

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

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## [1] "relative convergence (4)"
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##	log_tau2_logpop_f	log_tau2_logpop_f	log_tau2_logpop_m	log_tau2_
##	4.9785982	4.0957286	5.2616783	4
##	log_tau2_gx_m	log_lambda_gx_age_f	log_lambda_gx_age_m	log_lambda_g
##	3.5041809	7.6314199	7.9584496	7
##	log_lambda_gx_agemtime_m	log_lambda_tp	log_lambda_tp_0_inflated_sd	log_disp
##	6.9077669	1.9273249	-1.8095178	0
##	log_marginal_prec_psi_f	log_marginal_prec_A_f	log_marginal_prec_B_f	log_marginal_pr
##	6.8066815	6.8009685	6.6912147	6
##	log_marginal_prec_B_m	log_lambda_phi_f	log_lambda_psi_f	log_lambda_
##	6.2210901	4.3075742	4.3070041	4
##	log_lambda_A_f	log_lambda_B_f	log_lambda_phi_m	log_lamb
##	4.3034140	4.2383101	4.3096919	4
##	log_lambda_epsilon_m	log_lambda_A_m	log_lambda_B_m	logit_lambda_slo
##	4.4083197	4.3013677	4.2248383	-1
##	logit_lambda_slope_rho_m	logit_delta_slope_rho_m	logit_epsilon_slope_rho_m	
##	-1.0941758	-1.4617677	-1.8122158	

