

# Eswatini

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

```
## # A tibble: 18 x 7
```

```
##   aggr.age `1966` `1976` `1986` `1997` `2007` `2017`
## *   <dbl>   <dbl>   <dbl>   <dbl>   <dbl>   <dbl>
## 1     0 33046. 45361. 61800. 69089. 64154. 65289.
## 2     5 30797. 39820. 54650. 69897. 67933. 65017.
## 3    10 24770. 34111. 47114. 66820. 68992. 63947.
## 4    15 20754. 28627. 40012. 57869. 65809. 59486.
## 5    20 17102. 23750. 33842. 47164. 58262. 54486.
## 6    25 14216. 19219. 27344. 38184. 46485. 50419.
## 7    30 12011. 15322. 21149. 31197. 34839. 44426.
## 8    35  9763. 12596. 16882. 25537. 27473. 33692.
## 9    40  7987. 10397. 13831. 20252. 22783. 25384.
## 10   45  6530.  8481. 11059. 15970. 18652. 22186.
## 11   50  5238.  6721.  8299. 12567. 14638. 18810.
## 12   55  4452.  5267.  6201.  9626. 11855. 15827.
## 13   60  3649.  4240.  5205.  7462. 10447. 12869.
## 14   65  2896.  3274.  4471.  5751.  8416. 10083.
## 15   70  2306.  2533.  3393.  4353.  5937.  8294.
## 16   75  1281.  1893.  2271.  3132.  3997.  5690.
## 17   80   877.   837.  1595.  2006.  2497.  6222.
## 18   85  1518.  1220.  1870.  2189.  2718.   NA
```

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

```
## # A tibble: 18 x 7
```

```
##   aggr.age `1966` `1976` `1986` `1997` `2007` `2017`
## *   <dbl>   <dbl>   <dbl>   <dbl>   <dbl>   <dbl>
## 1     0 31228. 43333. 60281. 67734. 63826. 65605.
## 2     5 30121. 38898. 53400. 68628. 66868. 65496.
## 3    10 23480. 32377. 45667. 65235. 65999. 64162.
## 4    15 18758. 23942. 35987. 54304. 59398. 61317.
## 5    20 14580. 17032. 26283. 40757. 49262. 52591.
## 6    25 11688. 13565. 19898. 30364. 39138. 46828.
## 7    30 10230. 12073. 16384. 23513. 30855. 42398.
## 8    35  8903. 10997. 13846. 19420. 24394. 33642.
## 9    40  7760.  9633. 12020. 16659. 19208. 24573.
## 10   45  6498.  8067. 10598. 14014. 15584. 19308.
## 11   50  5203.  6290.  8491. 11238. 12798. 14178.
## 12   55  4413.  4896.  6147.  8686. 10130. 12134.
## 13   60  3424.  3941.  4494.  6533.  7933. 10119.
## 14   65  2445.  2892.  3411.  4649.  5930.  7366.
## 15   70  1724.  2128.  2515.  3177.  3969.  5028.
## 16   75   712.  1467.  1641.  2115.  2416.  3505.
## 17   80   294.   379.  1051.  1305.  1350.  2863.
## 18   85   486.   554.  1010.  1349.  1291.   NA
```

*Thiele log-Normal Hump RW*

```
##   user system elapsed
## 32.72  0.78  33.65
```

```
## [1] "relative convergence (4)"  
Thiele log-Normal Hump RW (Pop 5-9 to 70-74, DHS 15-19 to 45-49)  
##      user  system elapsed  
##  34.42    1.25   35.78  
## [1] "relative convergence (4)"
```

