

Guinea

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

## # A tibble: 18 x 3
##   aggr.age `1996` `2014`
## *   <dbl>   <dbl>   <dbl>
## 1       0 629099 874110
## 2       5 545591. 788987
## 3      10 417300 660467
## 4      15 335618. 570344
## 5      20 307902. 506494.
## 6      25 288558. 434907
## 7      30 248041 359231.
## 8      35 198157. 290111.
## 9      40 156056. 231976.
## 10     45 121375. 181720.
## 11     50  96060. 142381.
## 12     55  80310. 111180.
## 13     60  72839.  88693
## 14     65  59296  69474.
## 15     70  47005  52244.
## 16     75  62565  36503.
## 17     80      NA  23117.
## 18     85      NA  25432
```

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

## # A tibble: 18 x 3
##   aggr.age `1996` `2014`
## *   <dbl>   <dbl>   <dbl>
## 1       0 643728 890034
## 2       5 573860. 810744.
## 3      10 440982. 659194.
## 4      15 320036. 519244.
## 5      20 255442 419369
## 6      25 224650. 340730.
## 7      30 197222. 279970.
## 8      35 171459. 233115.
## 9      40 147724. 197034
## 10     45 119655. 166446.
## 11     50  95200. 141578.
## 12     55  79656. 120187.
## 13     60  69800.  98373.
## 14     65  56828.  74596.
## 15     70  40047  53927.
## 16     75  63801  37345
## 17     80      NA  23516
## 18     85      NA  24319.
```

