- Changed how I calculate s_x for the second last age group
- Changed how to calculate ${}_0q_5$ that was previously slightly off
- Given the hypervariance for h a tighter prior and hypervariance for k a more diffused prior, if I loosen the prior on h hypervariance I get crazy estimates again
- Switched to using UNPD census counts instead of WPP population estimates (but using 1960 WPP estimates as baseline)
  - use a separate hypervariance for the baseline population?
- Tried fitting to only 0 - 50+, 0 - 50, 5 - 50+, 5 - 50, with different combinations of MVN, AR, ARIMA on h and k,estimated h are sill lower than IGME estimates
- Tried using AR around common mean for k and AR around 0 for k, estimated precision for k varies such that in both case are around 2.7
- Tried fitting to just the DHS data, the IGME priors are effective
- Results below shown are fitted to 0-85+ Burkina Faso females
  - Estimated ρ for h and k are very close to 1, hence the almost parallel estimate h to the IGME estimates
  - Wiggly estimated f_x (but the magnitude is small?)
  - Estimated migration proportion insensible at the oldest age groups
  - Estimated ${}_{45}q_{15}$ are higher than WPP estimates most of the time
  - Currently estimating logit(ρ), i.e. ρ can only be within $(0, 1)$, should I scale it to $(-1, 1)$?
  - Fitting too closely to population data?
  - Estimated 0-4 population seems to be consistently higher than the raw data and parallel?

