The Origin of the 80/20 Rule

The “80/20 rule” has become ubiquitous in everyday business language. This rule states that, often, roughly 80% of the effects come from 20% of the causes. In call centers, we often use this rule to say that 80% of the workload comes from 20% of the calls, or that 20% of the staff are responsible for 80% of the production. Many refer to the 80/20 rule as “Pareto’s Law.”

Vilfredo Pareto (1848–1923) was an Italian economist and social scientist whose work is predicated on the axiom that people are physically, intellectually and morally unequal.

Pareto maintained that in society as a whole, and in any of its classes and subgroups, some people are more gifted than others. The most capable in any particular grouping are the elite.

Pareto’s original use of the term “elite” has no specific connotation; it simply denotes "a class of the people who have the highest indices in their branch of activity." He divides the elite class into two classes: "a governing elite, comprising individuals who directly or indirectly play some considerable part in government, and a non-governing elite, comprising the rest."

Pareto claims that society has a tendency to maintain equilibrium, where a balanced number of people from each class are present in the governing elite of any group, and people are entering and leaving the elite to maintain the natural balance.

Pareto is best known for his “Pareto’s Principle” of income distribution. He found that 20% percent of the wealthiest people in Italy owned 80% of the land, which led him to conclude that in all countries and times, the distribution of income and wealth follows a regular logarithmic pattern described by the formula:

\[ \log N = \log A + m \log X \]

Where \( N \) is the number of income earners who receive income higher than \( X \), and \( A \) and \( m \) are constants.

Quality management pioneer Joseph Juran (1904–2008) recognized a universal principle he called the "vital few and trivial many": 20% of the causes are always responsible for 80% of the results. In his 1950 article "Pareto, Lorenz, Cournot, Bernoulli, Juran and Others", which appeared in the book Critical Evaluations in Business and Management, Juran incorrectly applied Pareto's socio-economic observations to this broader observation and named it Pareto's Principle.

In 1974, Juran published an article titled “The Non-Pareto Principle; Mea Culpa”, in which he writes:

The "Pareto principle" has by this time become deeply rooted in our industrial literature. It is a shorthand name for the phenomenon that in any population which contributes to a common effect, a relative few of the contributors account for the bulk of the effect.

Years ago I gave the name "Pareto" to this principle of the "vital few and trivial many." On subsequent challenge, I was forced to confess that I had mistakenly applied the wrong name to the principle. This confession changed nothing – the name "Pareto principle" has continued in force, and seems destined to become a permanent label for the phenomenon.

The matter has not stopped with my own error. On various occasions, contemporary authors, when referring to the Pareto principle, have fabricated some embellishments and otherwise attributed to Vilfredo Pareto additional things which he did not do. My motive in offering the present paper is in part to minimize this tendency to embroider the work of a distinguished Italian economist. In addition, I have for some time felt an urge to narrate just how it came about that some early experiences in seemingly unrelated fields (quality control, cryptanalysis, industrial engineering, government administration, management research) nevertheless converged to misname the Pareto principle.
As Juran writes, the incorrect name does not change the validity of the principle of the vital few and trivial many. Focus your attention on the few vital elements in your call center operation and avoid the common trap of trying to improve issues that may be very visible but improving them will have only an inconsequential effect.

Further Reading

- The Origin of the 80/20 Rule
- Are Abandoned Calls Important?
- Service Level Calculations
- Advanced Topics in Call Center Staffing
- Introduction to Traffic Modeling and Resource Allocation in Call Centers
- Benchmarking in Call Centers
- Does Self-Help Really Help?
- Service Level Elasticity
- An Alternative to the Erlang Traffic Model