

Cameroon

```
## [1] "Census Females"

## # A tibble: 18 x 3
##   aggr.age `1976` `2005`
## *   <dbl>   <dbl>   <dbl>
## 1       0 605118. 1459701
## 2       5 512635. 1245427.
## 3      10 411125. 1083712.
## 4      15 345677.  980507.
## 5      20 305370.  871761.
## 6      25 269228.  725047.
## 7      30 240773.  570272.
## 8      35 215240.  447998
## 9      40 183224.  362542.
## 10     45 149331.  293035.
## 11     50 118695.  225194.
## 12     55  92248.  167459.
## 13     60  69672.  135550
## 14     65  48846.  112398.
## 15     70  34361.   83816
## 16     75  23450.   55071.
## 17     80  15762.   32990.
## 18     85  16650.   34412.
```

```
## [1] "Census Males"

## # A tibble: 18 x 3
##   aggr.age `1976` `2005`
## *   <dbl>   <dbl>   <dbl>
## 1       0 611324. 1492147
## 2       5 530589. 1285387.
## 3      10 431534. 1112479.
## 4      15 336850.  950731
## 5      20 266002.  784565
## 6      25 221801.  643247.
## 7      30 198387.  526814.
## 8      35 184225.  425732.
## 9      40 165759.  350254.
## 10     45 142701.  291147
## 11     50 117673.  230421.
## 12     55  93580.  174257
## 13     60  71082.  135184.
## 14     65  48797.  105059.
## 15     70  32937.   75878
## 16     75  22064.   48616.
## 17     80  14288.   27711.
## 18     85  17413.   26538.
```

Thiele log-Normal Hump RW

```
## Warning in fit_tmb(input.thiele.loghump.oag.vec.RW, inner_verbose = FALSE, : convergence error: false c
```

```
##      user  system elapsed
##      5.01    0.14    5.17
## [1] "false convergence (8)"
```