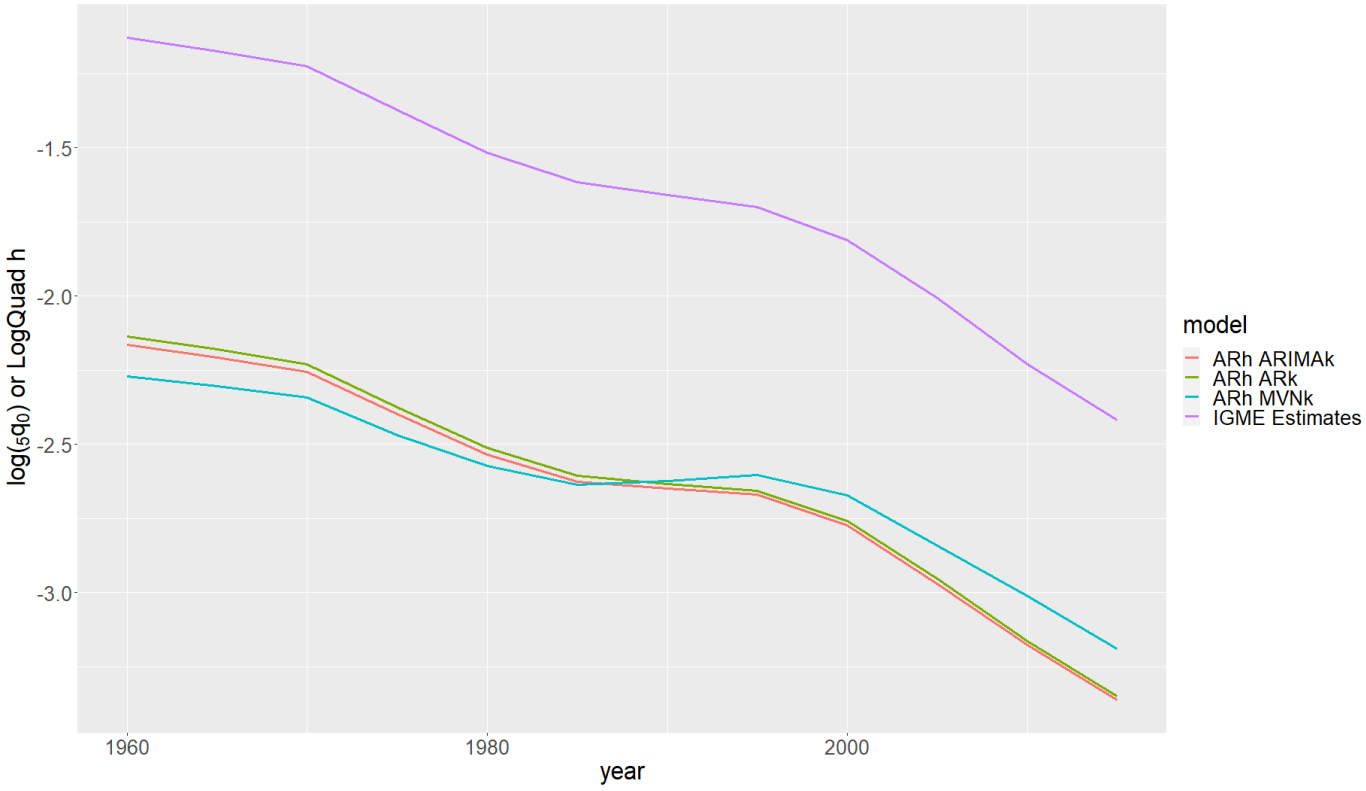

Figure 1: Estimated h

Figure 2: Estimated k

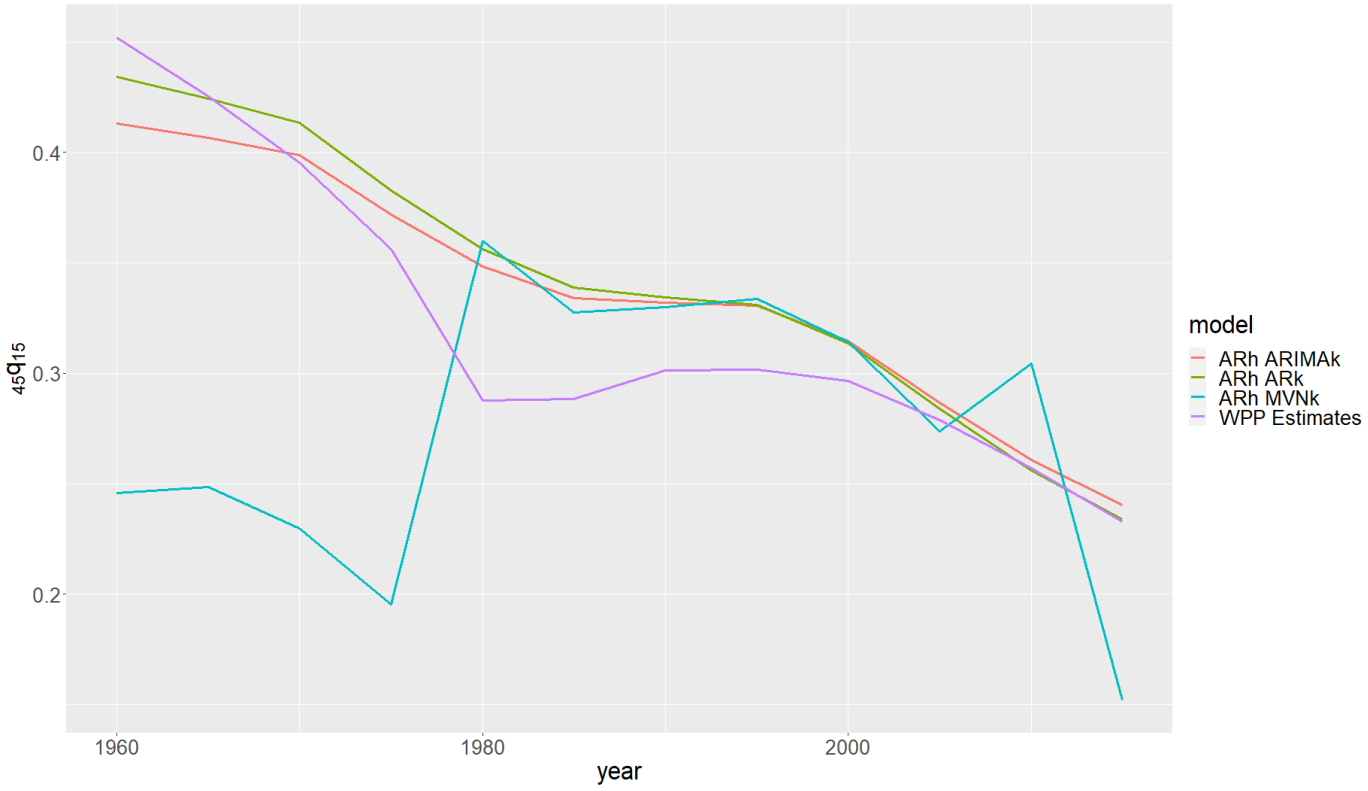

