

Editorial

Dear readers,

It is a great pleasure for me to issue volume 8 of **CSBIGS (Case Studies in Business, Industry and Government Statistics)**. As usual according to the CSBIGS policy, this issue gives you a chance to work with the data sets kindly provided by the authors. This issue comprises four papers with very diverse applications ranging from econometrics to medicine and phonetics. As announced in the previous editorial, there was a call for contributions at the CAPS 2019 conference in Vietnam after which the Chang et al. paper was selected for inclusion in this volume.

Chang et al. introduce a new class of nonparametric likelihood ratio tests as an alternative to an existing Cox-model based test for the comparison of medical treatments having survival endpoints. Their method is illustrated using right-censored survival data from randomized clinical trials involving treatments for cancer and depression, with the objective of assessing evidence of non-inferiority in terms of tree-structured ordering among the survival functions. In the two case studies, they demonstrate that the experimental treatment is superior to placebo and non-inferior to the standard treatment.

Desbois compares the agricultural production costs among twelve members of the European union through the lens of the pig production. Using micro-economic data, the author uses a conditional quantile approach to reflect not only the center but also the heterogeneity of the conditional costs distributions. He then performs extensions of factor analysis and cluster analysis adapted to interval data of the estimated decile intervals to differentiate and characterize national productions. This approach could be used to explore relocation policy options in the face of climate change impacts.

Coeurjolly revisits the application of the Newcomb-Benford distribution, often used to detect frauds, to examine Covid-19 regional reports over the world. He examines potential departures from this distri-

bution for the the first two digits of reported daily and cumulative number of cases and deaths, in particular in Canada, US, France and China. He finds no evidence of departure which could have confirmed doubts raised in February 2021 about the Chinese government reports.

Letué et al. address several questions raised in phonetic sciences. The objective is to test the impact of an eight hours pronunciation training period for Italian native speakers learning French as a second language. More precisely, acoustic parameters (formants) are measured for two vowels. They use a linear mixed model for several non-independent responses to take into account complex random effects and non-diagonal residual variance-covariance. In the end, training did not improve the matching of formants with the target value but differences between adjacent formants were shown to evolve.

As a conclusion, I would like to announce that this issue will be the last one of this journal in its present form. The French Statistical Association is reformatting and merging its journals and future case studies should be submitted to the forthcoming new journal.

I would like to thank again all the authors and reviewers of this volume for their contribution, and all the members of the editorial board who have been helping us over the years.

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