— A man's assets are only 0.2% of U.S. wealth.

— A regulation costs only 0.004% of U.S. GDP per year.

— A disease kills 0.1% of the population annually.

That all sounds pretty minor, doesn't it? But ….

— The man – Elon Musk – is worth over $246 billion.

— The regulation costs a billion dollars per year.

— The disease – breast cancer – kills 42,000 American per year.

The deceptiveness of percentages arises from the fact that a very small percent of a very big number is still a big number.

You often see this problem with climate change. We're told that a given policy will only reduce U.S. emissions by something like 1%, which sounds trivial. But total U.S. carbon emissions are 4.8 billion tons. One percent of that is 48 million tons, which is a lot of carbon. At the current estimate of the social cost of carbon, reducing U.S. emissions by 1% would prevent over $900 billion of harm over time. Even using the ridiculously low estimate of the social cost of carbon adopted by the Trump Administration, you'd still be talking about $33 billion, which isn't negligible.

On the other hand, a big percentage of a small number is an even smaller number, which can also produce misleading results. Suppose we're told that a regulation will cost 25% of West Virginia coal miners their jobs. You might be tempted to think that would be a hammer blow to West Virginia's economy. In fact, there are 715,000 non-farm workers in West Virginia, and about 12,000 coal miners. A loss of a quarter of the coal working jobs, assuming *none* of them got a new job, would reduce non-farm employment from 715,000 to 712,000- not good, but not catastrophic.

To take another example, suppose someone — maybe Elon Musk — has the idea that you can fix the U.S. budget by cutting EPA's budget by 85%. Sounds draconian, but if it can fix the deficit, some people might find it appealing. The EPA budget is around $12 billion, so you'd be saving around $10 billion — a lot of money. But the deficit is $1.7 trillion. If you do the math, in exchange for giving polluters free rein, you would cut the deficit by 0.6%. Maybe not such a good idea after all,

The moral of the story: When you're told something in percentage terms, you should always ask: percentage of *what*? And that's especially true with environmental policy.