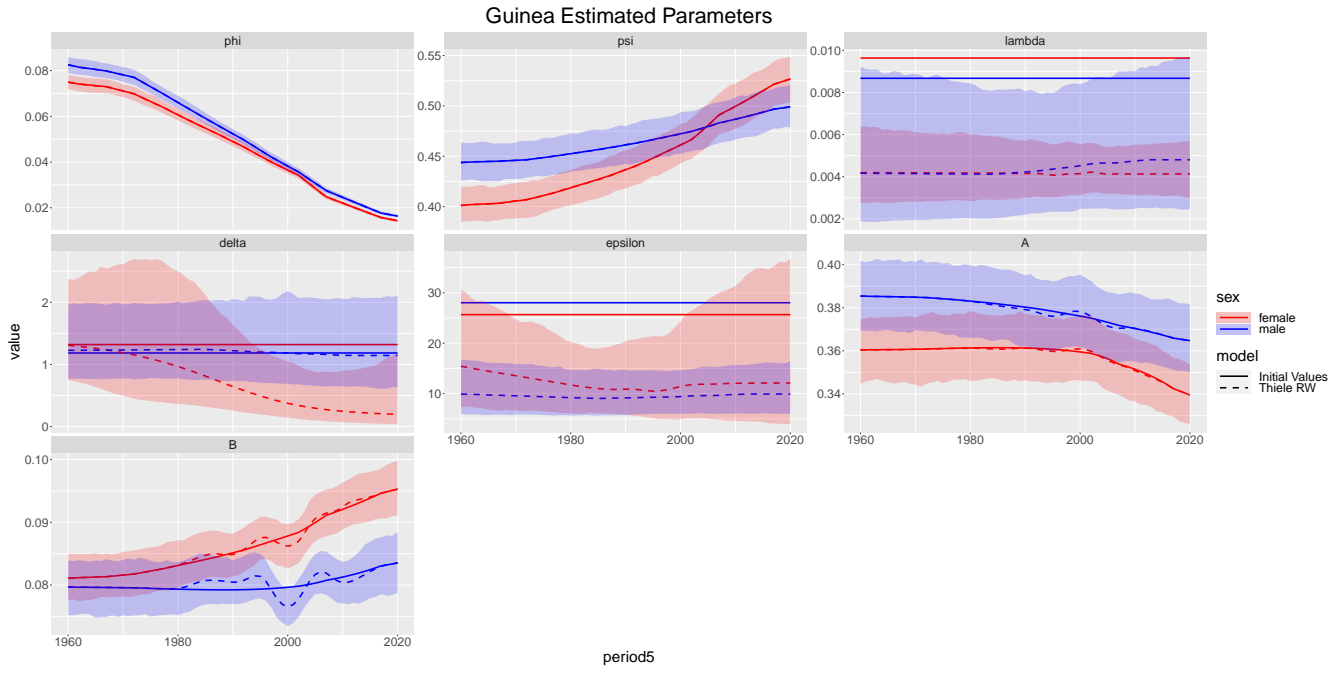


Figure 1: Estimated parameters

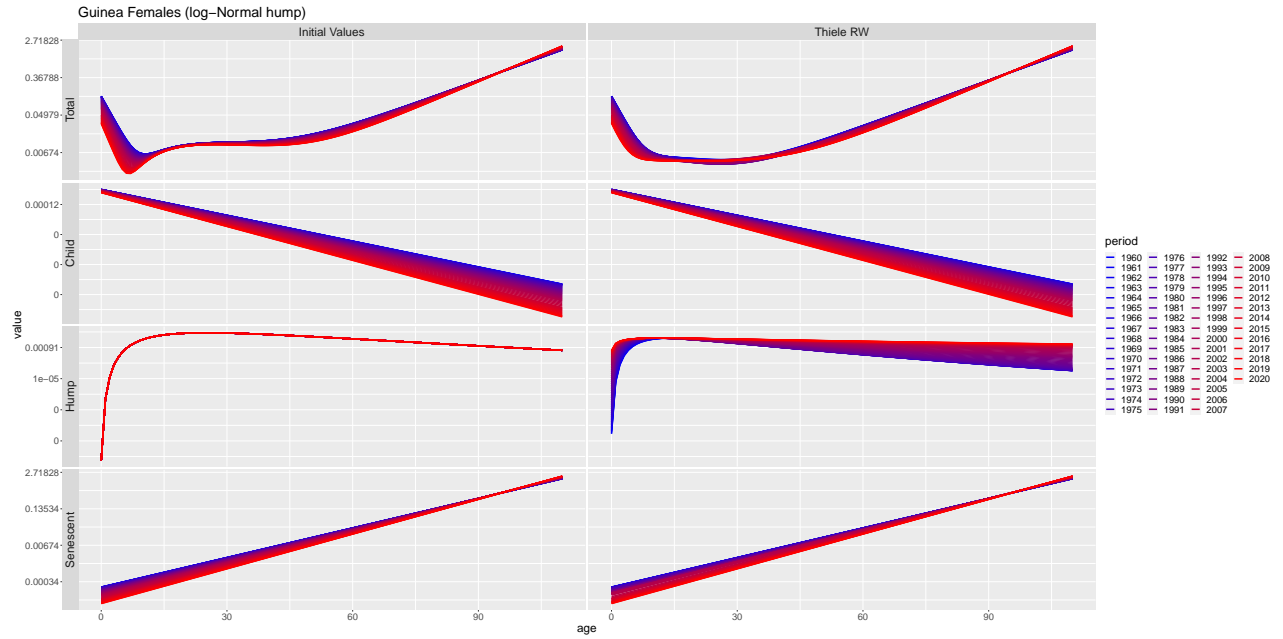


Figure 2: Thiele Decomposed

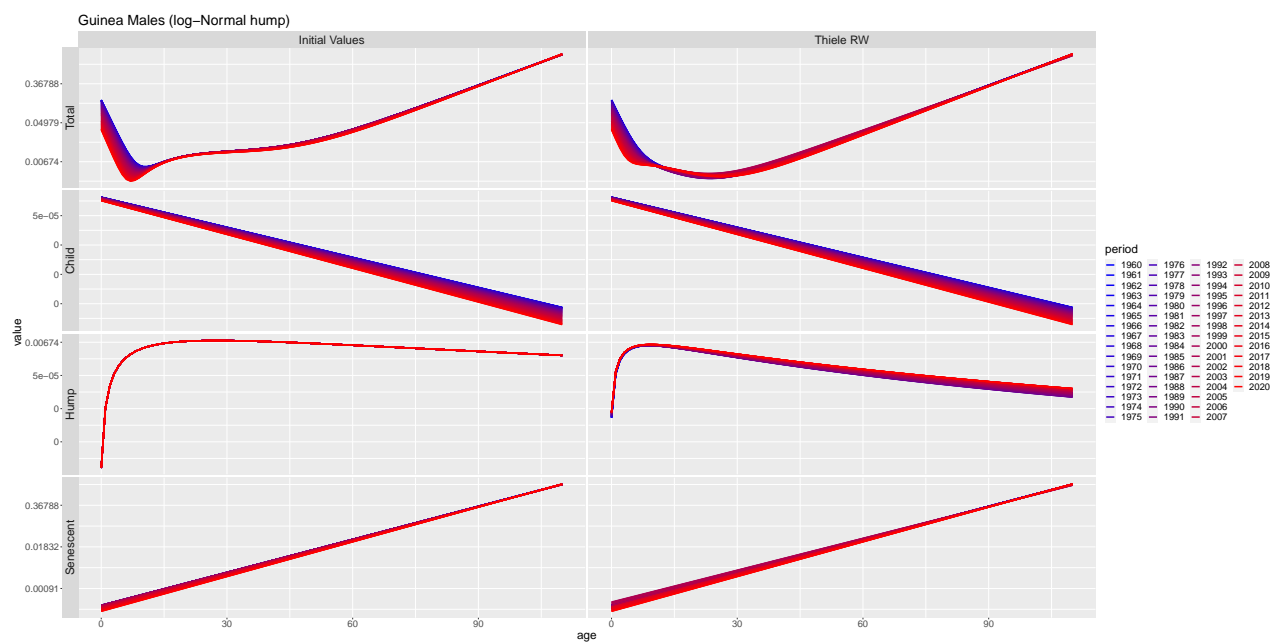