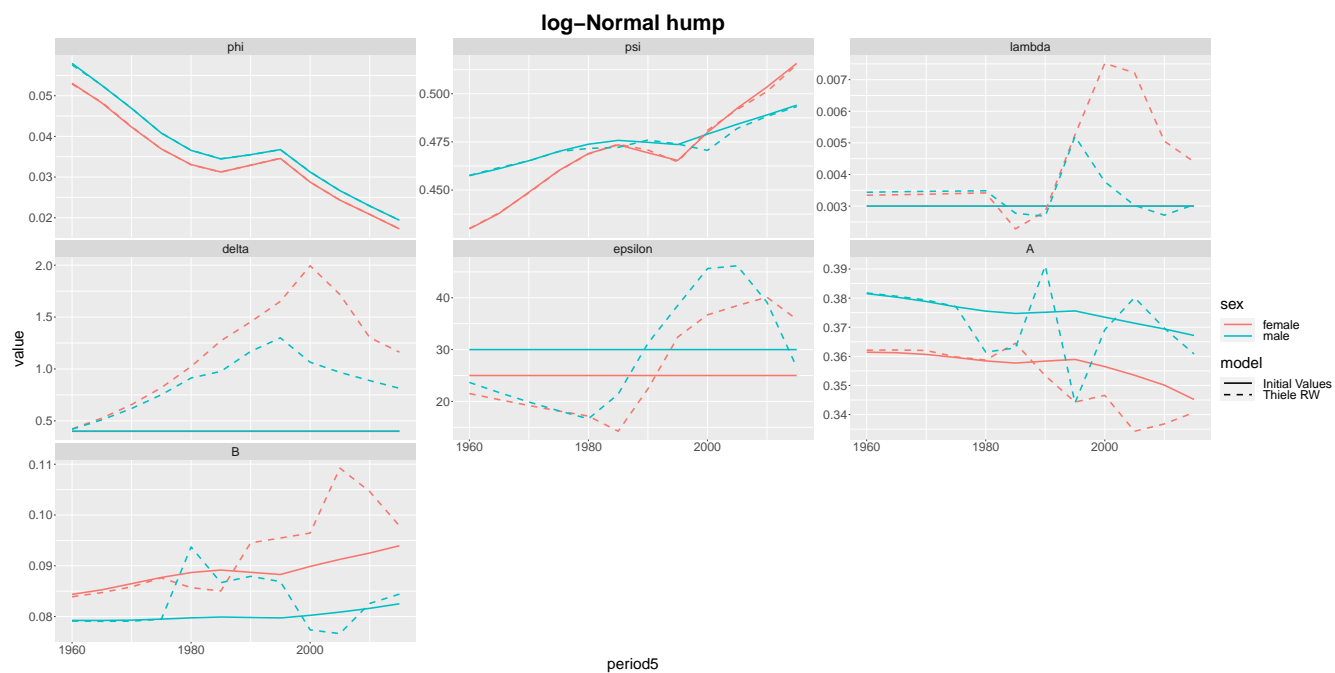


Figure 1: Estimated parameters



Figure 2: Estimated $45q_{15}$

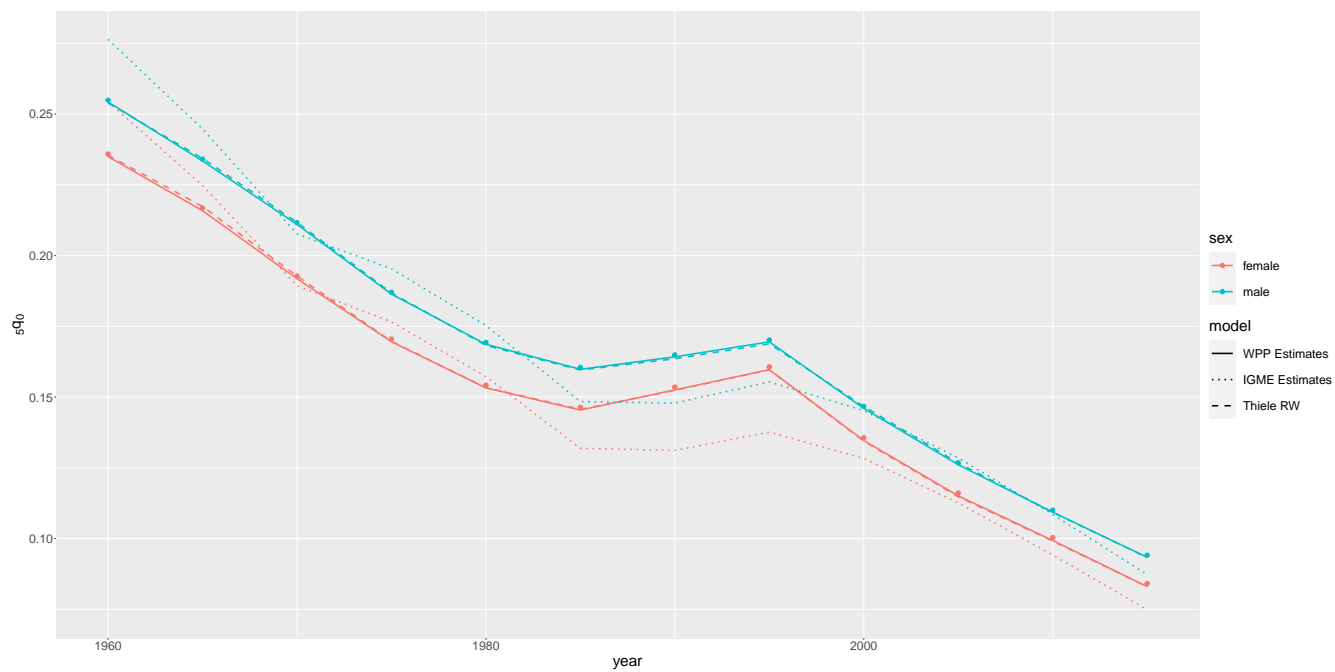


Figure 3: Estimated $5q_0$

