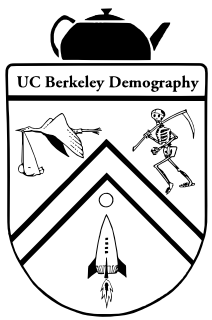
Life lost, lifesaving, and causes of death

Tim Riffe[1] & Aïda Solé Auró[2]

[1] Department of Demography,
University of California, Berkeley
[2] Universitat Pompeu Fabra

PAA 2015 Annual Meeting
Session 234, Saturday, May 2



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Mortality measurement

lifetable: purged of structure

counts: structure $\times$ intensity

combo: Person Years of Life Lost (PYLL), _____, ...

PYLL

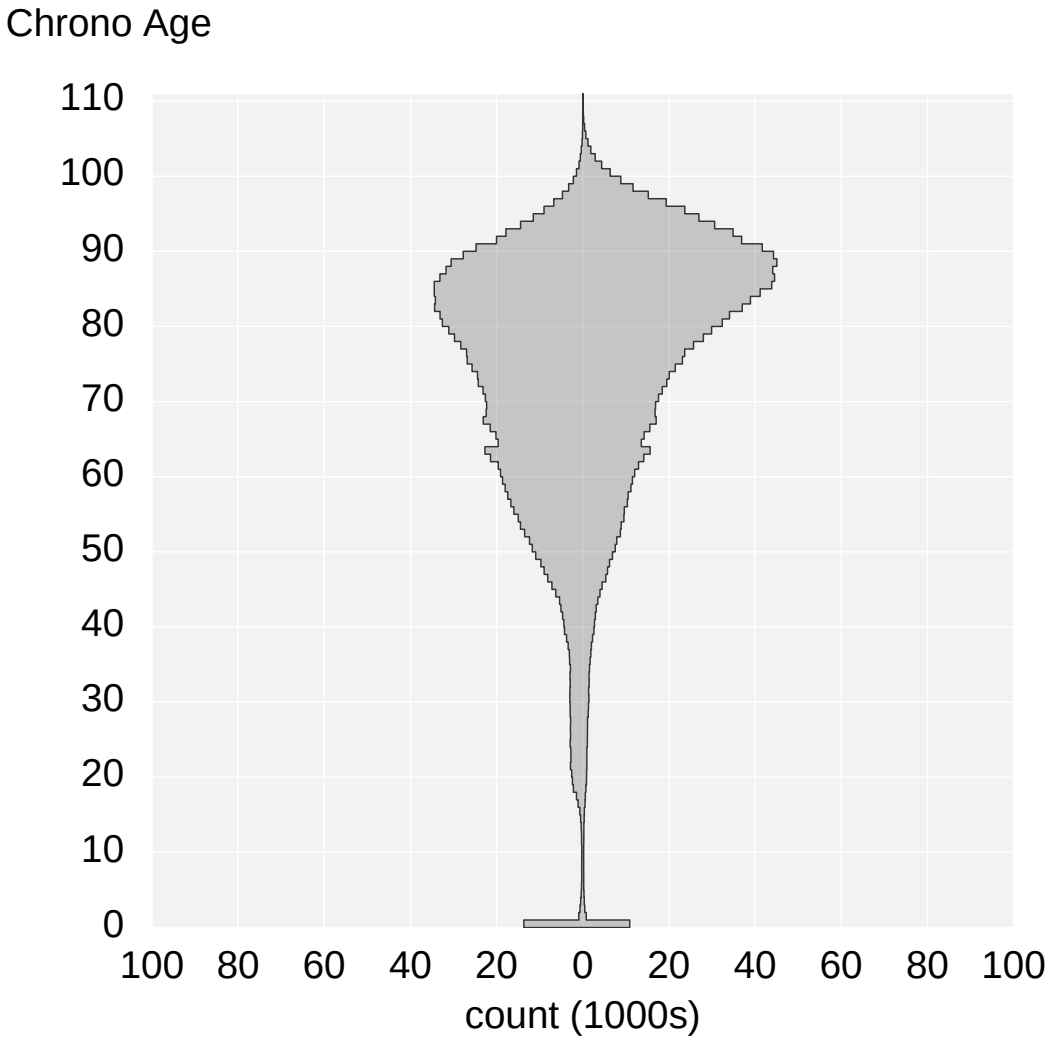
Person years of life lost

$$\text{PYLL} = \int_0^\omega D(a) \cdot e(a)\, \mathrm{d}a \tag{1}$$

$$\text{PYLL}^c = \int_0^\omega D^c(a) \cdot e(a)\, \mathrm{d}a \tag{2}$$

(mention that there are decreasing returns to $\mu(a)$ improvements, since $D(a)$ decreases, but $e(a)$ increases = ambiguous change in PYLL?)

PYLL & friends

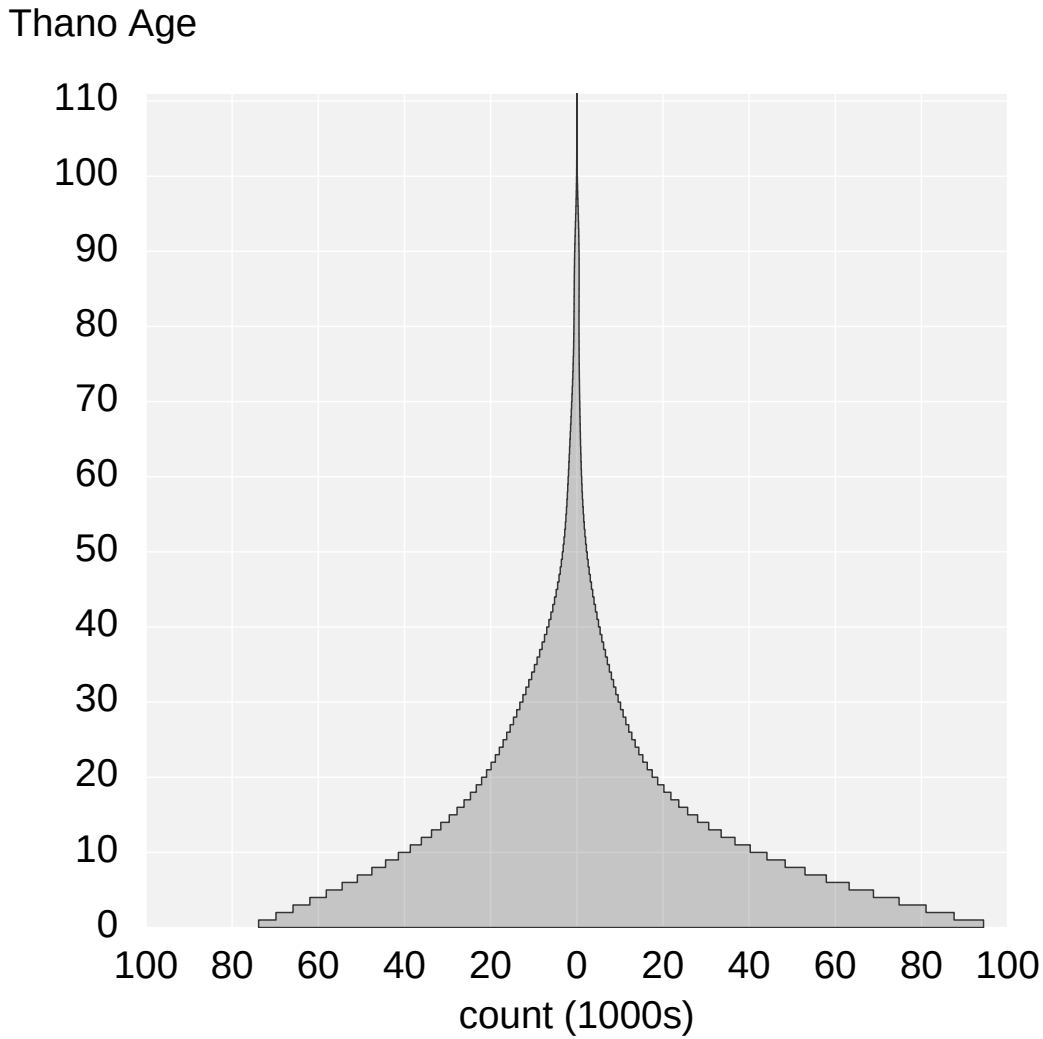


$D(a)$ (US, 2010)

