Corrections to the final proofs for “A unified framework of demographic time” GNUS-D-16-00040.2

we located no errors introduced in production, except for those raised in the responses to queries.

**responses to queries:**

**Q1:** please use Tim instead of Timothy:~~Timothy Riffe~~ → Tim Riffe,

**Q2:** no authors were equal contributers.

**Q3:** please change my contact email to my institutional email:

~~tim.riffe@gmail.com~~ → [riffe@demogr.mpg.de](mailto:riffe@demogr.mpg.de)

and for the institution, *fur* needs an umlaut:

~~fur~~ → für

**Q4:** several changes to make here

\*the section reference in lines 452-453 is awkward because it refers to a range. Let's change this

from:

... underly the four diagrams presented in “APC: chronological age, period, and birth cohort” to “LCD: lifespan, birth cohort, and death cohort” section.

to:

… underly the four diagrams presented in “the triad identities” section.

\* line 625 presently reads:

In “From dyads to the triad identities” section,

it would read better as:

In **the** “From dyads to the triad identities” section,

and I would similarly place 'the' in front of the section reference in lines:

\*631 … **the** “Application” section; ...

\*634 … **the** “Diagram of the hexad identity” ...

\*639 In **the** “Application” section …

\*667 … from **the** “From dyads to the triad identities” section, ...

\*682 … **the** “Application” section ...

**Q5:** use this:

Competing interests

The authors declare they have no competing interests.

**Q6:** We gave this in the document “Declarations.pdf”:

Authors' contributions

All authors contributed to the conception, drafting, and revision of the manuscript.

**Q7:** Caselli publisher location missing: use Burlington, MA, USA

**Q8** the bibtex key dempsey2016 should be changed to McCullagh2013 and the following bibtex entry used:

@Article{McCullagh2013,

Title = {{Survival models and health sequences}},

Author = {{McCullagh}, P. and {Dempsey}, W.},

Journal = {ArXiv e-prints},

Year = {2013},

Adsnote = {Provided by the SAO/NASA Astrophysics Data System},

Adsurl = {http://adsabs.harvard.edu/abs/2013arXiv1301.2699M},

Archiveprefix = {arXiv},

Eprint = {1301.2699},

Primaryclass = {stat.ME}

}

The 2016 bibtex entry previously cited is v3 of said manuscript. This entry corrects the title and author order. Our apologies for this. This is a publicly available preprint, so it can be cited in the reference list.

**Q9**

**\*** the Health and Retirement Study is a data source. Its website (<http://hrsonline.isr.umich.edu/index.php?p=regcou>) asks to be cited in this way:

"Health and Retirement Study, ([insert Product Name]) public use dataset. Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI, (year)."

in our reference build it reads as follows, order changed due to bibliography style file used:

Health and Retirement Study (2013). public use dataset. electronic. Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI.

we do not know what other information needs to be included, or whether the bibtex fields simply need to be rearranged. We do not cite a specific product name because we in fact use a derivative data set produced by RAND (also cited), but it is necessary to cite HRS as well when using this. Please advise.

\* Riffe 2016:

the present bibtex entry is:

@Article{riffe2016ttd,

Title = {Time-to-death patterns in markers of age and dependency},

Author = {Riffe, T. and Chung, P. H. and Spijker, J. and MacInnes, J.},

Journal = {Vienna Yearbook of Population Research},

Year = {2016},

Note = {(in press)},

Volume = {14}

}

this can be changed to the following in order to meet your guidelines.

@Article{riffe2016ttd,

Title = {Time-to-death patterns in markers of age and dependency},

Author = {Riffe, T. and Chung, P. H. and Spijker, J. and MacInnes, J.},

Journal = {Vienna Yearbook of Population Research},

Year = {2016},

Note = {(forthcoming) {preprint available http://www.demogr.mpg.de/papers/working/wp-2015-003.pdf}},

Volume = {14}

}

\* van Raalte & Riffe, the bibtex key vanRaalte2015HLE can change to riffe2017

the previous bibtex entry was:

@Misc{vanRaalte2015HLE,

Title = {Accounting for temporal variation in morbidity},

Author = {Van Raalte, Alyson and Riffe, Tim},

Note = {Paper presented at Population Association of America 2016 Annual Meeting, Washington, D. C., USA, Mar 31--Apr 2, 2016},

Year = {2016}

}

this should be replaced with the most recent version of the manuscript (title and author order changed, link given), here:

@Article{riffe2017,

Title = {Healthy life expectancy, mortality, and age prevalence of morbidity},

Author = {Riffe, Tim and Van Raalte, Alyson and Bijlsma, Maarten J.},

Journal = {MPIDR Working Papers},

Year = {2016},

Number = {015},

Volume = {2017},

Url = {{http://www.demogr.mpg.de/papers/working/wp-2017-015.pdf}}

}

since this has not yet been peer-reviewed, one could also add Note = {(unpublished)} to this entry, but it seems obvious since it's a working paper citation.