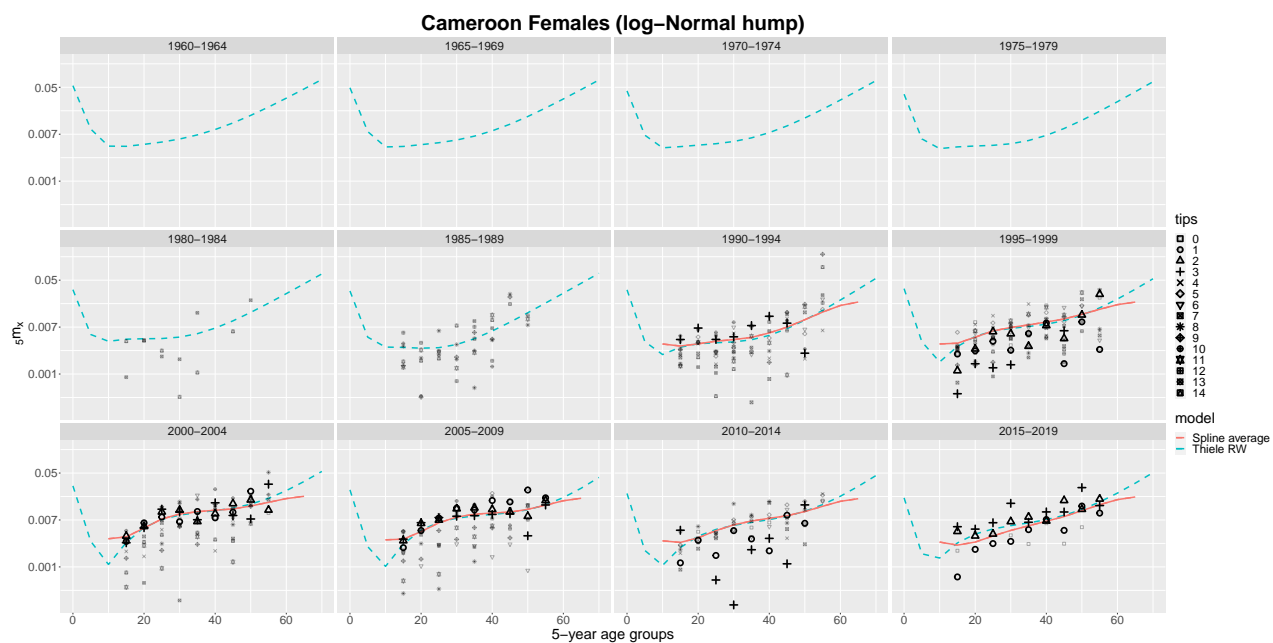


Figure 4: Mortality Schedules

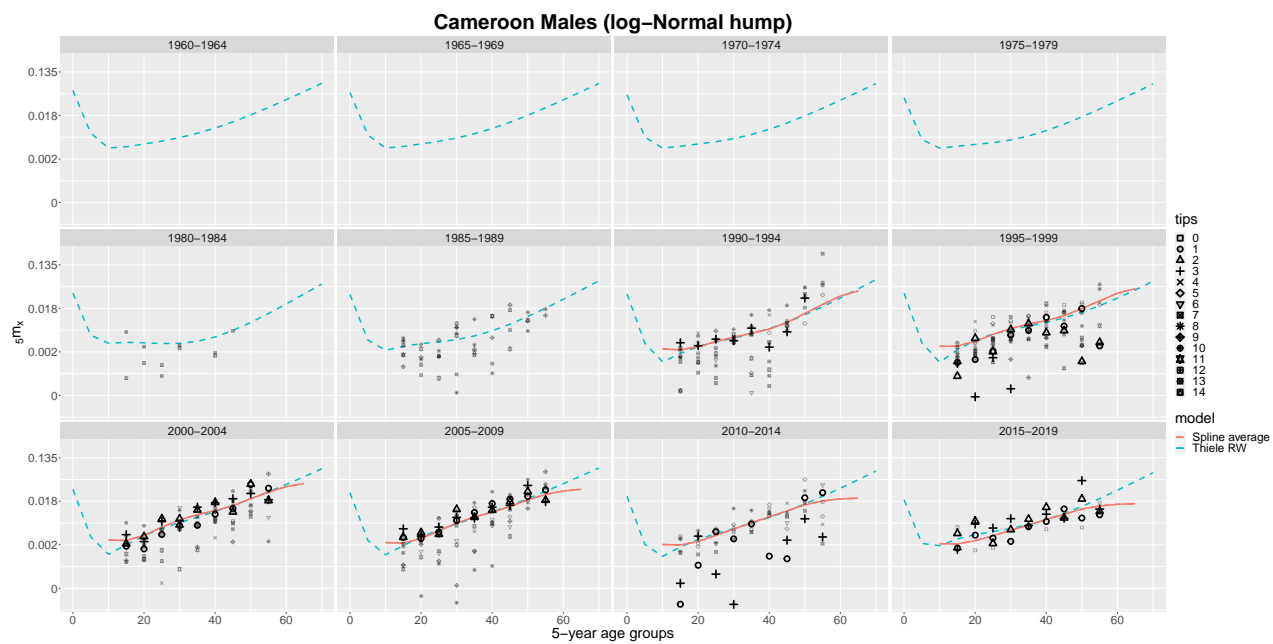


Figure 5: Mortality Schedules