PYLL & friends

Years Lost

Riffe & Solé



$D(y)$ (US, 2010)

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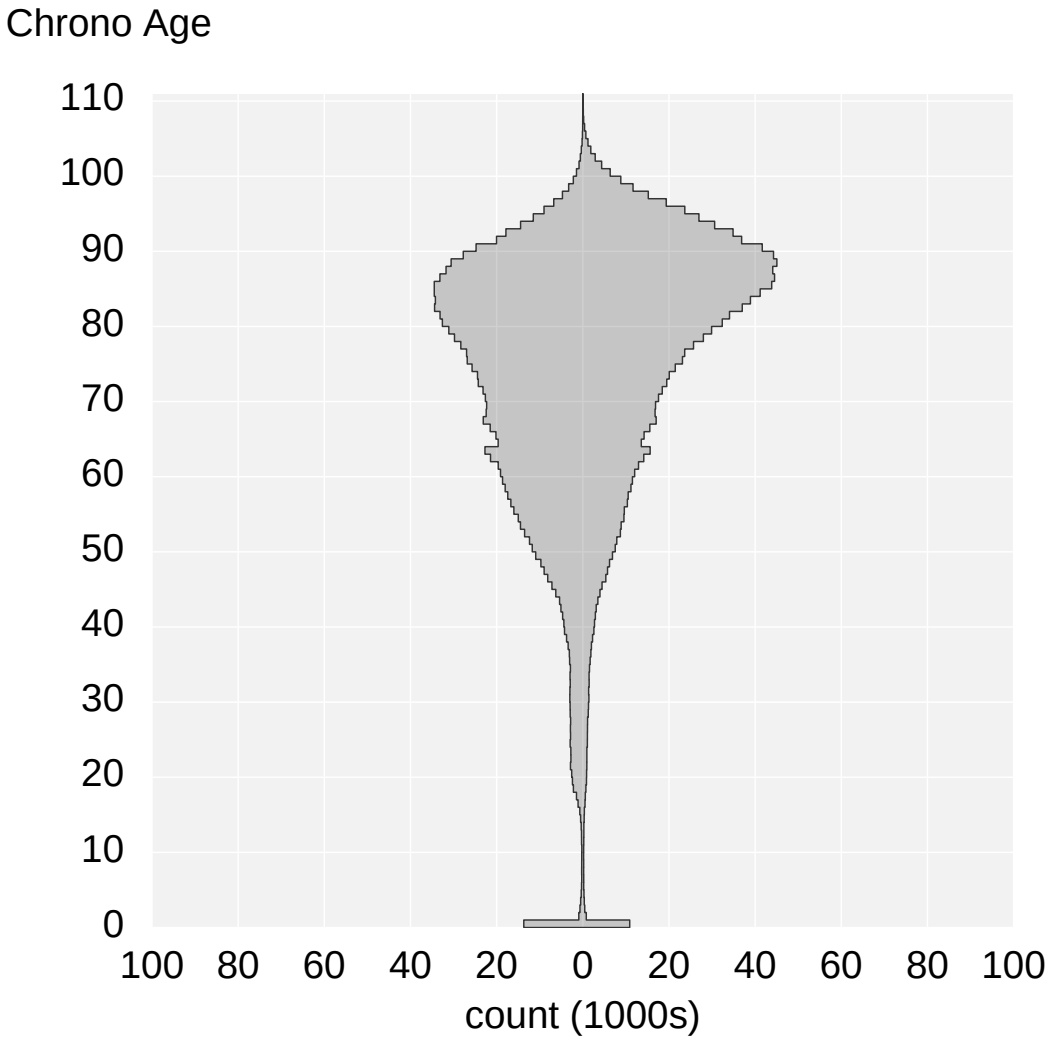
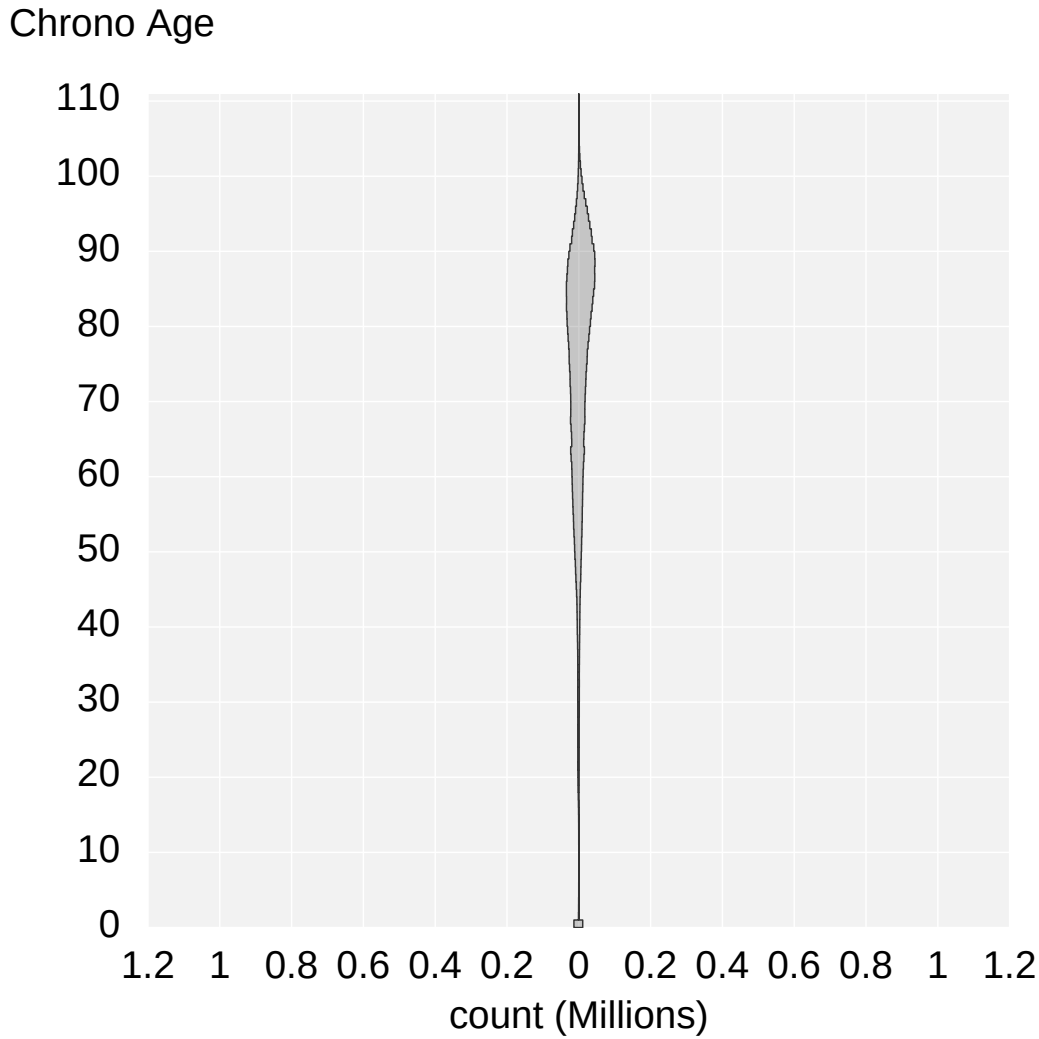


