Liberia

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

```
## # A tibble: 18 x 5
##    aggr.age `1962`  `1974`  `1984`  `2008`
##  *    <dbl>  <dbl>   <dbl>   <dbl>   <dbl>
##  1        0 83757  112473  175096  263911
##  2        5 64953  101734. 148912. 242940.
##  3       10 52698.  86102. 124522. 212606.
##  4       15 47194.  77449. 113220. 190090.
##  5       20 47225.  71126. 102939. 174774.
##  6       25 47357   64640.  84985. 148747.
##  7       30 43429.  57040.  66985. 119966
##  8       35 36193.  45099.  53004   98793.
##  9       40 27916   33255.  40937.  76878.
## 10       45 20892   25422.  31991.  55524.
## 11       50 15643.  19339.  25344   39151.
## 12       55 12050.  14584   19994.  29099.
## 13       60  9246.  12546.  17390   25189
## 14       65  7298    9567   13581.  20468.
## 15       70  4358    5539    7838   14674
## 16       75  6865    8263   15661   10667
## 17       80    NA      NA      NA    6599
## 18       85    NA      NA      NA    8749
```

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

```
## # A tibble: 18 x 5
##    aggr.age `1962`  `1974`  `1984`  `2008`
##  *    <dbl>  <dbl>   <dbl>   <dbl>   <dbl>
##  1        0 81625  115252  175525  270564
##  2        5 68809  107996. 156238. 247061.
##  3       10 52433.  91310. 132812. 217634
##  4       15 43001.  73288  111146. 188906
##  5       20 38585.  59558.  93543. 163579.
##  6       25 37145.  52254.  78034. 137822.
##  7       30 36123.  48819.  63022. 113698.
##  8       35 33761.  44476   51116.  96817
##  9       40 29697.  37813.  42878   81576.
## 10       45 24926.  31391.  36068.  63548.
## 11       50 20001.  25404   29160.  46136.
## 12       55 15733.  20186   24042.  33073.
## 13       60 11897.  17028   21570.  25293.
## 14       65  8808   13044.  17269.  19079
## 15       70  4963    8855   11361   13879
## 16       75  8212   11788   21859   10228.
## 17       80    NA      NA      NA    5408
## 18       85    NA      NA      NA    8889
```

Thiele log-Normal Hump RW

```
##    user  system elapsed
##   19.72    0.47   20.18
```

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

Thiele log-Normal Hump RW (Pop 5-9 to 70-74, DHS 15-19 to 45-49)

```
##    user  system elapsed
##   21.06    0.52   21.58
```