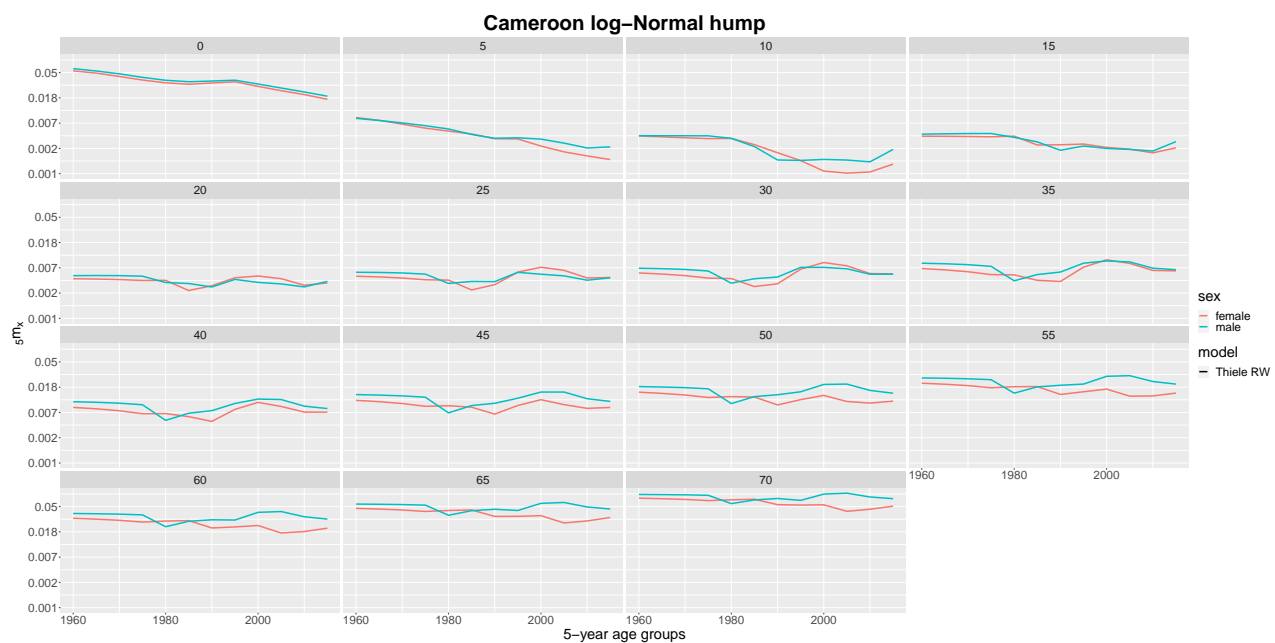


Figure 6: Mortality Schedules

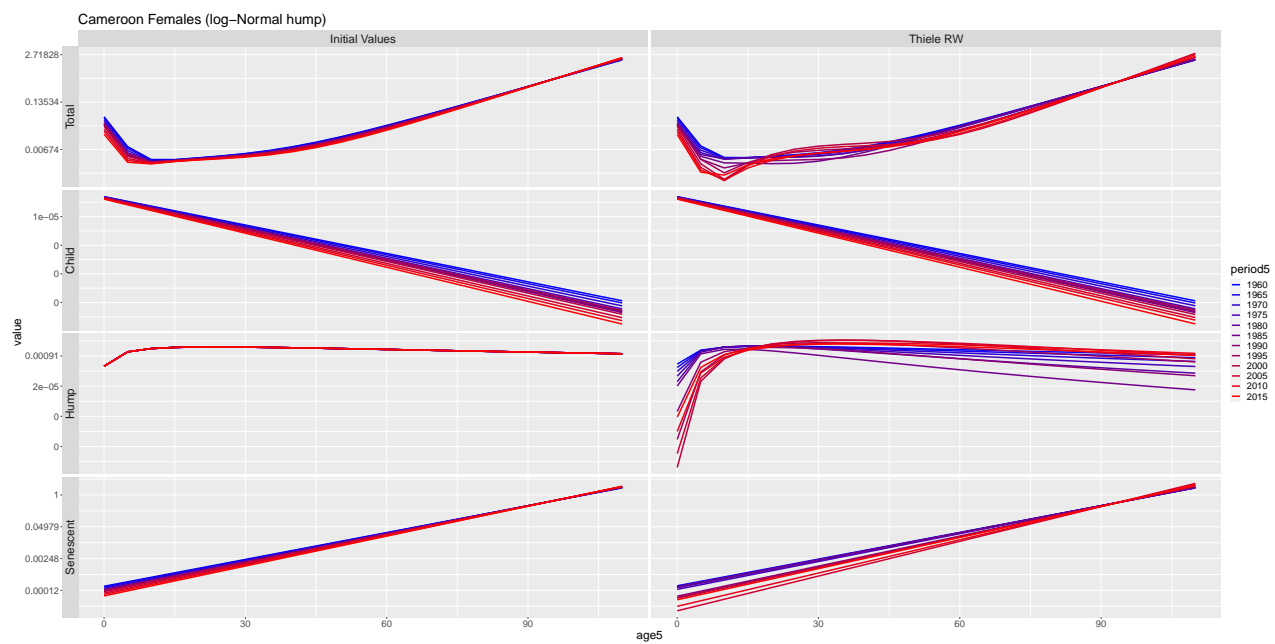


Figure 7: Thiele Decomposed

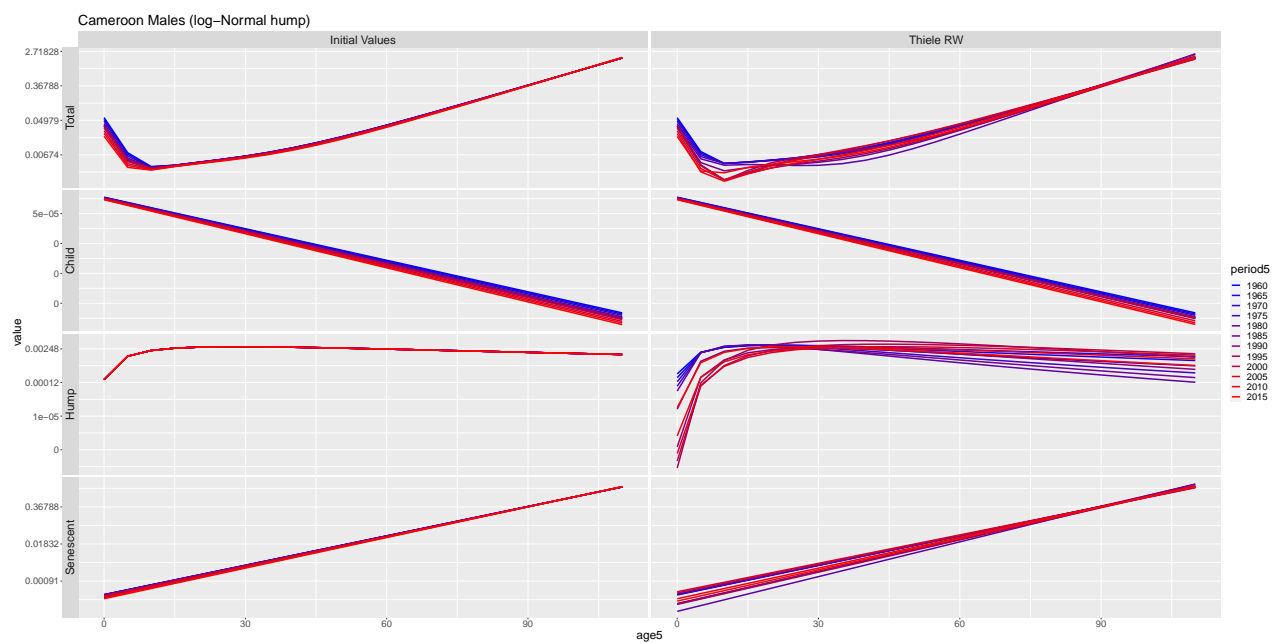


