

Other Vignettes

Terry Therneau

January 9, 2023

A parallel source for the survival package is the `therneau/survival` directory on github. This copy contains several extra vignettes, in the `vignette2` directory, that are not part of the CRAN copy.

1. `tutorial.Rnw`: This works through the examples found in the excellent tutorial by H. Putter, M. Fiocco and R. Geskus. Tutorial in biostatistics: competing risks and multi-state models, *Statistics in Medicine*, 2006.
2. `sas.Rnw`: An expanded discussion answering some repeated queries about how survival package results differ from SAS.
3. `ridge.Rmd`: Addresses a recurrent question wrt using the `ridge()` function with a large number of covariates.
4. `royston.Rnw`: A small note that describes the data sets used in an excellent paper on validation, and how those data were incorporated into the survival package. (Royston and Altman, DOI:10.1186/1471-2288-13-33)
5. `tests.Rnw`: A harder look at what SAS “type 3” tests are.
6. `pseudo.Rnw`: Use of pseudovalues and the pseudo function.
7. `singer.Rnw`: Worked examples from a textbook by Singer and Willett.

Number 1 is not on CRAN because it makes use of a data set from the `mstate` package. As a recommended package `survival` cannot depend on anything outside of the base + recommended R. (A minimally sufficient set that is self contained is useful for R maintainance and validation.) Multi-state models can be computed using either `mstate` or `survival`, and this vignettes shows how parallel the two packages are wrt to what is computed, though with styles in the setup of the data. It also provides an extended validation check, for both packages.

Number 2 delves into relative computing time questions, and those examples take a very long time to run. Material in the third vignette is now discussed at a higher level in the population estimate and adjusted survival curves vignettes. Number 4 uses packages `geepack` and `survey` to compute corrected standard errors; packages that are outside the recommended list.

In time, we expect this set of other vignettes to grow.