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
##   17.36    0.20   17.70
```

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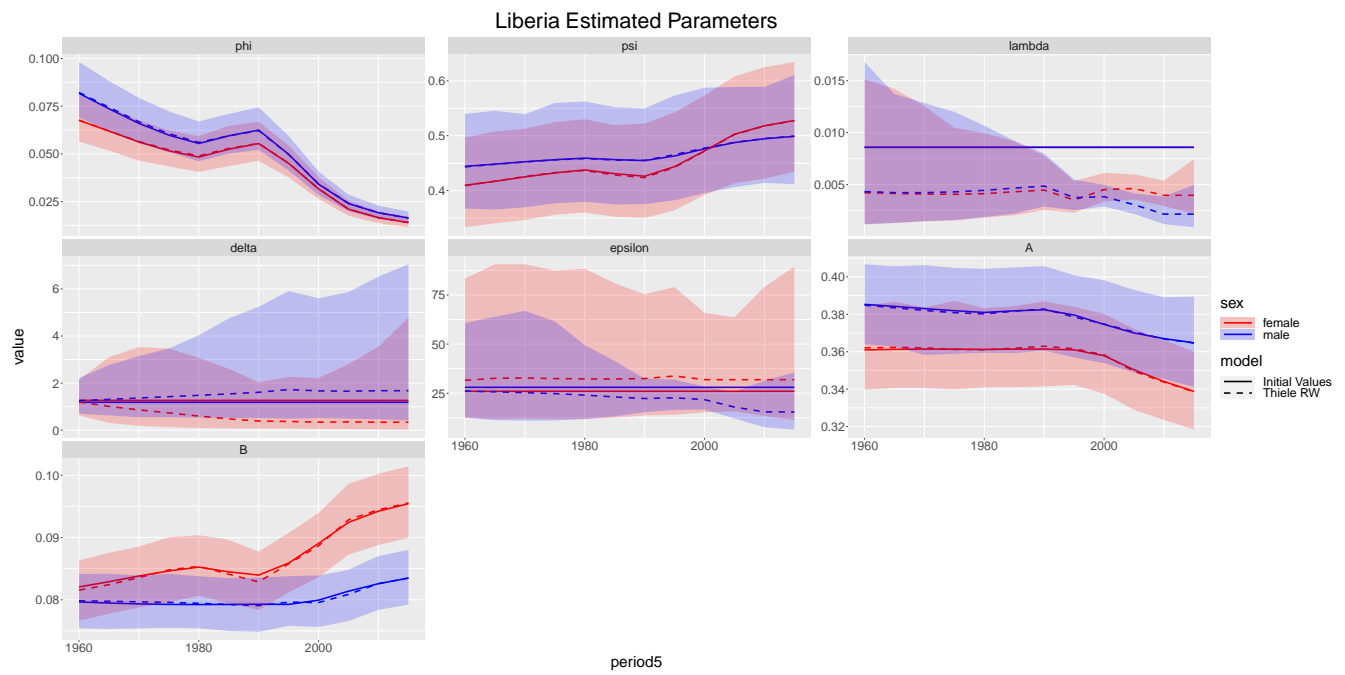