Guinea

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

```
## # A tibble: 87 x 2
##     age  `2014`
##   <dbl>   <dbl>
## 1     0 161421
## 2     1 156097.
## 3     2 174828.
## 4     3 179276
## 5     4 178629.
## 6     5 170993.
## 7     6 168163.
## 8     7 163286.
## 9     8 156460
## 10    9 148141.
## # ... with 77 more rows
```

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

```
## # A tibble: 87 x 2
##     age  `2014`
##   <dbl>   <dbl>
## 1     0 164792
## 2     1 160347.
## 3     2 178135.
## 4     3 183095.
## 5     4 182935.
## 6     5 175640
## 7     6 173178.
## 8     7 168315.
## 9     8 161385.
## 10    9 152757.
## # ... with 77 more rows
```

Thiele log-Normal Hump Spline

```
## [1] "relative convergence (4)"
```

```
##          log_tau2_logpop_f          log_tau2_logpop_f          log_tau2_logpop_m            log_tau2_
##                  5.3642831                  4.3276842                  5.3882514                    4
##          log_tau2_gx_m          log_lambda_gx_age_f          log_lambda_gx_age_m          log_lambda_g
##                  3.5313680                  7.9426382                  7.9678733                    7
##   log_lambda_gx_agetime_m             log_lambda_tp log_lambda_tp_0_inflated_sd              log_disp
##                  6.9077539                  1.9292822                 -1.8120720                    0
##      log_marginal_prec_psi_f        log_marginal_prec_A_f        log_marginal_prec_B_f      