

Burundi

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

## # A tibble: 18 x 4
##   aggr.age `1979` `1990` `2008`
## *   <dbl>   <dbl>   <dbl>   <dbl>
## 1     0 351217. 497543. 730172.
## 2     5 283841. 415359. 584011.
## 3    10 246185. 325523. 545644.
## 4    15 233752. 261023. 470991.
## 5    20 205602. 231259. 397348.
## 6    25 156787. 211697. 318152.
## 7    30 117321. 181360. 245358.
## 8    35  96868. 139136. 191601.
## 9    40  85160. 101640. 158559.
## 10   45  73888.  81254. 131553.
## 11   50  61436.  69706. 104268.
## 12   55  51258.  57935.  79485.
## 13   60  44370.  47378.  57035.
## 14   65  34656.  37458.  41254.
## 15   70  24107.  29164.  30206.
## 16   75  15919.  20905.  21783.
## 17   80   8678.  12881.  14501.
## 18   85   8387.  15012.  13832.
```

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

## # A tibble: 18 x 4
##   aggr.age `1979` `1990` `2008`
## *   <dbl>   <dbl>   <dbl>   <dbl>
## 1     0 346363. 495595. 709439.
## 2     5 281131. 411904. 561403.
## 3    10 243533. 321351. 513469.
## 4    15 226268. 250772. 439284.
## 5    20 194141. 212357. 373529.
## 6    25 145324. 193126. 304454.
## 7    30 104707. 169926. 242842.
## 8    35  81102. 131389. 196188.
## 9    40  68939.  92299. 164421.
## 10   45  59998.  69012. 138811.
## 11   50  49340.  57265. 112201.
## 12   55  40463.  47487.  85198.
## 13   60  34783.  38075.  59847.
## 14   65  28076.  30203.  41328.
## 15   70  21455.  24448.  28893.
## 16   75  15673.  18359.  20283.
## 17   80   9392.  12236.  13600.
## 18   85  12196.  16557.  14153.
```

Thiele log-Normal Hump RW

```
##   user  system elapsed
## 32.20   0.39   33.09
```

```
## [1] "relative convergence (4)"
```