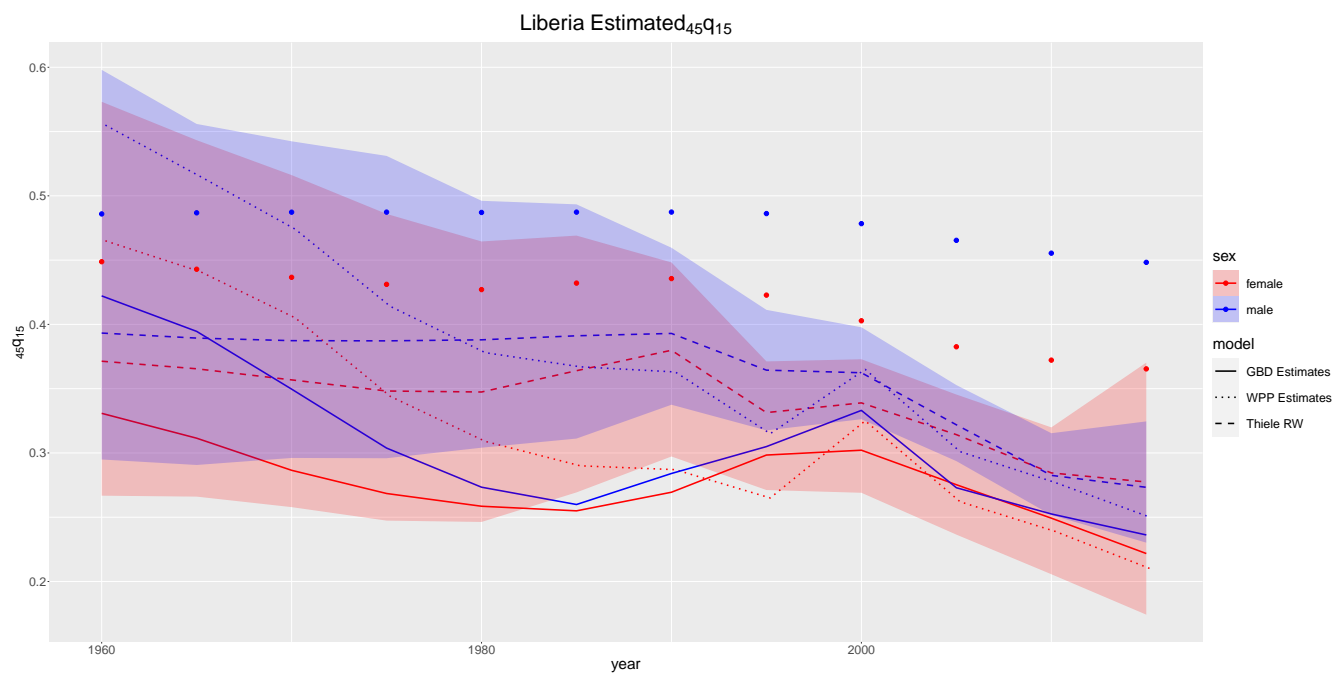

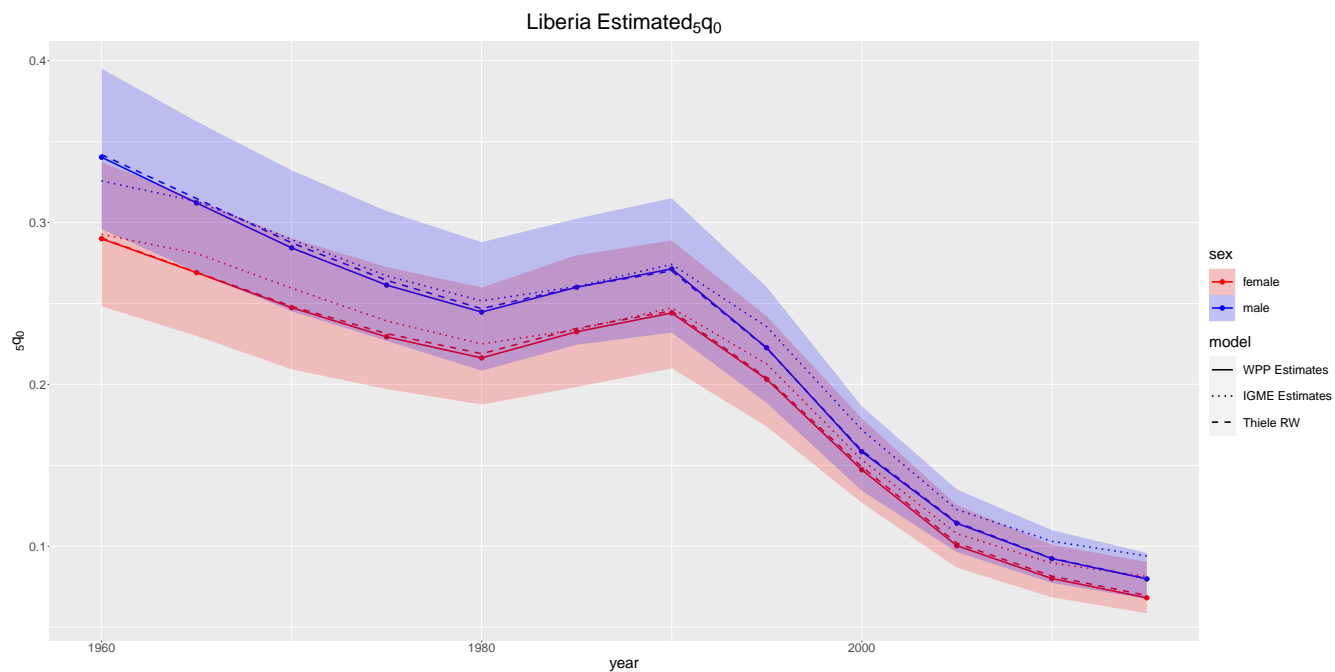Figure 1: Estimated parameters

Figure 2: Estimated $_{45}q_{15}$
