

Guinea

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

## # A tibble: 86 x 2
##   age `2014`
##   <dbl>   <dbl>
## 1     0 161421
## 2     1 156097.
## 3     2 174828.
## 4     3 179276
## 5     4 183883.
## 6     5 186139
## 7     6 177897.
## 8     7 168436.
## 9     8 157237.
## 10    9 144900.
## # ... with 76 more rows

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

## # A tibble: 18 x 2
##   age `1996`
##   <dbl>   <dbl>
## 1     0 629099
## 2     5 545591.
## 3    10 417300
## 4    15 335618.
## 5    20 307902.
## 6    25 288558.
## 7    30 248041
## 8    35 198157.
## 9    40 156056.
## 10   45 121375.
## 11   50  96060.
## 12   55  80310.
## 13   60  72839.
## 14   65  59296
## 15   70  47005
## 16   75  62565
## 17   80    NA
## 18   85    NA

## [1] "Census Males"

## # A tibble: 86 x 2
##   age `2014`
##   <dbl>   <dbl>
## 1     0 164792
## 2     1 160347.
## 3     2 178135.
## 4     3 183095.
## 5     4 188043.
## 6     5 190464.
```

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## 7      6 182415.
## 8      7 173976.
## 9      8 163357.
## 10     9 150880.
## # ... with 76 more rows
```

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

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

```
