

# 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.
```

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## 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_f	log_tau2_logpop_f	log_tau2_logpop_m	log_tau2_
##	6.1140959	4.9360777	6.2114875	4
##	log_tau2_gx_m	log_lambda_gx_age_f	log_lambda_gx_age_m	log_lambda_g
##	3.4140315	2.6571219	6.6765790	6
##	log_lambda_gx_agemtime_m	log_lambda_tp	log_lambda_tp_0_inflated_sd	log_disp
##	6.9077868	3.5813546	-2.8523707	0
##	log_marginal_prec_psi_f	log_marginal_prec_A_f	log_marginal_prec_B_f	log_marginal_pr
##	6.8095198	6.7966519	3.5323460	6
##	log_marginal_prec_B_m	log_lambda_phi_f	log_lambda_psi_f	log_lambda_
##	2.4613586	4.3097103	4.3084217	4
##	log_lambda_A_f	log_lambda_B_f	log_lambda_phi_m	log_lamb
##	4.3031304	3.5527923	4.3140486	4
##	log_lambda_epsilon_m	log_lambda_A_m	log_lambda_B_m	logit_lambda_slo
##	3.9842720	4.3047351	3.7848998	0
##	logit_lambda_slope_rho_m	logit_delta_slope_rho_m	logit_epsilon_slope_rho_m	
##	-0.4074429	-1.9778835	0.9910540	

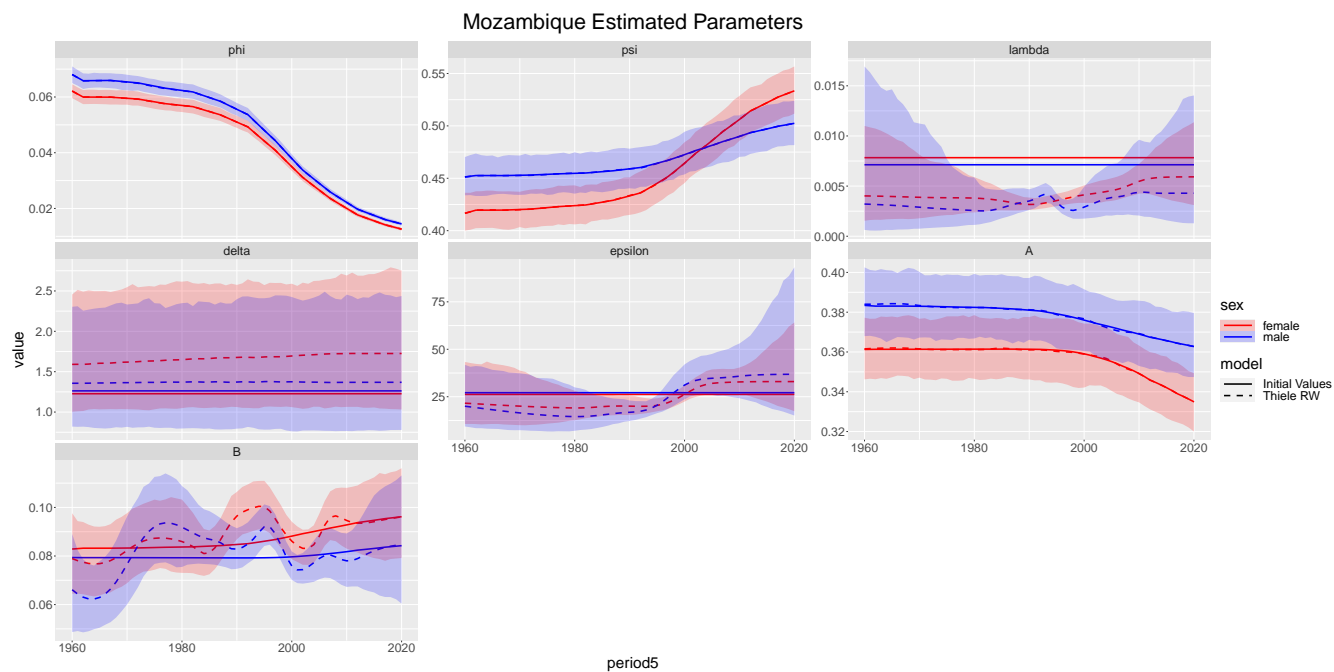


Figure 1: Estimated parameters

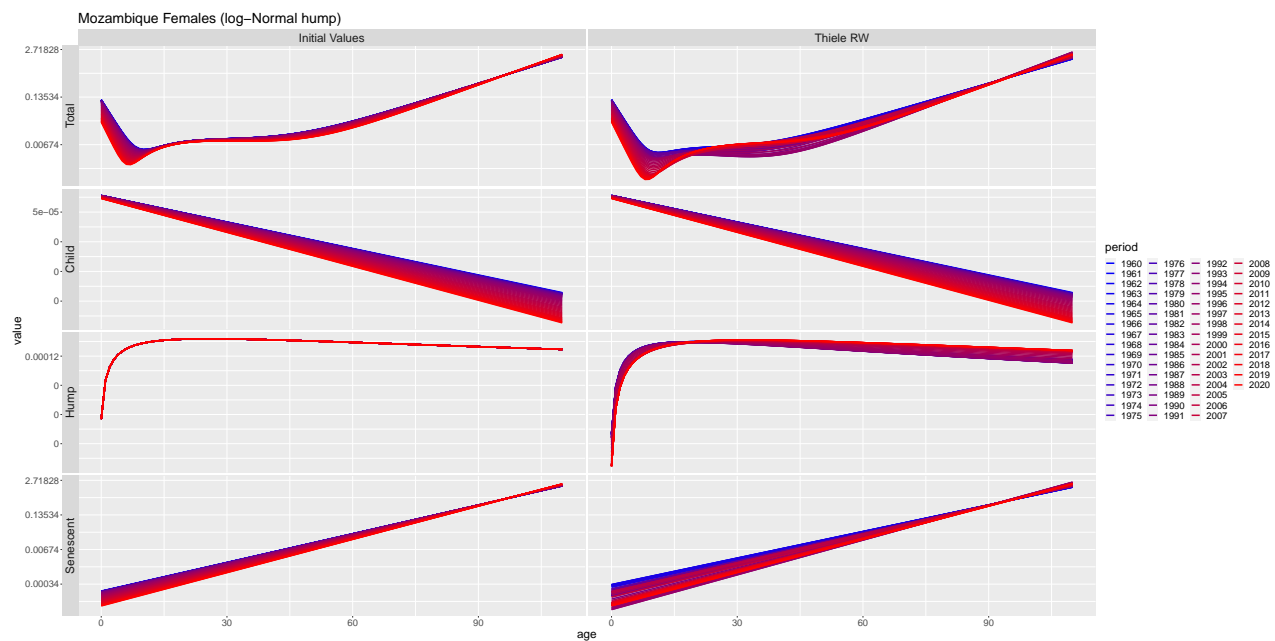


Figure 2: Thiele Decomposed

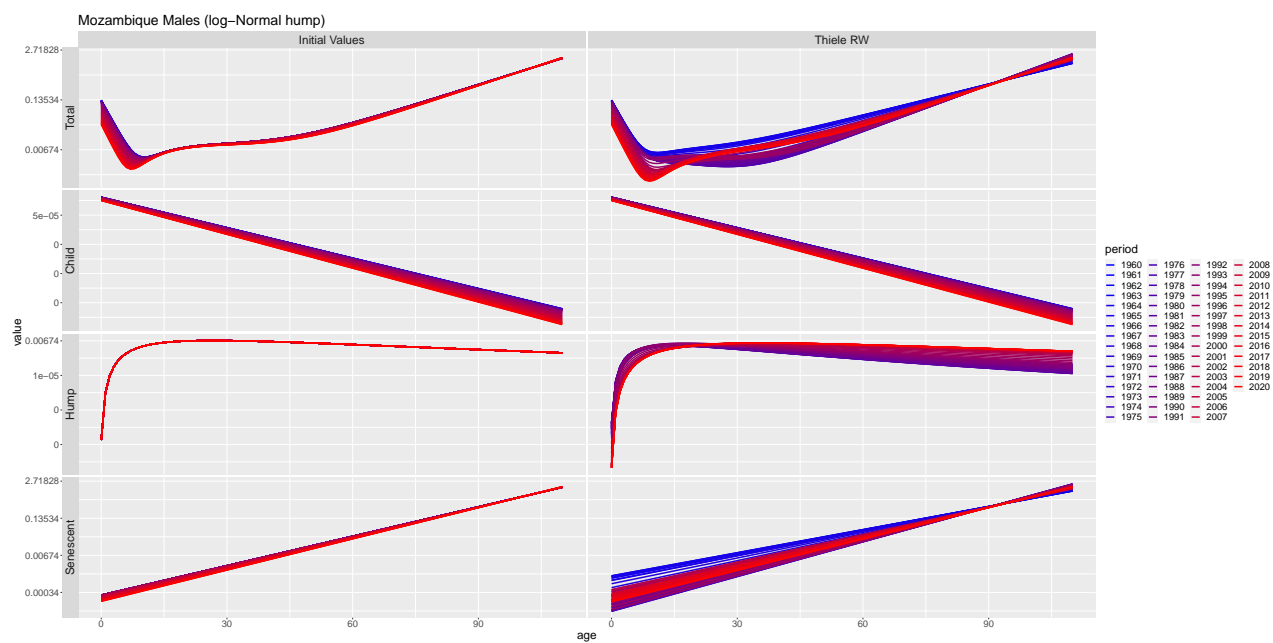


Figure 3: Thiele Decomposed