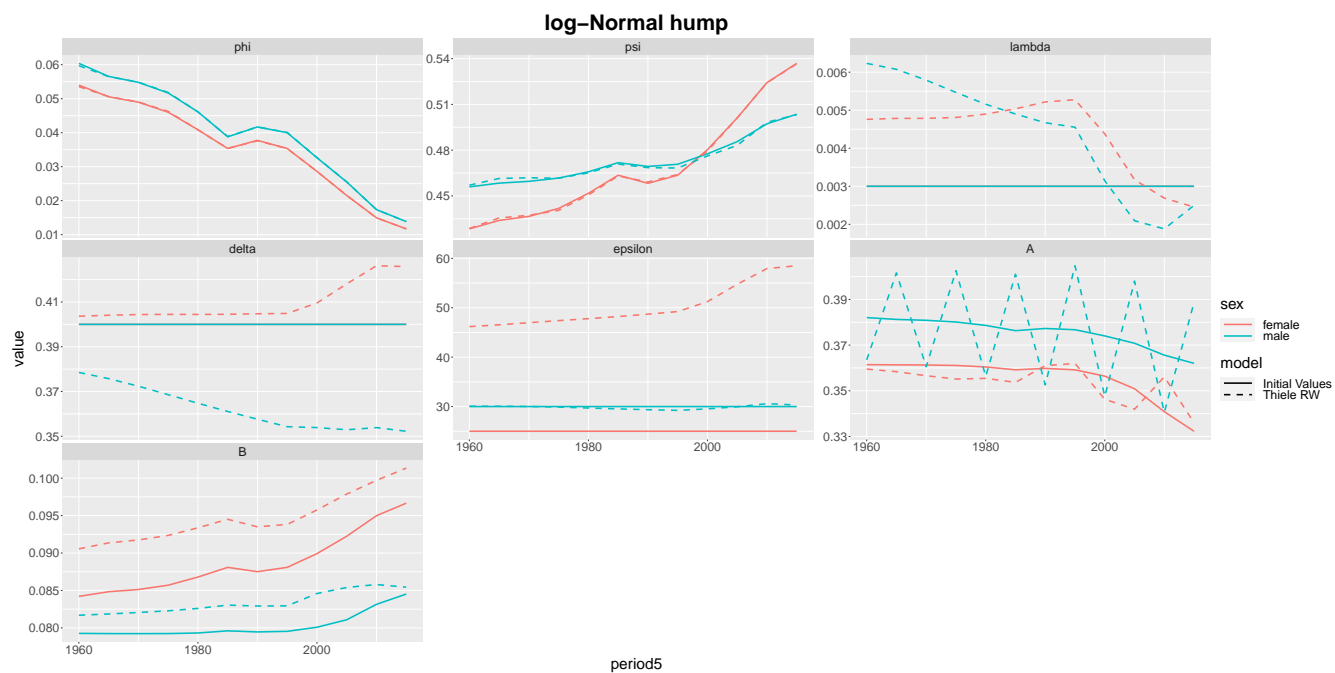


Figure 1: Estimated parameters

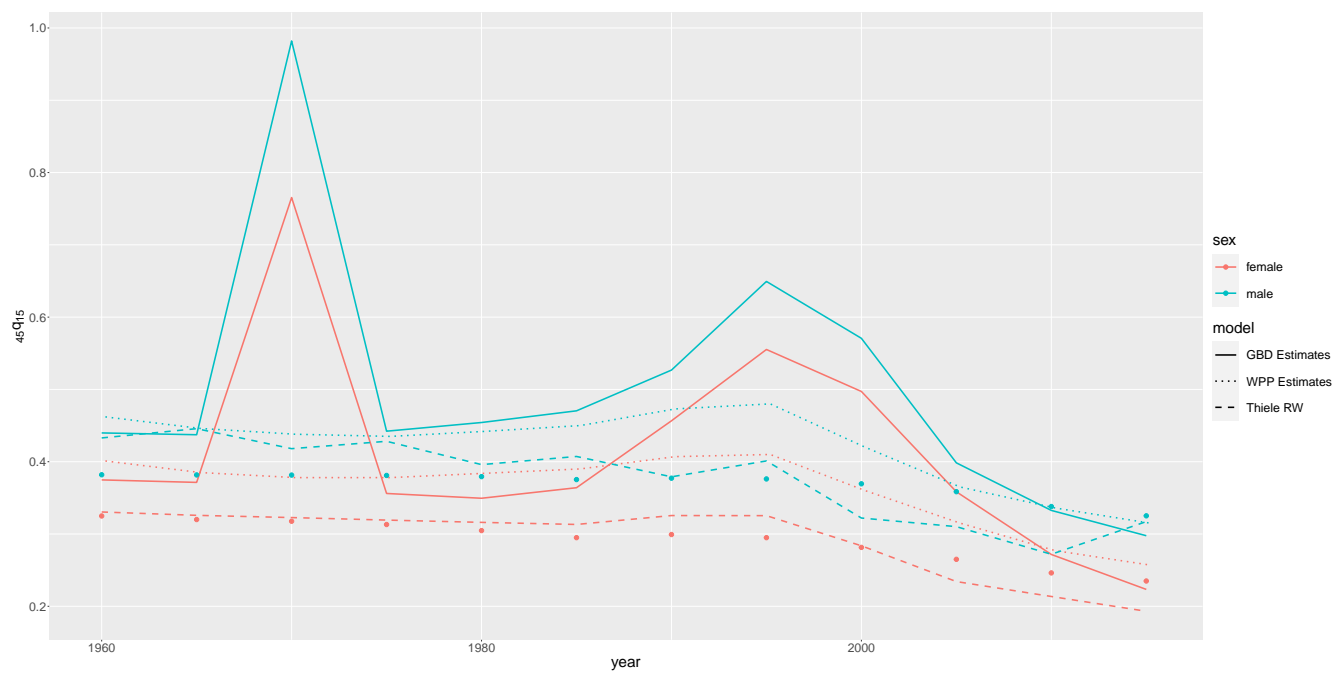


Figure 2: Estimated $45q_{15}$

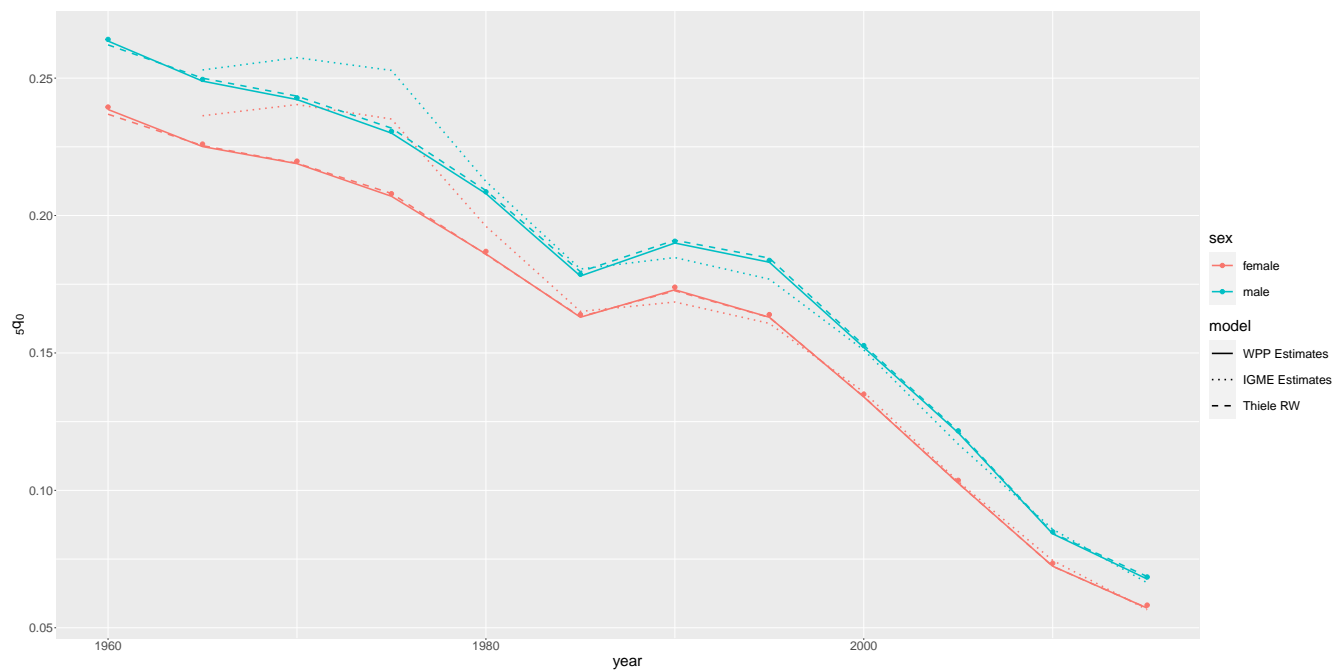