log_marginal_pr
##                  4.3143547                  6.8013211                  6.6953947                    4
##         log_marginal_prec_B_m            log_lambda_phi_f            log_lambda_psi_f            log_lambda_
##                  6.3122073                  4.3631990                  4.3281216                    4
##            log_lambda_A_f              log_lambda_B_f            log_lambda_phi_m             log_lamb
##                  4.3049068                  4.2702953                  4.3792988                    4
##        log_lambda_epsilon_m            log_lambda_A_m              log_lambda_B_m
##                  4.5692201                  4.3024107                  4.2581603
```
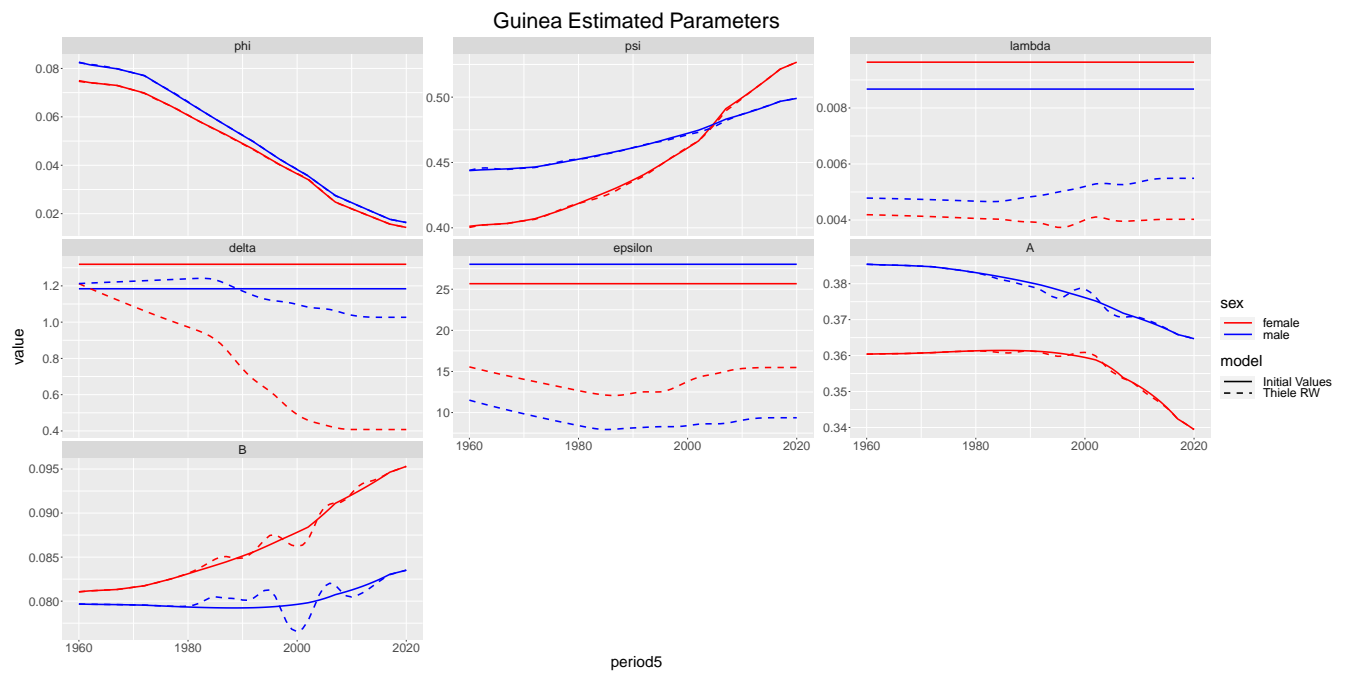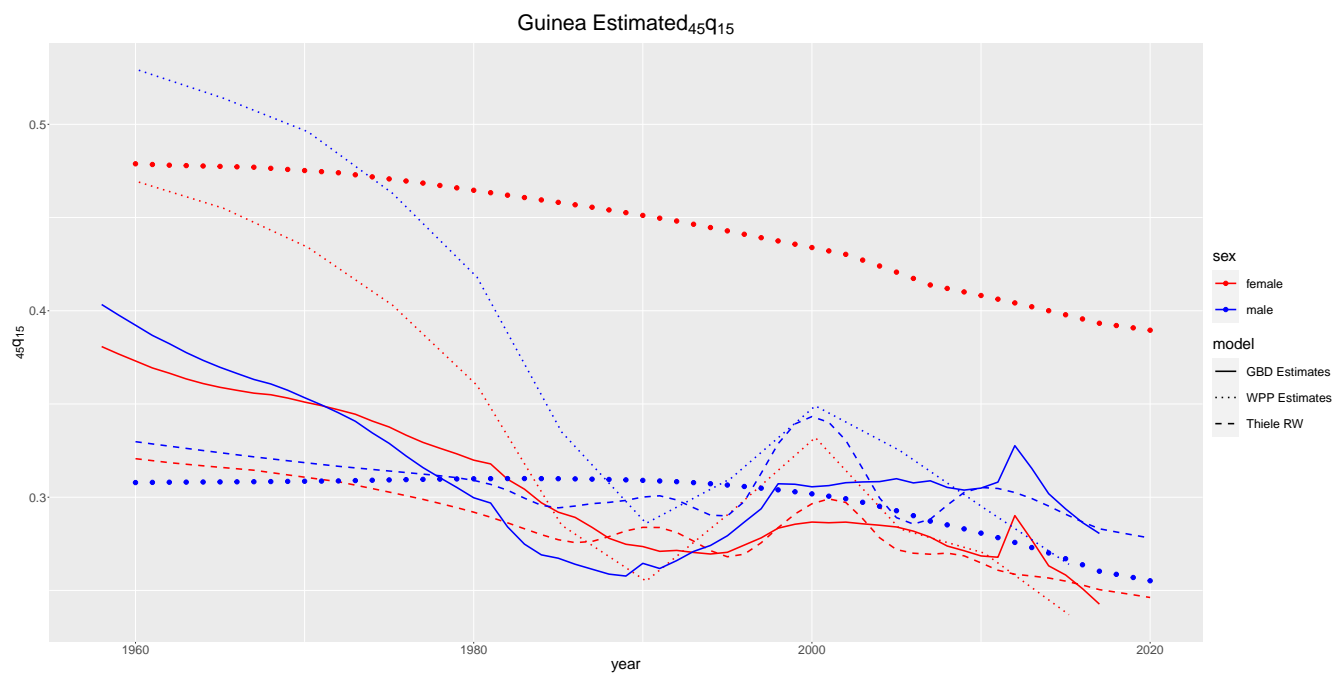
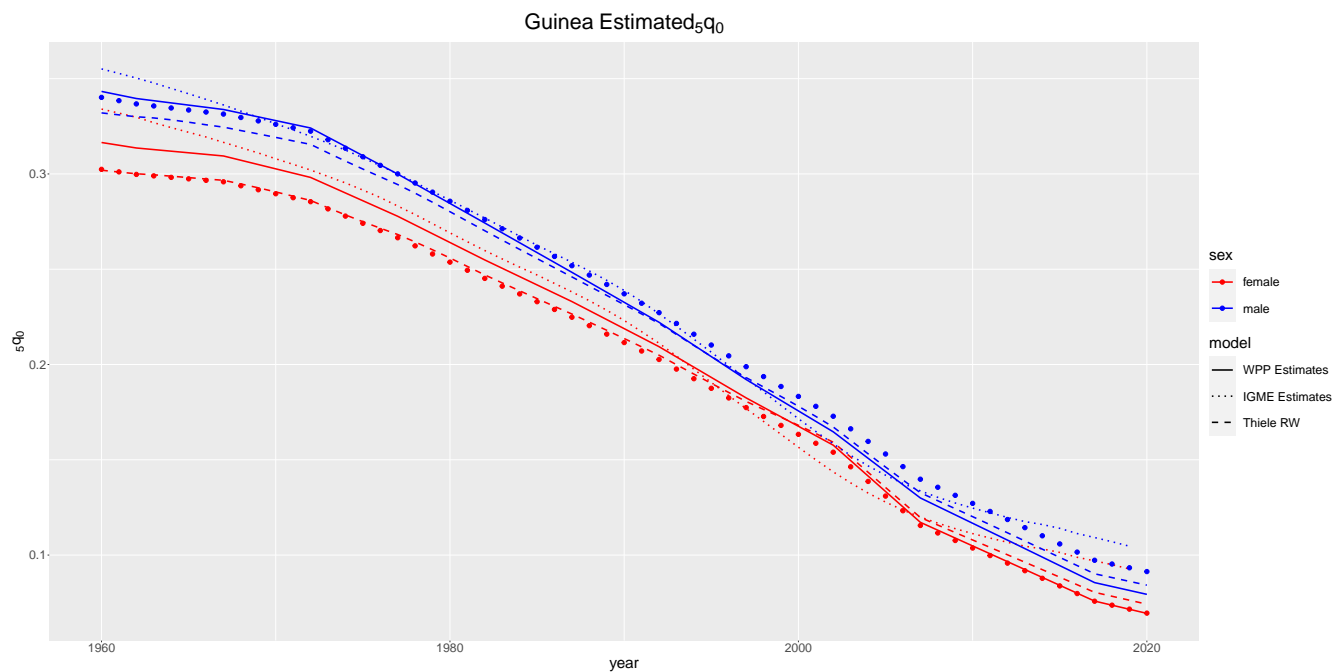Figure 1: Estimated parameters

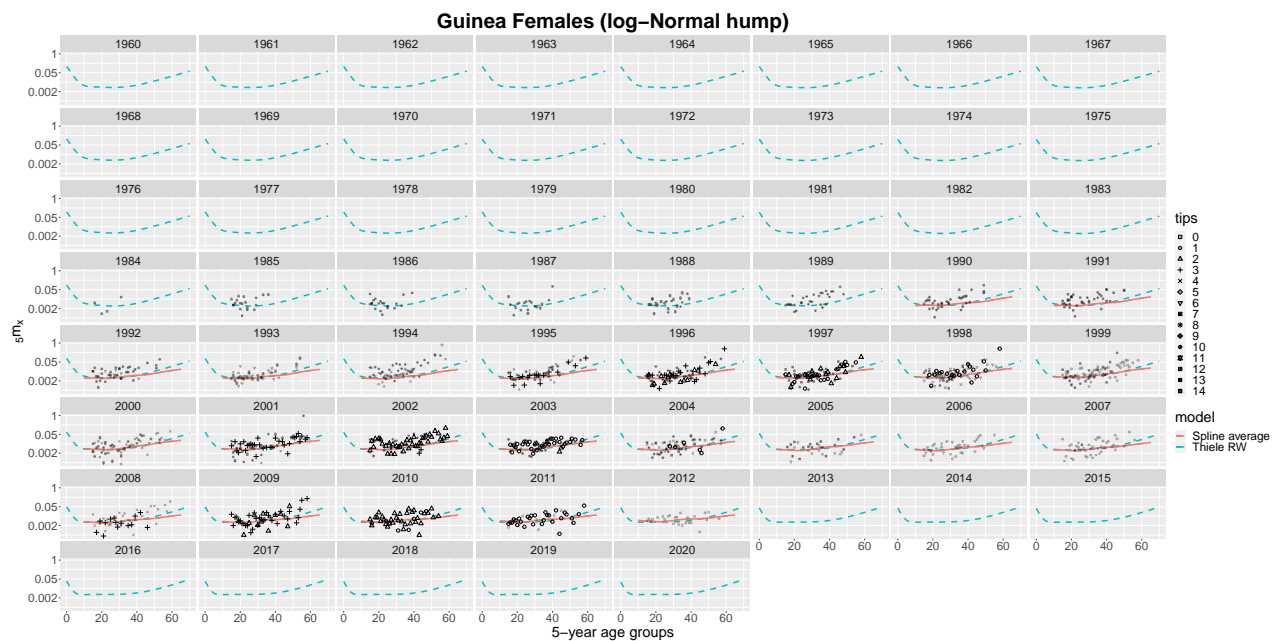Figure 2: Estimated $_{45}q_{15}$

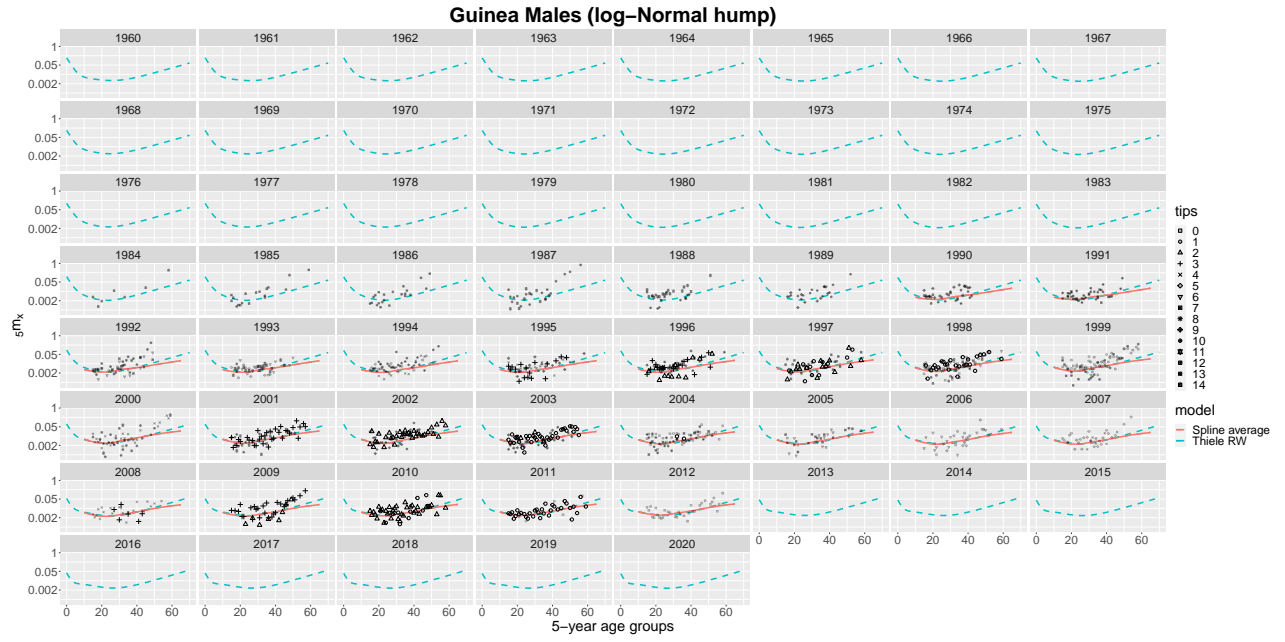Figure 3: Estimated $_5q_0$

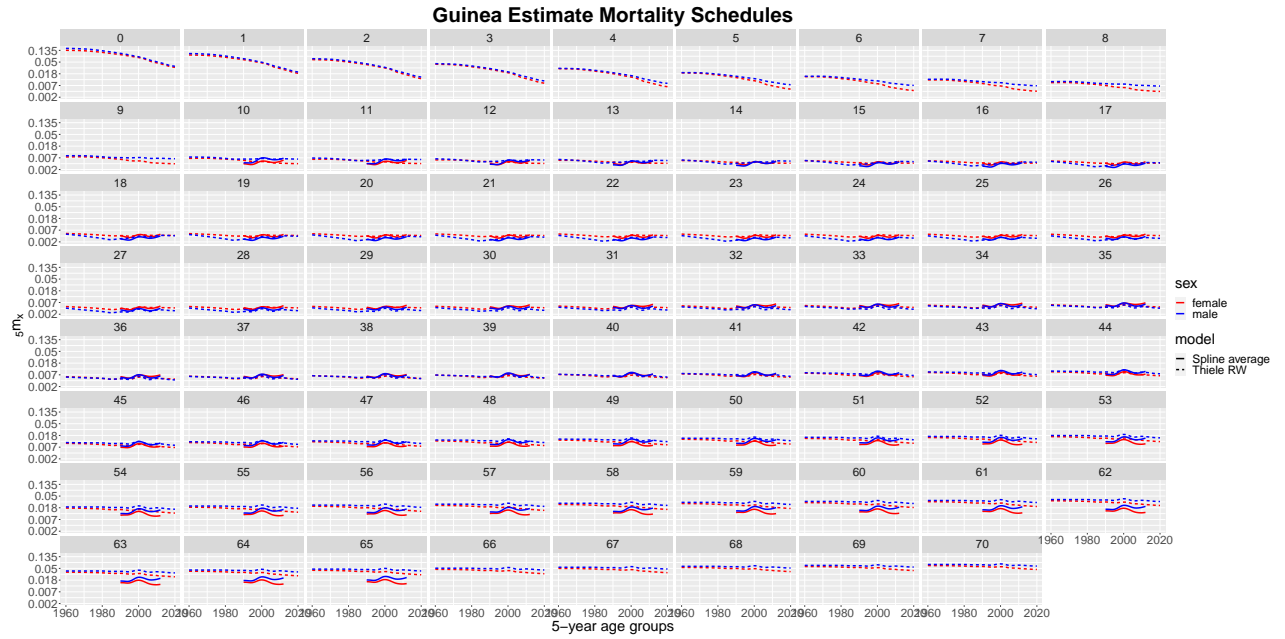Figure 4: Mortality Schedules

4

Figure 5: Mortality Schedules

