Angola

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

```
## # A tibble: 86 x 2
##      age  `2014`
##    <dbl>   <dbl>
##  1     0 438929
##  2     1 529096.
##  3     2 512564
##  4     3 503159.
##  5     4 482890.
##  6     5 467691.
##  7     6 444757.
##  8     7 420007.
##  9     8 395598
## 10     9 371973.
## # ... with 76 more rows
```

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

```
## # A tibble: 18 x 1
##      age
##    <dbl>
##  1     0
##  2     5
##  3    10
##  4    15
##  5    20
##  6    25
##  7    30
##  8    35
##  9    40
## 10    45
## 11    50
## 12    55
## 13    60
## 14    65
## 15    70
## 16    75
## 17    80
## 18    85
```

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

```
## # A tibble: 86 x 2
##      age  `2014`
##    <dbl>   <dbl>
##  1     0 435201
##  2     1 523750.
##  3     2 506322.
##  4     3 496824.
##  5     4 476364.
##  6     5 461347.
```

```
##  7     6 438334.
##  8     7 412996.
##  9     8 388362.
## 10     9 364539.
## # ... with 76 more rows
```

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

```
## # A tibble: 18 x 1
##      age
##    <dbl>
##  1     0
##  2     5
##  3    10
##  4    15
##  5    20
##  6    25
##  7    30
##  8    35
##  9    40
## 10    