

Cote d'Ivoire

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

## # A tibble: 86 x 3
##   age `1988` `2014`
##   <dbl>   <dbl>   <dbl>
## 1     0 203715. 386588.
## 2     1 216006. 356228.
## 3     2 211959. 355154.
## 4     3 206630. 352861.
## 5     4 197217. 344867.
## 6     5 187519. 336808.
## 7     6 179099. 325250.
## 8     7 169648. 311682.
## 9     8 158120. 290503.
## 10    9 144149. 273050.
## # ... with 76 more rows

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

## # A tibble: 18 x 2
##   age `1975`
##   <dbl>   <dbl>
## 1     0 621138.
## 2     5 492509.
## 3    10 368542.
## 4    15 316352.
## 5    20 304252.
## 6    25 276639.
## 7    30 227829.
## 8    35 177208.
## 9    40 135509.
## 10   45 101617.
## 11   50  74754.
## 12   55  53300.
## 13   60  38404.
## 14   65  26807.
## 15   70  17664.
## 16   75  10813.
## 17   80   7739.
## 18   85   9920.

## [1] "Census Males"

## # A tibble: 86 x 3
##   age `1988` `2014`
##   <dbl>   <dbl>   <dbl>
## 1     0 208188. 405054.
## 2     1 223072. 381633.
## 3     2 218092. 381733.
## 4     3 212491. 376098.
## 5     4 203051. 367851.
## 6     5 194179. 360663.
```

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## 7      6 186365. 347207.
## 8      7 176866. 331785.
## 9      8 164900. 309458.
## 10     9 150569. 294758.
## # ... with 76 more rows
```

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

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

```
##   age `1975`
##   <dbl>   <dbl>
```

```
## 1      0 636967.
## 2      5 523312.
## 3     10 394231.
## 4     15 319030.
## 5     20 302633.
## 6     25 280540.
## 7     30 237963.
## 8     35 199308.
## 9     40 166025.
## 10    45 132220.
## 11    50 100558.
## 12    55  73855.
## 13    60  51653.
## 14    65  33245.
## 15    70  20052.
## 16    75  10866.
## 17    80   5920.
## 18    85   8558.
```

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
##	4.54650163	5.50099757	4.12433236	5.09333769	3.71953675	1
##	log_lambda_tp	tp_slope	tp_params_5	tp_params_10	log_lambda_phi	log
##	3.69791405	-0.03343021	0.31159119	0.71512374	12.61154492	1
##	log_lambda_lambda	log_lambda_delta	log_lambda_epsilon			
##	3.82704960	8.46711014	5.86875134			