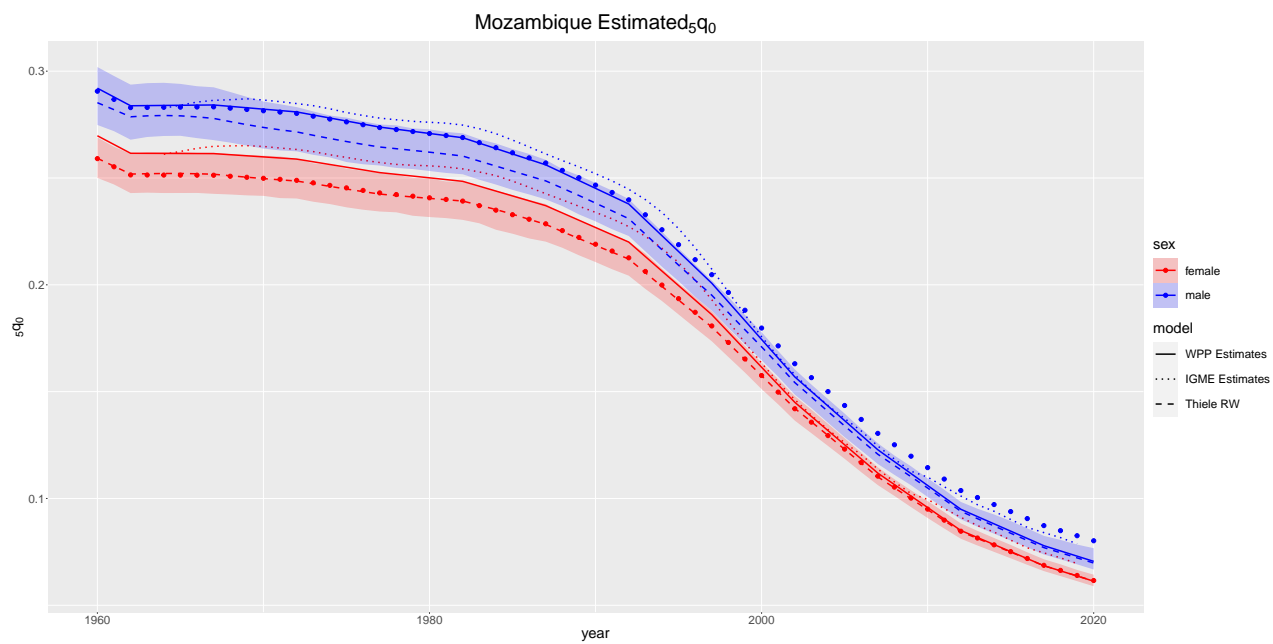


Figure 4: Estimated  ${}_5q_0$

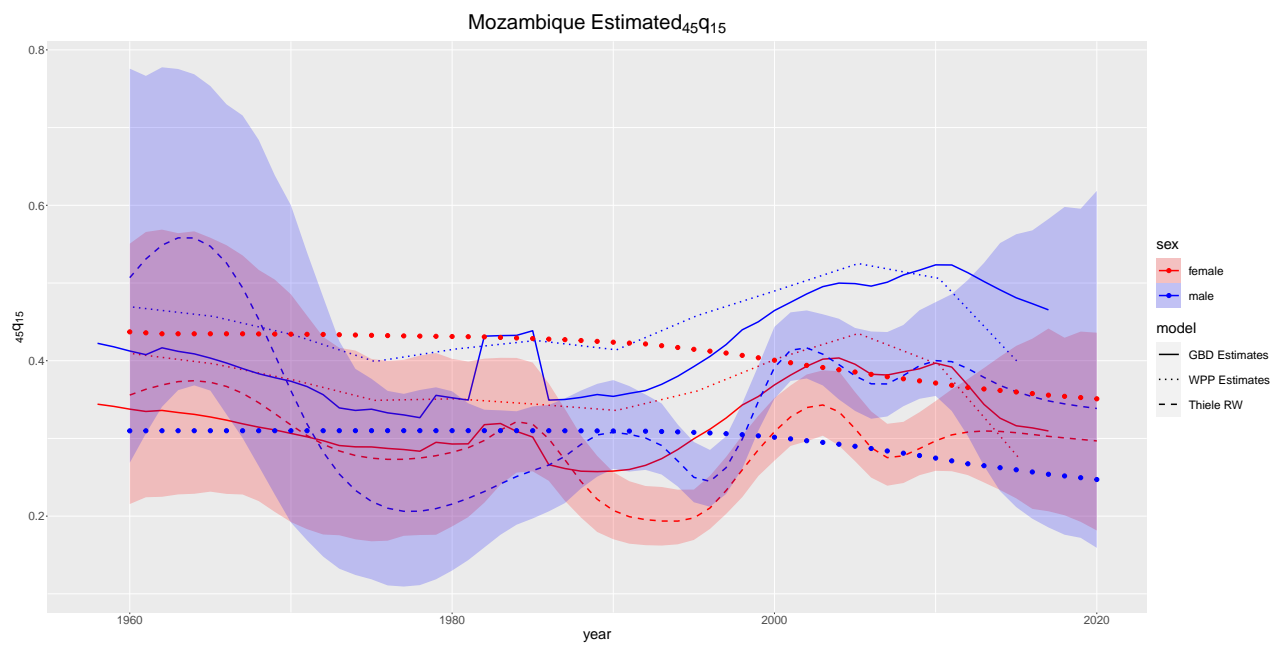


Figure 5: Estimated  $45q_{15}$

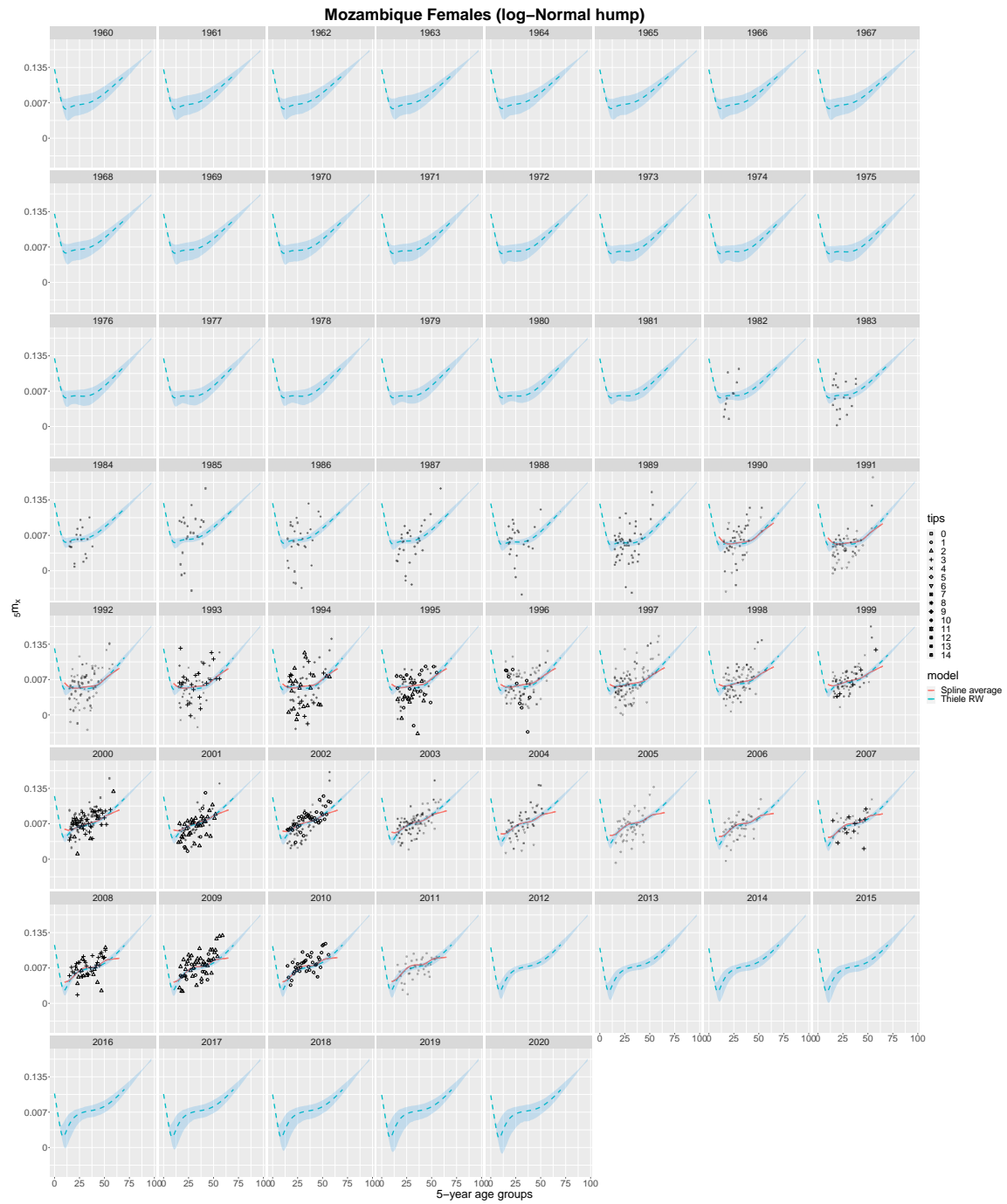


Figure 6: Mortality Schedules

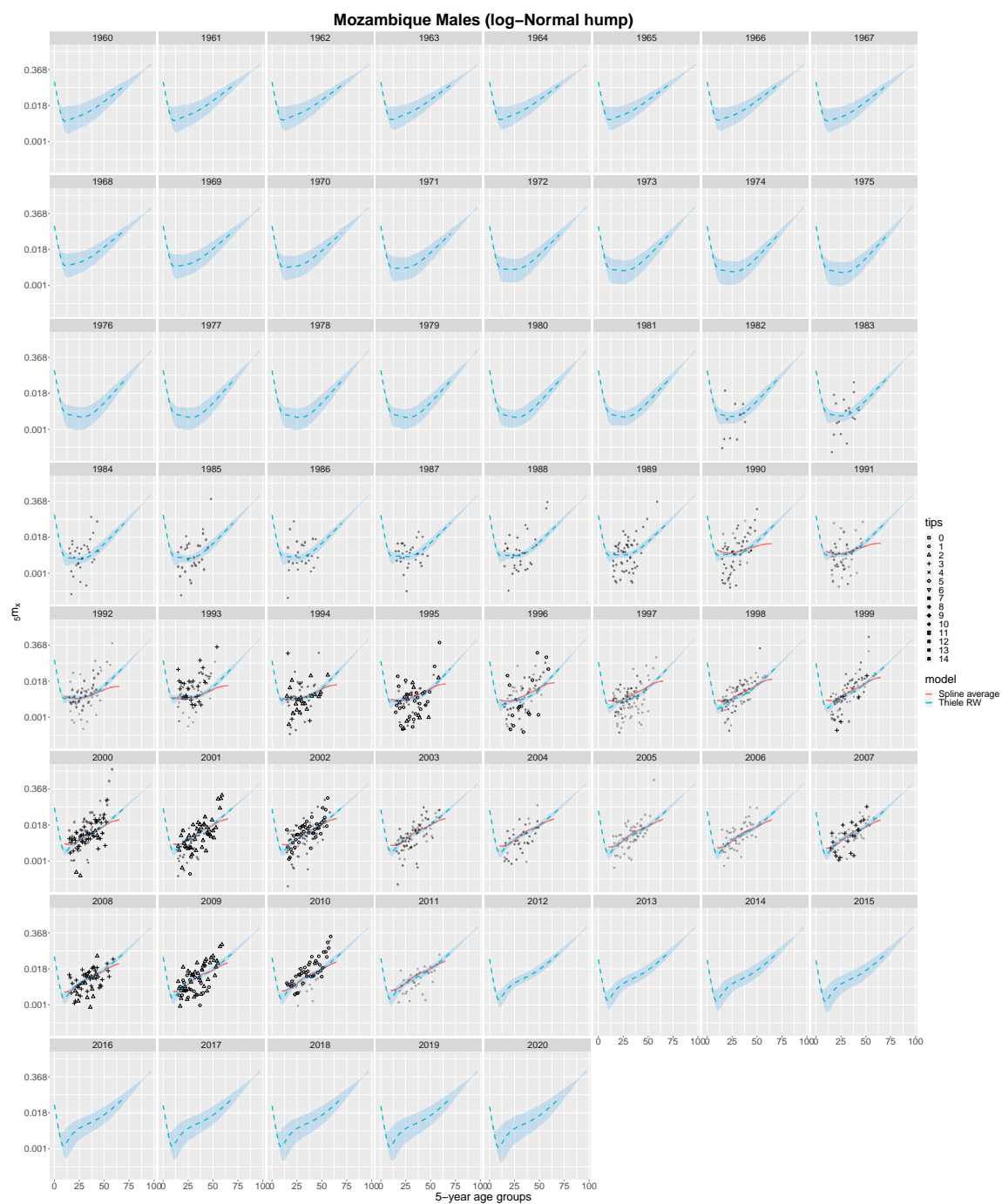


Figure 7: Mortality Schedules

