Eswatini

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

```
## # A tibble: 18 x 7
##    aggr.age `1966` `1976` `1986` `1997` `2007` `2017`
##  *    <dbl>  <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>  <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
##   31.60    0.66   32.40
```

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

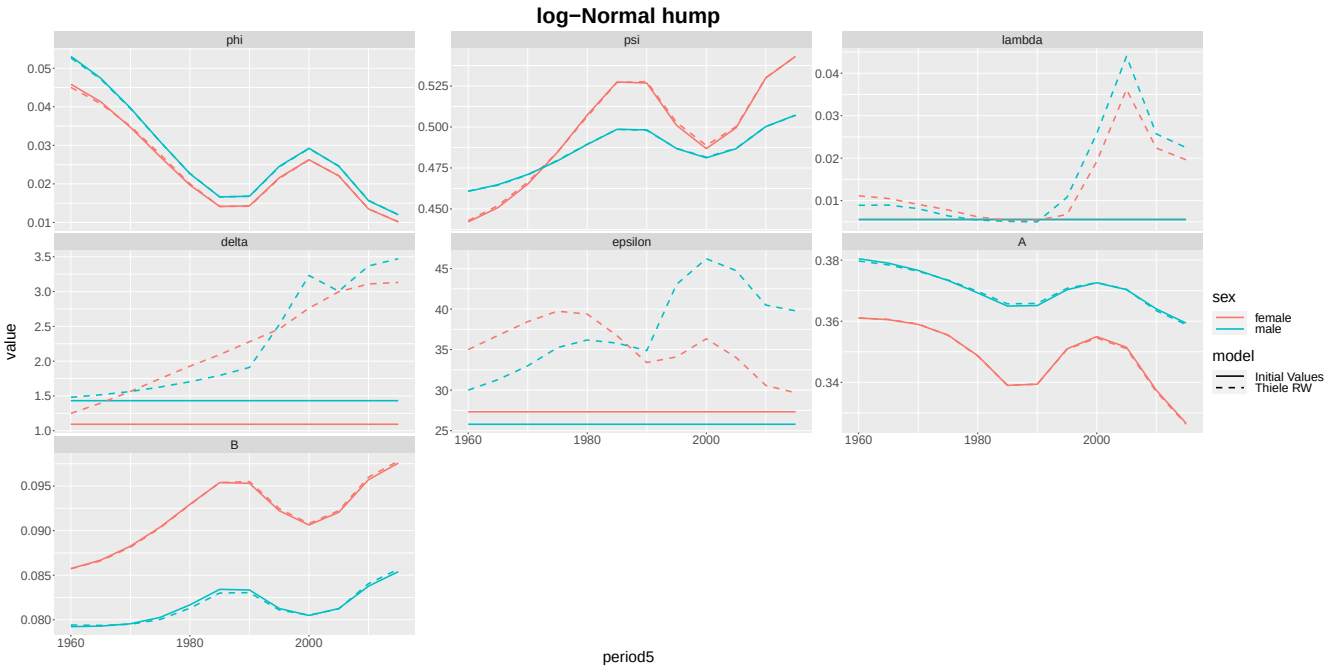