45
## 11    50
## 12    55
## 13    60
## 14    65
## 15    70
## 16    75
## 17    80
## 18    85
```

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
##        3.977869955        5.295973531        3.773110439        5.177443371        6.941731663       12
##      log_lambda_tp           tp_slope        tp_params_5       tp_params_10     log_lambda_phi     log_
##        3.086422804        0.008764089        0.151008020        0.441527542       11.340304285       11
##  log_lambda_lambda   log_lambda_delta log_lambda_epsilon
##        4.476877601        8.501524048        8.524577564
```

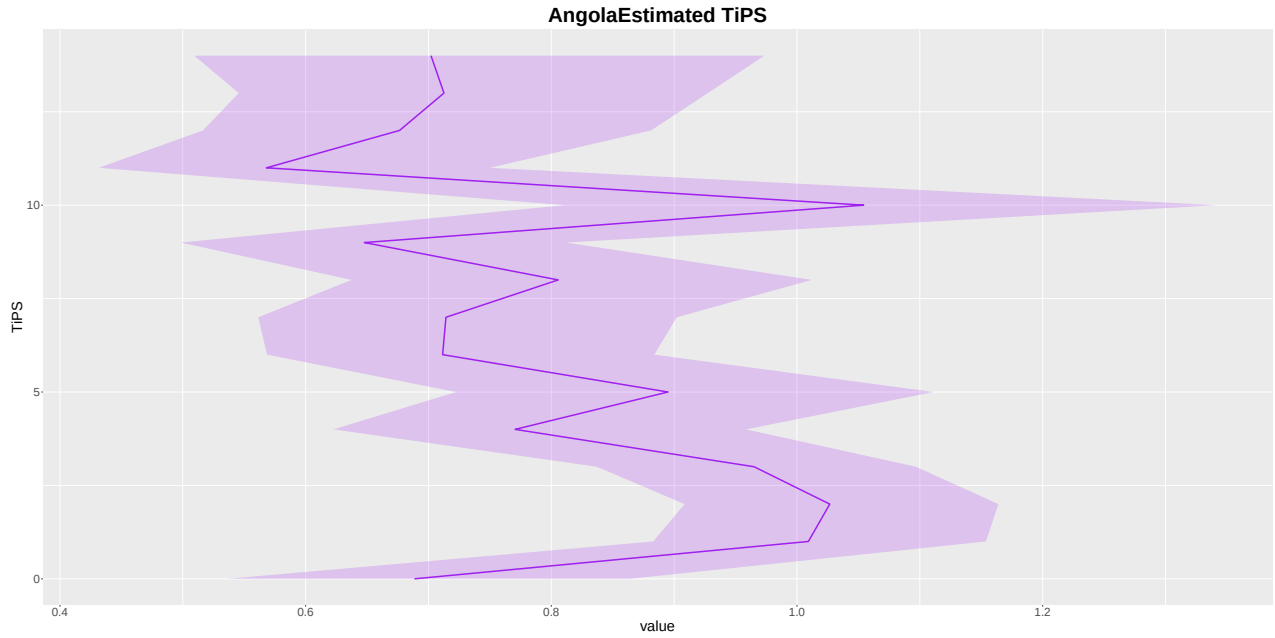

Figure 1: Estimated TiPS

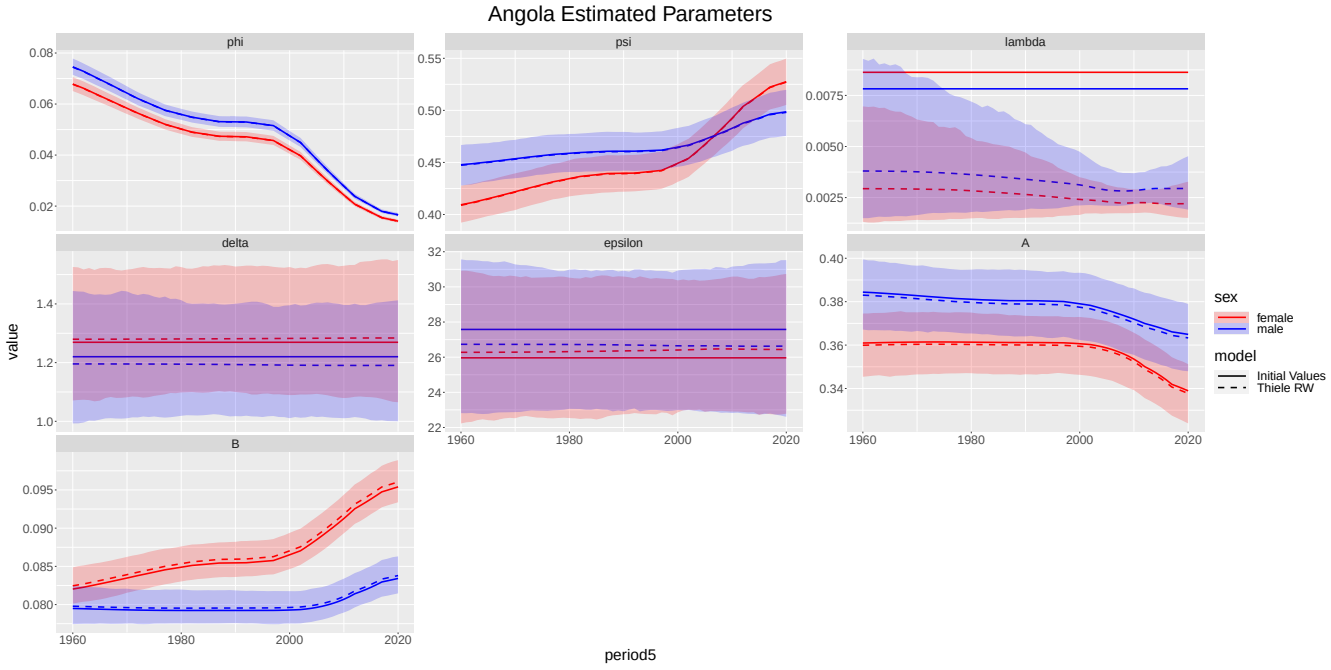

Figure 2: Estimated parameters

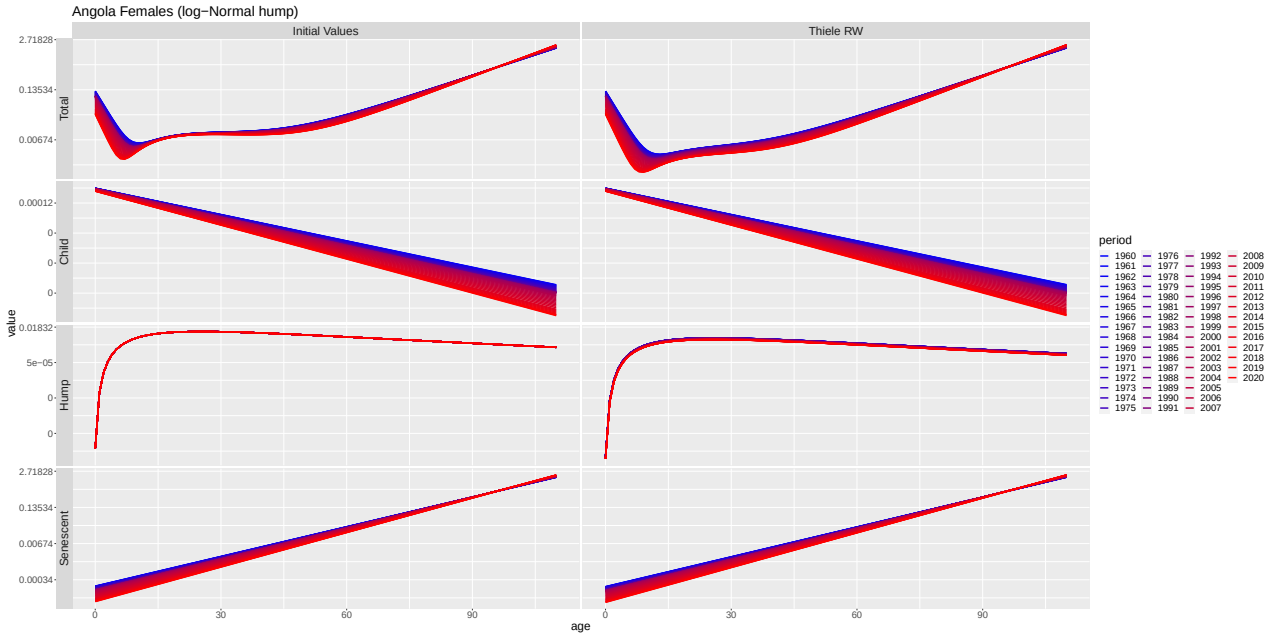

Figure 3: Thiele Decomposed

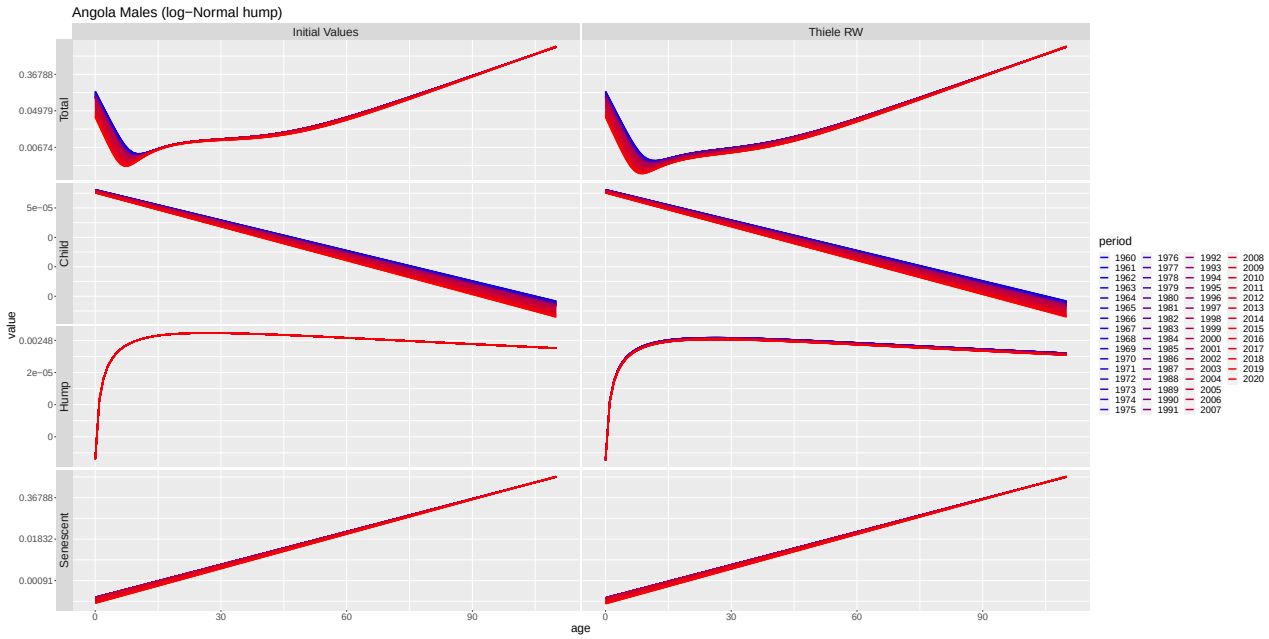

