

Mozambique

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

## # A tibble: 86 x 4
##   age `1980` `1997` `2007`
##   <dbl>   <dbl>   <dbl>   <dbl>
## 1     0 187097. 271698 367263.
## 2     1 202640. 269118 369941.
## 3     2 214835. 277230 391743.
## 4     3 215746. 273925. 396545.
## 5     4 216252. 268944. 391765.
## 6     5 212149. 259871. 380247.
## 7     6 202617. 243929. 354236.
## 8     7 193119. 226728. 328750.
## 9     8 183390. 211520. 308462.
## 10    9 170243. 198028. 282761.
## # ... with 76 more rows

## [1] "Census Females 5-year"

## # A tibble: 18 x 2
##   age `1970`
##   <dbl>   <dbl>
## 1     0 723077
## 2     5 615358
## 3    10 436100.
## 4    15 318958.
## 5    20 320232.
## 6    25 335818
## 7    30 319309.
## 8    35 277668
## 9    40 223728
## 10   45 172490
## 11   50 129875
## 12   55 102099.
## 13   60 80779
## 14   65 50631
## 15   70 19726
## 16   75 12937
## 17   80    NA
## 18   85    NA

## [1] "Census Males"

## # A tibble: 86 x 4
##   age `1980` `1997` `2007`
##   <dbl>   <dbl>   <dbl>   <dbl>
## 1     0 177885. 263539 360976.
## 2     1 195312. 264234. 365324.
## 3     2 205820. 270084. 382294.
## 4     3 207561. 268142. 386290.
## 5     4 207979. 263675. 381308.
## 6     5 204039. 255379. 371563.
```

```
## 7      6 195738. 241419. 347726.
## 8      7 189147. 227121. 322684.
## 9      8 182528. 213909. 304378.
## 10     9 173986. 203146. 281632.
## # ... with 76 more rows
```

```