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
##  97.93    1.21   99.81
## [1] "false convergence (8)"
```

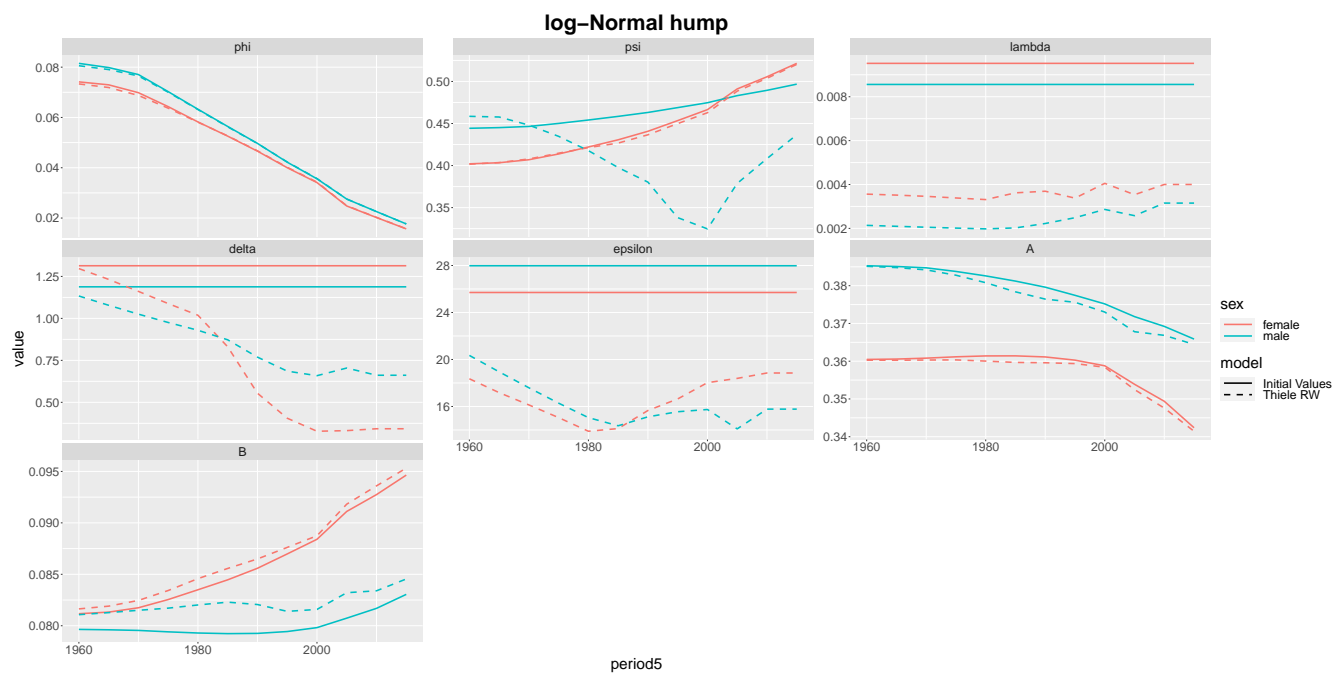


Figure 1: Estimated parameters

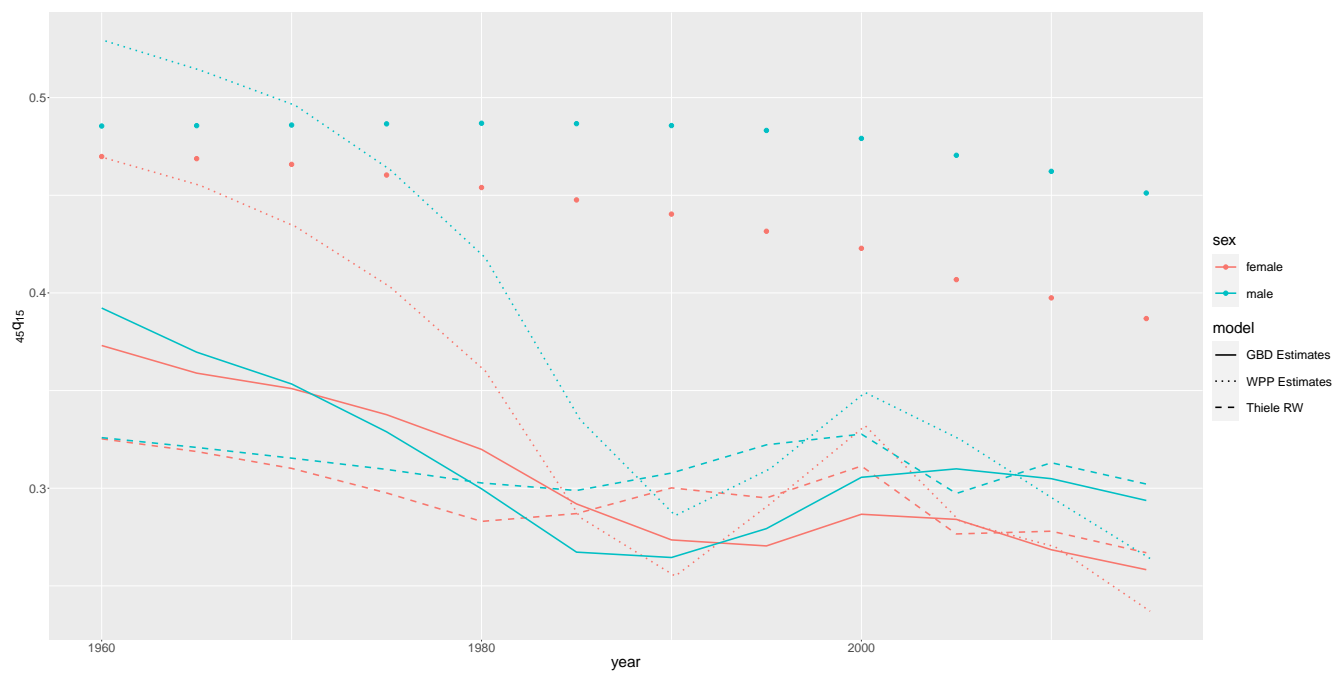


Figure 2: Estimated $_{45}q_{15}$

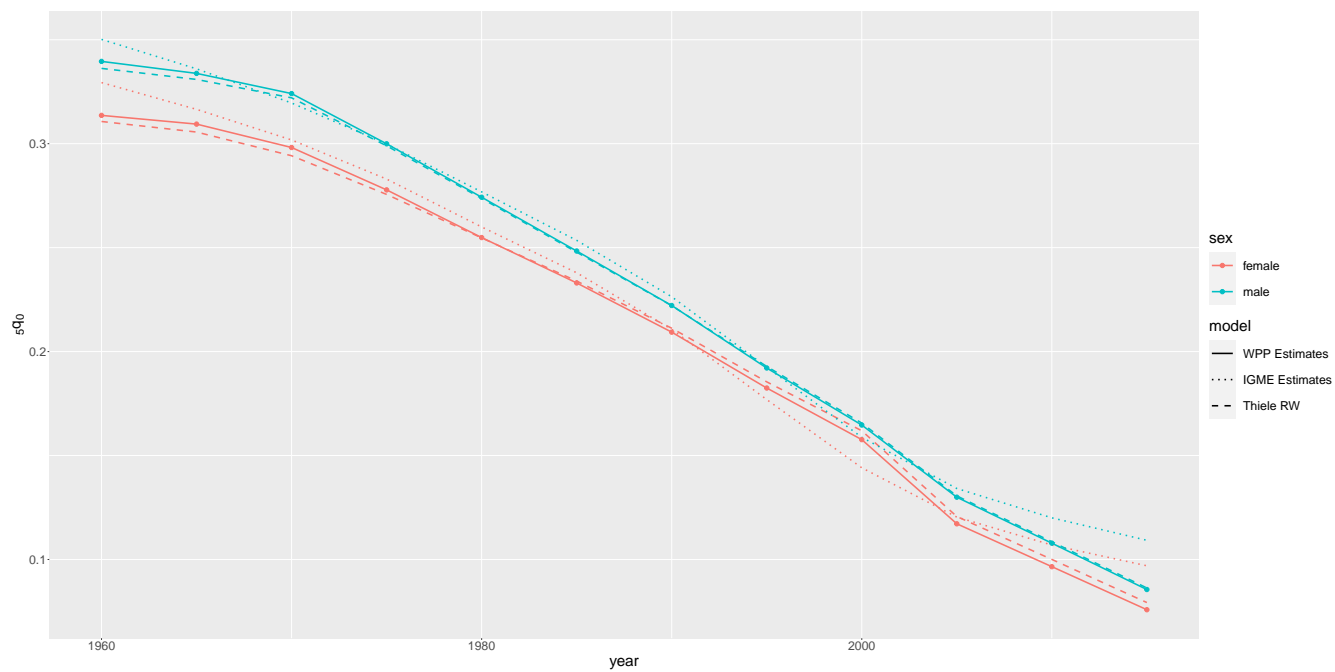


Figure 3: Estimated $_{5}q_0$