Figure 3: Thiele Decomposed

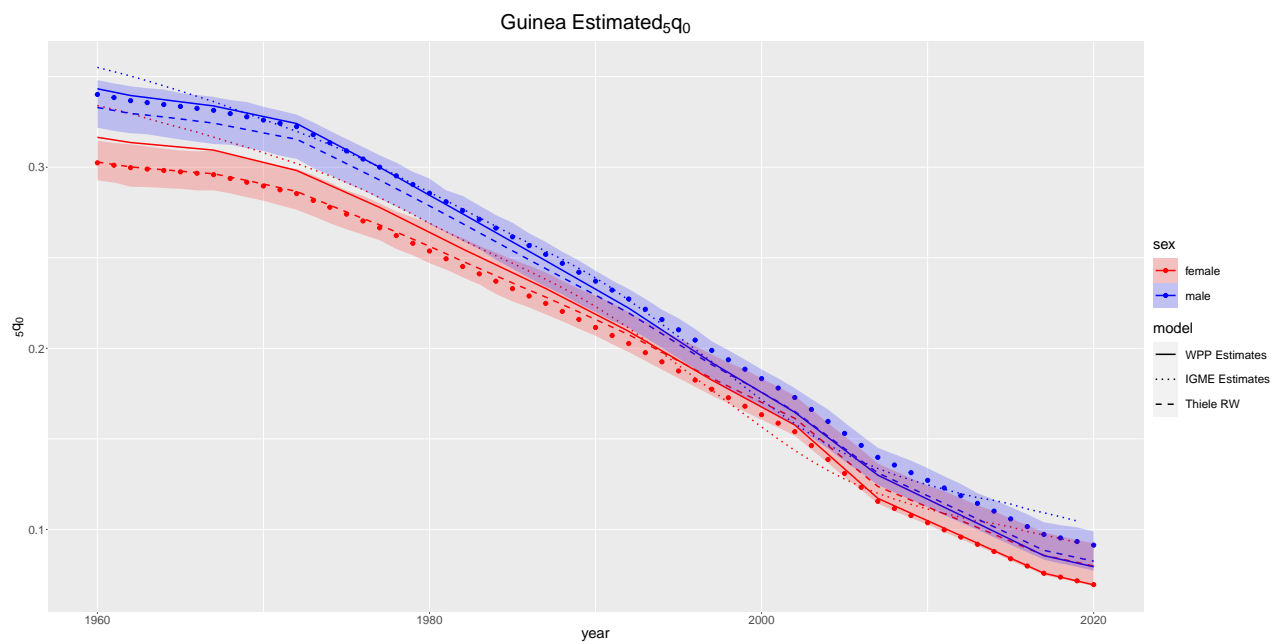


Figure 4: Estimated ${}_5q_0$

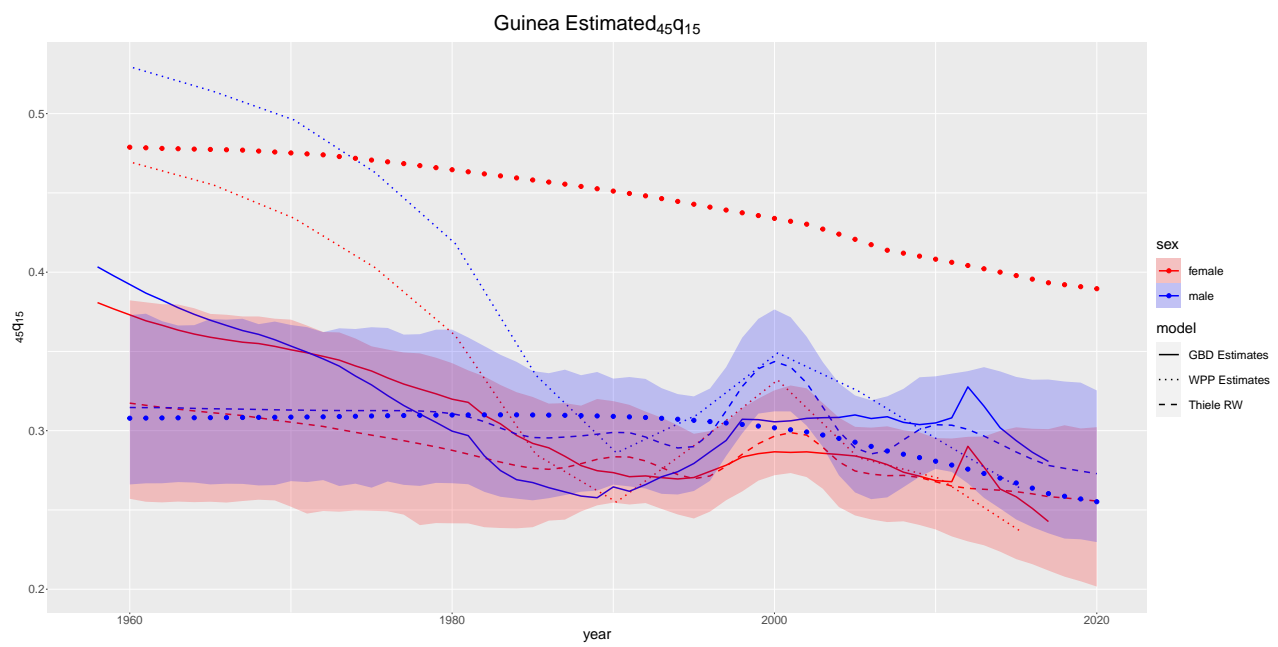


Figure 5: Estimated $_{45}q_{15}$

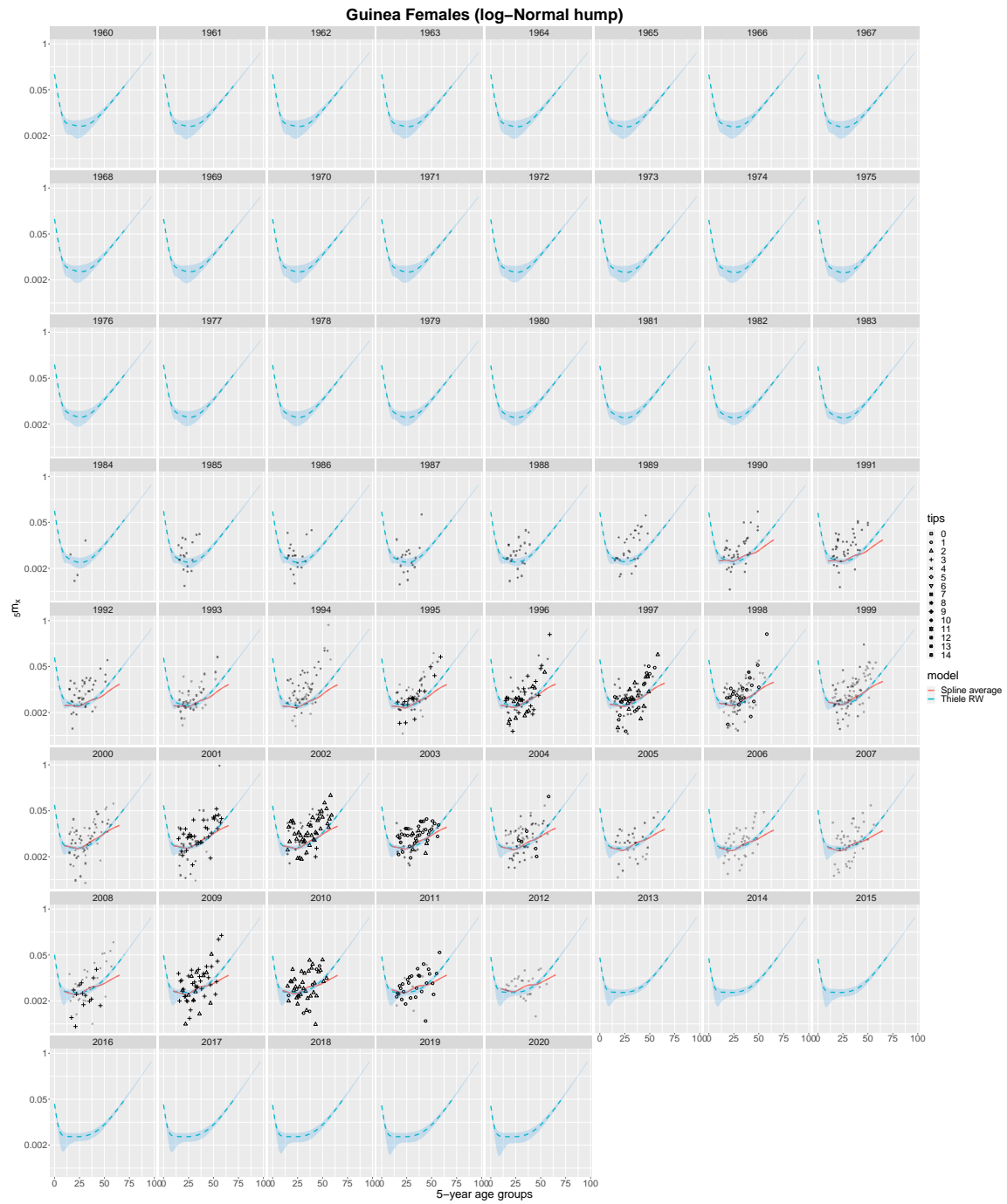