Figure 3: Estimated ${}_{45}q_{15}$

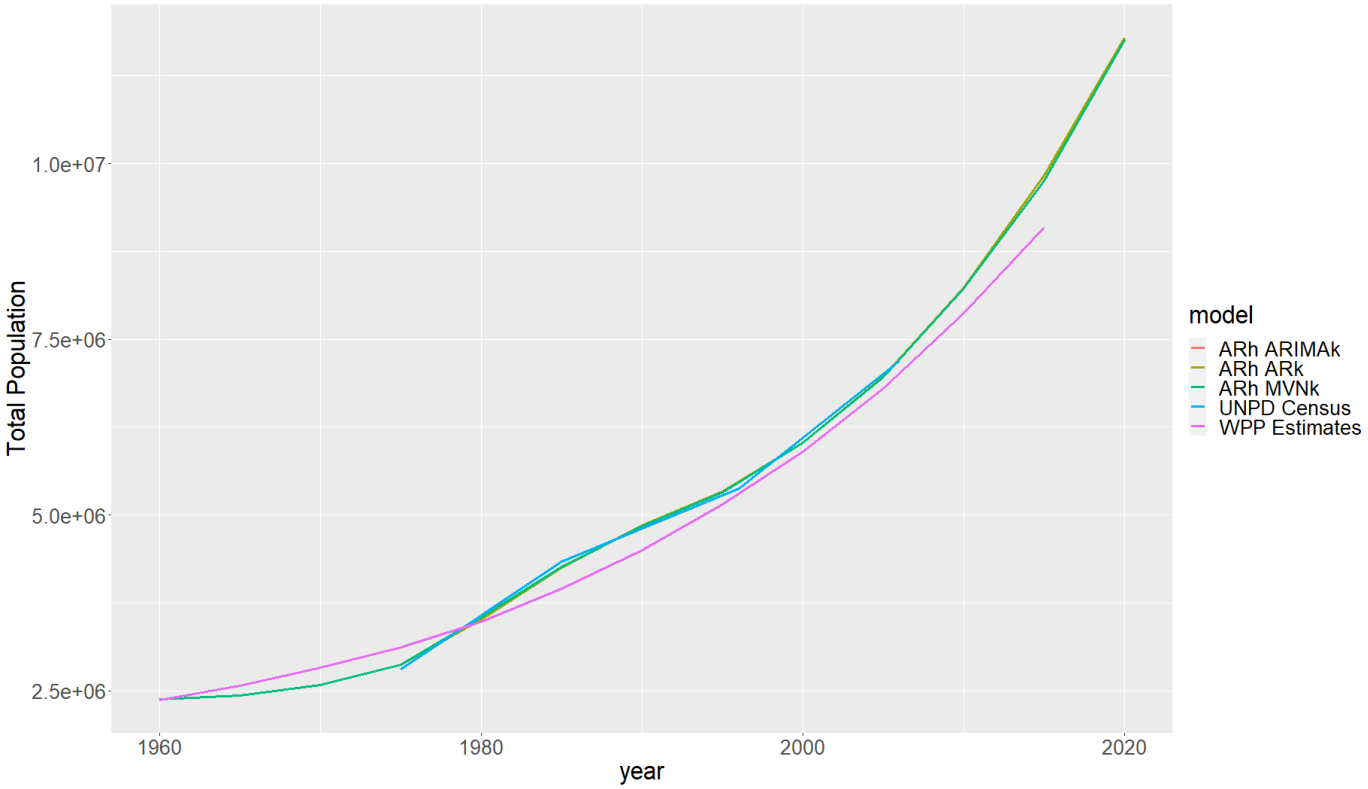