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

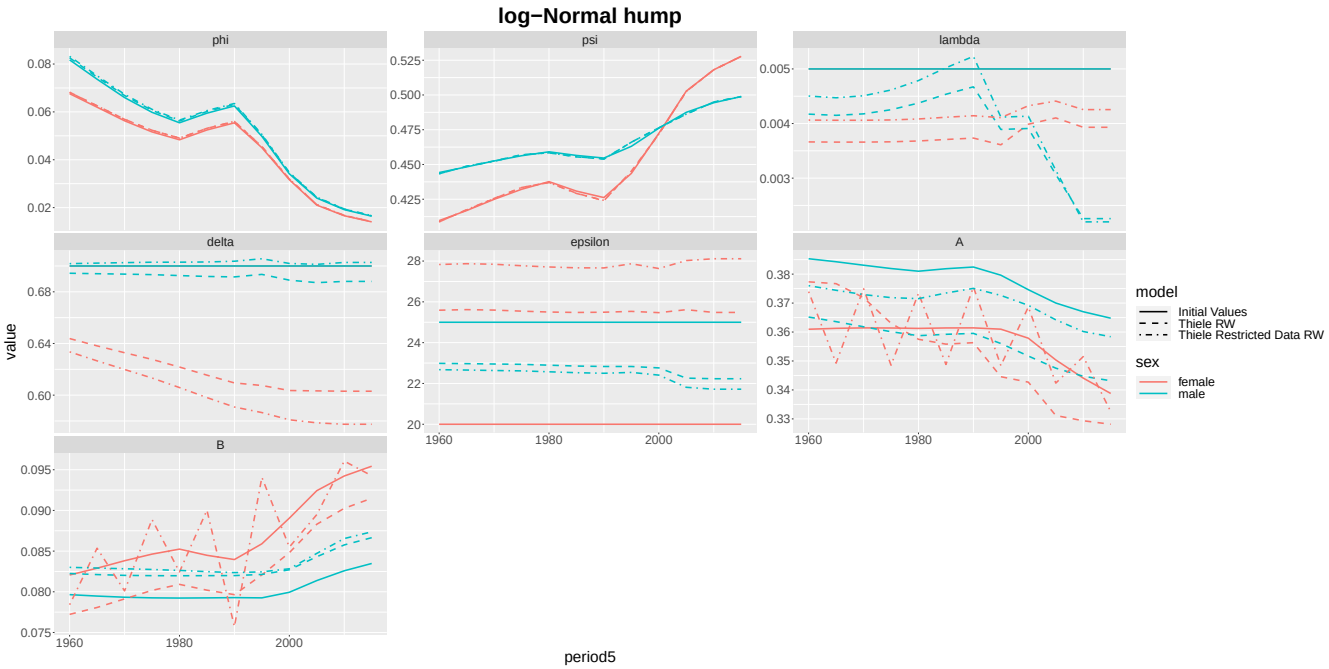

Figure 1: Estimated parameters

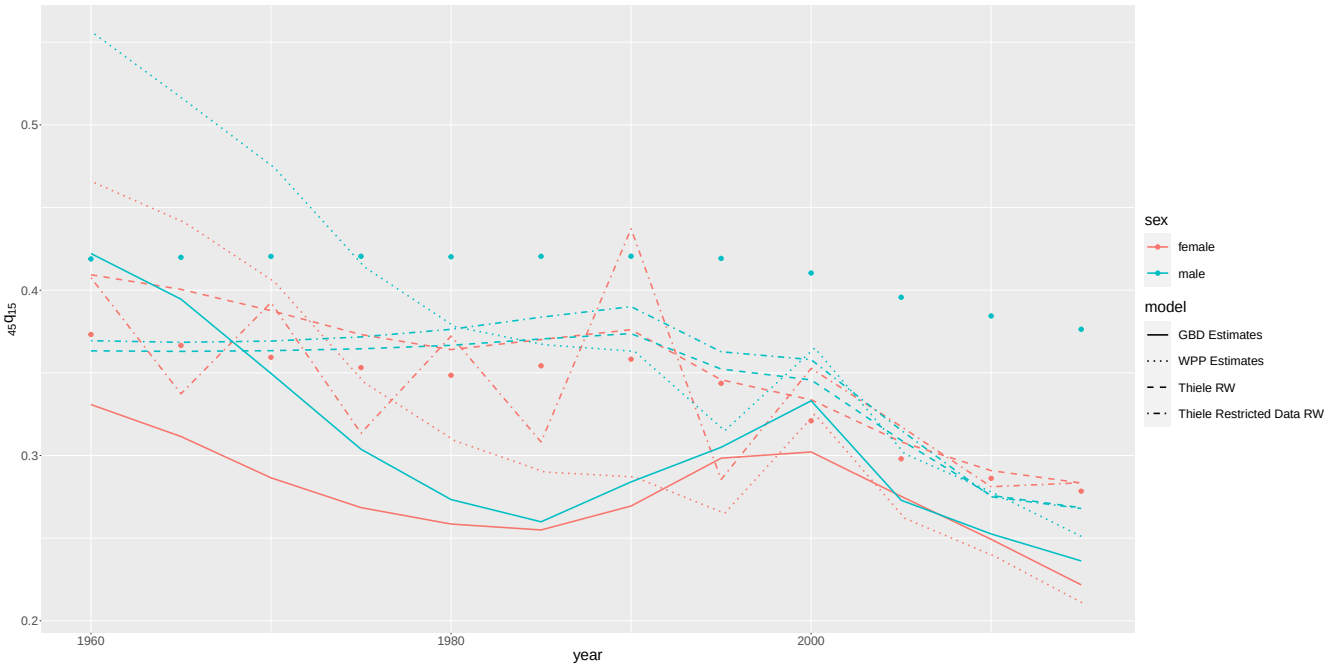