Figure 1: Estimated parameters

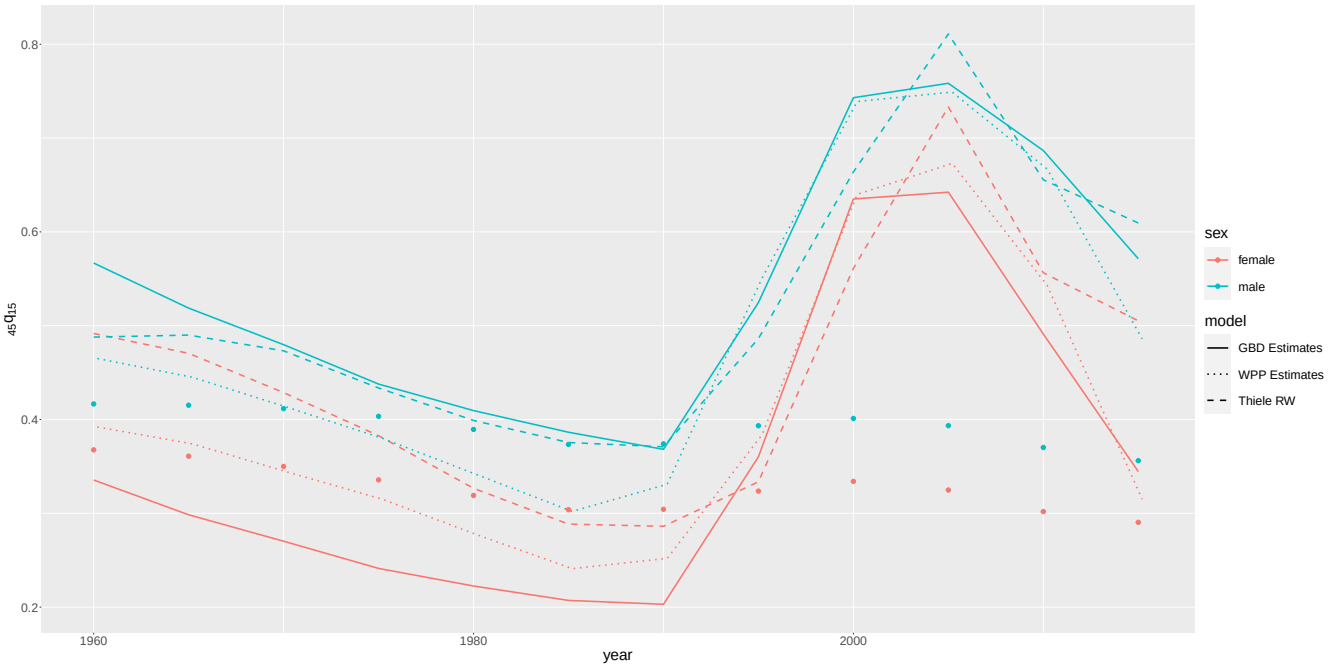

Figure 2: Estimated ${}_{45}q_{15}$

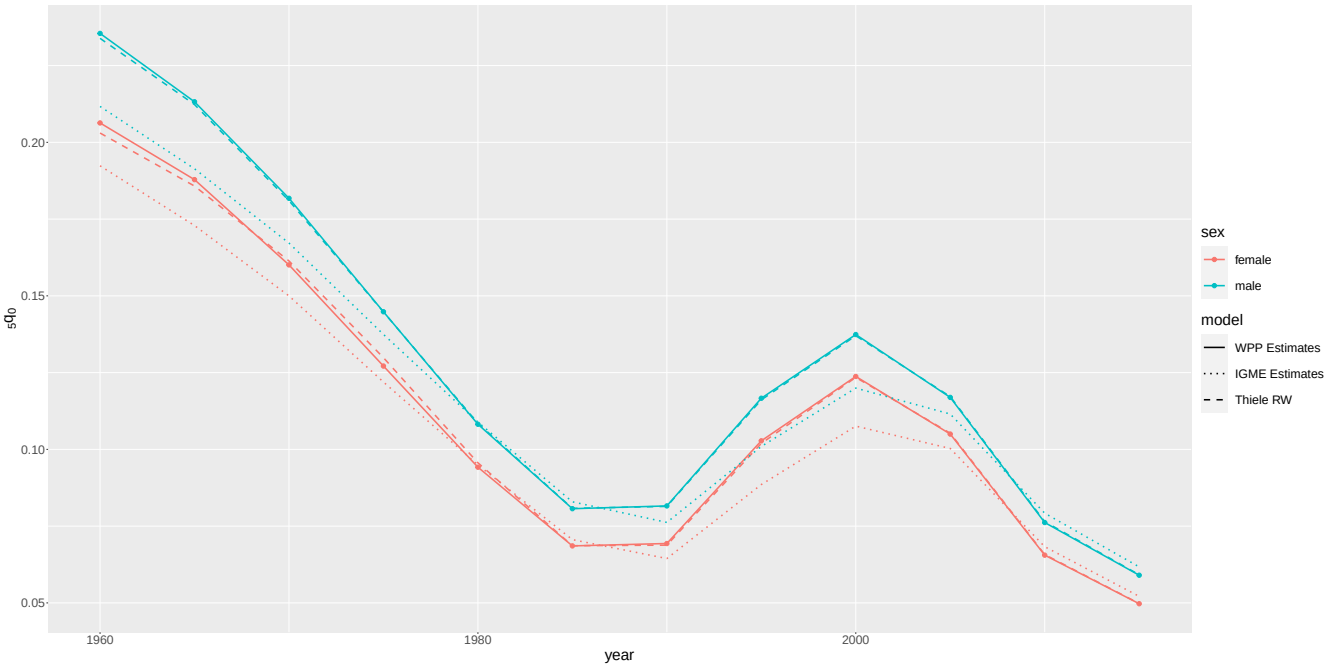

Figure 3: Estimated ${}_{5}q_{0}$

