


I describe here the sequence of the main steps involved to reproduce the results presented in the paper. In doing so, I use the case of the test for the consistency of the reverse survival method of fertility estimation that is included in the paper on pages 226-227.

As described in the paper (page 222), a population was first projected using the application PROJCT in MORTPAK. MORTPAK is freely available for download at: <http://www.un.org/en/development/desa/population/publications/mortality/mortpak.shtml>

1. Open the "Reverse survival_PROJCT.mpl" in MORTPAK. This file includes the parameters presented on pages 222-223 and that were used to project the population 15 years over.
2. Run the projection by clicking "RUN" or the  icon and the software will automatically switch to the far right of the sheet where the results are available. The projected population is given by single year of age and five-year age groups.
3. In the drop-down box, select the year of the projection to obtain the projected population. Here, as we are interested in reverse surviving the population under age 15 in order to estimate recent fertility, the year $x+15$ from the base year (i.e. 2015) should be selected.
4. Open the Excel template "PROJCT_Initial_FE_reverse.xlsx". In cells B6:B20 of the sheet "Method", paste the total single age population under age 15 projected to 2015 from the MORTPAK file "Reverse survival_PROJCT.mpl".
5. From the MORTPAK file "Reverse survival_PROJCT.mpl" copy also the female population by five-year age group from age 10 to age 64 that was projected to 2015 and paste it in cells C6:C16 in the sheet "Method" of the Excel template "PROJCT_Initial_FE_reverse.xlsx".
6. In order to obtain reverse survival fertility estimates consistent with the values used to project the population, the appropriate country name, census date (here the date at the end of the population projection), mortality levels and age patterns of fertility need to be modified in the sheet "Introduction" to correspond to the parameters that were initially used to project the population in the application PROJCT in MORTPAK (described on pages 222-223 in the text). The mortality age patterns used in the projection should also be entered in the appropriate cells in the sheet "Models". Note that the mortality age patterns need to be transformed following the procedure described in Timæus and Moultrie (2012).
In the Excel template "PROJCT_Initial_FE_reverse.xlsx", the fertility and mortality parameters have already been modified appropriately to correspond to the values used to project the population.
NOTE: In the original version of the Excel template provided with Timæus and Moultrie (2012) (available online: <http://demographicestimation.iussp.org/content/reverse-survival-methods>), most of the sheets are protected and the protection needs to be removed before being able to make edit.
7. Once the required mortality levels for the three five-year periods preceding the date of the census and the fertility age patterns for the periods preceding the census have been entered in the appropriate cells in the sheet "Introduction" and the corresponding values for the mortality age pattern have been entered in the sheet "Models", the reverse survival estimates of fertility will be available in the sheet "Method" in cells H6:H10 and displayed in the sheet "Charts".

All MORTPAK files used to project the population changing successively one parameter in order to test its distorting effect are also provided, together with an Excel file containing the distribution of the population by single age and sex based on 32 population censuses from 23 sub-Saharan African countries that is presented in Figure 2, page 225.

Once more, in order to produce the corresponding reverse survival fertility estimates, the Excel template "PROJCT_Initial_FE_reverse.xlsx" needs to be modified in order to include the values of the parameter that was modified in the population projection.