Open assessment of the paper

"Can heterogeneity in reporting behavior explain the gender gap in self-assessed health status?" <u>http://www.economicsejournal.org/economics/discussionpapers/2018-25</u> by Dilek Basar and Mehmet A. Soytas, submitted to Economics: The Open-Access, Open-Assessment E-Journal

Diganta Mukherjee, Indian Statistical Institute, Kolkata, India, diganta@isical.ac.in}

The issue discussed in this paper is an important one and the motivation is nicely done. The utility formulation in (3) is also quite intuitive. At this stage, the authors specialise to determining variables education, age and income. While this choice is quite common and data availability is good, it should be mentioned that this is one particular but not the only possible choice.

But that is a minor matter. A more critical, and in my opinion restrictive, assumption is that life cycle income has a deterministic trajectory. This essentially reduces the model to a static one and creates part of the identifiability problem. I would have been happier with a stochastic income trajectory with the mean and variance modelled in terms of initial income and elapsed time.

The identification strategy of introducing individual specific discount rates in (8) is nice but the specification eventually becomes (12) using (14) for discount rate. Now (14) has the same determining variables as the lifetime utility formulation. So the final form actually involves many squares and cross products of these three variables and problems of co-linearity and correlated error may well arise. A clearer discussion is needed to convince the reader that the estimation strategy successfully avoid or solve these issues. The authors indeed comment that "…final estimation form may not be trivial to estimate…" but the estimation strategy is not yet convincing.

The concern is also propagated in the results. For instance, all λ estimates reported in Table 1 are negative (albeit insignificant). This would imply a negative (or zero) growth rate for income which is highly counterintuitive. On the other hand, if they are taken as 0 then we are back to a purely static specification. I believe the authors should report the discount rate estimation results and diagnostics for all the models in more detail.

Minor comment:

Third line in 3.2 on p 9: "...this theoretically novelty..." should be "...this theoretical novelty..."

Figure 1 on P 11: the legend "Graphs by female" is confusing as both male and female histograms are presented – but which one is which should be clearly mentioned. I assumed that the order is male, female.

Footnote 6 on p 12 seems to be erroneous as the values specified for smoking intensity are discrete.