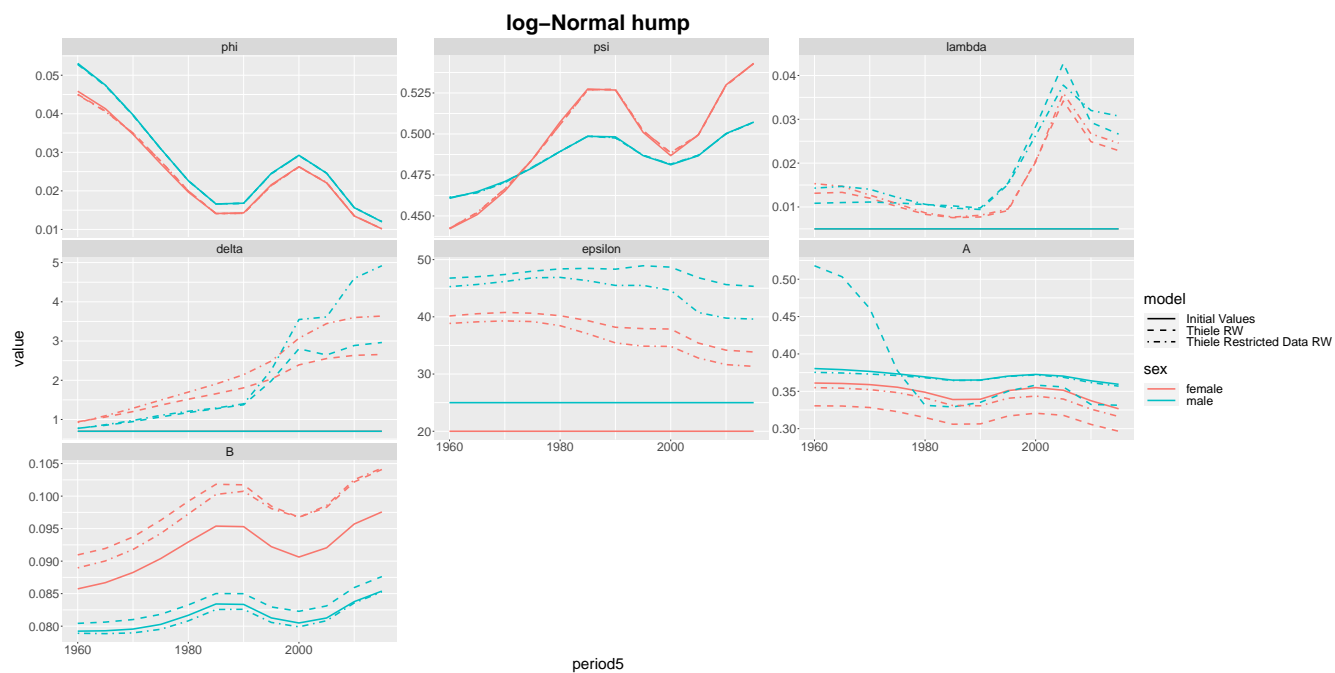


Figure 1: Estimated parameters

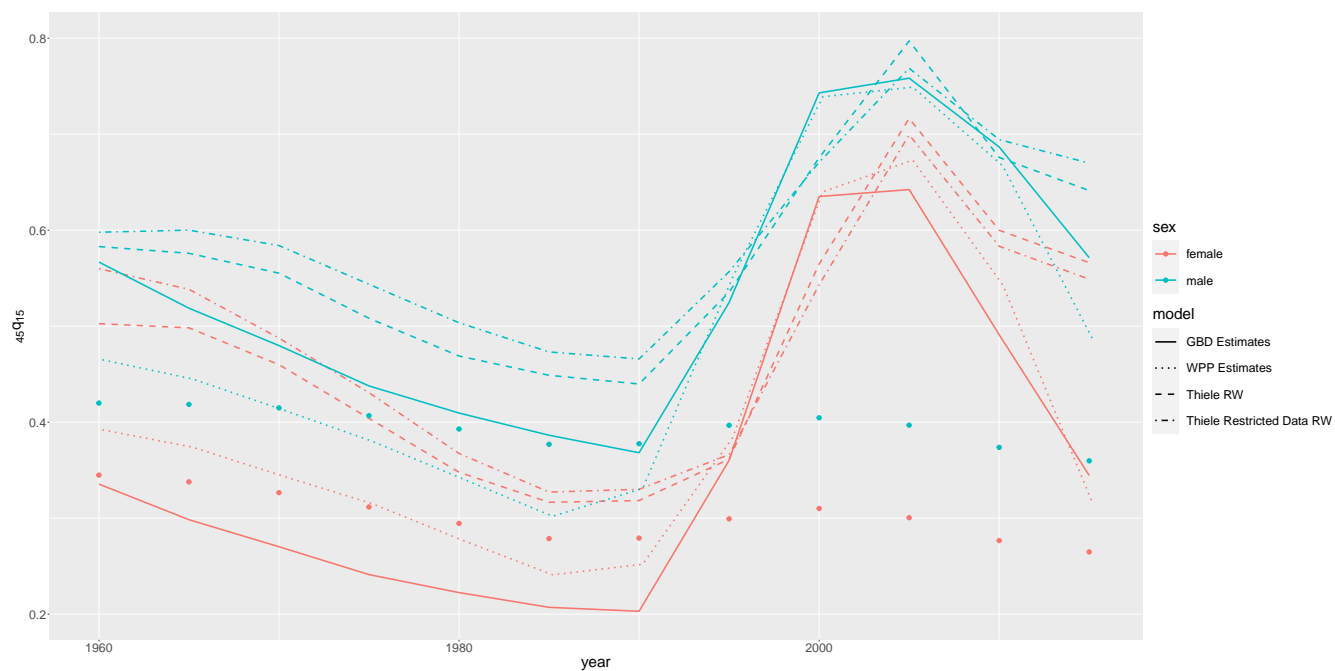


Figure 2: Estimated  $45q_{15}$