Figure 6: Mortality Schedules

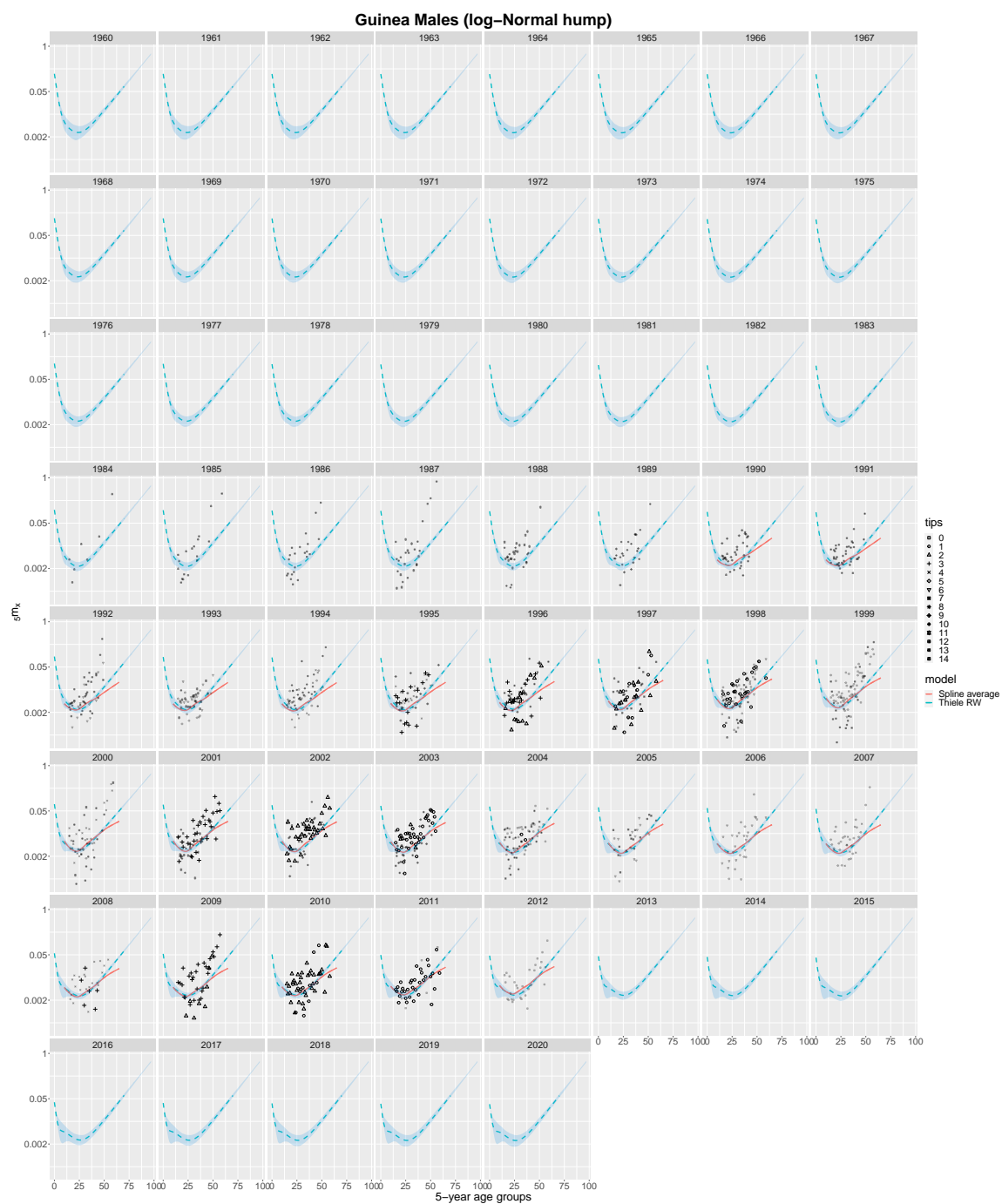


Figure 7: Mortality Schedules

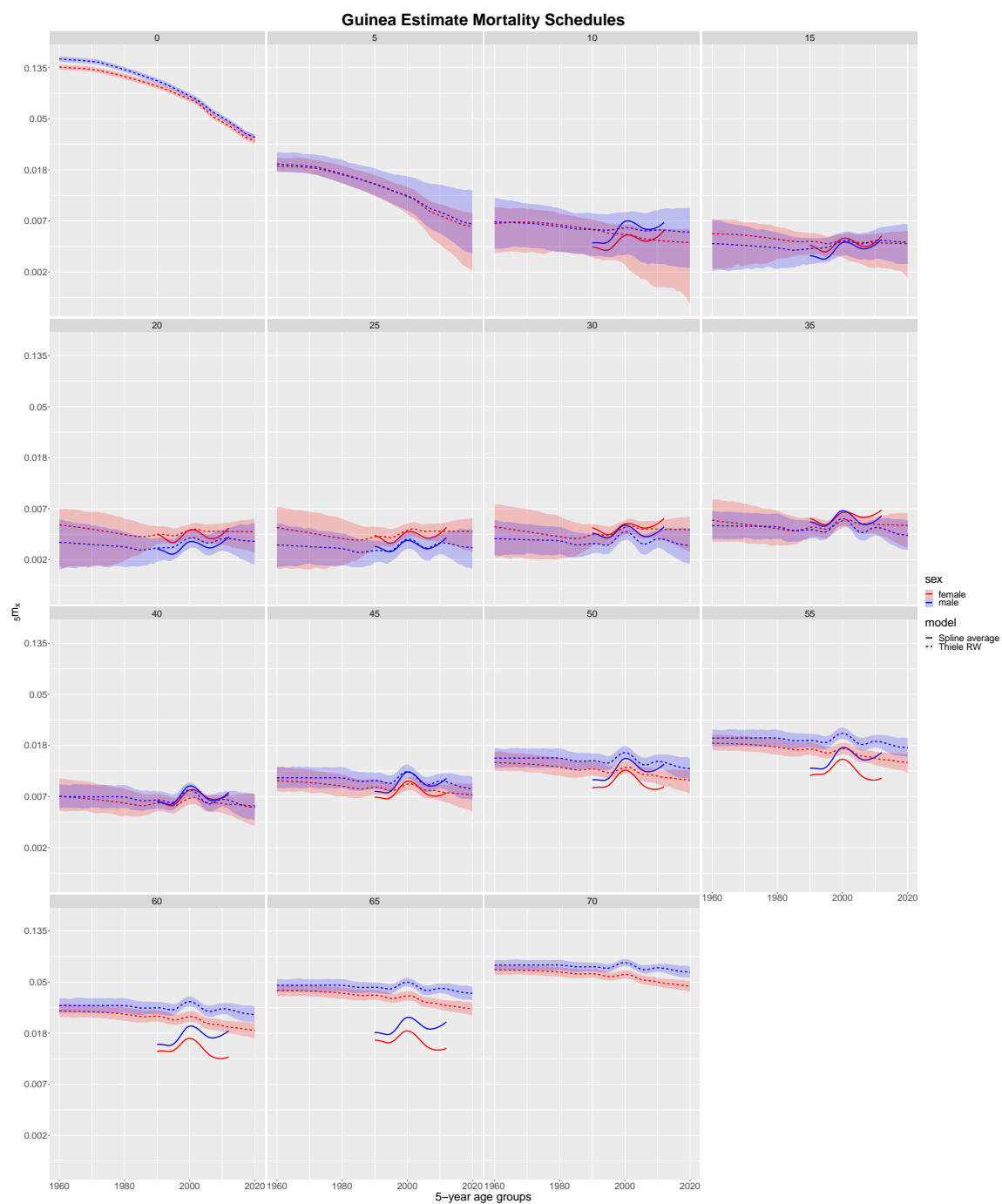


Figure 8: Mortality Schedules

