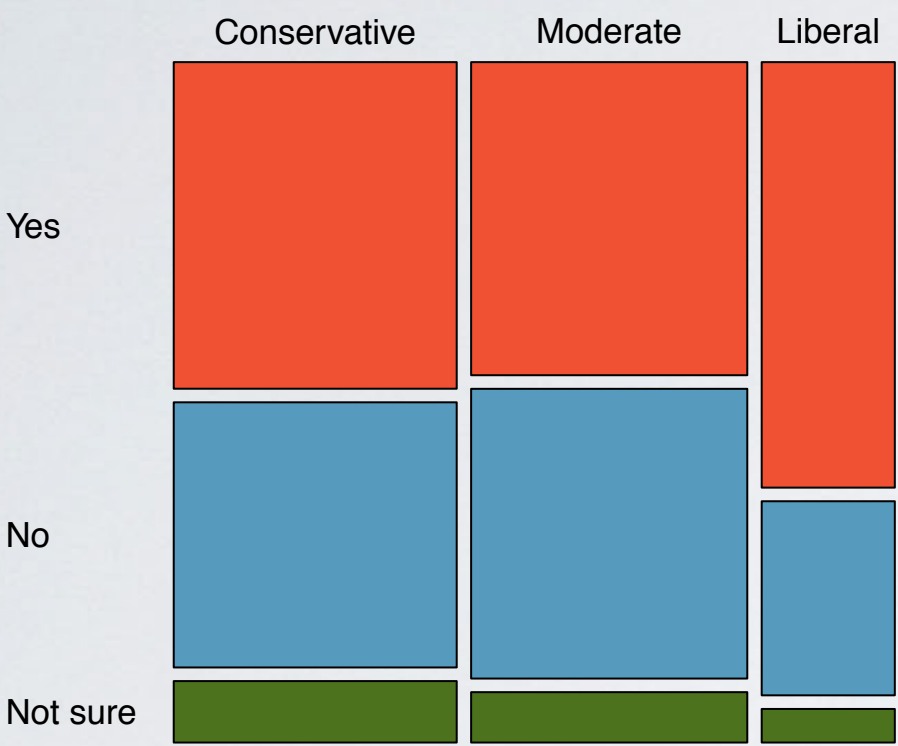
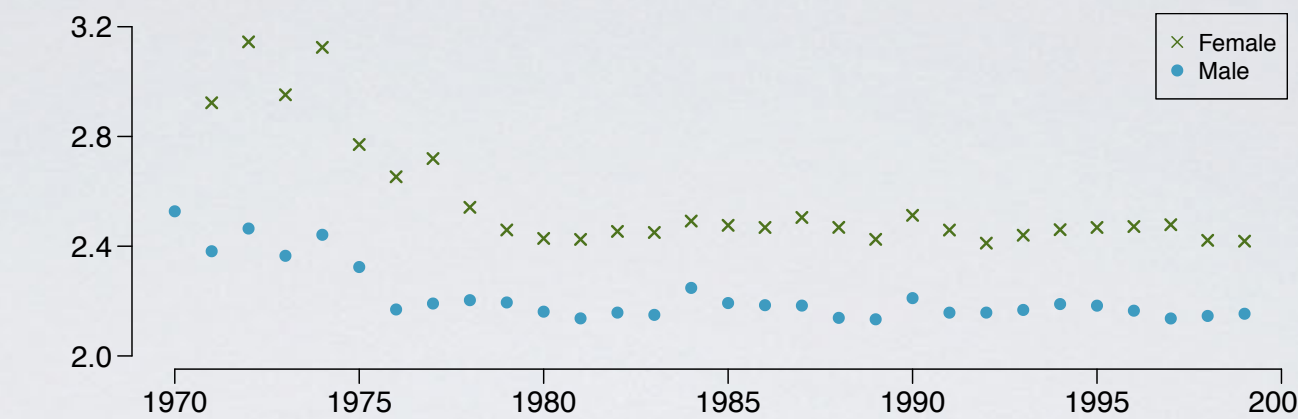


introduction to data





early
smoking
research

anecdotal

*“My uncle smokes
three packs a day
and he’s in perfectly
good health”*

*“smoking is a complex
human behavior, by its
nature difficult to study,
confounded by human
variability”*

Source: Brandt, The Cigarette Century (2009)