Figure 8: Thiele Decomposed

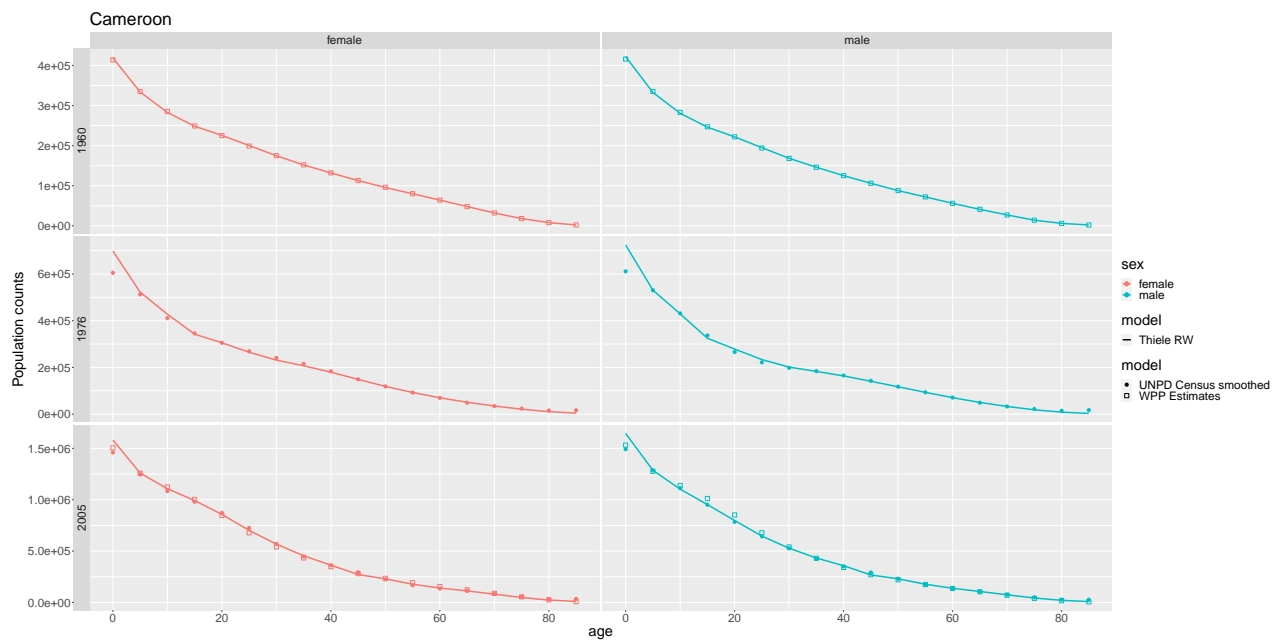


Figure 9: Population

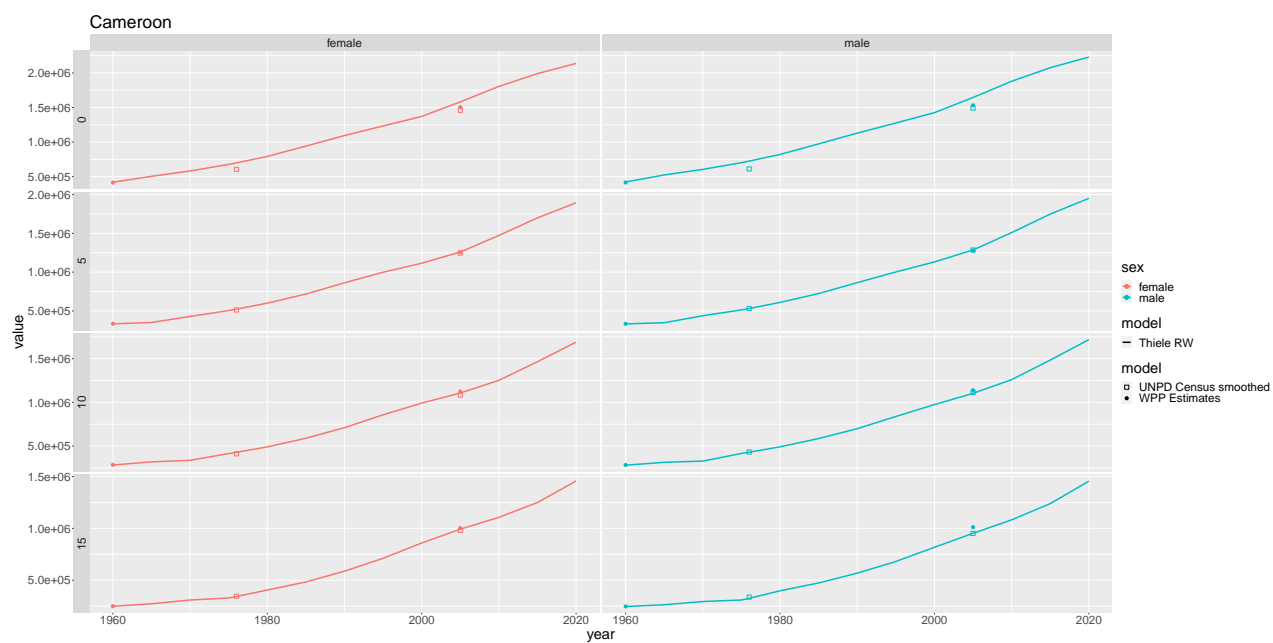


Figure 10: Population