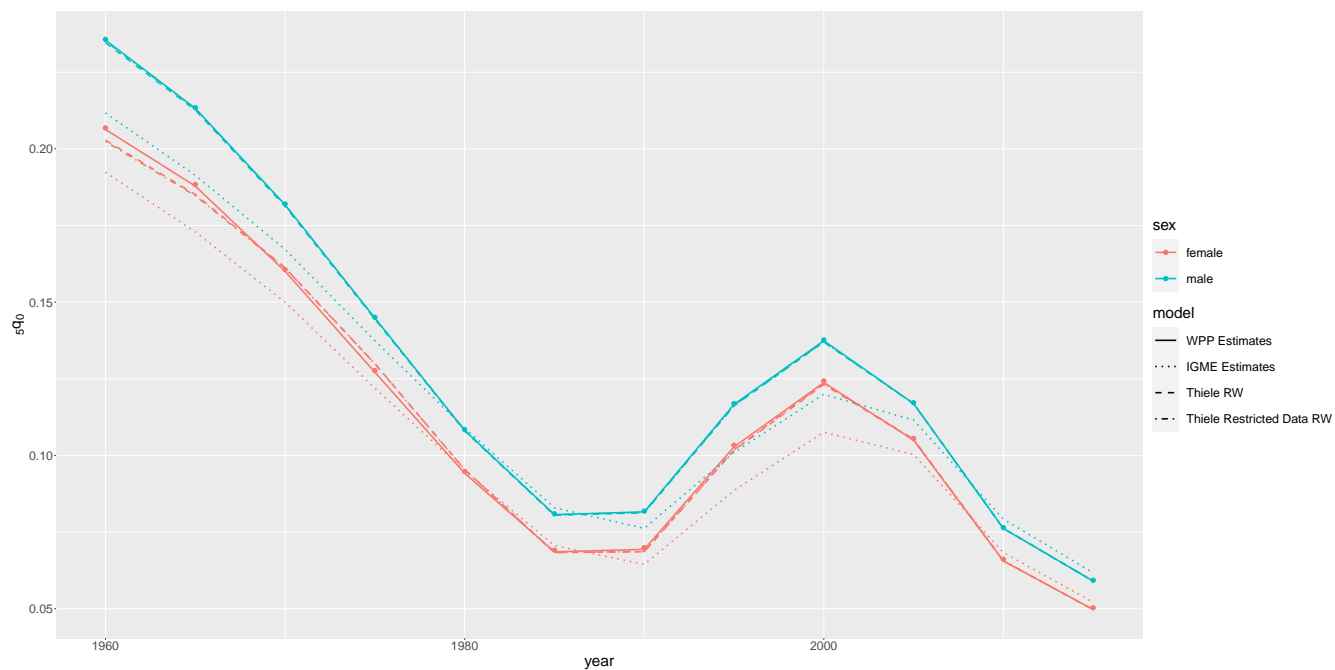


Figure 3: Estimated  $5q_0$

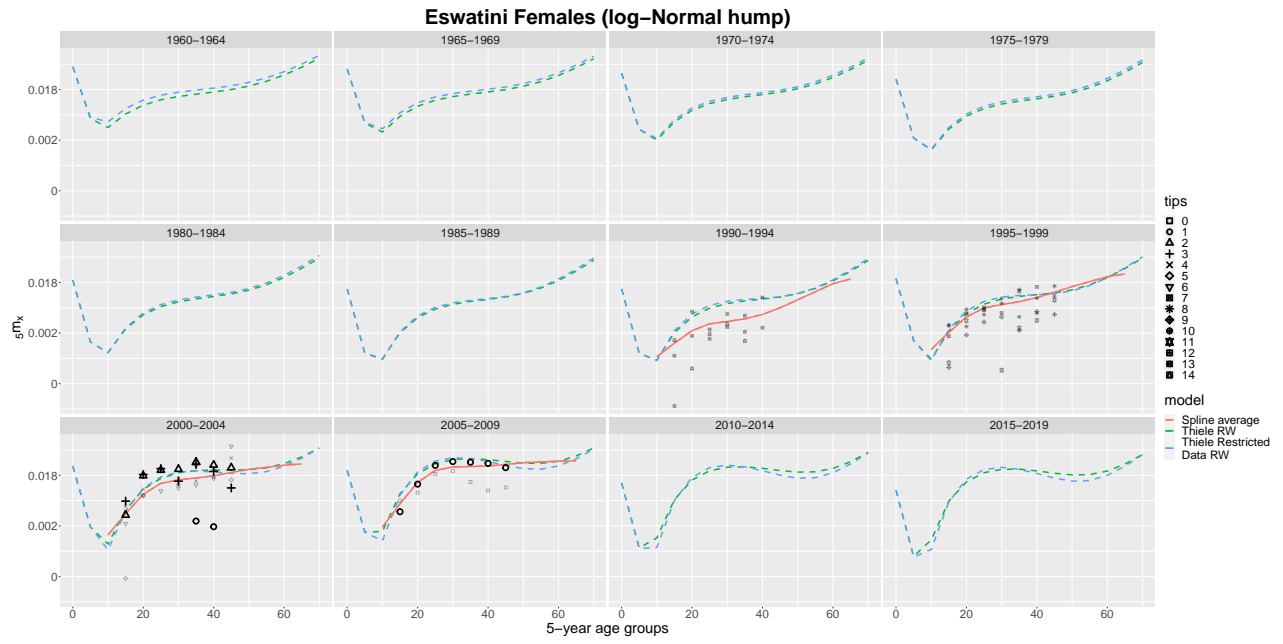


Figure 4: Mortality Schedules

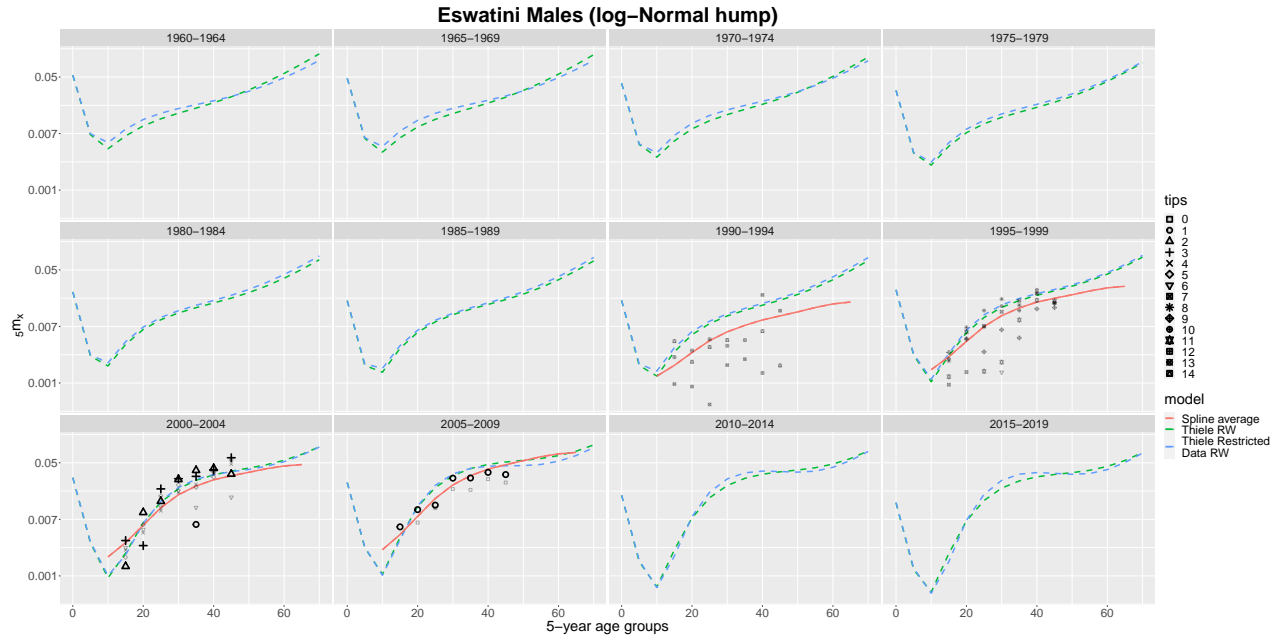