Figure 4: Thiele Decomposed

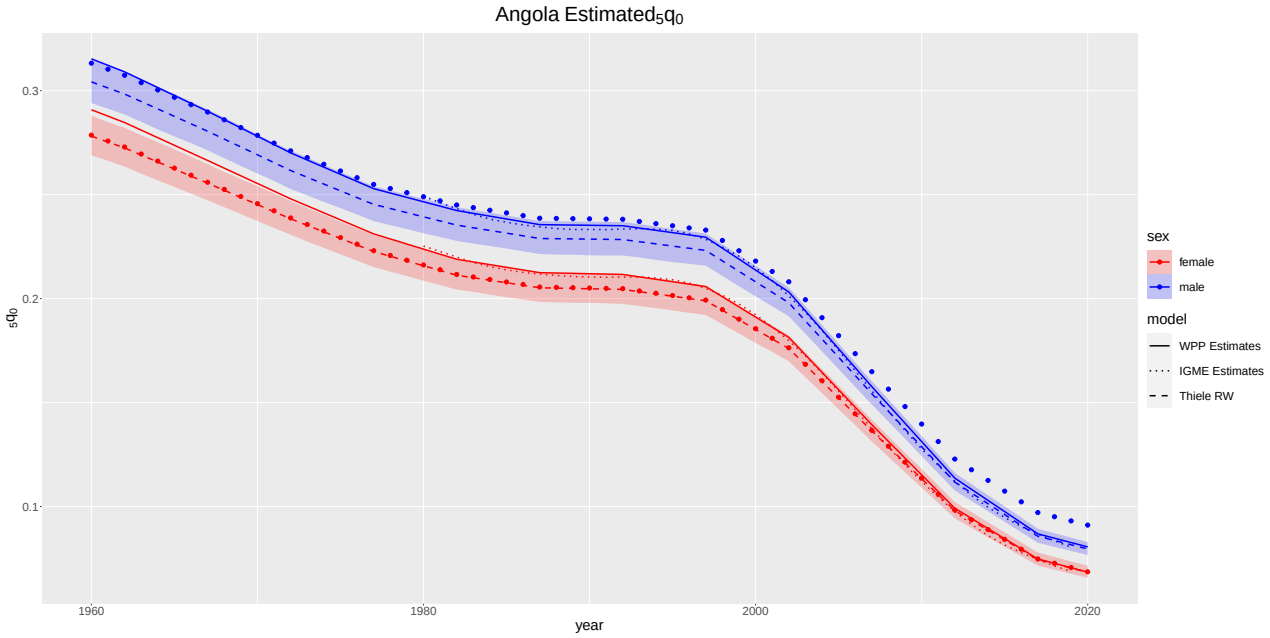

Figure 5: Estimated $_5q_0$

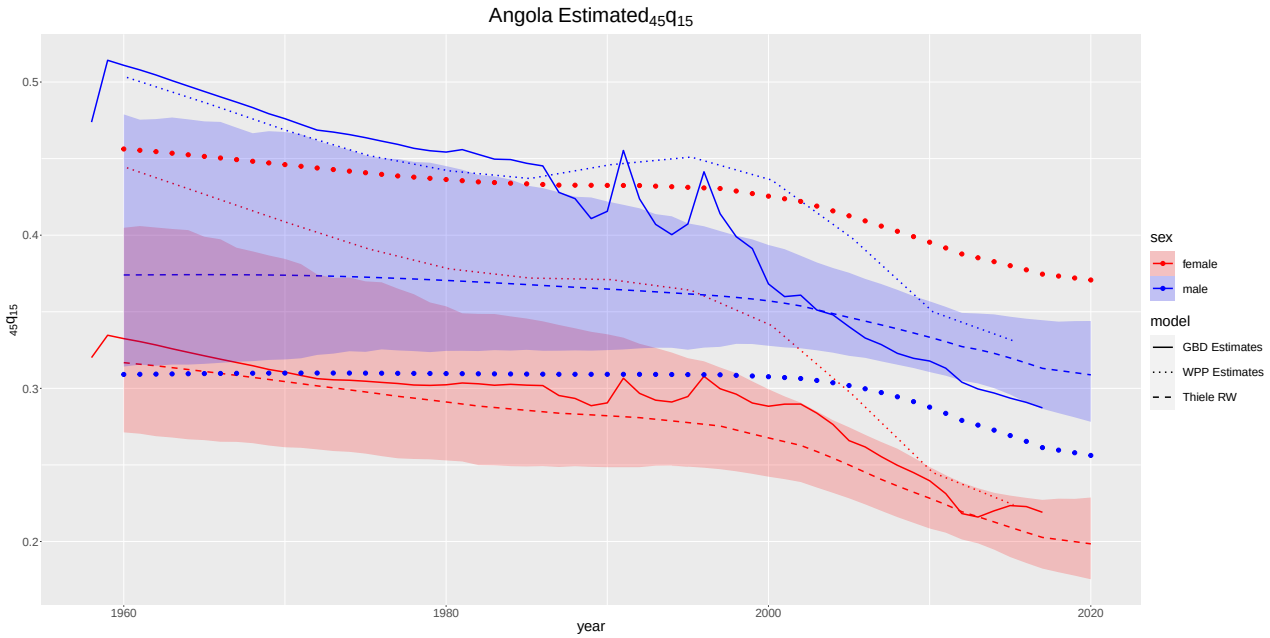

Figure 6: Estimated $_{45}q_{15}$

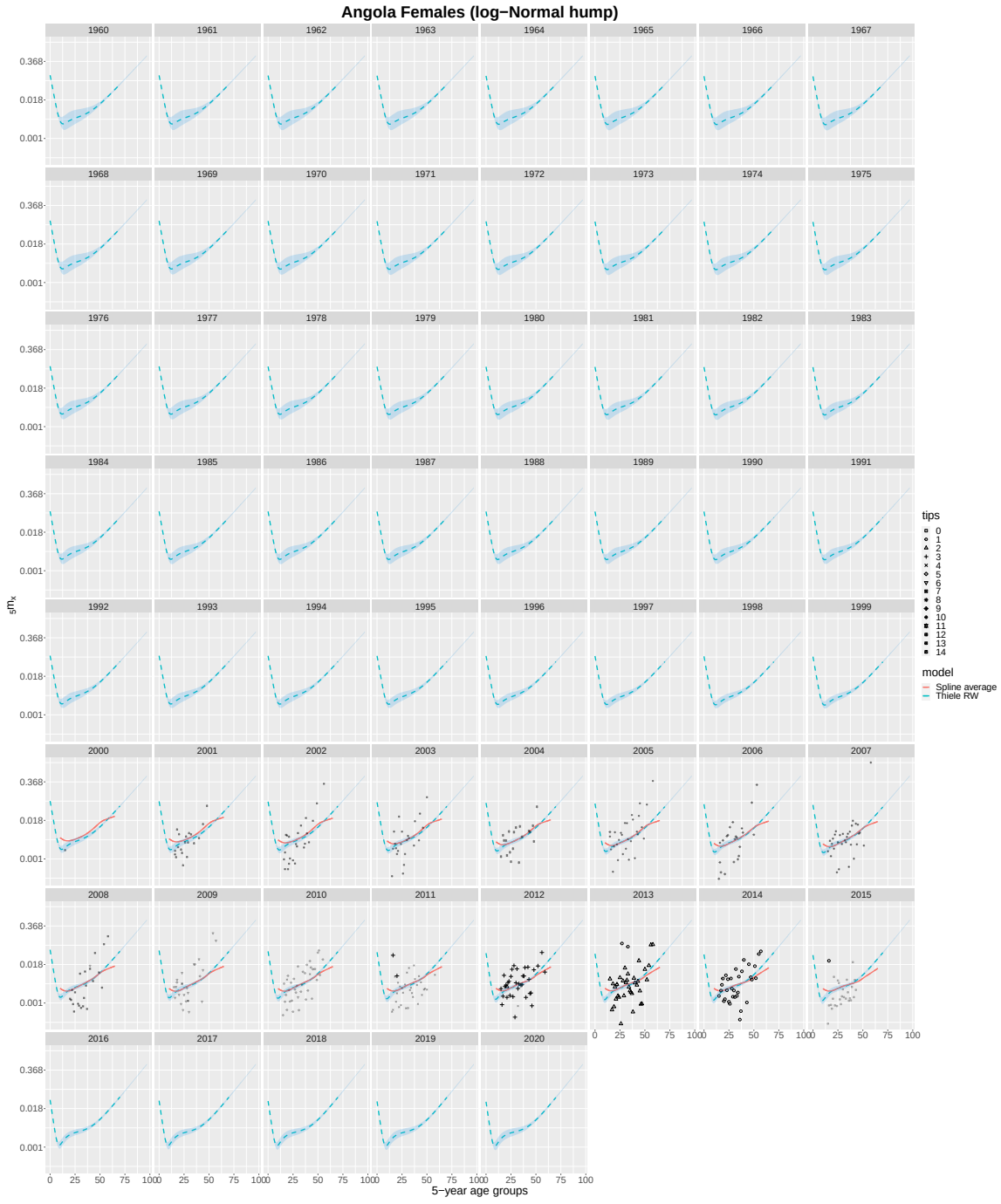

Figure 7: Mortality Schedules

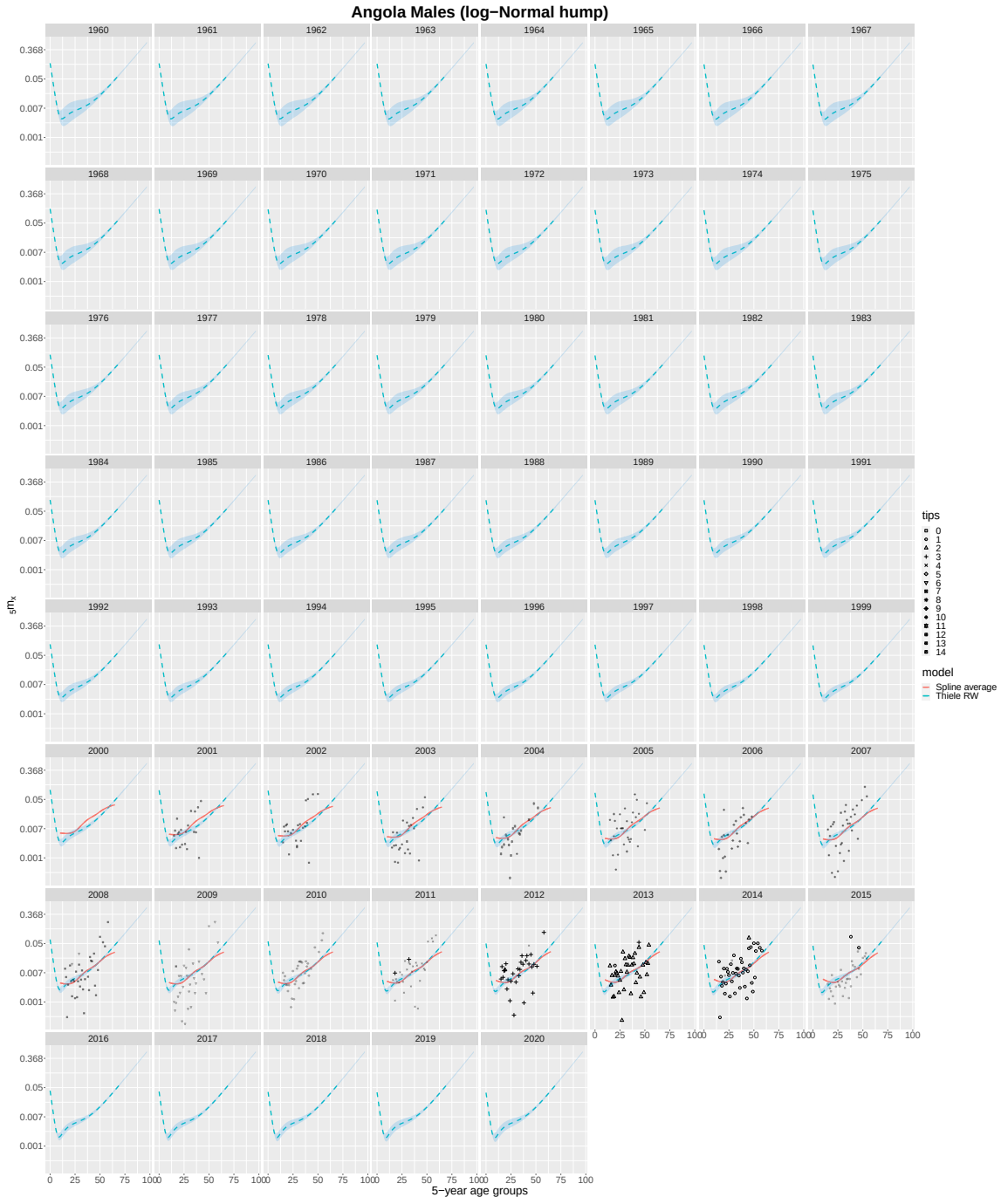

Figure 8: Mortality Schedules

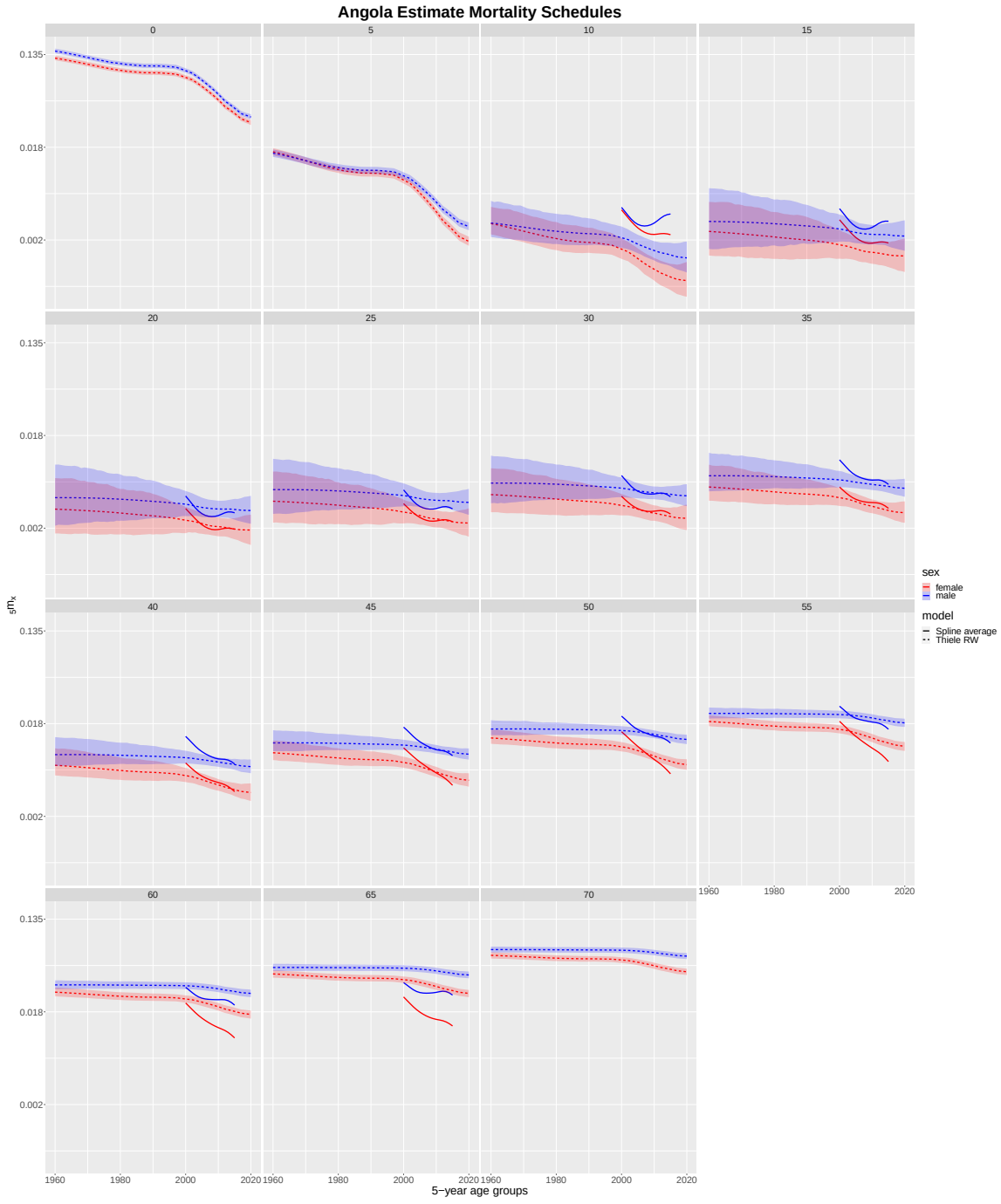

Figure 9: Mortality Schedules