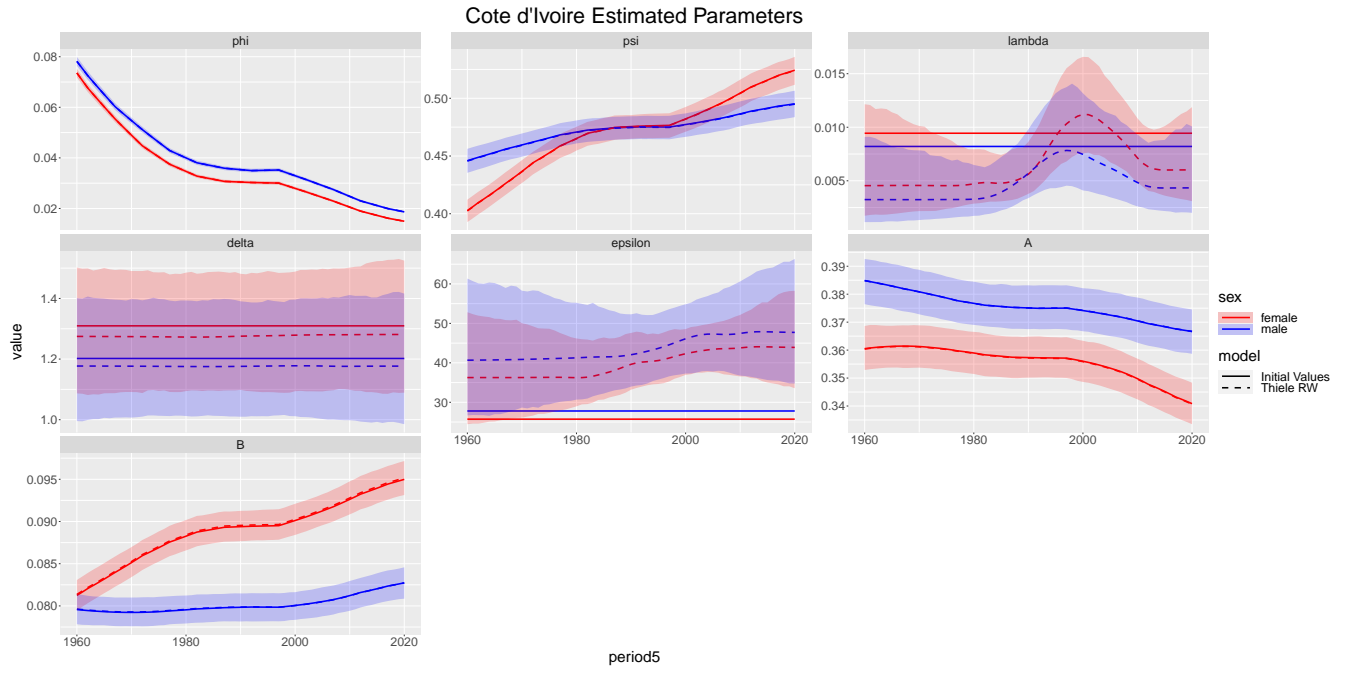


Figure 1: Estimated parameters

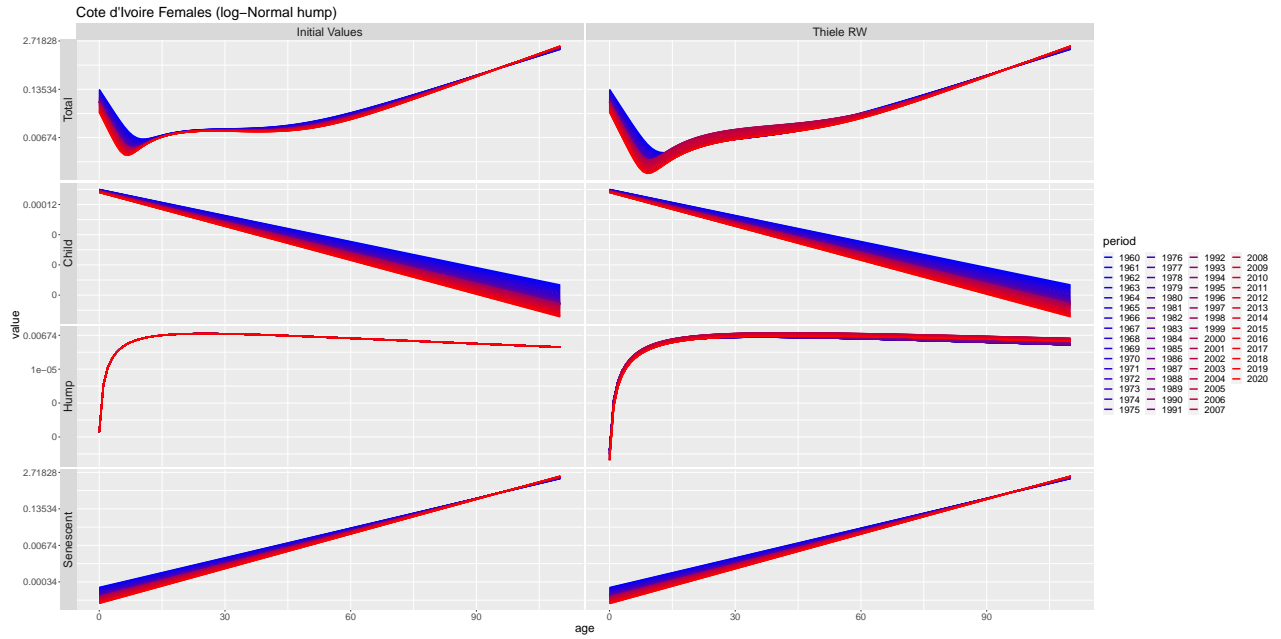


Figure 2: Thiele Decomposed

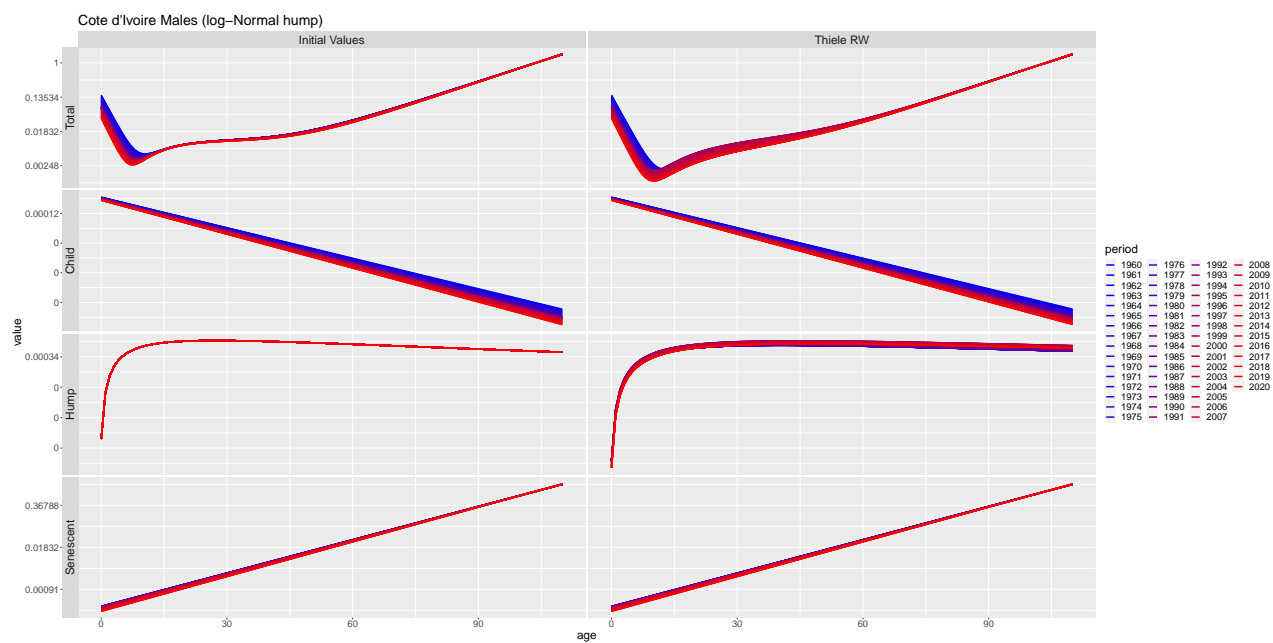