Figure 5: Mortality Schedules

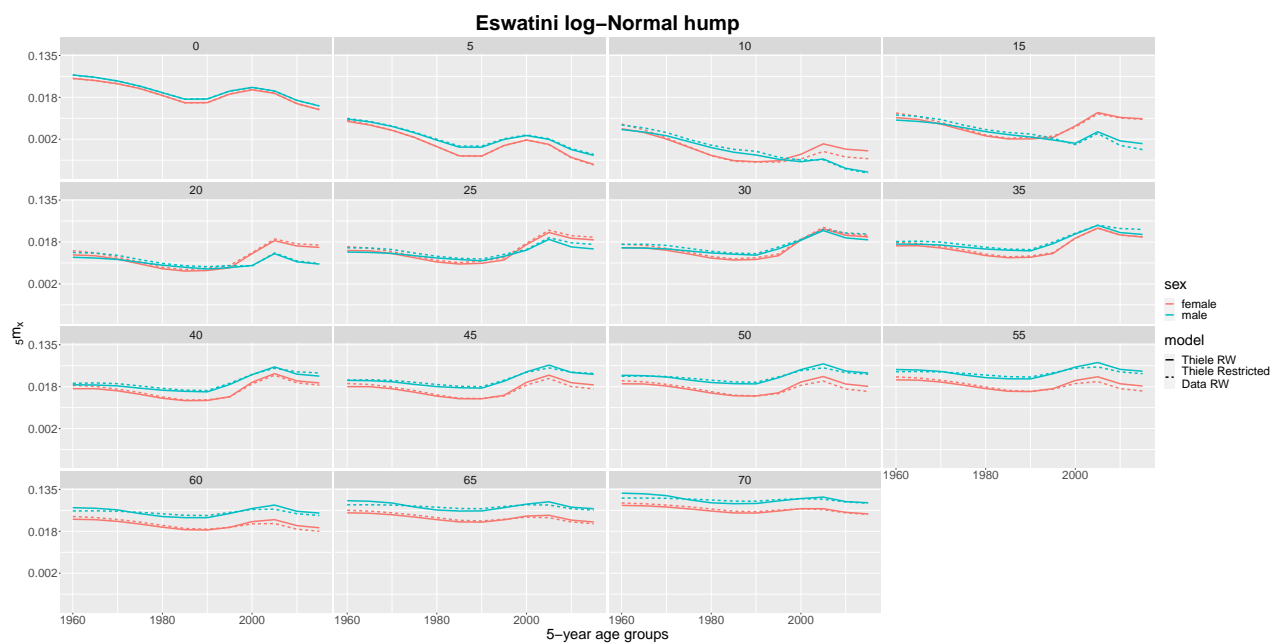


Figure 6: Mortality Schedules

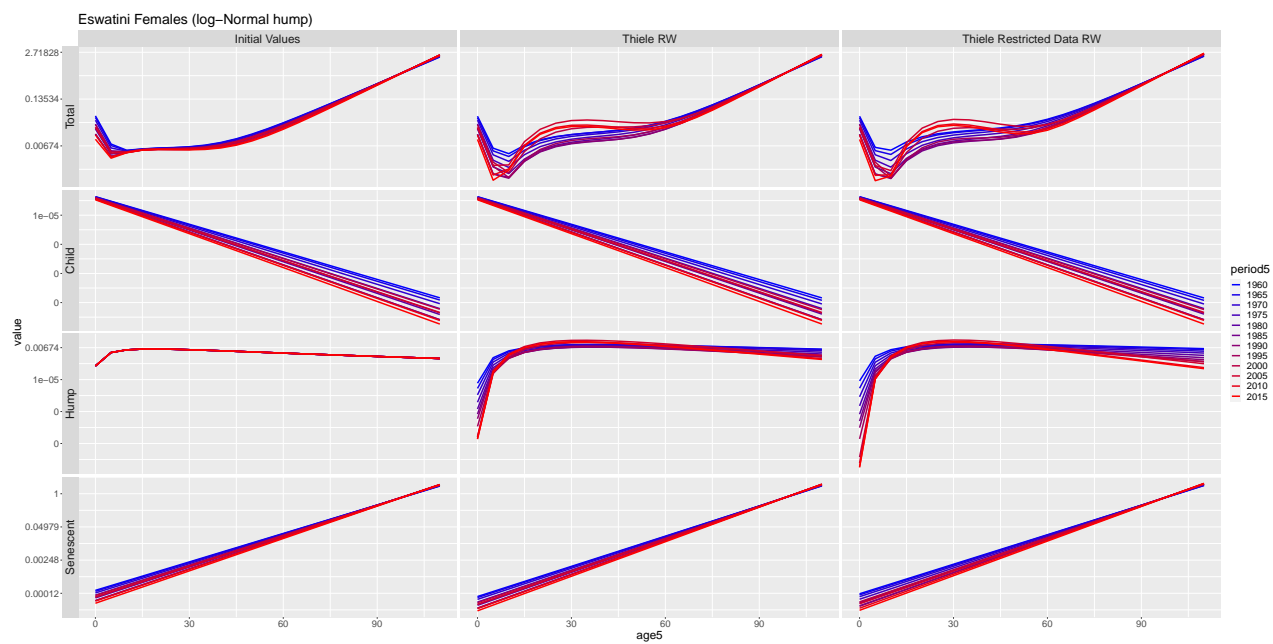


Figure 7: Thiele Decomposed