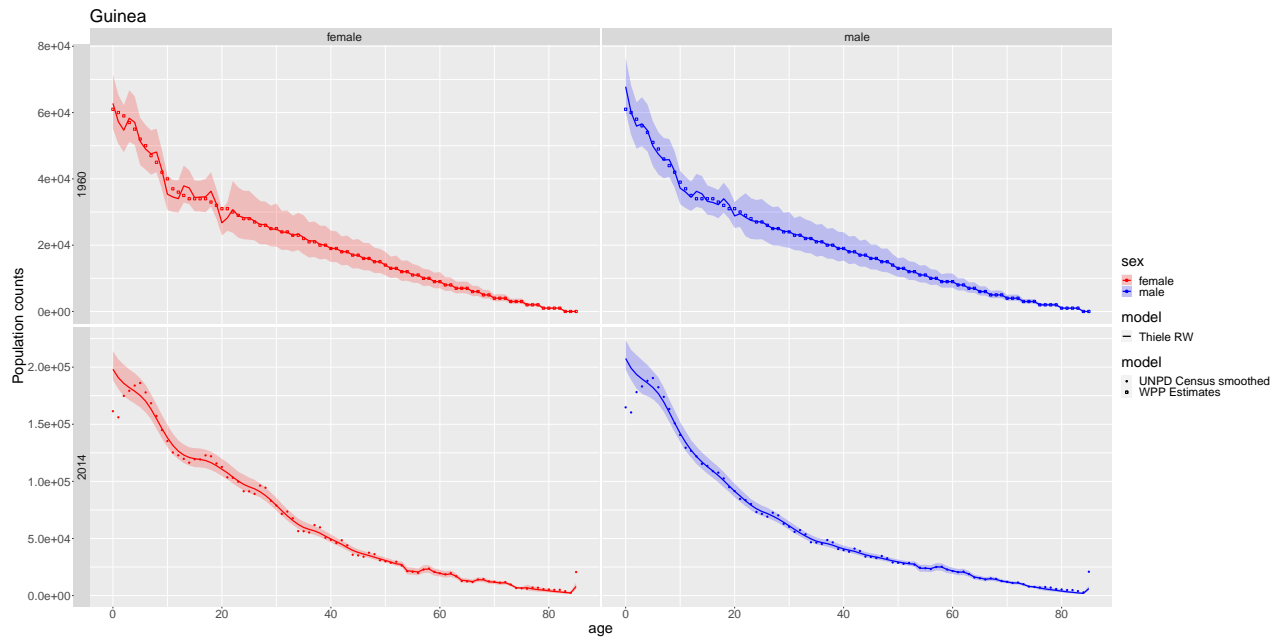


Figure 9: Population

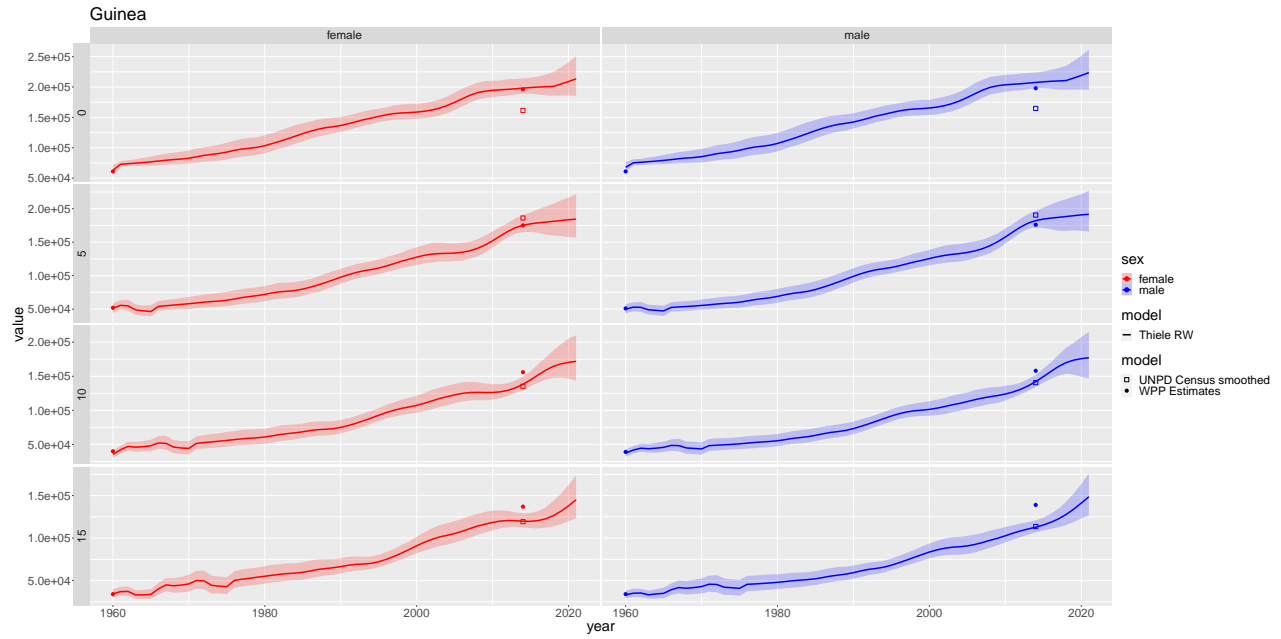


Figure 10: Population

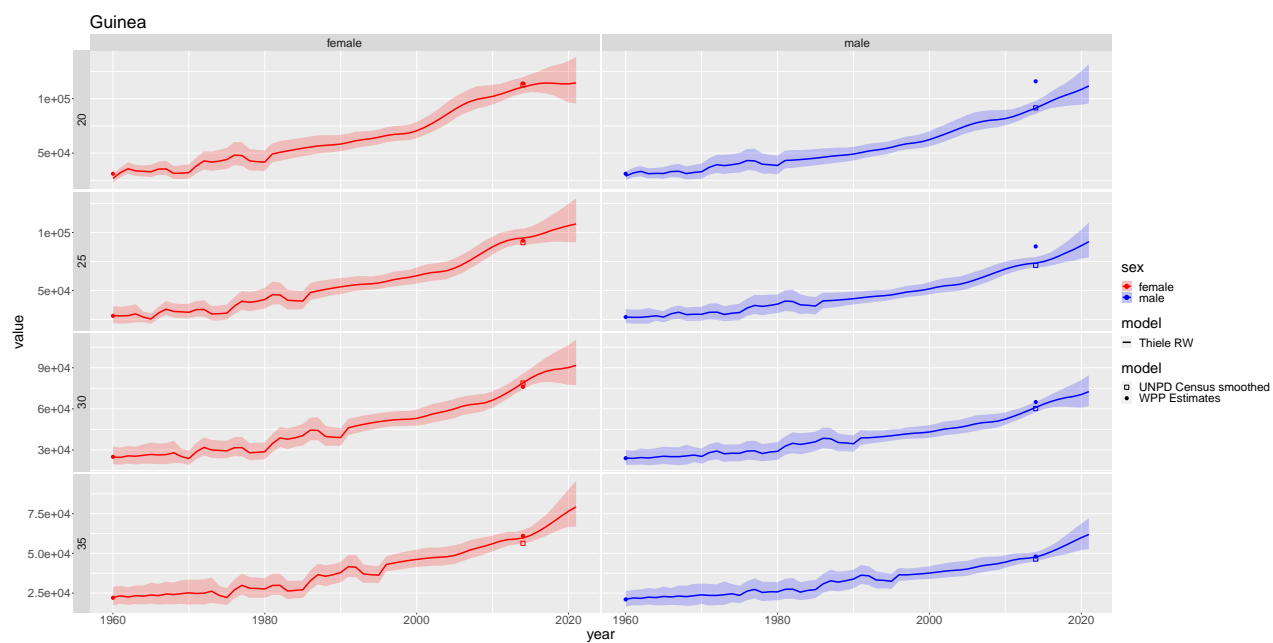


Figure 11: Population