Figure 3: Thiele Decomposed

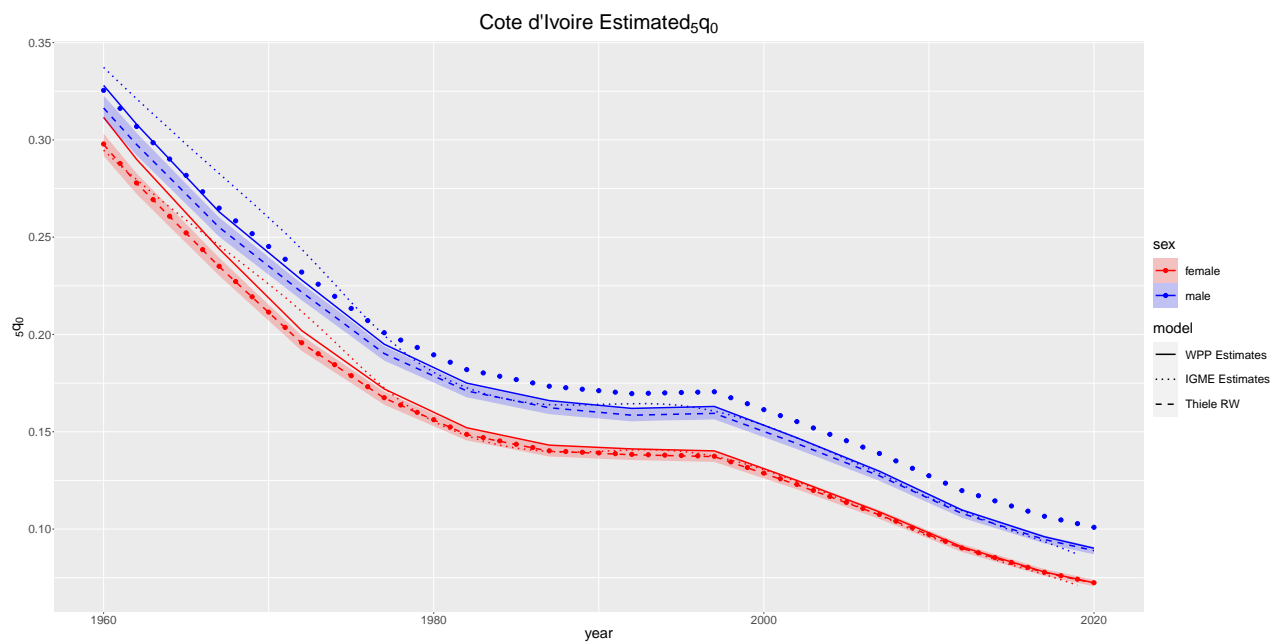


Figure 4: Estimated ${}_5q_0$

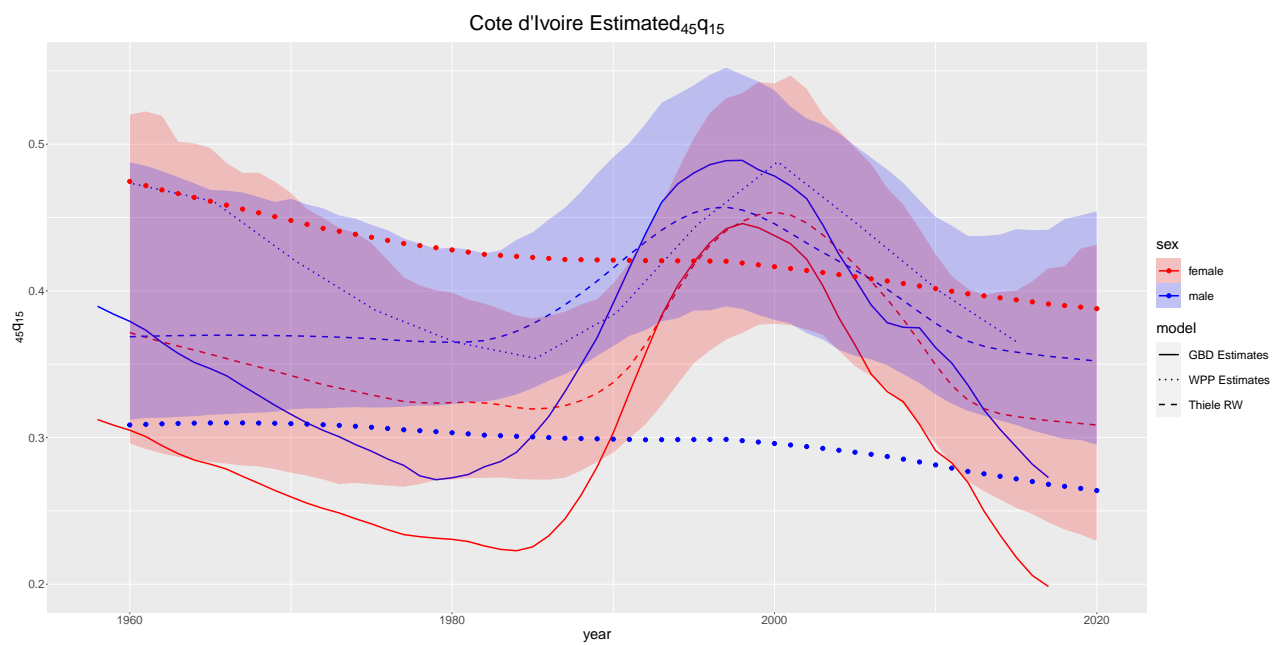


Figure 5: Estimated $_{45}q_{15}$

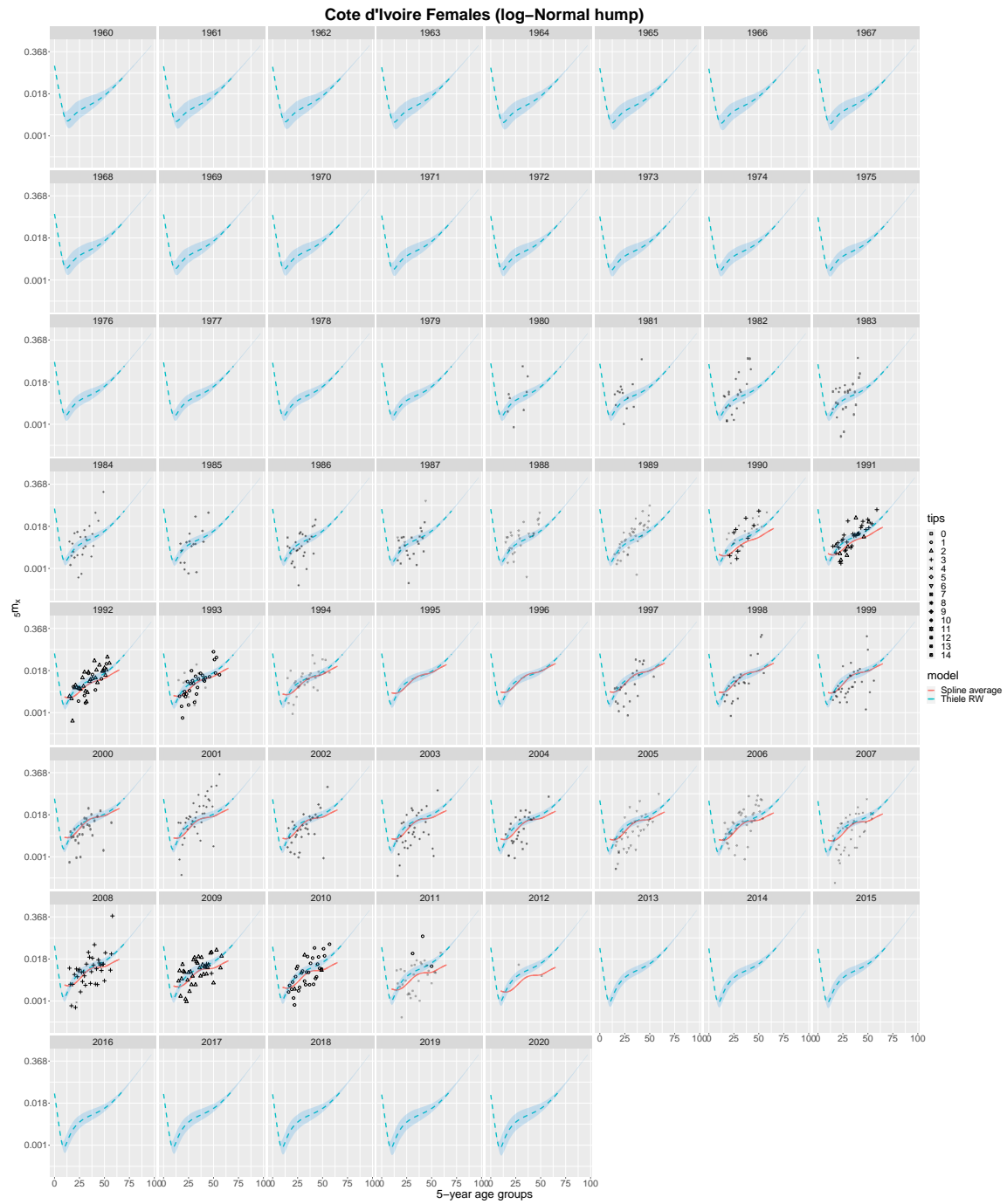