Figure 3: Estimated $5q_0$

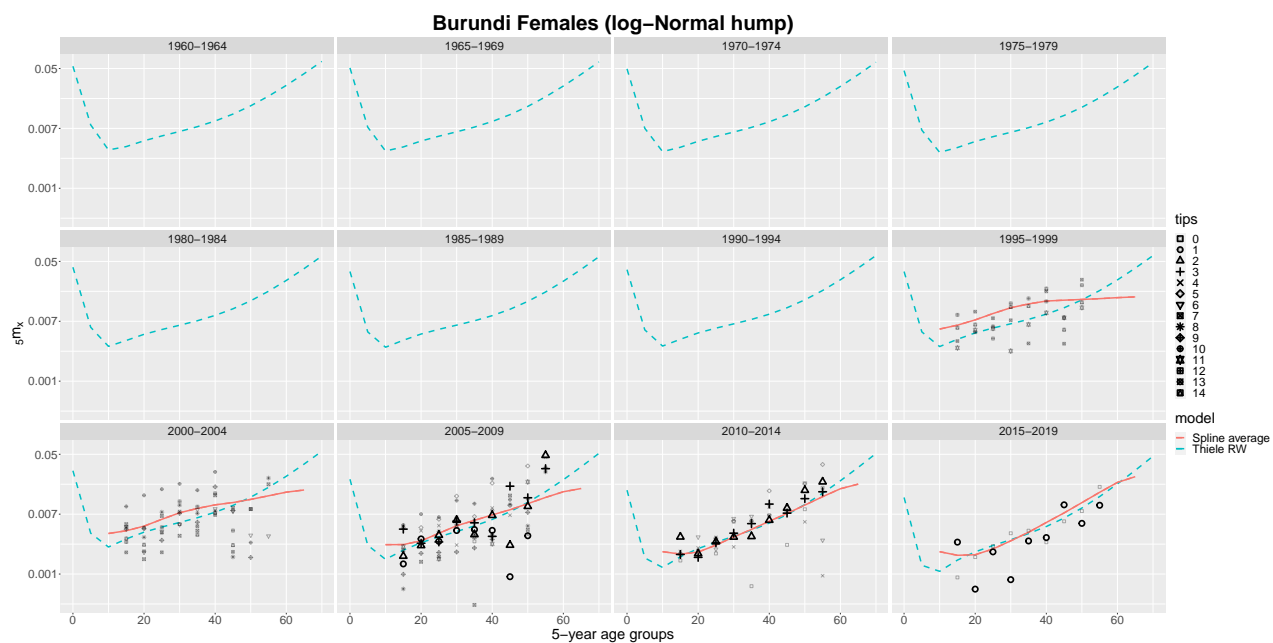


Figure 4: Mortality Schedules

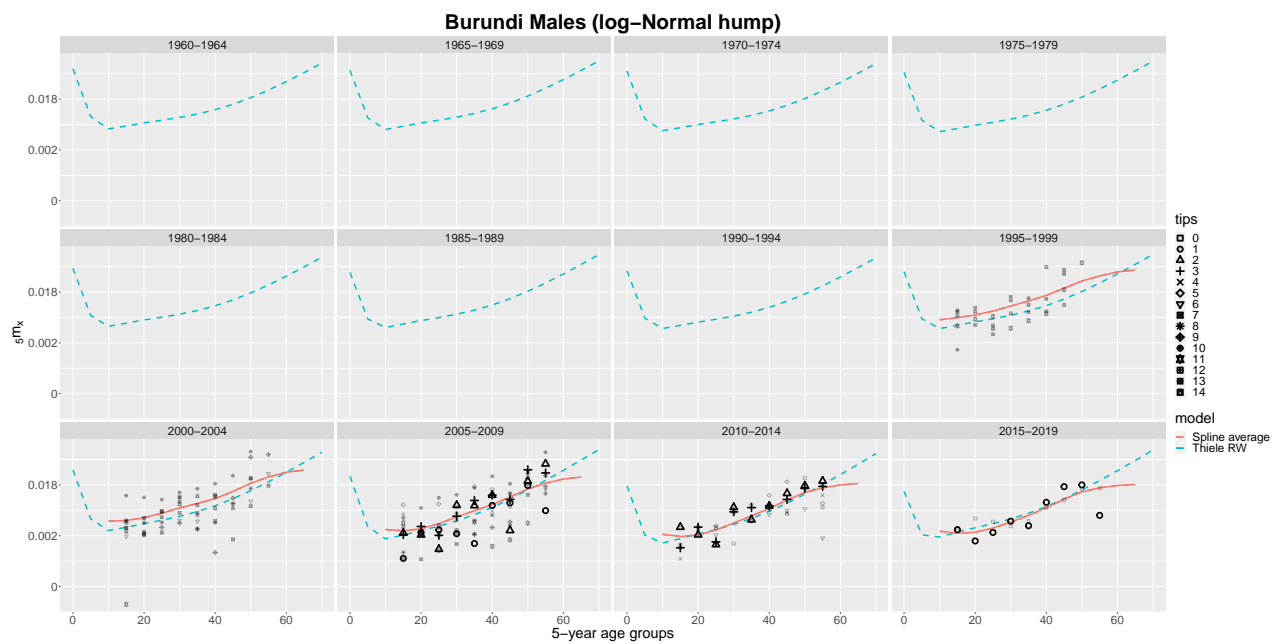


Figure 5: Mortality Schedules