Figure 2: Estimated ${}_{45}q_{15}$

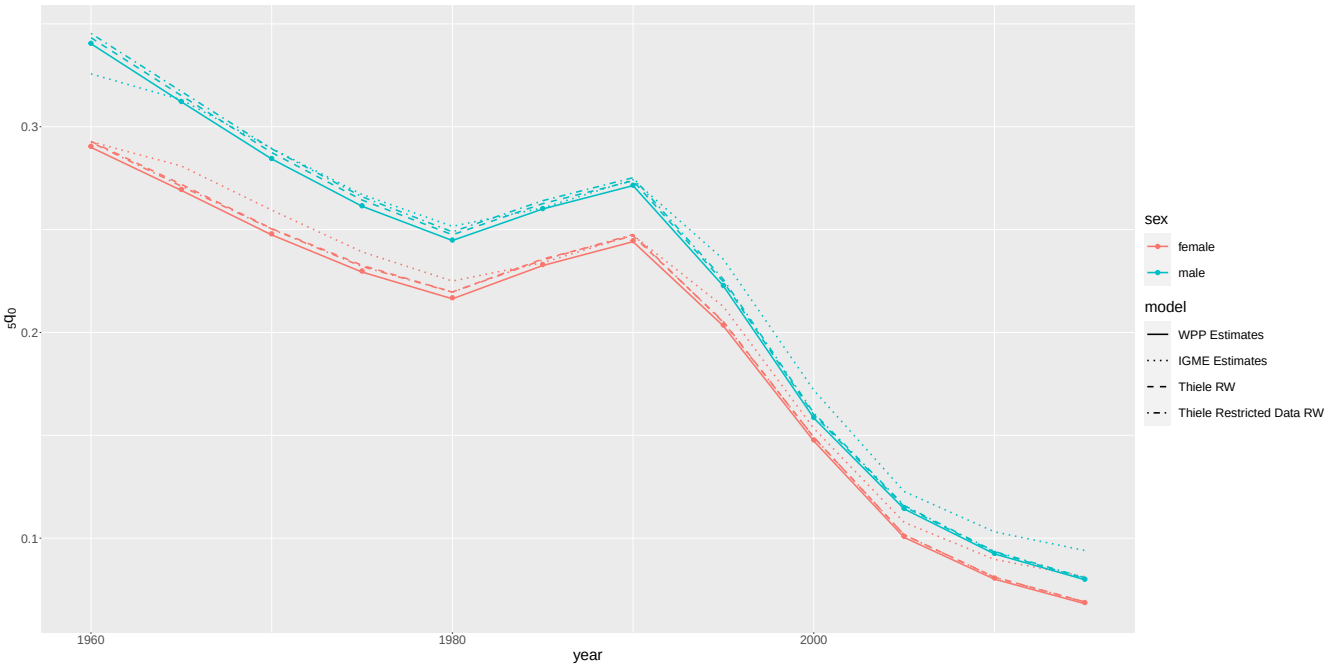

Figure 3: Estimated ${}_{5}q_{0}$

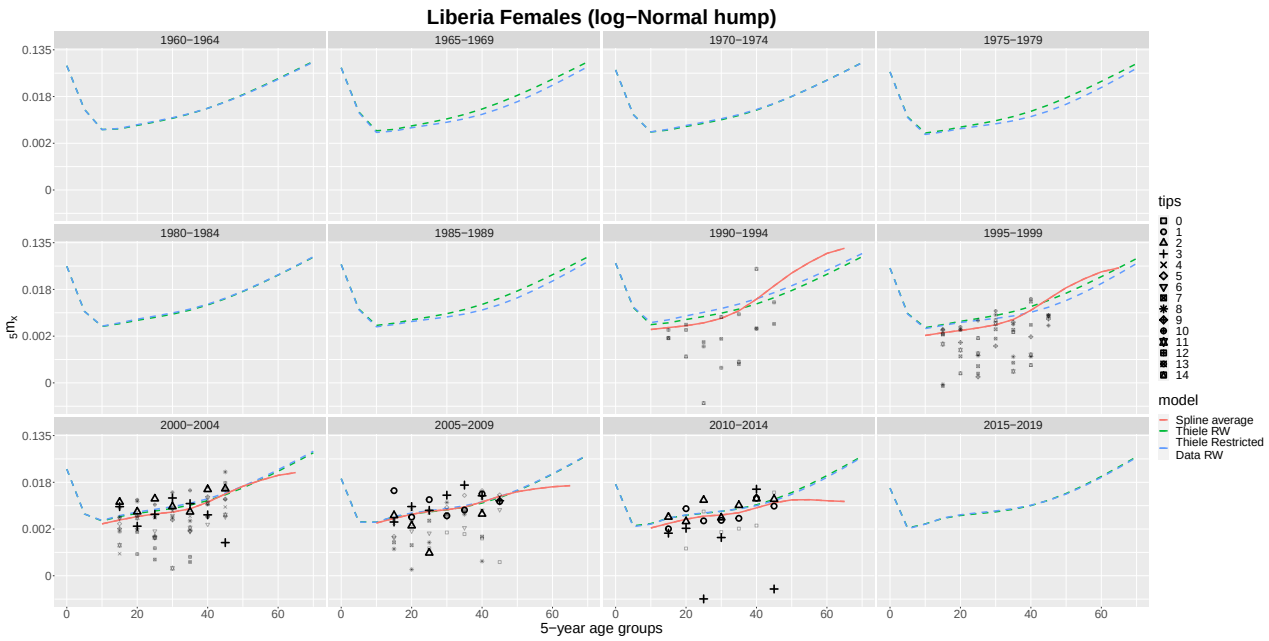

Figure 4: Mortality Schedules