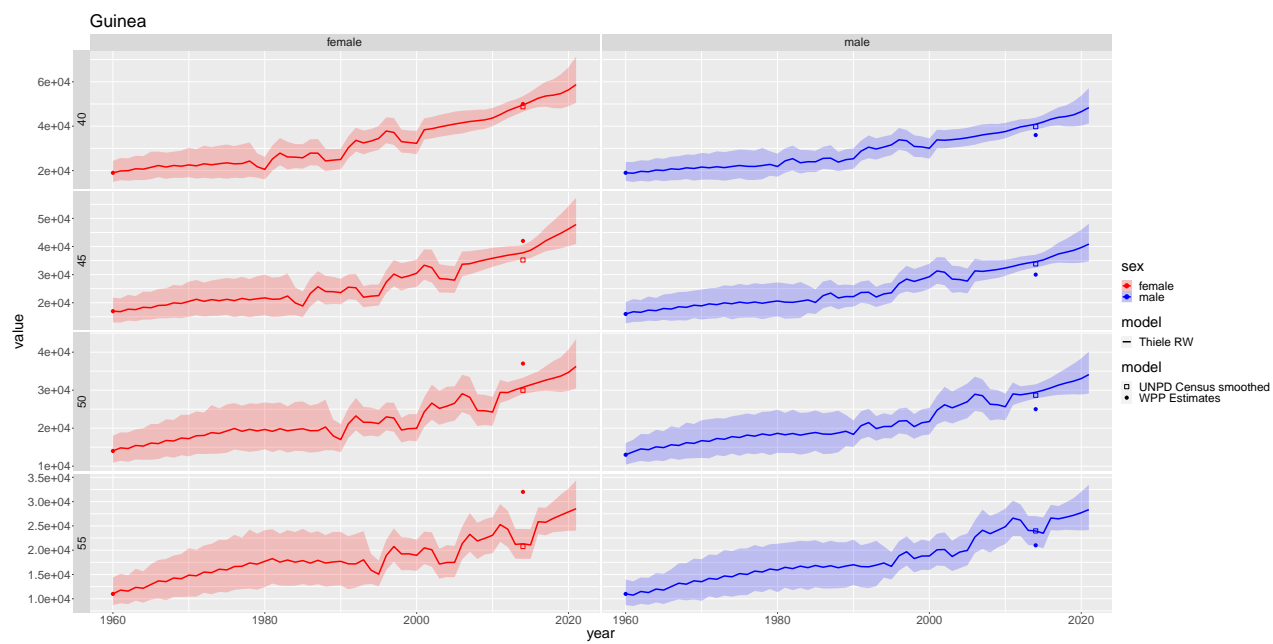


Figure 12: Population



Figure 13: Population

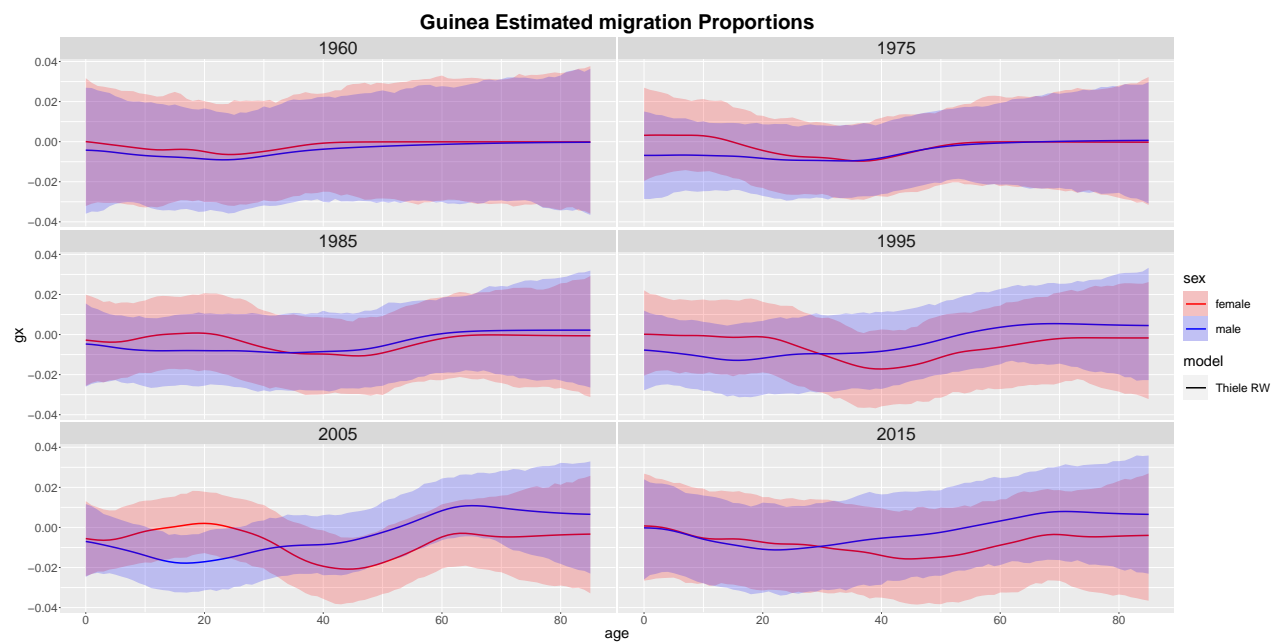


Figure 14: Migration

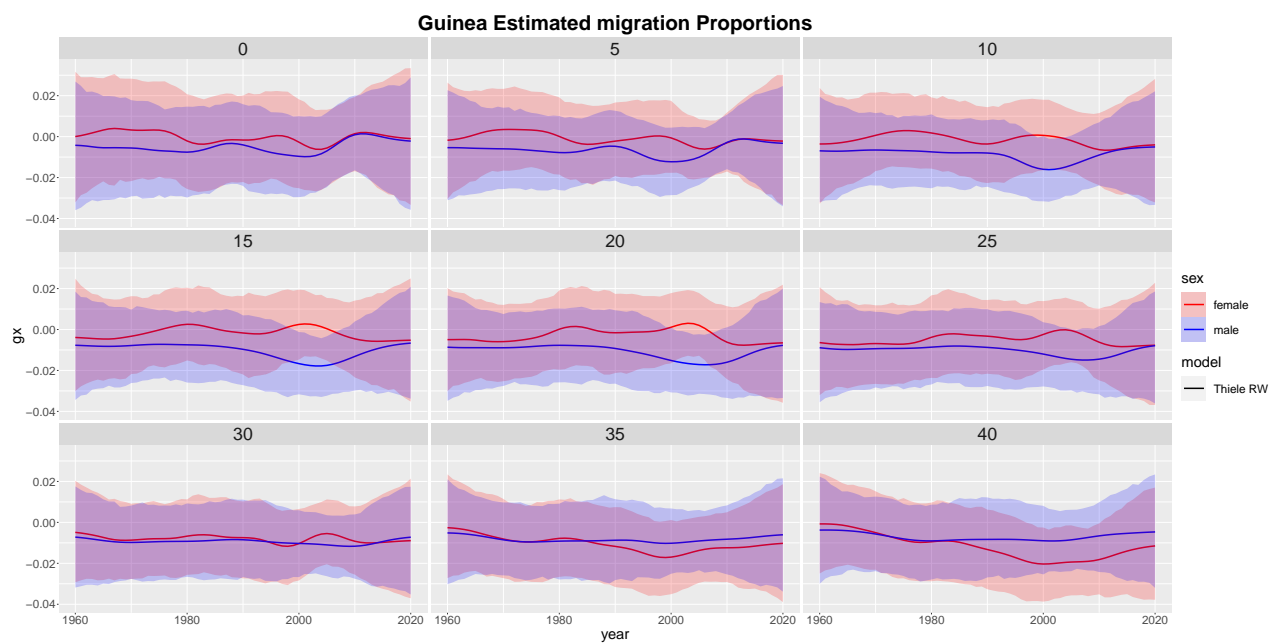


Figure 15: Migration

