

PRICE'S LAW AND AVERAGE

BY

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Recently, I was reacquainted with *Price's Law*, which says *the square root of the number of participants are responsible for half the output*. So, in a group of 36 people producing 600 things, 6 of those people (the square root of 36) will be outputting 300. In this example, each productive person will be producing at a rate five times that of the rest. If you ever thought, "I do all the work around here," you may have been more right than you knew.

This law seems to hold for salaries, wealth, fame, goals, and—as the example suggests—work output where you are employed. As a "truth," there are a lot of things to take from it. Like:

Why do we need so many people? Or How come there are so many deadbeats? Or, Why aren't there more productive people? Or, Couldn't the GM get more goal scorers? Or Which group am I in? And Should I be worried?

Good questions and, given the Jack Welch (General Electric CEO, 1981-2001) practice of culling the bottom 10% of personnel each year, practical too. Not to weigh on

your adequacy anxiety, but odds are you (and I) are not among the “haves.” That’s neither reason to stop working toward it nor should it be too concerning.

This is math—the math of exponents to be specific—so it’s a bit of an illusion. All those “have-nots” are essential for the small “have” group to even be identifiable, let alone for the overall group to accomplish the scale of output.

The team’s GM could replace a bunch of players for a few goal scorers. Not only is it unlikely that the total number of goals would increase, but—ironically—the proportions directed by Price’s Law would remain intact afterward.

If, in the example, we got rid of the 30 people contributing collectively only as much as the 6 stars, we would be left with a group of 6 people producing only 300, not 600. If the law holds, two of those six are doing just under half the work (or 150). You would be silly to get rid of the lesser 4 because each time you get rid of those who are not stars, you get rid of half the output. More importantly, you force the remaining productive performers to do the indirect work previously shared by the others.

Whether at work, selling Girl Guide cookies, or organizing a #metoo rally, this law recommends a leader should (a) expect to be doing a lot more work than everyone else, (b) find and keep close a small number of people as the core, hard-working group, and (c) have low expectations of everyone else’s contribution. But many smaller contributions make the arithmetic work. If you have 20 hard-working, tirelessly contributing participants, 400 more (the square 20) will be needed to double output—whatever that might be.

If you’re wondering how many people you need to achieve your goals, start with the goal and reverse the math. Want a 100,000-strong productive counter-culture movement? You will need about 316 distributed leaders managing all those people. Of that

leadership cadre, your core clique of 16 plus you will make it go. IF this mathematical truth holds, and you have found only 8 disciples, chances are your efficient group will only amount to 64 leaders. With 64 ardent leaders, a coherent group will peter out at 64,000. Oops. (For extra marks, explain how 12 disciples create a global movement.)

Say you're predicting average sales among uniformed salesgirls. The math works the same. You hope for \$15-million at \$5/box of cookies, meaning you have to sell 3-million boxes. Now say there are 1.2-million girls selling.

The pitch to girls and parents is that selling only 2.5 boxes each will achieve this goal ($3,000,000/1,200,000$). That sounds fair and reasonable. Under Price's Law, the actual sales distribution will skew closer to the top 1095 girls (square root of 1,200,000) selling an average of 1,400 boxes each ($3,000,000*0.5/1095$) and the remaining 1,199,805 girls averaging 1.25 boxes each ($3,000,000*0.5/1,199,805$). This seems and probably is extreme in. But if the math were done on the basis of *regions*, then *districts*, then *troop*, and only then to individual girls, it would probably not be so far from reality.

What are the lessons here? As much as it pains us to think it:

1. Life is neither balanced nor fair. "Average" is a poor way to understand reality. Get past it.
2. If total performance is the goal, treat people differently. Performers will perform; drive their interest. The non-performers offer the highest leverage. For 1095 girls to each sell 100 more nets 109,500 boxes. Getting every other girl to sell one more gets 1,199,805.

You can't fight arithmetic. You can make it work for you.

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