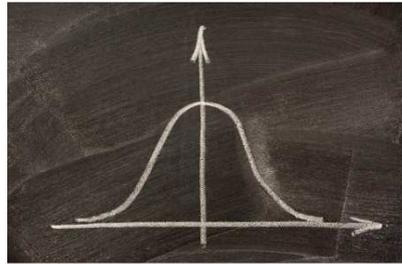

The Myth of the Bell Curve

Its wrong to say that people's performance follows the Bell Curve

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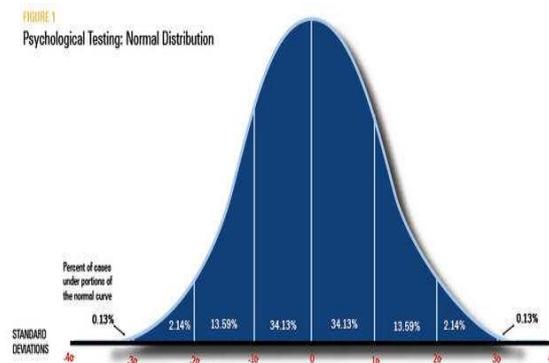
There is a long standing belief in business that people performance follows the **Bell Curve**(also called the Normal Distribution). This belief has been embedded in many business practices: performance appraisals, compensation models, and even how we get graded in school. For decades, teachers, managers and parents have assumed that the performance of students and employees fits what's known as the bell curve — in most activities, we expect a few people to be very good, a few people to be very bad and most people to be average. Research shows that this statistical model, while easy to understand, does not accurately reflect the way people perform. As a result, HR departments and business leaders inadvertently create agonizing problems with employee performance and happiness.

Witness Microsoft's recent decision to disband its performance management process - after decades of use the company realized it was encouraging many of its top people to leave.

Does human performance follow the bell curve? Research says no.

Let's look at the characteristics of the Bell Curve, and I think you'll quickly understand why the model doesn't fit.

The Bell Curve represents what statisticians call a "normal distribution." A distributions a sample with an arithmetic average and an equal distribution above and below average like the curve below. This model assumes we have an equivalent number of people above and below average, and that there will be a very small number of people two standard deviations above and below the average (mean).



As you can see from the curve, in the area of people management the model essentially says that "we will have a small number of very high performers and an equivalent number of very low performers" with the bulk of our people clustered near the average. So if your "average sales per employee" was \$1M per year, you could plot your sales force and it would spread out like the blue curve above.

In the area of performance management, this curve results in what we call "rank and yank." We force the company to distribute raises and performance ratings by this curve (which essentially assumes that real performance is distributed this way). To avoid "grade inflation" companies force managers to have a certain percentage at the top, certain percentage at the bottom, and a large swath in the middle. Force managers to have a certain percentage at the top, certain percentage at the bottom, and a large swath in the middle.

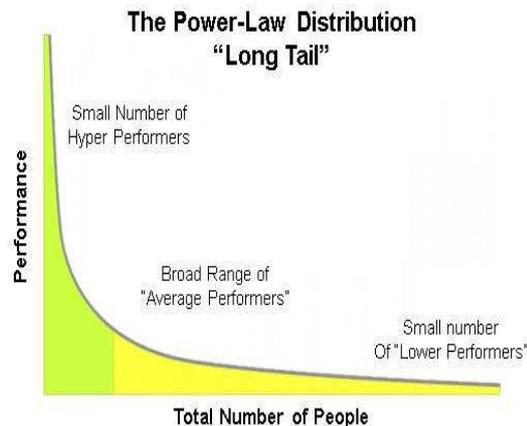
This practice creates the following outcomes:

- First, we ration the number of "high performance ratings." If you use a five point scale (similar to grades), many companies say that "no more than 10% of the population gets a rating of 1" and "10% of the population must be rated a 5."
- Second, we force the bottom 10% to get a low rating, creating "losers" in the group. So if your team is all high performers, someone is still at the bottom. (The "idea" behind this is that we'll continuously improve by lopping off the bottom.)
- Third, most of the people are always in the middle - rated more or less "average." And implicit in this last assumption is the idea that most of the money and rewards go to the middle of the curve.

Does the World Really Work This Way?

The answer is no.

Research conducted in 2011 and 2012 by Ernest O'Boyle Jr. and Herman Aguinis (633,263 researchers, entertainers, politicians, and athletes in a total of 198 samples). found that performance in **94 percent of these groups did not follow a normal distribution. Rather these groups fall into what is called a "Power Law" distribution.**



A "Power Law" distribution is also known as a "long tail." It indicates that people are not "normally distributed." In this statistical model there are a small number of people who are "hyper high performers," a broad swath of people who are "good performers" and a smaller number of people who are "low performers." It essentially accounts for a much wider variation in performance among the sample.