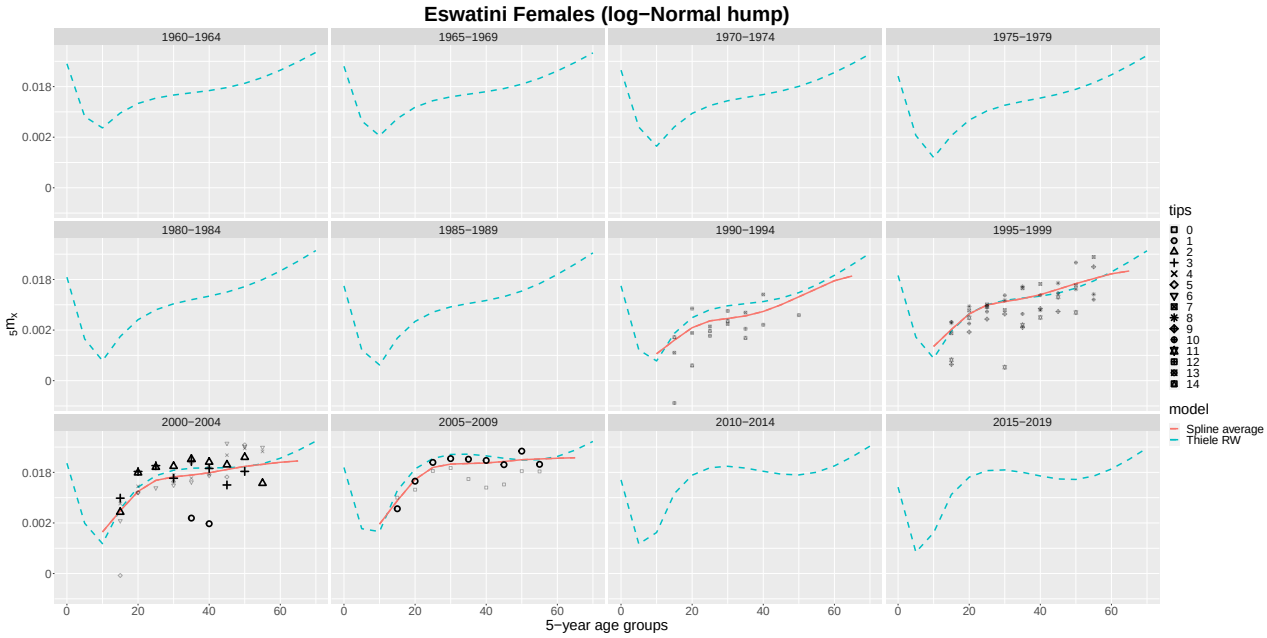

Figure 4: Mortality Schedules

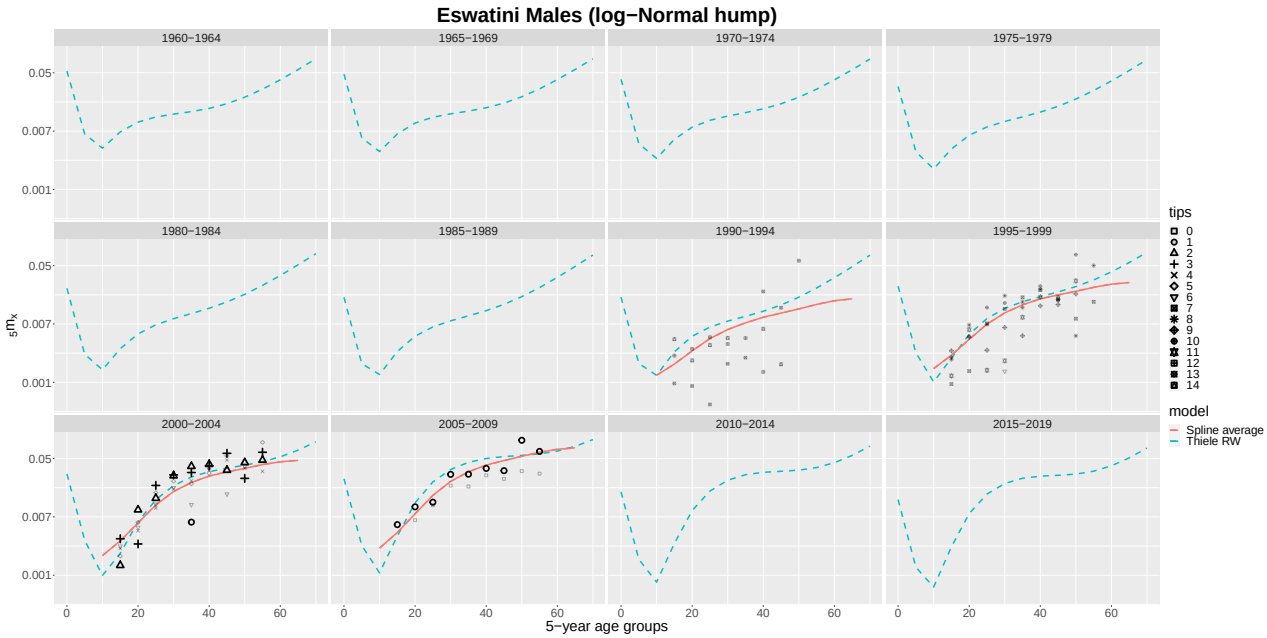

Figure 5: Mortality Schedules

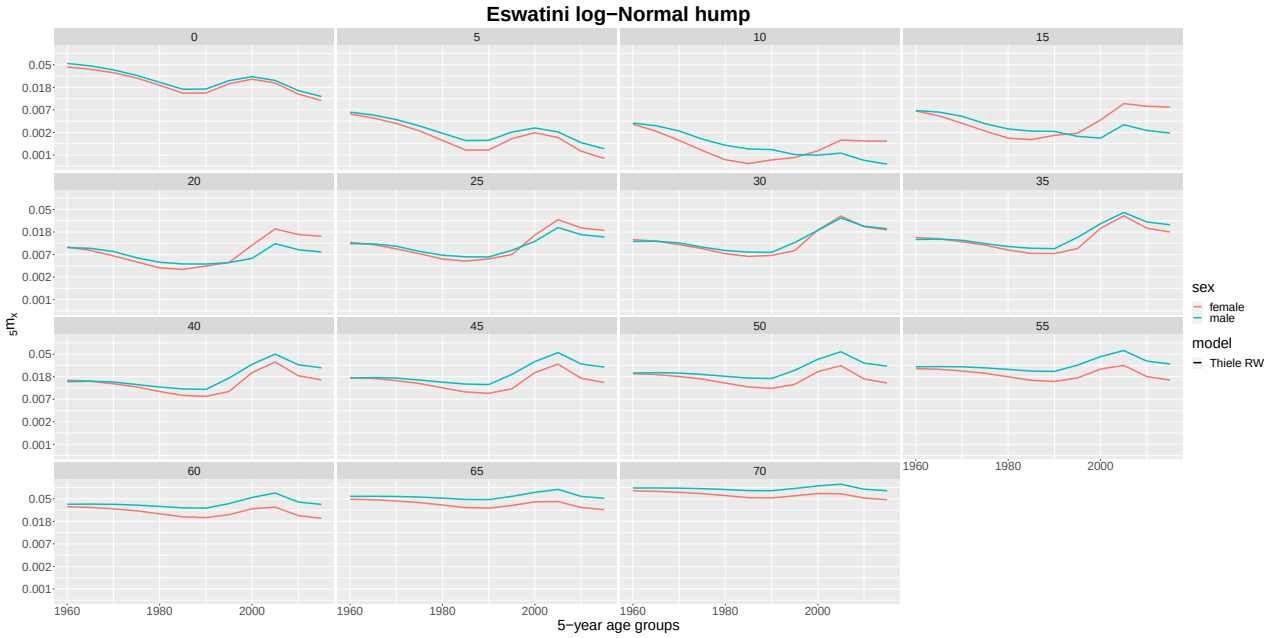

Figure 6: Mortality Schedules