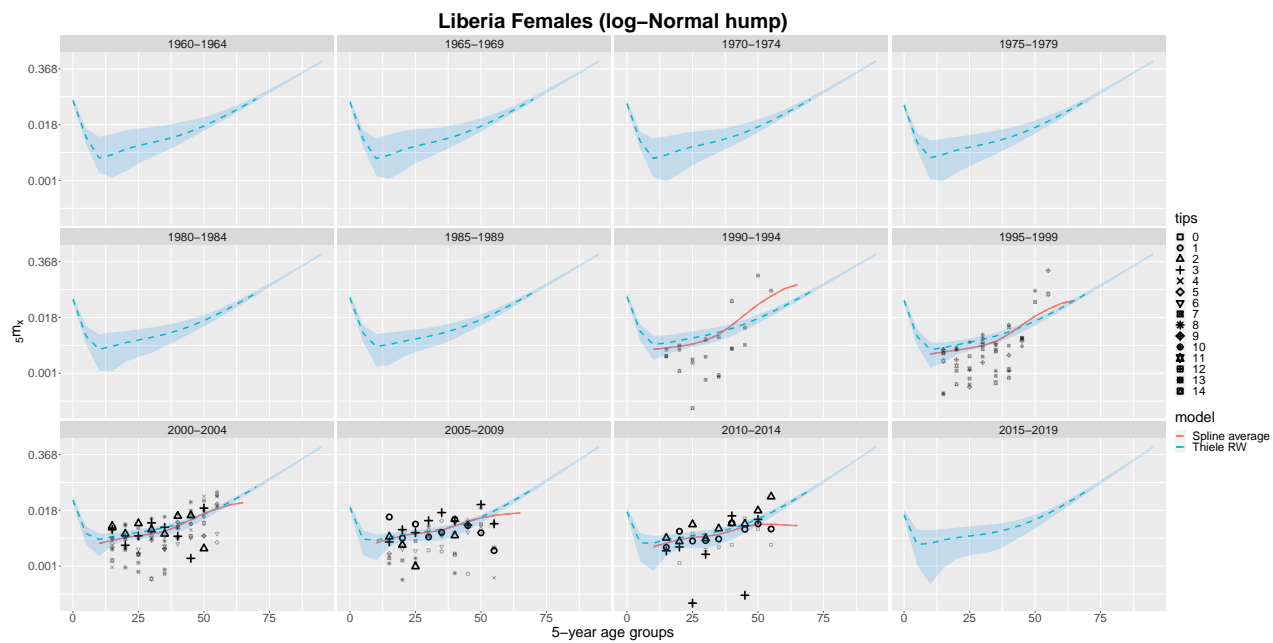
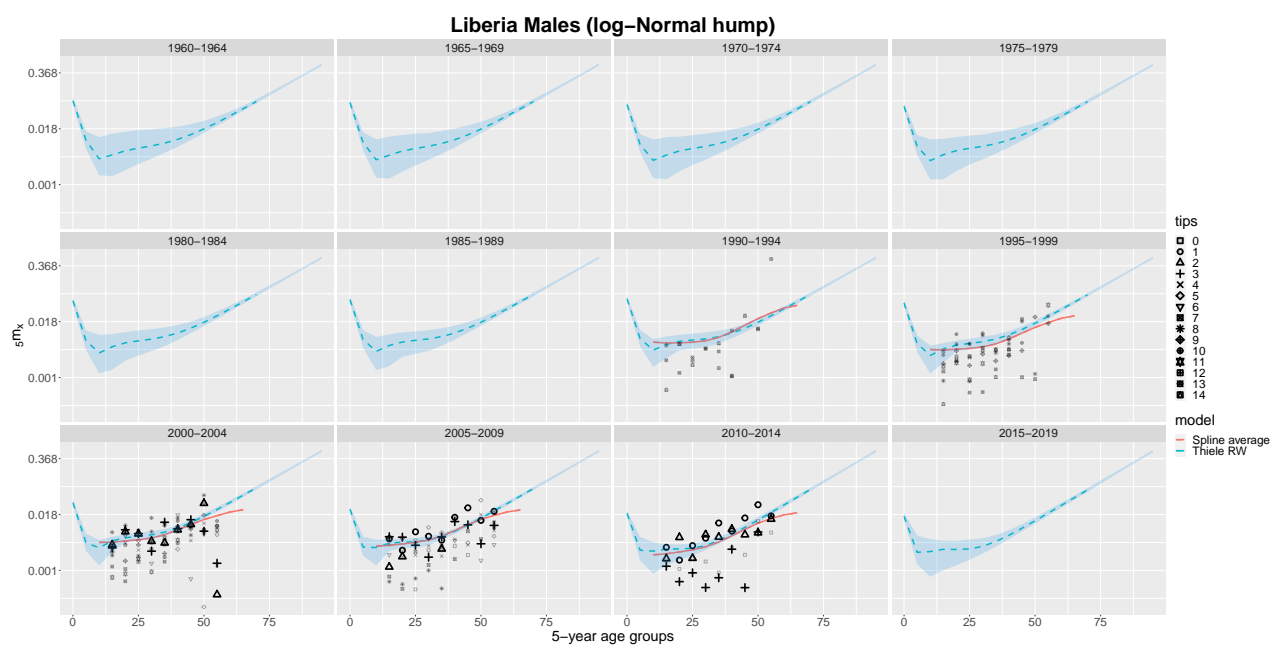Figure 3: Estimated $_5q_0$

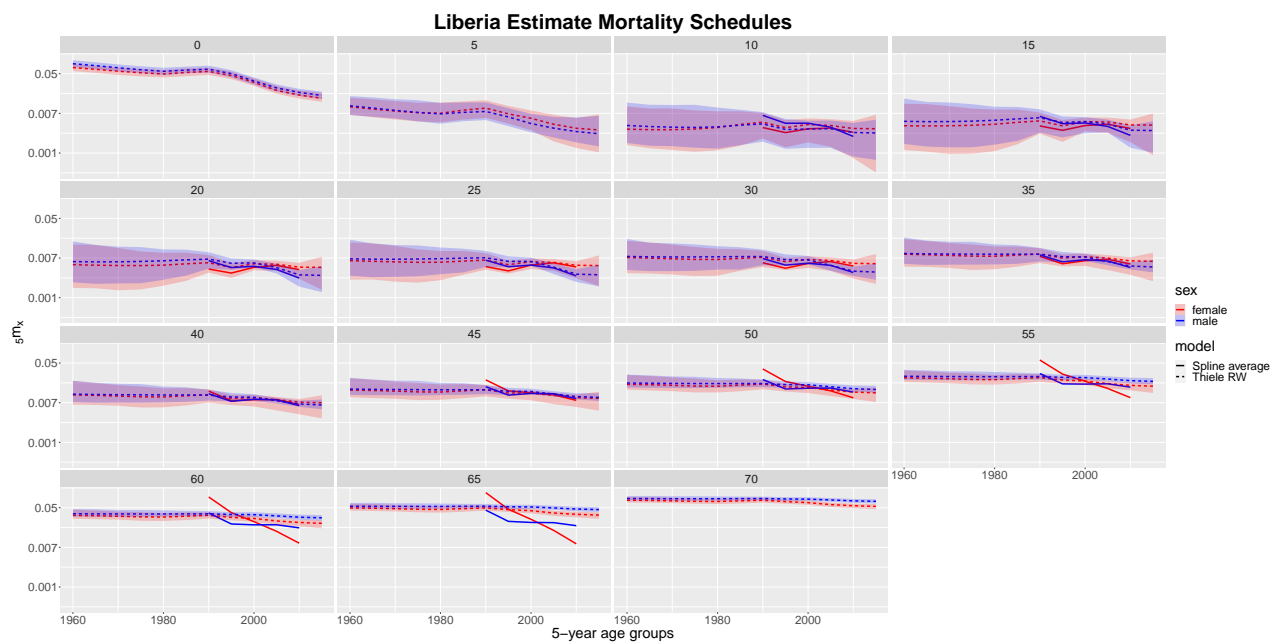Figure 4: Mortality Schedules