Figure 4: Estimated total population counts

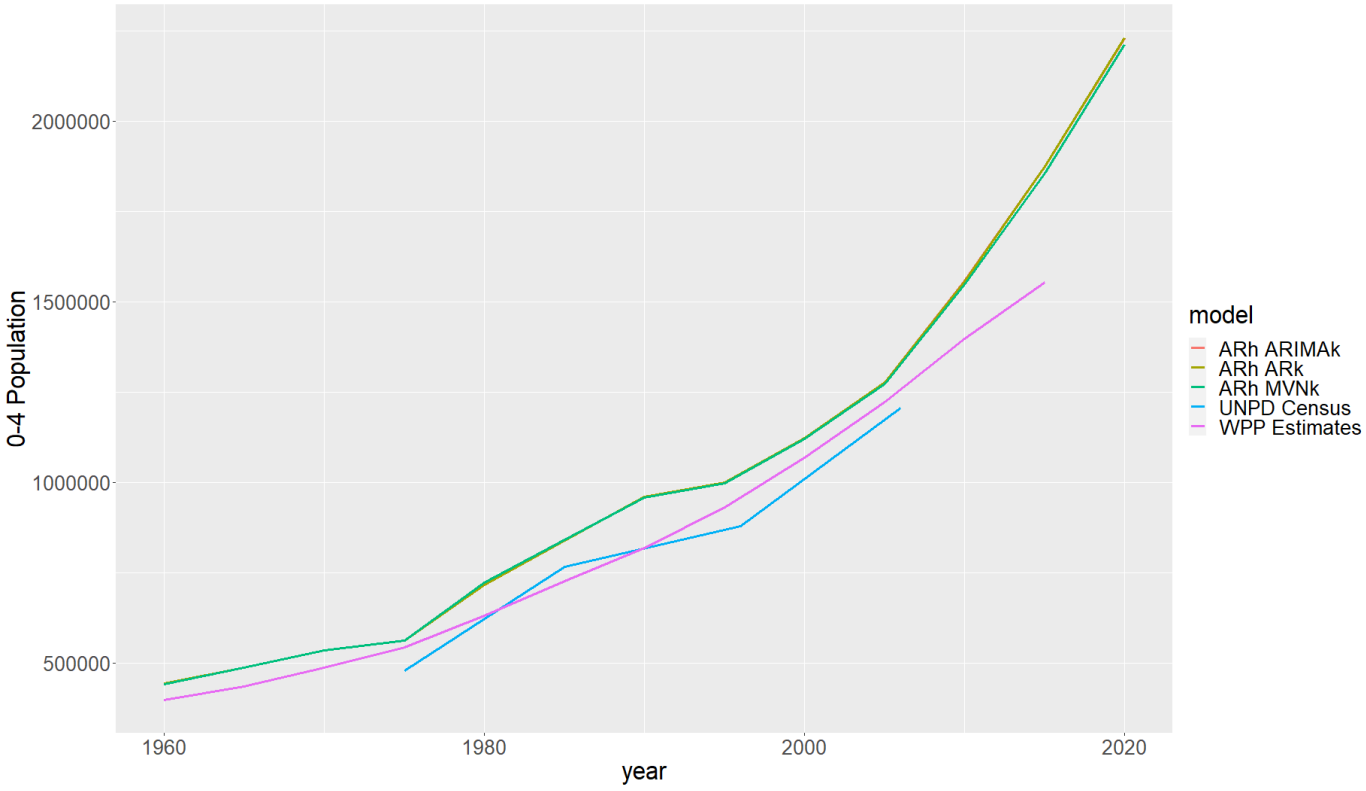

Figure 5: Estimated 0-4 population counts