##   age `1996`
##   <dbl> <dbl>
## 1     0 643728
## 2     5 573860.
## 3    10 440982.
## 4    15 320036.
## 5    20 255442
## 6    25 224650.
## 7    30 197222.
## 8    35 171459.
## 9    40 147724.
## 10   45 119655.
## 11   50  95200.
## 12   55  79656.
## 13   60  69800.
## 14   65  56828.
## 15   70  40047
## 16   75  63801
## 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
##	4.32099012	5.25781253	3.99692080	4.88786966	
##	log_dispersion	log_dispersion	log_lambda_tp	tp_slope	
##	0.34890509	0.47613248	3.96130769	-0.02332944	
##	log_lambda_phi	log_lambda_psi	log_lambda_A	log_lambda_B	log_la
##	11.32728535	11.28158725	11.41721464	11.49303476	
##	log_lambda_epsilon				
##	4.67537056				

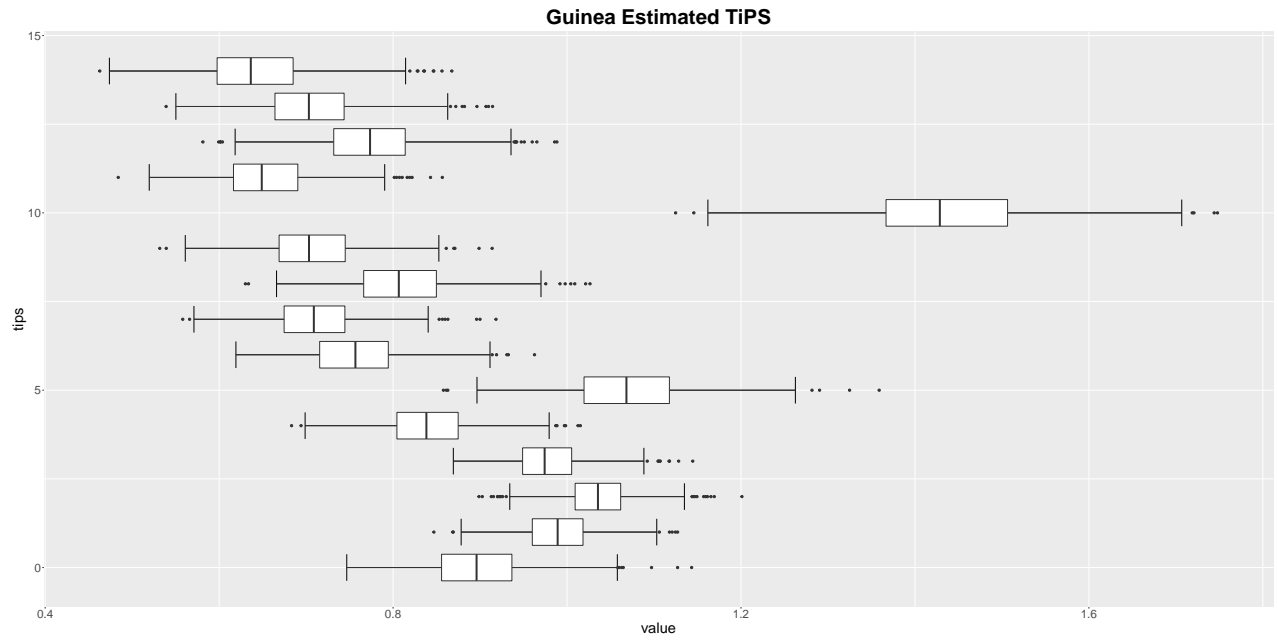


Figure 1: Estimated TiPS

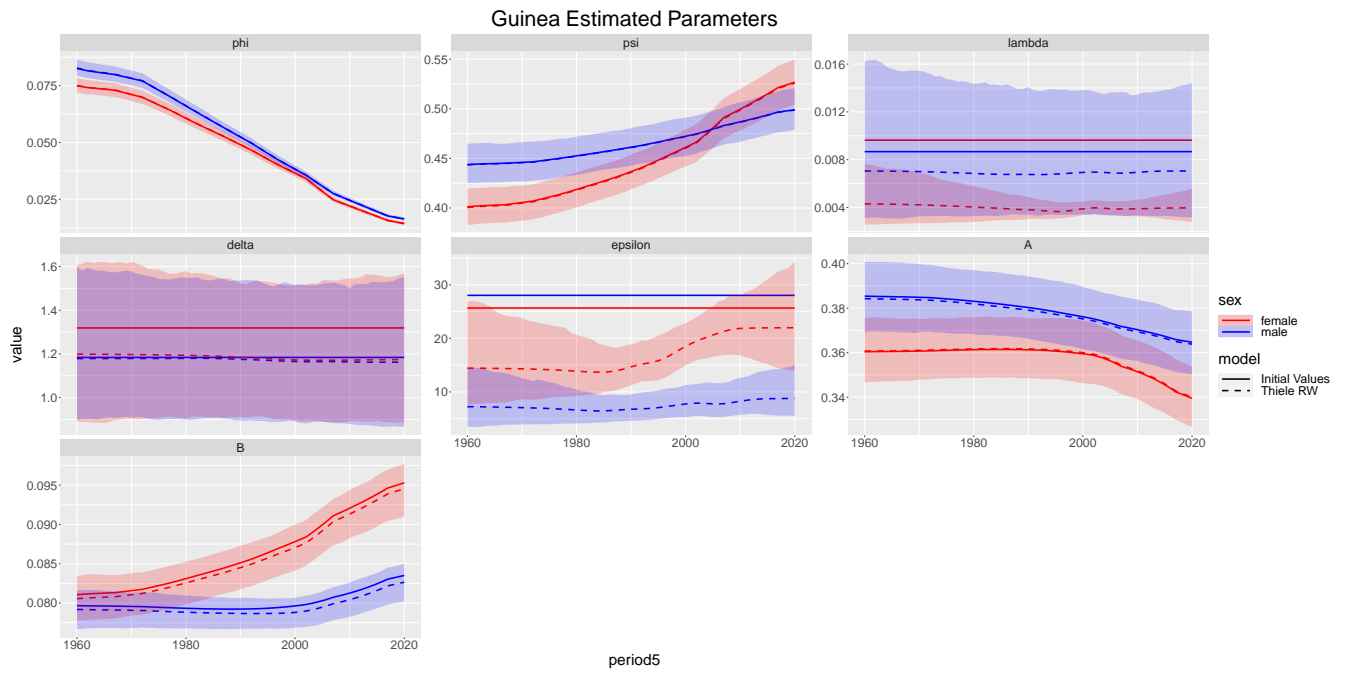


Figure 2: Estimated parameters

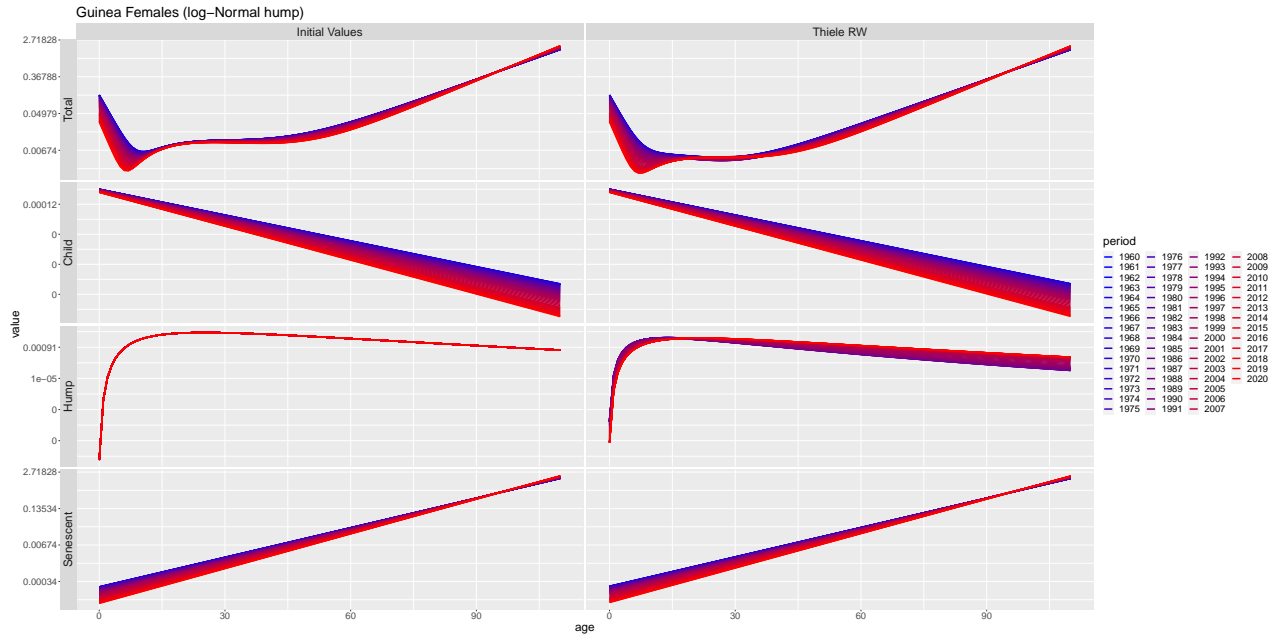