## [1] "Census Males 5-year"
```

```
## # A tibble: 18 x 2
```

```
##   age `1970`
##   <dbl>   <dbl>
```

```
## 1      0 697822
## 2      5 652180.
## 3     10 503181.
## 4     15 360521.
## 5     20 305990.
## 6     25 282238.
## 7     30 262403.
## 8     35 239745.
## 9     40 203729.
## 10    45 160248.
## 11    50 116962.
## 12    55  89211.
## 13    60  74190.
## 14    65  50689.
## 15    70  18859
## 16    75  10545
## 17    80    NA
## 18    85    NA
```

Thiele log-Normal Hump Spline

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

##	log_tau2_logpop	log_tau2_logpop	log_tau2_logpop	log_tau2_logpop	log_lambda_fx	log
##	4.32161147	6.19541174	4.18283591	5.34781029	5.89288497	8
##	log_lambda_tp	tp_slope	tp_params_5	tp_params_10	log_lambda_phi	log
##	3.59779676	-0.01721458	0.17141219	0.01286330	11.29992502	1
##	log_lambda_lambda	log_lambda_delta	log_lambda_epsilon			
##	4.14346616	8.90835557	3.90161970			

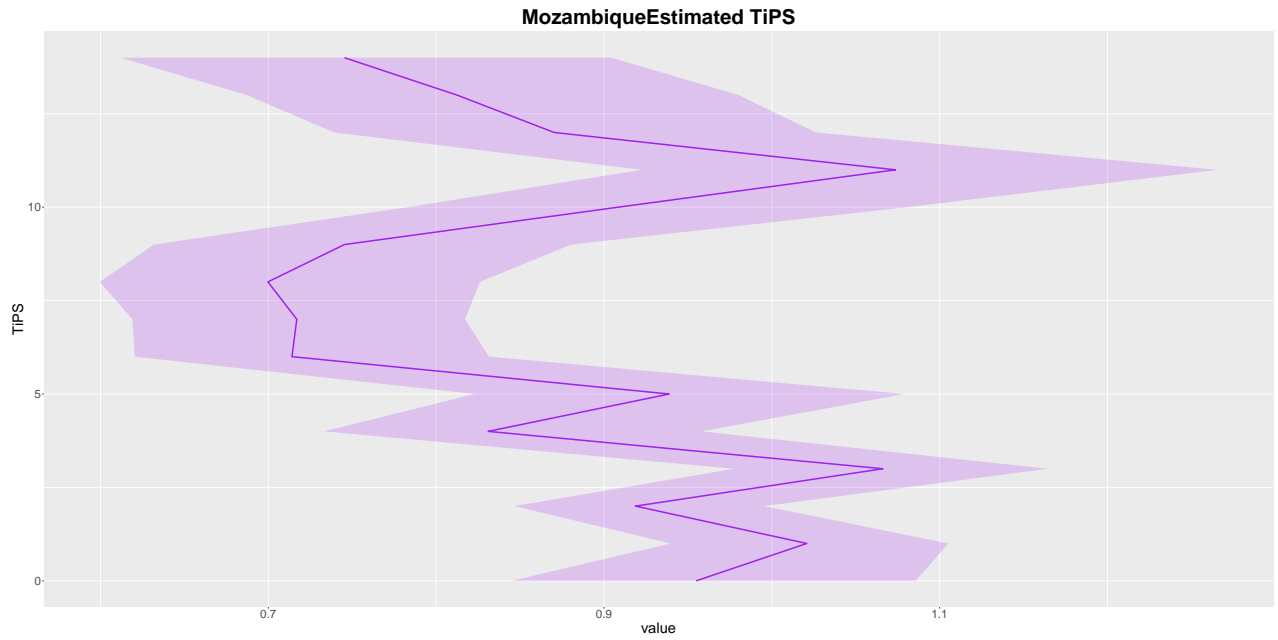


Figure 1: Estimated TiPS