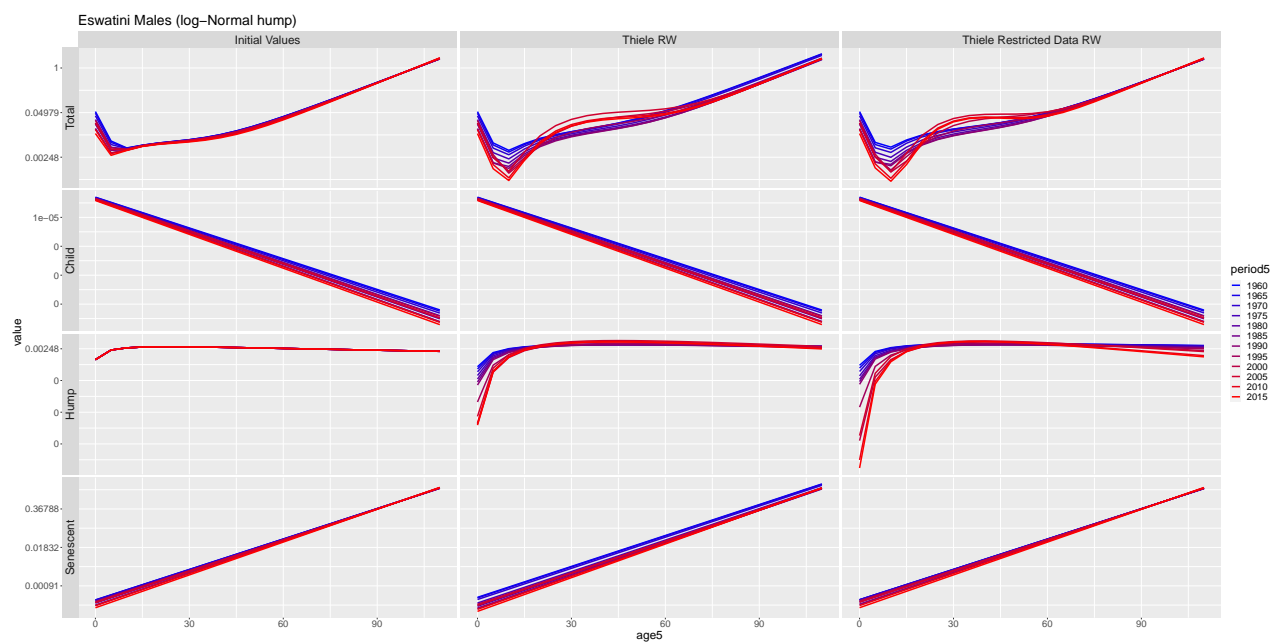


Figure 8: Thiele Decomposed

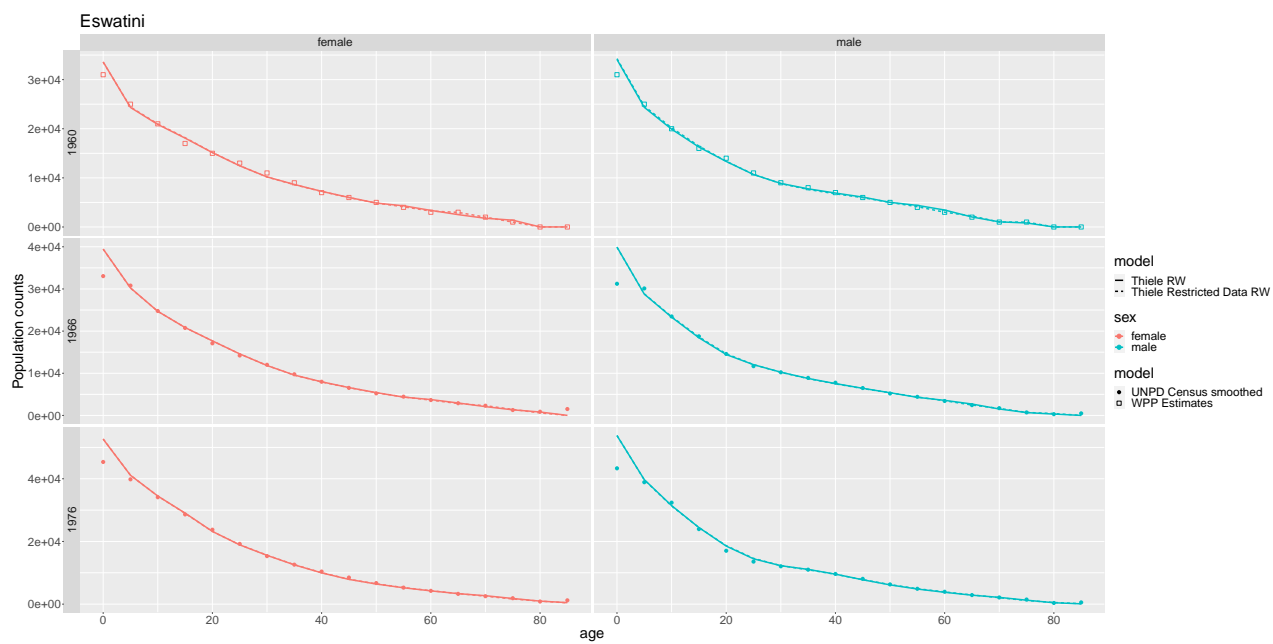


Figure 9: Population

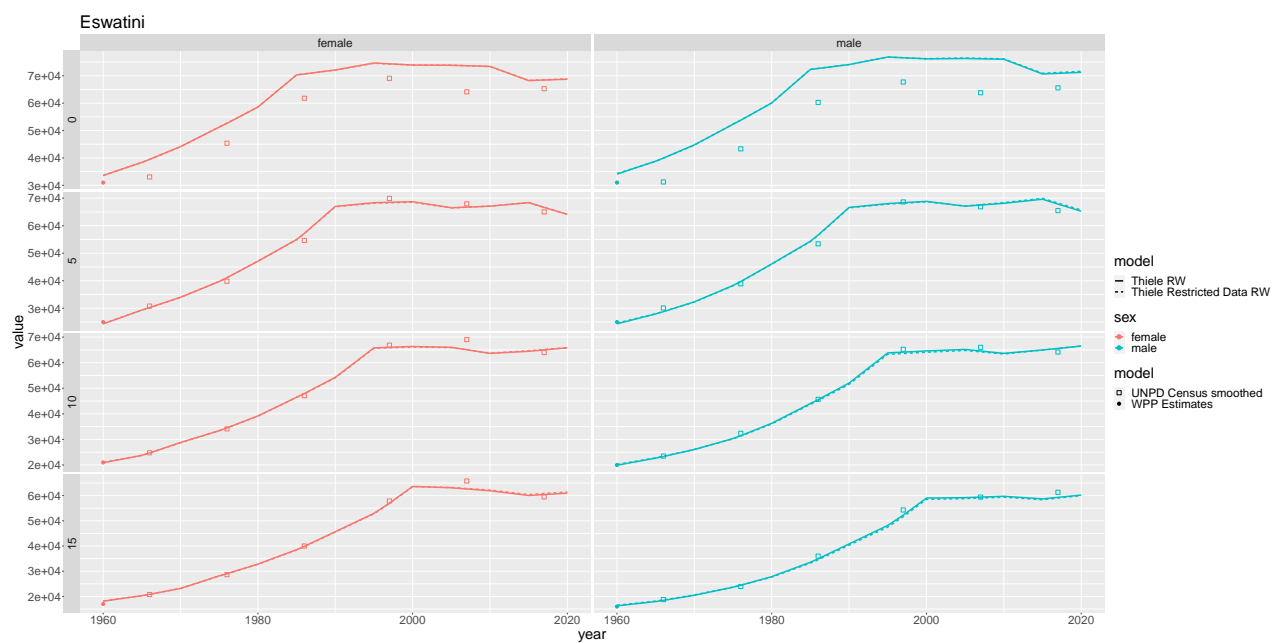