4

Figure 5: Mortality Schedules
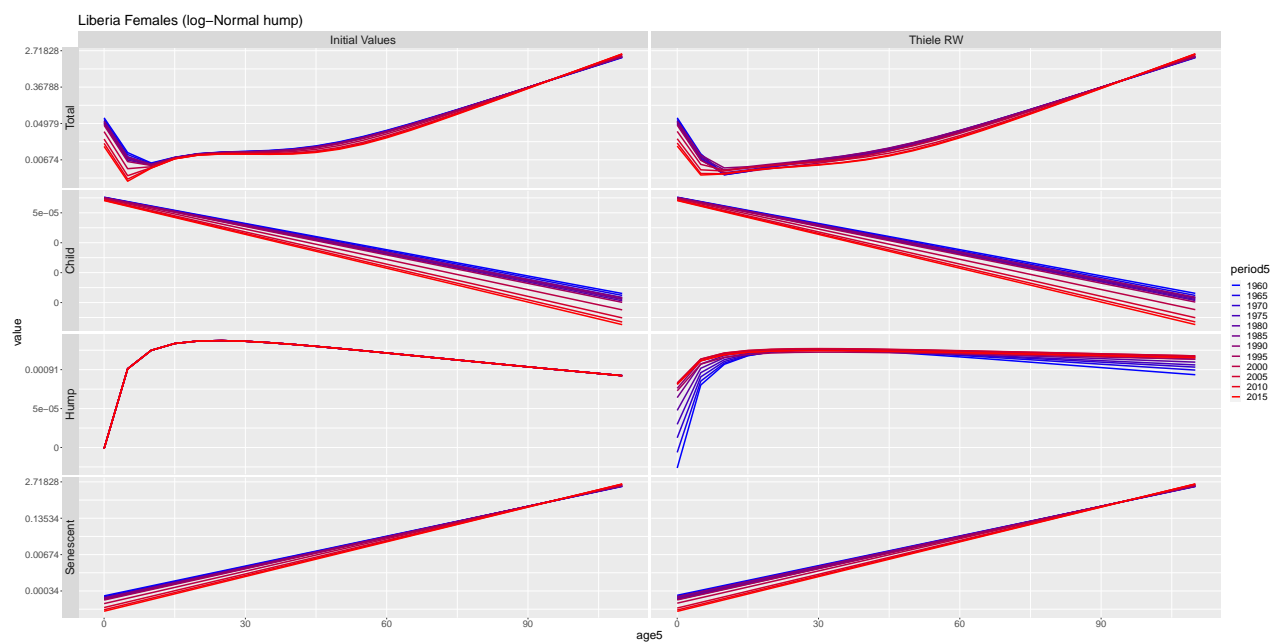

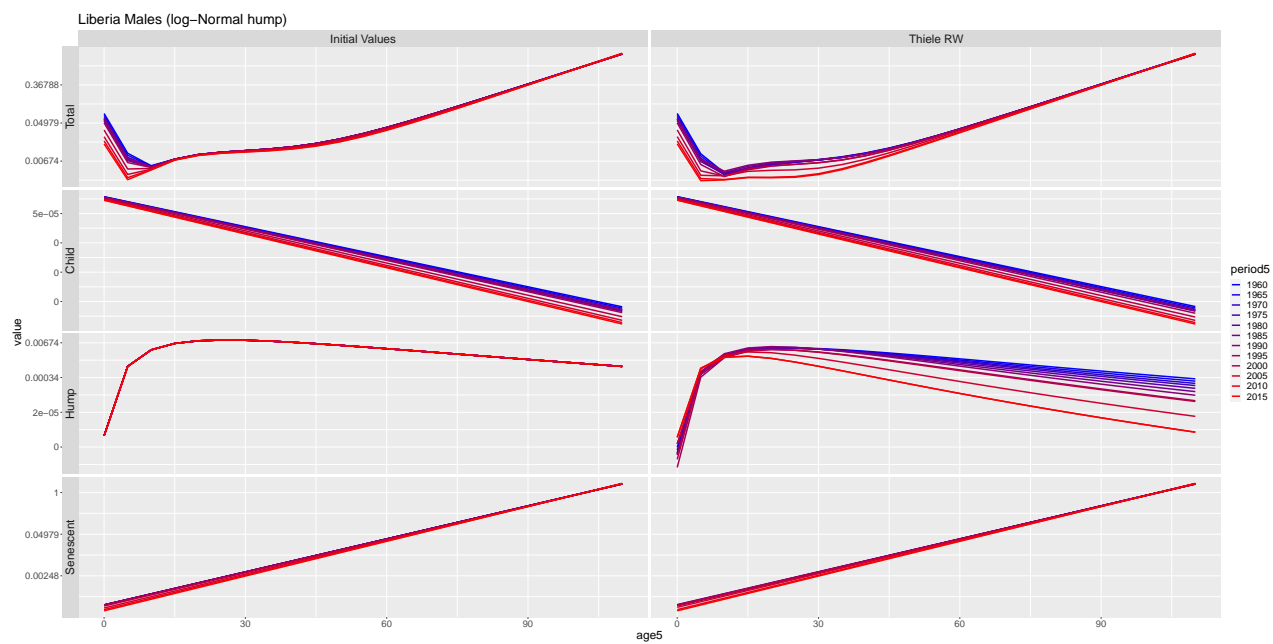
Figure 6: Mortality Schedules