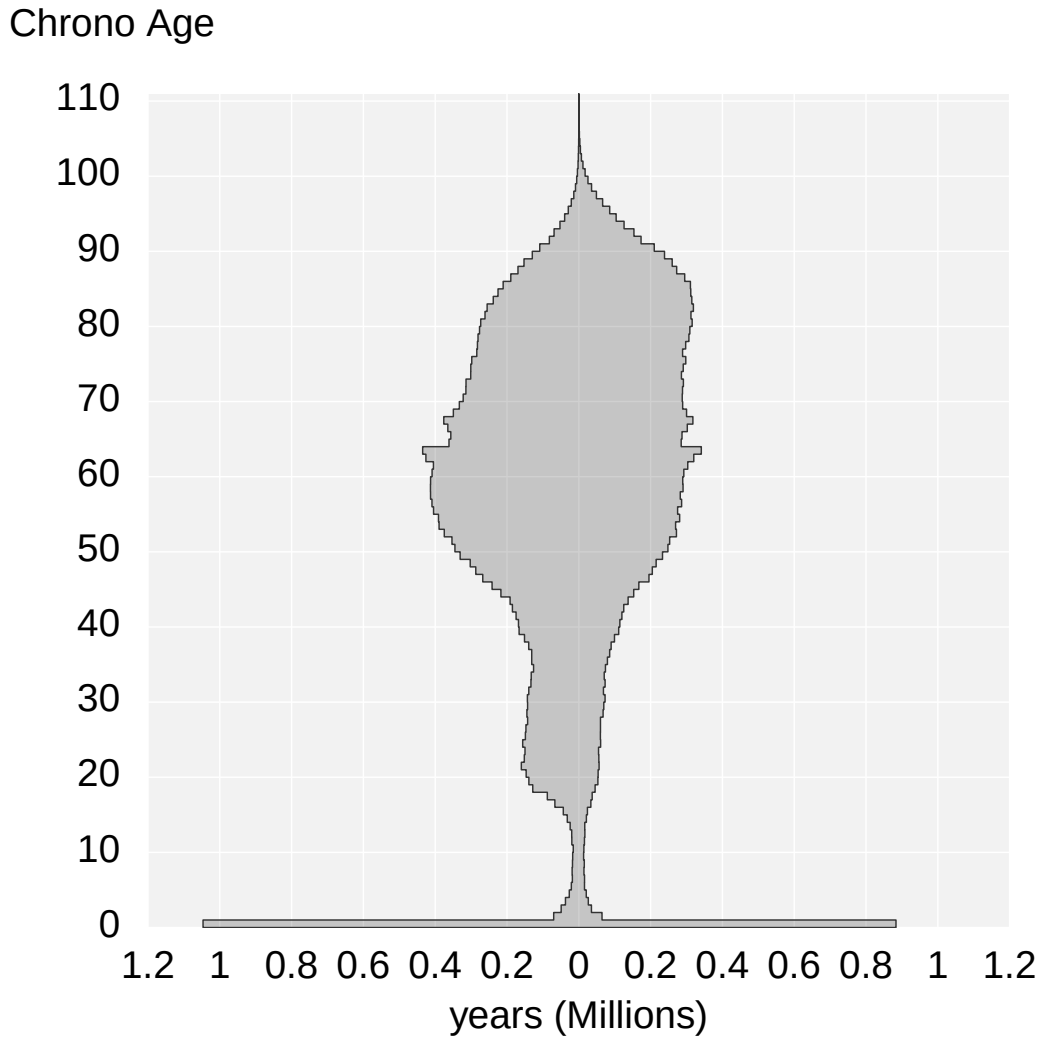
$D(a)$ (US, 2010)