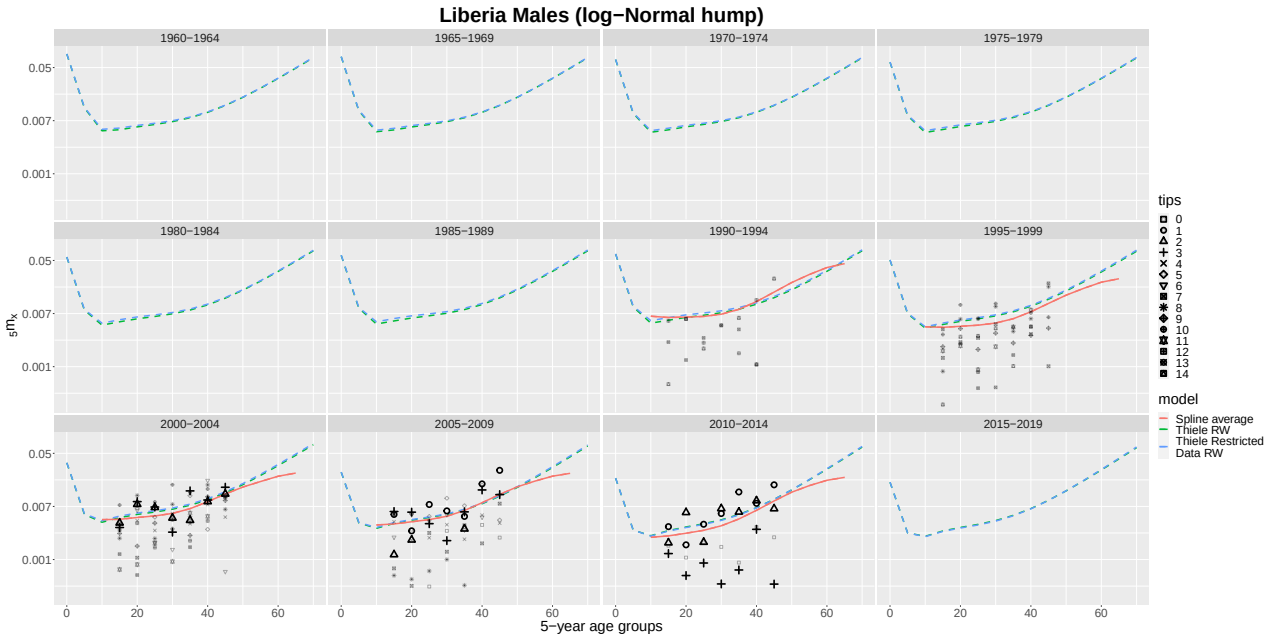

Figure 5: Mortality Schedules

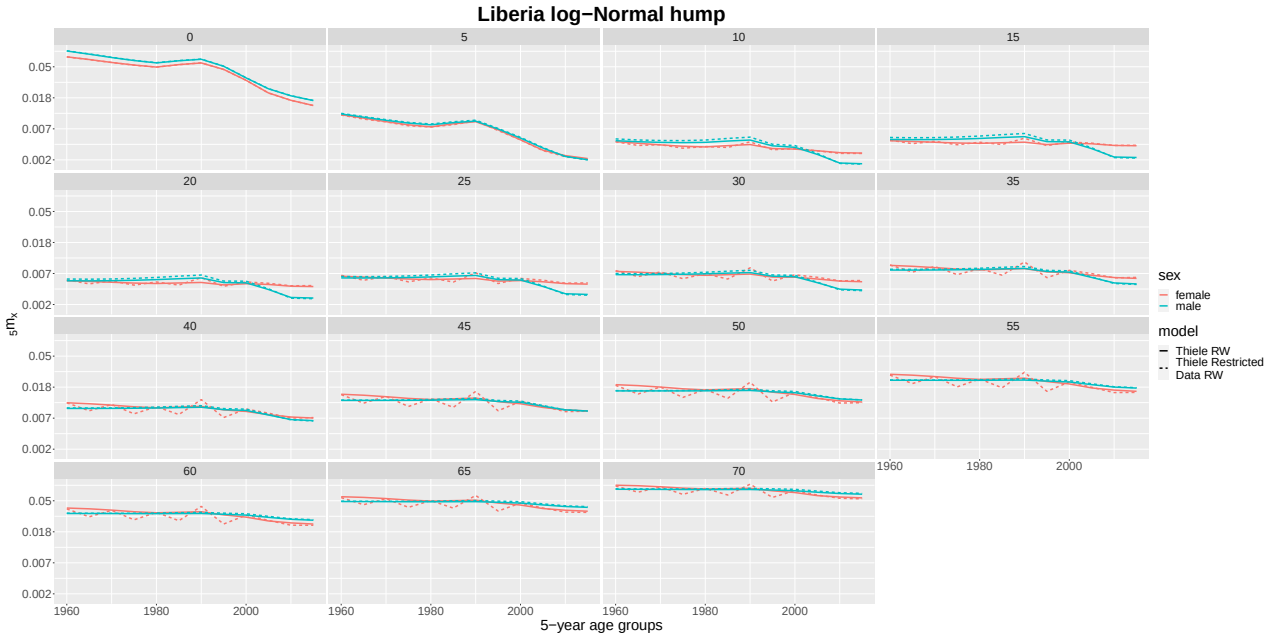

Figure 6: Mortality Schedules

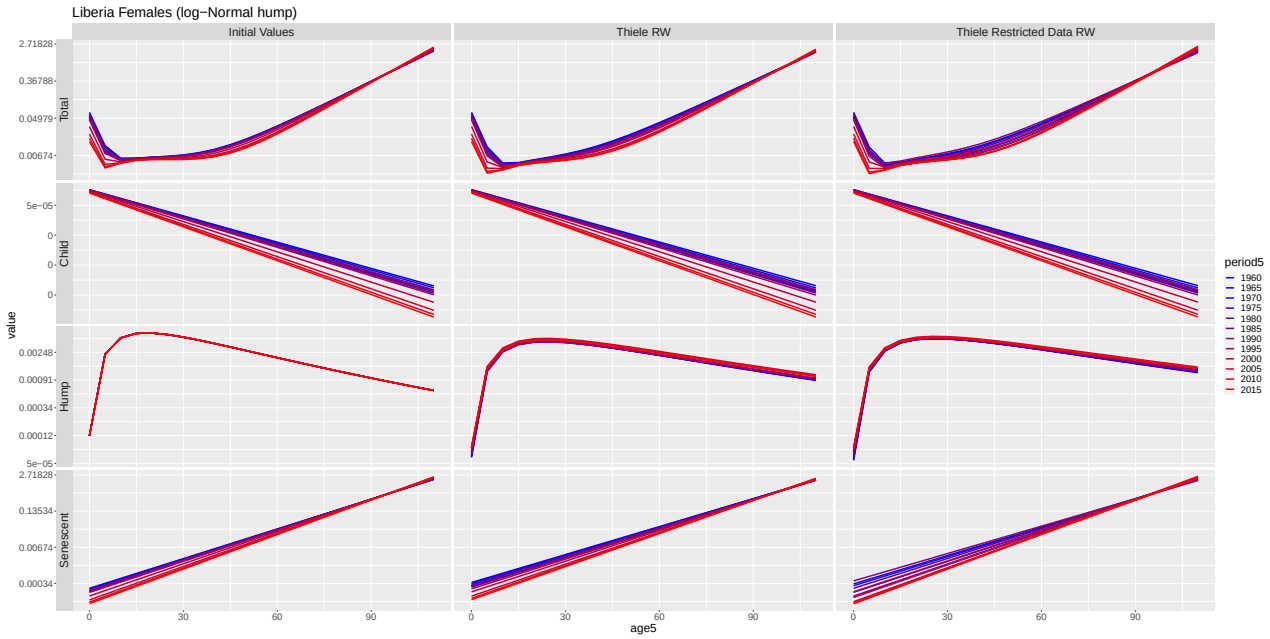

