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Somewhat Misleading Statistics – The COVID-19 Tax

In the late 1960s your blogger was introduced to the book *How to Lie with Statistics*, by Darrell Huff. This volume, written in 1954, and apparently never out of print, shows how even simple statistical analyses can be misused, misinterpreted, or, more ominously, manipulated to provide intentionally misleading inferences or predictions. YB has spent most of his career as an applied economic statistician, and reading the Huff volume early has led him to be circumspect in his use of analyses. YB has been referred to as “careful” or “thoughtful”, as well (on occasion) as “tiresome” or “pedantic”, but he has always been circumspect.

One Huff example he remembers is a deconstruction of a phrase that “quantity decreased by 20 percent from Month 1 to Month 2, and increased by 20 percent from Month 2 to Month 3, bringing it back to its initial level.” Huff points out that if quantity was 100 in Month 1, a 20 percent decrease would take it down to 80 in Month 2. A subsequent 20 percent increase would take it up to 96, NOT to 100. Indeed, a 25 percent increase would be necessary to take it back from 80 to 100. This is not rocket science, but it is a necessary correction to potentially sloppy analysis.

The August 15 New York Times presented a headline in the business section that could be reformatted as:

Months	Monthly Change
February – March	8.3% decrease
March – April	14.7% decrease
April – May	18.2% increase
May – June	8.4% increase
June – July	1.2% increase

This looks like a big drop, but followed by an even bigger increase. However, recalculating the changes, assuming that the February retail sales were at the level of 1.000, gives:

Month	Level
February	1.000
March	0.917
April	0.782
May	0.924
June	1.002
July	1.014

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For March, April, and May, retail sales were down by an average of 12.7 percent per month, and since February, they were down by an average of 7.2% per month.

How bad were March, April, and May? Recall that for many people, rents for living spaces were suspended. Had rents been collected, things might have been even worse for retail spending. Although there was a bounce-back by June and July, it was to previous levels, not make-up spending. Landlords will begin demanding rents soon. This could have a big impact on retail spending.

COVID-19 has imposed a major demand shock on the macroeconomy. It is likely to continue for a while.

1. People are uncertain and they want to save for precautionary reasons.
2. People will have to pay rent, and they will not increase their shopping.
3. Lots of people are still out work, and the federal government has not renewed the $600 per week unemployment benefit that put a floor under spending.

YB has written several times about COVID-19 tax as a tax. This COVID-19 tax on consumption may continue for a while.

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Reference

Huff, Darrell, *How to Lie with Statistics*, W. W. Norton & Company ISBN:978-0-393-31072-6, 1994