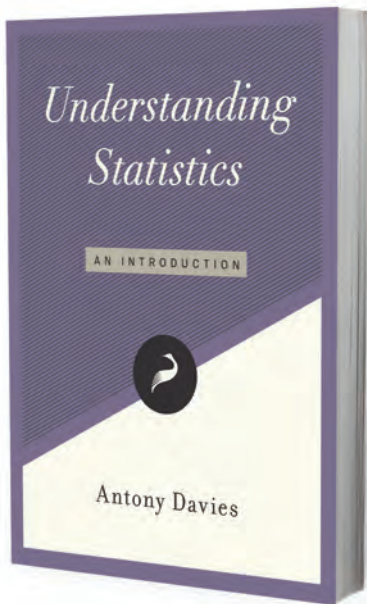


Your key to spotting common errors in misleading statistics

A Brief Guide to Statistics

Mark Twain famously cited the three kinds of lies—“lies, damned lies, and statistics” (although he attributed the now-popular saying to British Prime Minister Benjamin Disraeli). Statistics can indeed be baffling, and are easily manipulated in the hands of clever—or sometimes, merely misinformed—speakers. A new book from Libertarianism.org, *Understanding Statistics* by Antony Davies—along with a video guide—helps the average reader dispel confusion on these matters and learn to evaluate facts like a statistician.

In reality, Davies argues, statistics *can't* be translated into whatever the speaker wants them to say. “The problem,” he writes, “is that statistics exist in the language of mathematics.” It’s in “translating” these statistics from the language of math into the English language that errors or misinterpretations arise. And these misinterpretations often come from the listener, not just the speaker—such as journalists who report on studies without understanding what the statistics truly mean.



For example, from 1995 to 2015, the poorest 20 percent of Americans went from earning 3.7 percent of all household income earned in the country to 3.1 percent. Someone might conclude that this shows that the poor are getting poorer. But this is a misunderstanding of statistics, which uses aggregated data—many data points combined into a single measure. This statistic has aggregated the poor in 1995 into a single number and then compared that with another aggregation of the poor in 2015—but “the poor” in 2015 are not necessarily the same people who were “the poor” in 1995, and we can’t compare them directly. A better way to see if the poor are getting poorer would be to measure income inequality across the span of a person’s career. And when we do that, we find that, in fact, across generations, the poor are getting richer faster than the rich are getting richer.

Davies teaches readers to recognize the most common errors made in reporting and interpreting statistics, arming them with the tools to sort out these problems on their own. As he writes, “Understanding statistics is the first step toward seeing the world more clearly.” ■

READ *UNDERSTANDING STATISTICS*, AND WATCH THE ACCOMPANYING VIDEO GUIDE, AT LIBERTARIANISM.ORG.

Cato News Notes

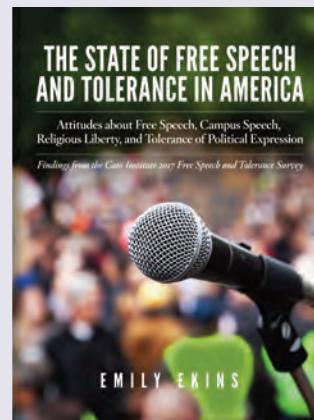
30 UNDER 30

Chelsea Follett, the managing editor of Cato’s project HumanProgress.org, was named one of *Forbes*’s 30 Under 30 in Law and Policy. *Forbes*’s competitive annual list features 600 “young stars” in 20 different fields, selected from thousands of nominations. As *Forbes* wrote, HumanProgress.org aims to “counter the doom and gloom of the daily news cycle by highlighting long-term economic development and increases in individual well-being as a result of market liberalization.”



A RECORD-BREAKING YEAR

Cato saw its second record-breaking web traffic day in 2017, with October 31st eclipsing January’s previous record. The surge came largely thanks to Cato research fellow Emily Ekins’s report on the 2017 Cato Free Speech and Tolerance Survey. Ekins’s



extensive and timely report is alternately encouraging and concerning: the majority of Americans oppose hate-speech laws, and 67 percent of Americans say that free speech ensures that the truth will win out; but at the same time, many Americans also

hold troubling views along partisan lines. Fifty-three percent of Republicans support stripping citizenship from people who burn the American flag, for example, while 51 percent of Democrats support a law that requires Americans to use transgender people’s preferred gender pronouns. A blog post by Cato immigration analyst David Bier on how the line for green cards can “move backwards” for some applicants also played a role in driving unprecedented traffic to Cato’s website that day.