Figure 6: Mortality Schedules

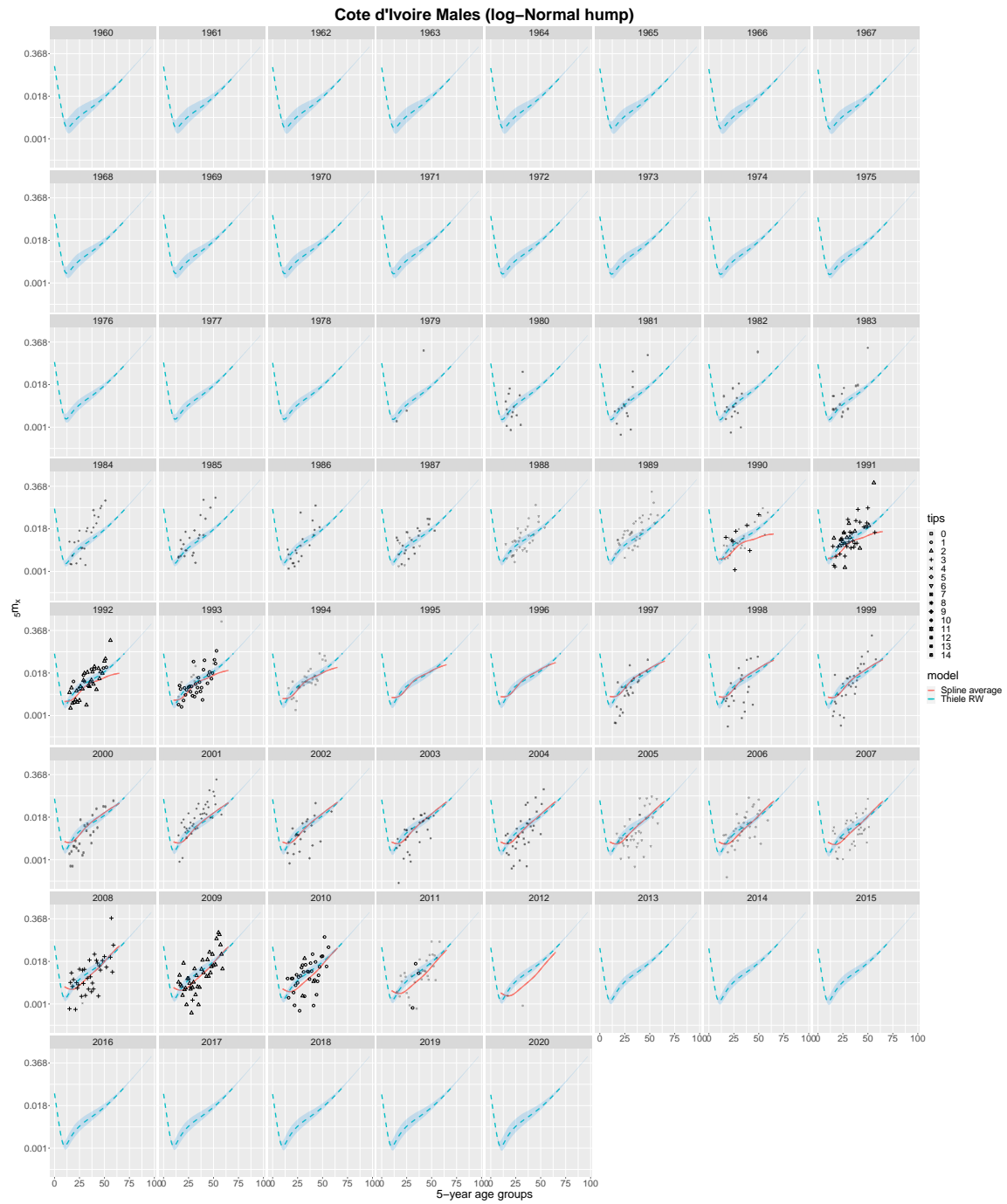


Figure 7: Mortality Schedules

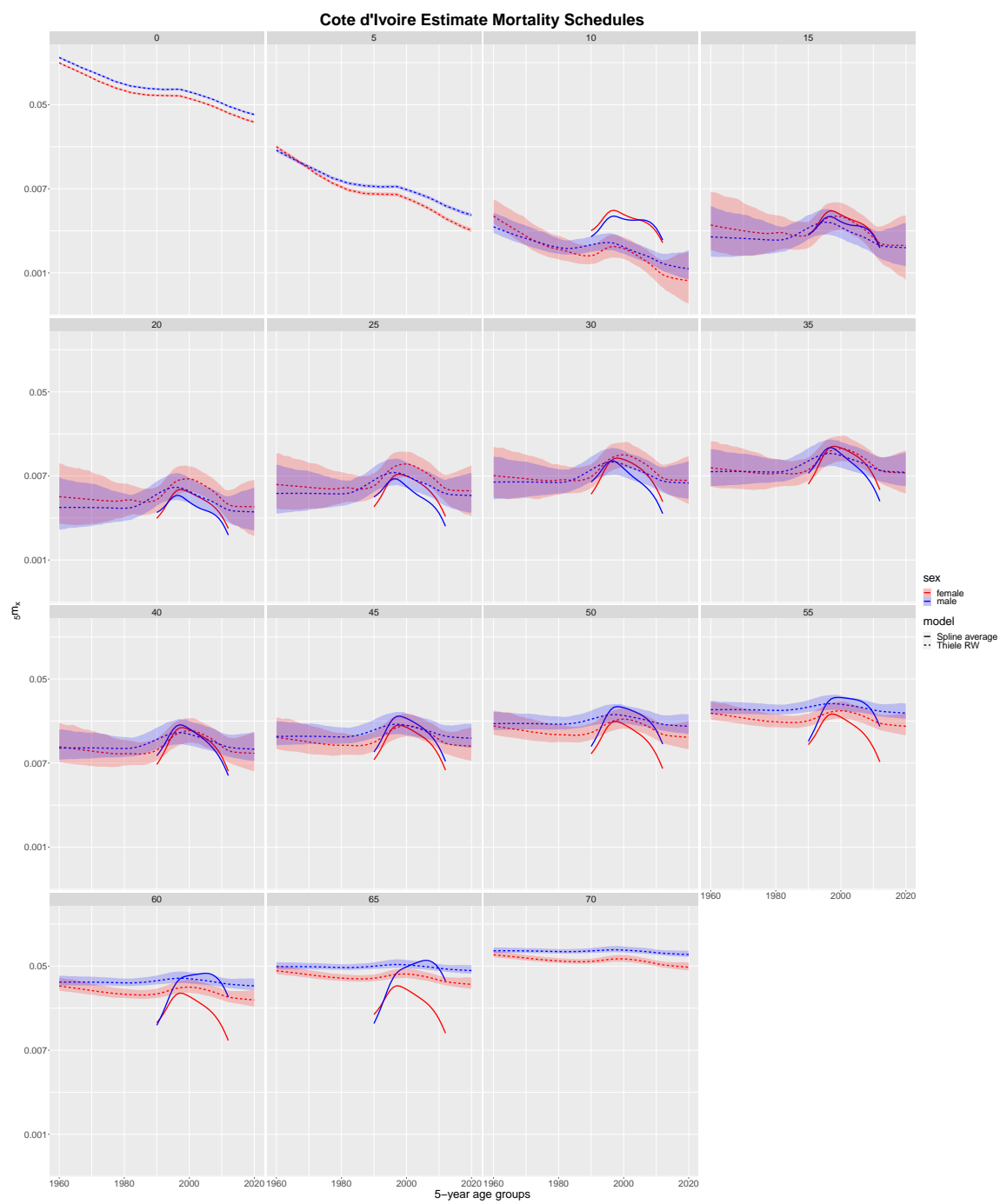


Figure 8: Mortality Schedules