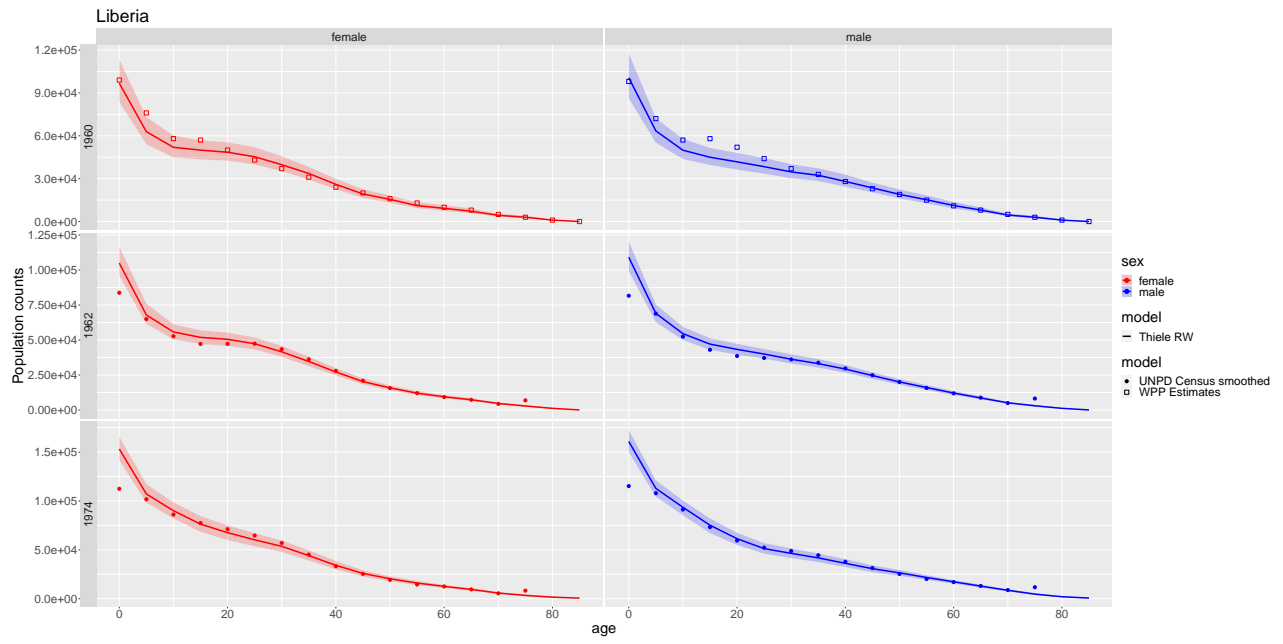Figure 7: Thiele Decomposed
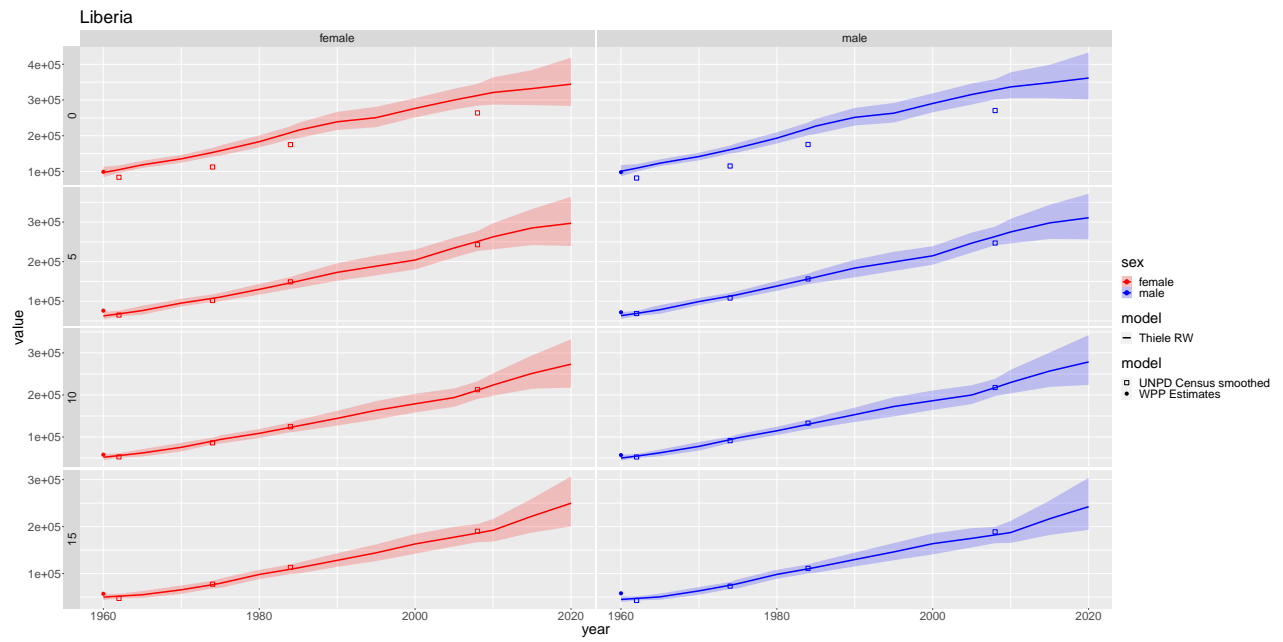

Figure 8: Thiele Decomposed

Figure 9: Population
