

Comments on “Meta-Analysis in a Nutshell: Techniques and General Findings”

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This a very important paper that should be required reading for all graduates students. Meta-regression analysis is a comprehensive and rigorous statistical summary and explanation of all comparable research findings on a given subject. “(T)he central task of meta-regression analysis is to filter out systematic biases, largely due to misspecification and selection, already contained in economics research (Stanley and Doucouliagos, 2012, p. 13). Professor Paldam succeeds in accomplishing the near impossible. His paper is a very clear, readable and insightful introduction to meta-analysis, which is itself a rather complex, technical and nuanced topic. Then, at the same time, Paldam offers many profound insights about the socio-economics of economics research and what meta-analysis can reveal about both the research process and the underlying phenomena it studies. Bravo! I can only echo Professor Paldam’s overall insights about economics research and about what hundreds of meta-regression analysis in economics have found.

However, I wish to clarify one possible misunderstanding that a student might draw from this paper’s discussion of bias. In the paragraph following equation (5), the paper seems to imply that the existence of publication bias identified in (1) must also bias the multiple meta-regression coefficients from (5) and thereby muddle its interpretation. This need not be the case. Suppose the only moderator variable, other than s_i , is q_{1i} , and it is given the value of 1 if some potential misspecification bias is present in a given study (say by omitting a known relevant variable). In this case, the estimated intercept will provide the appropriate estimate of overall effect corrected for both publication bias and misspecification bias. Of course, the individual meta-regression coefficients may still be biased in some cases, as Paldam suggest, but this now depends on whether you are interested in knowing the direct or total effects of these variables. Also, it is very easily to deal with such complications by adding interaction terms (Doucouliagos and Stanley, 2009). The topic of biases in meta-regression is much more nuanced, complex and deep than either Professor Paldam or I have space to sketch here. Please see Stanley and Doucouliagos (2012 & 2014) for more discussion of the biases of meta-regression and economics research.

References

- Doucouliagos, H. and Stanley, T.D. (2009). Publication selection bias in minimum-wage research? A meta-regression analysis, *British Journal of Industrial Relations*, 47: 406-28.
- Stanley, T.D., and H. Doucouliagos (2012). *Meta-Regression Analysis in Economics and Business*. Abingdon: Routledge.
- Stanley, T.D., and H. Doucouliagos (2014). Meta-regression approximation to reduce publication selection bias. *Research Synthesis Methods* 5 (1): 60-78.