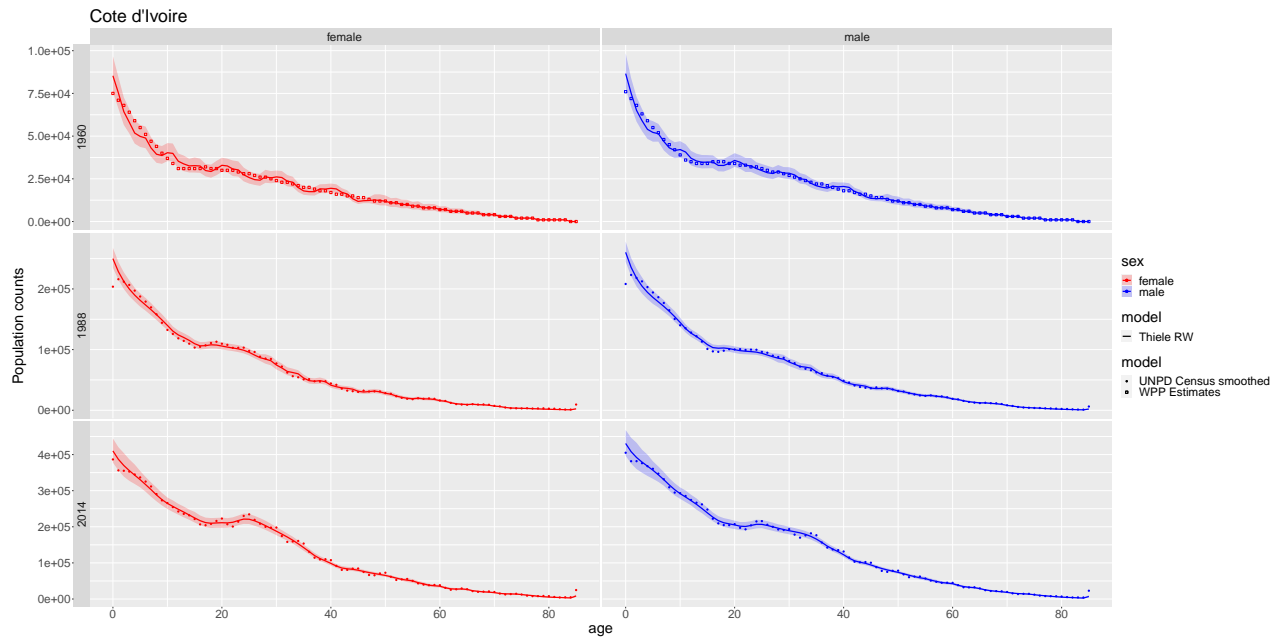


Figure 9: Population

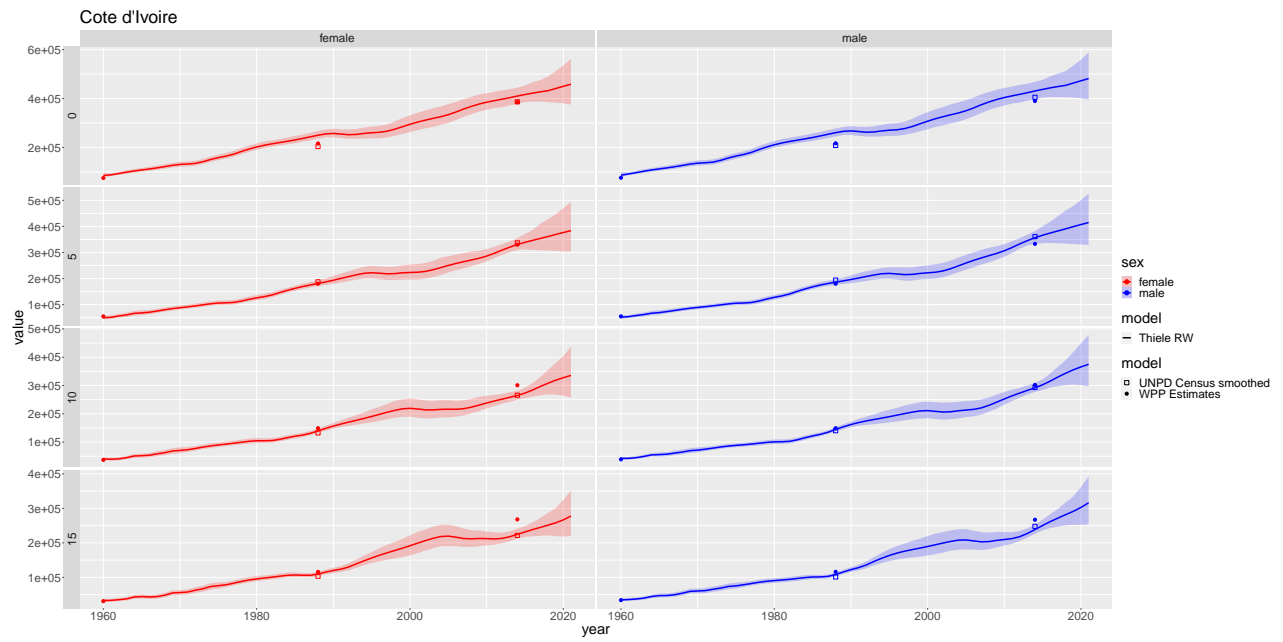


Figure 10: Population

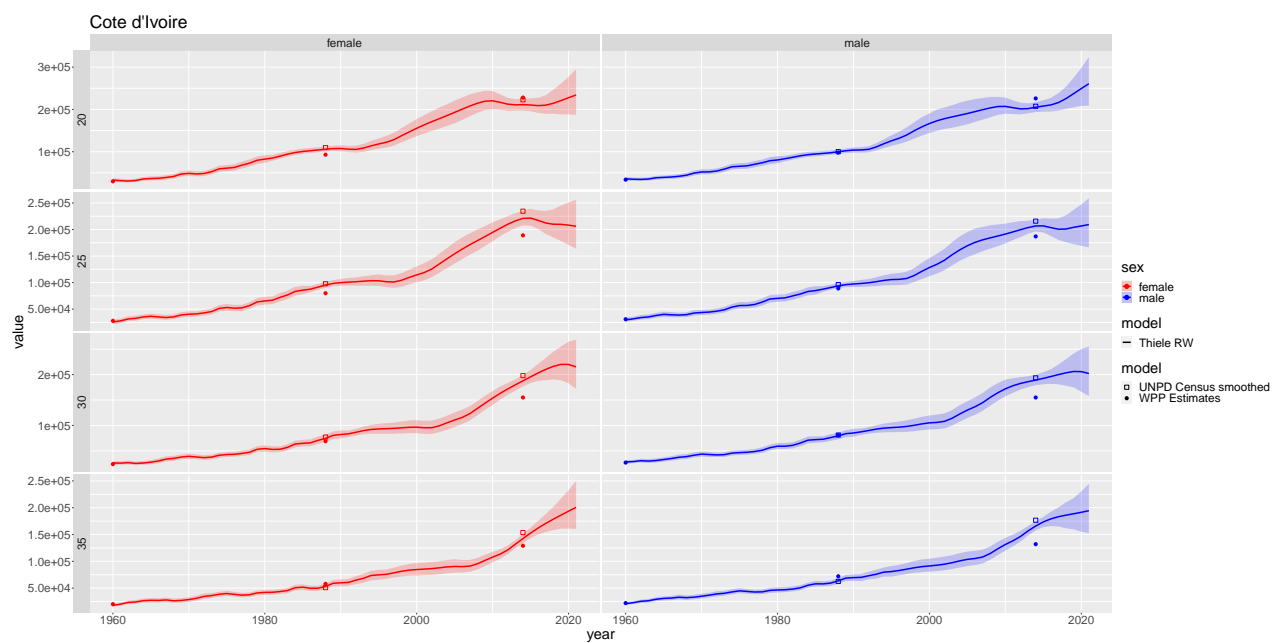


Figure 11: Population



Figure 12: Population

