Lack of choice? Single-and multi-model approaches towards econometric modeling in the fields' top journals in the 21st century

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More often than not, we do not know the true process that generated the data that we collected. This is especially striking for data-generating processes in the economy. When we want to model data from such systems, the correct modeling philosophy is to build a set of candidate models that seem plausible based on our theoretical understanding of the system, and to evaluate the evidence for each candidate model given the data. While this information-theoretic approach is well-established practice in many disciplines including computer science or ecology, it seems to be surprisingly uncommon in economics. Here, we present our findings from a detailed review of all publications in the five top-tier economics journals in the period 2000–2018 regarding the use single- and multi-model approaches to econometric modeling. Our final data base consisted of N = 2262 publications in the journals *American Economic Review, Econometrica, Quarterly Journal of Economics, Review of Economic Studies* and the *Journal of Political Economy*, which is 43.8% of all publications in these journals during the period studied. We excluded all publications that did not make use of regressions from our study. Overall, we find that only 6.4% of the papers in our database made use of a candidate-modeling approach, with the *Review of Economic Studies* featuring the largest fraction (12.1%) and the *Quarterly Journal of Economics* the smallest (3.0%) fraction of papers with this approach. We conclude that there is room for improvement in the top-tier economics journals when it comes to the use of statistical methodology in regression studies.

Key words: model selection; statistical significance; *p*-hacking; information-theoretic approaches