Title: *How to Lie With Statistics*
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Five Q's to ask

1. Who Says So?
    a. Look for bias, do they have something to prove? Conscious bias - direct or ambiguous statement, may favor some data and suppress other data, selected particular unit of measurement to support finding, improper measure such as mean where a median would be better suited, unconscious bias - only paying attention to the good, not the bad, missing other factors at play
2. How Does He Know?
    a. Biased sample, is it a small subsection of a larger group making a general statement, is the sample large enough for a reliable conclusion to be made
    b. Test of significance will show if conclusion is enough to mean anything and can confirm adequacy of sample to support conclusion drawn
3. What's Missing?
    a. How many cases, correlation without measure of reliability (probable or standard error) should not be taken seriously
    b. Watch out for avg where mean and median may differ substantially
    c. Context, index without proper base, factor that caused a change to occur (i.e. greater sales in April than previous year but Easter was in March year before, April this year), total deaths due to cancer (rather than death rate) may be misleading because there are more people now and it is listed compared to "causes unknown" in the past
4. Did Somebody Change the Subject?
    a. Reporters in competition to dig up crime stats and outdo each other to show crime wave when there was no increase evident in police reports, british headline saying that he's bathe more than she's based on verbal reporting of 6000 "representative" british households (said they do, not necessarily true), "back-to-the-farm movement" when census showed half a million more farms in 1935 than 1930 (but the definition of what constituted a farm had changed, adding 300,000 already existing, yet newly considered farms to leger)
    b. "Population" of large area in China 28 million according to census for tax and military purposes, and 105 million 5 years later when the census was for famine relief
5. Does it Make Sense?
    a. Use common sense, population trends/forecasting based on assumption of no change could lead to substantial over- or under- estimation