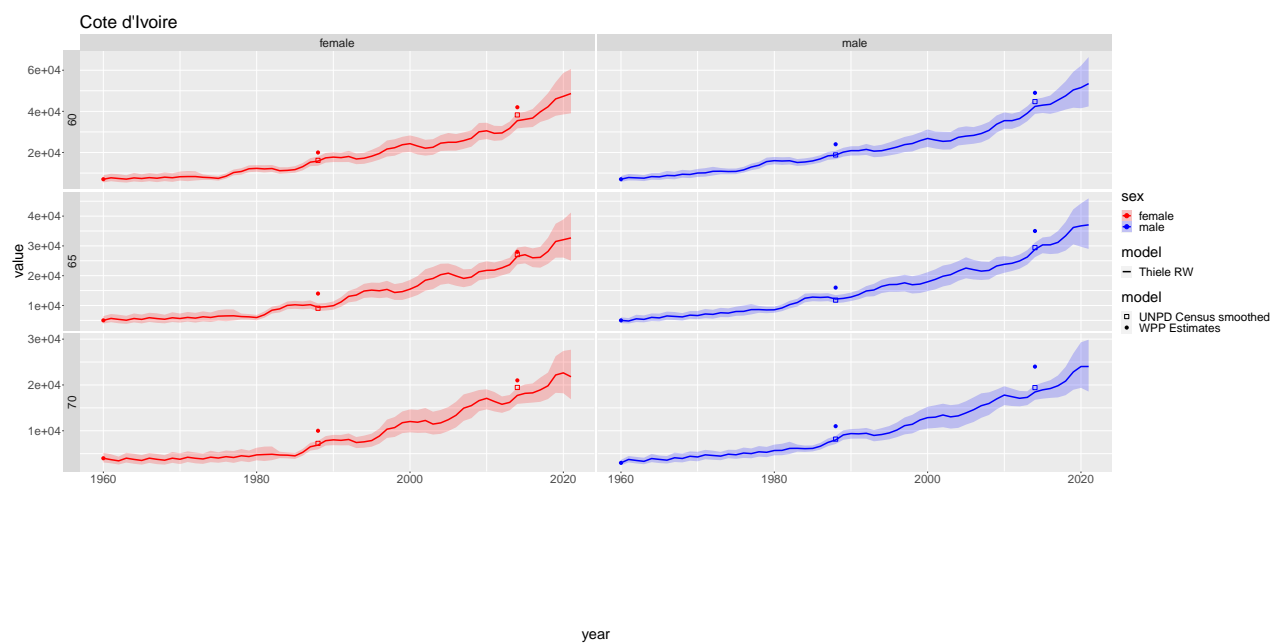


Figure 13: Population

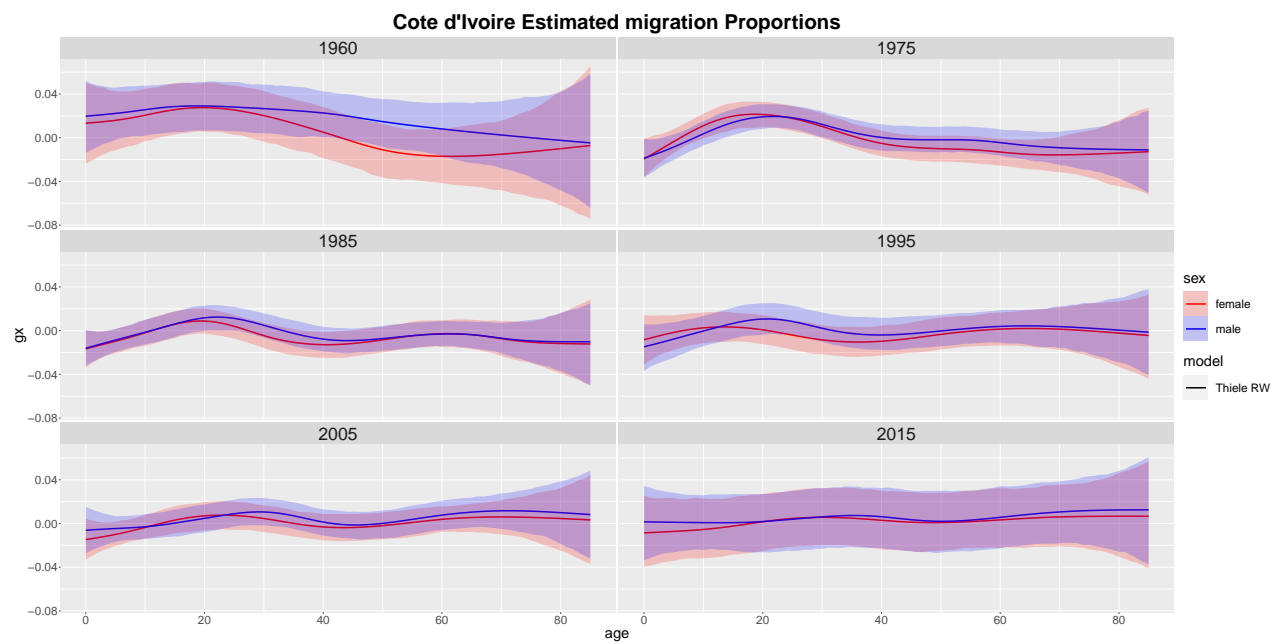


Figure 14: Migration

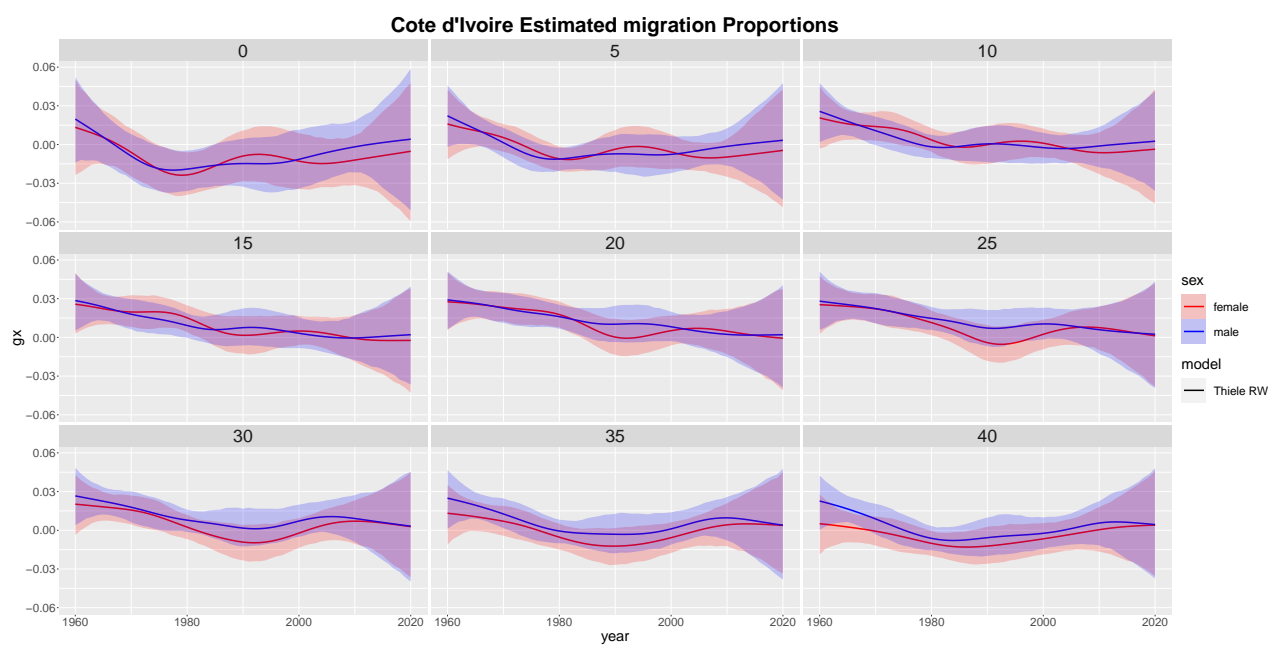


Figure 15: Migration