Figure 7: Thiele Decomposed

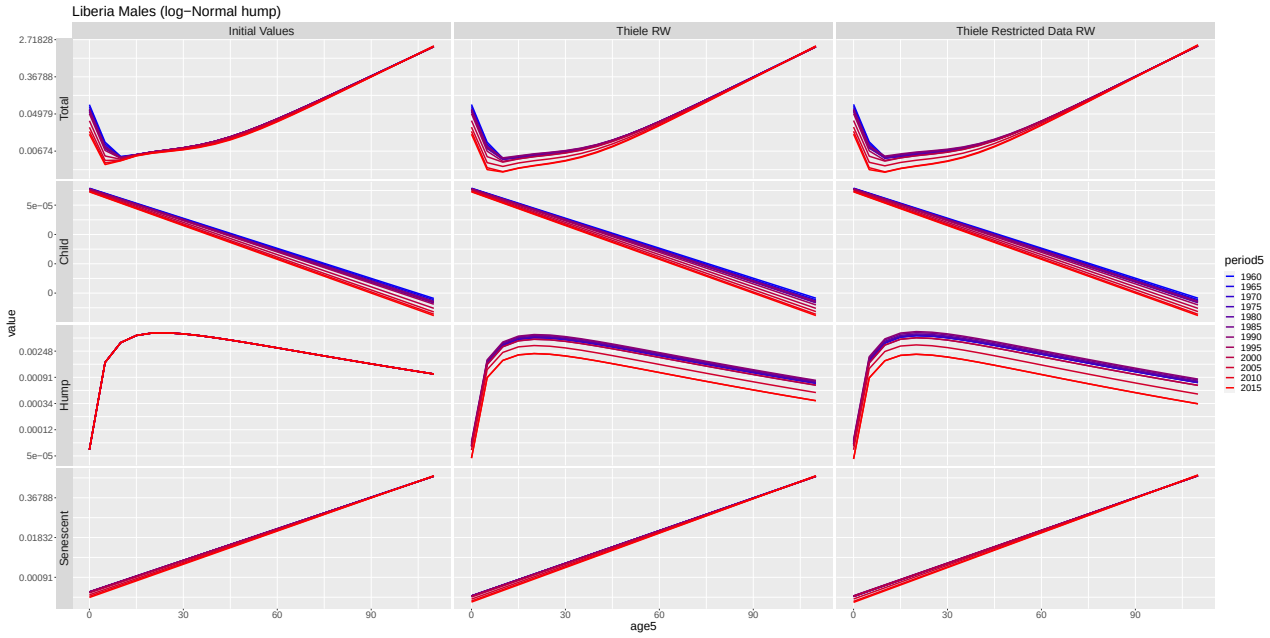

Figure 8: Thiele Decomposed

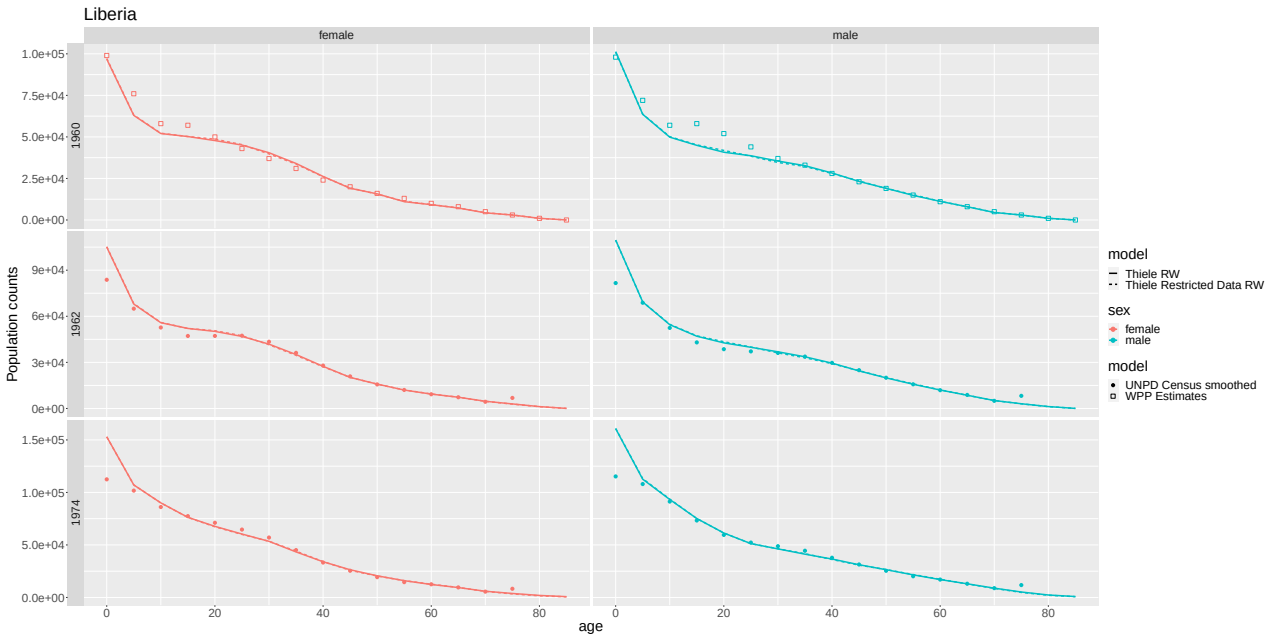

Figure 9: Population