Figure 3: Thiele Decomposed

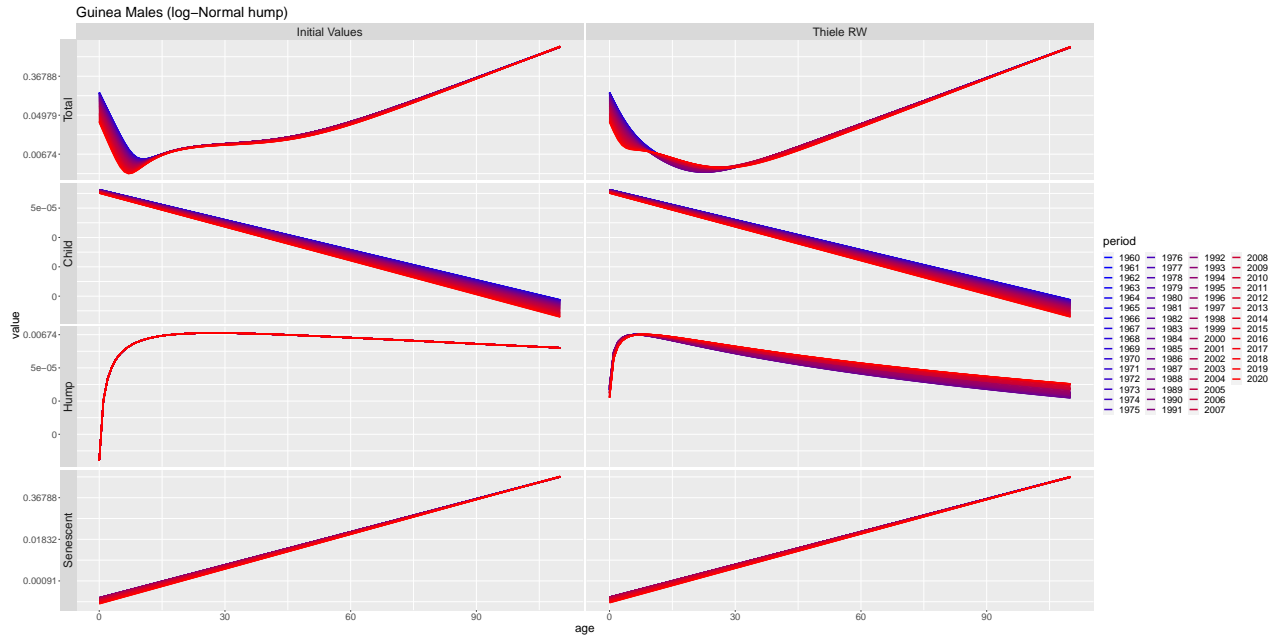


Figure 4: Thiele Decomposed

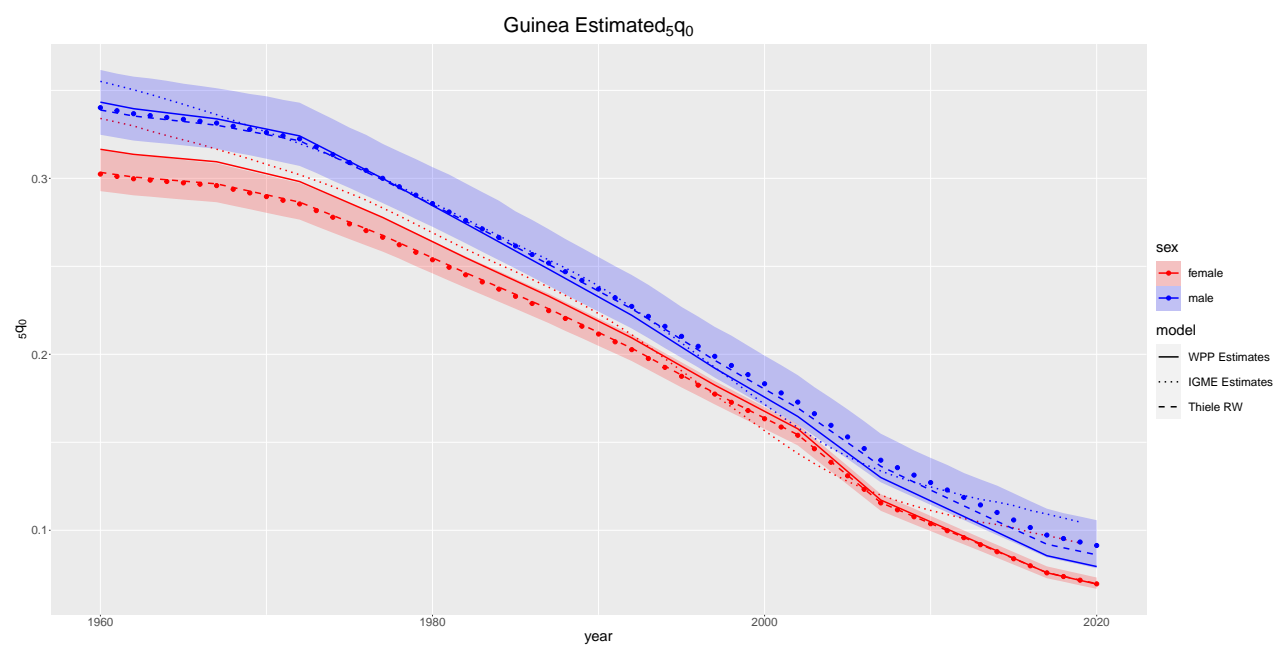


Figure 5: Estimated ${}_5q_0$

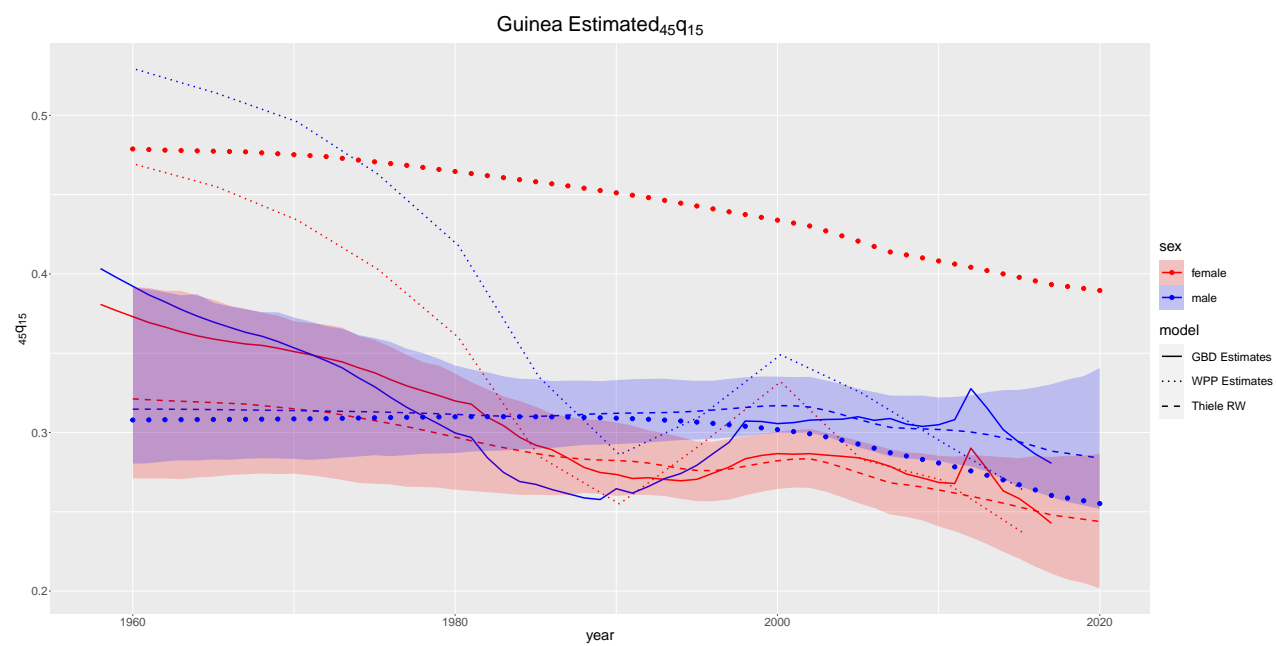


Figure 6: Estimated ${}_{45}q_{15}$

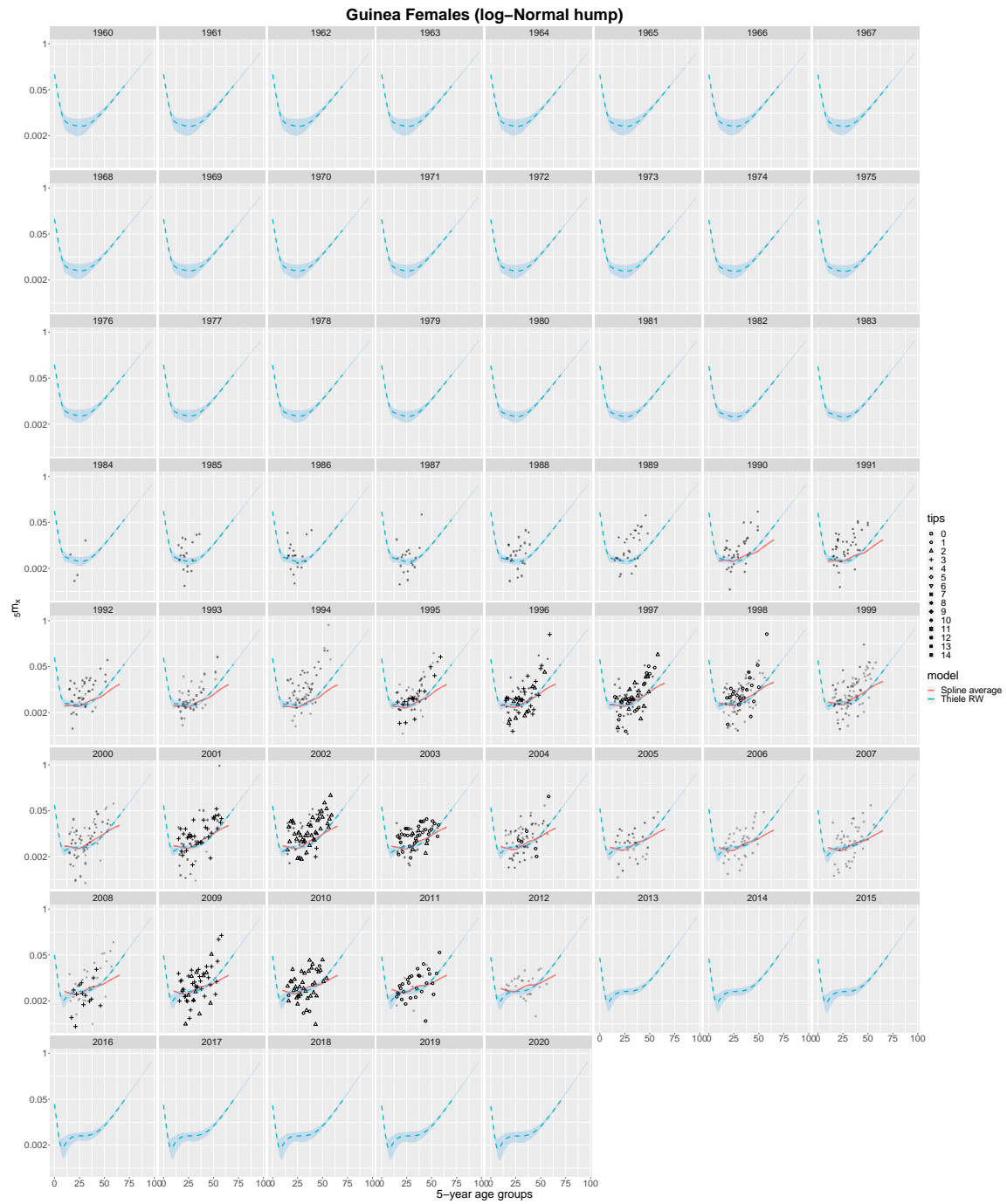


Figure 7: Mortality Schedules

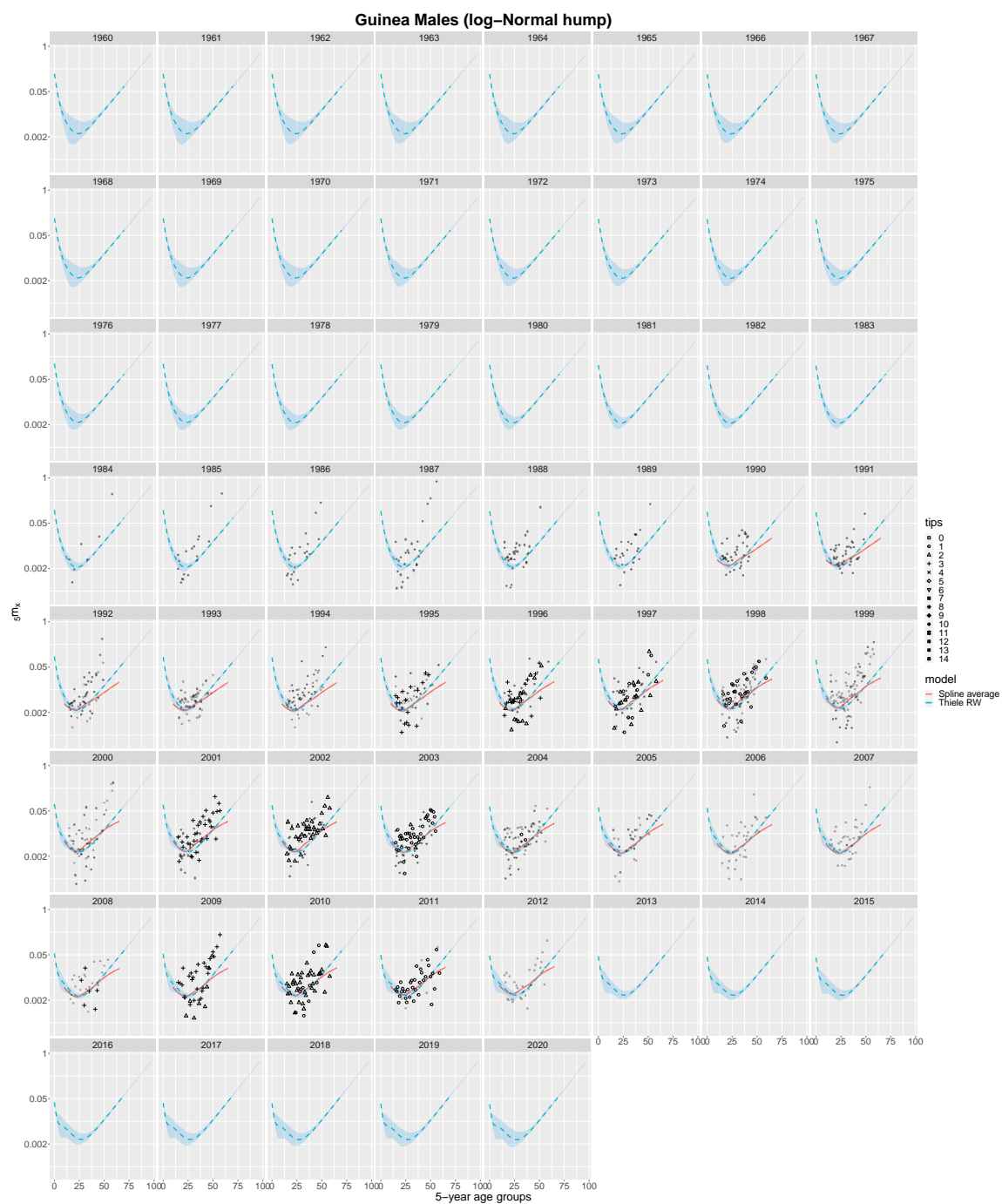


Figure 8: Mortality Schedules