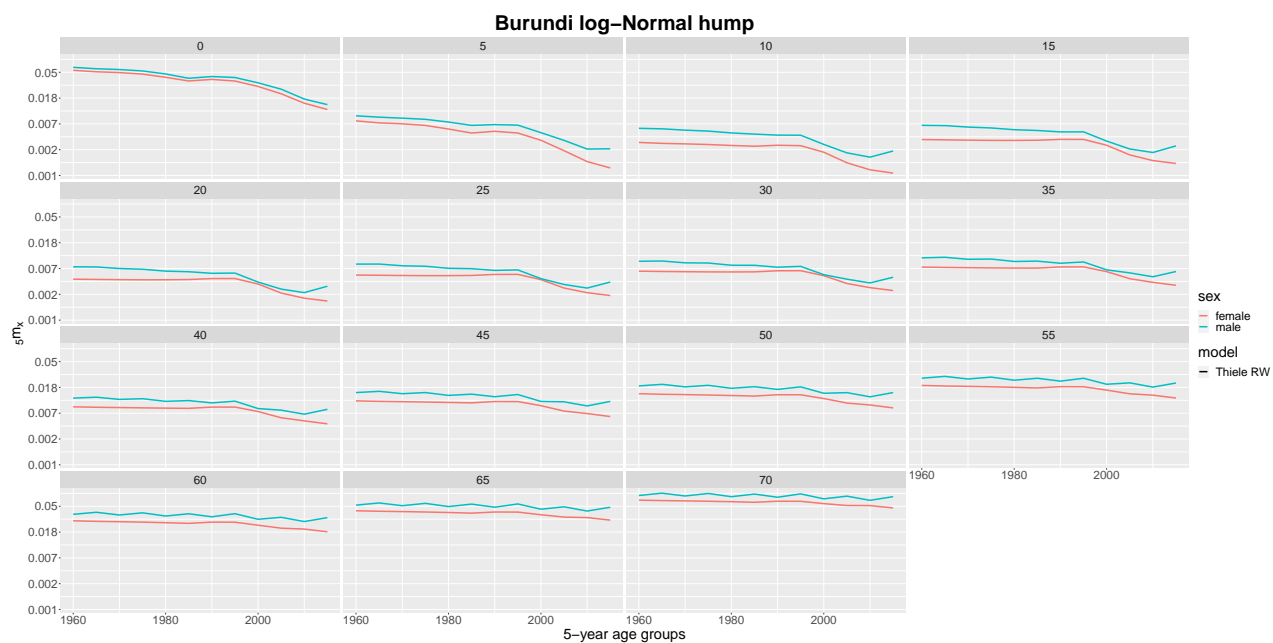


Figure 6: Mortality Schedules

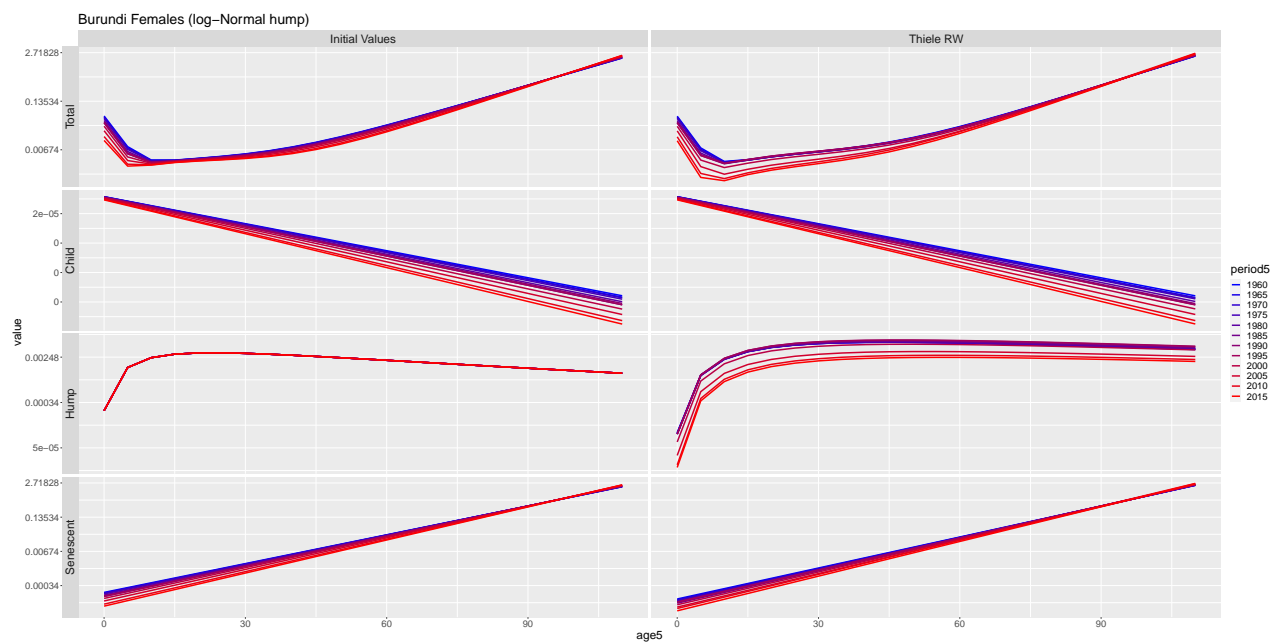


Figure 7: Thiele Decomposed