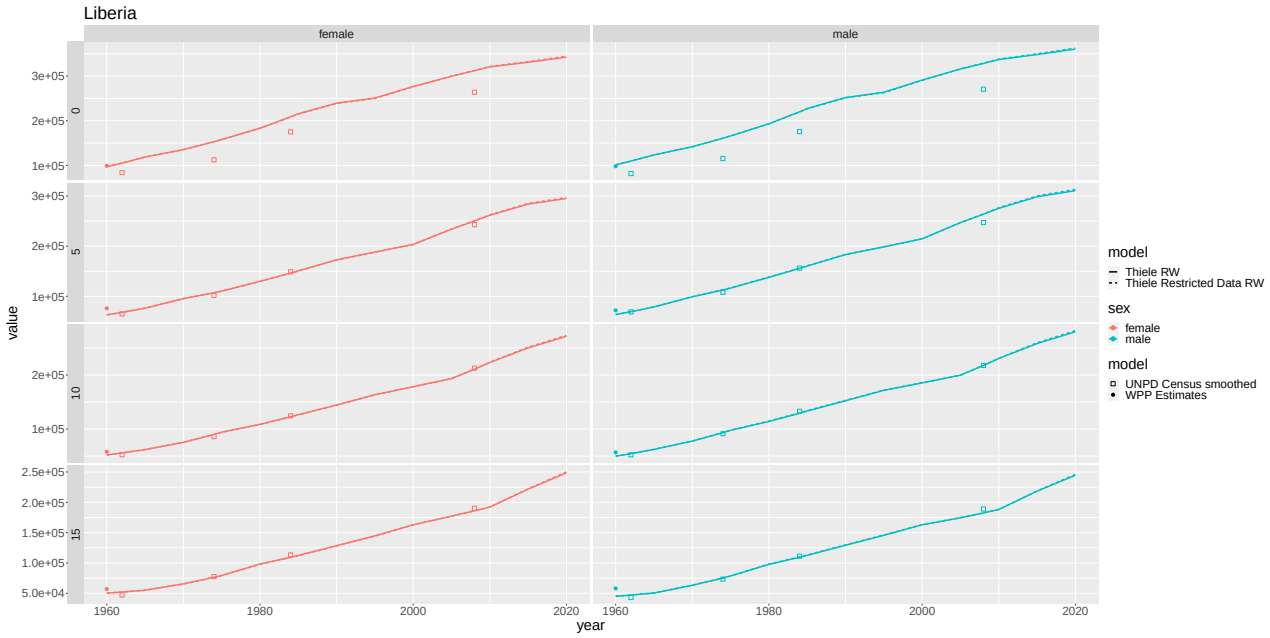

Figure 10: Population

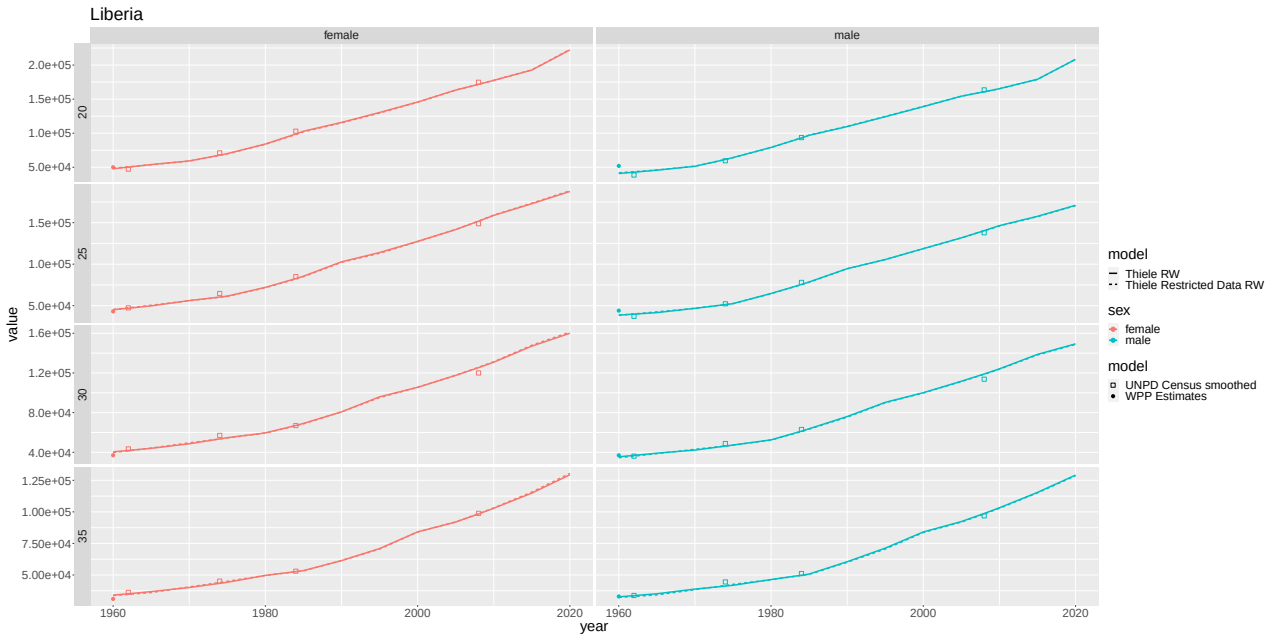

Figure 11: Population

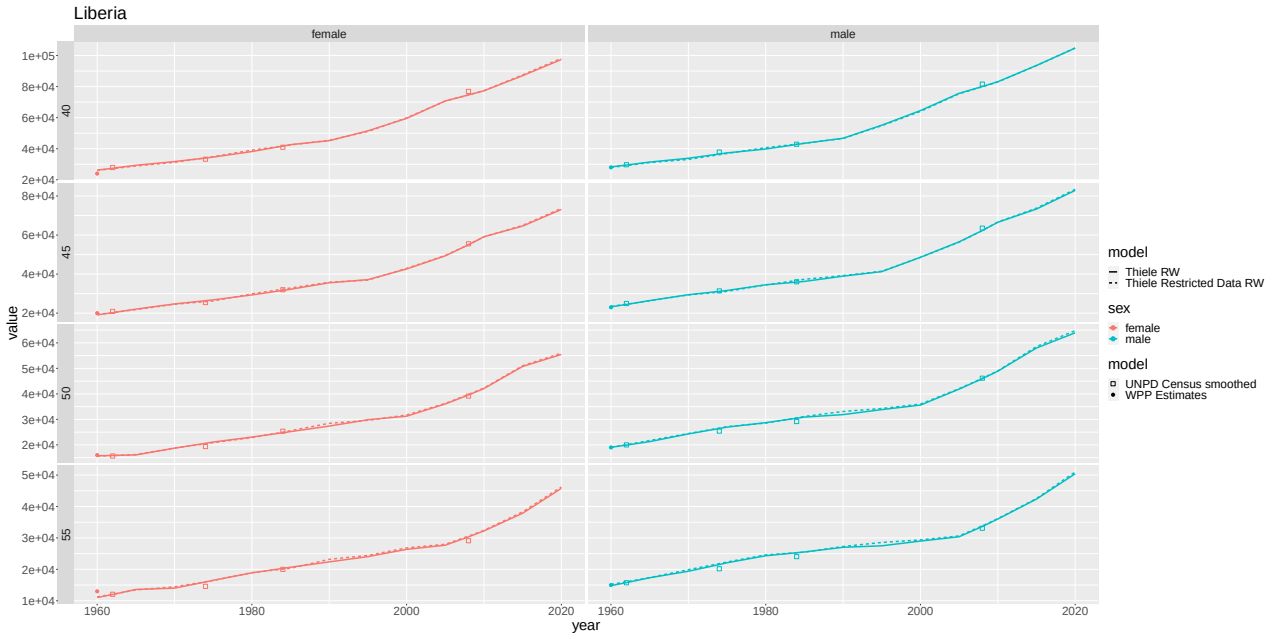