PYLL & friends



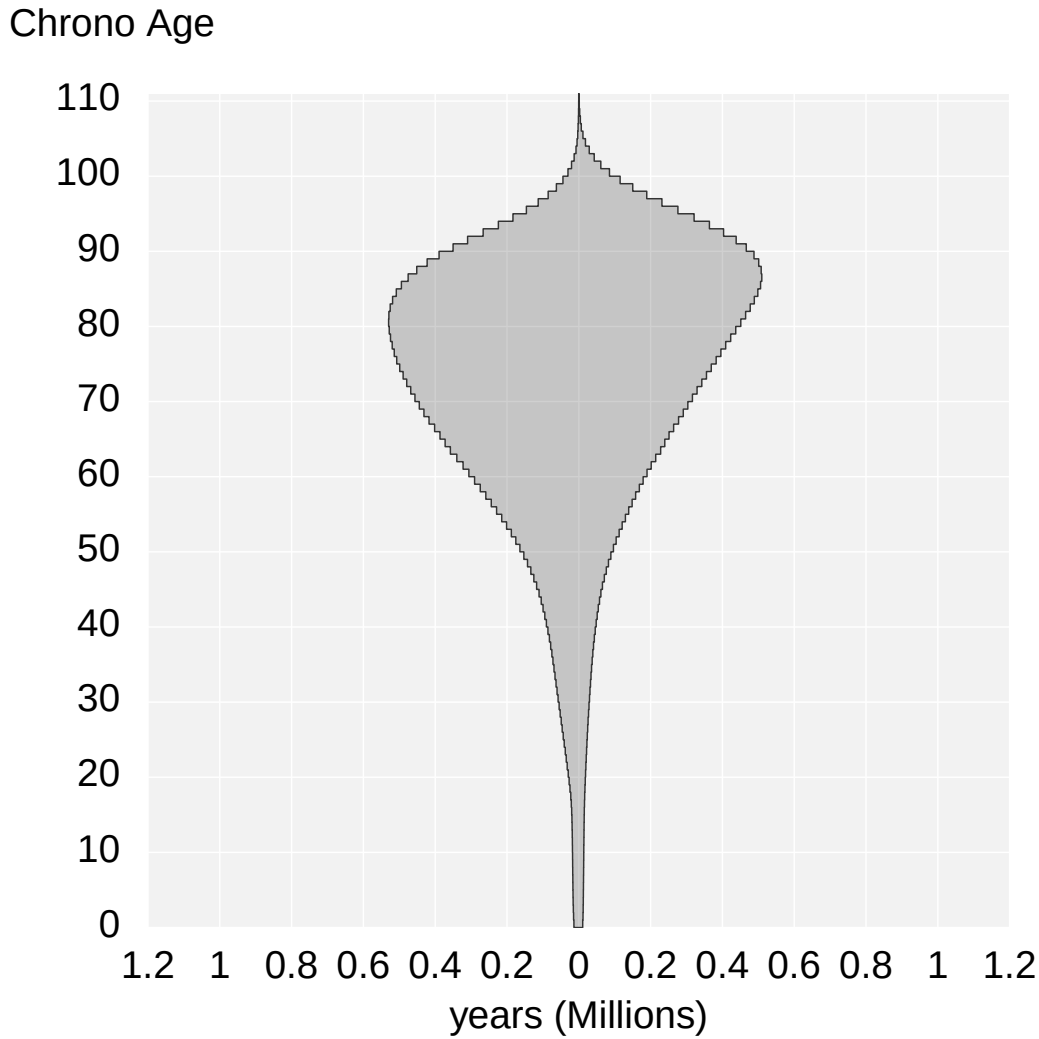
$D(a)$ (US, 2010)- changed scale

PYLL & friends



$PYLL(a)$ (US, 2010)

PYLL & friends



$W(a + y|a)$ (US, 2010)

Here a plot of the years of life lived through (foregone). In order to do this properly, you can't just do $x + e(x)$, but you need to use the whole conditional dist. Show eqn?

Now the same thing for causes: no formula necessary, just figs.

Years Lost

Riffe & Solé

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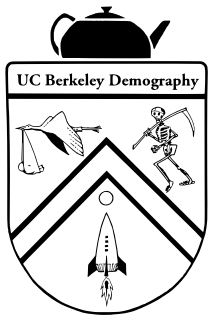
Thank you!

tim.riffe@gmail.com
Aida's email here