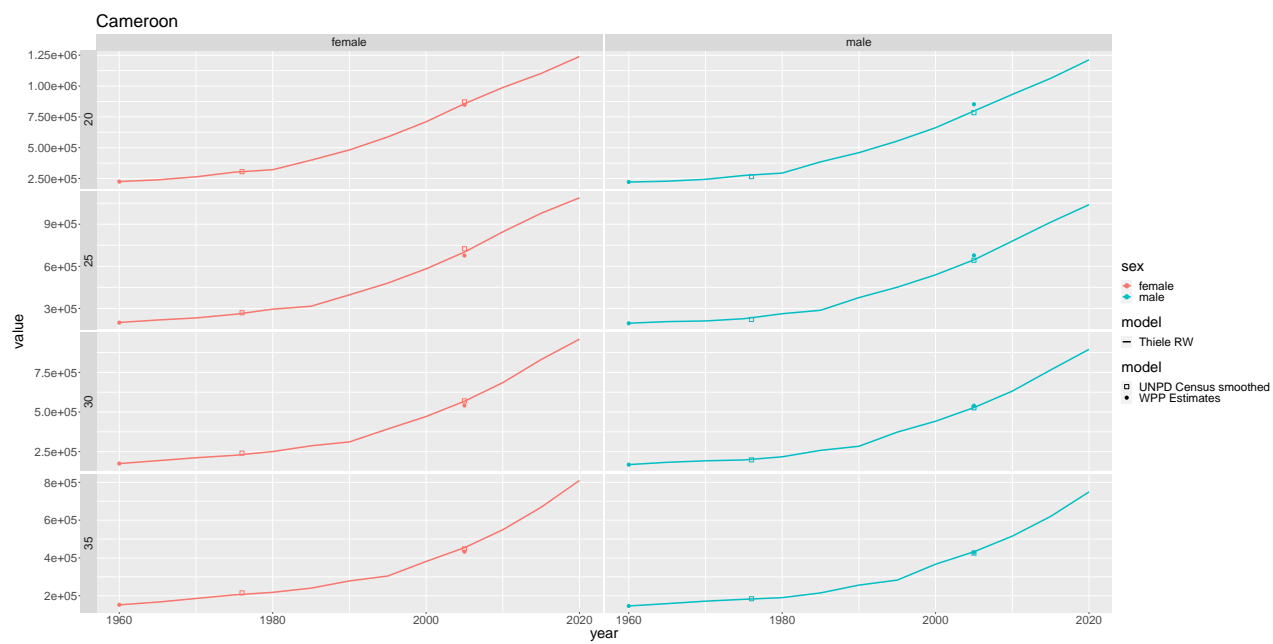


Figure 11: Population

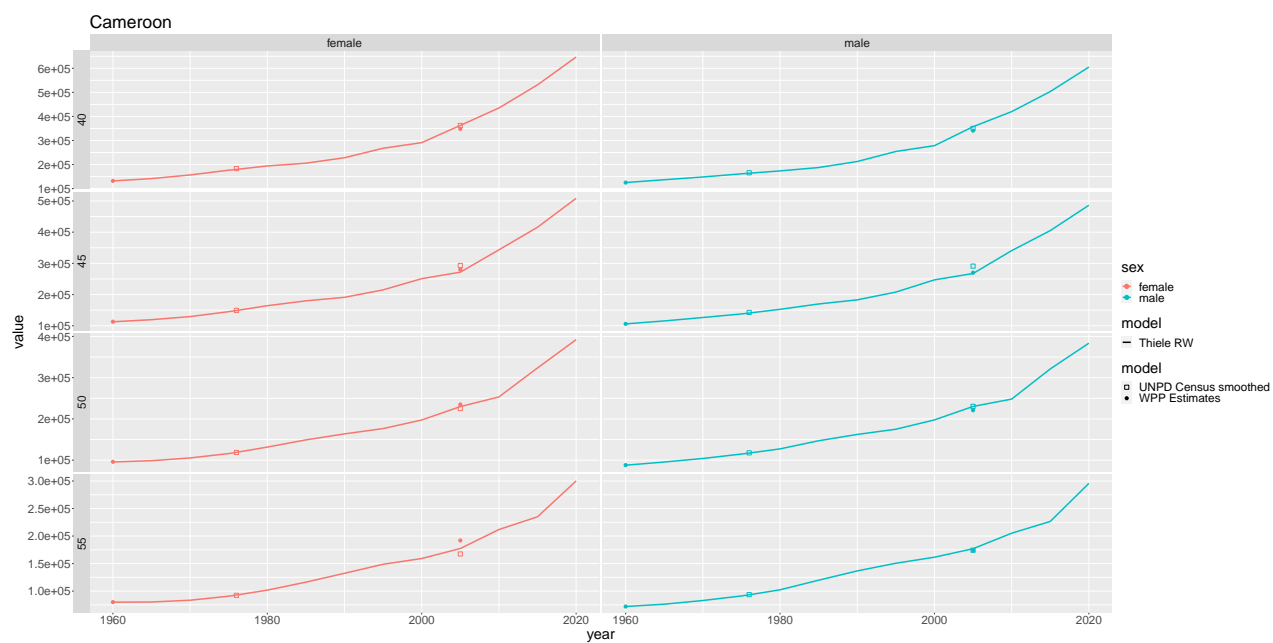


Figure 12: Population

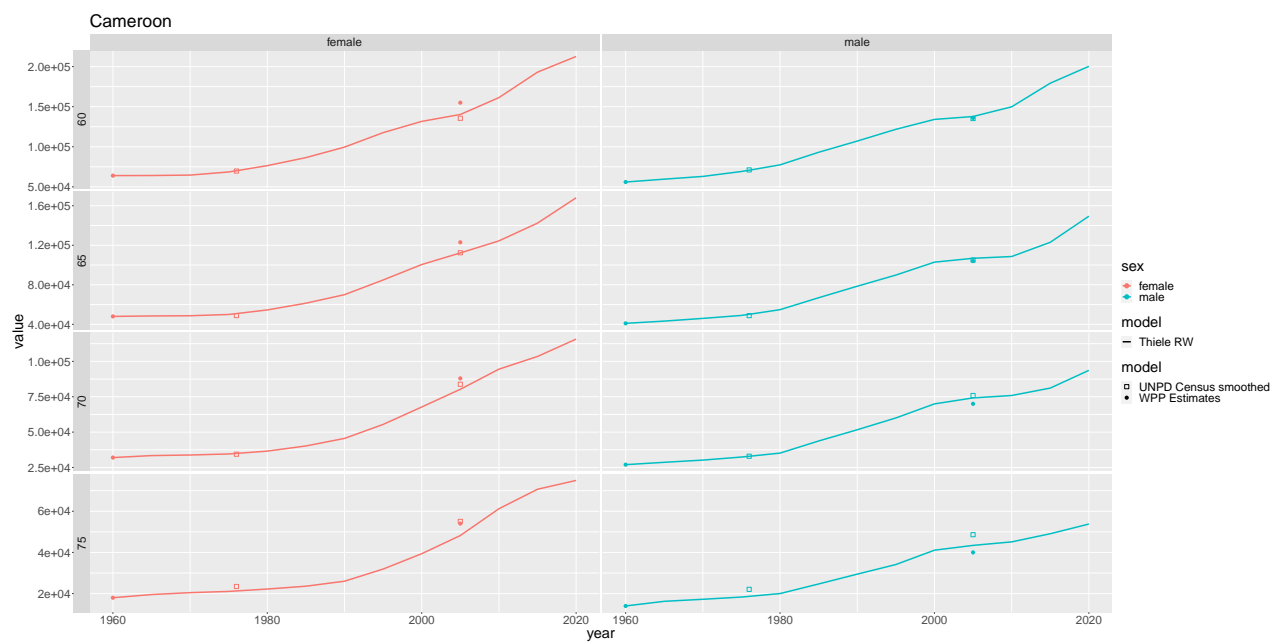