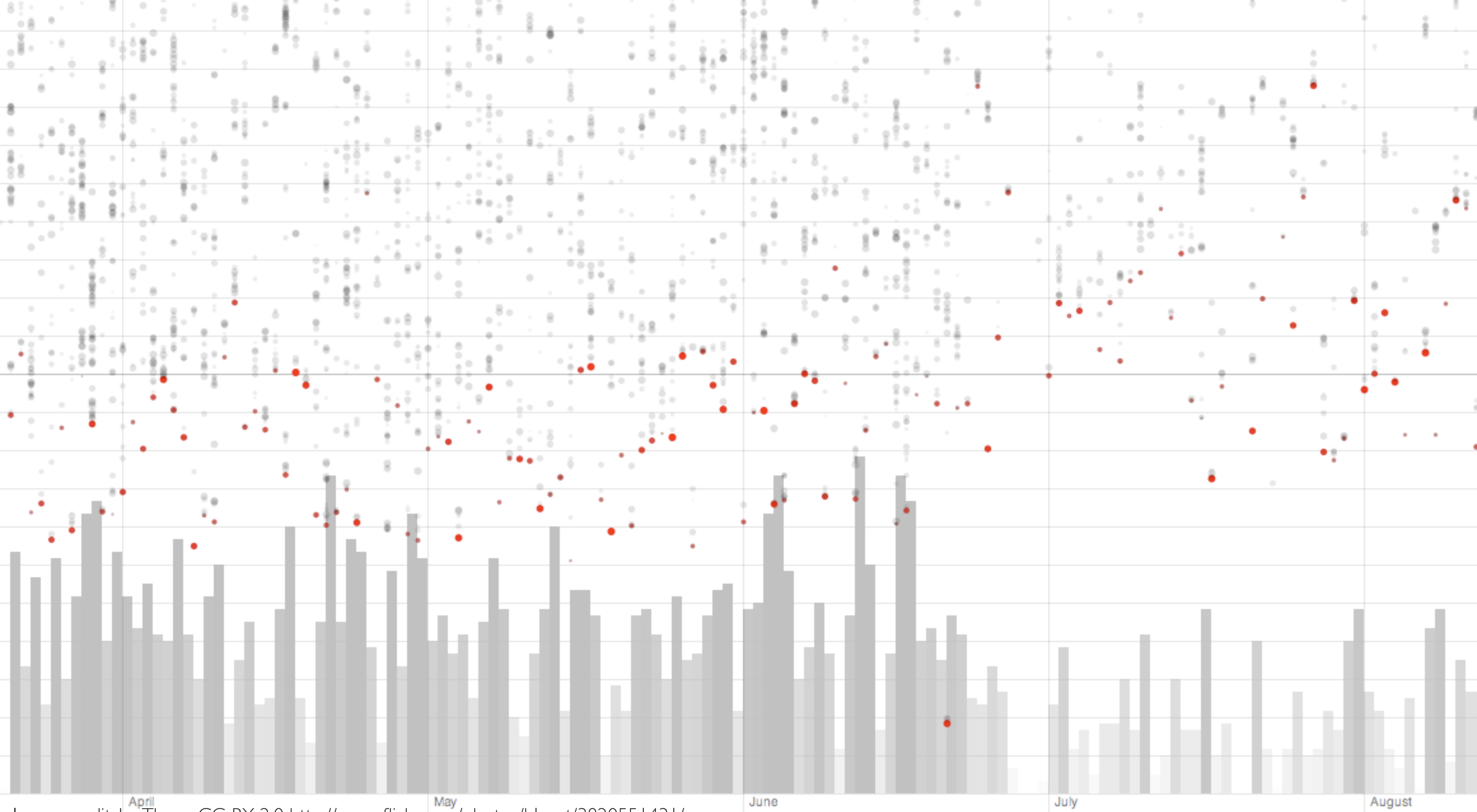


Image credit: Jer Thorp CC-BY 2.0 <http://www.flickr.com/photos/blprnt/3820551431/>

**populations
and
samples**

**research
question**

**Are consumers
of certain
alcohol brands
more likely to
end up in the
emergency
room with
injuries?**

population

Everyone

sample

**ER patients
at the Johns
Hopkins
Hospital
in Baltimore
in the US**

**generalize
to**

**Residents
of
Baltimore**

Source: Jernigan, David H., et al. "Alcohol brand use and injury in the emergency department: A pilot study." *Substance use & misuse* (2013).

population

sample

design

scope

**exploratory
data
analysis**

inference