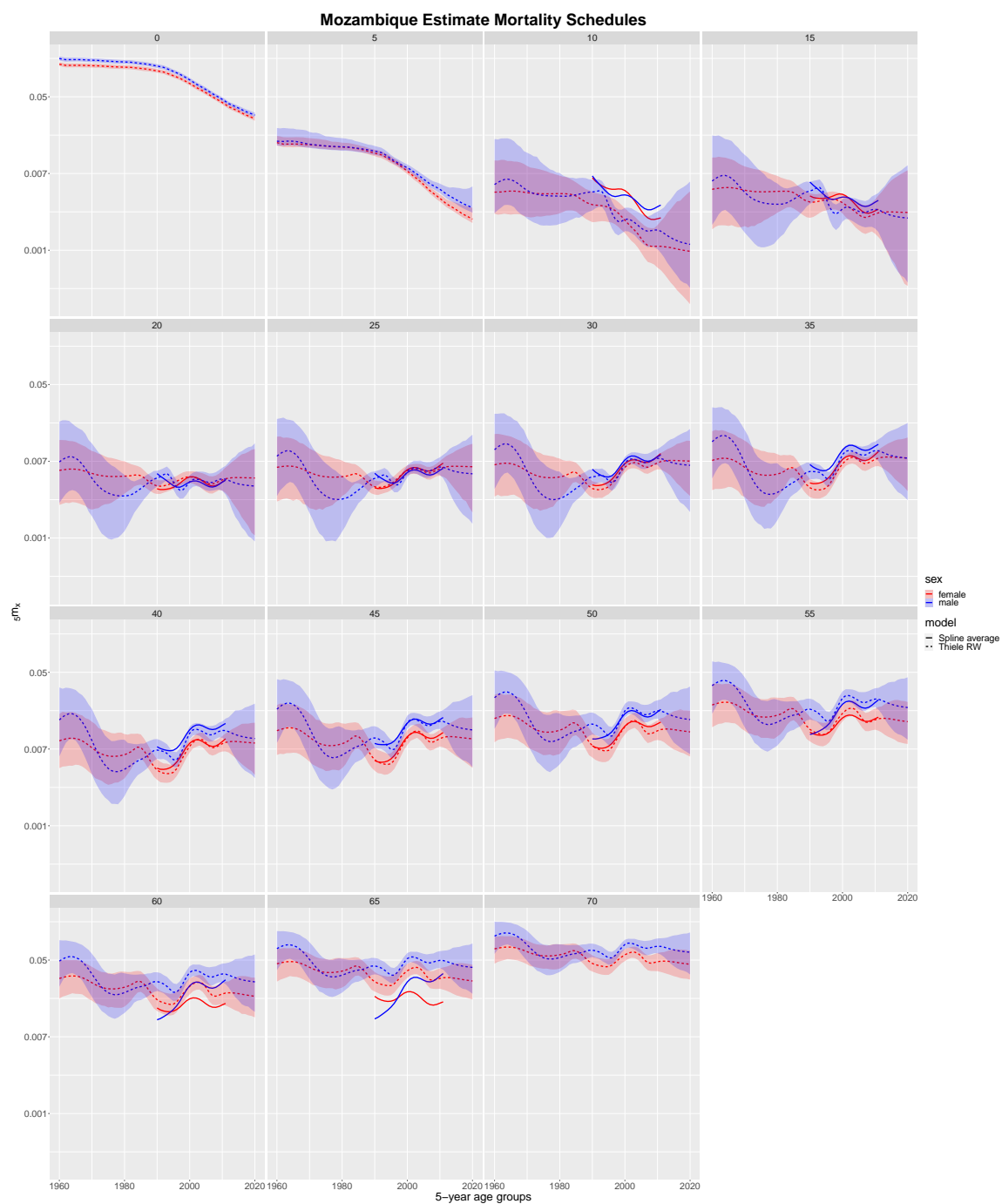


Figure 8: Mortality Schedules



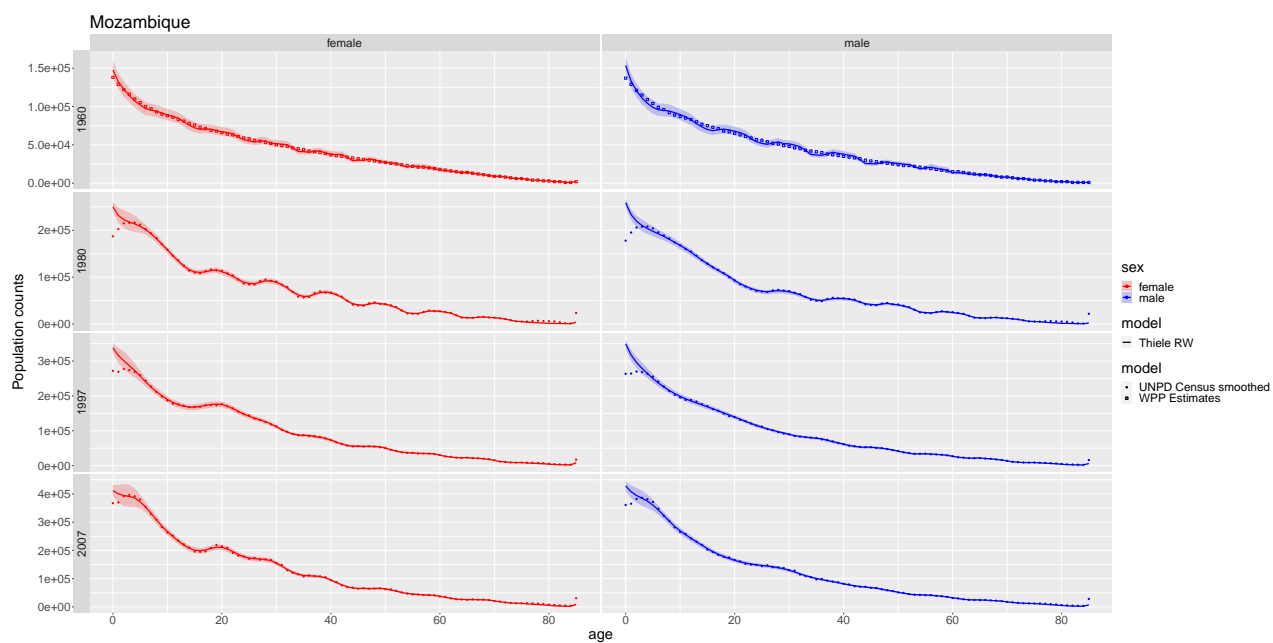


Figure 9: Population

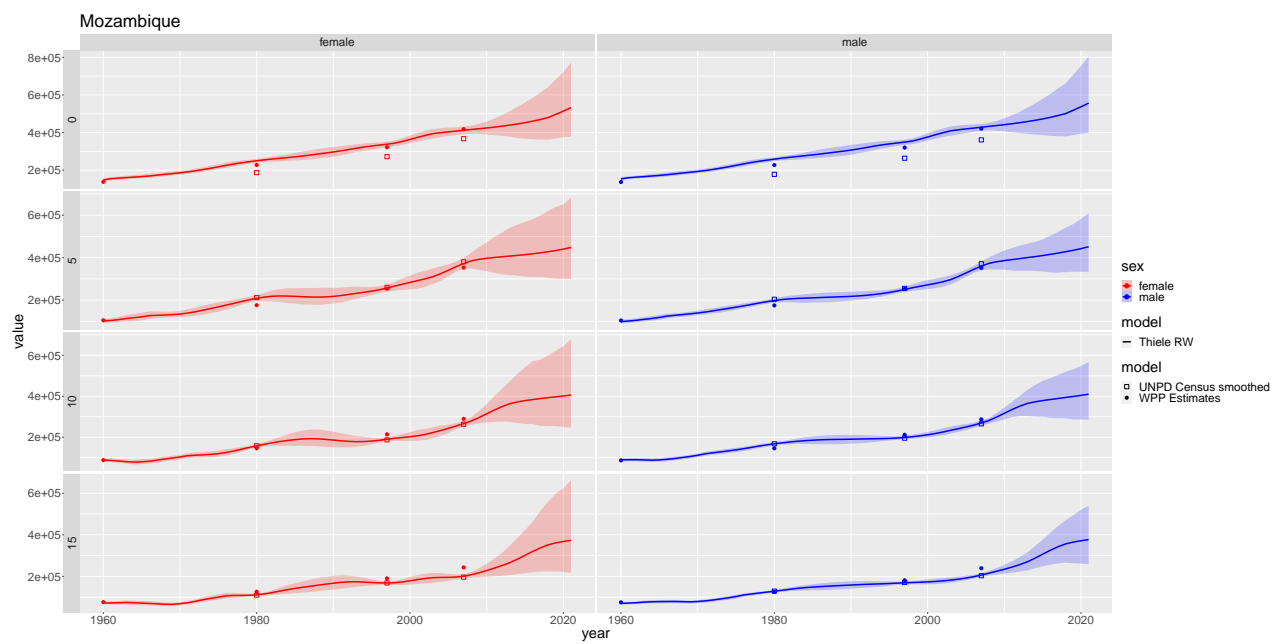


Figure 10: Population

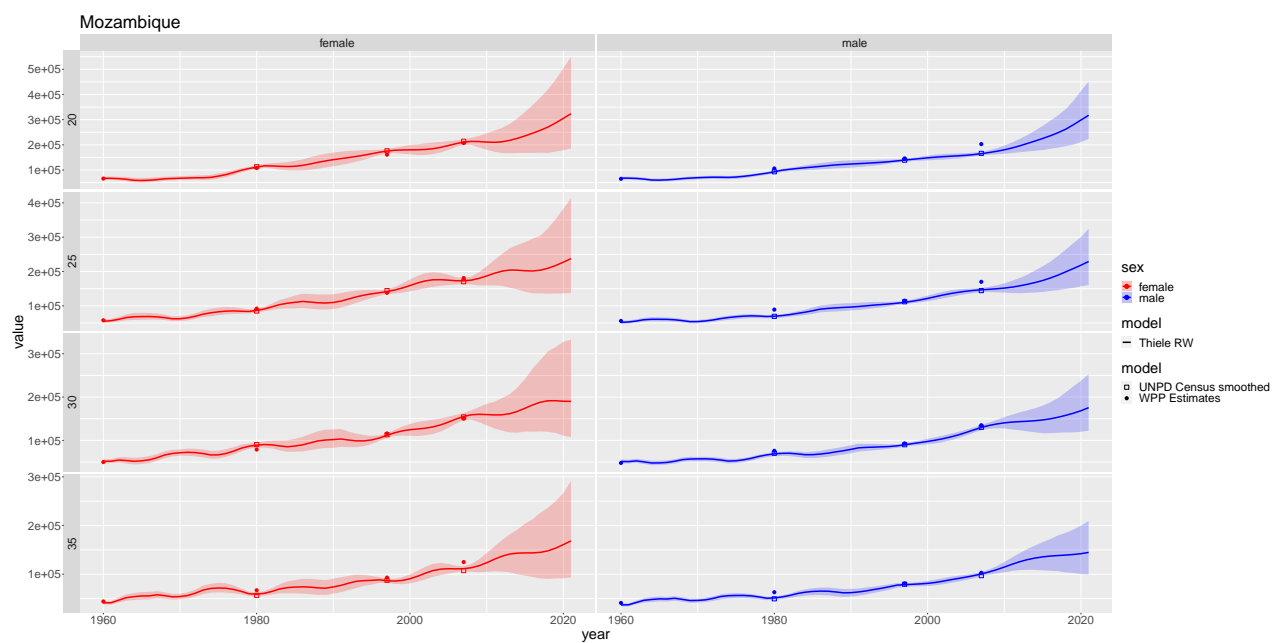


Figure 11: Population

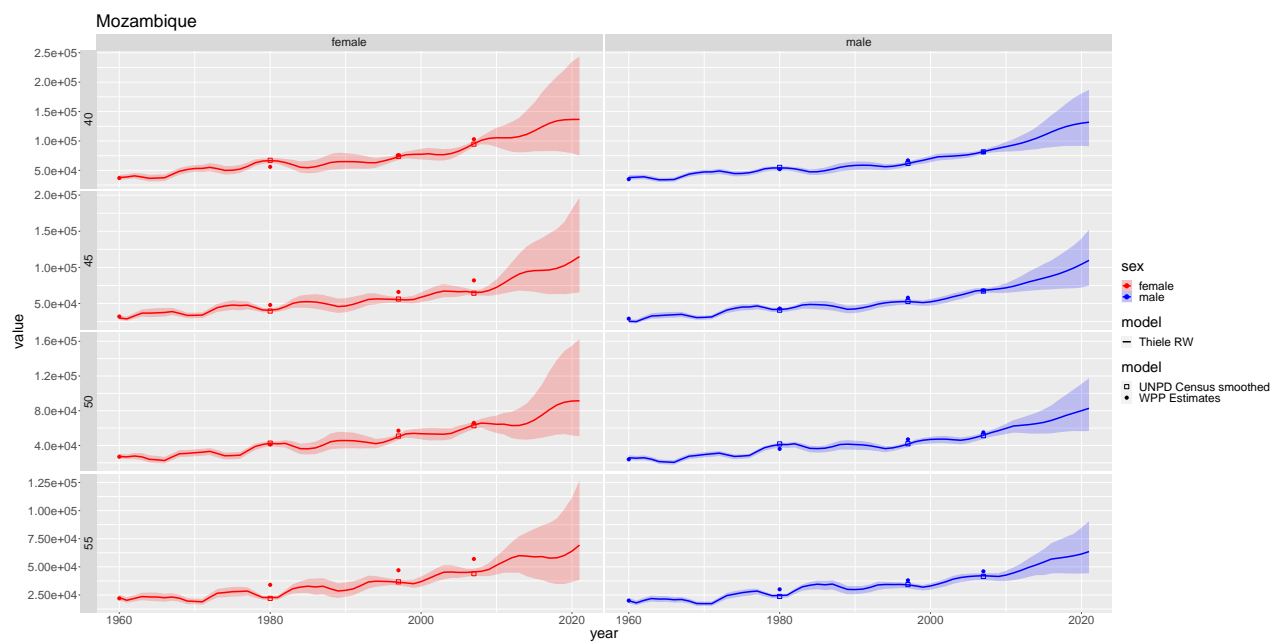


