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Gharad Bryan, Dean Karlan, and Adam Osman*

In the course of follow on research we identified an error in the code used to produce the results in our original paper (BKO). In BKO, we use the generic machine learning procedure of Chernozhukov et al. (2025) (CDDF). The procedure includes splitting the data into main and auxiliary samples and implementing the analysis separately 100 times. Afterwards, the researchers should take the median results from the 100 splits.

We recently identified that the code we developed was missing a necessary subscript when saving the results of each data split. Instead of producing a matrix with all 100 splits, it would only hold the most recent result. As such the results reported in the paper are from the last split instead of the median of all splits. This is only relevant for Panel A of Table 4 in the paper, and the BLP coefficients and *p*-values reported in Figure 2.

As part of the data replication package, we had separately saved and uploaded the results from all 100 splits. This allows us to correctly estimate the median results following the procedure in CDDF. The main BLP estimate (which is a check for the existence of heterogeneous treatment effects) reported in the original manuscript was 0.851 with a *p*-value of 0.002. When using the median of the 100 splits the coefficient is 0.700 and the *p*-value is 0.003.

When considering the GATES results (i.e. the impact of treatment in each of the 4 quartiles of estimated treatment effects) we also see differences. In the original manuscript we reported that top performers increase profits by 8,611EGP while bottom performers decrease profits by 8,180EGP. Using the median across all splits in-stead leads to top performers gaining 6,534 EGP and the bottom group lose 4,571EGP. While the difference between top and bottom performers has a *p*-value of 0.002, the bottom group itself loses statistical significance.

* Gharad Bryan, g.t.bryan@lse.ac.uk, London School of Economics, J-PAL and CEPR; Dean Karlan, karlan@northwestern.edu, Northwestern University, IPA, J-PAL, and NBER Research Associate; Adam Osman, aosman@illinois.edu, University Illinois at Urbana-Champaign and J-PAL. The data and code for the study are available through the AEA Data and Code Repository (Bryan et al., 2024). We thank Harneet Singh and Bruno Fava for their work with the code and analysis. All errors and opinions are those of the authors.

Table 4 Estimates

	Group Average Treatment Effects (GATES)			
Panel A: Profits	(3)	(4)	(5)	(6)
Profits (Original Manuscript)	-8,180 **	1,840	5,325	8,611 **
	(3,584)	(1,872)	(3,078)	(3,742)
Profits (Corrected Estimates)	-4,571	137	2,088	6,534 ***
	(3,016)	(2,453)	(2,408)	(3,095)

Notes: The first row reproduces the estimates from Table 4 of the original manuscript. The bottom rows report estimates when correcting the error in the code and taking the median values across all 100 splits. The procedure generates confidence intervals and bases statistical significance on those. We generated approximate standard errors based on the confidence intervals produced by the procedure to make comparison easier with the other estimates in the paper.

All of the other estimates in Table 4 Panel B, and Tables 5 and 6 already used the values from all 100 splits as intended and were not affected by this error. Below we reproduce our original results, followed by the corrected results.

In Figure 2 we also reported BLP estimates when using only standard data (ceof=0.080, p-value=0.411) and the combined data (ceof=0.290, *p*-value=0.048). The corrected values are (ceof=0.014, *p*-value=0.463) for standard and (ceof=0.024, *p*-value=0.444) for combined. Neither of these specifications were the focus of our original manuscript.

By correcting the coding error, we find that our main results do not change much. We continue to find strong evidence of heterogeneity using the method from Chernozhukov et al. (2025). While the difference between top and bottom groups remains strong, the negative effect on the bottom group is less pronounced and not statistically different from zero, weakening our evidence that larger loans can lead to large negative effects on some borrowers.

References

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