

Minimizing bias is the traditional first goal of econometrics. In many cases, though, the goal of unbiasedness can lead to extreme claims that are both substantively implausible and not supported by data. We illustrate with several examples in areas ranging from public opinion to social psychology to public health, using methods including regression discontinuity, hierarchical models, interactions in regression, and data aggregation. Methods that purport to be unbiased, aren't, once we carefully consider inferential goals and select on the analyses that are actually performed and reported. The implication for econometrics research: It's best to be aware of all sources of error, rather than to focus narrowly on reducing bias with respect to one particular aspect of your model.

Why high-order polynomials should not be used in regression discontinuity designs. (Andrew Gelman and Guido Imbens)

[http://www.stat.columbia.edu/~gelman/research/unpublished/regression\\_discontinuity\\_14aug02.pdf](http://www.stat.columbia.edu/~gelman/research/unpublished/regression_discontinuity_14aug02.pdf)

[2015] Evidence on the deleterious impact of sustained use of polynomial regression on causal inference. *Research and Politics*. (Andrew Gelman and Adam Zelizer)

[http://www.stat.columbia.edu/~gelman/research/published/rd\\_china\\_5.pdf](http://www.stat.columbia.edu/~gelman/research/published/rd_china_5.pdf)

[2014] Beyond power calculations: Assessing Type S (sign) and Type M (magnitude) errors. *Perspectives on Psychological Science* **9**, 641--651. (Andrew Gelman and John Carlin)

[http://www.stat.columbia.edu/~gelman/research/published/retropower\\_final.pdf](http://www.stat.columbia.edu/~gelman/research/published/retropower_final.pdf)