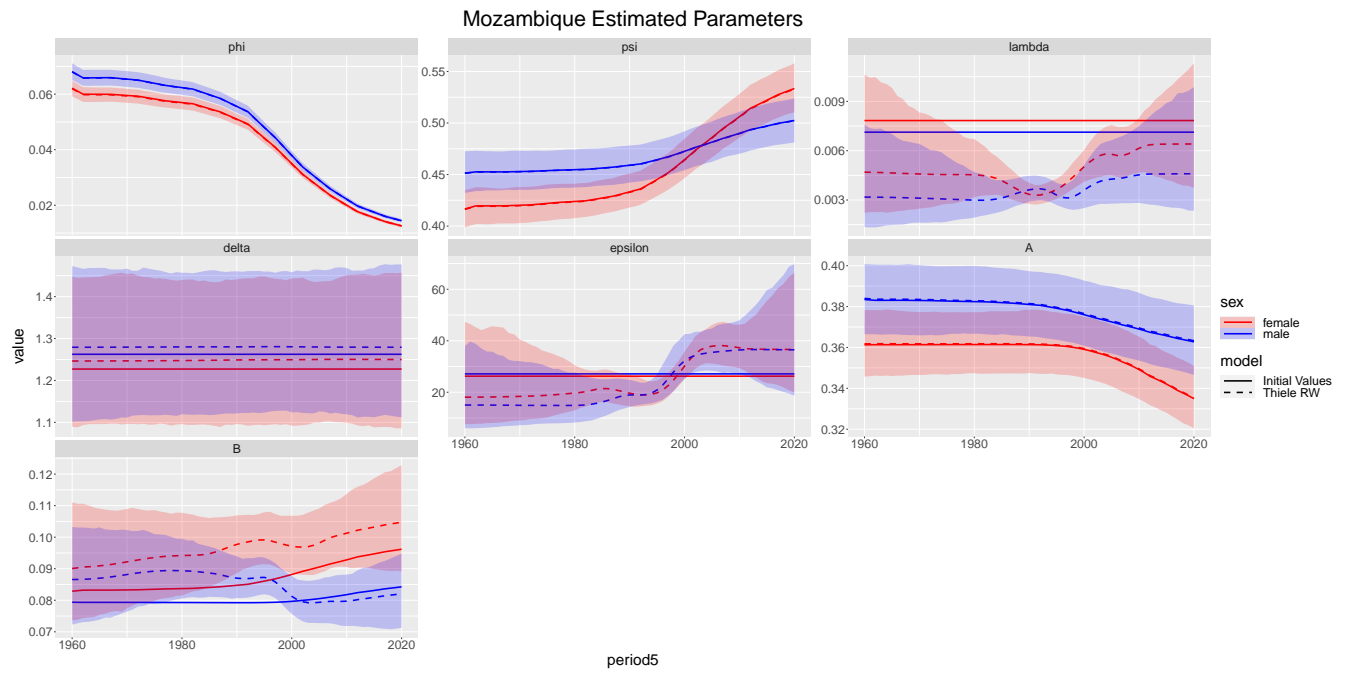


Figure 2: Estimated parameters

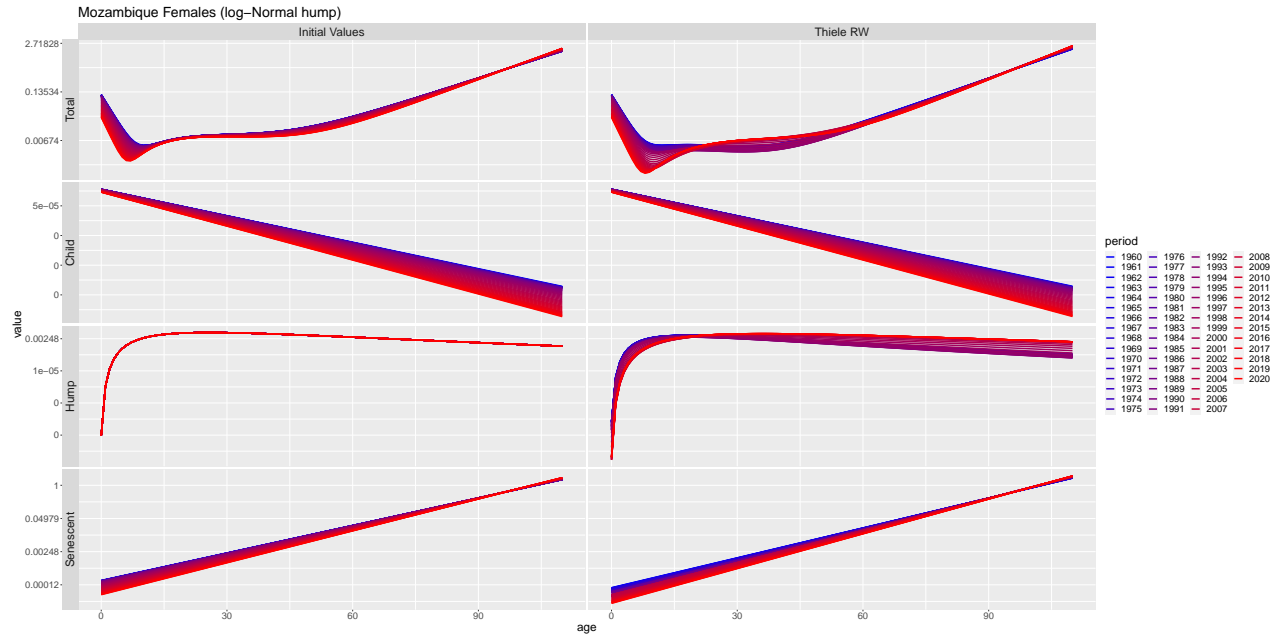


Figure 3: Thiele Decomposed

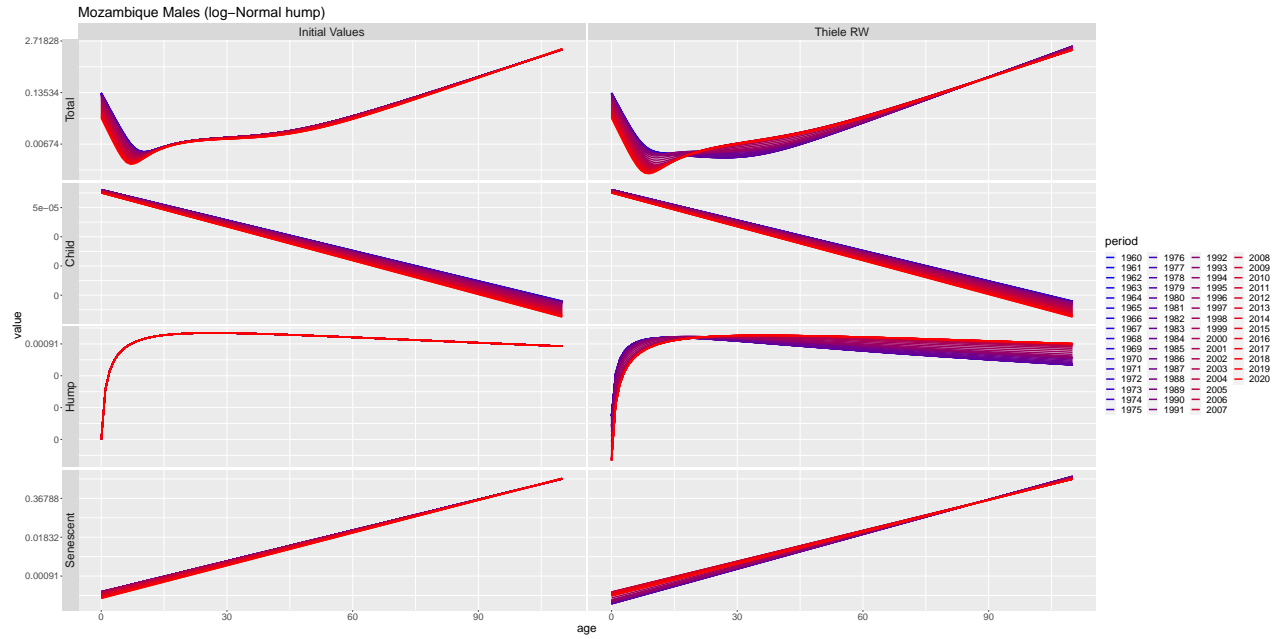


Figure 4: Thiele Decomposed

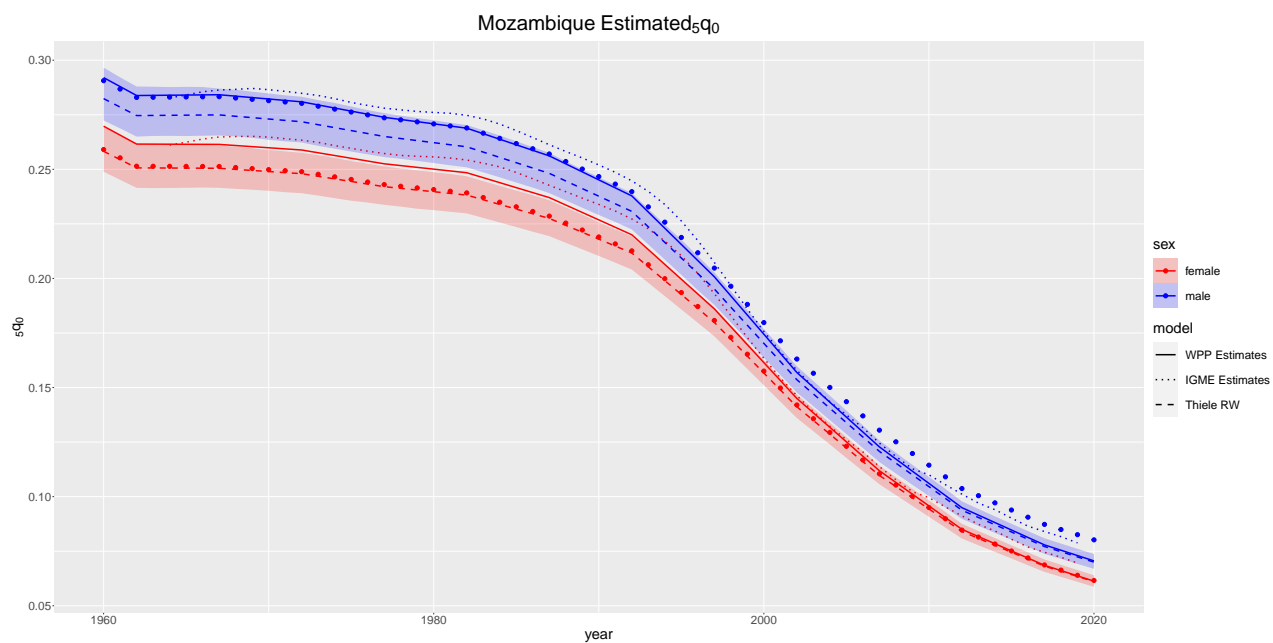


Figure 5: Estimated ${}_5q_0$

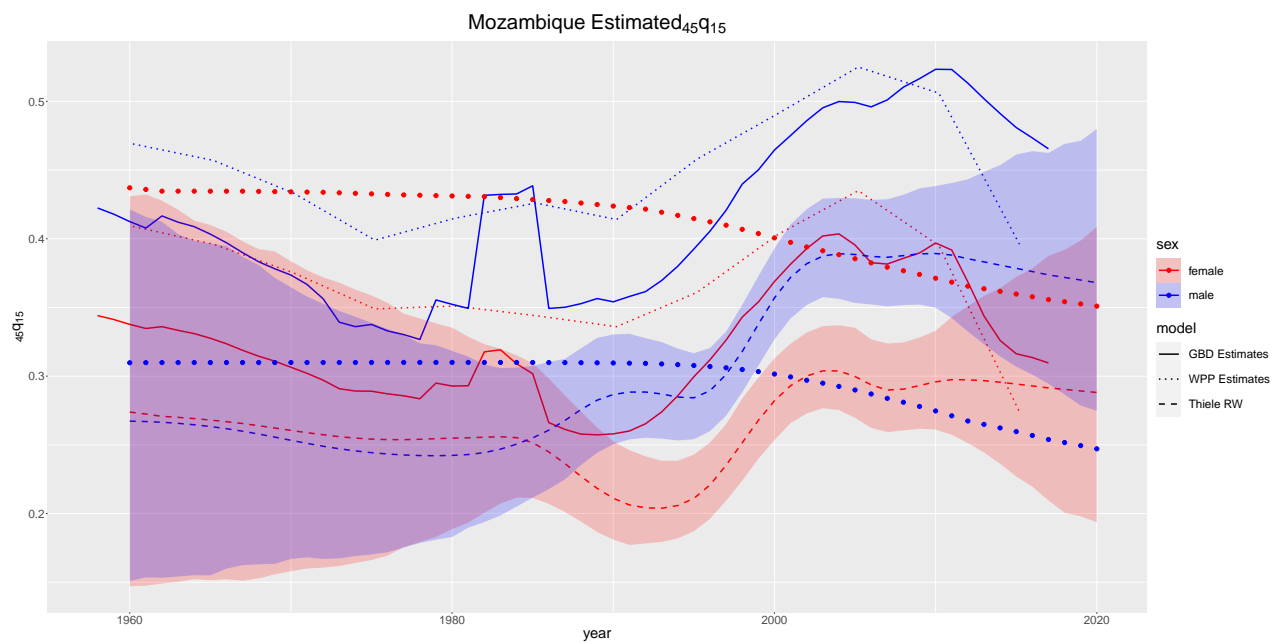


Figure 6: Estimated ${}_{45}q_{15}$

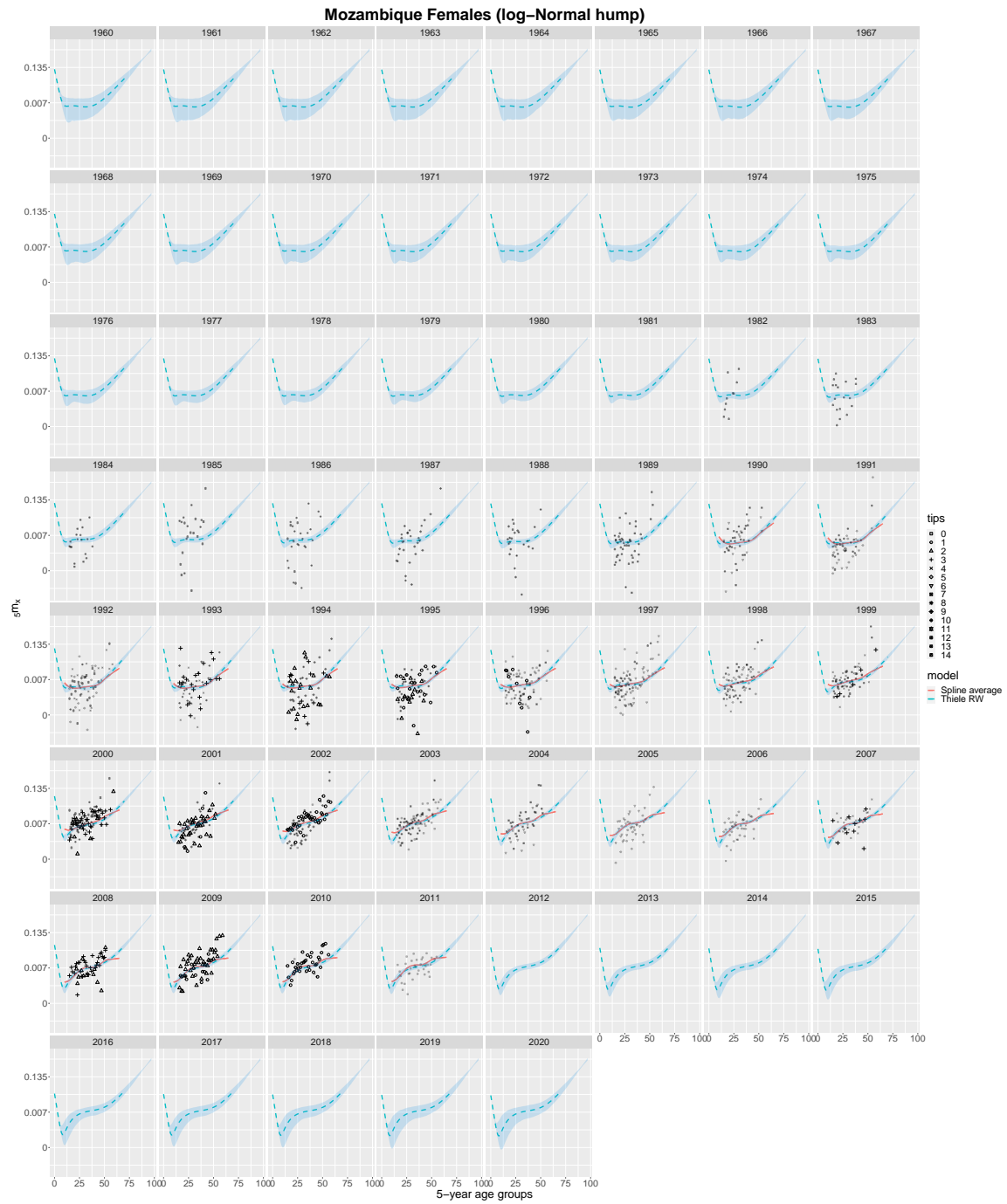


Figure 7: Mortality Schedules

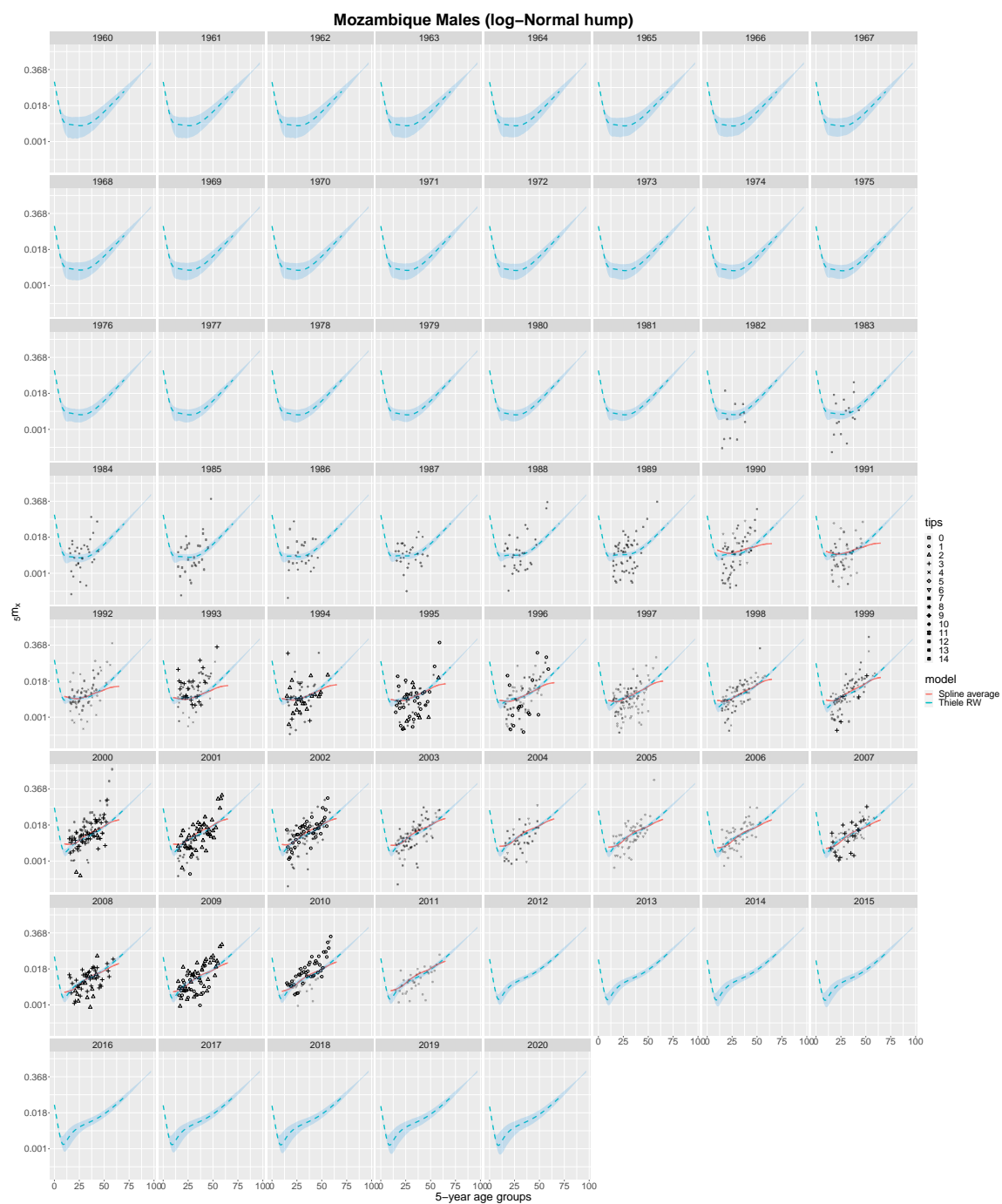