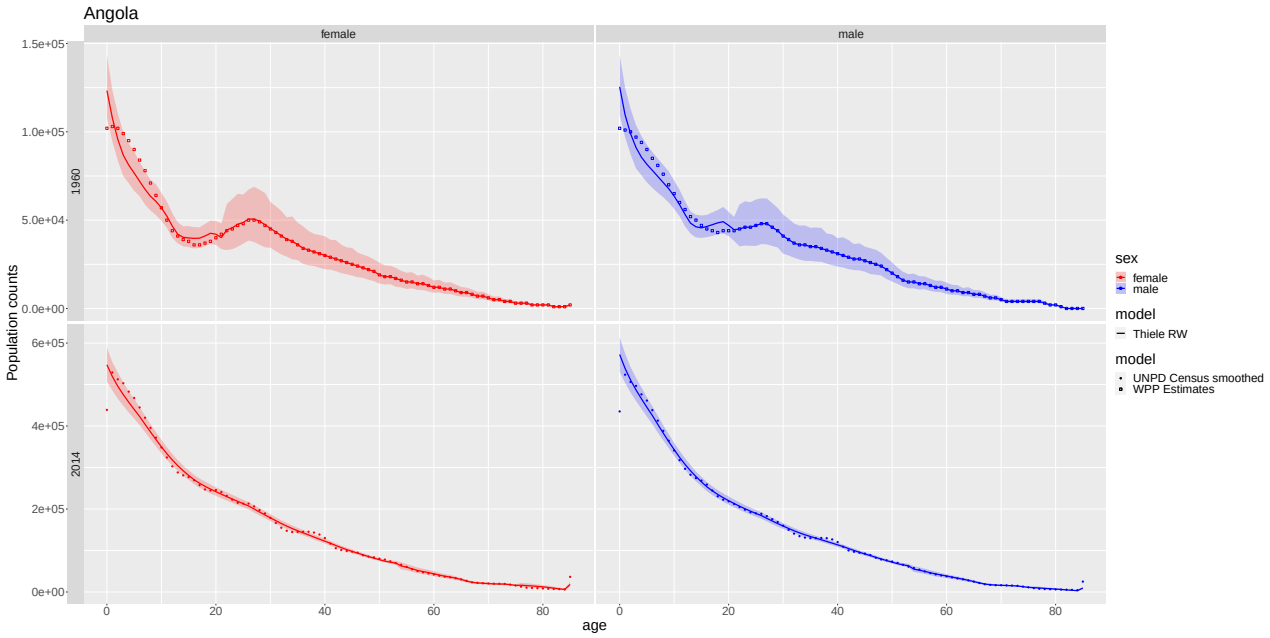

Figure 10: Population

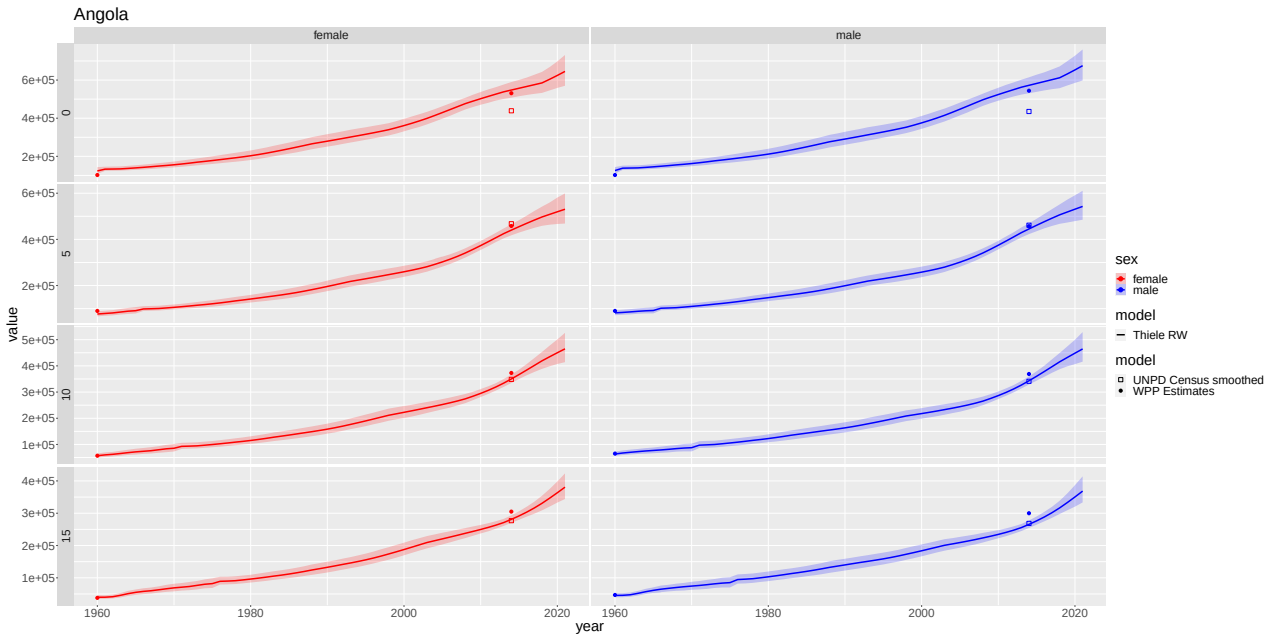

Figure 11: Population

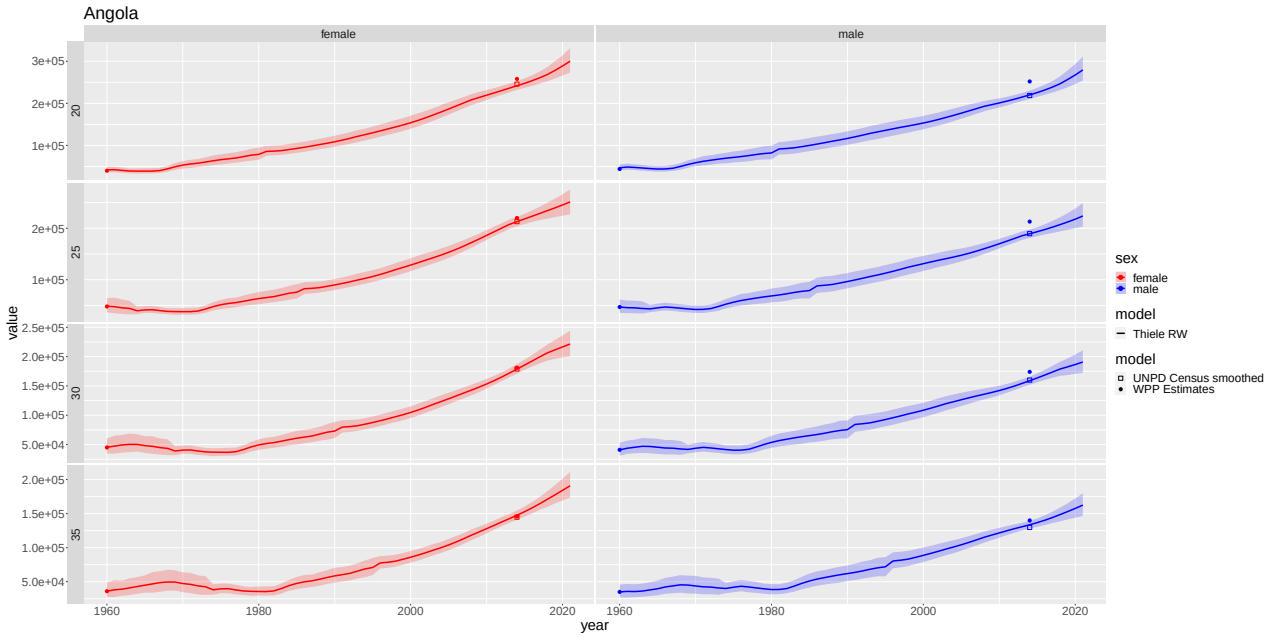

Figure 12: Population

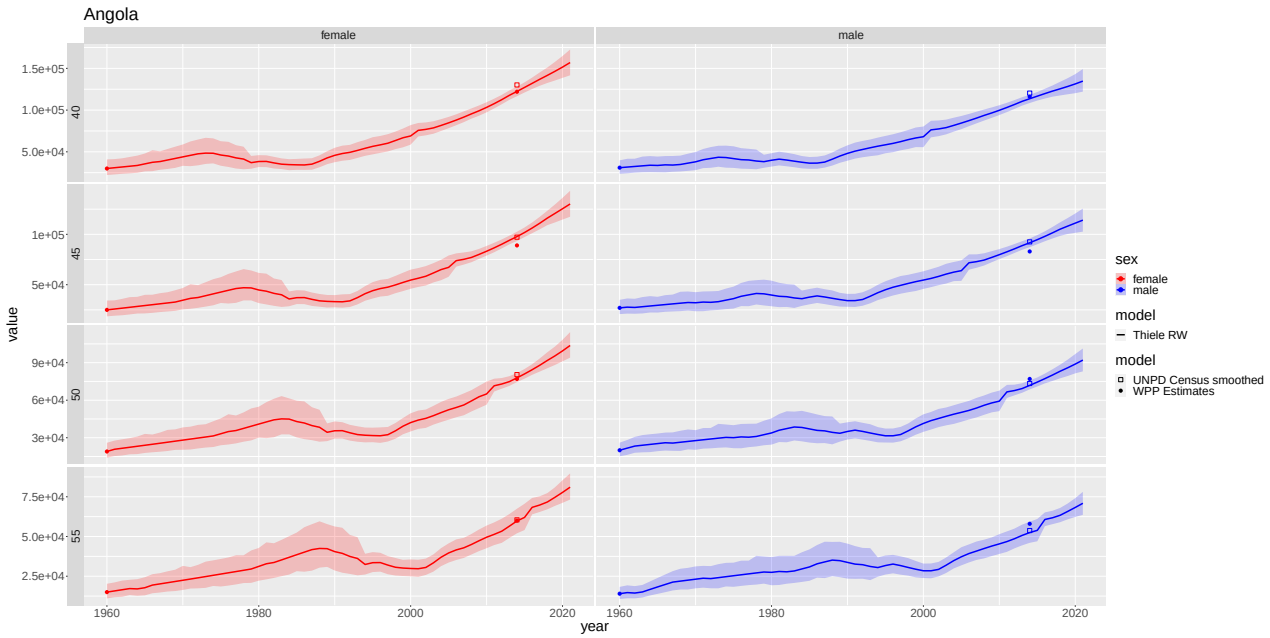

Figure 13: Population

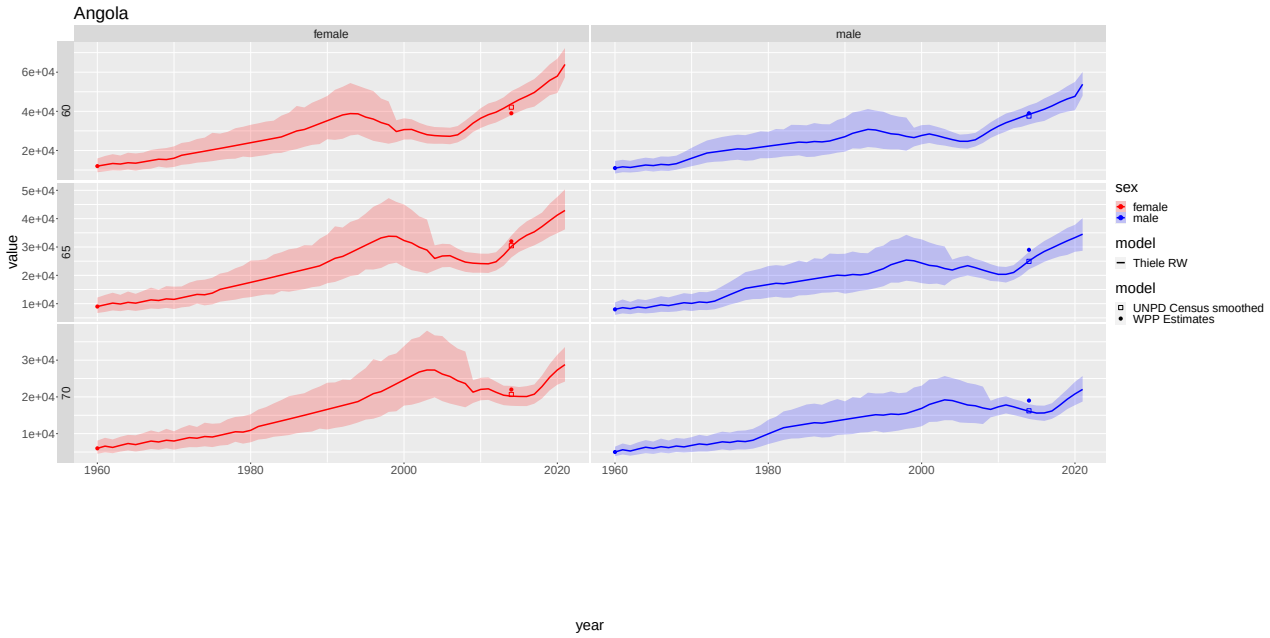

Figure 14: Population

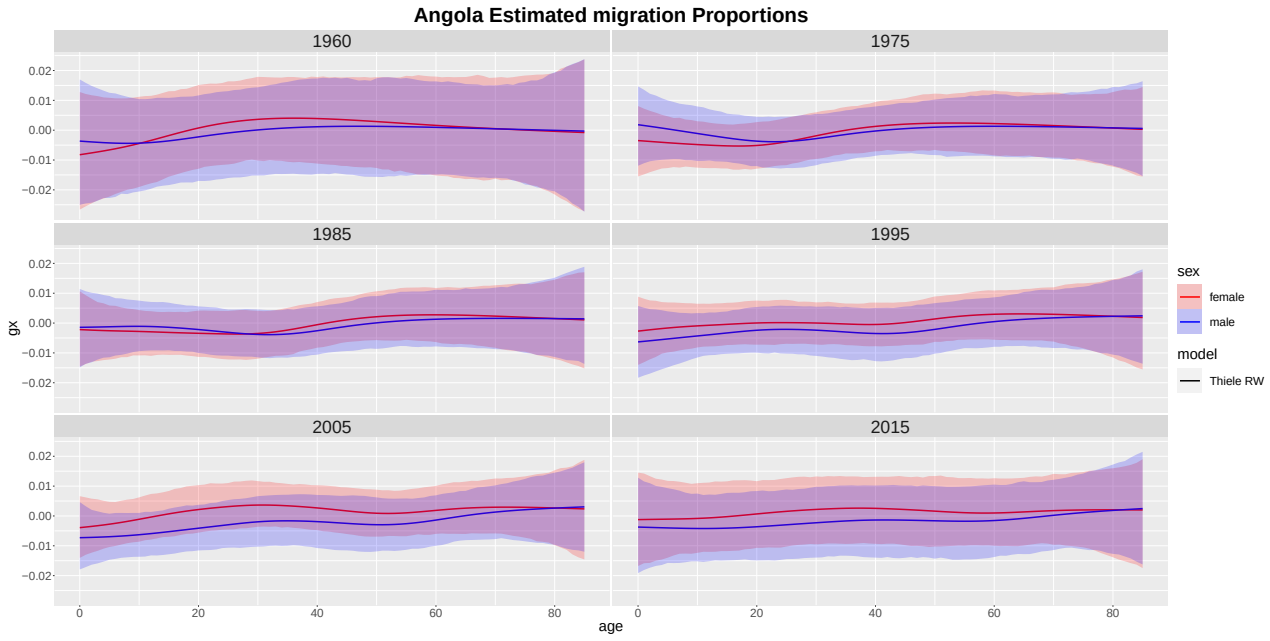

Figure 15: Migration

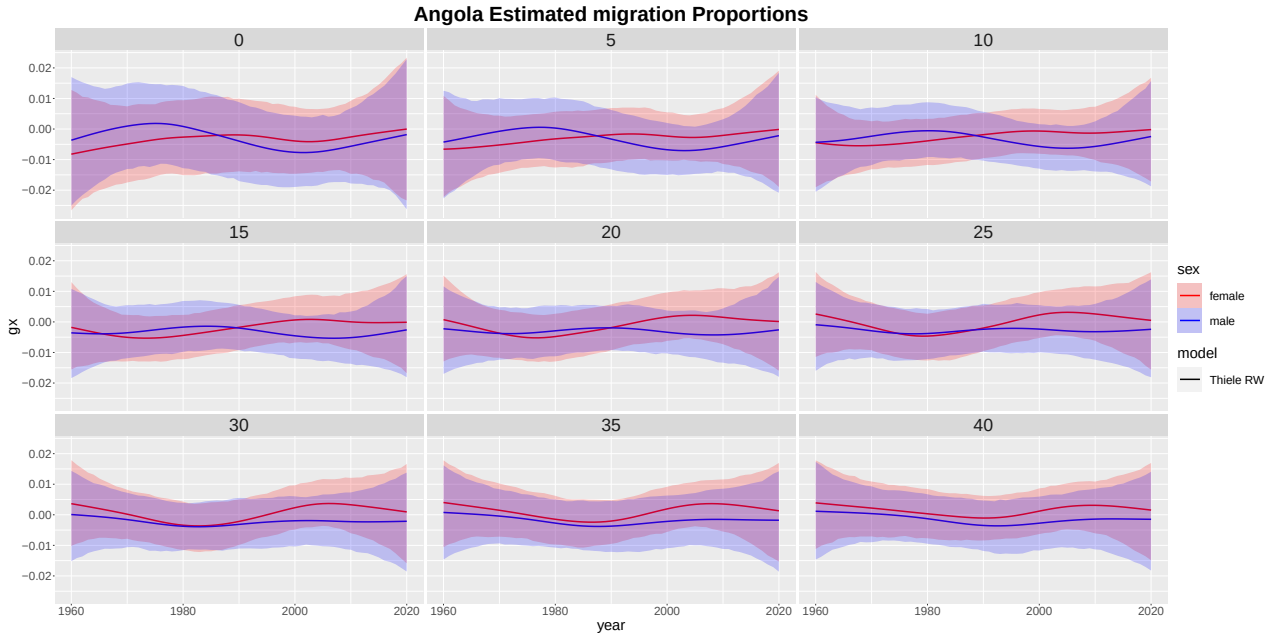