Figure 12: Population

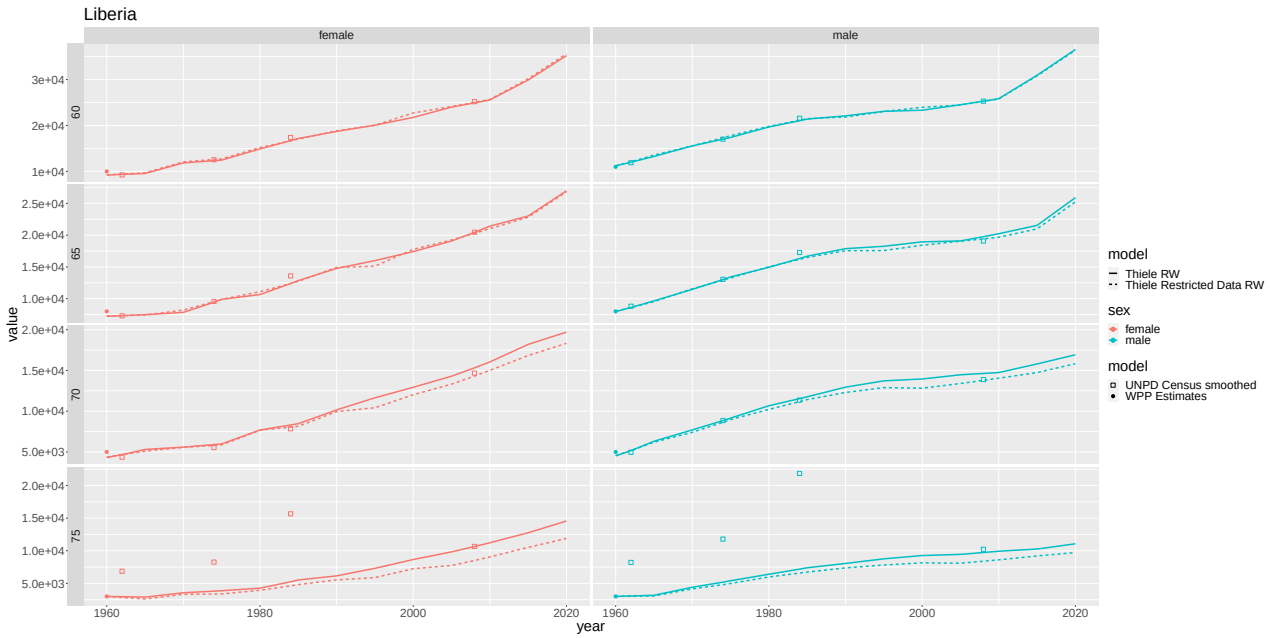

Figure 13: Population

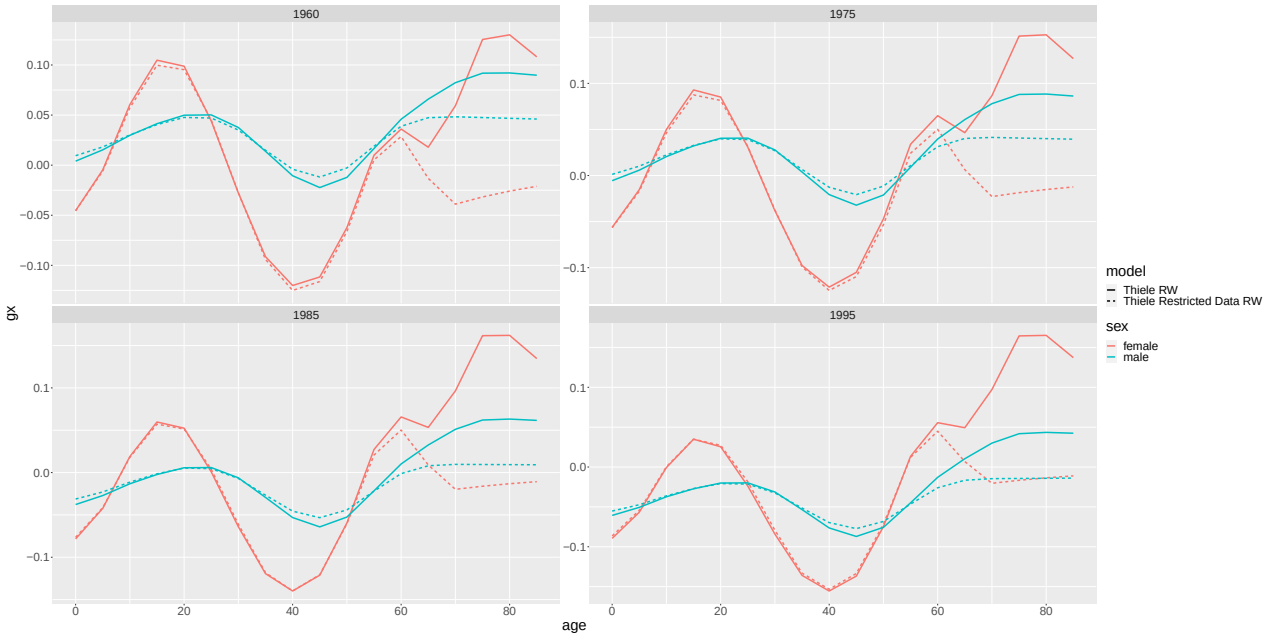

Figure 14: Migration

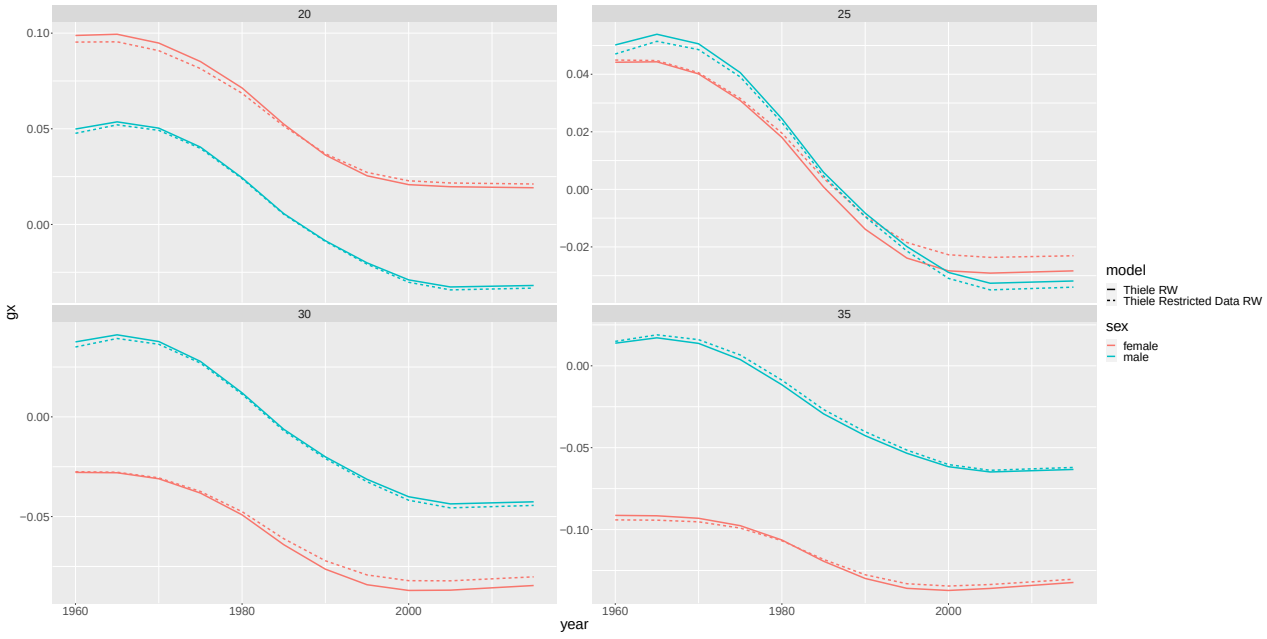

