

## Seminário Acadêmico PPG Economia - UFJF

Data: 23/06/2022

Horário: 14:00h

Tema: Approaches for combining data from multiple probability samples

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### **Resumo:**

Even though there is substantial literature on studies that pool survey data, it is still not clear which are the most efficient methodologies and sampling designs for combining data from different surveys. For example, it is important to know whether the estimates from the different surveys involved should be given equal weights in the calculation of the combined statistics or not. If they are not given equal importance, then it should be clear how they should be weighted and why. In this paper, current and proposed methods considered to combine survey data are evaluated through simulation, in the context of simple random sampling, stratified random sampling and two stage cluster random sampling from finite populations generated from a normal distribution super-population model. Simulation results suggest superpopulation variance does not influence the choice of weighting method. However, the population size appears to influence this choice. Combining samples improved the precision of estimates regardless of weighting method used for data collected under all considered sampling techniques, with stratified sampling being more precise than simple random sampling and two stage random cluster sampling.

*(Artigo em coautoria com: Loveness N. Dzikiti e Brendan Girdler-Brown da University of Pretoria, na Africa do Sul)*