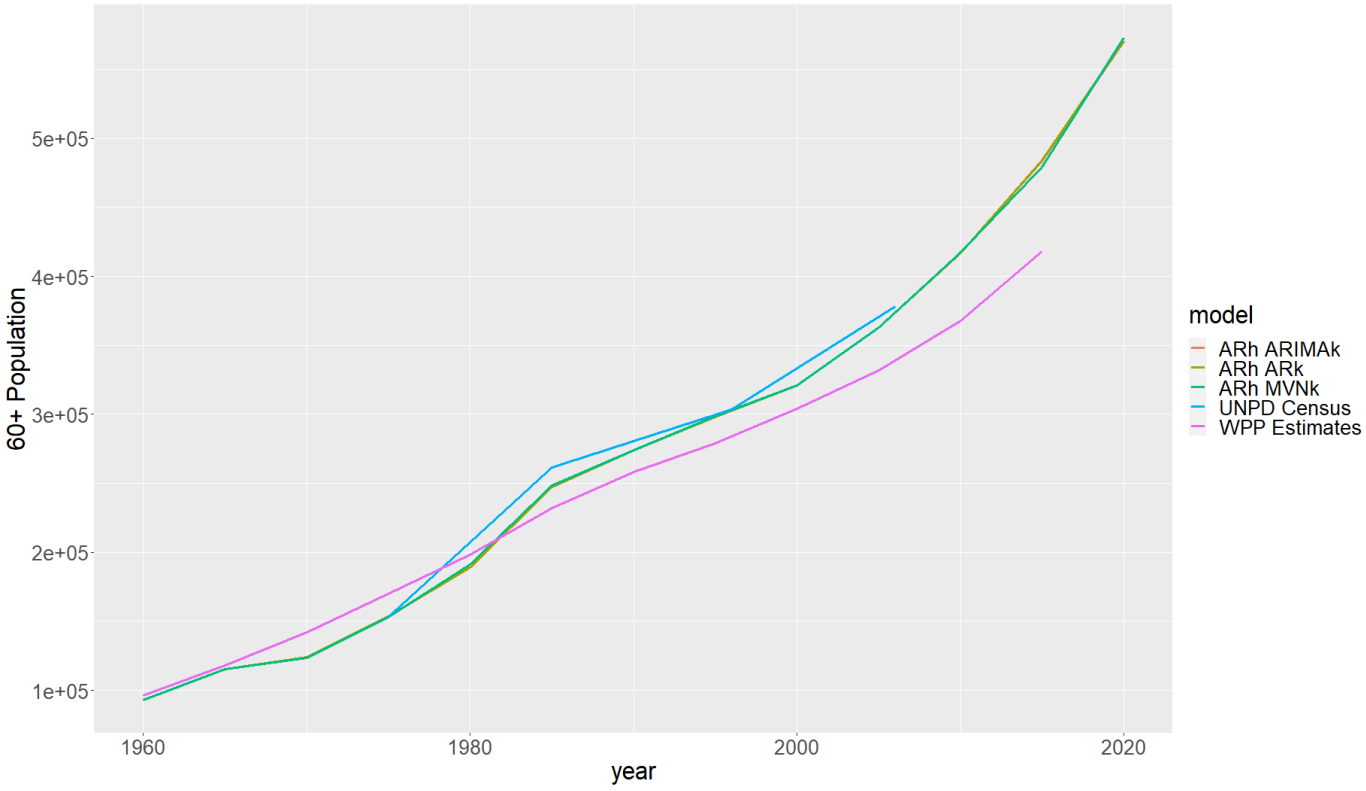

Figure 6: Estimated 60+ population counts

