Dear Editor,

We are pleased to submit our manuscript entitled “A density ratio framework for evaluating the utility of synthetic data” for consideration in the *Journal of the Royal Statistical Society Series A: Statistics in Society*. As the popularity of synthetic data rises, it becomes ever more important to measure its quality. In this paper, we present a general framework to evaluate synthetic data quality based on density ratio estimation techniques. This framework offers distinct benefits, including a more accurate estimate of synthetic data utility compared to existing popular approaches, yielding more information about what aspects of the synthetic data are inadequately modelled, as well as increased interpretability of the resulting utility measure.

We believe this contribution will be of great interest to your readership, as it provides an easy-to-use framework with corresponding software that could advance current practices in synthetic data generation and evaluation. In addition, our work is timely and relevant, expanding upon the popular 2018 paper “General and specific utility measures for synthetic data”, published in your journal.

The manuscript adheres to the journal’s submission guidelines and is not published, nor under consideration, elsewhere. A preprint is available [here](https://arxiv.org/abs/2408.13167), and all analysis code is openly available on [GitHub](https://github.com/thomvolker/dr-utility).

Thank you for your time and consideration.

Also on behalf of my coauthors,

Thom Benjamin Volker

Contact information  
Thom Benjamin Volker

[t.b.volker@uu.nl](mailto:t.b.volker@uu.nl)

Utrecht University

Department of Methodology and Statistics

3584CH, Utrecht

The Netherlands