Figure 12: Population

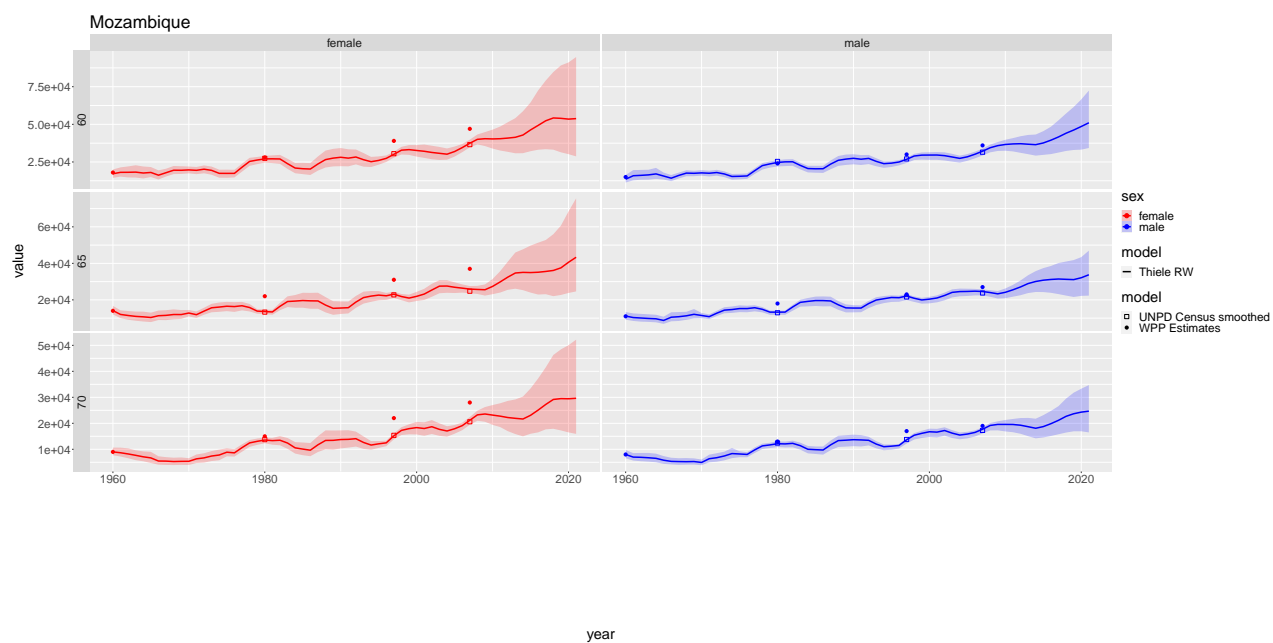


Figure 13: Population

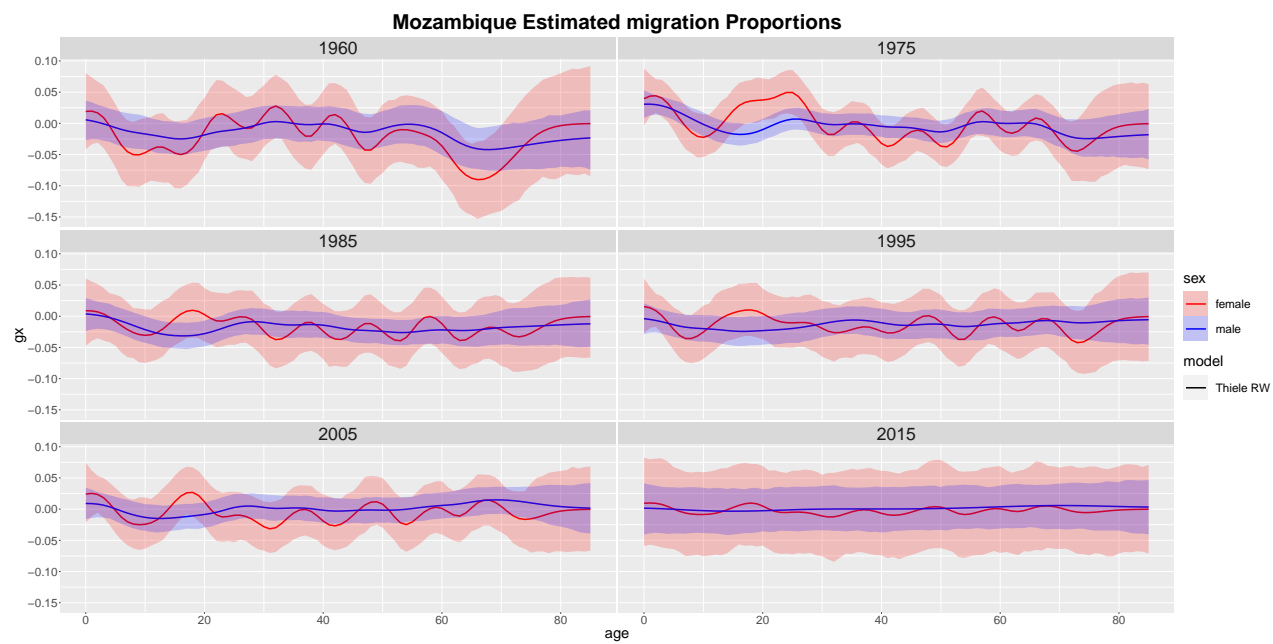


Figure 14: Migration

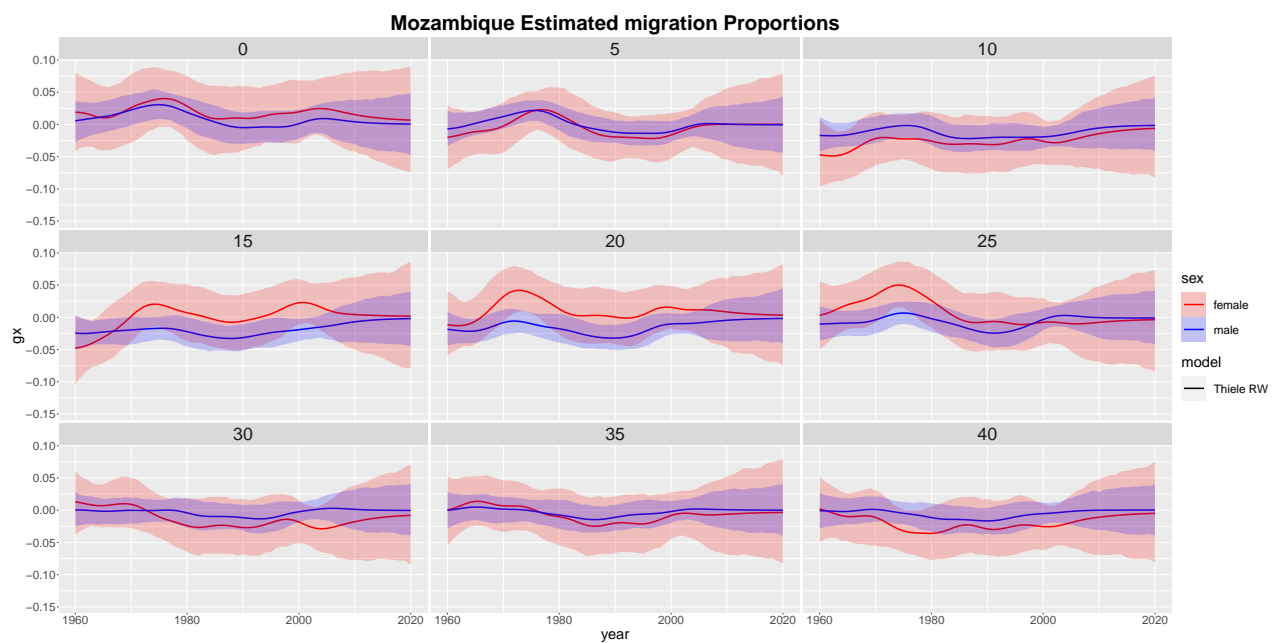


Figure 15: Migration

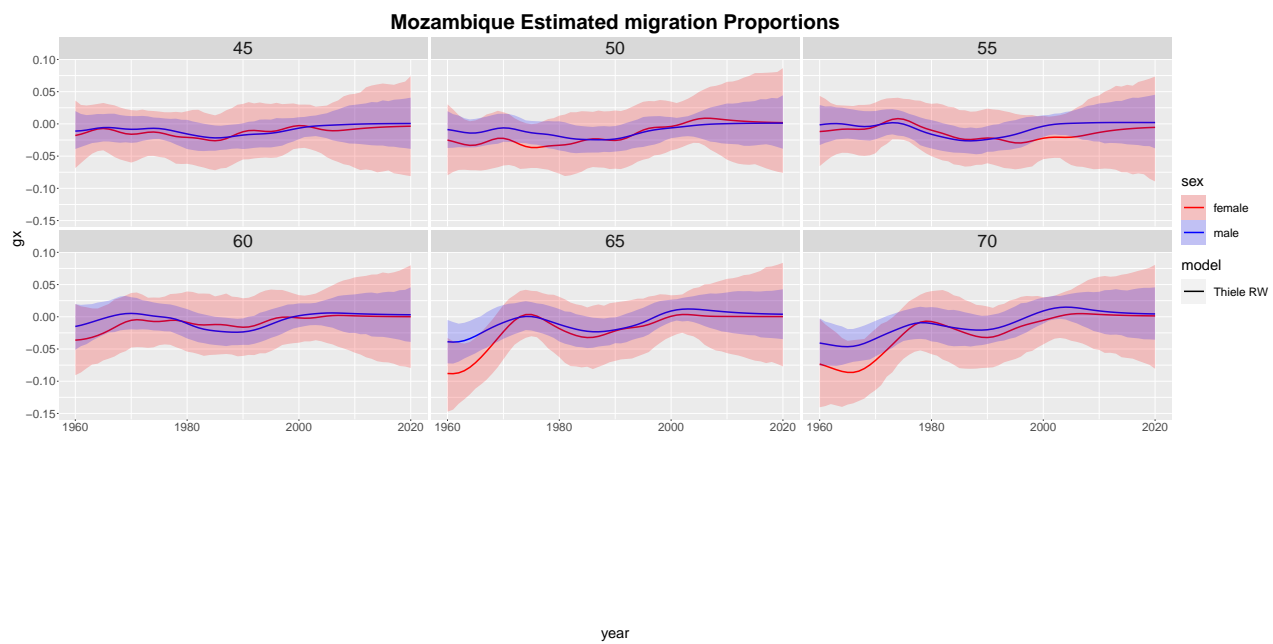


Figure 16: Migration

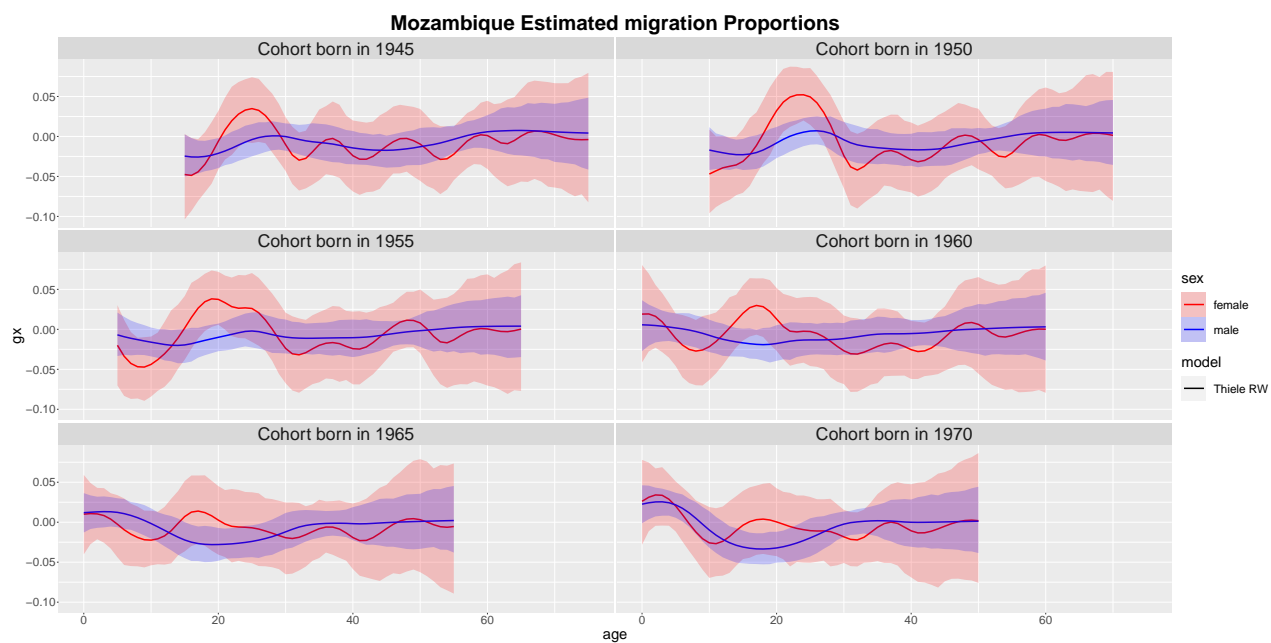