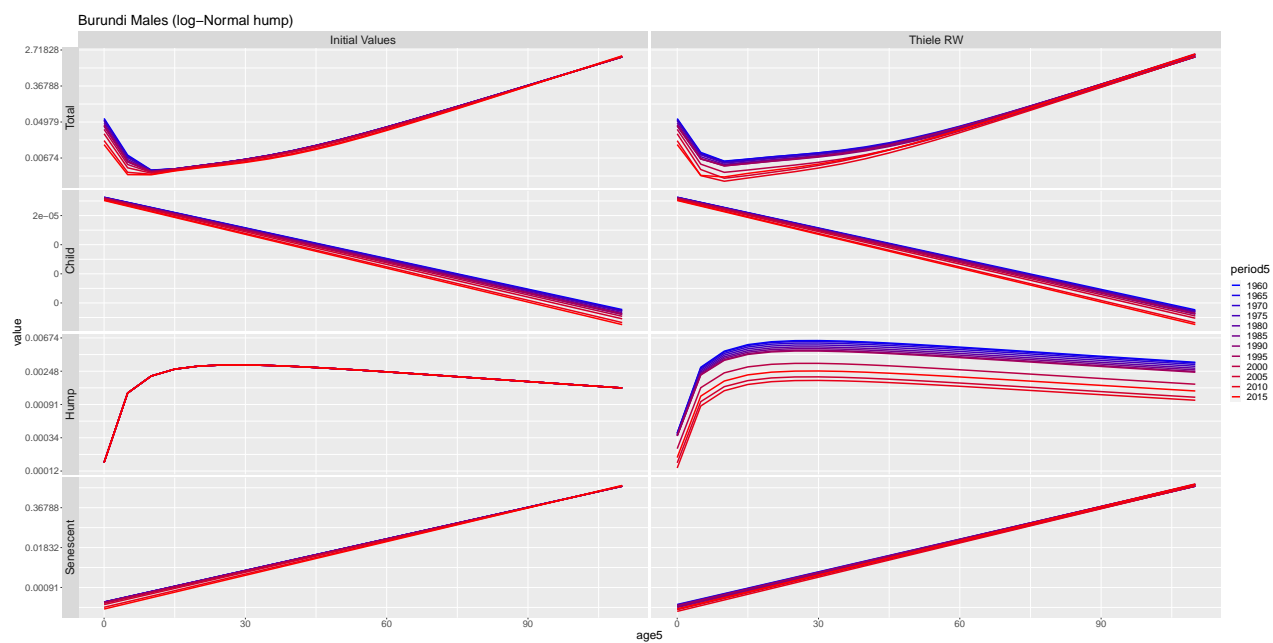


Figure 8: Thiele Decomposed

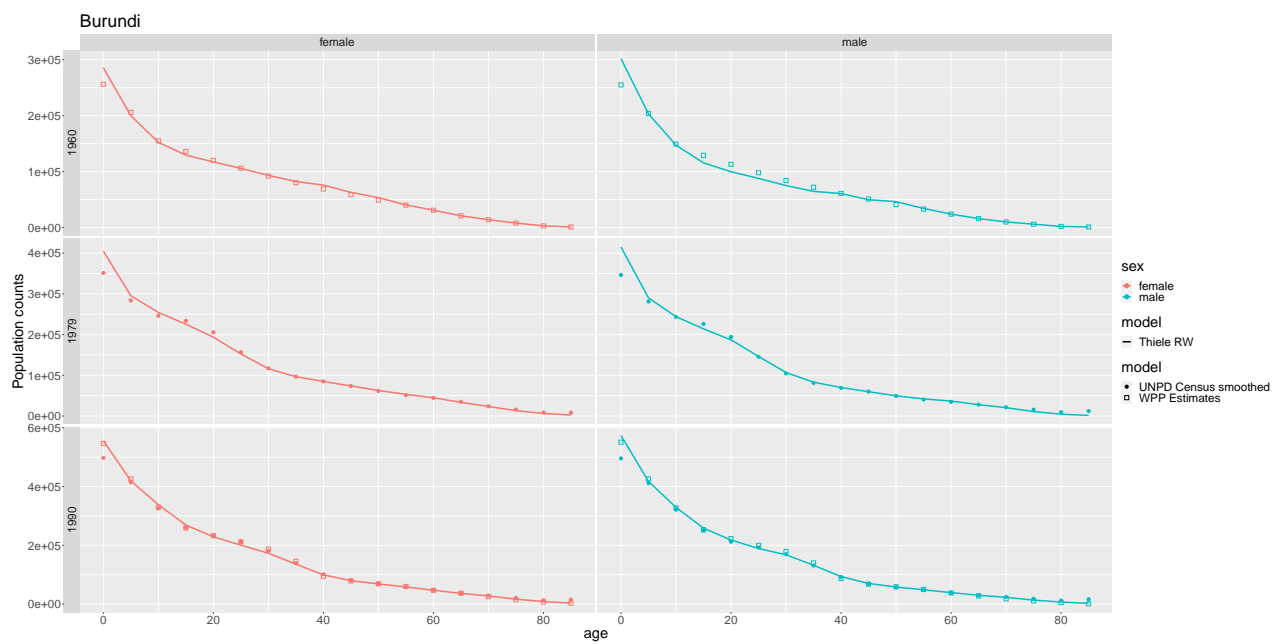


Figure 9: Population

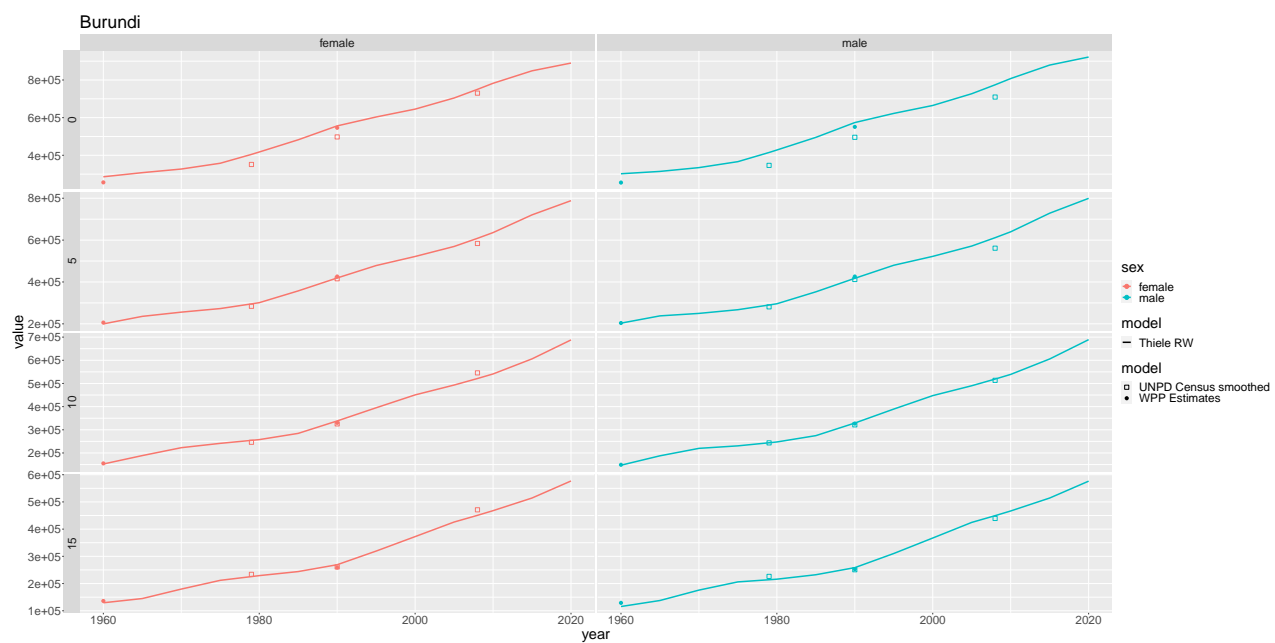


Figure 10: Population