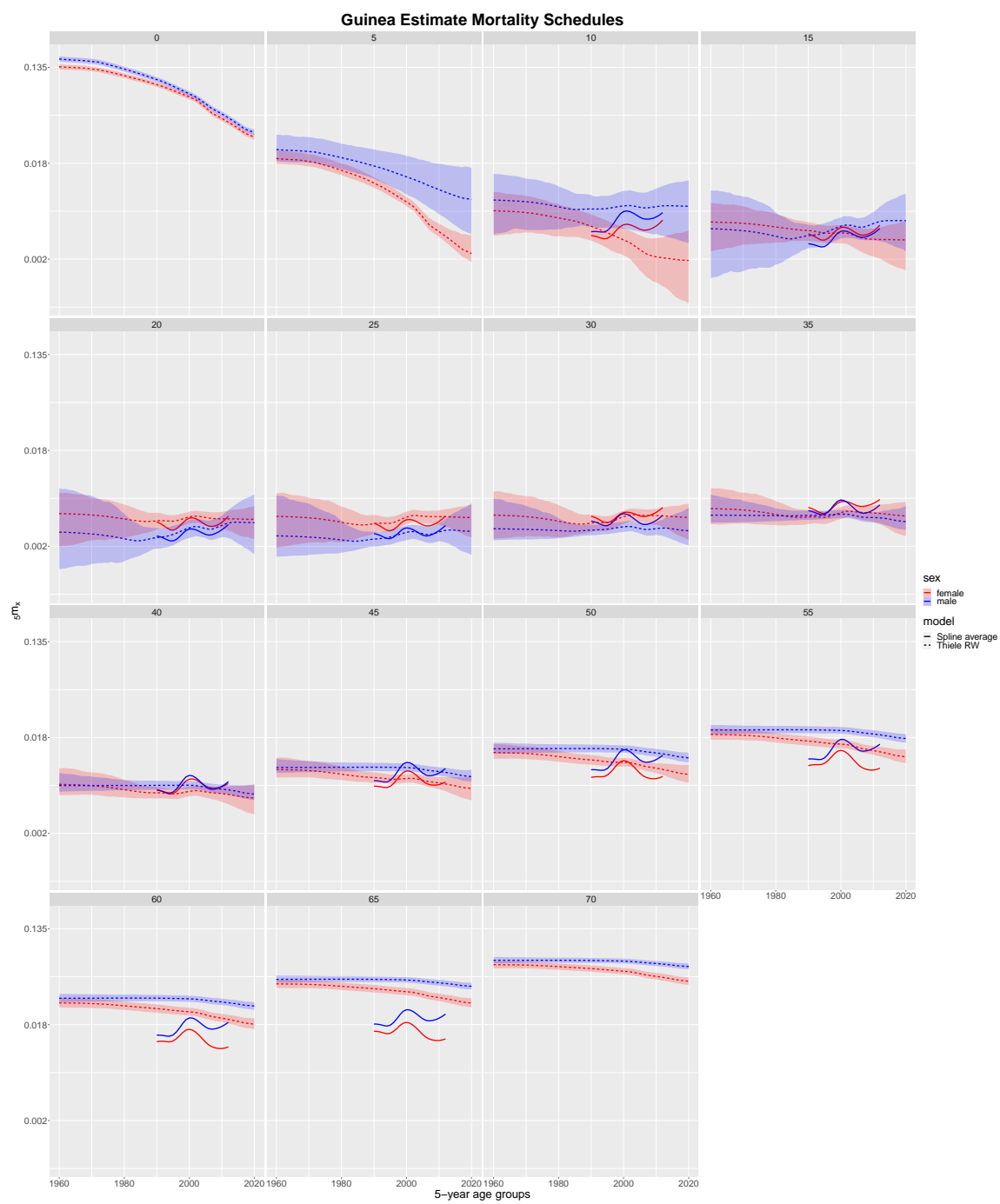


Figure 9: Mortality Schedules

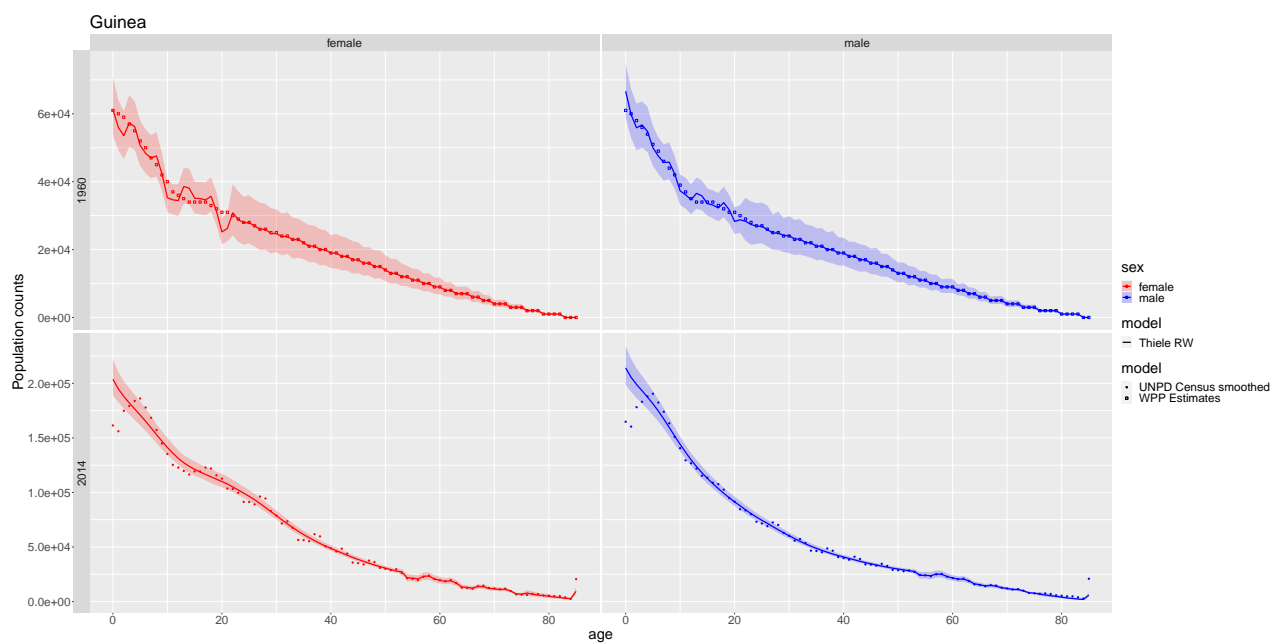


Figure 10: Population



Figure 11: Population

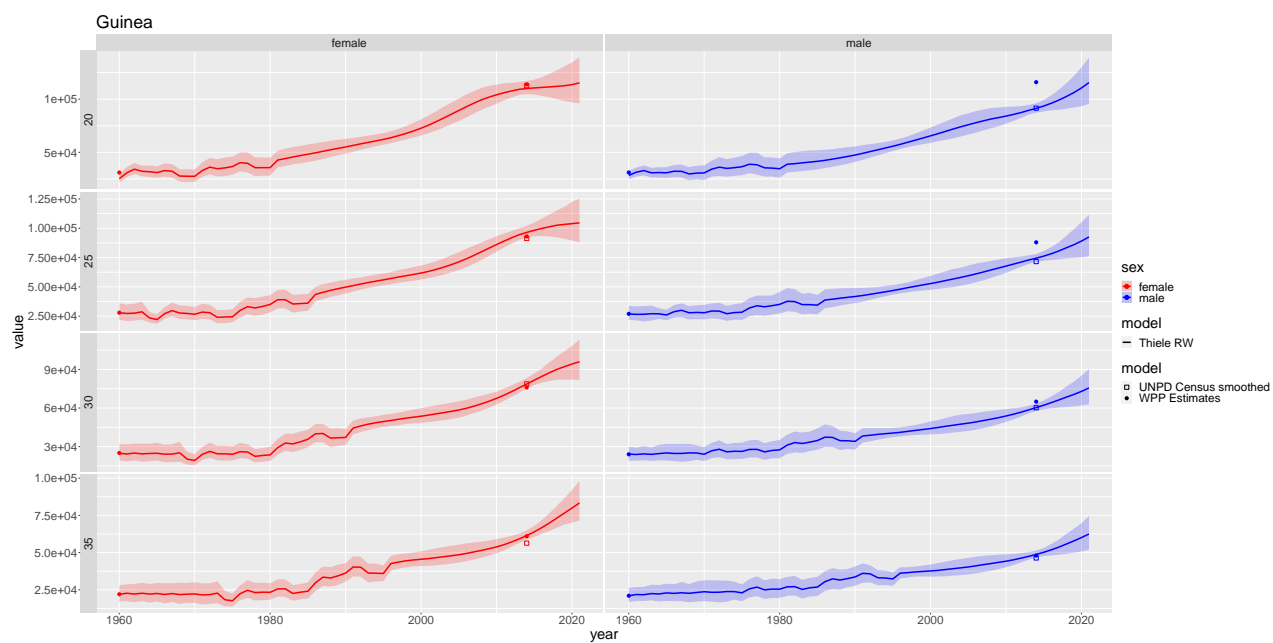


Figure 12: Population

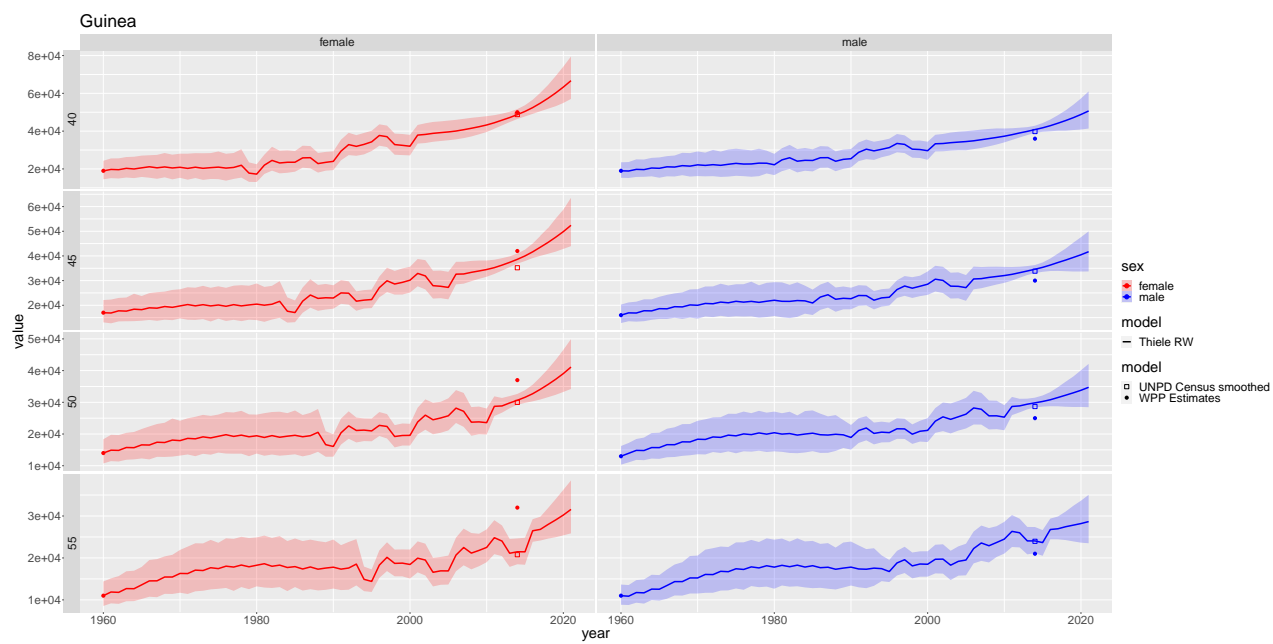


Figure 13: Population



Figure 14: Population

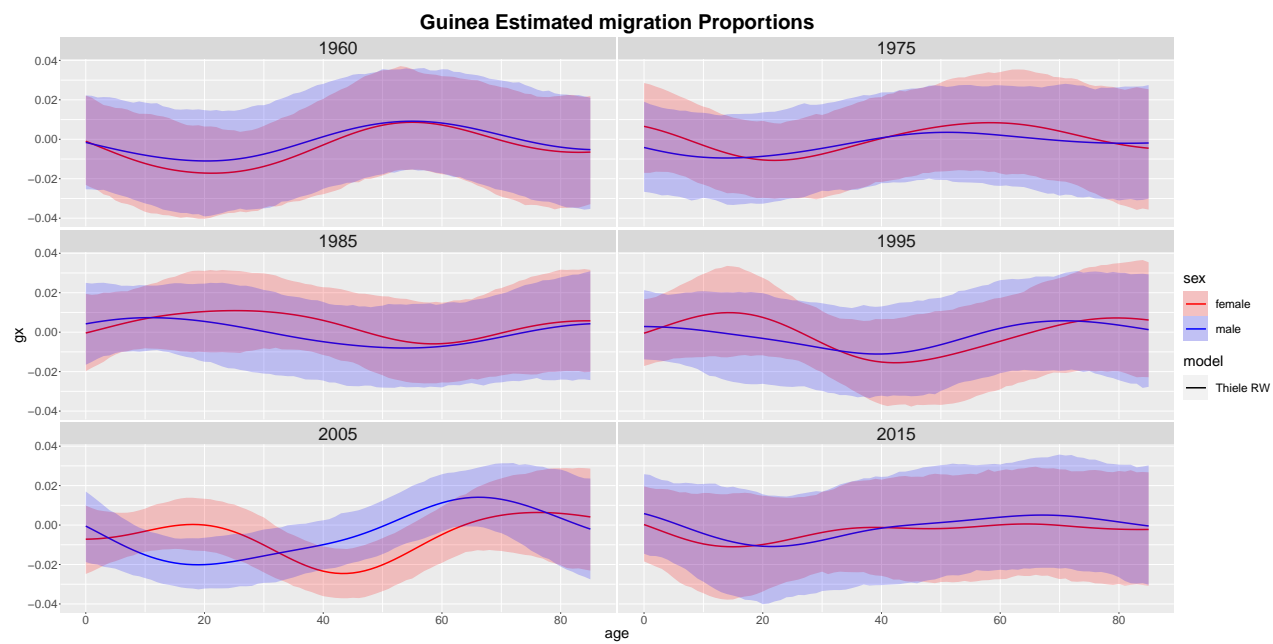


Figure 15: Migration

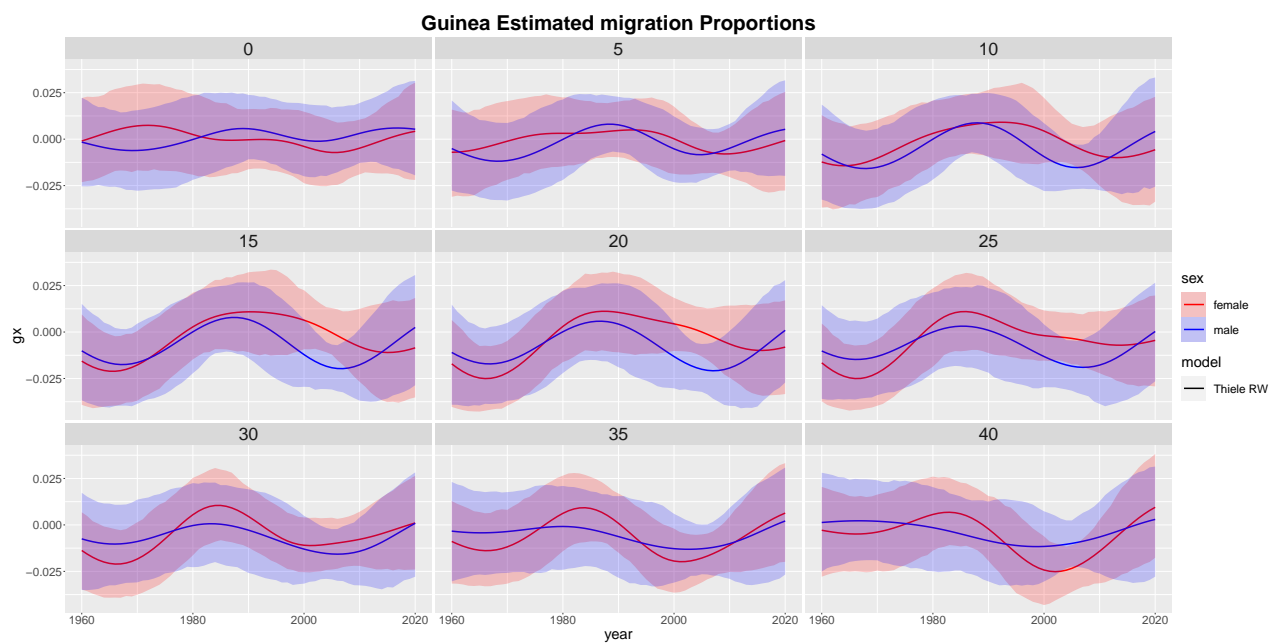