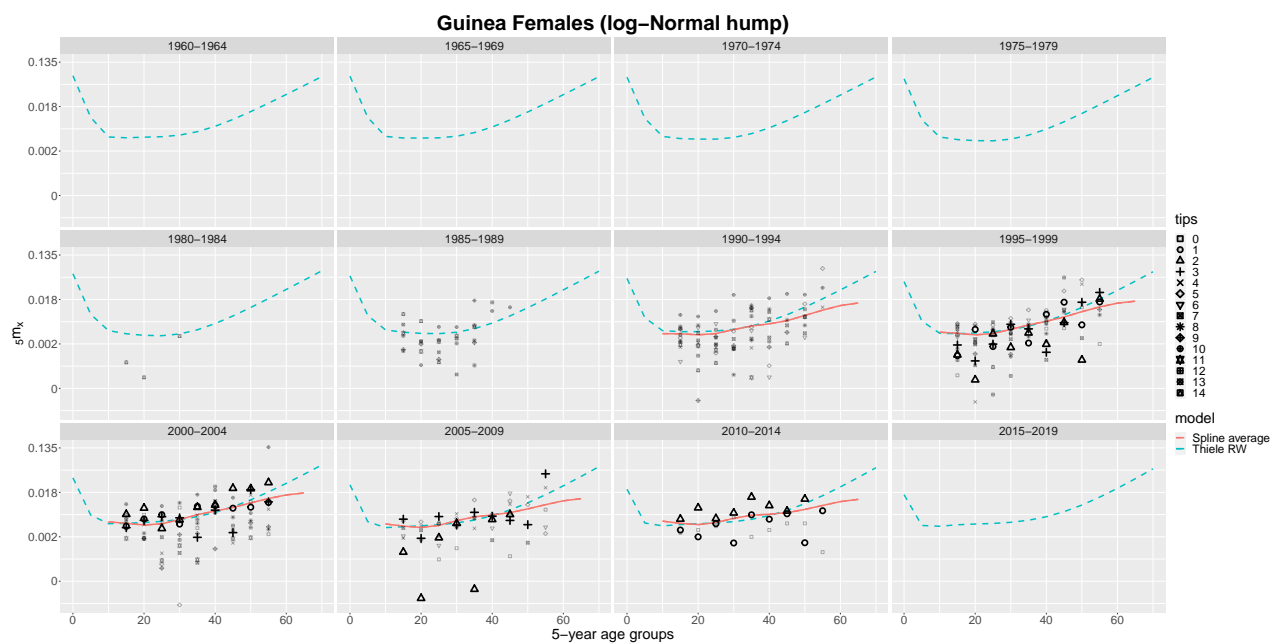


Figure 4: Mortality Schedules

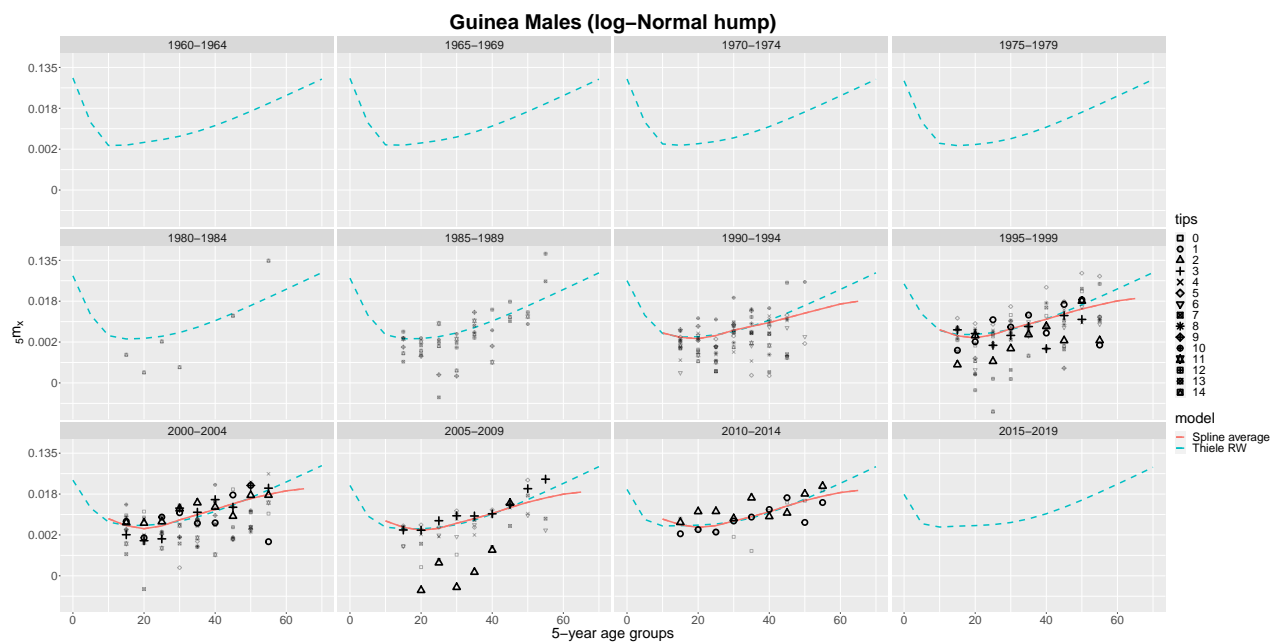


Figure 5: Mortality Schedules

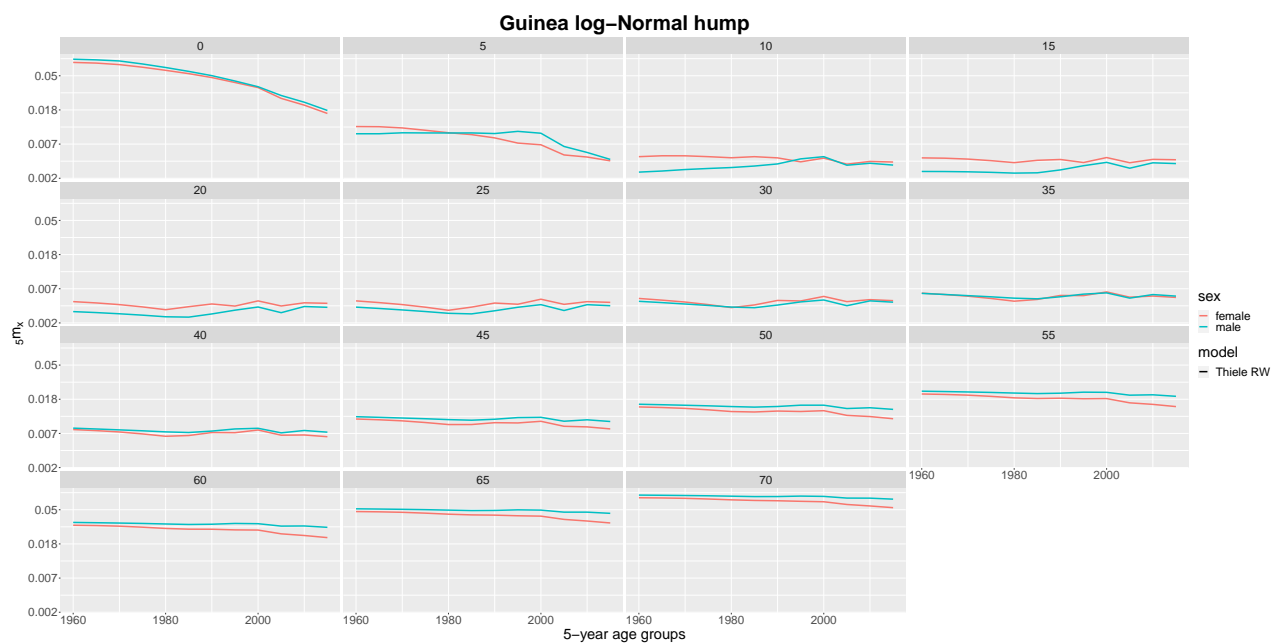


Figure 6: Mortality Schedules

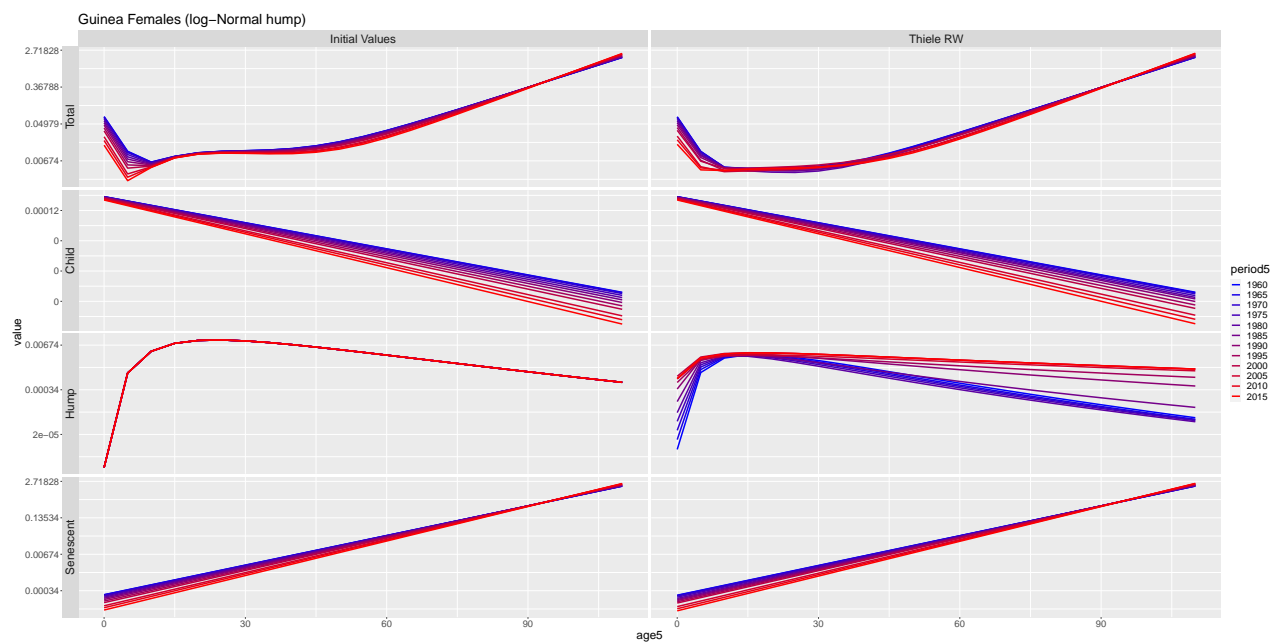


Figure 7: Thiele Decomposed

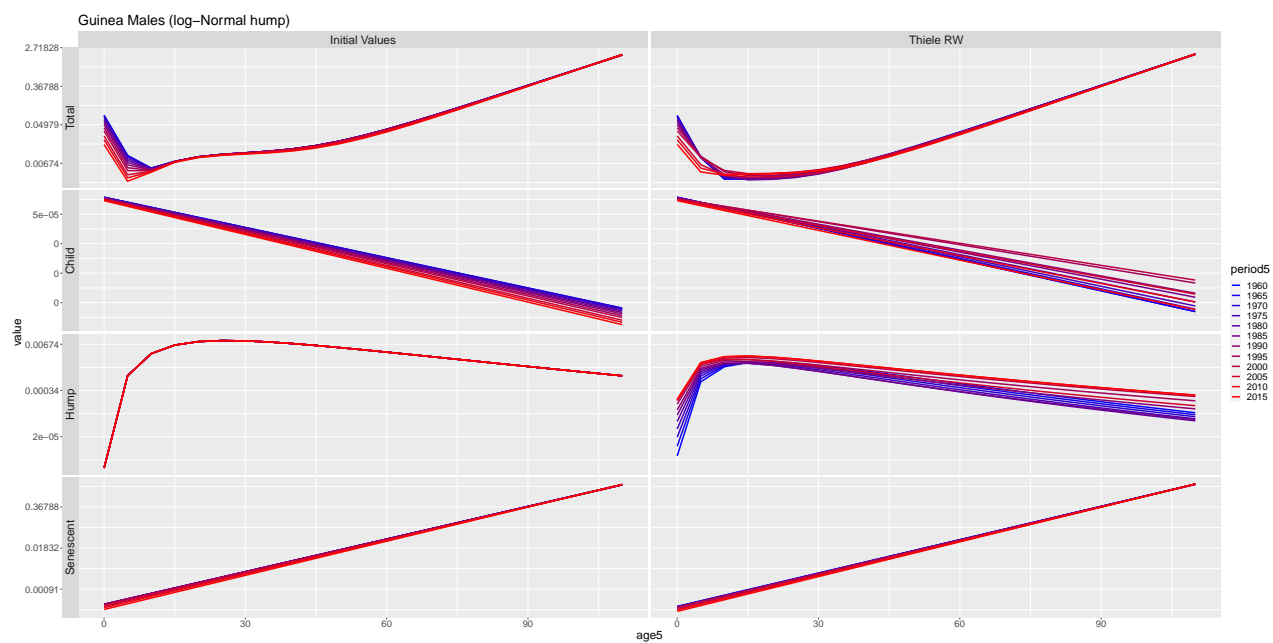