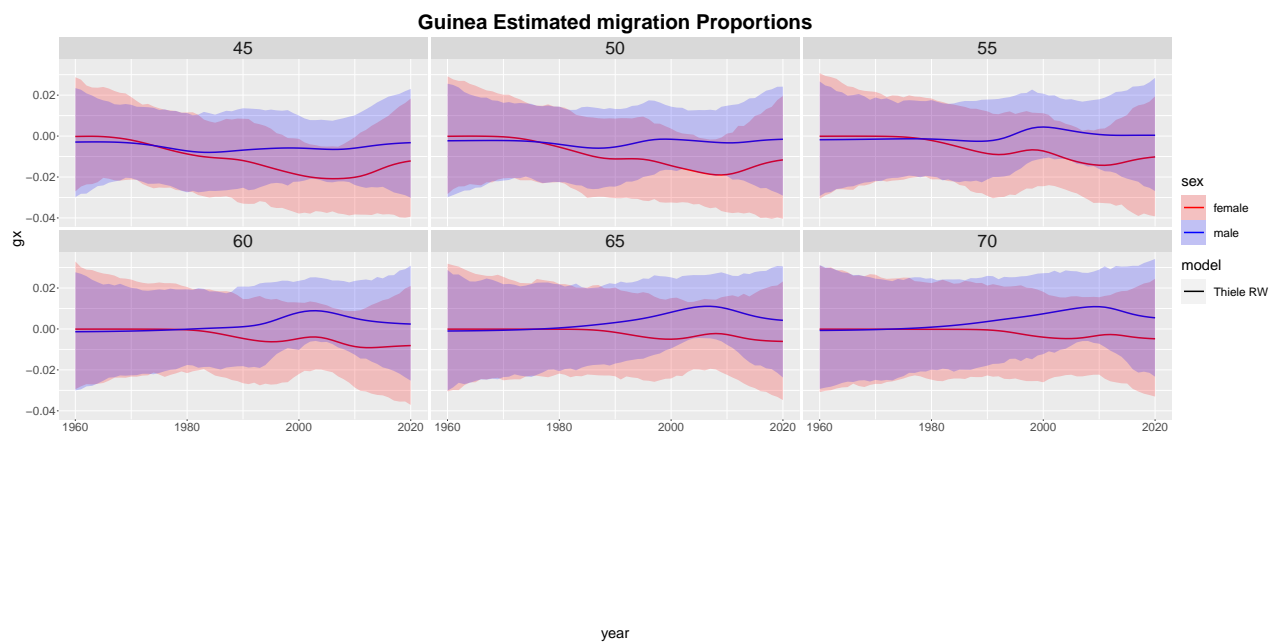


Figure 16: Migration

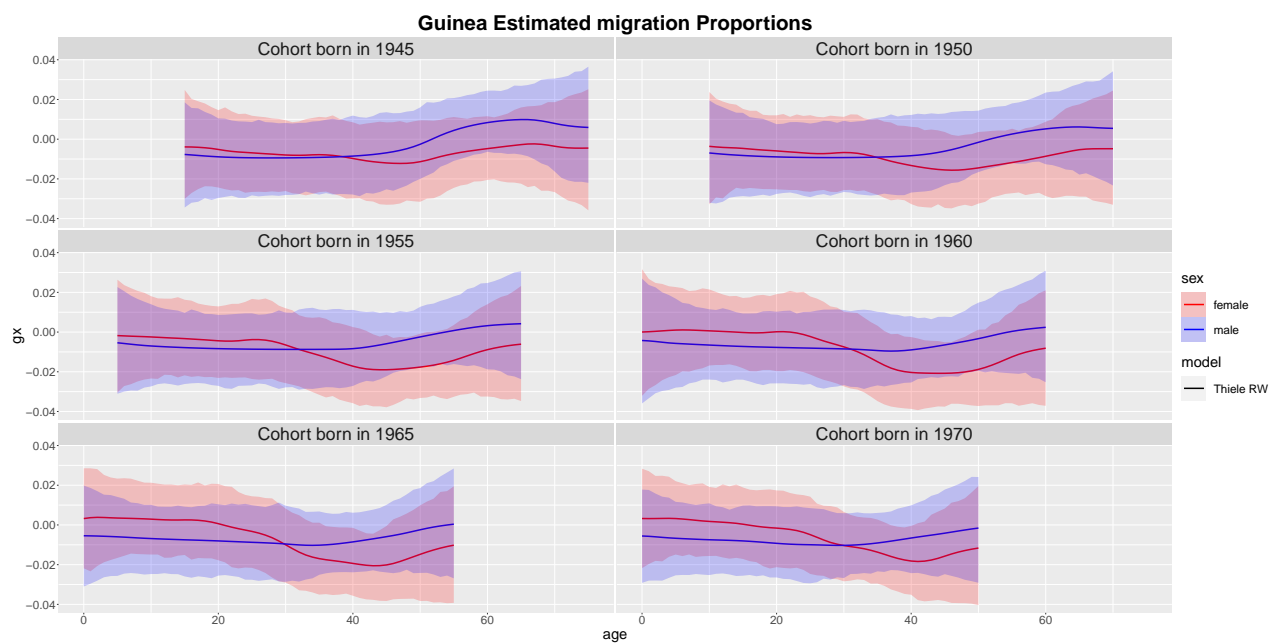


Figure 17: Migration

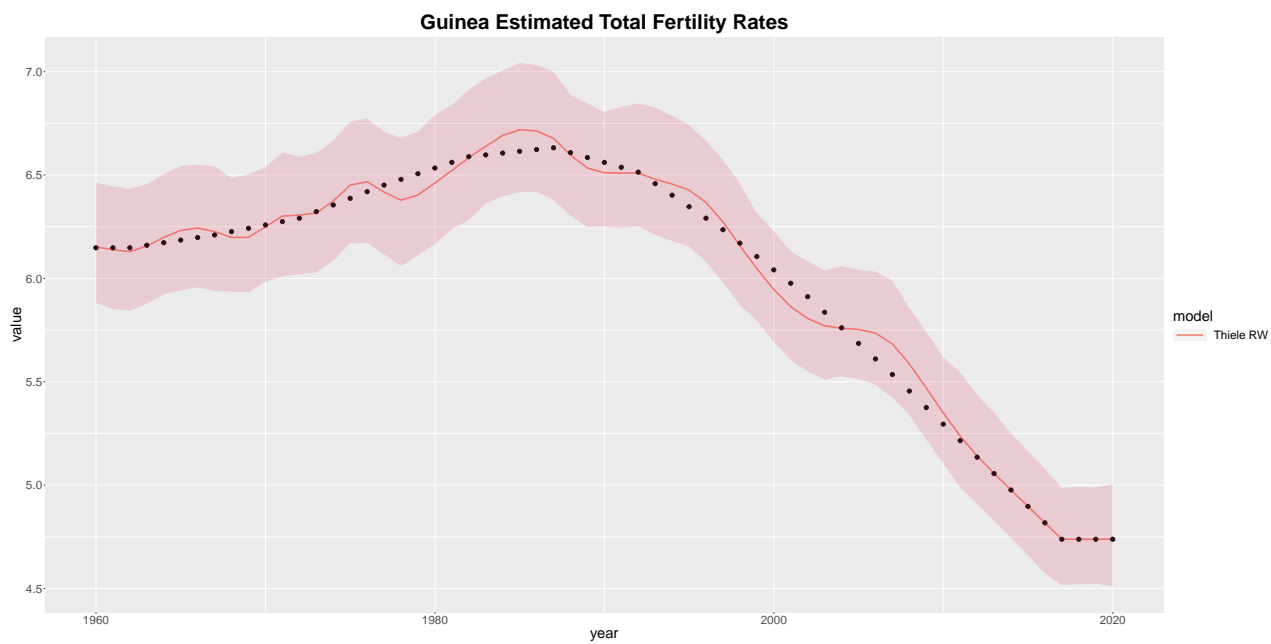


Figure 18: Total Fertility

