Online Appendix

In this appendix we explore the impact of changing the definition of a household. Here we say that household A (seen in wave t) is the same as household B (seen in wave t+1) if more than 50% of the members of household A are resident in household B. This rule is silent on what happens if a household splits exactly 50-50, as it would in the case of a divorce of a couple. One could arbitrarily designate one of the two resulting households as the successor, but there does not seem any non-arbitrary way of doing so. We have chosen, instead, to view the break-up of a household where no potential successor household has more than 50% of the members as the dissolution of the household. So if a couple splits this is the dissolution of a two-person household and the new formation of two one-person households (for example). With this definition dissolution of a household can happen in at least two ways: when all the members of the household die or when the members of the household go different ways with no successor household having more than 50% of the members.

There are a number of additional issues that need to be confronted. Firstly, we have to decide whether a household that we see for the first time in wave t+1 is a “new” household or a “TSM” household (i.e. a household that existed previously but didn’t get sampled). We again used the “majority” decision-rule: if more than 50% of the members of a household seen in wave t+1 were Temporary Sample Members (TSMs), then the household as a whole was designated as a TSM household. One implication of this is that if a single person (living in the single-person household A in wave t) joins a bigger household B in wave t+1, then B is not the “same” household as household A. Instead we would judge household A to have dissolved. It should be noted that the population of “TSM” and “CSM” households is slightly different for the different household definitions. This means that some of the cross-sectional results using only the “CSM” households may look a little different, depending on the definition.

Secondly, we need to confront the issue of attrition. If we do not observe more than 50% of the members of a household in the next wave, we have no way of working out whether the household continues (and which household is the successor) or if it dissolves. Correcting for this attrition problem is harder in this case than with our original definition, since most of the losses to follow-up occur when people and households move. With the definition used in the main body of the paper we can classify these occurrences as definitely household dissolutions. It would, however, lead to an underestimate of new household formation. A simple weighting correction can deal with that. In the case of the “majority” rule household definition, however, we would need to apportion the missing households between “dissolving” and “continuing”. For the purposes of these sensitivity analyses we assumed that this proportion was the same as that for households that we continued to observe.

What are the implications of these definitions of “surviving”, “dissolving” and “newly forming” households for the dynamic analyses that we report in the paper? Below we reproduce the new versions of Table 2 and Table 4 using the altered definitions. In both cases the qualitative results reported in the main body of the paper do not change.

Table 2 Decomposing change in household size (Alternative household definition)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Panel B: NIDS** | **overall change** | **within** | **replace** | **dilute** |
| 2008-10 | 0.090 | 0.277 | -0.152 | -0.035 |
| 2010-12 | -0.402 | 0.096 | -0.217 | -0.281 |
| 2008-2012 | -0.312 | 0.373 | -0.369 | -0.317 |

Table 4 Decomposing change in electricity availability (Alternative household definition)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Panel B: NIDS** | **overall change** | **within** | **replace** | **dilute** |
| 2008-10 | -0.014 | -0.011 | -0.003 | -0.001 |
| 2010-12 | 0.074 | 0.061 | 0.013 | 0.000 |
| 2008-2012 | 0.060 | 0.051 | 0.010 | -0.001 |