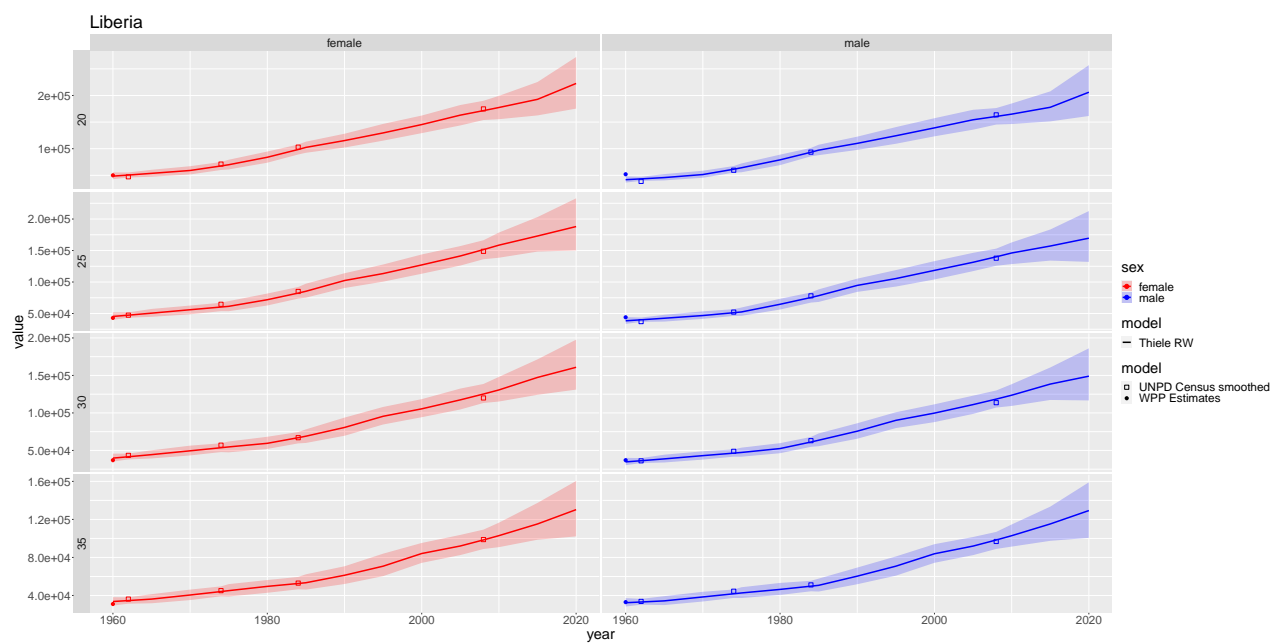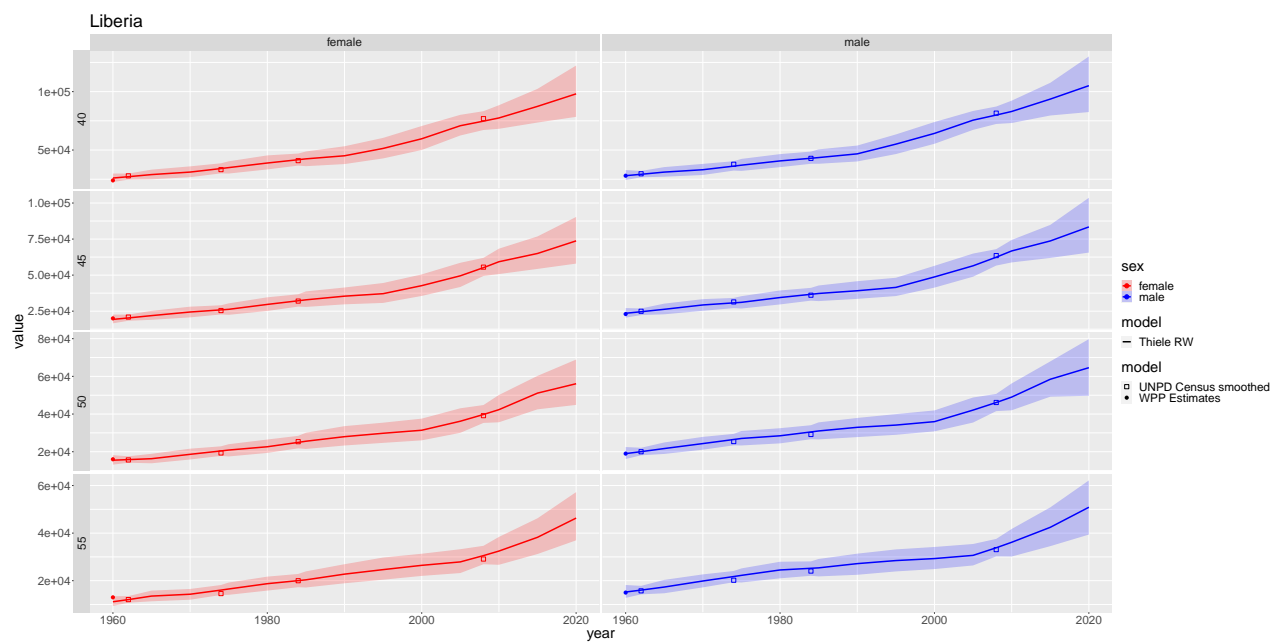

Figure 10: Population
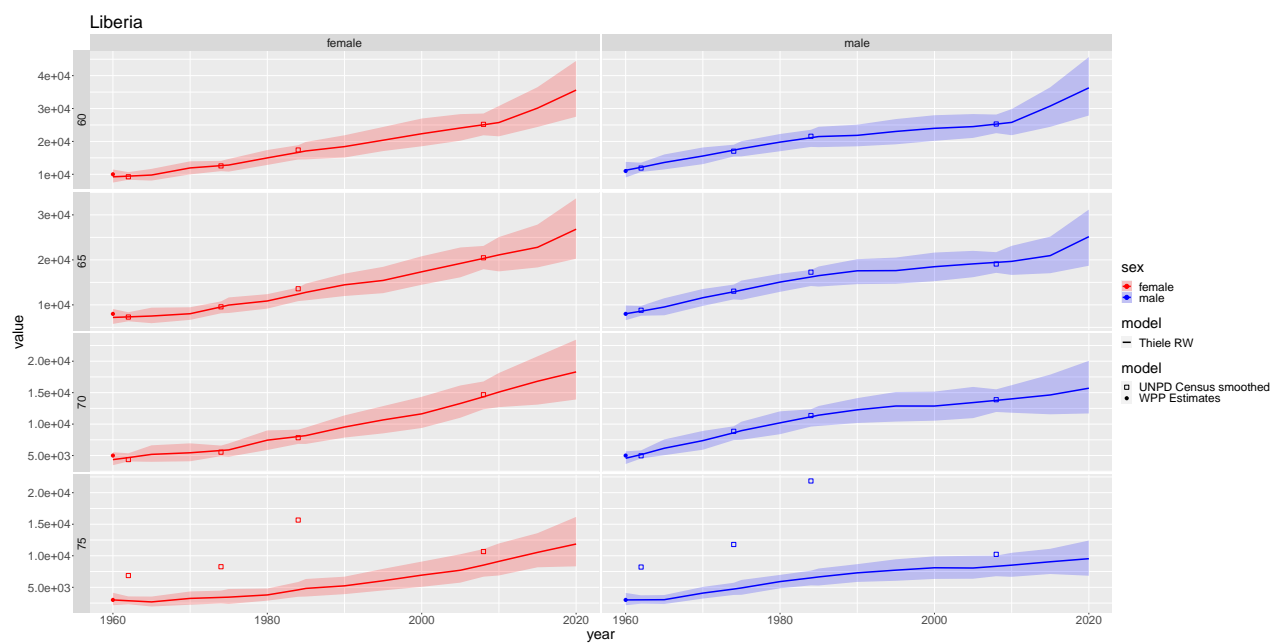
7

Figure 11: Population

