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## Supplementary Information

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The main document should include:

Title (no more than 150 characters)

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Abstract (no more than 200 words). (This will be used in reviewer invitation emails so please think about how to describe your work to make it easy for a potential reviewer to determine whether they would be suitable.)

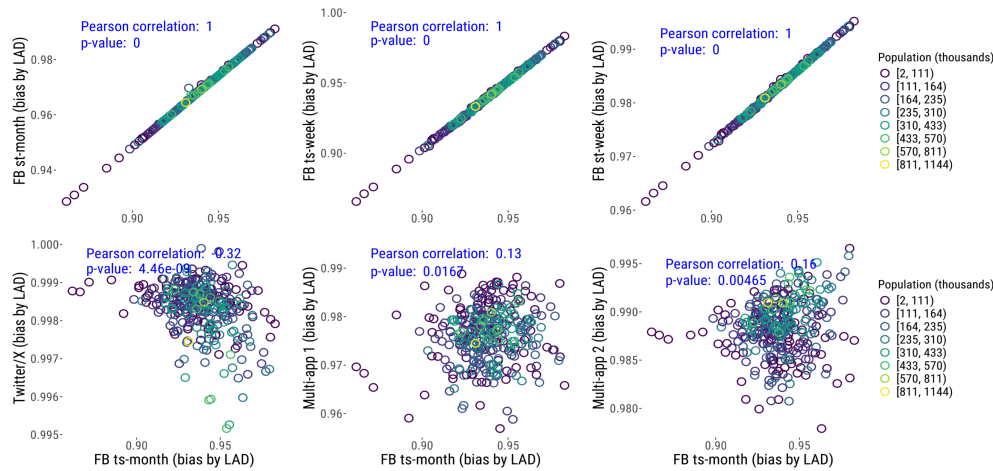
All main manuscript text. Ensure that all figures, tables and any relevant supplementary materials are mentioned within the text

References

Acknowledgements and funding statement (ensure that you have included grant numbers and the names of any funding providers)

Tables with captions Figure captions with credits where relevant

## 1. Alternative data aggregation approaches for Facebook data



## 2. Testing for spatial autocorrelation in the size of bias

according to multiple spatial weighting schemes → compute moran's I and p-values, display them in a table (schemes as columns, data source as rows)

Ethics. Please provide details on the ethics.

Data Accessibility. Please provide details on the data availability.

Authors' Contributions. Please provide details of author contributions here.

Competing Interests. Please declare any conflict of interest here.

Funding. Please provide details on funding

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