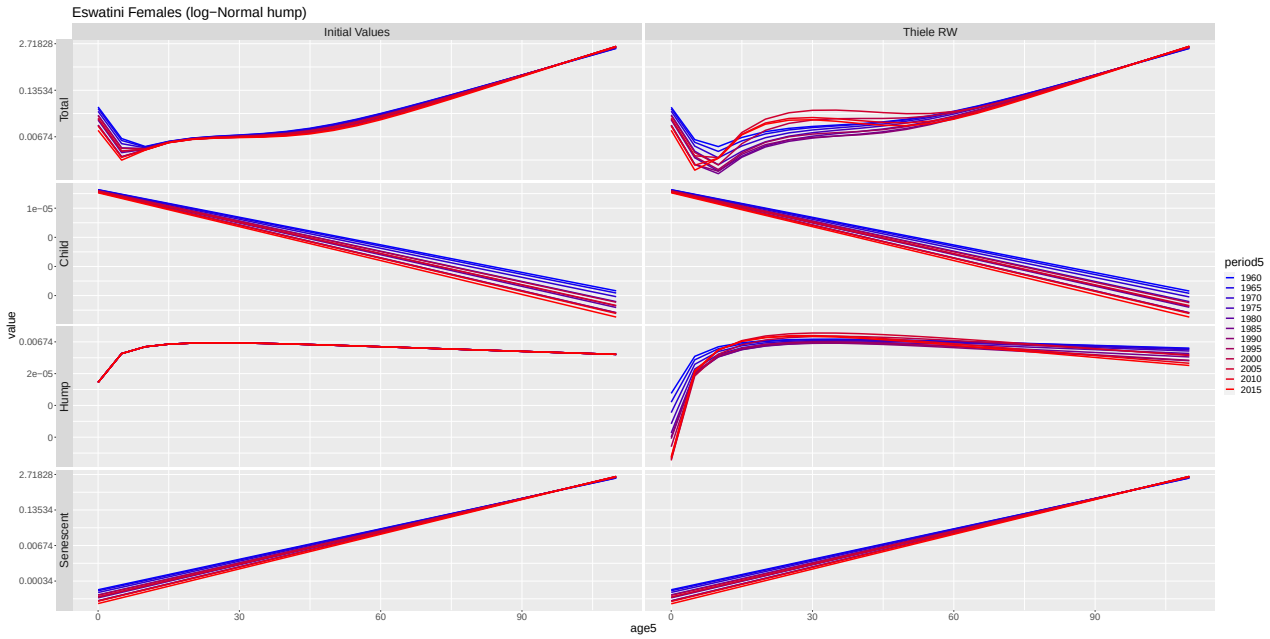

Figure 7: Thiele Decomposed

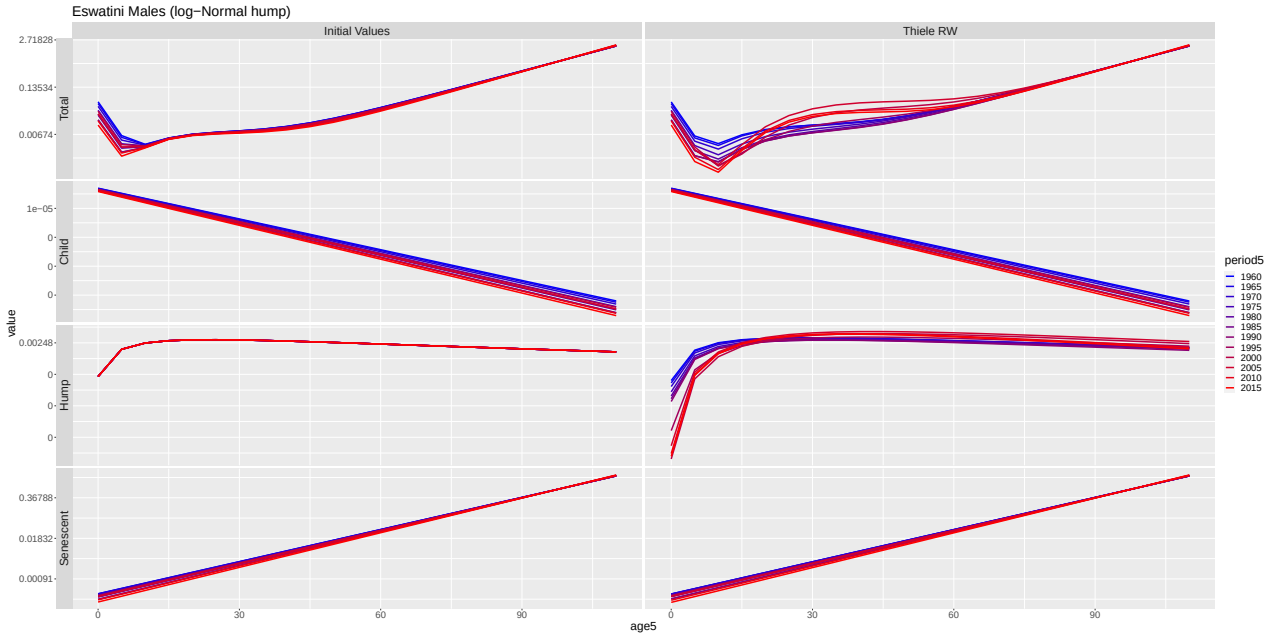

Figure 8: Thiele Decomposed

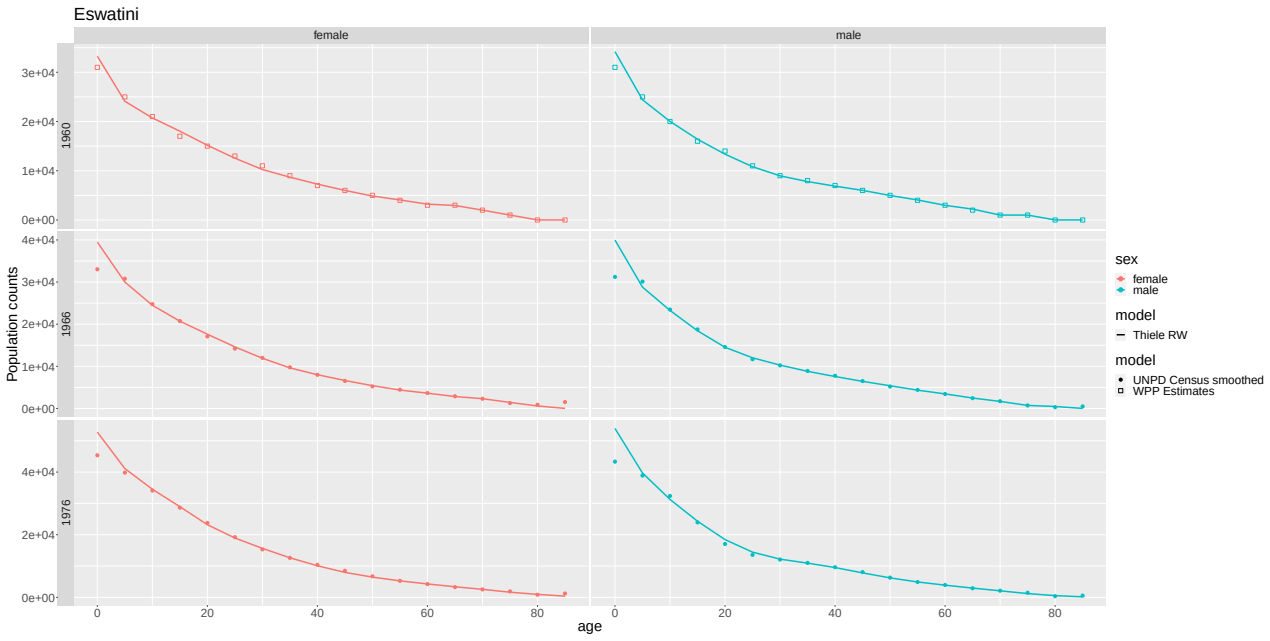