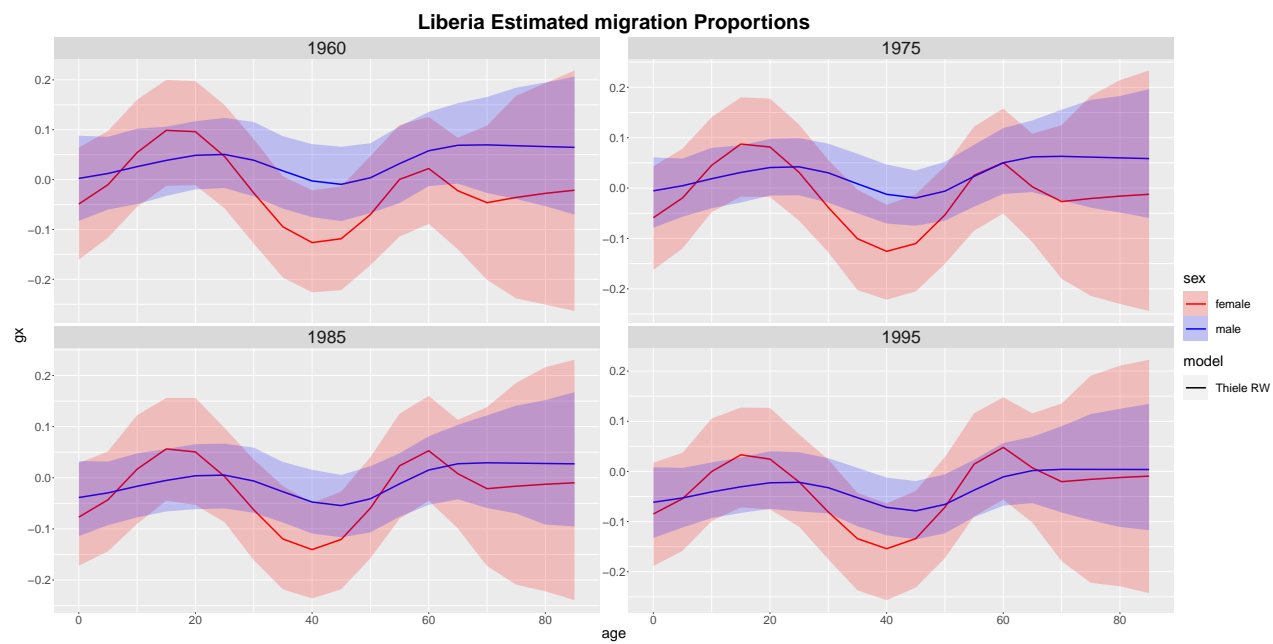Figure 12: Population

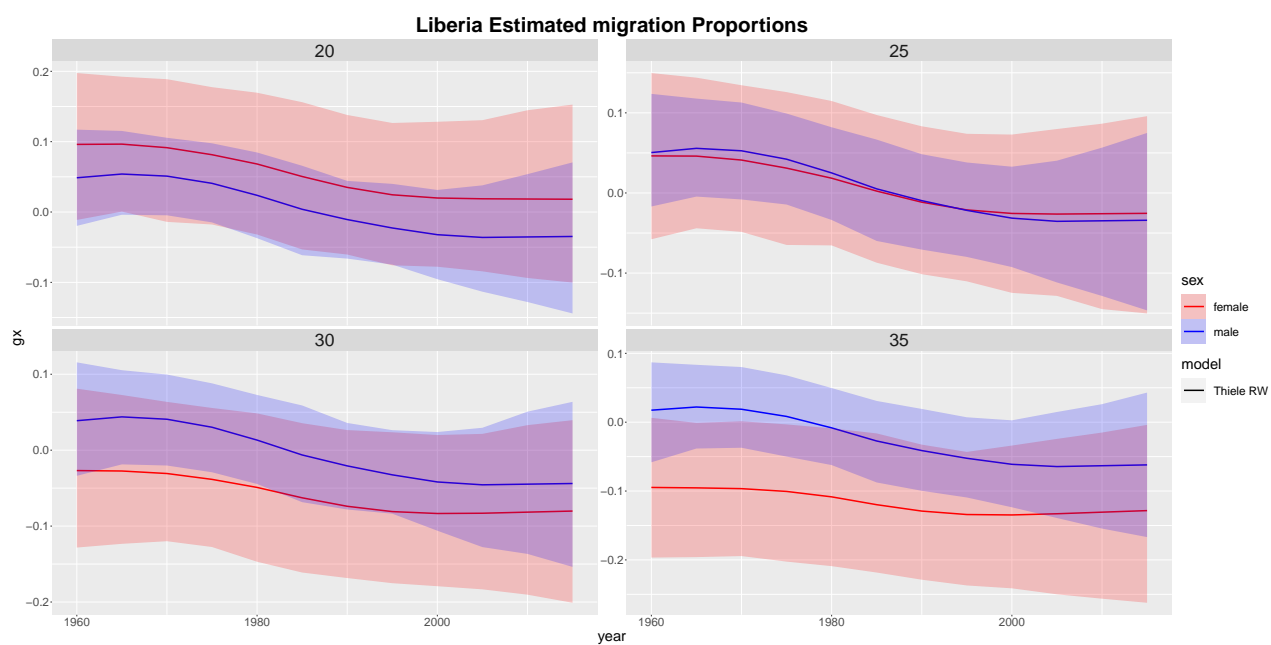Figure 13: Population
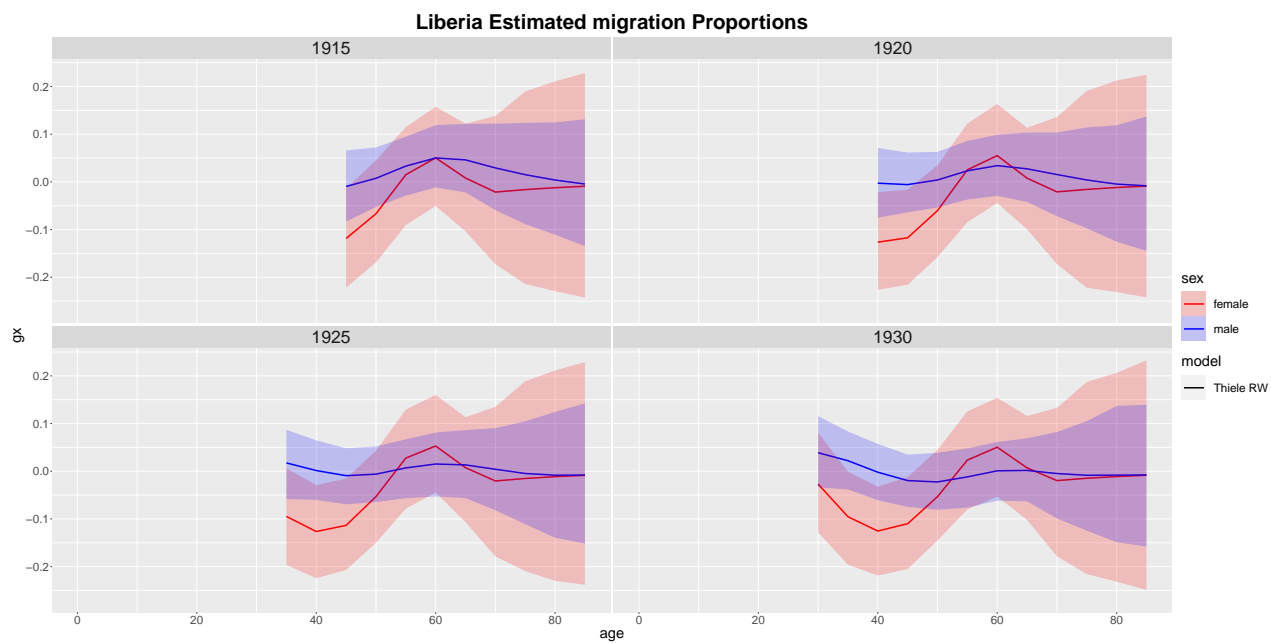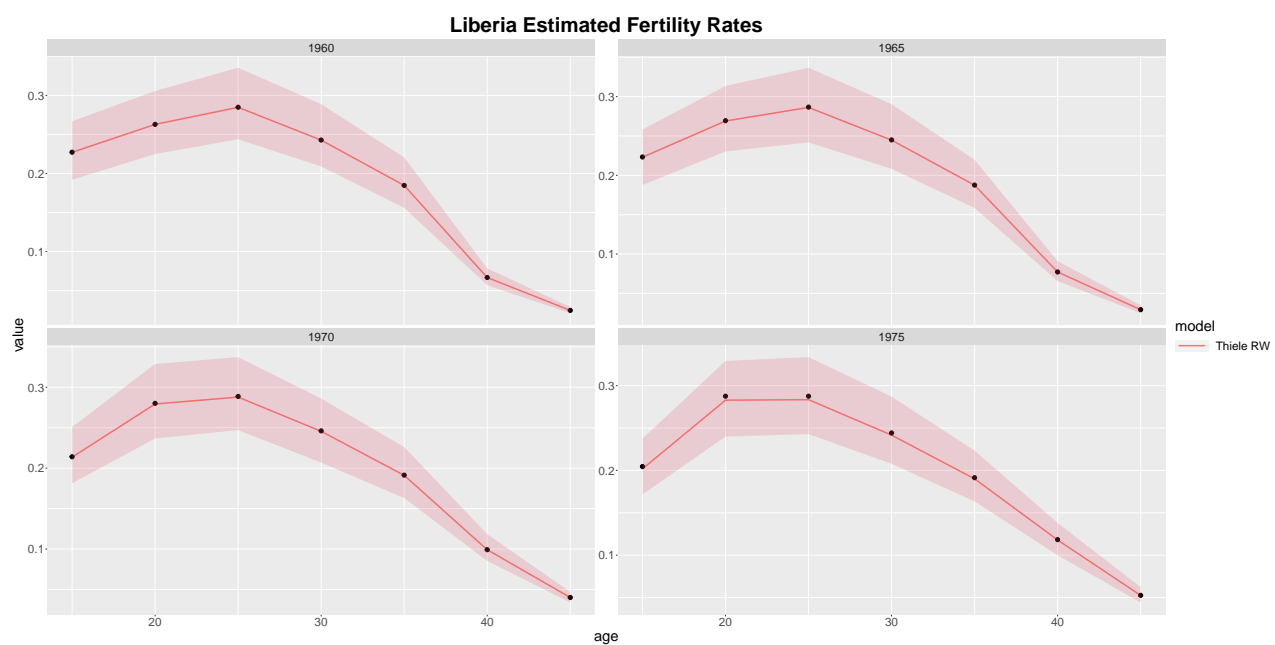