Figure 17: Migration

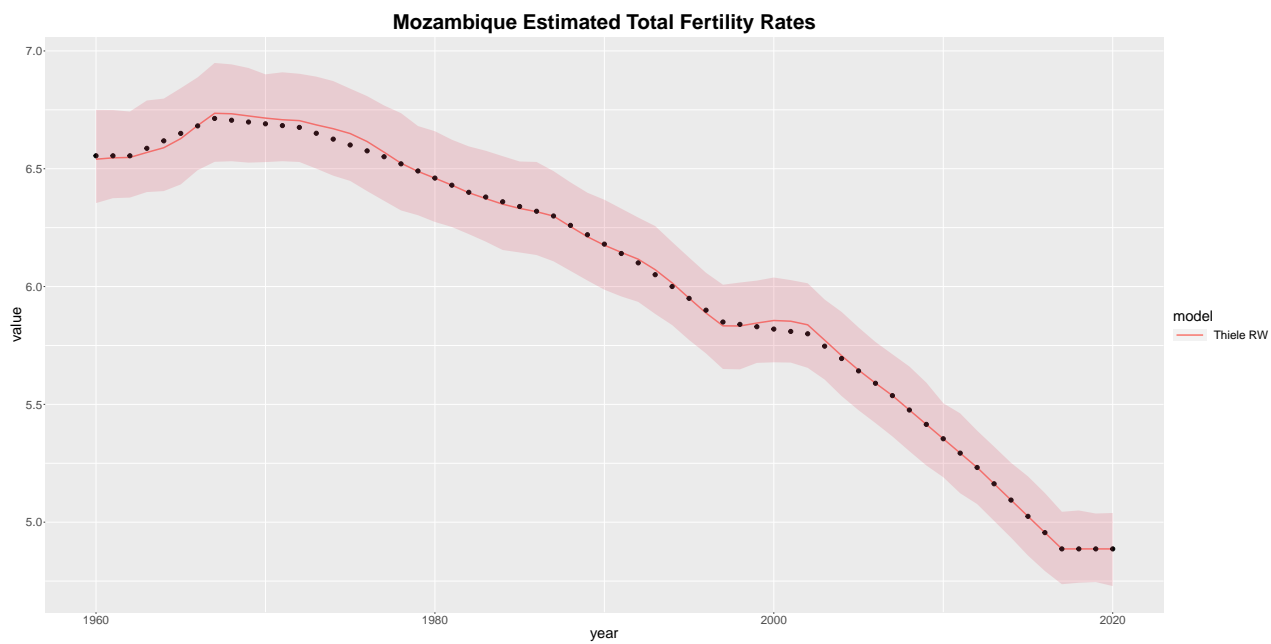


Figure 18: Total Fertility

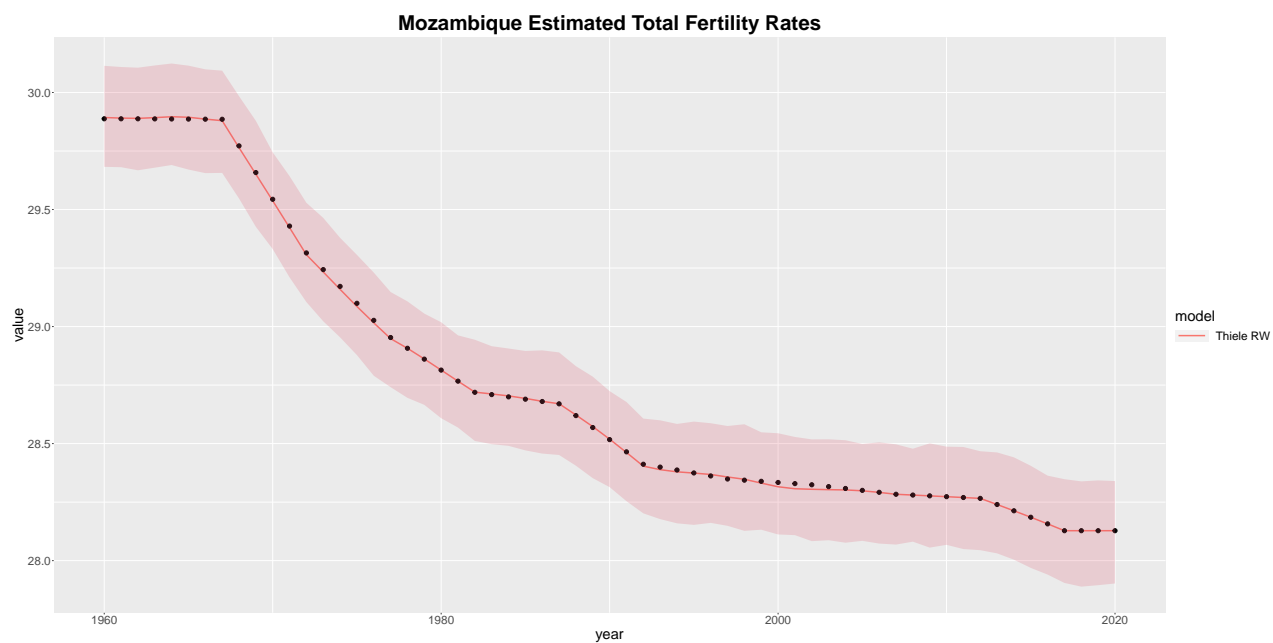


Figure 19: Mean age at births

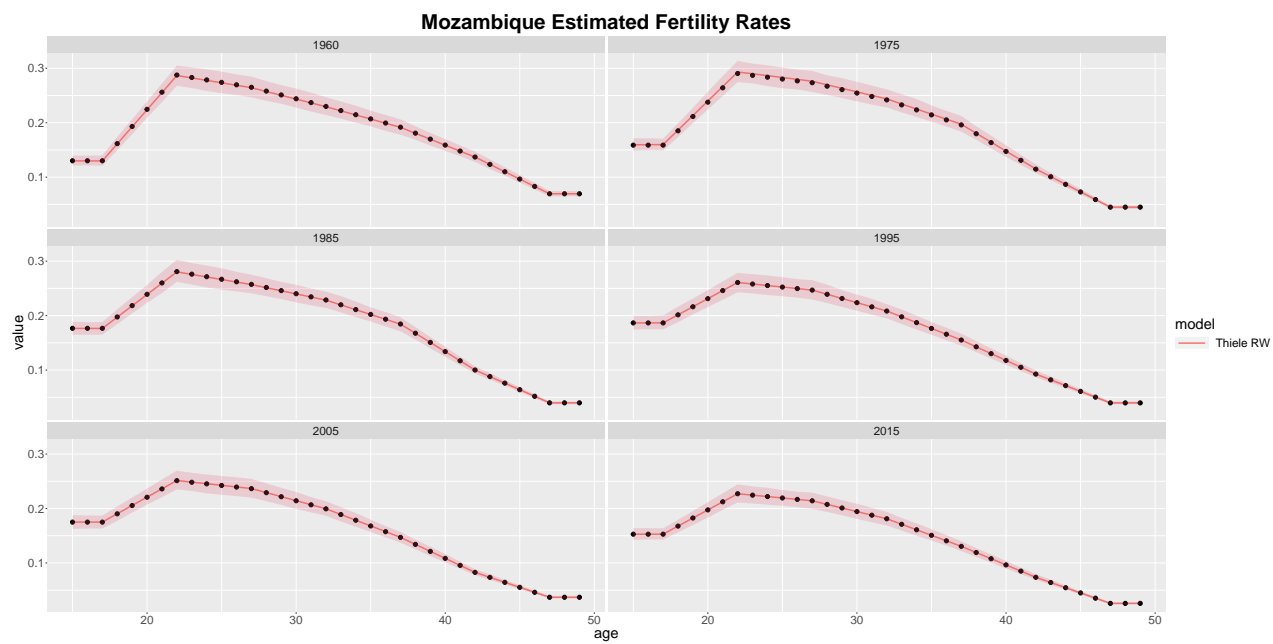


Figure 20: Fertility

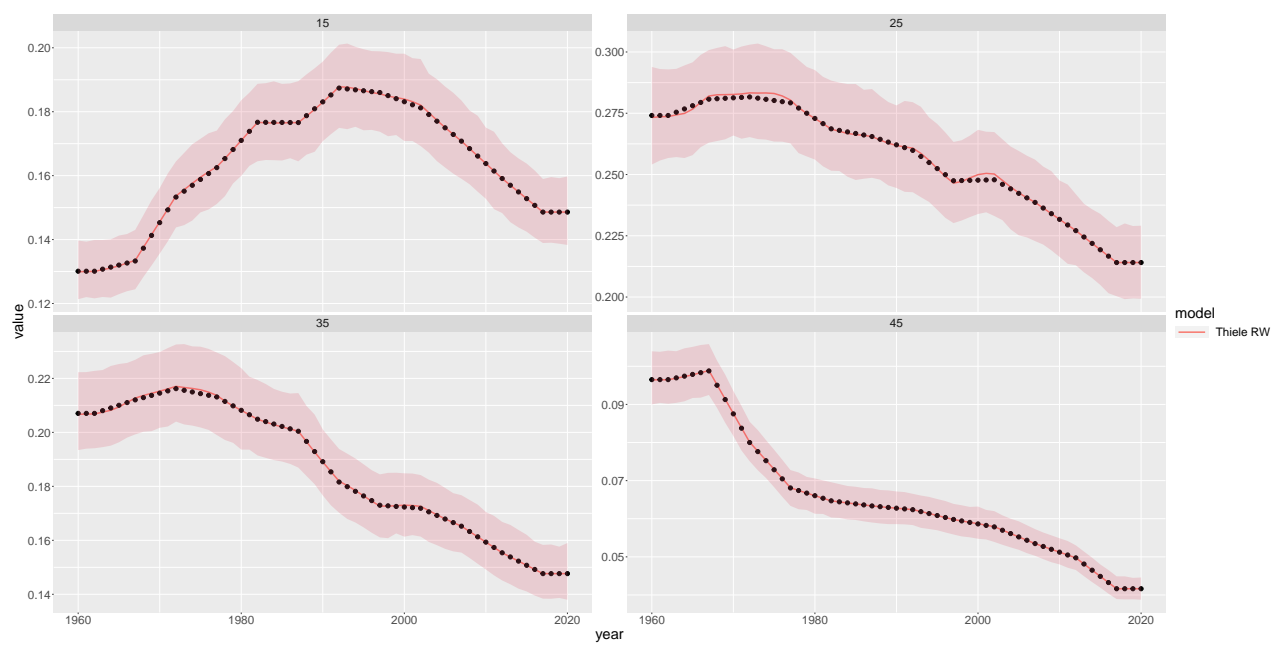


Figure 21: Fertility