Figure 9: Population

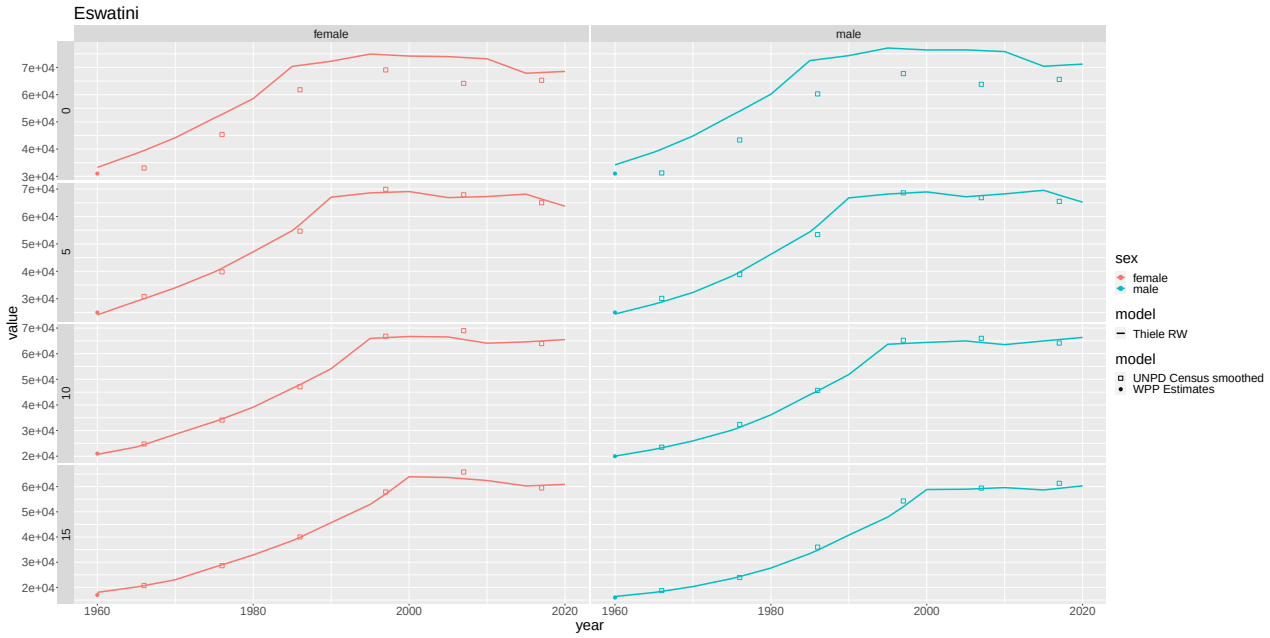

Figure 10: Population

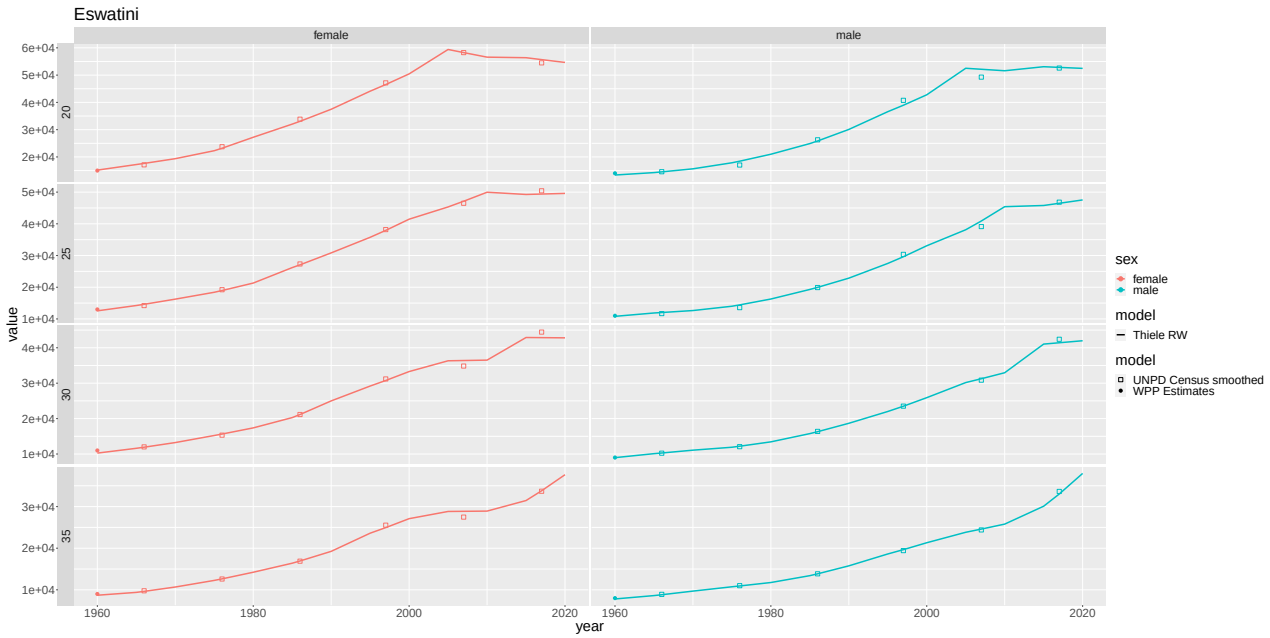

Figure 11: Population

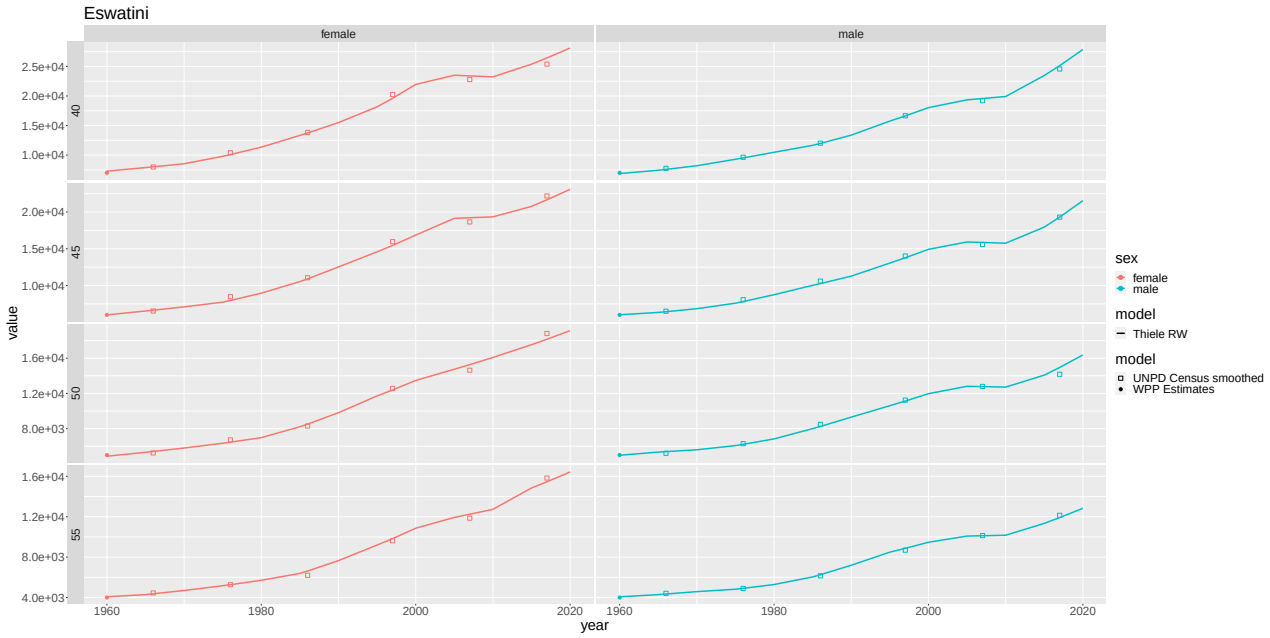