Figure 8: Mortality Schedules

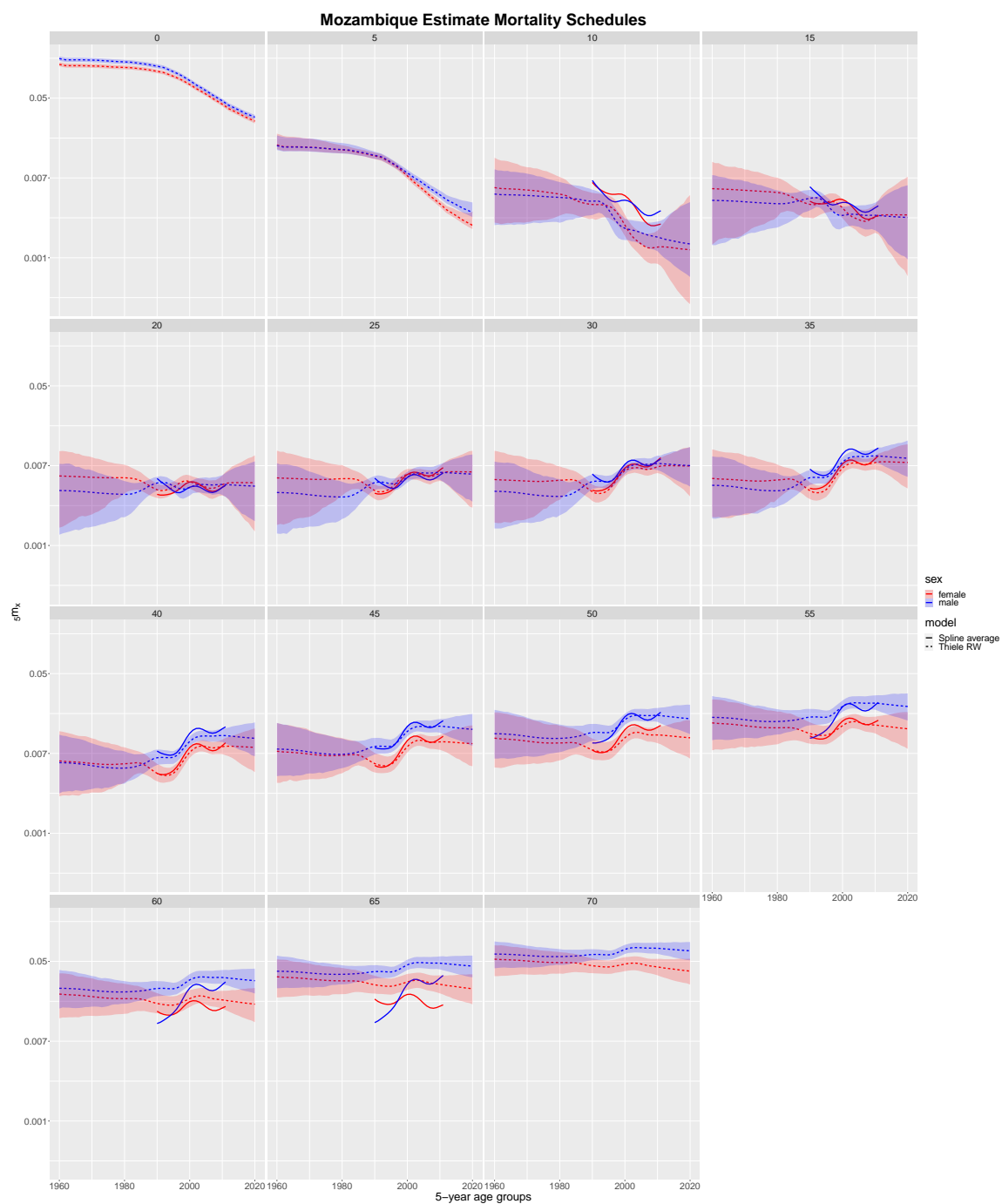


Figure 9: Mortality Schedules

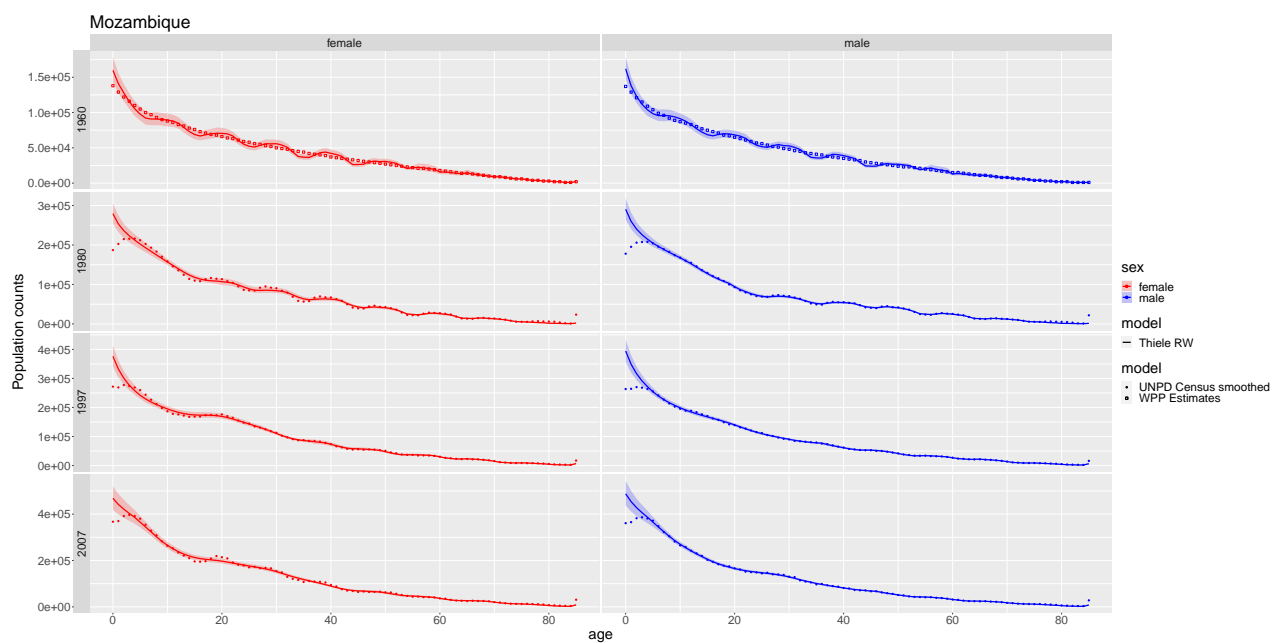


Figure 10: Population

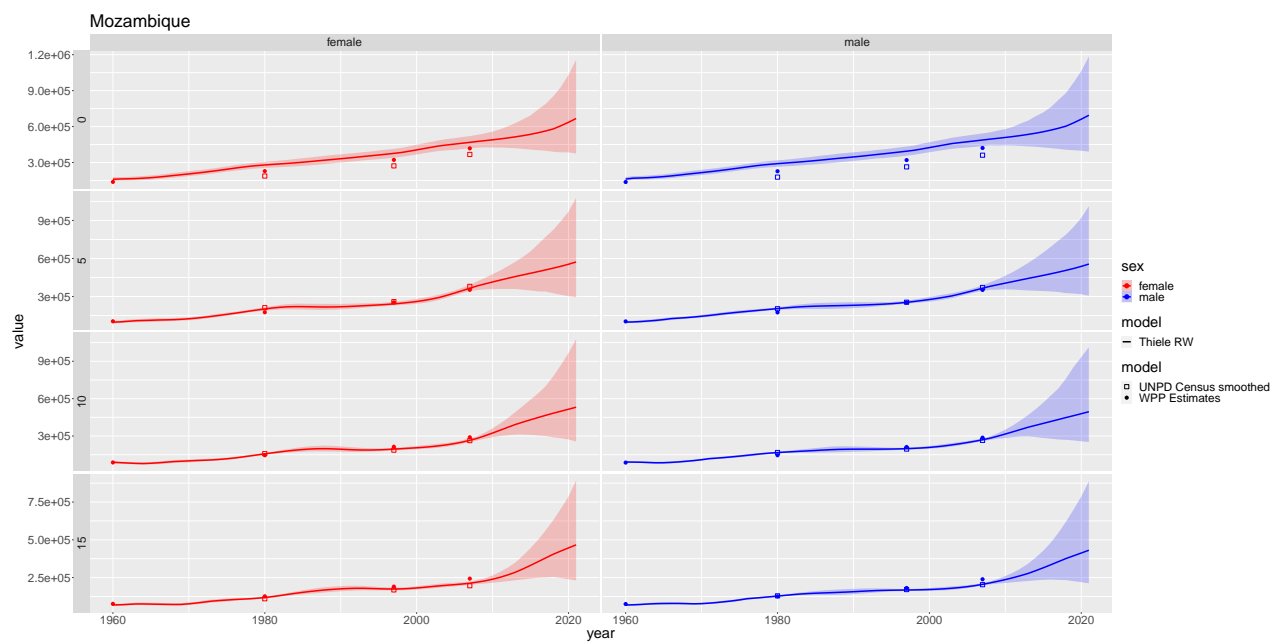


Figure 11: Population

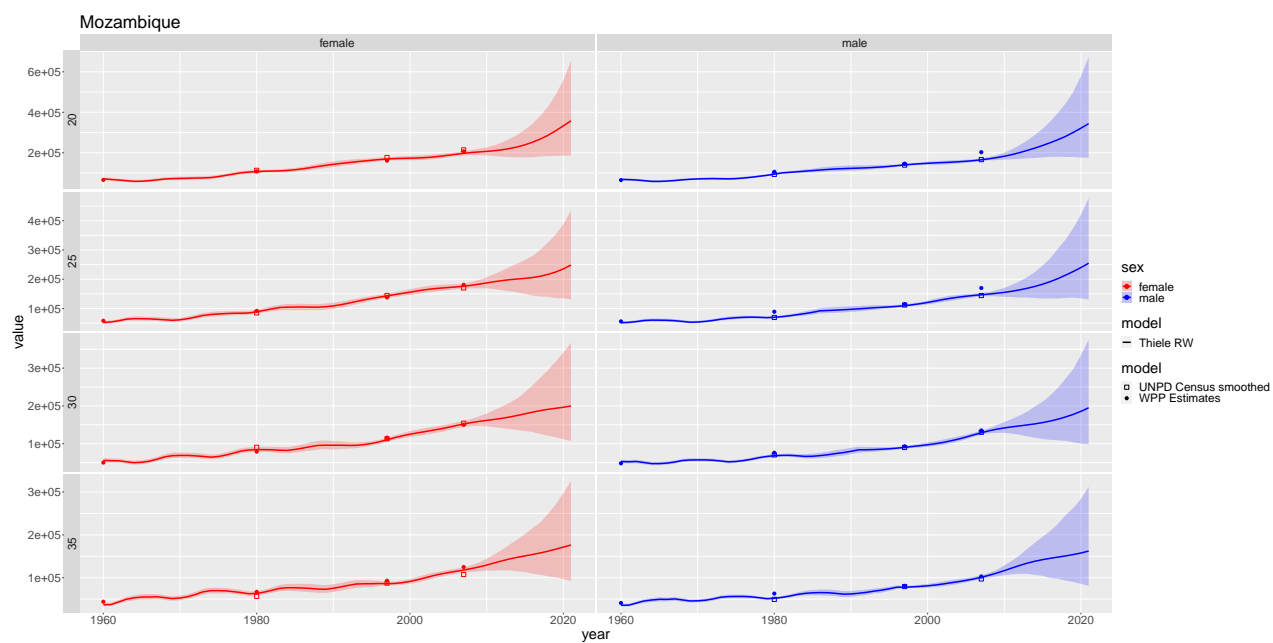


Figure 12: Population

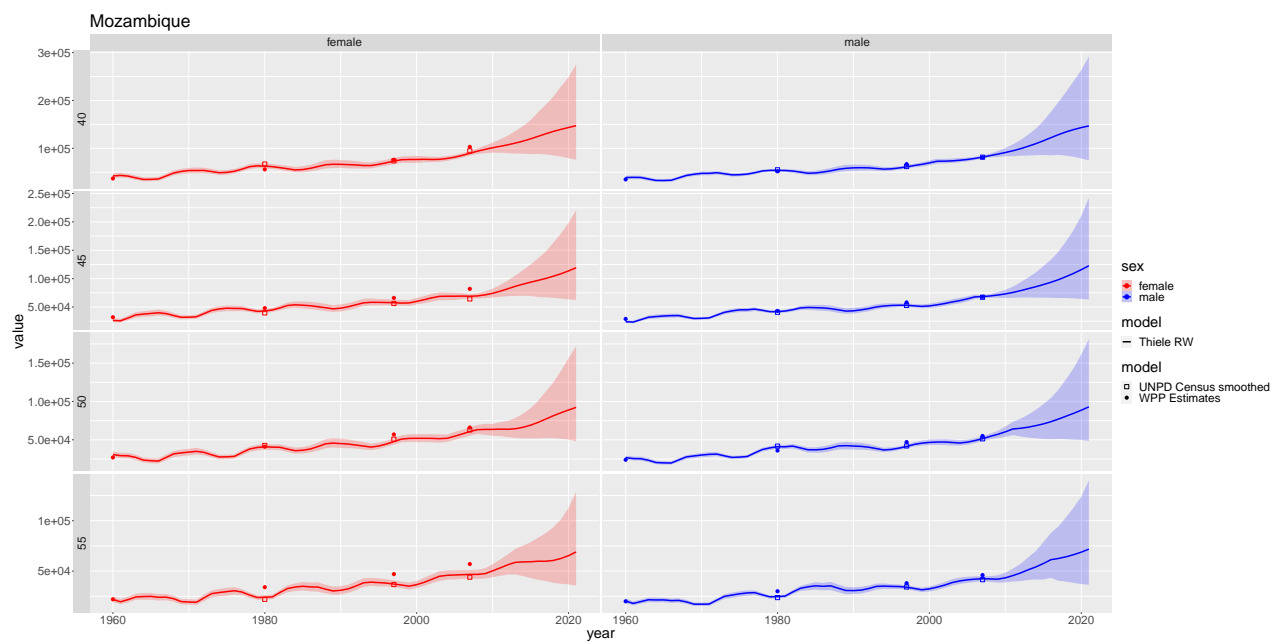


Figure 13: Population

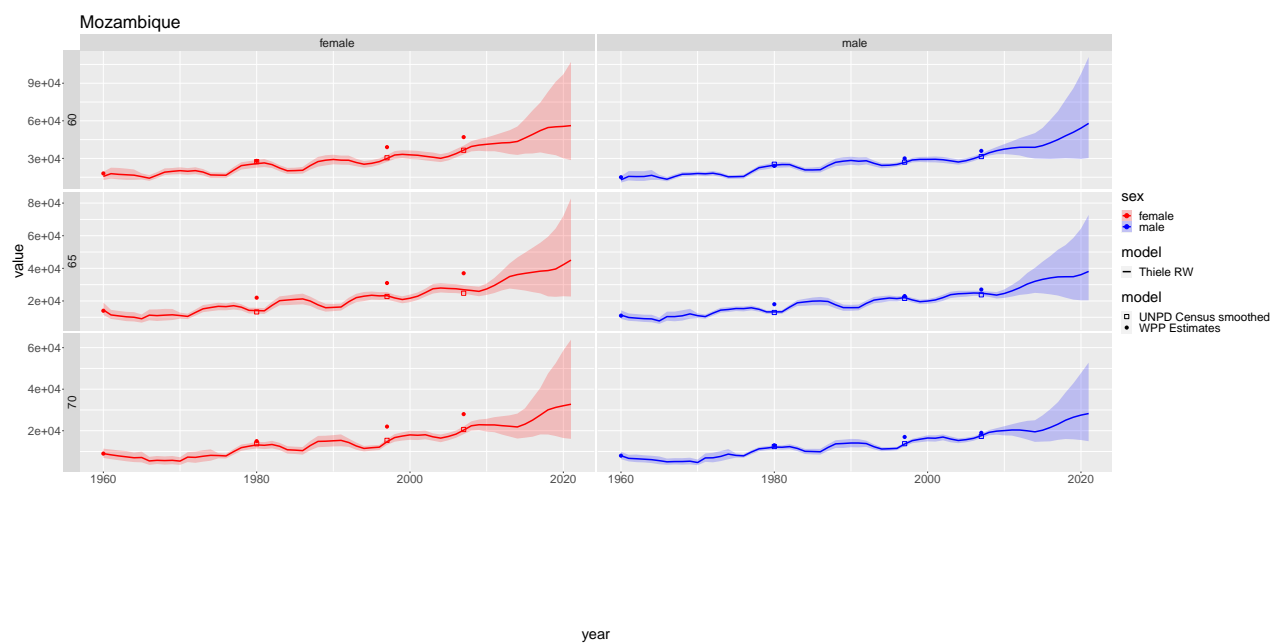


Figure 14: Population

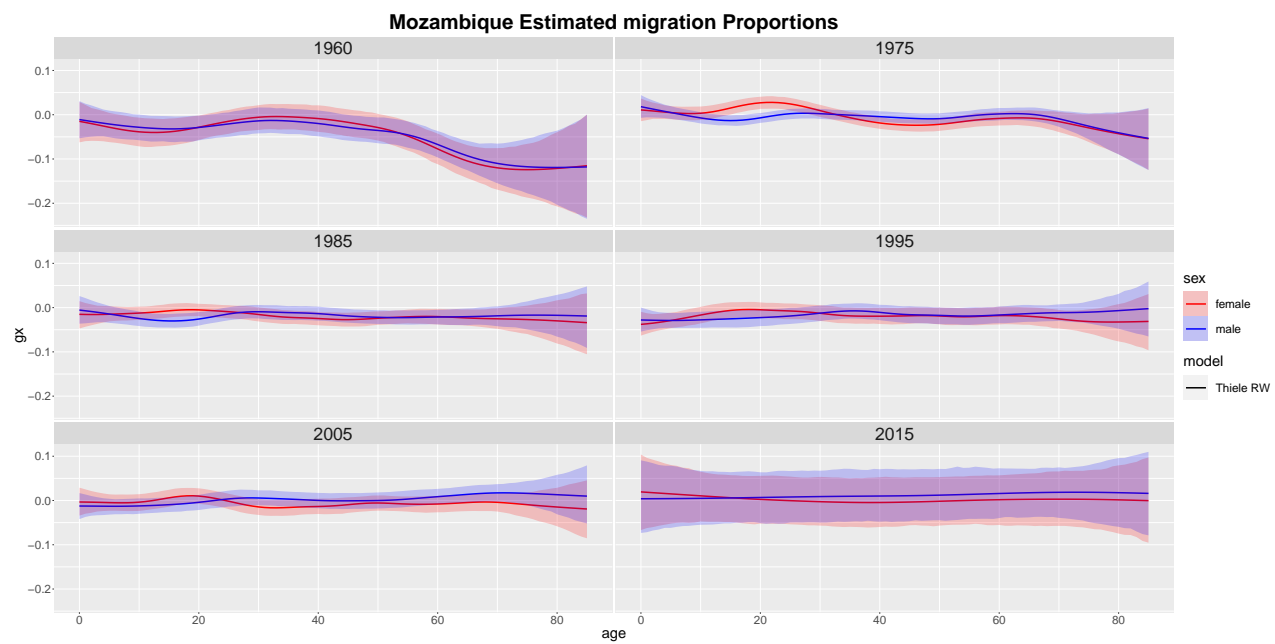


