**law of diminishing returns**

The **law of diminishing returns** states that in all productive processes, adding more of one factor of production, while holding all others constant ("[*ceteris paribus*](http://en.wikipedia.org/wiki/Ceteris_paribus)"), will at some point yield lower per-unit returns.

For example, the use of [fertilizer](http://en.wikipedia.org/wiki/Fertilizer) improves crop production on farms and in gardens; but at some point, adding more and more fertilizer improves the yield less per unit of fertilizer, and excessive quantities can even reduce the yield.

A common sort of example is adding more workers to a job, such as assembling a car on a [factory floor](http://en.wikipedia.org/wiki/Shop_floor). At some point, adding more workers causes problems such as getting in each other's way, or workers frequently find themselves waiting for access to a part. In all of these processes, producing one more unit of output per unit of time will eventually cost increasingly more, due to inputs being used less and less effectively.

The law of diminishing returns is a fundamental principle of economics.[[1]](http://en.wikipedia.org/wiki/Diminishing_returns#cite_note-Samuelson2001p110-0) It plays a central role in [production theory](http://en.wikipedia.org/wiki/Production_theory_basics).