Figure 8: Thiele Decomposed

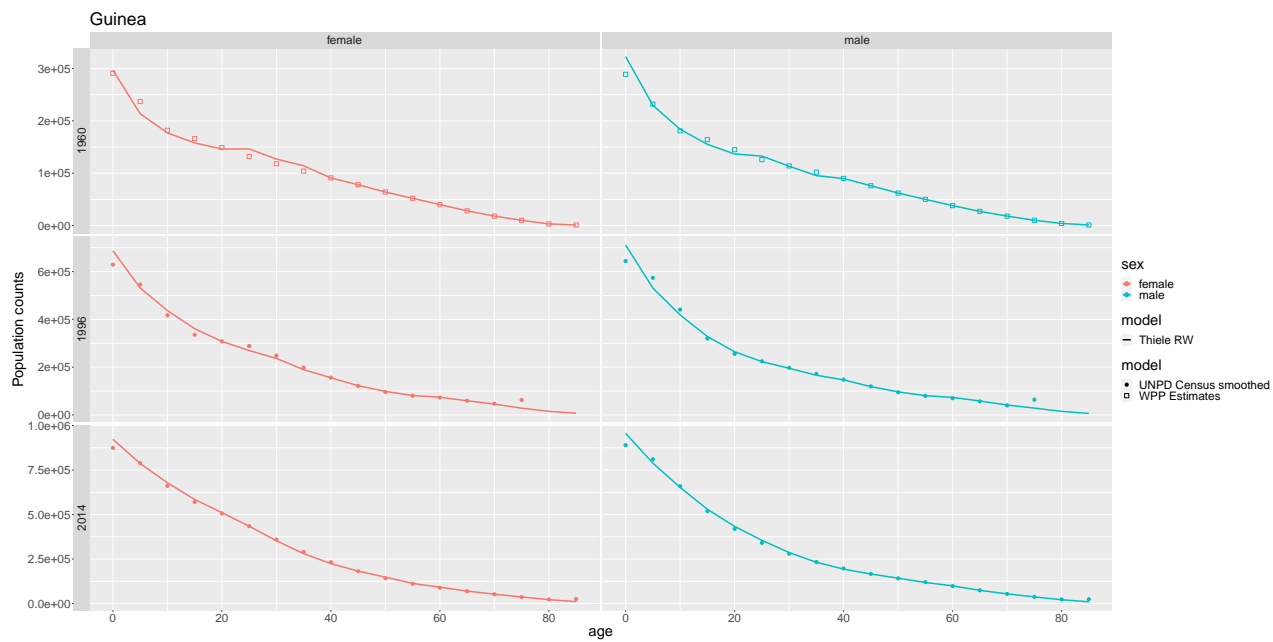


Figure 9: Population

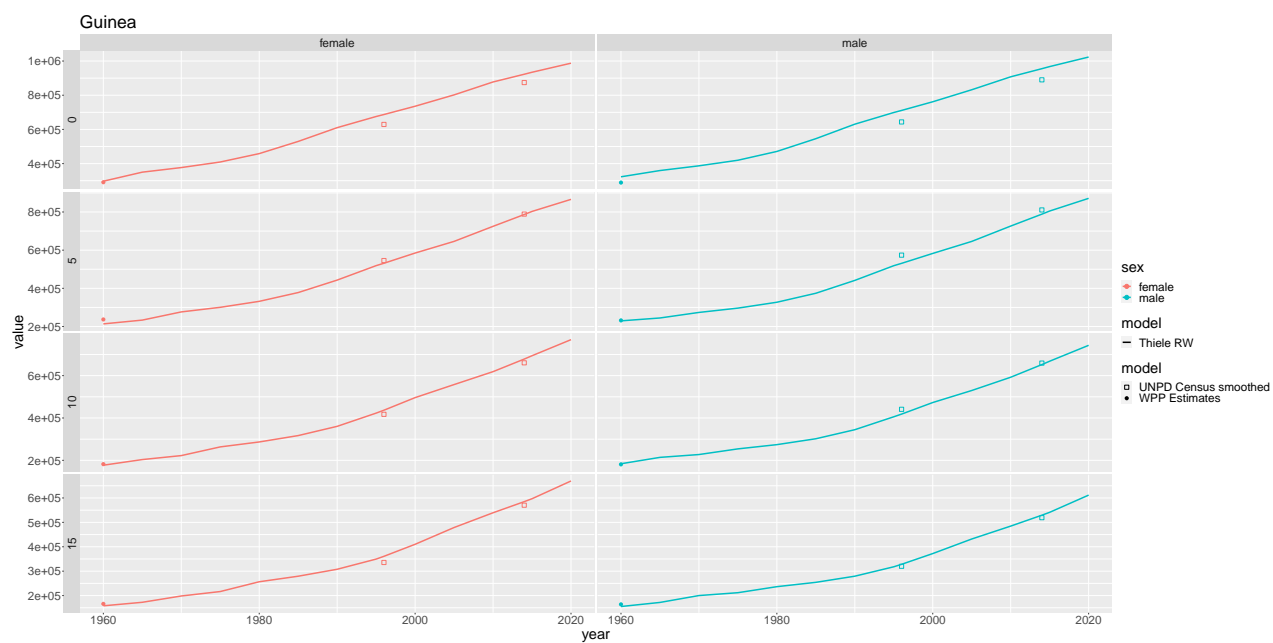


Figure 10: Population

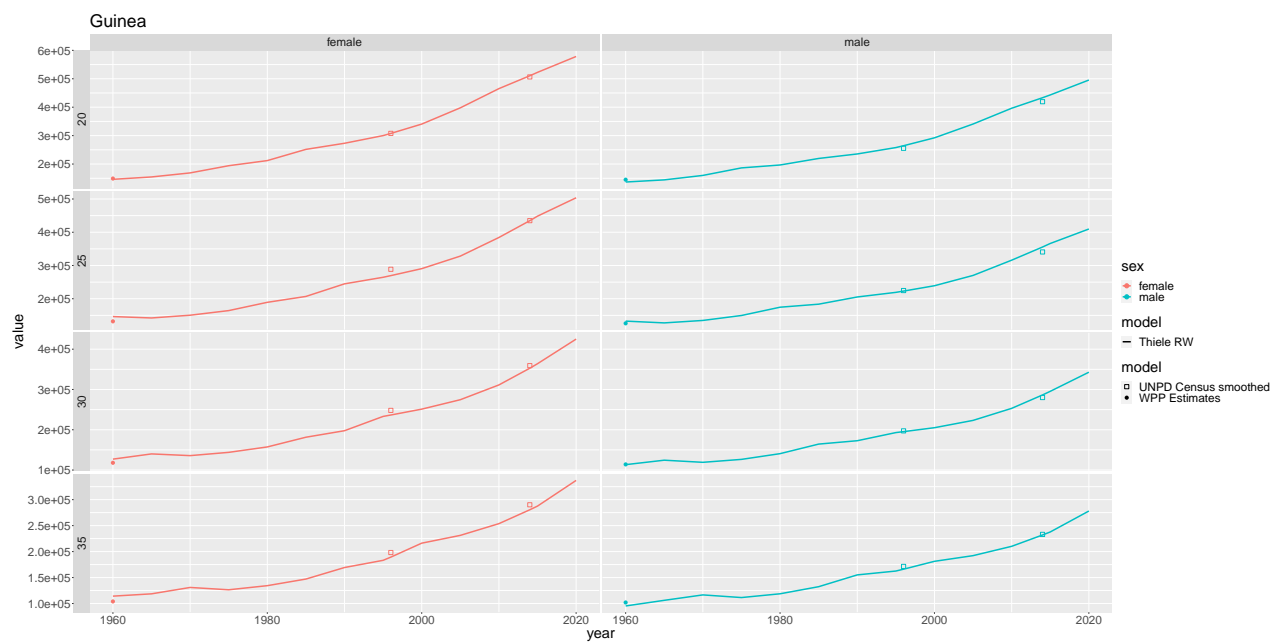


Figure 11: Population

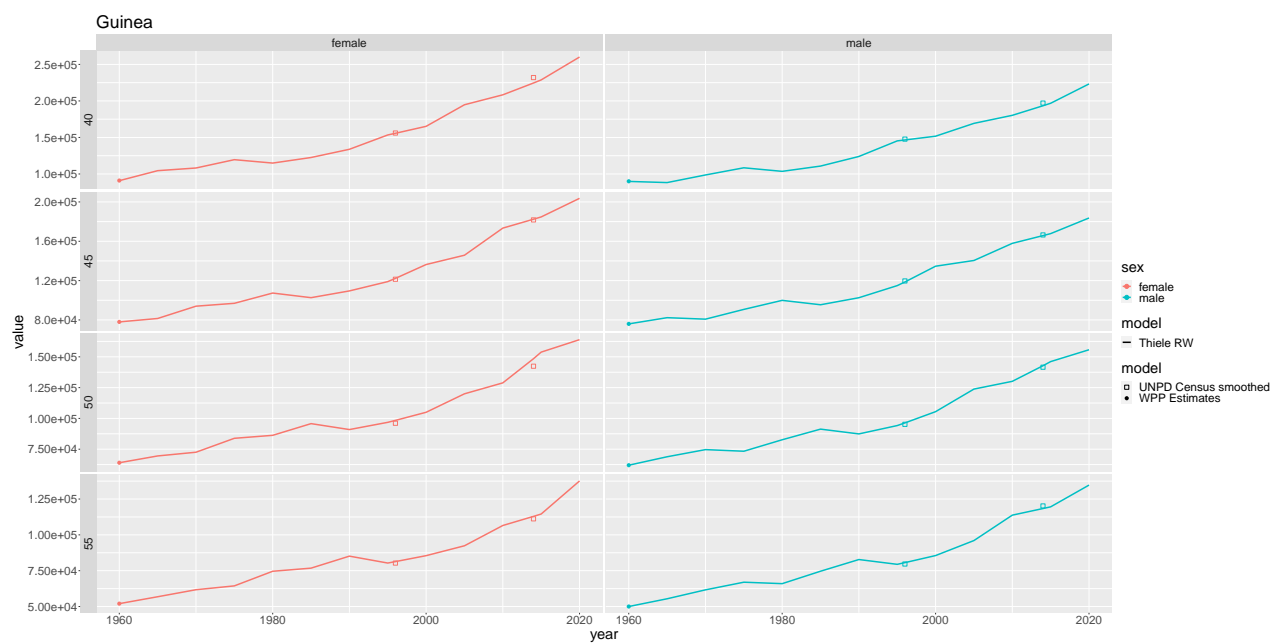


Figure 12: Population

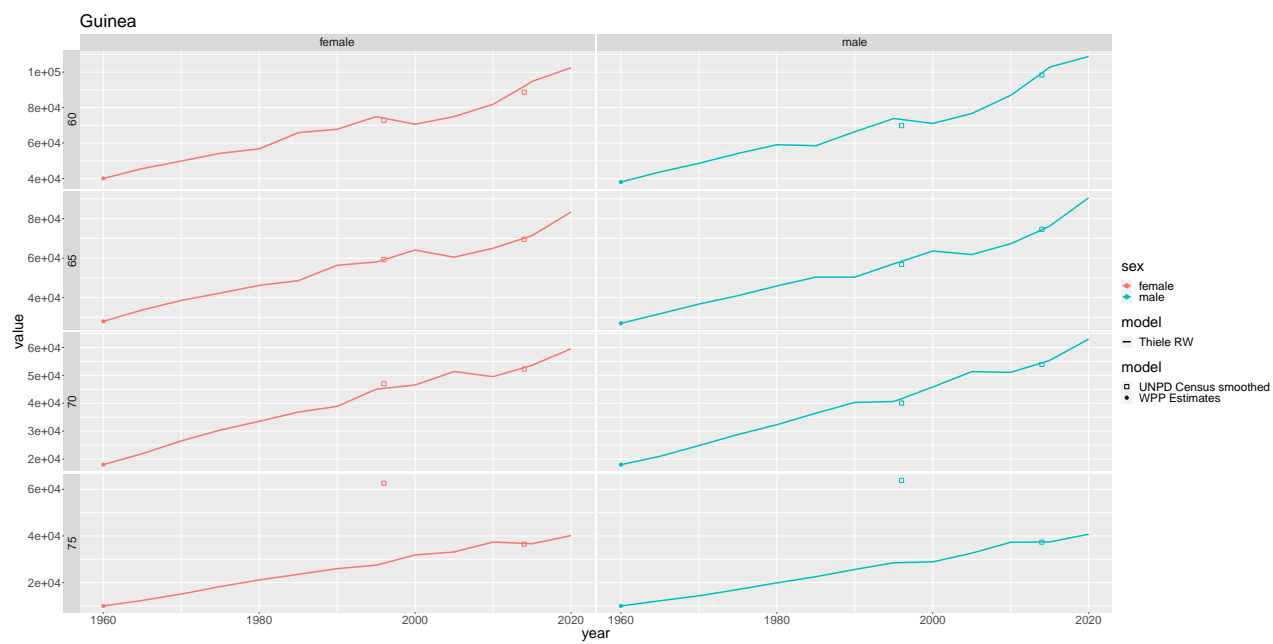


Figure 13: Population