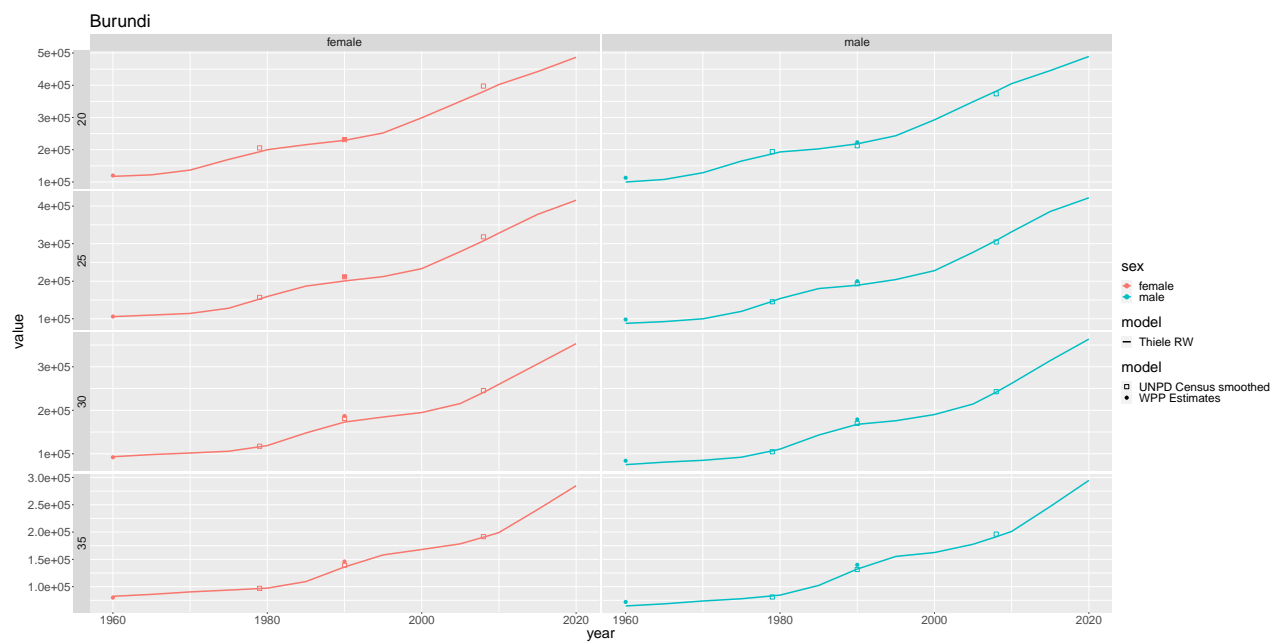


Figure 11: Population

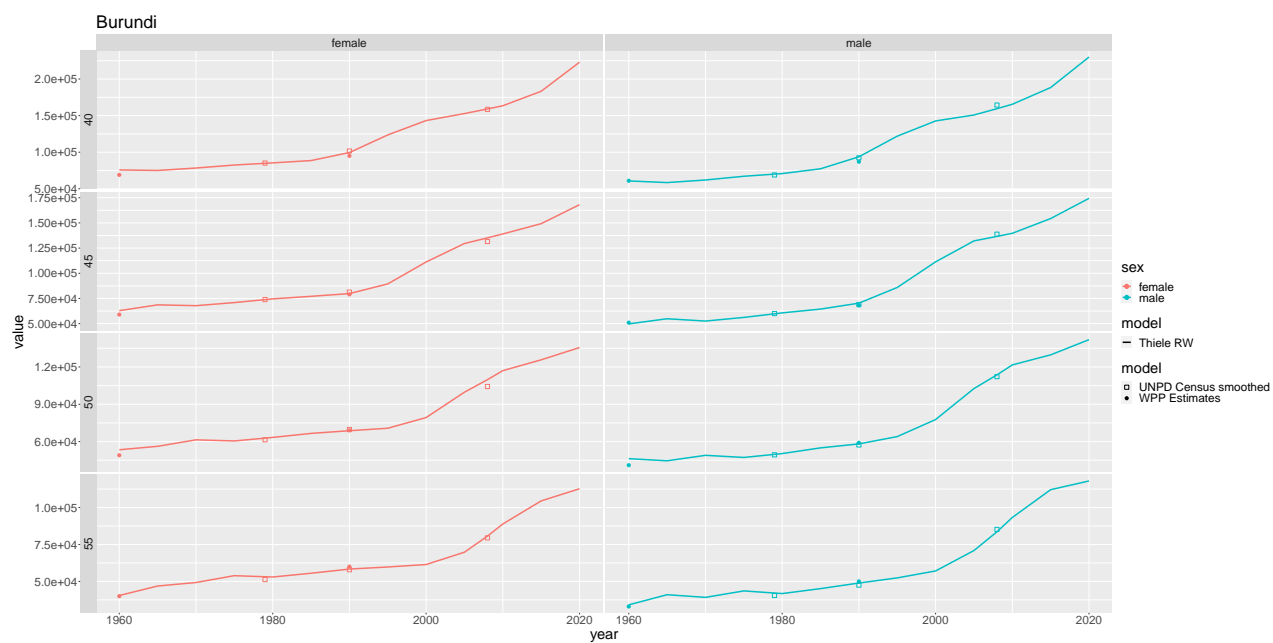


Figure 12: Population

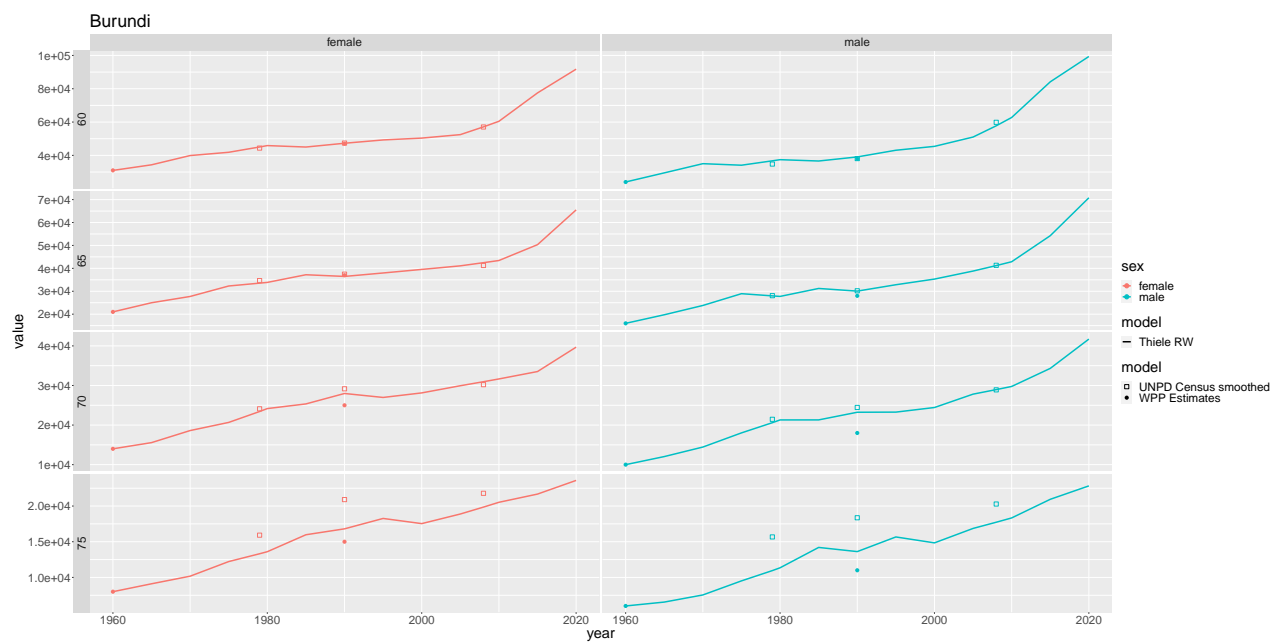