Figure 13: Population

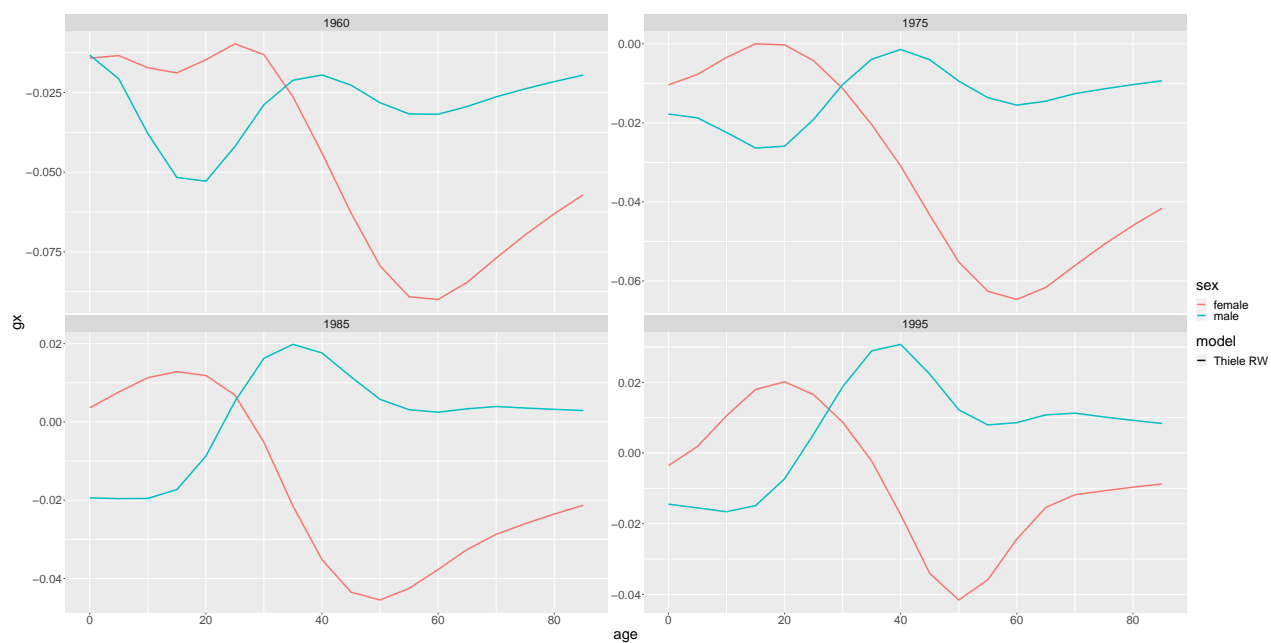


Figure 14: Migration

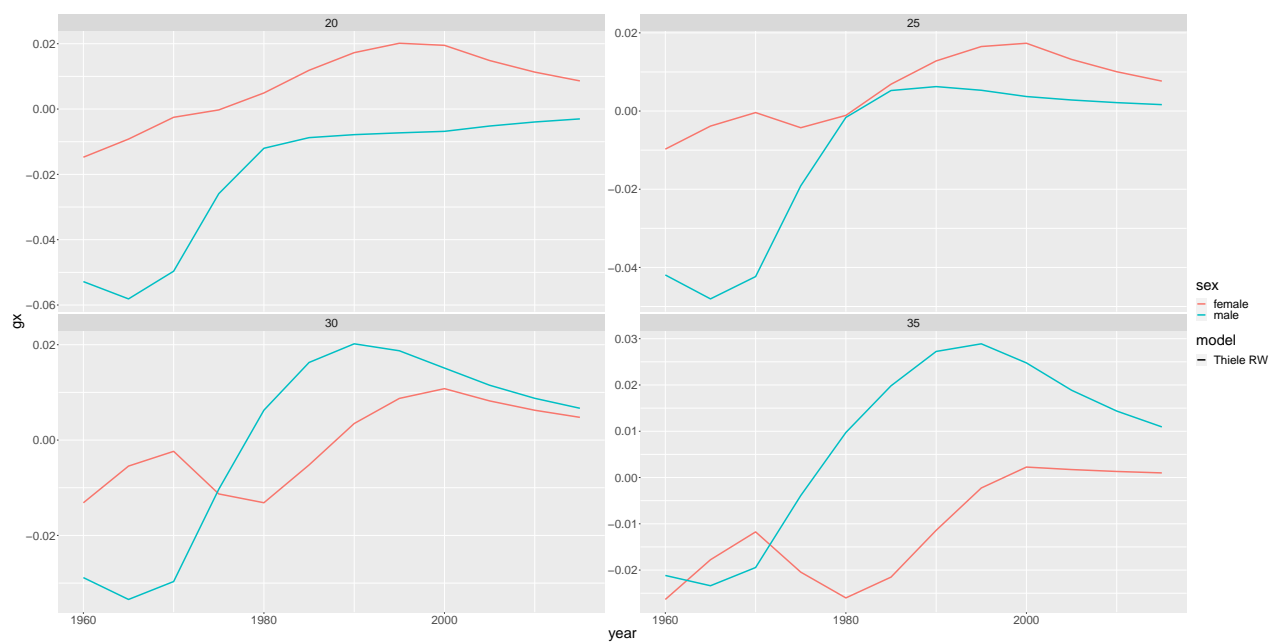


Figure 15: Migration

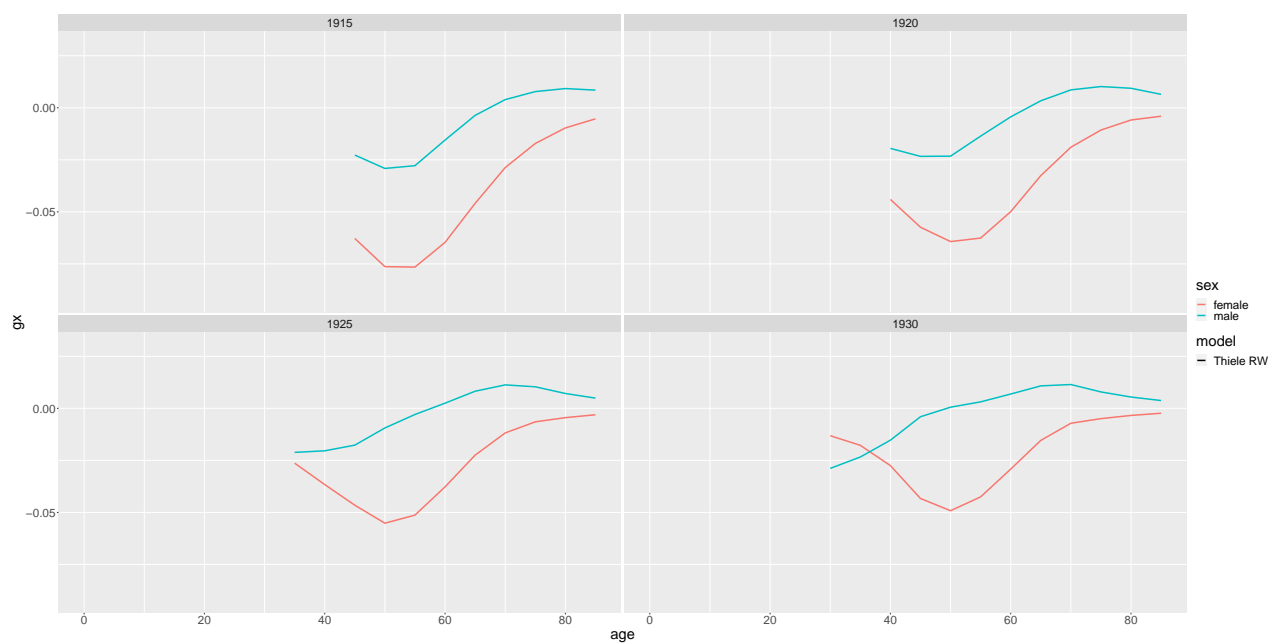