Figure 12: Population

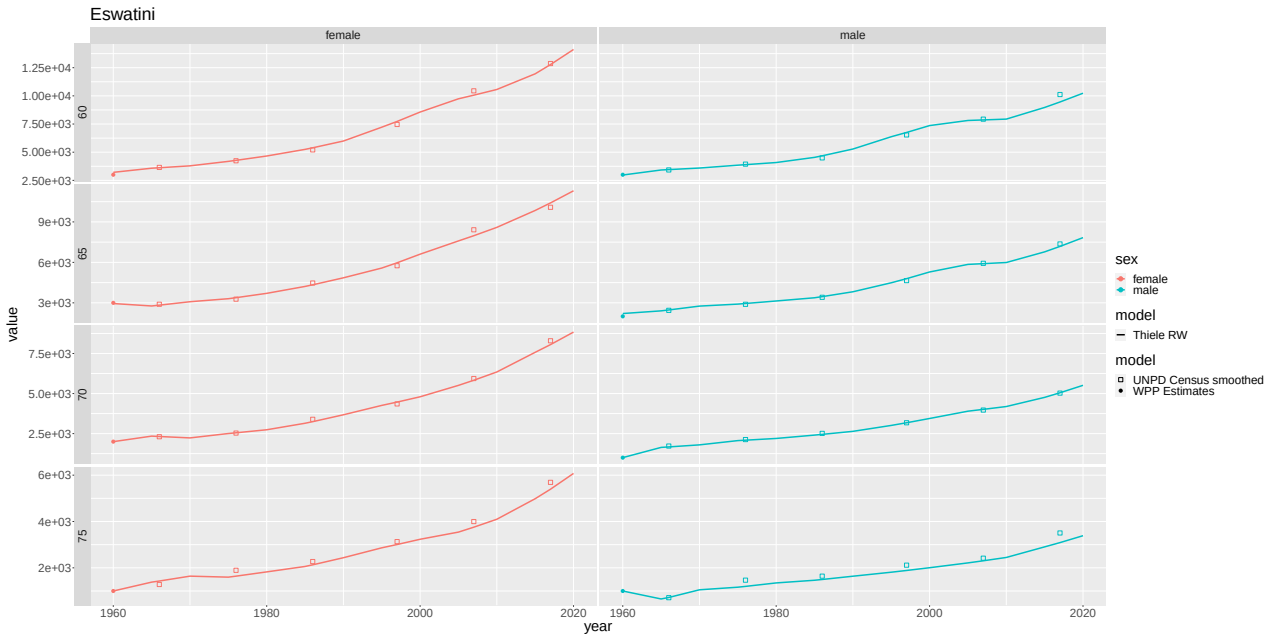

Figure 13: Population

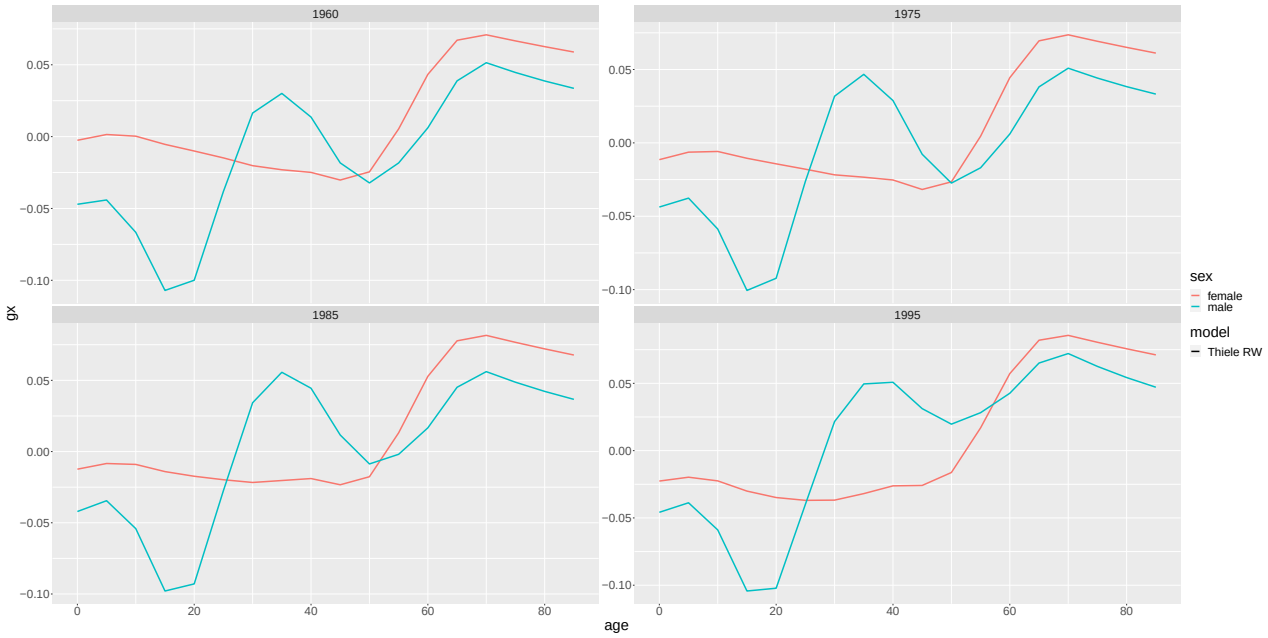

Figure 14: Migration

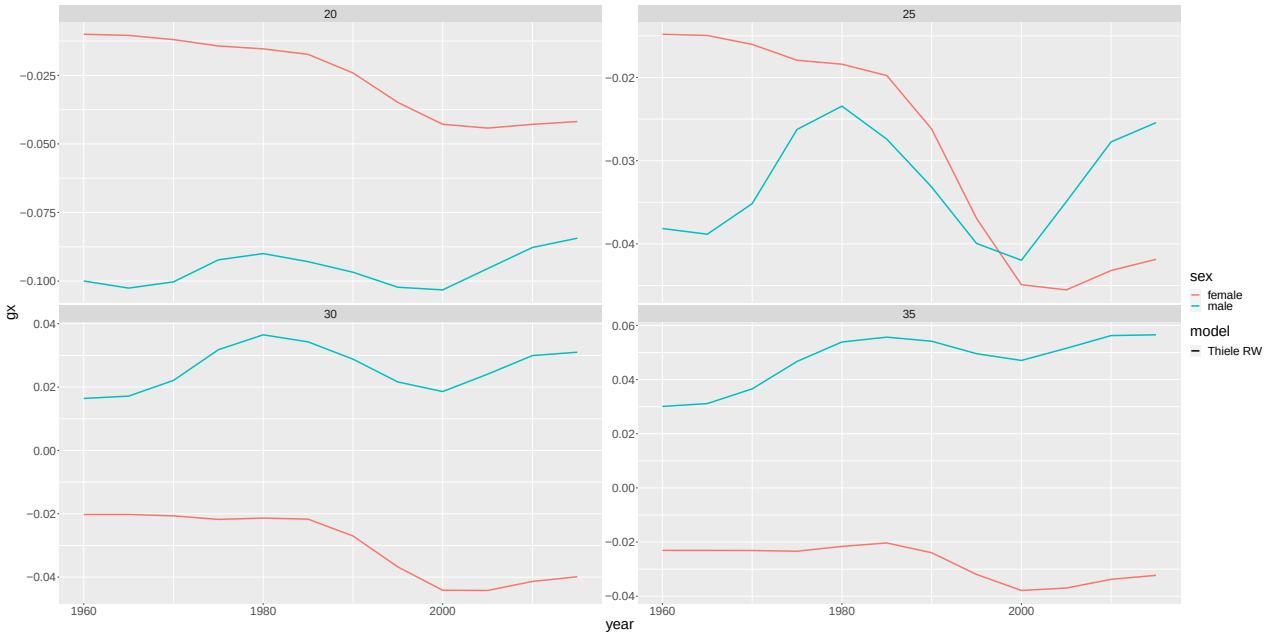

Figure 15: Migration