Figure 15: Migration

Figure 16: Migration

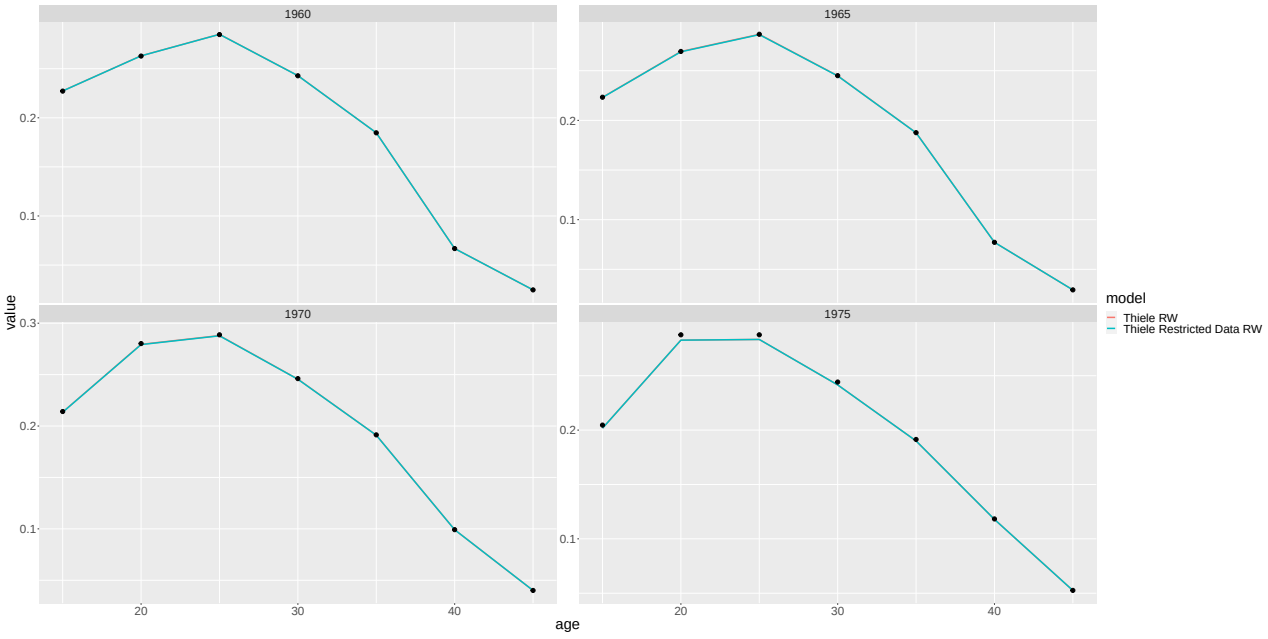

Figure 17: Fertility

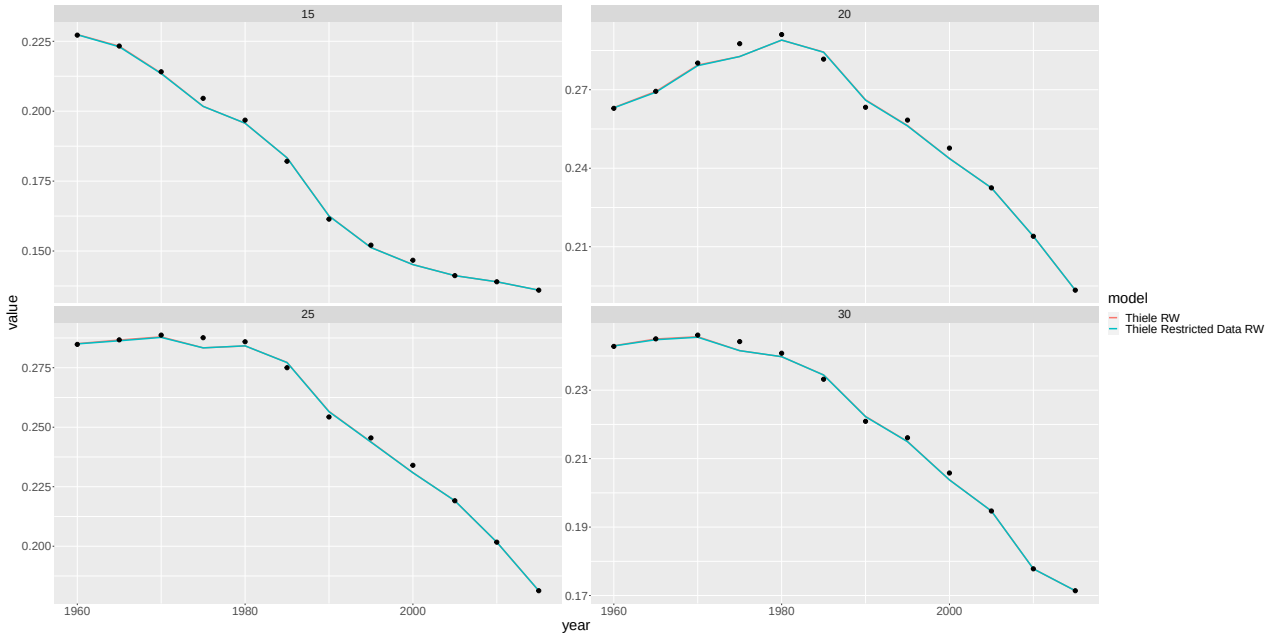

Figure 18: Fertility