Figure 13: Population

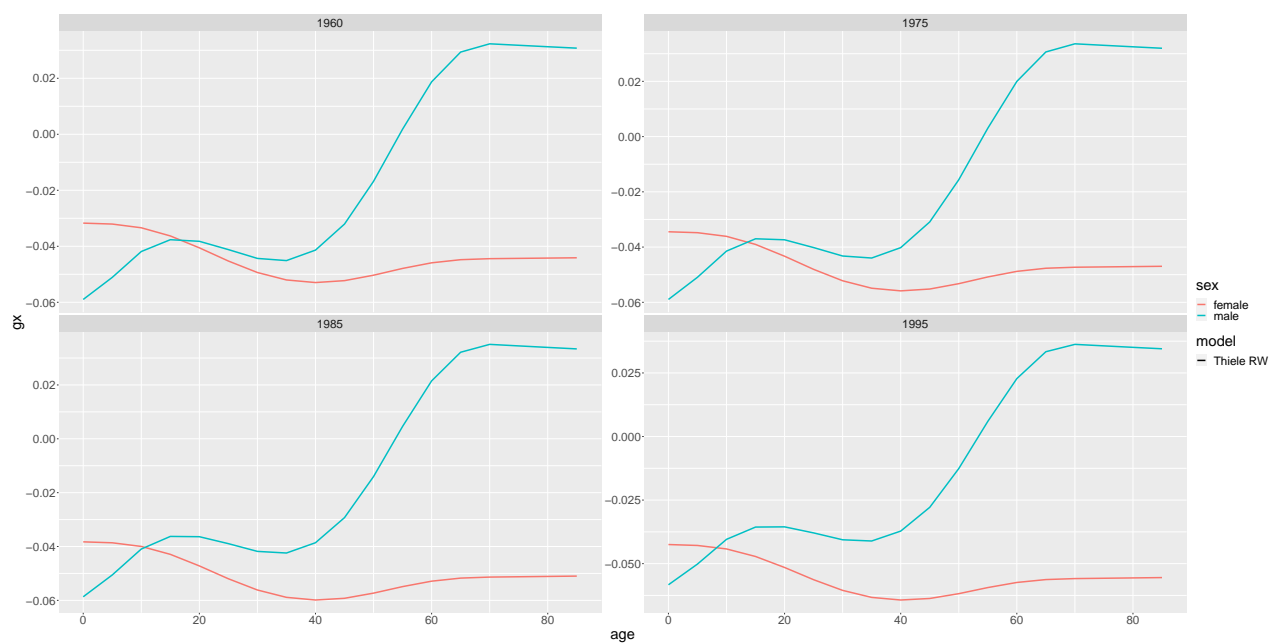


Figure 14: Migration

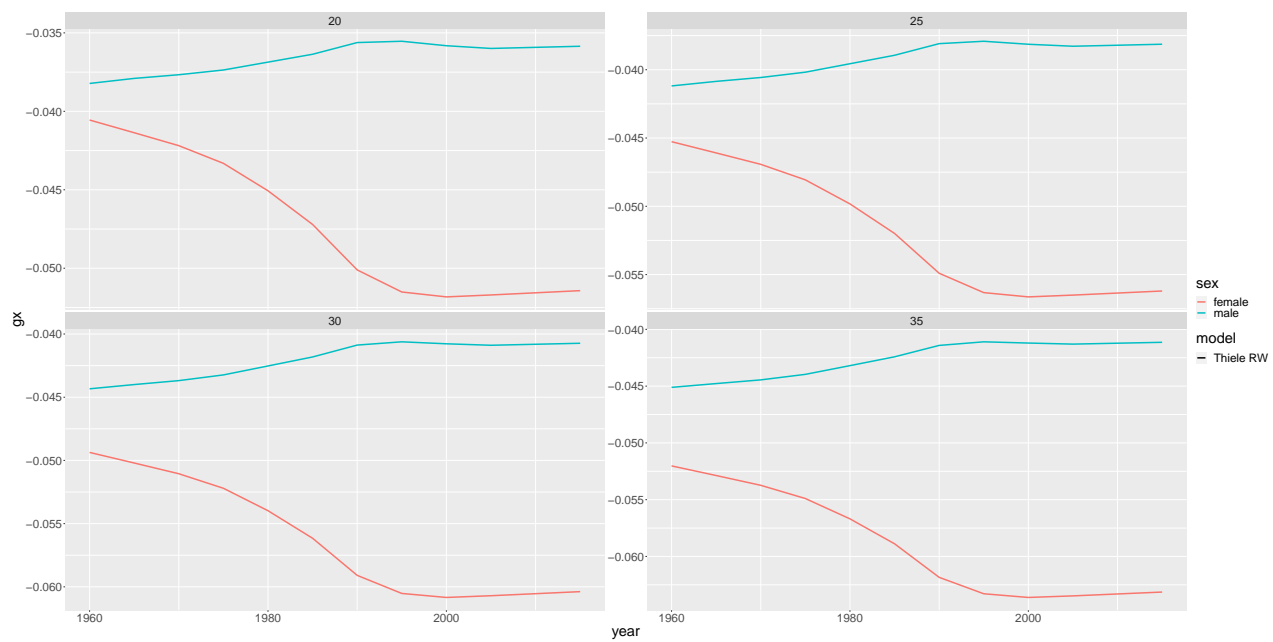


Figure 15: Migration