Figure 15: Migration

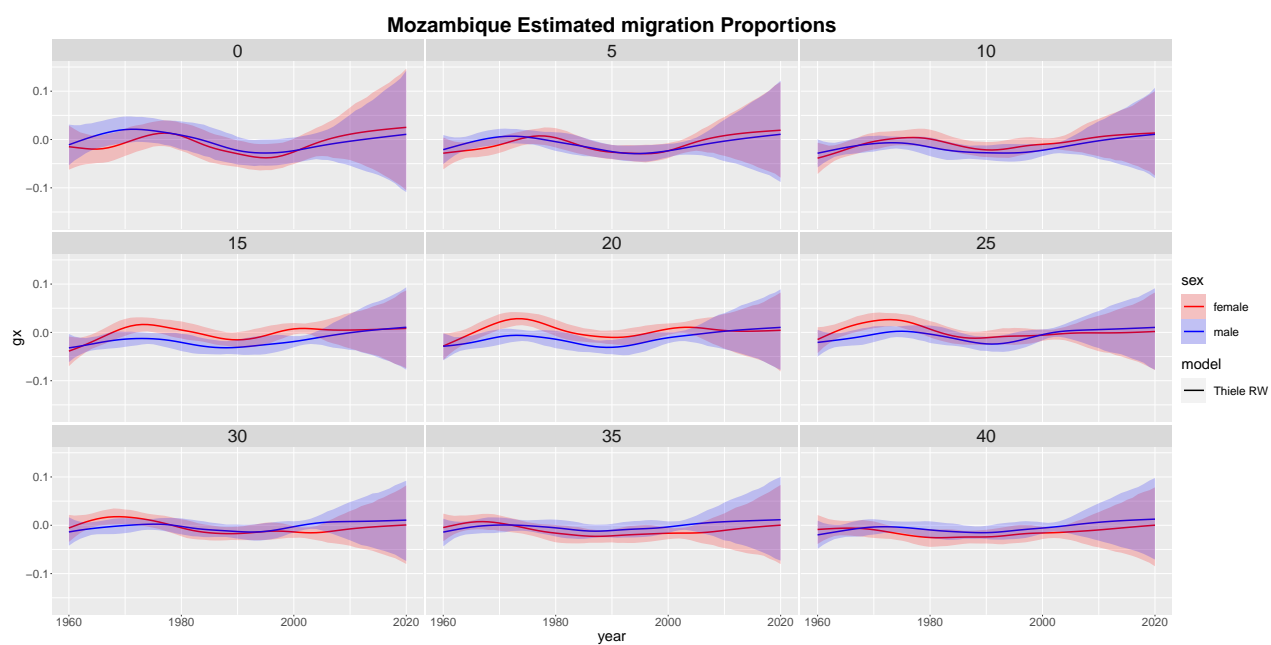


Figure 16: Migration

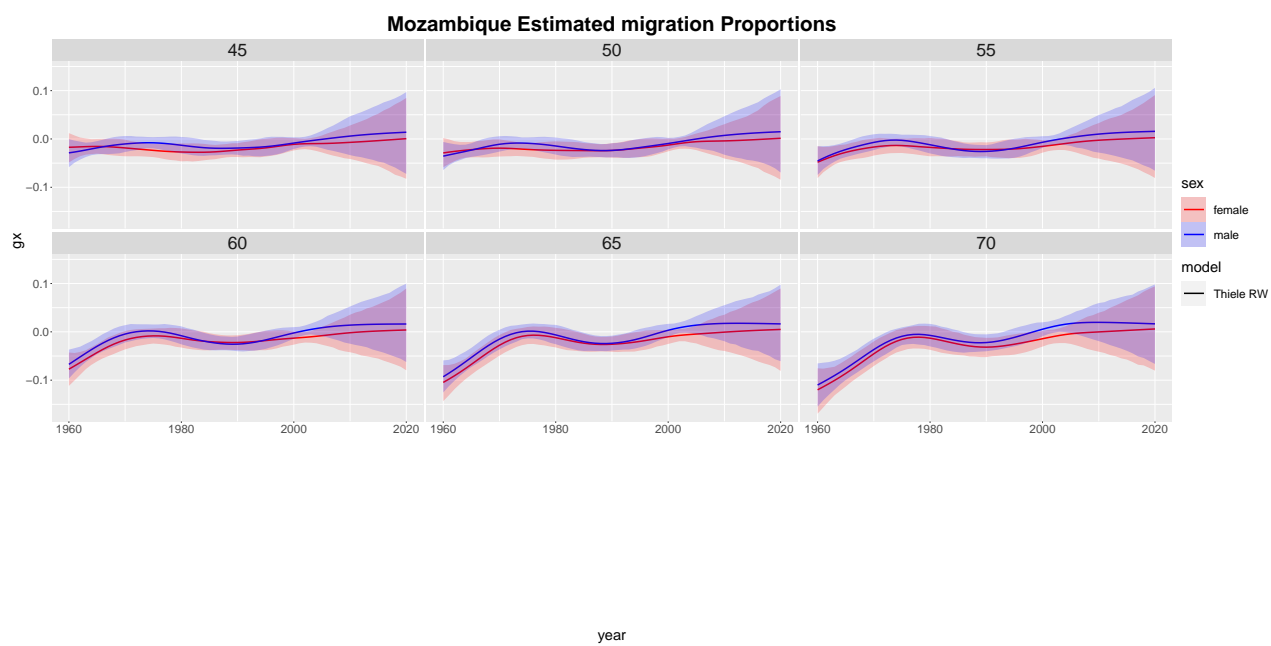


Figure 17: Migration

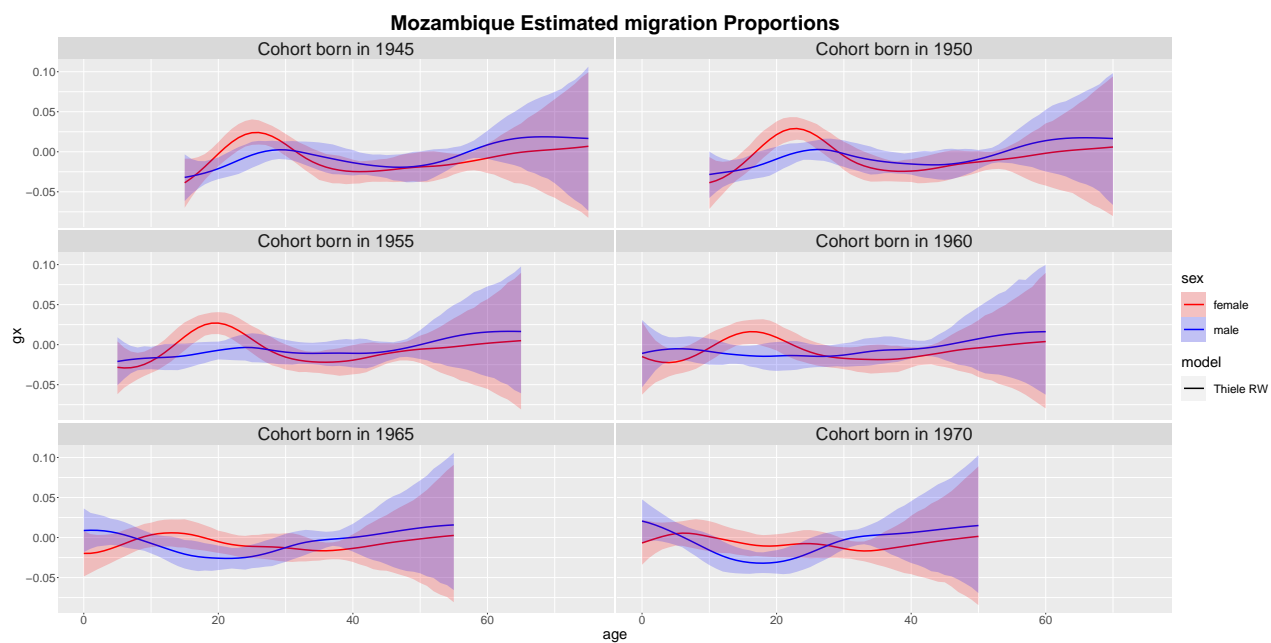


Figure 18: Migration

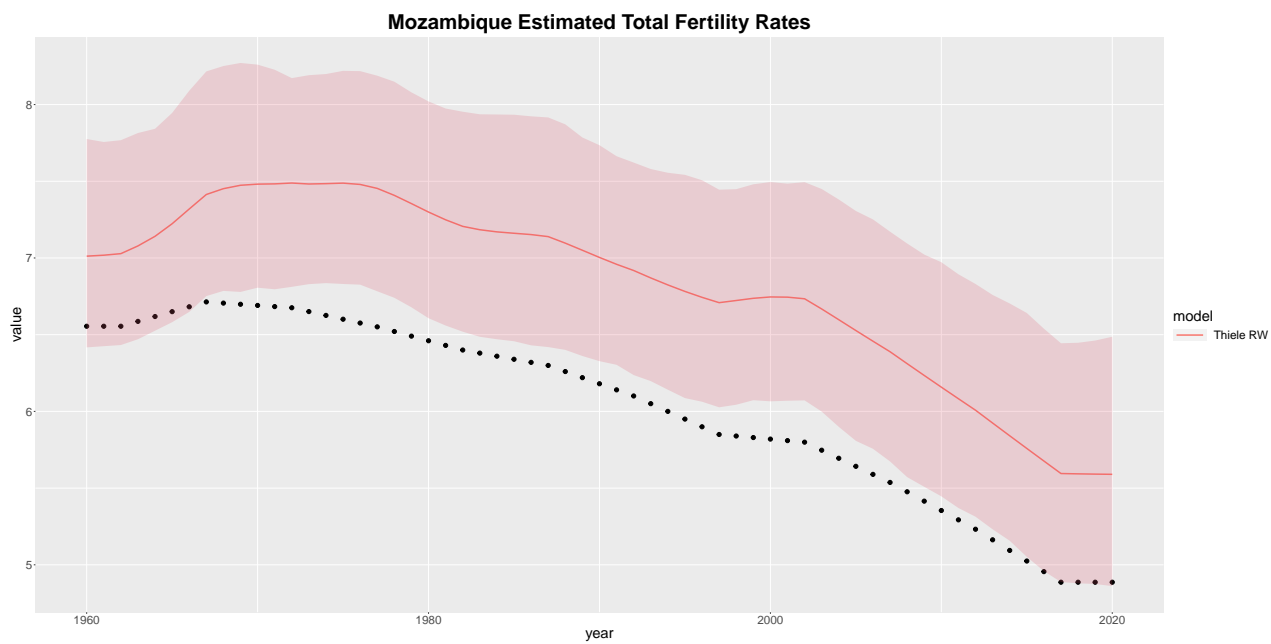


Figure 19: Total Fertility

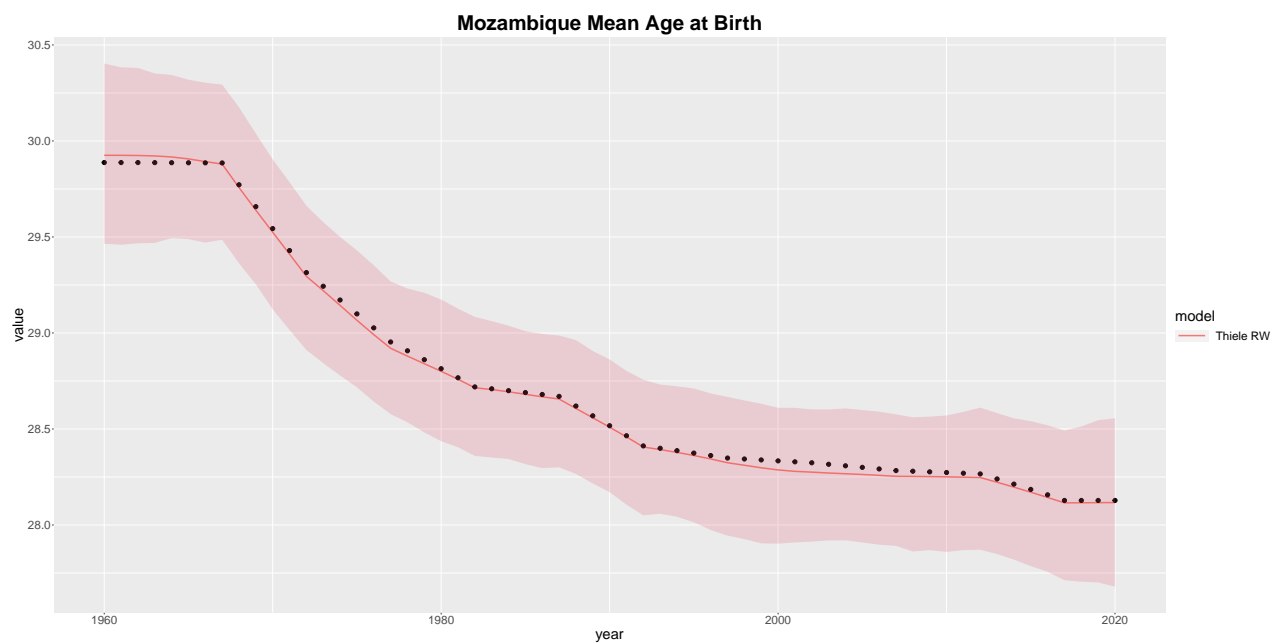


Figure 20: Mean age at births

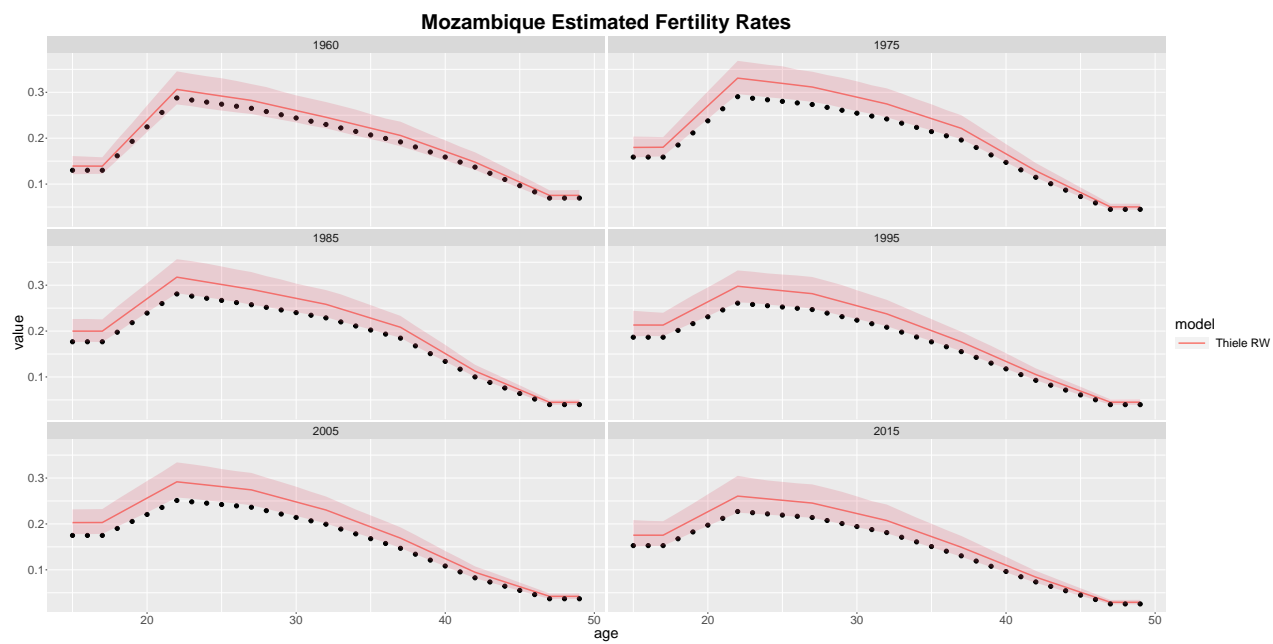


Figure 21: Fertility

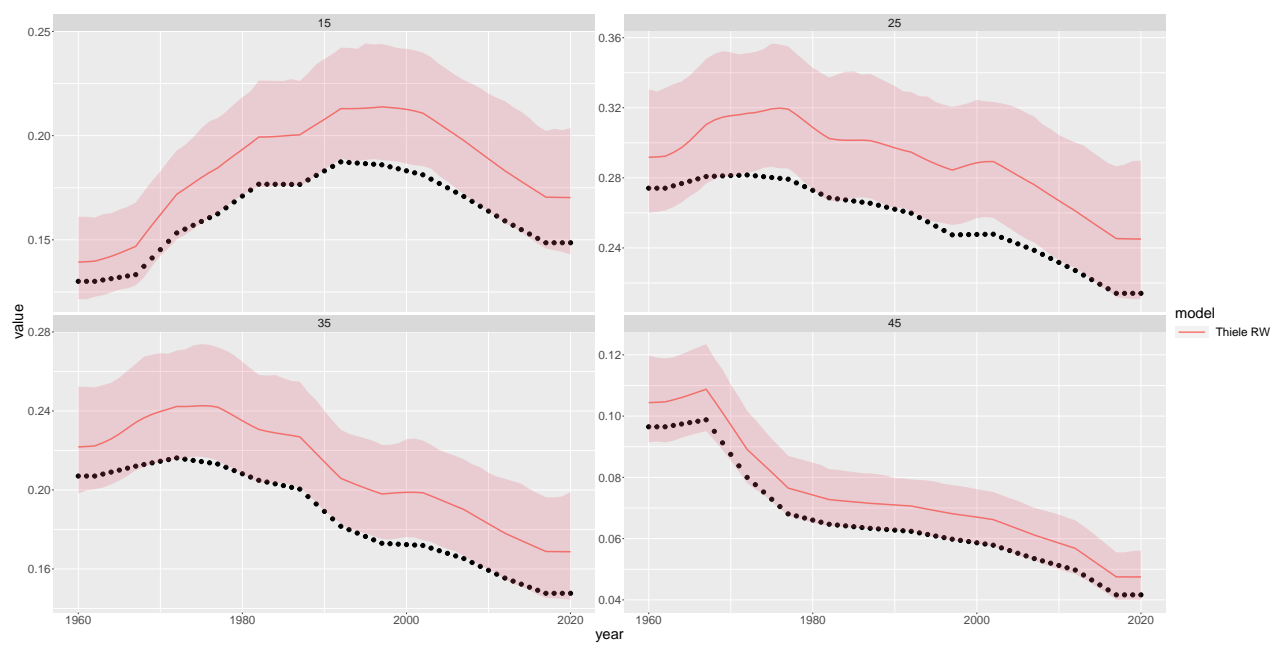


Figure 22: Fertility