Figure 16: Migration

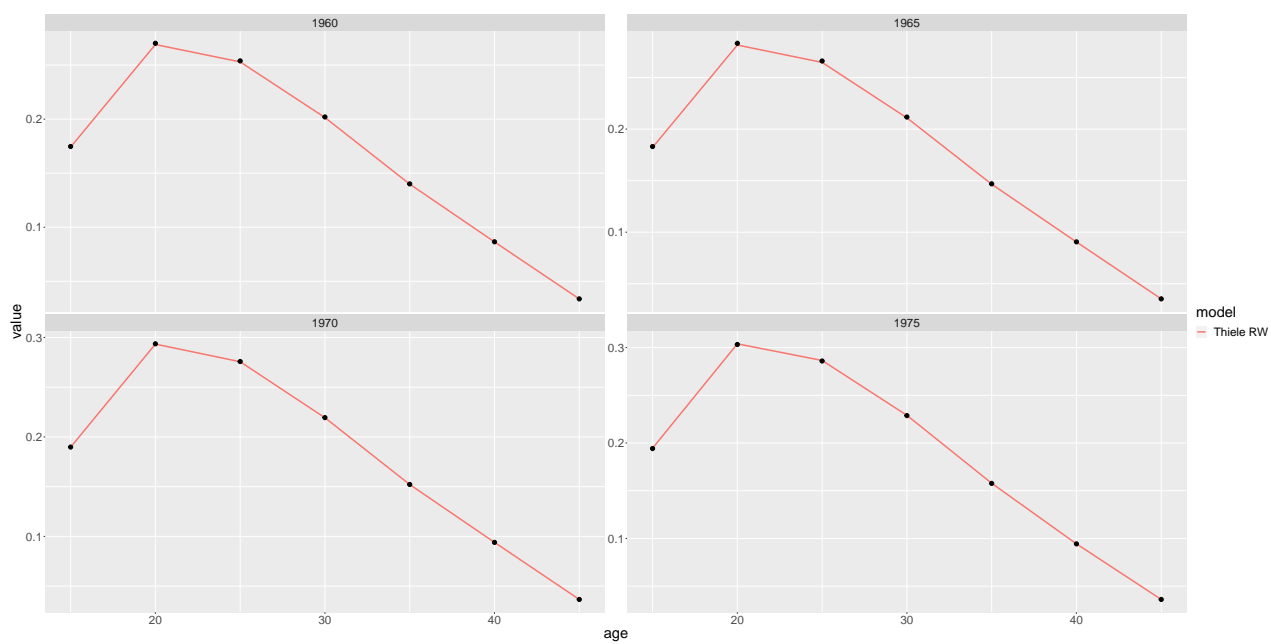


Figure 17: Fertility

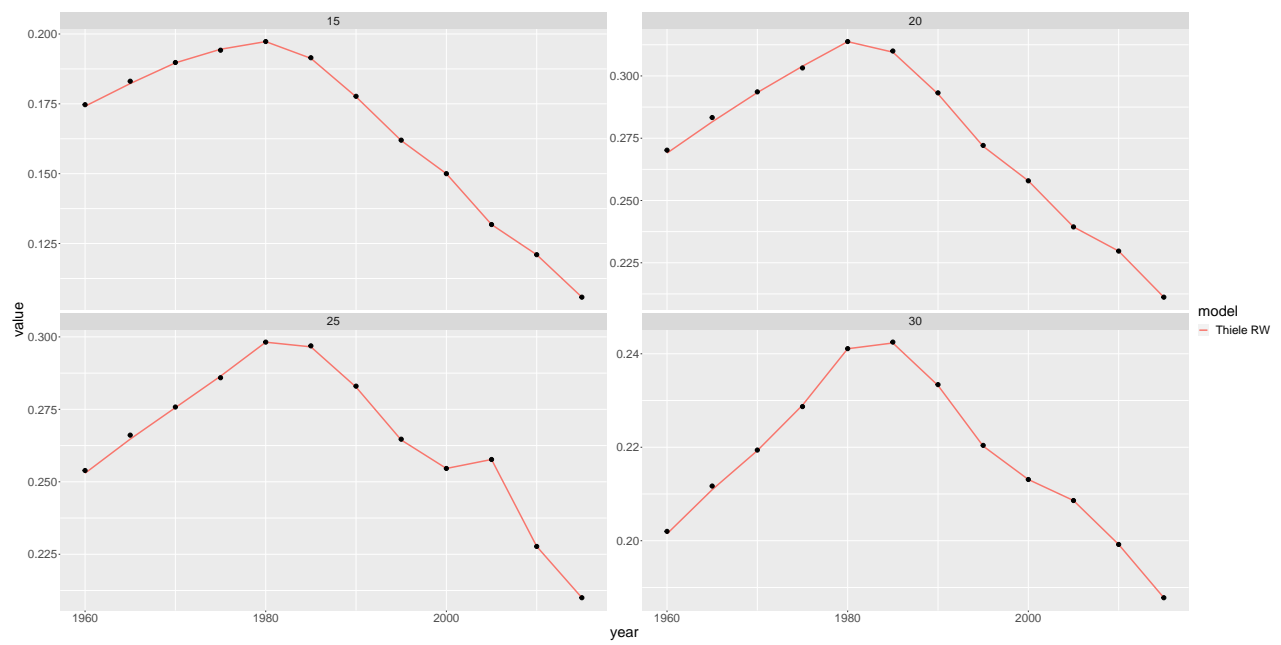


Figure 18: Fertility