It has very different characteristics from the Bell Curve. In the Power Curve most people fall below the mean (slightly). Roughly 10-15% of the population are above the average (often far above the average), a large population are slightly below average, and a small group are far below average. So the concept of "average" becomes meaningless.

In fact the implication is that comparing to "average" isn't very useful at all, because the small number of people who are "hyper-performers" accommodate for a very high percentage of the total business value.

(Bill Gates used to say that there were a handful of people at Microsoft who "made" the company and if they left there would be no Microsoft.)

Why We Have Hyper-Performers

If you think about your own work experience you'll probably agree that this makes sense.

Think about how people perform in creative, service, and intellectual property businesses (where all businesses are going). There are superstars in every group. Some software engineers are 10X more productive than the average; some sales people deliver 2-3X their peers; certain athletes far outperform their peers; musicians, artists, and even leaders are the same.

These "hyper performers" are people you want to attract, retain, and empower. These are the people who start companies, develop new products, create amazing advertising copy, write award winning books and articles, or set an example for your sales force. They are often gifted in a certain way (often a combination of skill, passion, drive, and energy) and they actually do drive orders of magnitude more value than many of their peers.

Today's businesses drive most of their value through service, intellectual property, innovation, and creativity. Even if you're a manufacturer, your ability to sell, serve, and support your product (and the design itself) is more important than the ability to manufacture.

What About Everyone Else?

The power law distribution (also called a Paretian Distribution) shows that there are many levels of high performance, and the population of people below the "hyper performers" is distributed among "near hyper-performers" all the way down to "low performers."

As you can see from the example above (and this chart varies depending on population) you still have a large variation in people and there will be a large group of "high-potentials," a group of people who are "potential high-potentials," and a small group who just don't fit at all.

The distribution reflects the idea that "we want everyone to become a hyper-performer" if they can find the right role, and that we don't limit people at the top of the curve - we try to build more of them.

Companies that understand this model focus very heavily on collaboration, professional development, coaching, and empowering people to do great things. In retail, for example, companies like Costco give their people "slack time" to clean up, fix things, and rearrange the store to continuously improve the customer experience.

The bell curve powerfully shapes how we think of human performance: If lots of students or employees happen to show up as extreme outliers — they're either very good or very bad — we assume they must represent a skewed sample, because only a few people in a truly random sample are supposed to be outliers.

New research suggests that rather than describe how humans perform, the bell curve may actually be constraining how people perform. Minus such constraints, a new paper argues, lots of people are actually outliers. Human performance, by this account, does not often fit the bell curve or what scientists call a normal distribution. Rather, it is more likely to fit what scientists call a power distribution.

How the Bell Curve Model Hurts Performance

Bell Curve in appraisals signifies a generic trend line or evaluation pattern that the Company intends following for the purpose of systematic, objective and a meaningful performance assessment through a 'forced-rating' method.

Theoretically and practically, in fairly large and large organizations with substantial headcount of people, any management would like to see a scientific trend line of performers, i.e. abysmally low to outstanding performances. That's normally the case.

A bell curve would signify that there are extremely low performers (say, 10-20%) and outstanding promotable performers (say, 10-20%), the bulk of the performers being at the peak line of the bell curve who are good to very good performers.

Bell curve is used by HR to demonstrate or illustrate to all the functional heads or managers how appraisal ratings should be spread over in accordance with bell curve. Otherwise, most appraisers either would rate people much higher than they deserve or some may be hyper-critical and would rate most people very low. To bring in a semblance of an order, the bell curve pattern is shown.

Illustratively, it is to show appraisers that, say, not more than 10% should be promoted in each department and that at least 10% must be weeded out for low performance; the rest being rated from average, good to very good.

Normalization in PAM via the bell curve compliance is the process of bringing in forced-rankings/ratings so that appraisers normalize ratings to fit the bell curve. That is, appraisers who are too lenient or too strict must become more objective in their appraising subordinates/peers, etc. When normalization happens, ratings/rankings will look very uniform and objective, being spread over the bell curve, as desired by the management.

The advantages of bell curve PAM are:

1. It brings objectivity to the PAM process
2. It helps in normalization of the appraisal process
3. It lends itself to predictable performance patterns
4. It guides appraisers on how to follow an uniform rating process/pattern
5. It helps appraisers from abstaining in 'playing God', Horne's effect, 'hypercritical effects' or 'playing central tendency' in appraisal ratings.
6. It helps management in planned attrition and in predicting promotions/job enlargements/job enrichments/rewards/incentives, etc.
7. It may help in retention since it showcases an objective appraising mythology/pattern.
8. It systematically identifies high performers for commensurate rewards and identifies low/weak performers for training/forced attrition.
9. On a predictive index, it provides a bird's eye view of the uniform, systematic performance patterns across grades/levels/functions in the organization.