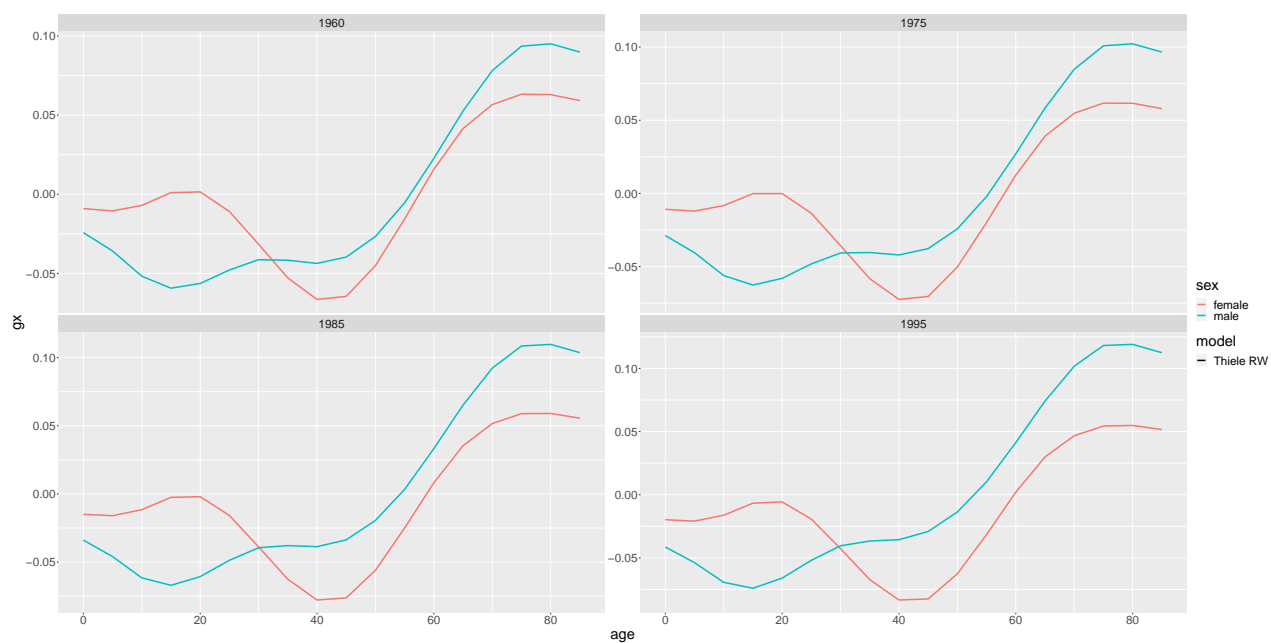


Figure 14: Migration

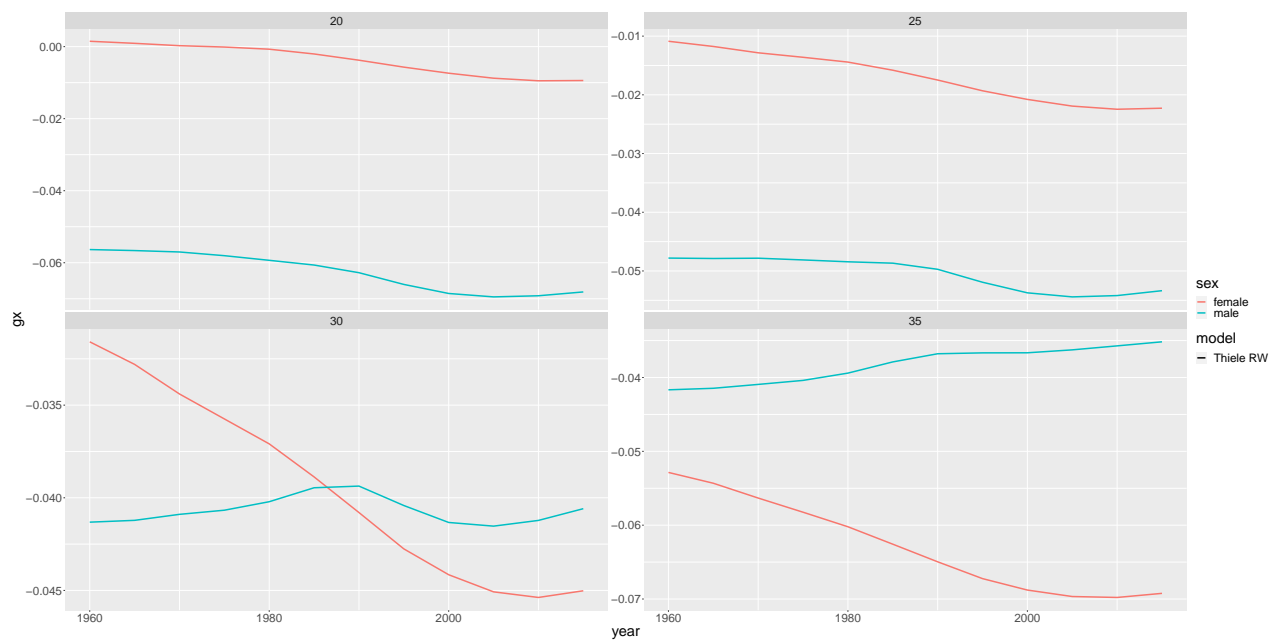


Figure 15: Migration

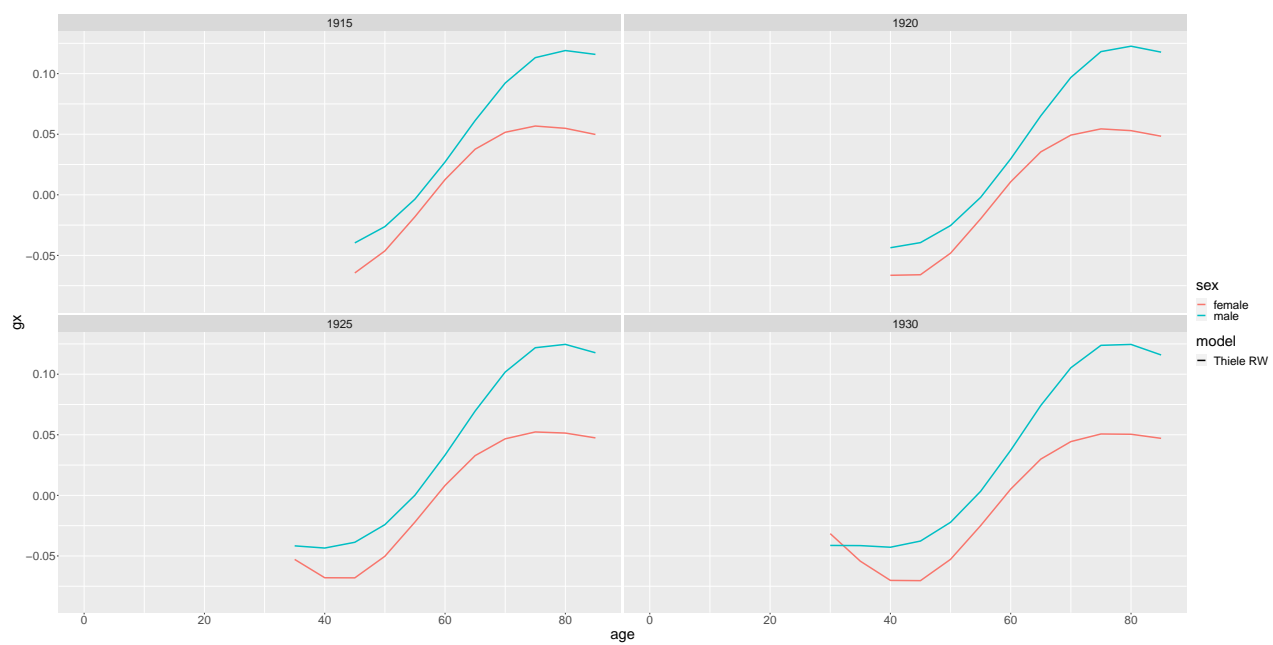


Figure 16: Migration

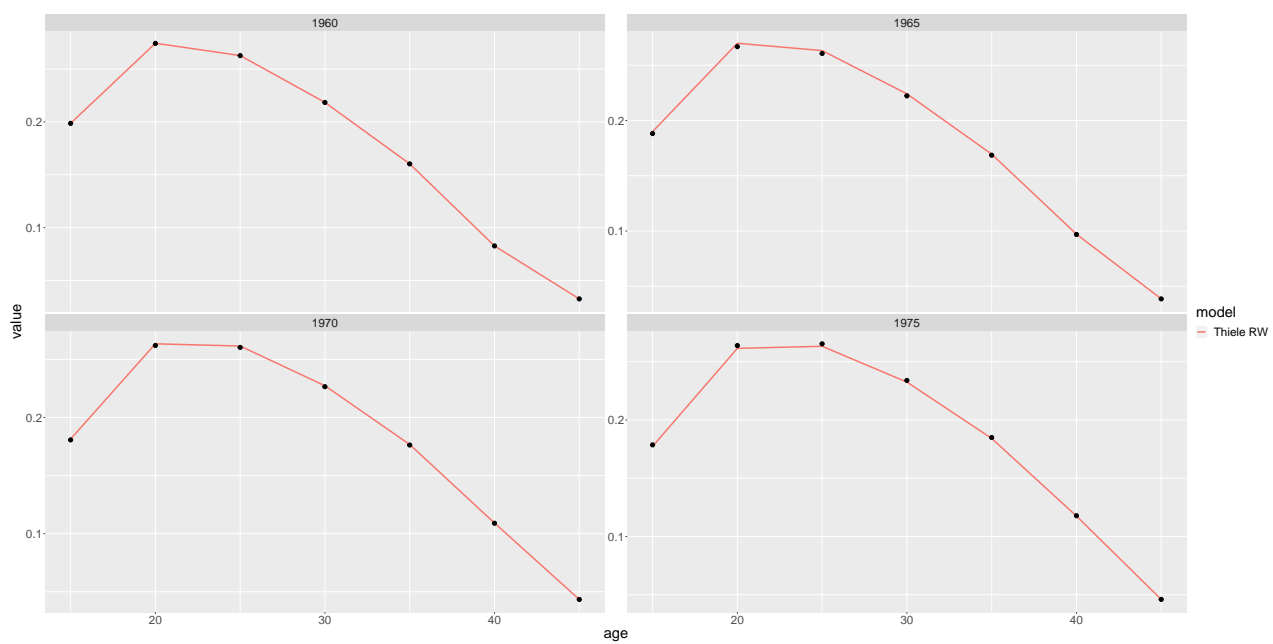


Figure 17: Fertility

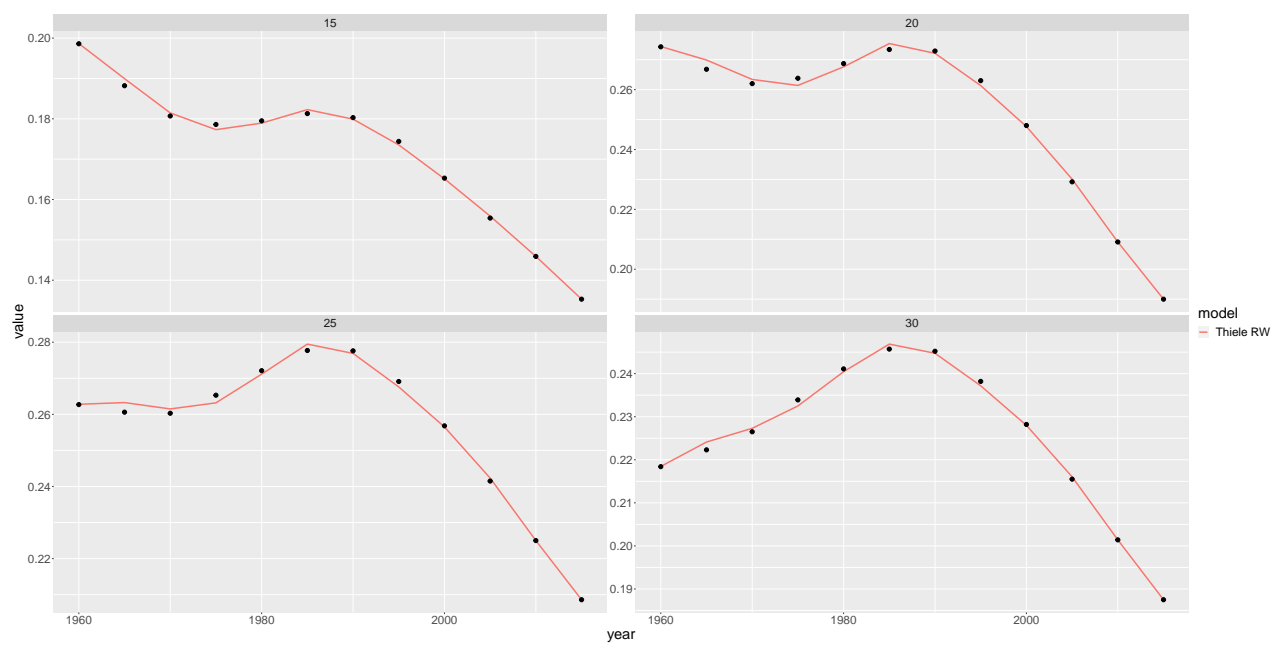


Figure 18: Fertility