Figure 14: Migration

Figure 15: Migration
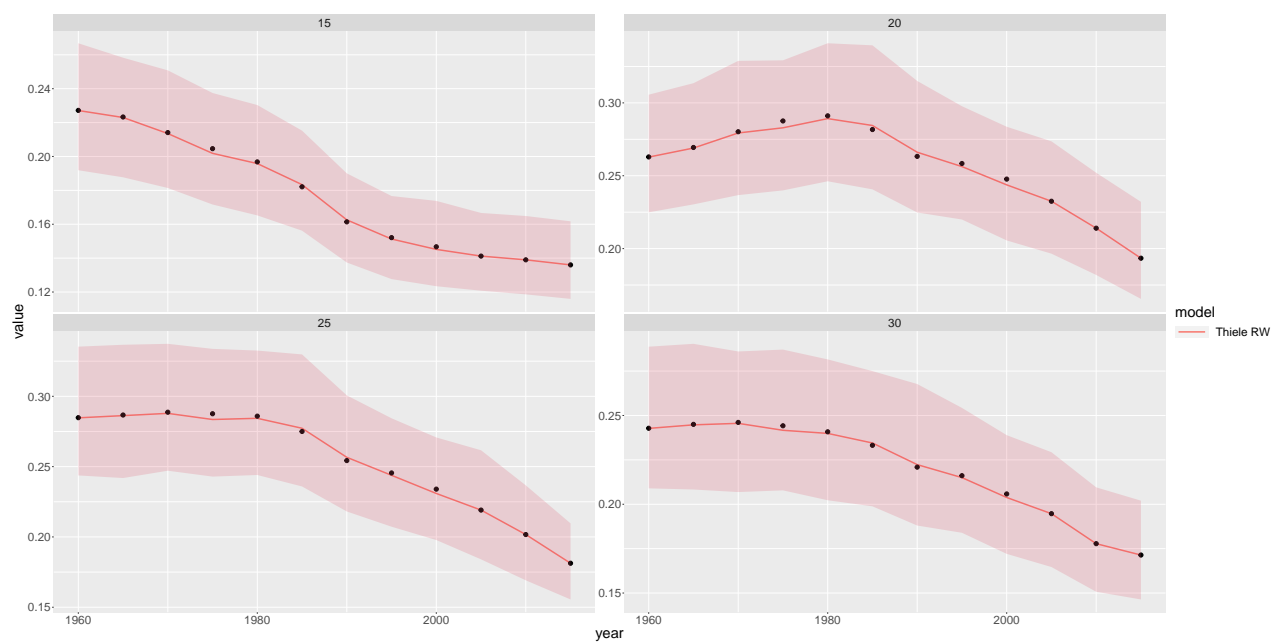

Figure 16: Migration

Figure 17: Fertility

Figure 18: Fertility