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CM1 (A) : Add one row of space before "Although". If not possible, Add a few spaces before "Although" like you did below before "In Section 3.3"

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Discussion Paper Contribution

Danny Pfeffermann's contribution to the Discussion of 'A system of population estimates compiled from administrative data only' by John Dunne and Li-Chun Zhang

Verso running head : Pfeffermann

Recto running head : Journal of the Royal Statistical Society

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This article develops a whole toolkit of how to derive annual population estimates from only administrative data, when no reliable central population register (CPR) exists. Two important advantages of the proposed approach are that unlike

traditional censuses, which are carried out every 5 or 10 years, the estimates can be obtained every year, and it does not require a coverage survey, as often carried out in traditional censuses. The idea of basing the inference on 'signs of life' data is enlightening.

I congratulate the authors for this very innovative approach, which I am confident will be considered by other statistical offices around the world, where no CPR exist. In what follows, I raise a few questions and comments:

So far, the approach is restricted to national population estimates in categories defined by age and gender, but the main purpose of population censuses is to produce estimates for small geographic areas. For example, Israel with a population of about 10 million people is divided into more than 3,500 areas, and census estimates are derived for every area. The authors refer to this problem in their final remarks, proposing to extend their approach by use of a calibrated dual system approach. This would be necessary, if indeed the proposed approach is supposed eventually to replace traditional censuses.[1]

Although, as just mentioned, the main purpose of a census is to produce population counts, traditional censuses collect information on many other variables of interest. Can a similar approach be developed to obtain annual estimates of such variables as well, when no sufficiently accurate administrative data are available (not to mention in small areas)?

[2]In Section 3.3, the authors develop the idea of a trimmed dual system estimation (TDSE), in order to account for erroneous records in one of the two lists used for the construction of the population estimates. The methodology is sound, but it raises the question of how to proceed when both lists have erroneous records. The authors argue that in Ireland, the Driving License Dataset, which is one of the two lists, only has a negligible amount of erroneous records, but this may not be the case in other applications (countries). An extension of the TDSE for the case where both[3] lists may be subject to erroneous records seems feasible, and I encourage the authors to develop an appropriate theory.

Conflicts of interest: None declared **[AQ3]**.