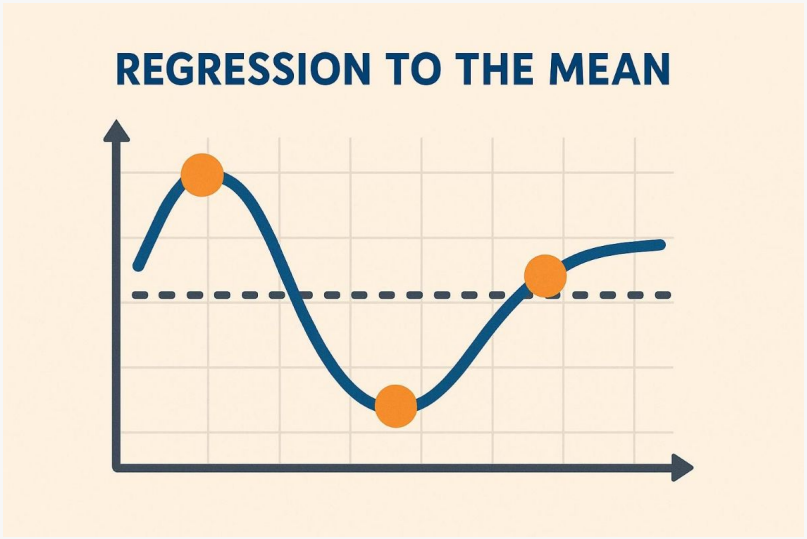
The Brookbush Institute Publishes a NEW Glossary Term: 'Regression to the Mean'

The Brookbush Institute continues to enhance education with new courses, a modern glossary, an AI Tutor, and a client program generator.



Regression to the Mean - https://brookbushinstitute.com/glossary/regression-to-the-mean

NEW YORK, NY, UNITED STATES, August 26, 2025 /EINPresswire.com/ -- -
Excerpt from Glossary Term: Regression to the Mean
- Additional Glossary Term: P-value (Probability Value)
- Related Certification: Integrated Manual Therapist (IMT) Certification

DEFINITION
Regression to the Mean (also known as regression toward the mean, reversion to the mean, or reversion to mediocrity) refers to the statistical phenomenon in which extreme values, whether unusually high or unusually low, are likely followed by values closer to the average on subsequent measurements. This occurs purely due to chance when there is any element of random variability in the system being measured.

> Regression to the mean is one of the most underappreciated sources of bias in meta-analyses. The danger is not the phenomenon itself, but the failure to recognize it."
>
> *Dr. Brent Brookbush, CEO of Brookbush Institute*

CLARIFICATION
Regression to the mean does not imply that things "naturally return to normal" or that performance declines due to some inherent limitation. It is a predictable artifact of variability. When measurements include both a consistent signal (e.g., skill, fitness, strength) and a random component (e.g., fatigue, stress, luck), extreme values often reflect a combination of both. The next measurement is unlikely to repeat the same degree of extremity, simply because the random component is unlikely to be as extreme again in the same direction.

APPLIED EXAMPLE

If an athlete records a personal best sprint time, significantly faster than usual, it's likely that on their next attempt, they'll run closer to their average. This doesn't mean they've gotten slower; rather, it's likely that their peak performance was aided by favorable random factors (e.g., wind, adrenaline, ideal timing). Similarly, an athlete who underperforms one day is likely to improve on their next attempt. This fluctuation is expected and does not require a causal explanation.

WHY AVERAGES REGRESS TO THE MEAN

Regression to the mean is also the reason that averaging values smooths out extremes. The process of averaging ensures that random high values and random low values balance each other out, pulling the overall average closer to the center of the distribution. The more repeated measures you take (or the larger the sample size), the more the average reflects the underlying signal, and the less it is influenced by noise. In this way, regression to the mean is what guarantees that sample means "regress to the mean."

FREQUENTLY ASKED QUESTIONS (FAQ)

Is regression to the mean a statistical artifact or a real effect?

- Regression to the mean is a real, observable statistical phenomenon, not just a mathematical curiosity. It occurs any time measurements are influenced by both stable traits and temporary fluctuations (e.g., mood, fatigue, measurement error). If you select extreme cases on the first measurement, follow-up measures will likely be less extreme simply because extreme values partly reflect randomness.

Does "regression to the mean" mean things are improving or getting worse?...

FOR THE FULL TEXT AND SO MUCH MORE, CLICK ON THE LINK

Brent D Brookbush
Brookbush Institute
brent@brookbushinstitute.com
Visit us on social media:
LinkedIn
Instagram
Facebook
YouTube
TikTok
X
Other

---

try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.