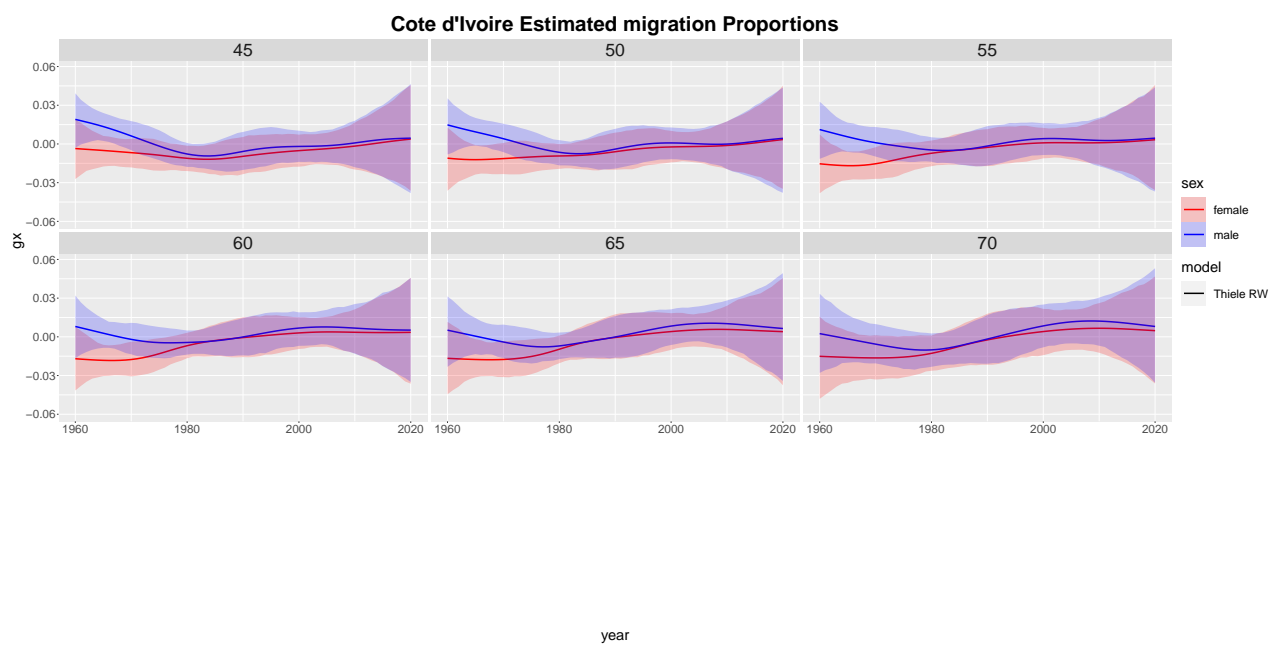


Figure 16: Migration

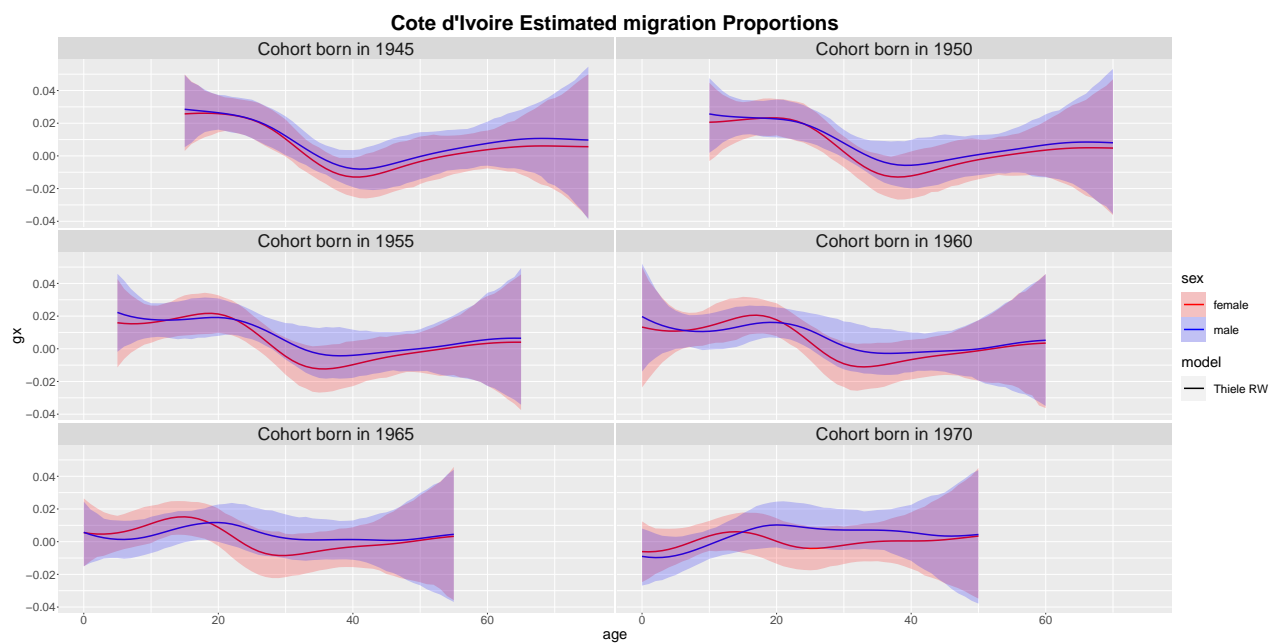


Figure 17: Migration

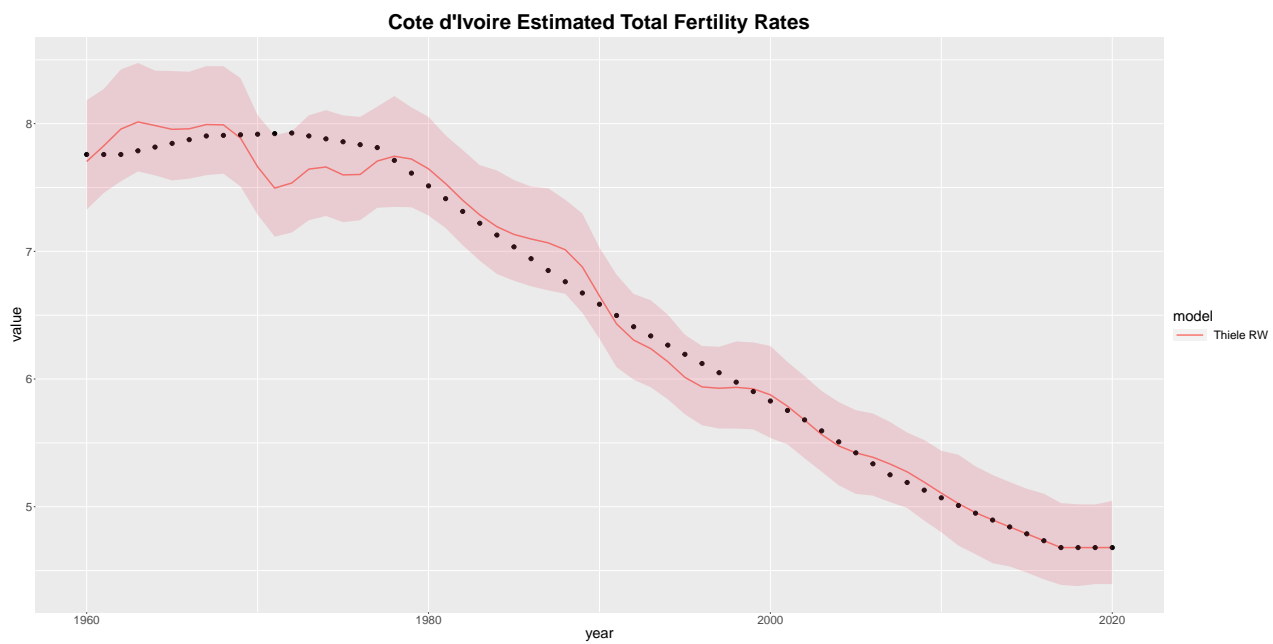


Figure 18: Total Fertility