Disadvantages:

1. It seems rigid and impractical, especially for small/medium. It may reduce organizational flexibility
2. It does not promote 'performance adjustments'
3. It makes 'extreme raters' sceptical since it does not allow them to rate as they wish causing anxiety or discontentment
4. It may be difficult to simulate/follow since outstanding performers or weak performers may not essentially be 10%-20% (say), year-on-year.
5. The methodology may not be easily understood by all appraisers
6. Training inadequacy in appraisers may yield disastrous results
7. Implementation may be difficult since HR has to ensure constant compliance.

8. Being a 'forced-distribution' method, it may face dissent from appraisers
9. It may not adjust well with skill/managerial demand-supply situations

Right now there is an epidemic of interest in revamping employee performance management processes, and it's overdue. I just had several of my best friends (generally in senior positions) tell me how frustrated they are at their current jobs because their performance appraisals were so frustrating. Here are the reasons the current models don't work:

1. No one wants to be rated on a five point scale.

First, much research shows that reducing a year of work to a single number is degrading. It creates a defensive reaction and doesn't encourage people to improve. Ideally performance evaluation should be "continuous" and focus on "always being able to improve."

In fact, David Rock's research shows that when we receive a "rating" or "appraisal" our brain shifts into "fear or flight" mode and shifts to our limbic brain. This shift, which takes place whenever we are threatened, immediately takes us **out** of the mode to learn or create, making us defensive. *So the actual act of executing a performance appraisal itself reduces performance. (Read SCARF for more details: Status, Certainty, Autonomy, Relatedness, and Fairness are what create a secure place to perform.)*

2. Ultra-high performers are incented to leave and collaboration may be limited.

The bell curve model limits the quantity of people at the top and also reduces incentives to the highest rating. Given the arbitrary five-scale rating and the fact that most people are 2,3,4 rated, most of the money goes to the middle.

If you're performing well but you only get a "2" or a "3" you'll probably feel under-appreciated. Your compensation increase may not be very high (most of the money is held for the middle of the curve) and you'll probably conclude that the highest ratings are reserved for those who are politically well connected.

Since the number of "1's" is limited, you're also likely to say "well I probably won't get there from here so I'll work someplace where I can really get ahead."

Also, by the way, you may feel that collaboration and helping others isn't really in your own self interest - because you are competing with your team mates for annual reviews.

3. Mid level performers are not highly motivated to improve.

In the bell curve there are a large number of people rated 2, 3, and 4. These people are either (A) frustrated high performers who want to improve, or (B) mid-level performers who are happy to stay where they are.

If you fall into category (B) you're probably pretty happy keeping the status quo - you know the number of "1's" is very limited so you won't even strive to get there. In a sense the model rewards mediocrity.

4. Compensation is inefficiently distributed.

People often believe the bell curve is "fair." There are an equal number of people above and below the average. And fairness is very important. But fairness does not mean "equality" or "equivalent rewards for all." High performing companies have very wide variations in compensation, reflecting the fact that some people really do drive far more value than others. In a true meritocracy this is a good thing, as long as everyone has an opportunity to improve, information is transparent, and management is open and provides feedback.

Many of the companies I talk with about this suddenly realize they have to rethink their compensation process - and find ways to create a higher variability in pay. Just think about paying people based on the

value they deliver (balanced by market wages and scarcity of skills) and you'll probably conclude that too much of your compensation is based on tenure and history.

5. Incentives to develop and grow are reduced.

In a bell curve model you tend to reward and create lots of people in the "middle." People can "hang out" in the broad 80% segment and rather than strive to become one of the high-performers, many just "do a good job." This is fine of course, but I do believe that everyone wants to be great at something - so why wouldn't we create a system where every single person has the opportunity to become a star?

If your company focuses heavily on product design, service, consulting, or creative work, (and I think nearly every company does), why wouldn't you want everyone to work harder and harder each day to improve their own work or find jobs where they can excel?

Reference :-

Put Away The Bell Curve: Most Of Us Aren't 'Average' by Shankar vedantam

The Myth of the Bell Curve by Josh Bersin Principal and Founder, Bersin by Deloitte

<http://www.citehr.com/40191-bell-curve-appraisal-performance-management.html#ixzz2tekHmUy9>