Figure 16: Migration

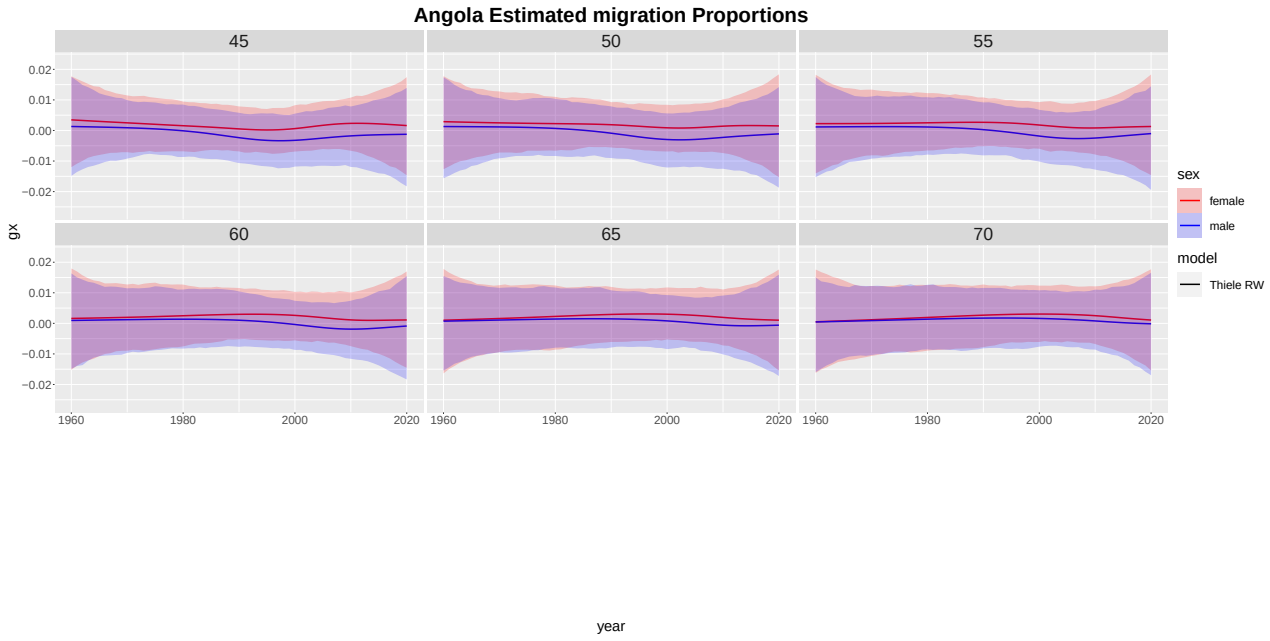

Figure 17: Migration

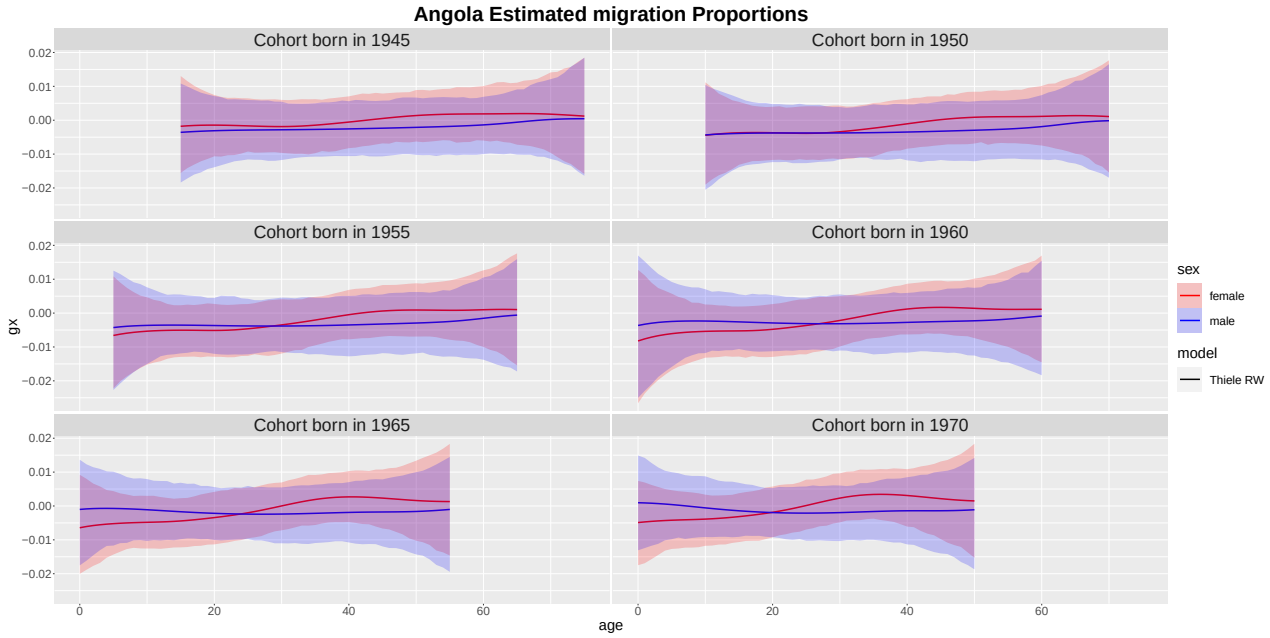

Figure 18: Migration

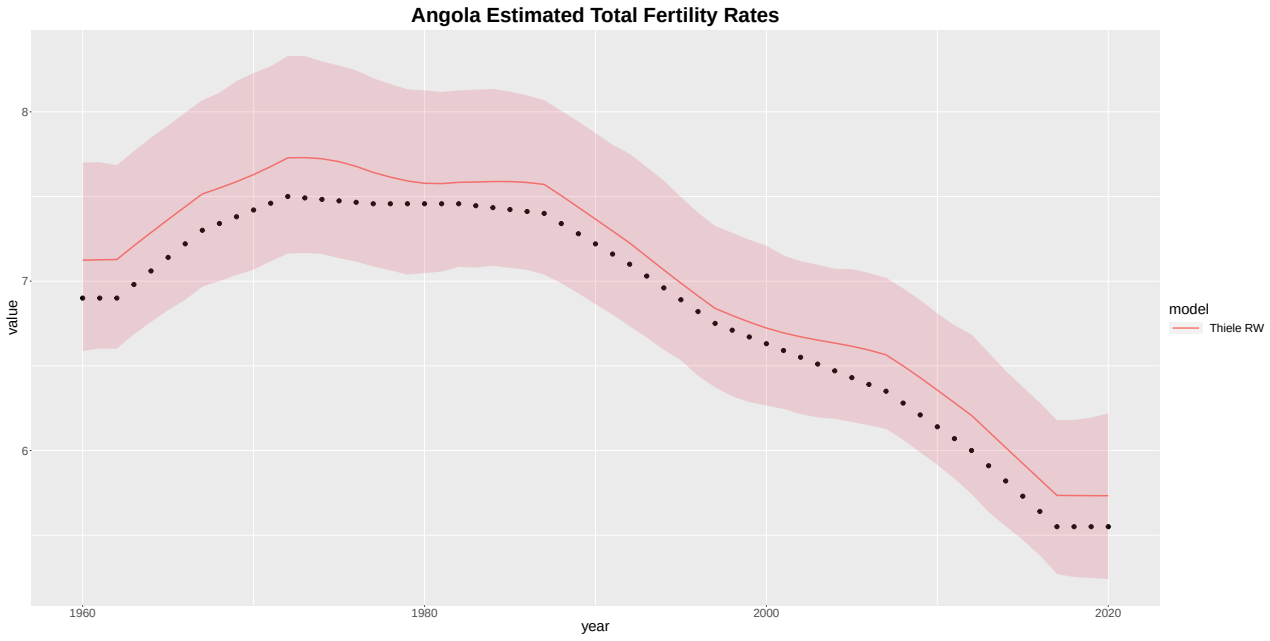

Figure 19: Total Fertility

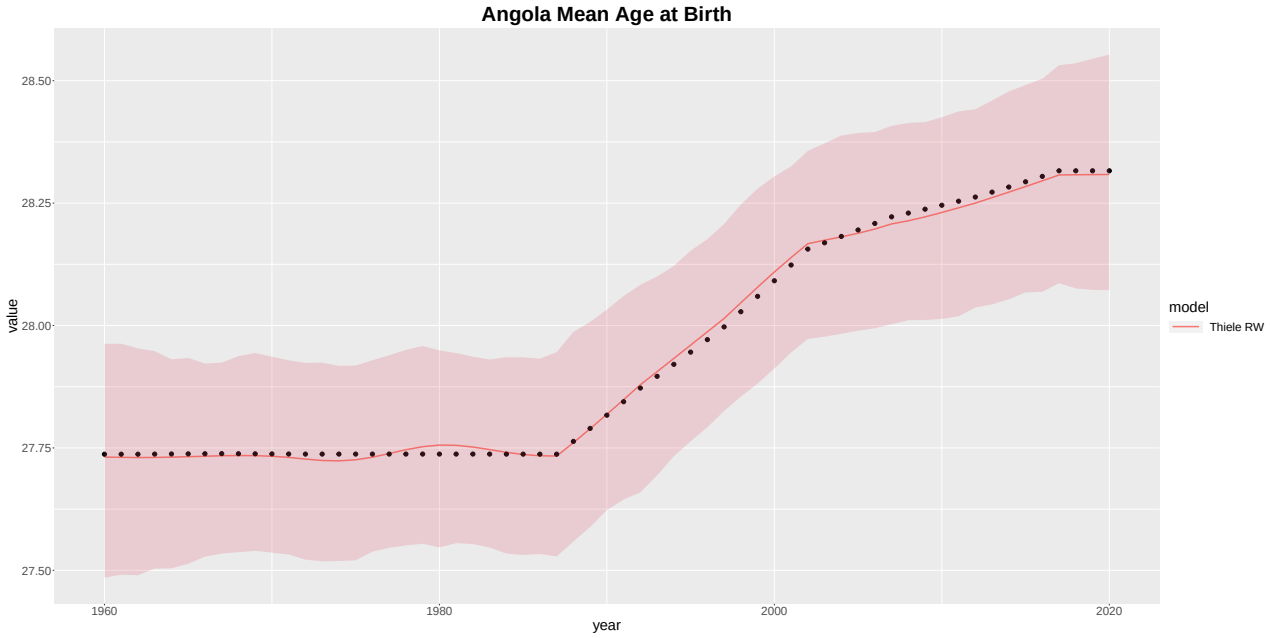

Figure 20: Mean age at births

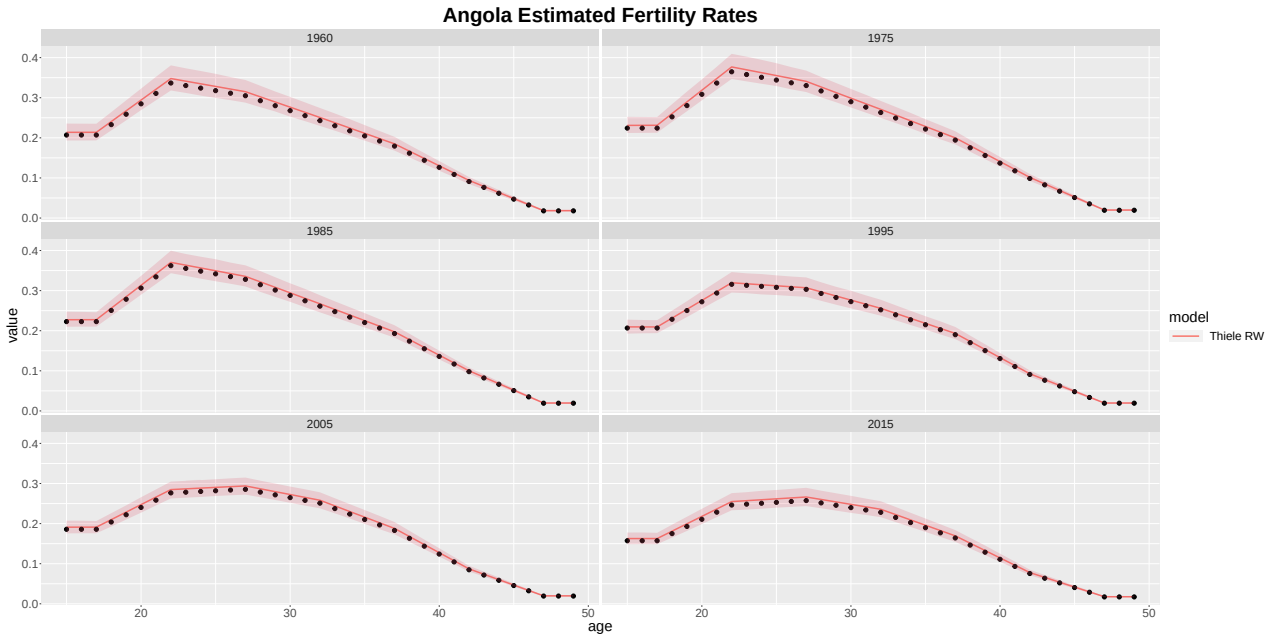

Figure 21: Fertility

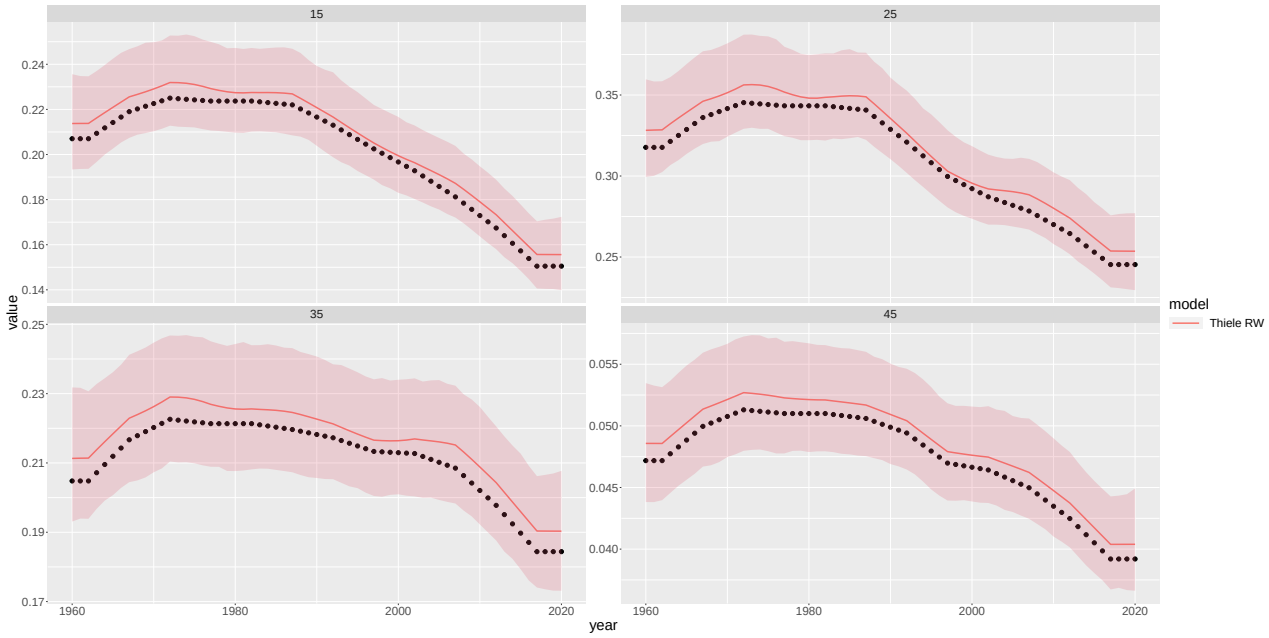

Figure 22: Fertility