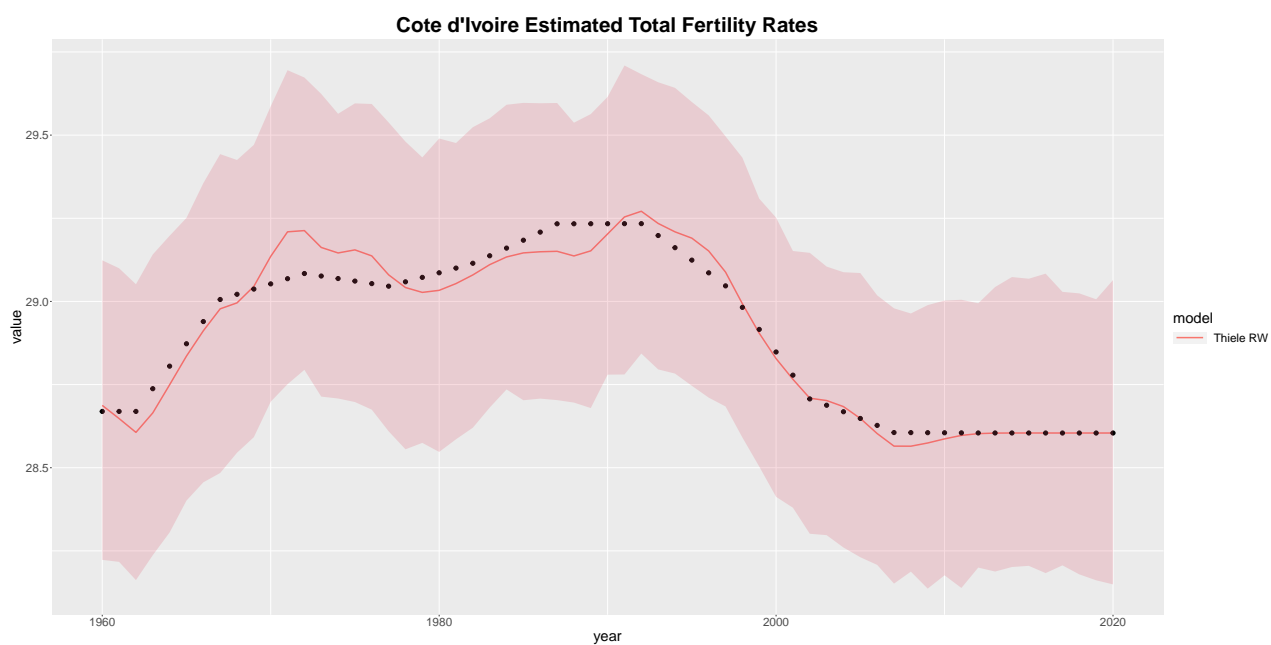


Figure 19: Mean age at births

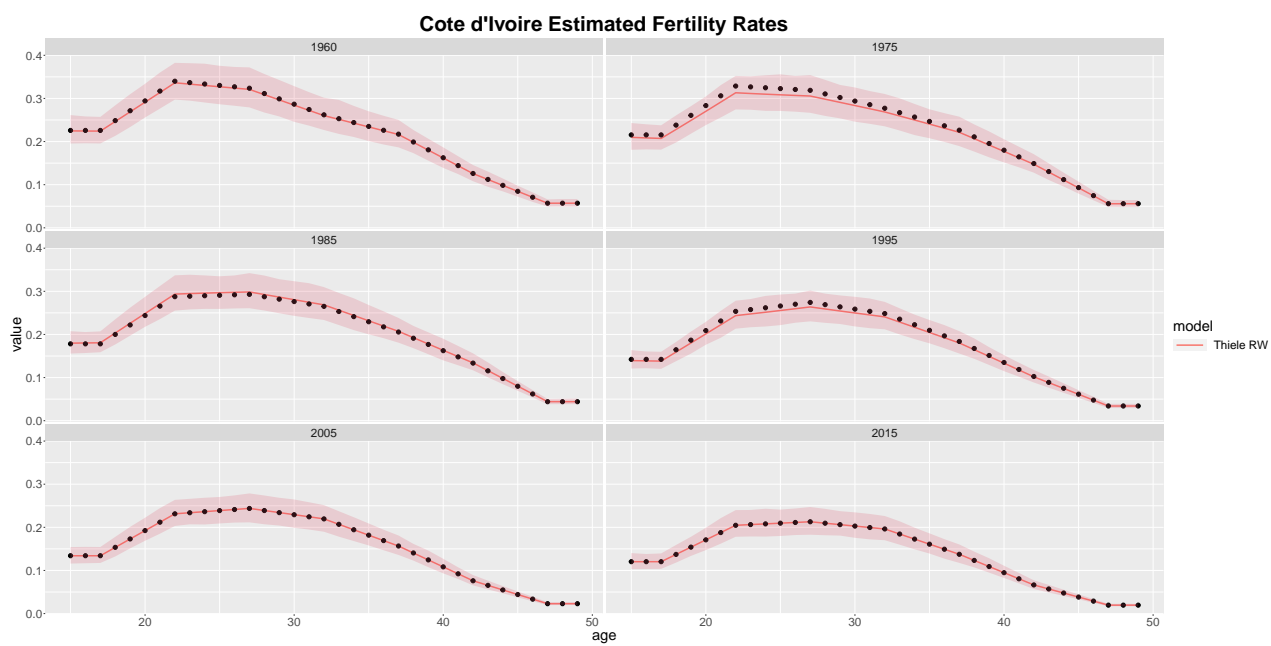


Figure 20: Fertility

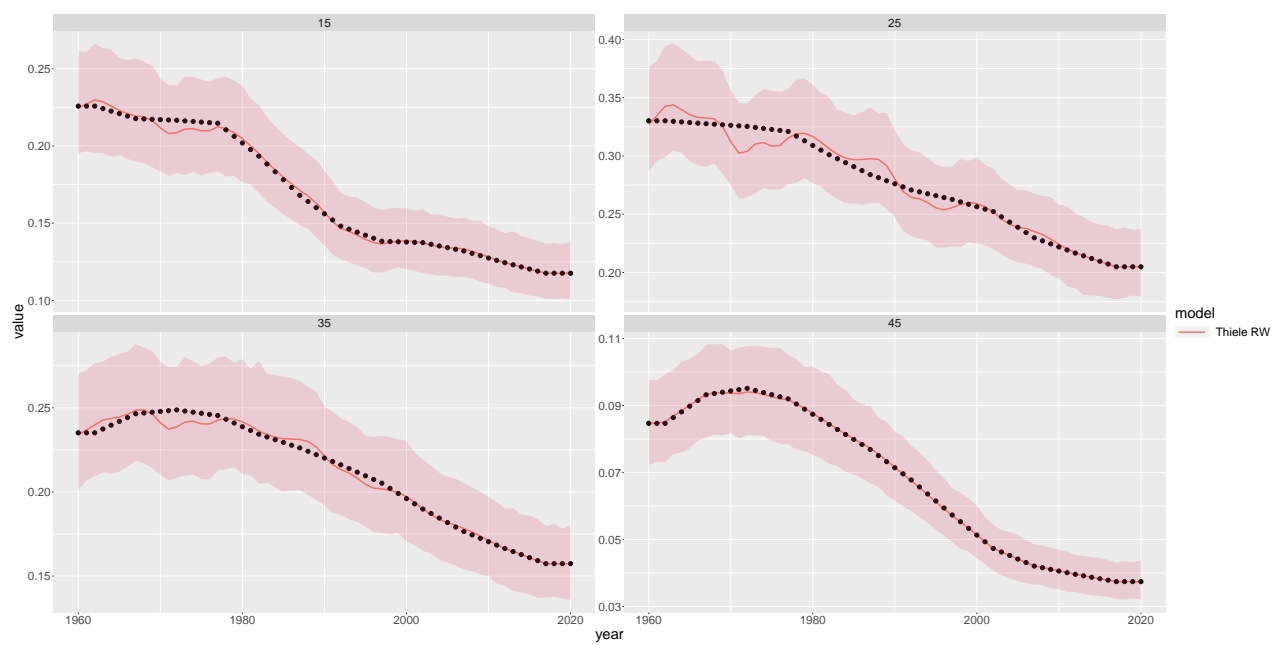


Figure 21: Fertility