Figure 10: Population

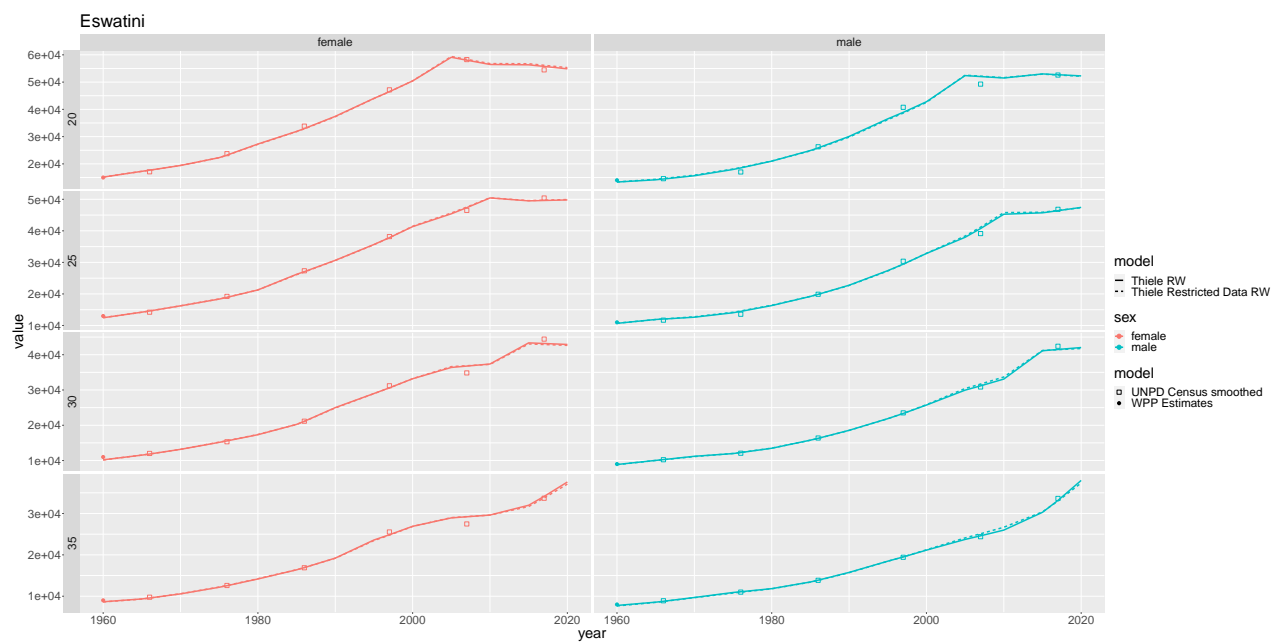


Figure 11: Population



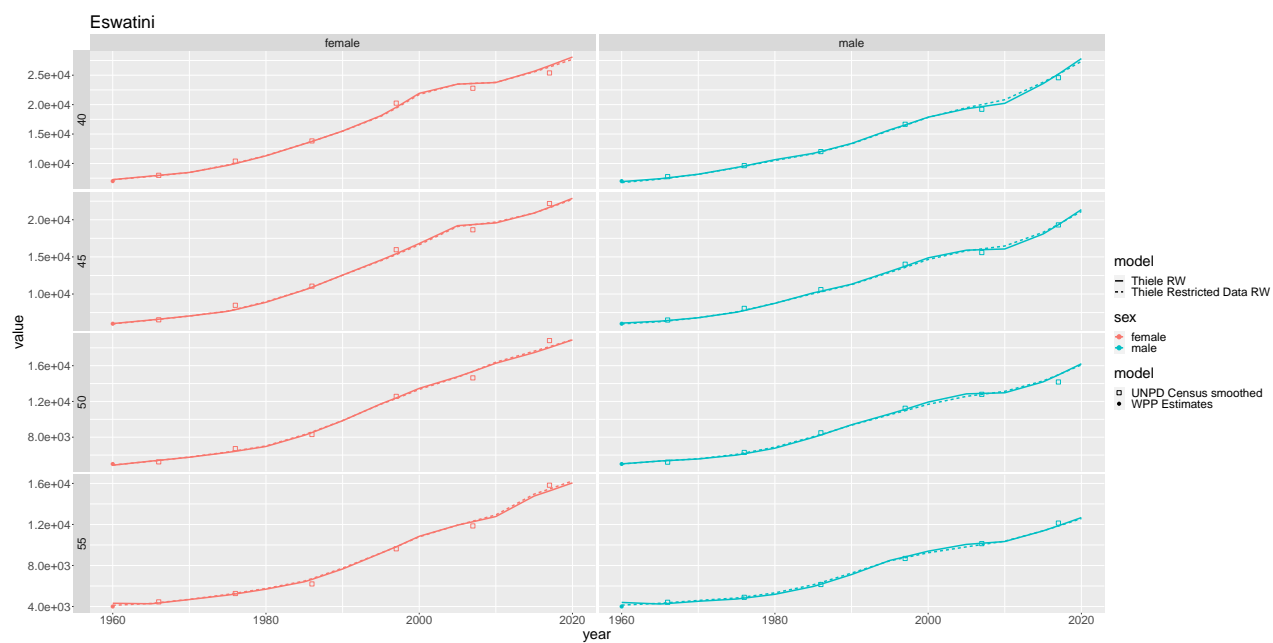


Figure 12: Population

