Reviewer's report

Title: Complementarity/substitutability of government and charity funding of cancer research: a stated preference study

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Reviewer: sarah smith

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This paper uses a stated preference approach to look at responses to changes in government funding of cancer research. The study finds some, but limited, evidence of substitutability. I have a number of comments, most of which I think are major compulsory revisions.

1. There are issues with using a stated preference approach because of the hypothetical nature of the questions. The authors could look at – and should cite - Scharf and Smith (forthcoming in ITAX) which also uses this approach to look at charitable giving.

http://link.springer.com/article/10.1007%2Fs10797-014-9306-3#page-1

2. One concern with hypothetical surveys is the embedding effect – i.e. the concern that the answers are affected by the way the questions are asked. This seems to be a concern here as the authors report that the ordering of the questions made a significant difference to the responses. This puts a big question mark over the paper as it suggests that different questions would produce different results. For example, I wondered about the graph which shows the breakdown of government and charity funding between cancer and other medical research. What if the graph were presented differently so it showed the breakdown of cancer and other medical research between government and charity funding? The authors should discuss what the finding of an ordering effect means for their analysis and results and they need to do more to re-establish the plausibility of their findings in the light of potential concerns with the stated preference approach.

3. I question the interpretation that the authors give to the responses on the allocation of £100. This is taken to say something about crowding in/out. But, the question is about the allocation of government money. Individuals are asked to allocate £100 of tax revenue – with a potential cost in terms of other public services foregone. This says something about individual preferences over public spending (in a situation where individuals are given a very limited set of options), not about the relationship between government and voluntary funding. [The choice of £100 is arguably arbitrary and rather meaningless – if all taxpayers reallocated £100 to cancer research then the total increase would be way in excess of the amount of money that is cut in the scenarios.] Only the question about private donations speaks to the question of crowding in/out. The authors should be clear about the implications of their analysis for what they can say
about crowd in/ crowd out and give a more precise interpretation of their finding on re-allocation of tax income.

4. The finding of limited donation response is interesting. I would suggest a change in the way the data are analysed and in particular, estimation of random effects models which control for the correlation of responses and allow identification of treatment effects (and highlight variation with other characteristics eg personal experience of cancer, prior giving). A more systematic approach in analysis and presentation would make it clearer how standard errors are calculated (eg when the authors say that differences are statistically significant, have they taken into account clustering at the respondent level?). The authors should estimate random effects models, including binary indicators for the treatments and testing for differences across the estimated coefficients.

5. The finding on the effect of personal experience of cancer is very interesting. Formally, the authors could test whether the effect of the different scenarios varied by this variable (i.e. an interaction term between the scenarios and experience), rather than just discussing the effect on the level of giving.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare I have no competing interests