

Take-Aways

2) Does training a classifier on DP synthetic data lead to the same disparate impact on accuracy as training a DP classifier on the real data?

Overall yes. Smaller classes/subgroups suffer more similarly to DP classifiers. However, we do not see the rich get richer, the poor get poorer; rather, everybody gets poorer.

Take-Aways

3) Do different DP mechanisms for DP synthetic data behave similarly under different privacy and data imbalance levels?

No, different DP generative models behave differently.