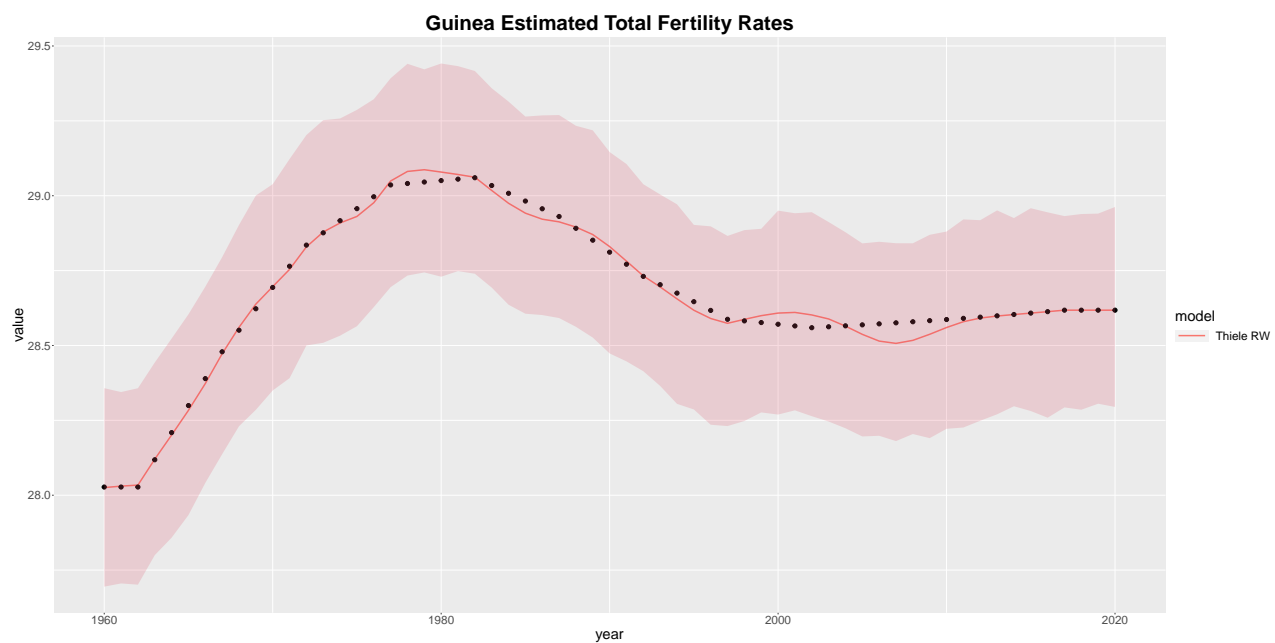


Figure 19: Mean age at births

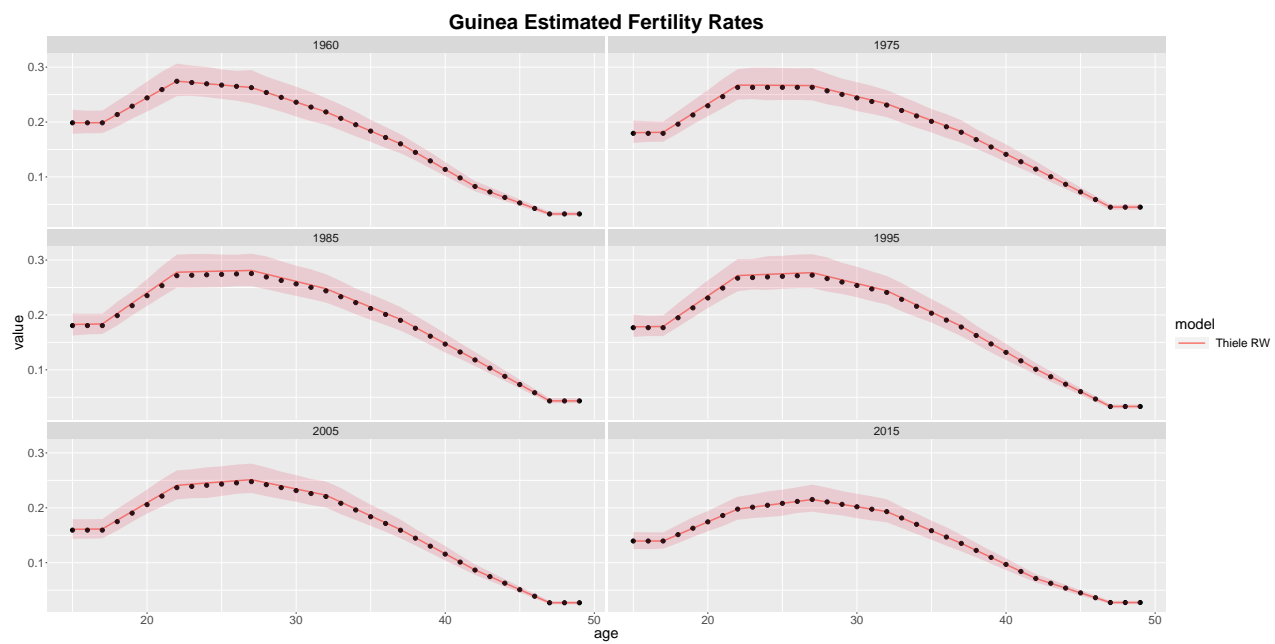


Figure 20: Fertility

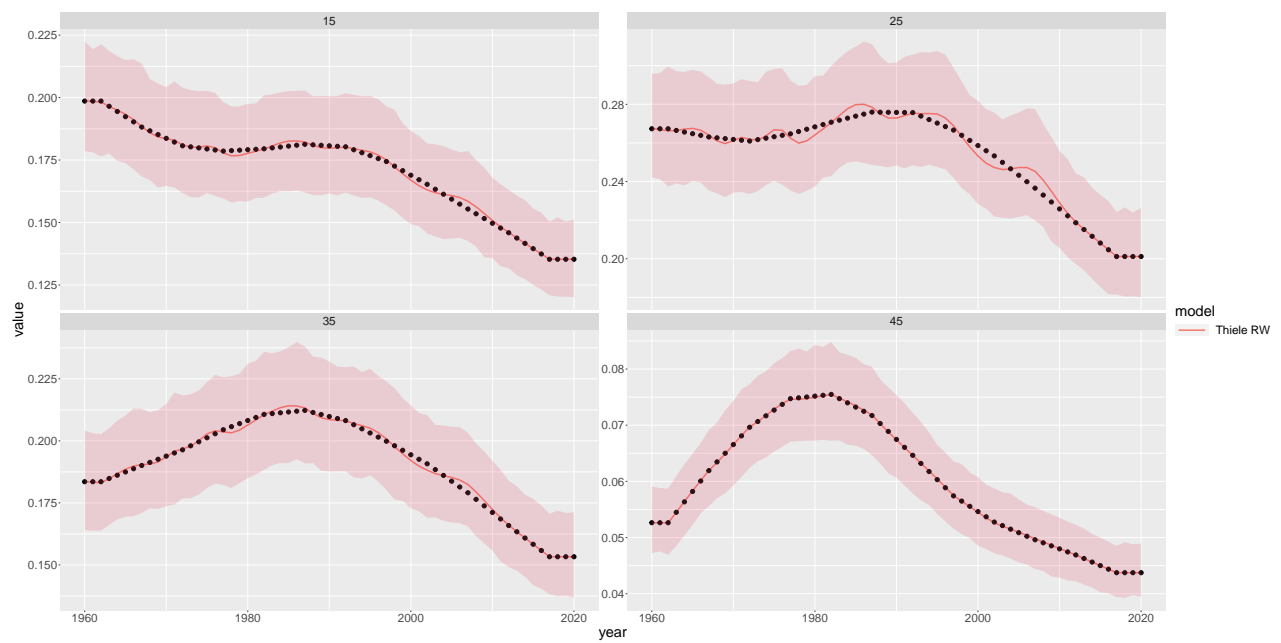


Figure 21: Fertility