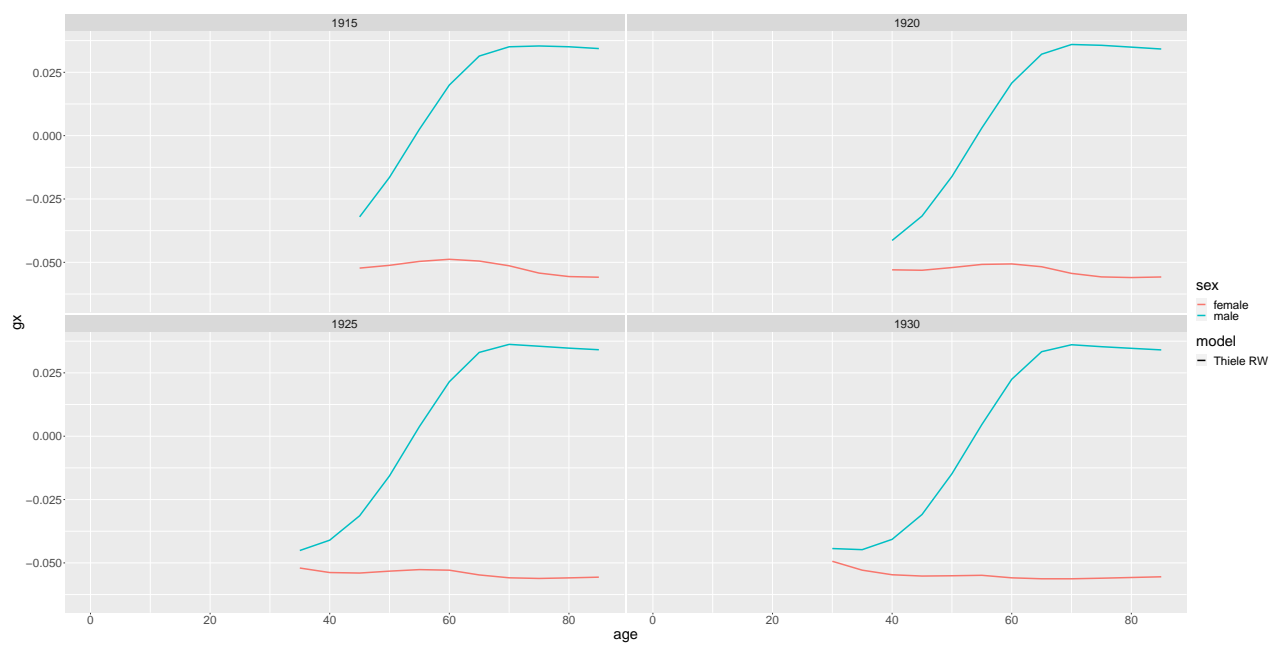


Figure 16: Migration

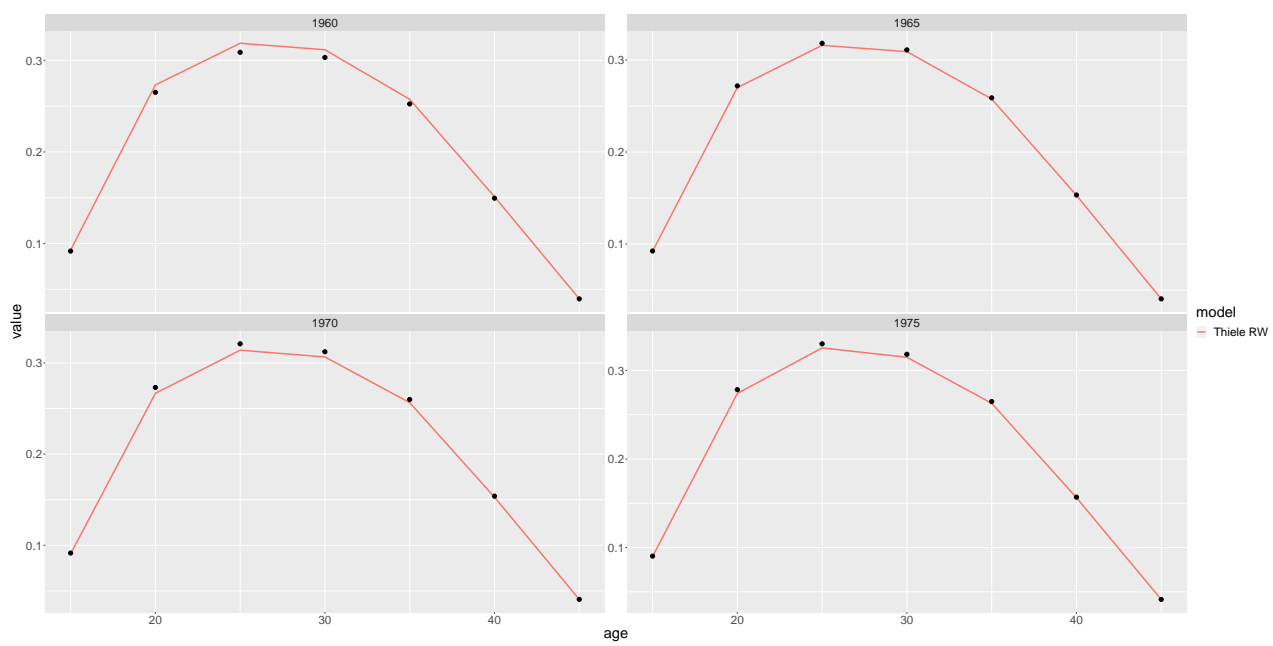


Figure 17: Fertility

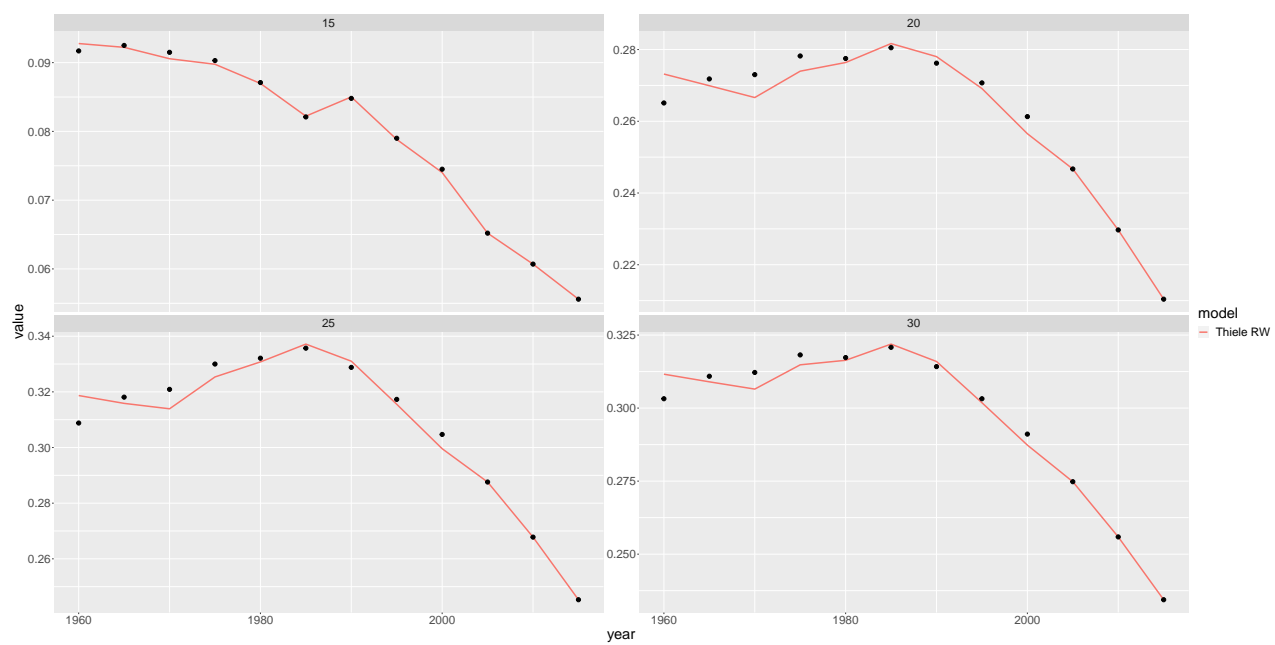


Figure 18: Fertility