

Lies, Dam Lies, and Statistics

Or Garbage in, Garbage Out; About Discouraged Workers; About Non-Reporting of Crimes

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This essay explains in what ways we can't always rely on statistics and polls; and why, as societal norms break down, this societal breakdown can get worse, while remaining under the radar of officialdom. By analogy, it can also get better, unmeasured by statistical analysis.

Recent news stories talked about a reduction in crime here in the U.S. I don't plan to look into the data, but I do plan to explain some of the issues with "data" in general. I used to teach Business Research Methods to MBA students, and supervise their research projects, the equivalent of a Master's Thesis in the program. Many of the students used survey research in their projects – it's quick and easy, as compared to trying to find objective data out in the field.

Since the purpose of the thesis was to teach them how to put together a research project, and since they also took "Business Research Methods," and since their time was limited, I did not ding them on statistically-unreliable methods. But here's the truth about survey research:

First, the response rate is fairly low, unless you mandate a response. That is not necessarily a representative sample. (See below for what a representative sample is.) People who respond may not be typical. They may have a reason to want to respond. Or, if they have not bought into the value of survey research, they may give false answers. Please see the next point.

Second, human beings often answer in a way that makes them look good. If they plan to vote for Donald Trump, they may not say so, for example, since others scorn him. (Polling is one type of survey research, as I expect you know. It is more reliable than many, because it is done by professionals who understand its drawbacks.)

Third, an unsophisticated or unscrupulous researcher can bias the answers, by the nature of the questions or the order in which the respondent sees or otherwise perceives them. Consider this one: "Have you stopped beating your wife yet?" There is no option to say, "I don't beat my wife," or, "I don't like your premise, and I won't answer your questions anymore."

Fourth, it is hard to get a "representative sample." That is, it would be prohibitively expensive to poll everyone, so we need to try as hard as we can to make sure we have a "random sample" of the population whose opinions or ideas or behaviors we are investigating. If the sample is truly random, and if we have found a way to obtain it that gives everyone an equal chance of being represented in the sample, then we have a "representative sample."

But, how do we find "everyone"? Are they in the phone book? Do we walk from door to door? If so, which parts of the city will we select? How do we randomize the sample? Do we pull papers out of a hat, or drop pins on the phone book? Increasingly, we use computers. But what if the computer database doesn't include everyone, or everything that is relevant?

So, those are some of the issues with statistical analysis in general, and survey research in particular.

Moving on, when we define the “Unemployment Rate,” we count among the unemployed only those looking for work. (Or, that’s how it was when I learned it.) There is a category of workers called “Discouraged Workers” – people who would like to work but have stopped even trying to find work. The unemployment rate does not count them. I will not complicate the issue with other challenges of figuring out what is going on in the labor force. I hope that was enough.

And, when we investigate crime statistics, we do not observe unreported crimes. I have met people – I am, actually, one myself – who won’t report a crime because they do not expect anything to be done about it. And, I have attended meetings in various places – my memory processes what I consider the essence of things, not peripheral details like when and where – and the police have told me that, if crimes are not reported, their departments are not allocated the funds to address these crimes. I expect you can see how this might become a vicious cycle:

Crimes aren’t reported; police aren’t given adequate funds; more crimes occur; more crimes are unreported; fewer funds are given, etc. etc. So, I have started saying to anyone who will listen to me about this, please report the crimes. It’s just paperwork. Maybe nothing will be done today, or even tomorrow. But eventually the people who allocate the funds will get the picture.

And, with regard to self-reinforcing, as opposed to self-limiting, behavior of societies and subgroups within societies, many papers in economics have been written about “city growth.” Buzzwords include “synergies”, “economies of scale”, mutual proximity of suppliers and producers, diversity; interactions among the best and the brightest. Many people in mainstream culture still think that the financial benefits to cutting edge industries will “trickle down” or spread across the whole system, including into rural regions and across the overall international environment. I don’t think that all academic economists and government advisors believe this anymore. Some of them are looking to understand why it doesn’t happen the way they were taught it should.

Thank you for your attention. I think perhaps the people closest to crimes know about the crimes, but not necessarily about how officialdom works. I think the people who do know how officialdom works don’t necessarily understand about feeling “outside” the system, losing faith in it, and not bothering to participate in it. I think everyone is closest to that which he or she personally experiences, as Adam Smith observed many years ago. He warned against giving one group more power than other groups, presumably because they did not understand what other groups were facing in nearly as much detail as they understood what their own groups experienced.

Oh, and about the dam – that’s not a misspelling, nor a typo. I saw a thriller recently, about how it’s possible to buy up water sources and dam up rivers, so that people outside a system of massive corruption don’t have access to water! Sorry, I forgot the name of it. I’m pretty sure James Bond was in it. And, by the way, I fast-forwarded through the action scenes (chases, fights, shootings, violence) – I wasn’t interested in them. I was interested in the story-line, and also, in whether I could learn anything about the real spy world from such a movie.