Figure 16: Migration

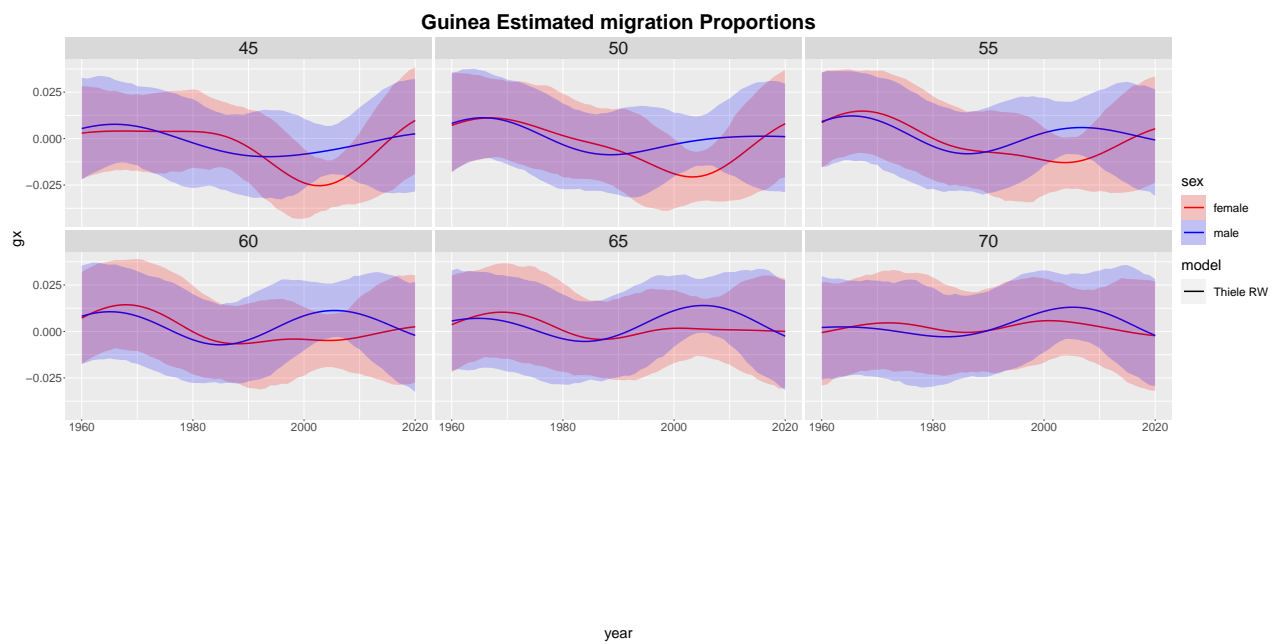


Figure 17: Migration

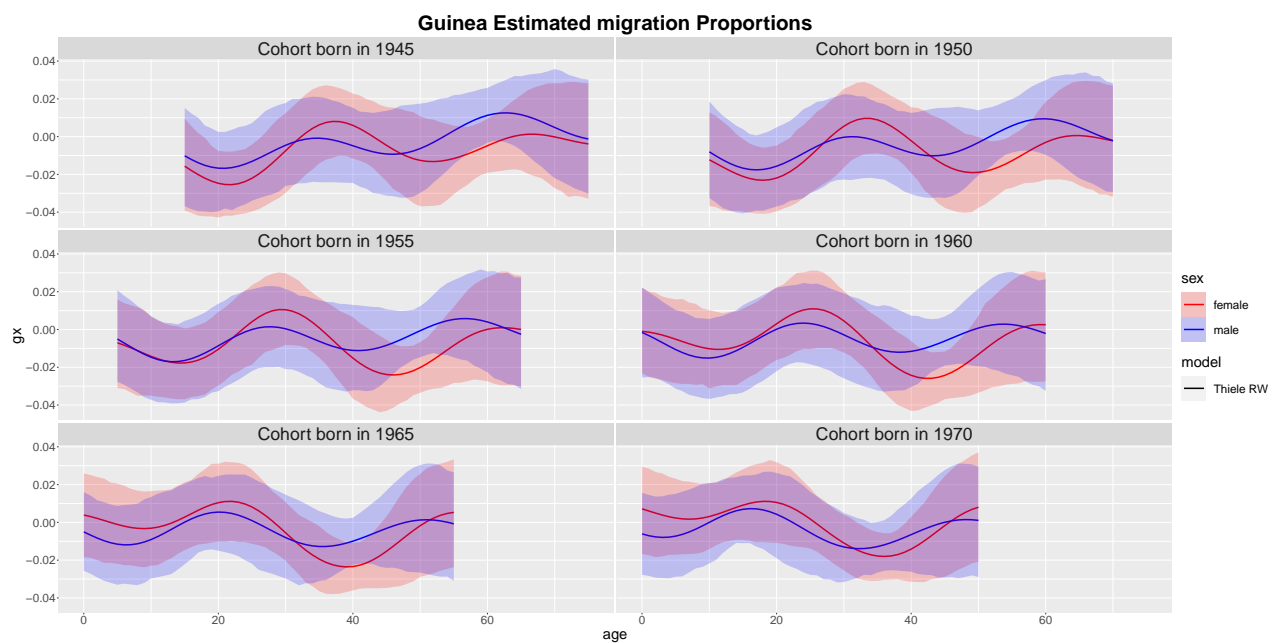


Figure 18: Migration

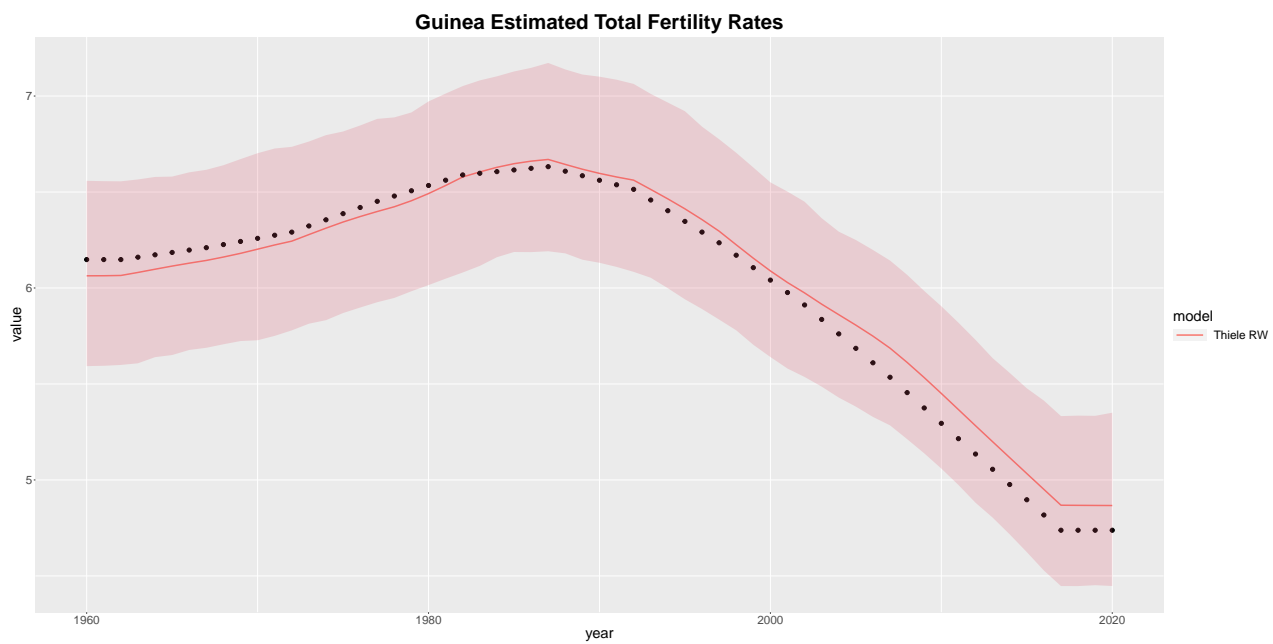


Figure 19: Total Fertility

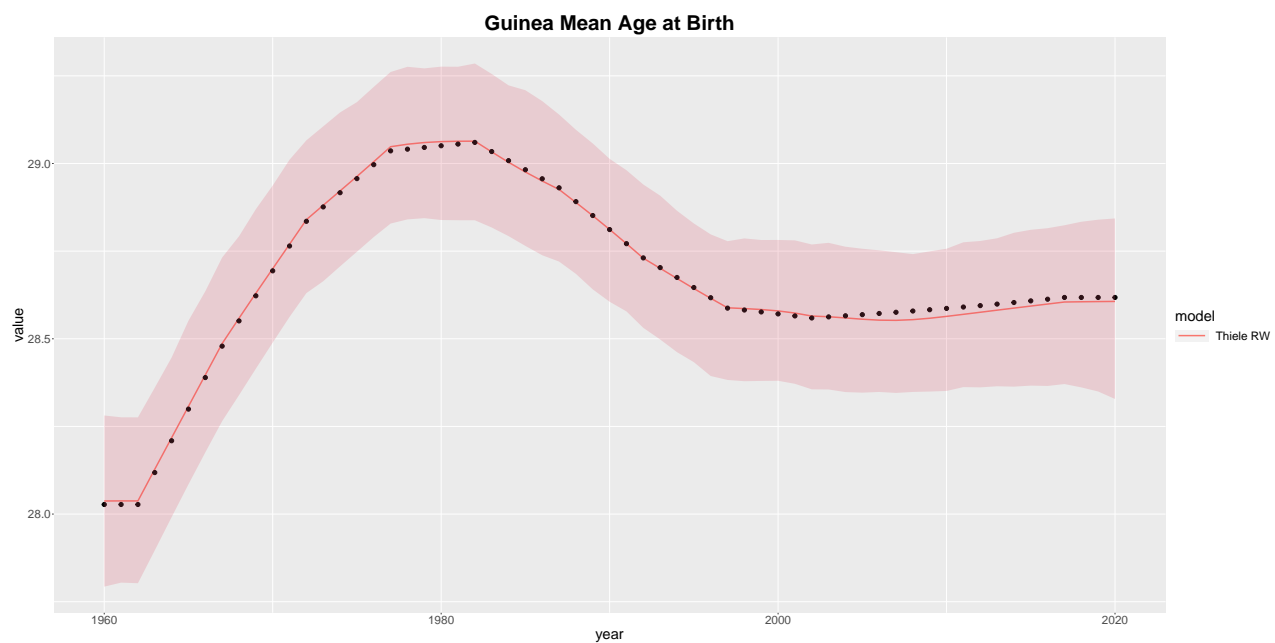


Figure 20: Mean age at births

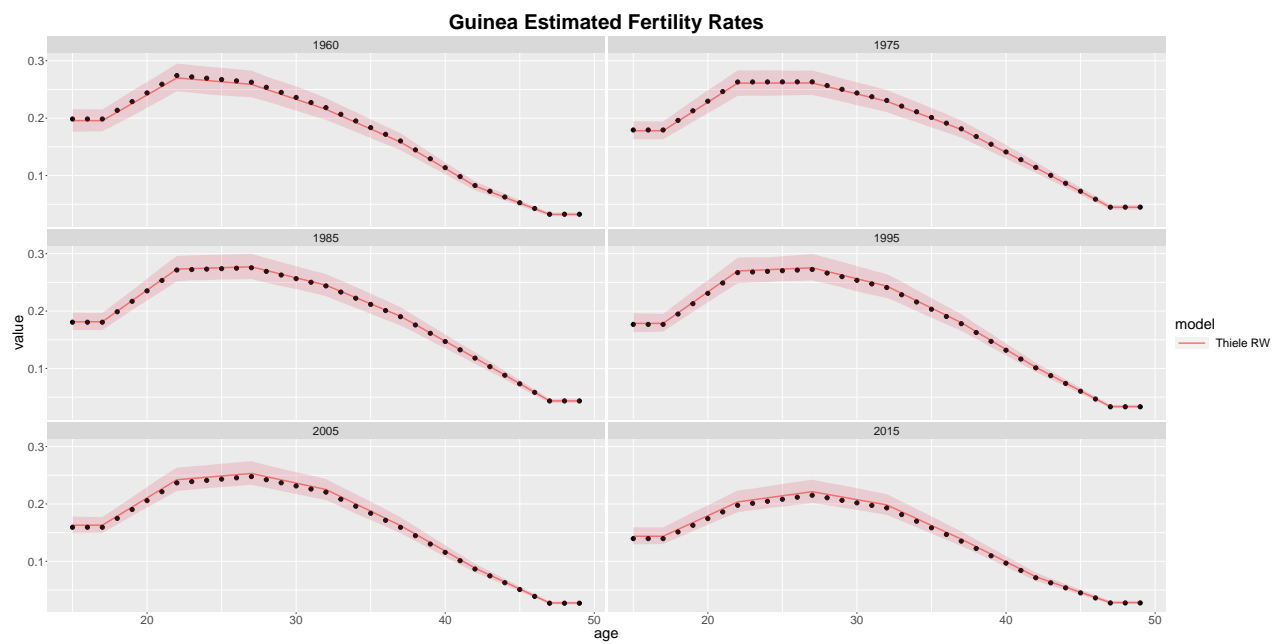


Figure 21: Fertility

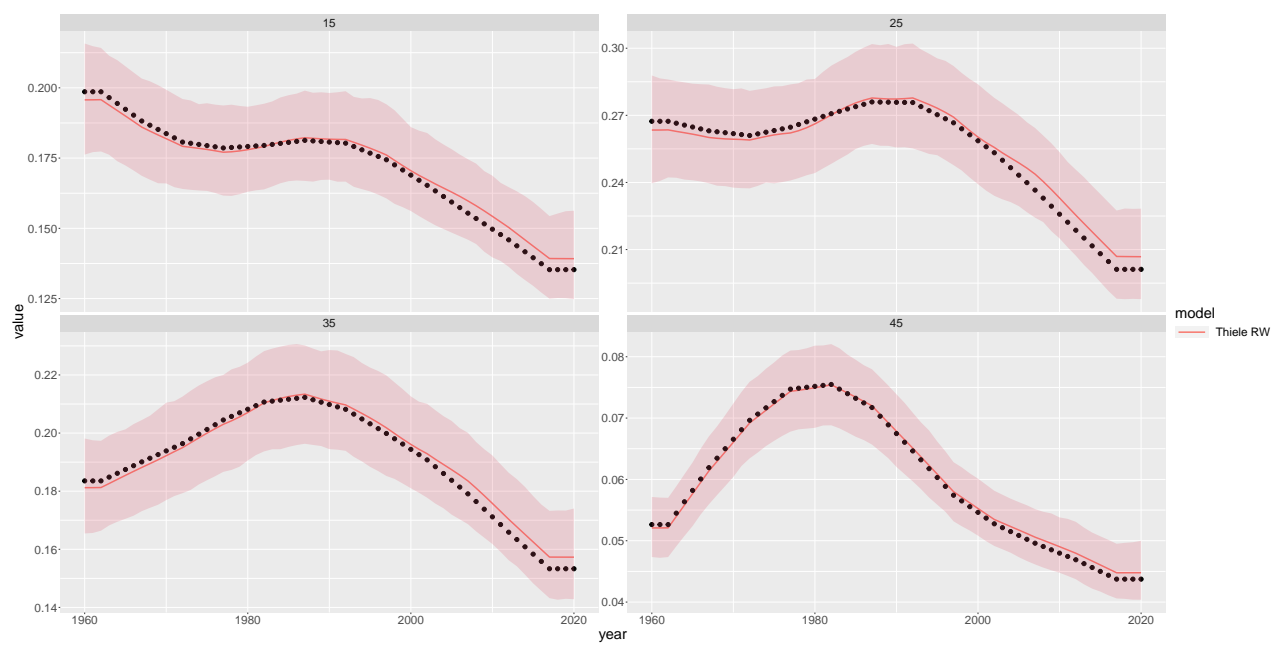


Figure 22: Fertility