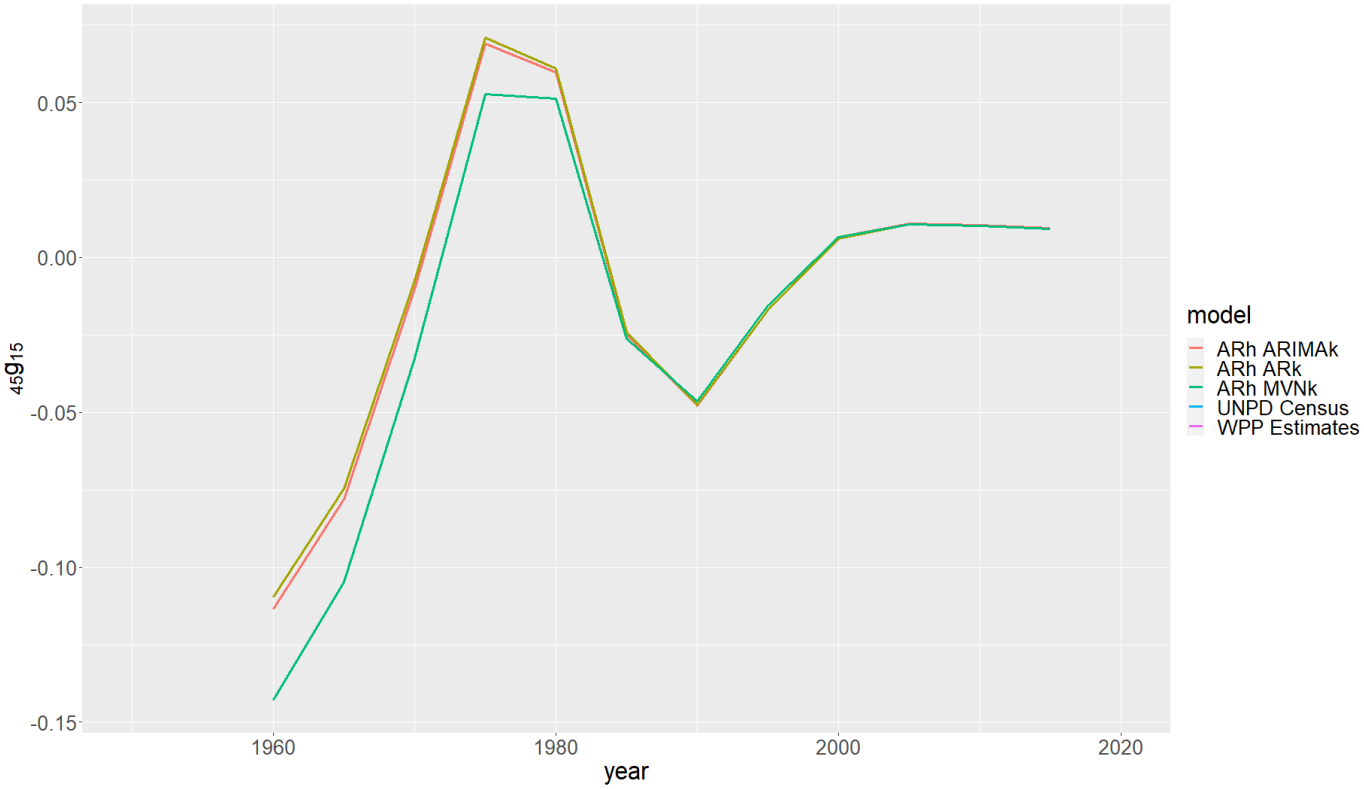

Figure 7: Estimated ${}_{45}g_{15}$

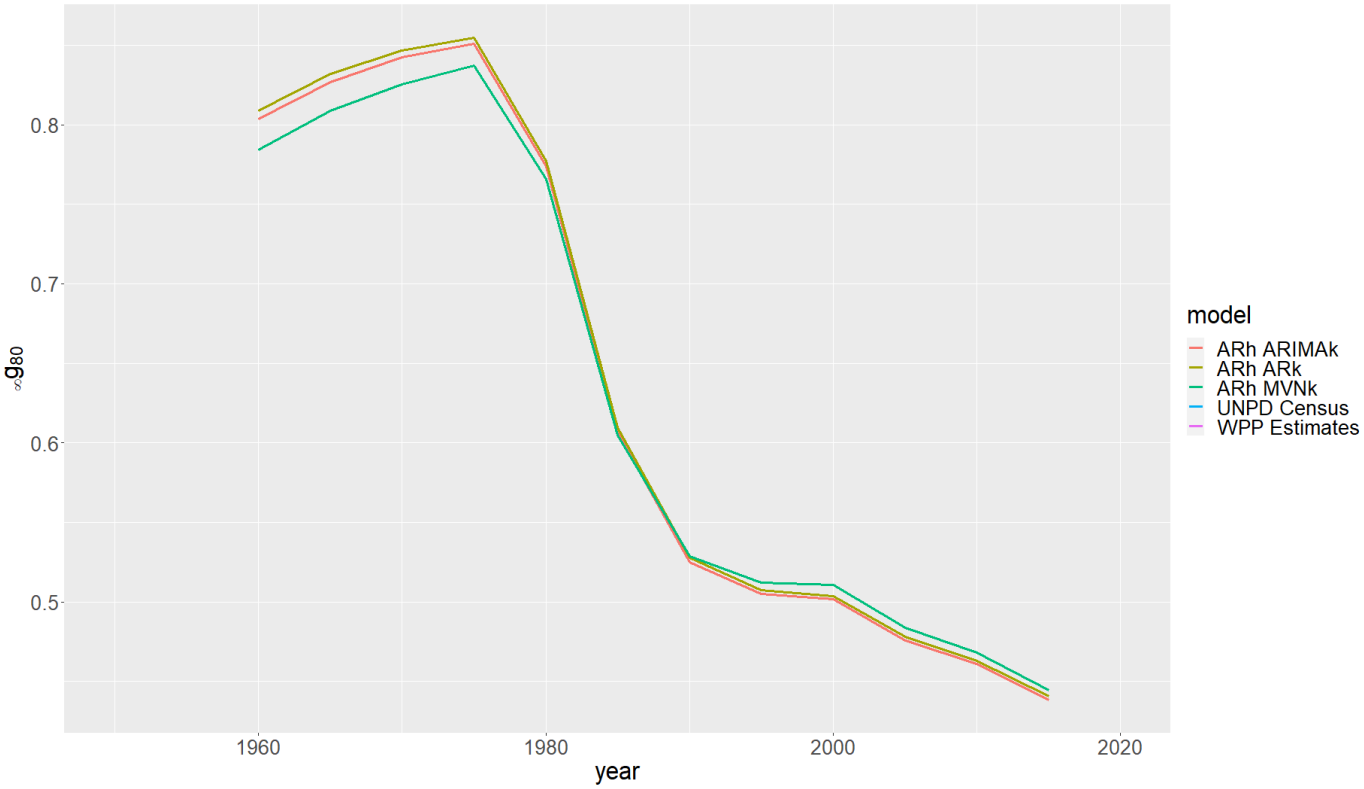