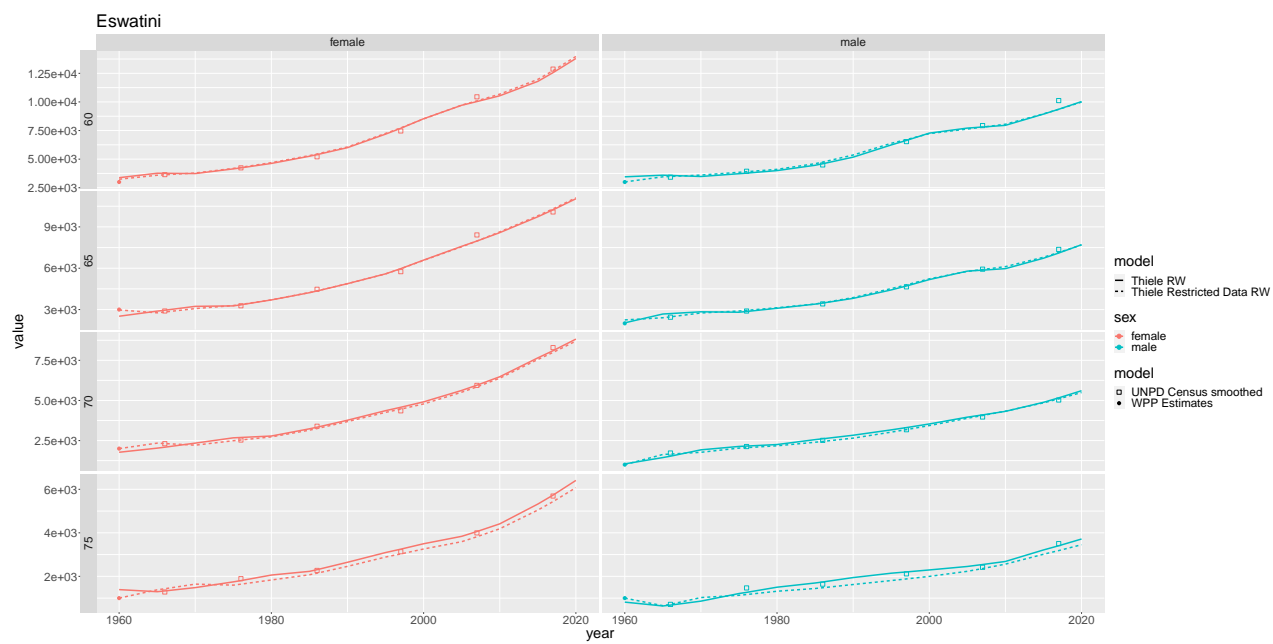


Figure 13: Population



Figure 14: Migration

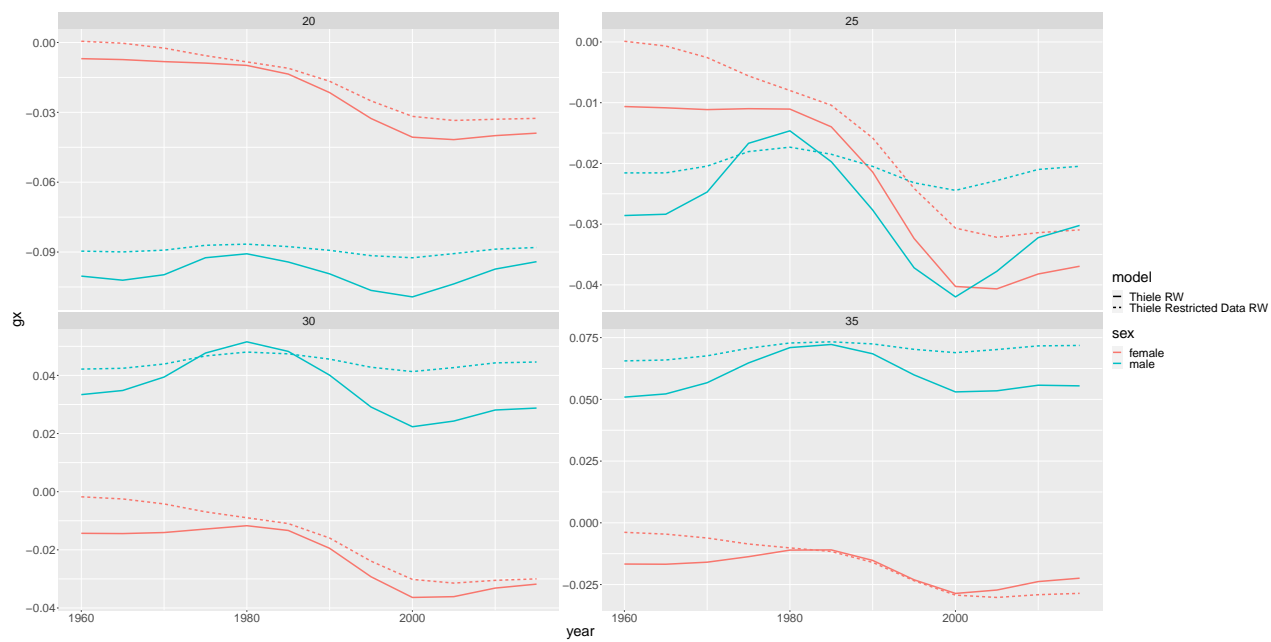


Figure 15: Migration