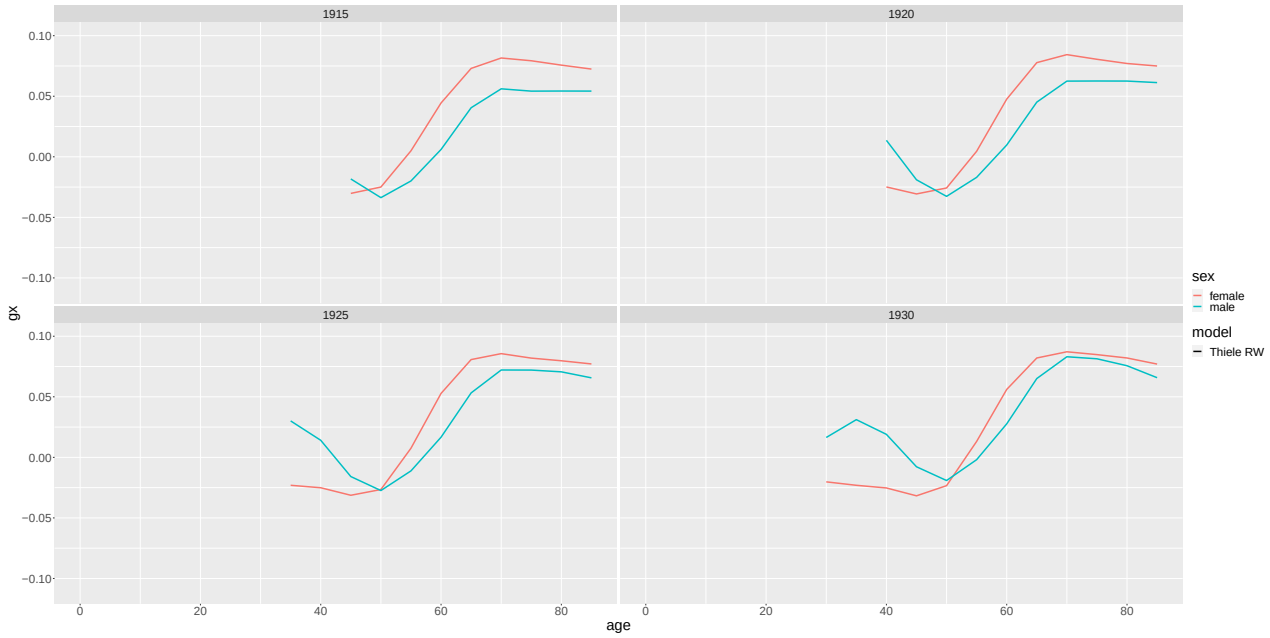

Figure 16: Migration

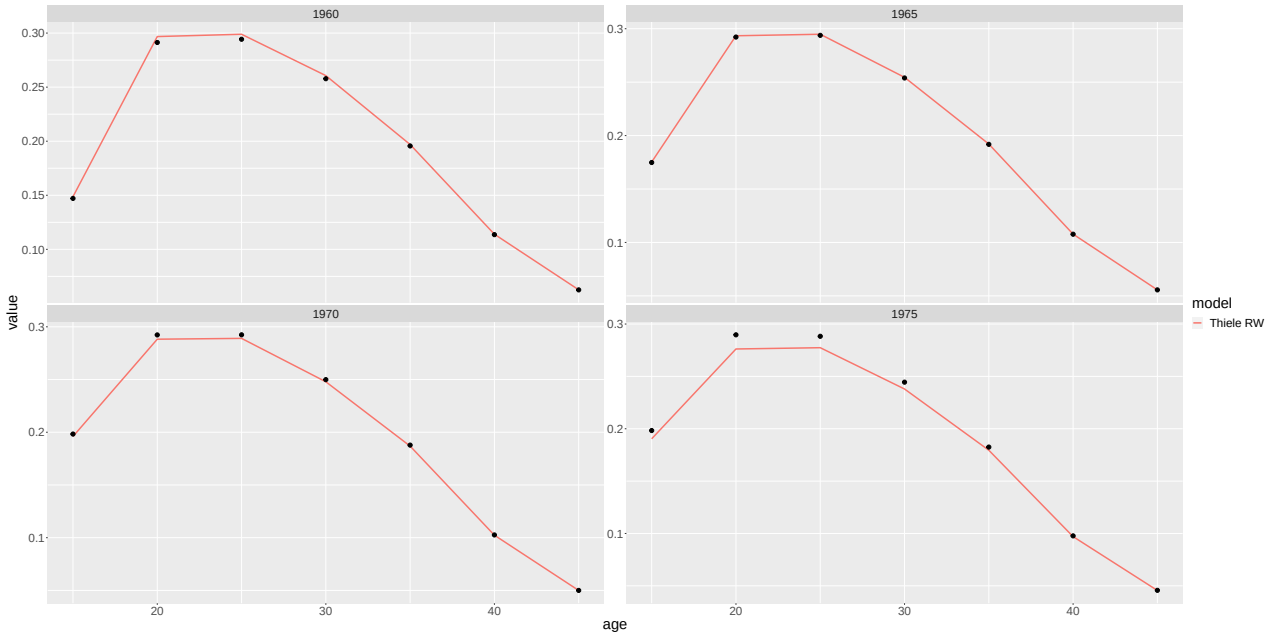

Figure 17: Fertility

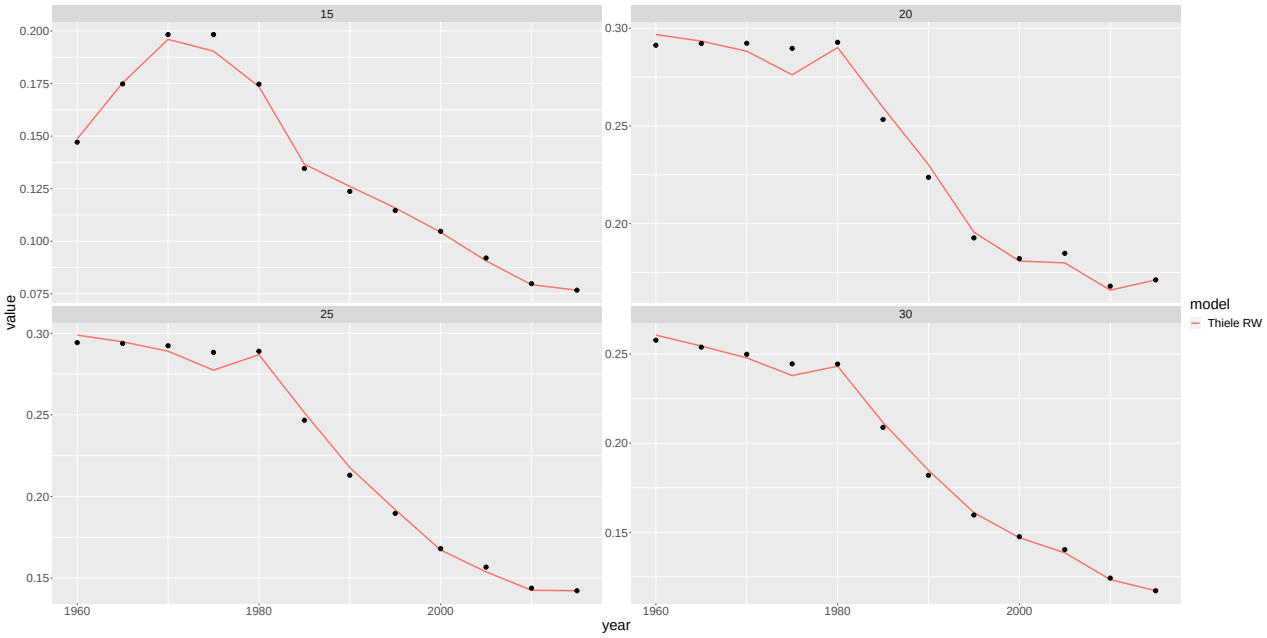

Figure 18: Fertility