Figure 8: Estimated ${}_{\infty}g_{80}$

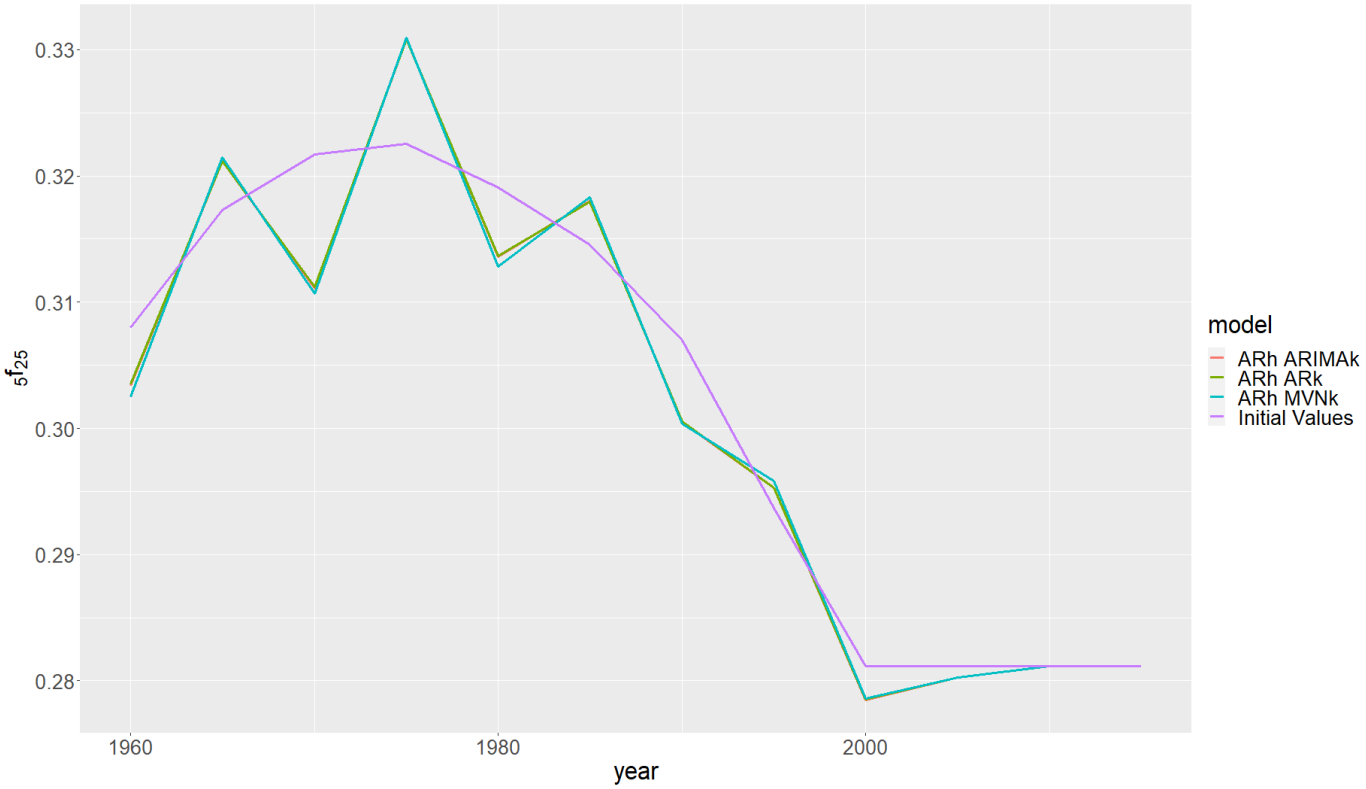

Figure 9: Estimated ${}_5f_{25}$