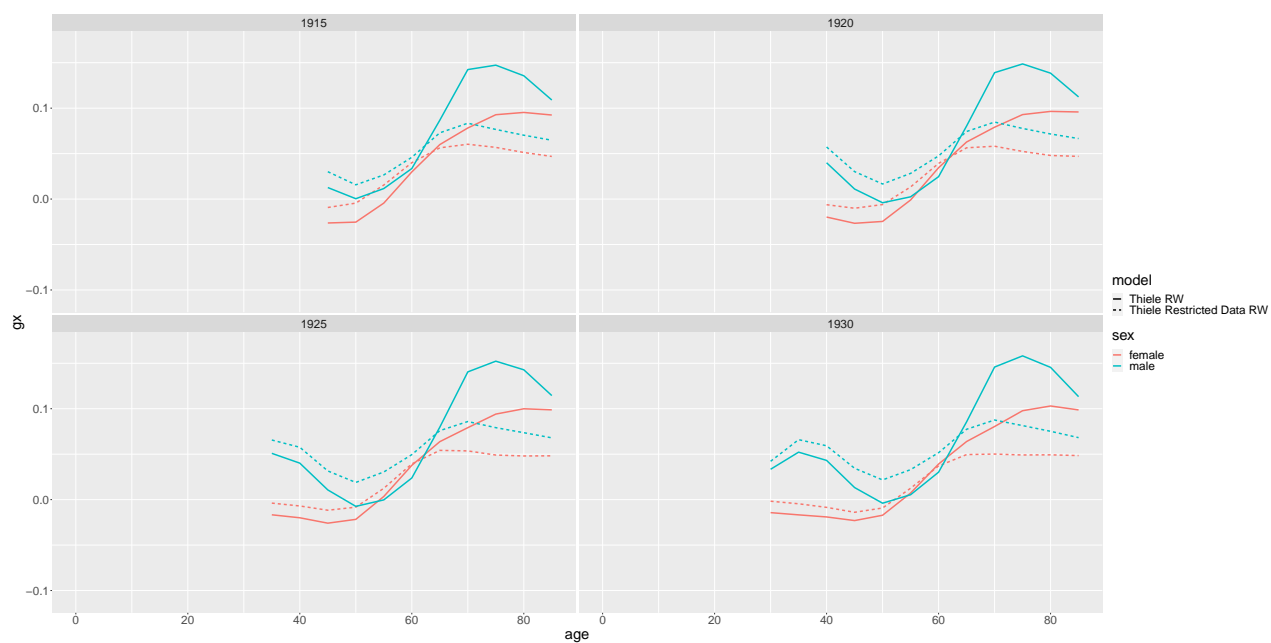


Figure 16: Migration

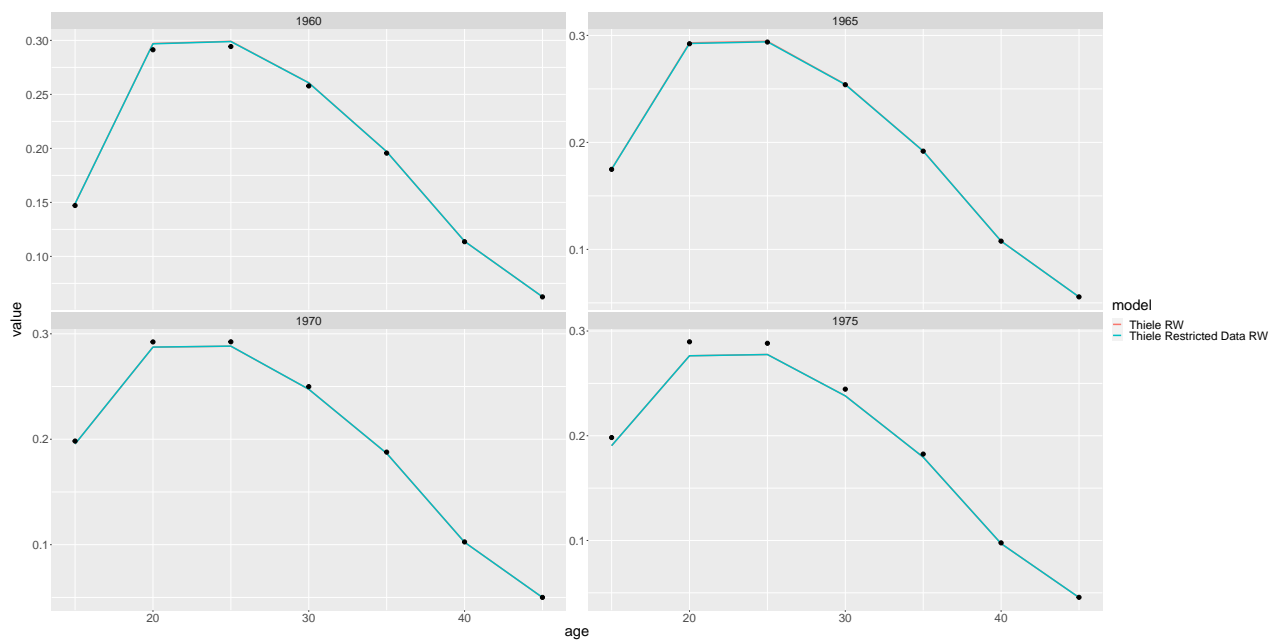


Figure 17: Fertility

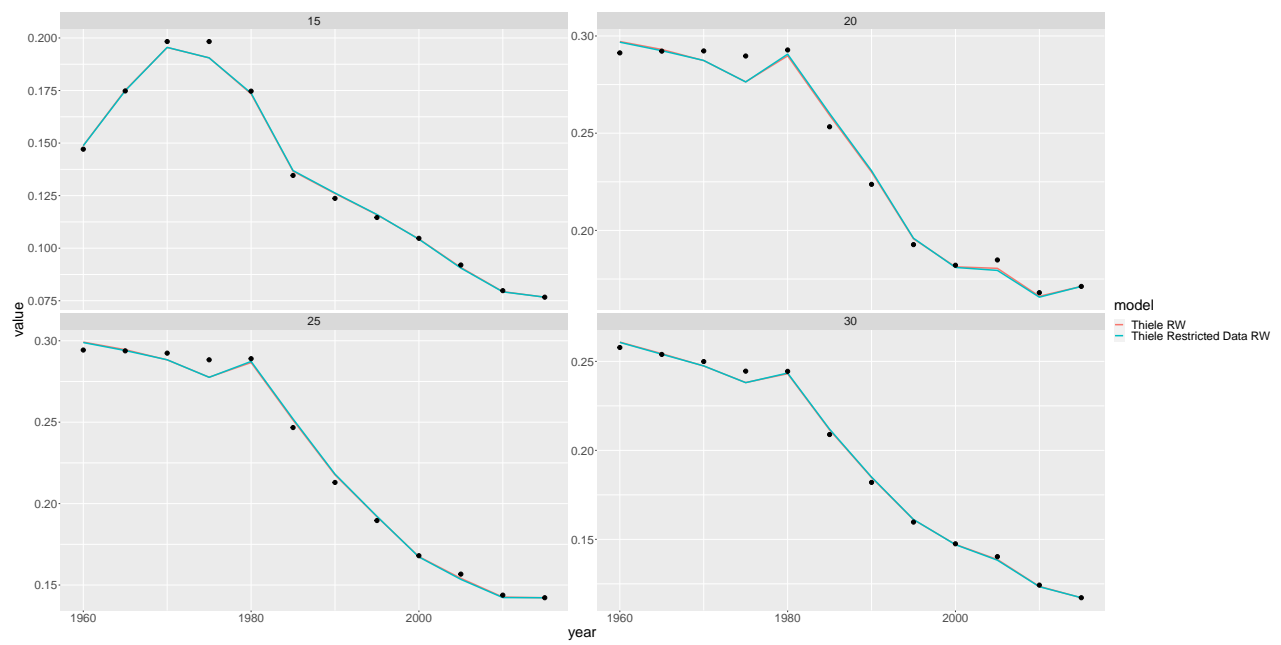


Figure 18: Fertility