ERHS 535 Homework #4

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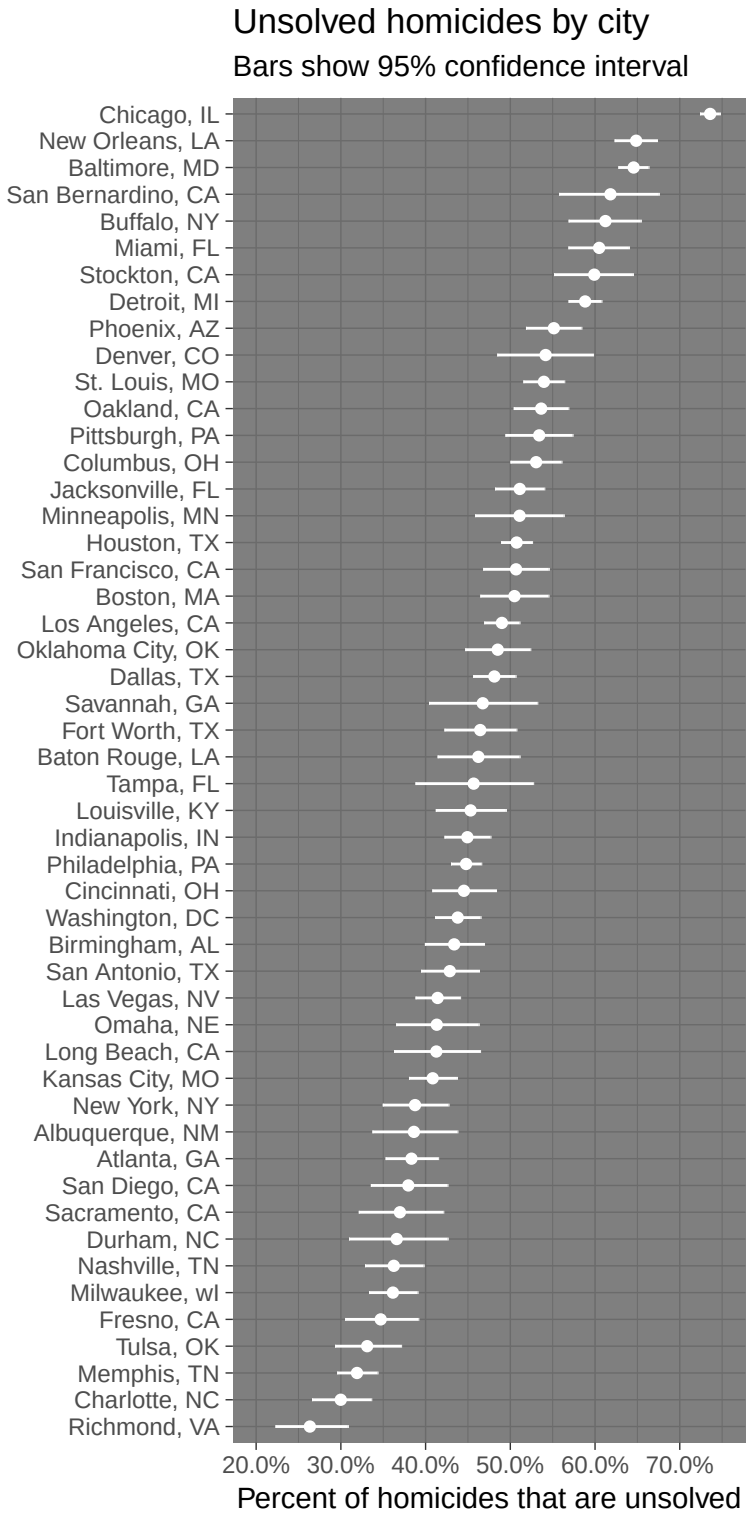
Unsolved homicides in Baltimore, MD

```
##
##  1-sample proportions test with continuity correction
##
## data:  baltimore$n_unsolved out of baltimore$n_homicides, null probability 0.5
## X-squared = 239.01, df = 1, p-value < 2.2e-16
## alternative hypothesis: true p is not equal to 0.5
## 95 percent confidence interval:
##  0.6275625 0.6631599
## sample estimates:
##         p
## 0.6455607
```

Unsolved homicides by city

```
unsolved_prop %>%
  mutate(city_name = fct_reorder(city_name,
                                 estimate)) %>%
  filter(city_name != "Tulsa, AL") %>%
  ggplot(aes(x = city_name,
             y = estimate)) +
  geom_point(color = "white") +
  geom_errorbar(color = "white",
                aes(x = city_name,
                    ymin = conf.low,
                    ymax = conf.high,
                    width = 0)) +
  coord_flip() +
  labs(title = "Unsolved homicides by city",
       subtitle = "Bars show 95% confidence interval",
       x = NULL,
       y = "Percent of homicides that are unsolved") +
  scale_y_continuous(limits = c(.2, .75),
                     breaks = c(.2, .3, .4, .5, .6, .7),
                     labels = percent) +
  theme_dark()
```


Unsolved homicides by city
Bars show 95% confidence interval
Chicago, IL
New Orleans, LA
Baltimore, MD
San Bernardino, CA
Buffalo, NY
Miami, FL
Stockton, CA
Detroit, MI
Phoenix, AZ
Denver, CO
St. Louis, MO
Oakland, CA
Pittsburgh, PA
Columbus, OH
Jacksonville, FL
Minneapolis, MN
Houston, TX
San Francisco, CA
Boston, MA
Los Angeles, CA
Oklahoma City, OK
Dallas, TX
Savannah, GA
Fort Worth, TX
Baton Rouge, LA
Tampa, FL
Louisville, KY
Indianapolis, IN
Philadelphia, PA
Cincinnati, OH
Washington, DC
Birmingham, AL
San Antonio, TX
Las Vegas, NV
Omaha, NE
Long Beach, CA
Kansas City, MO
New York, NY
Albuquerque, NM
Atlanta, GA
San Diego, CA
Sacramento, CA
Durham, NC
Nashville, TN
Milwaukee, wI
Fresno, CA
Tulsa, OK
Memphis, TN
Charlotte, NC
Richmond, VA
20.0%
30.0%
40.0%
50.0%
60.0%
70.0%
Percent of homicides that are unsolved