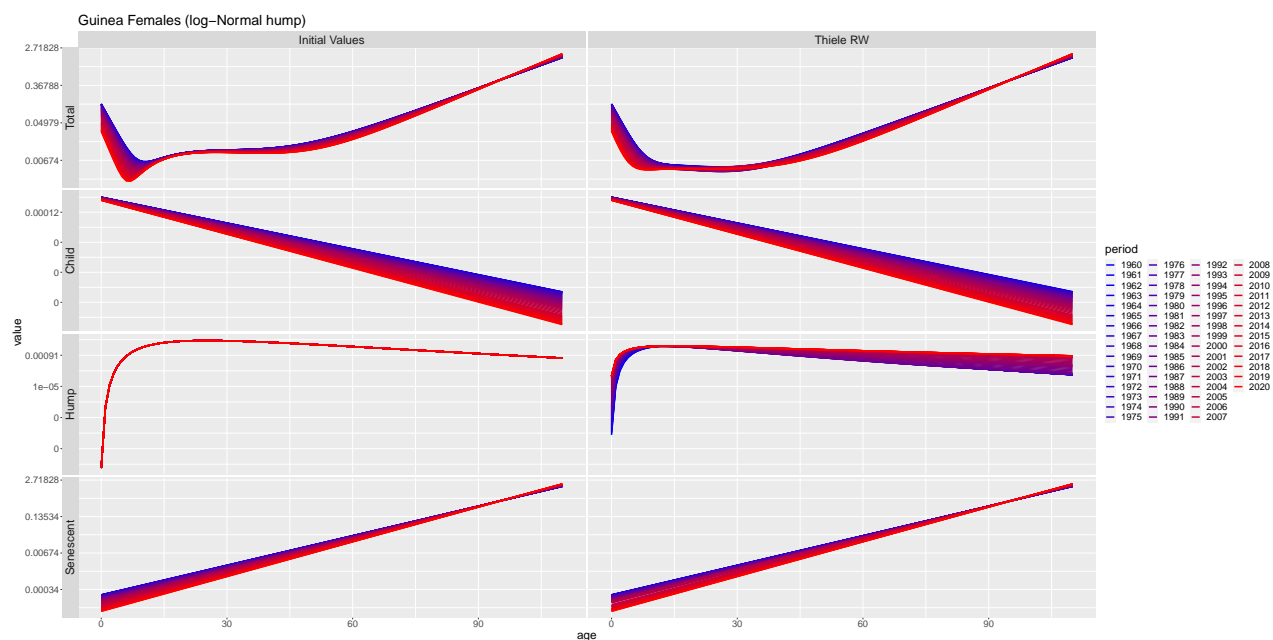Figure 6: Mortality Schedules

5
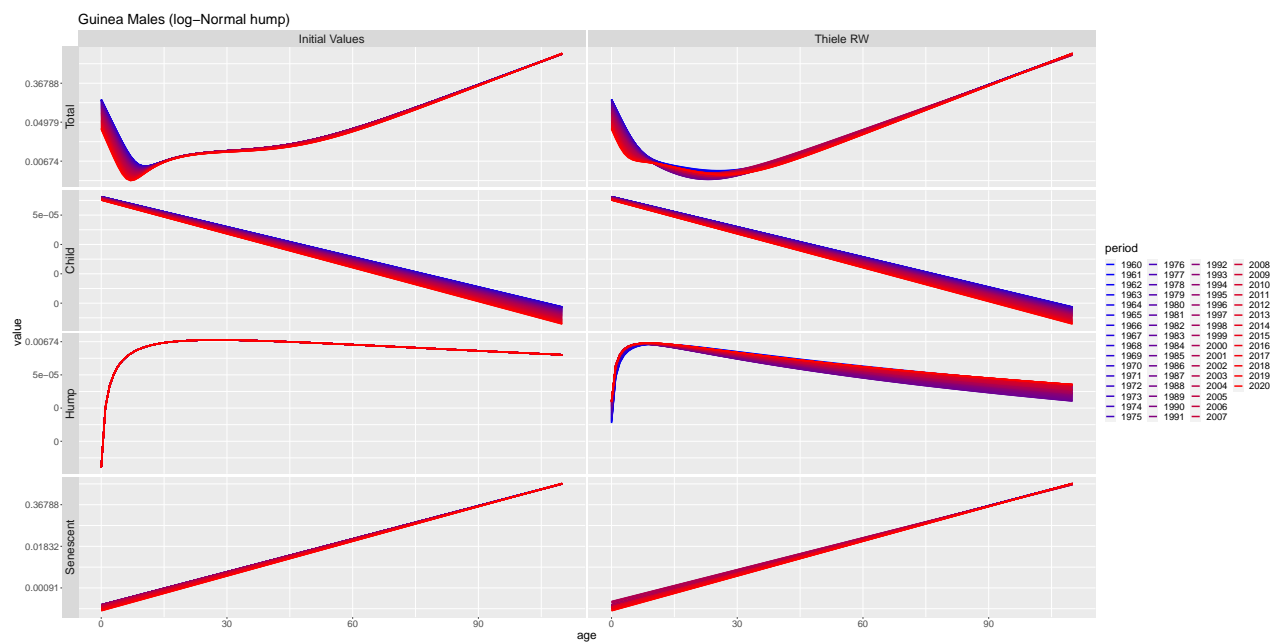
Figure 7: Thiele Decomposed
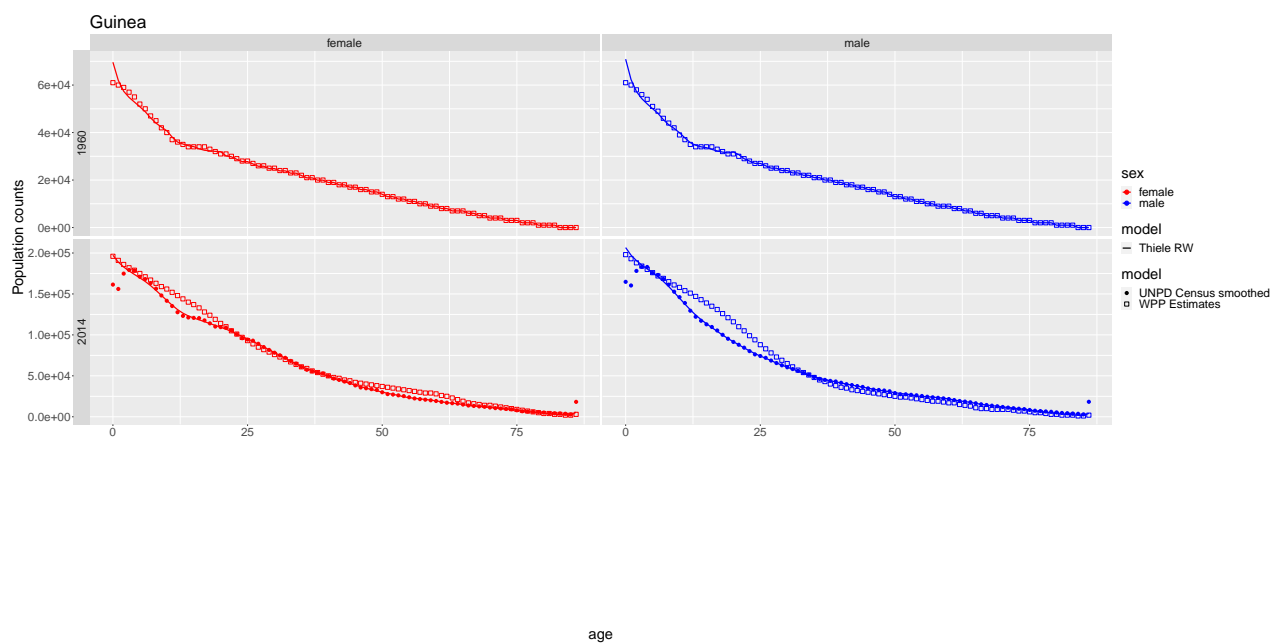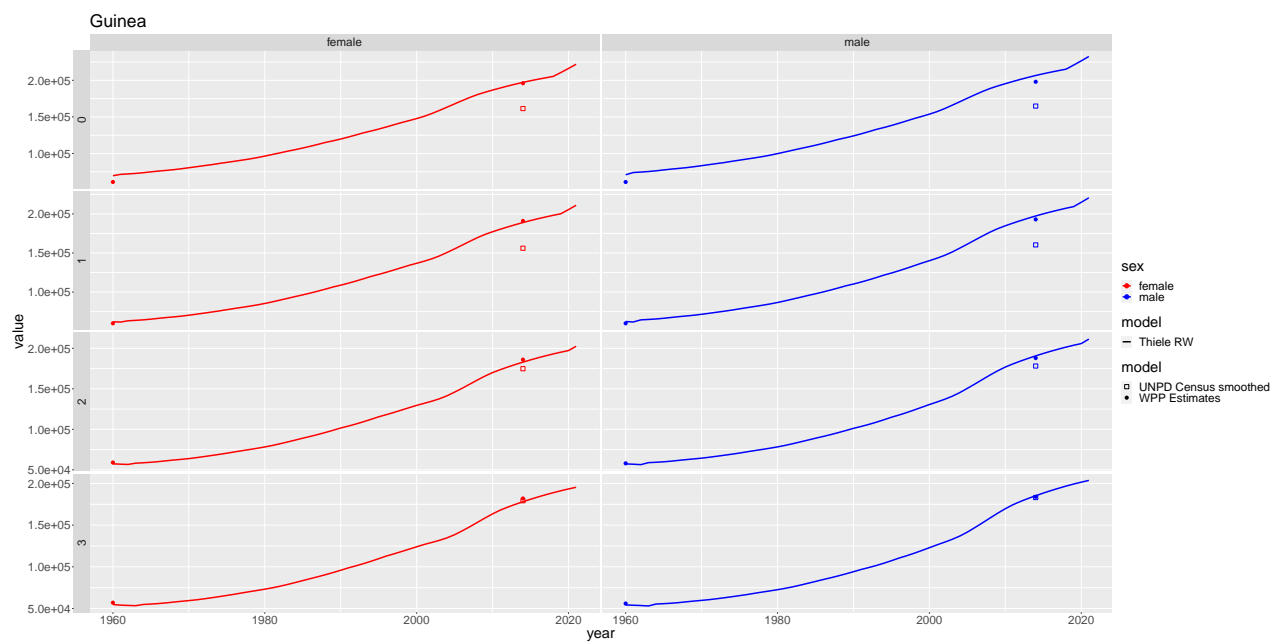

Figure 8: Thiele Decomposed
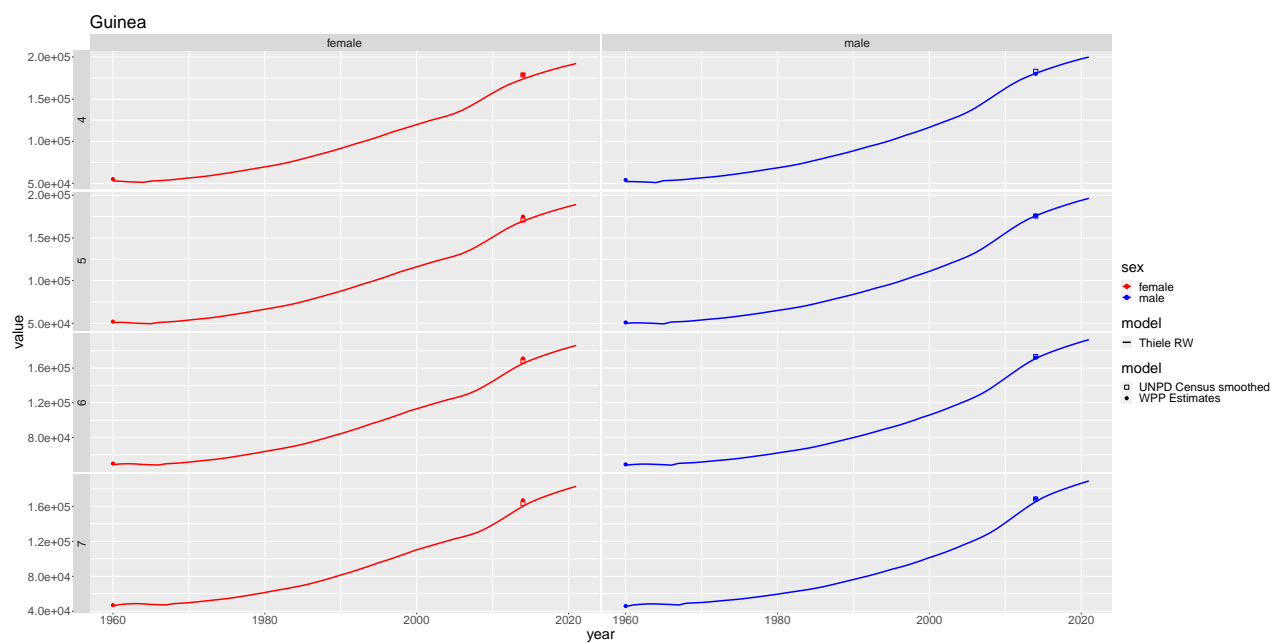
Figure 9: Population
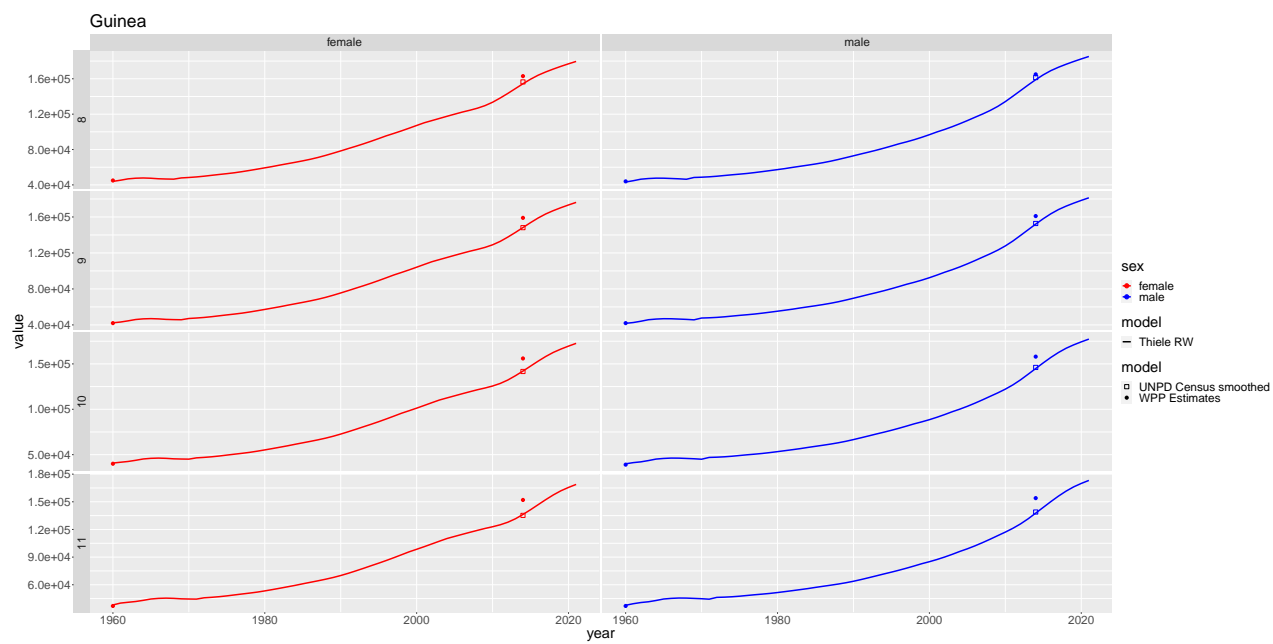

Figure 10: Population
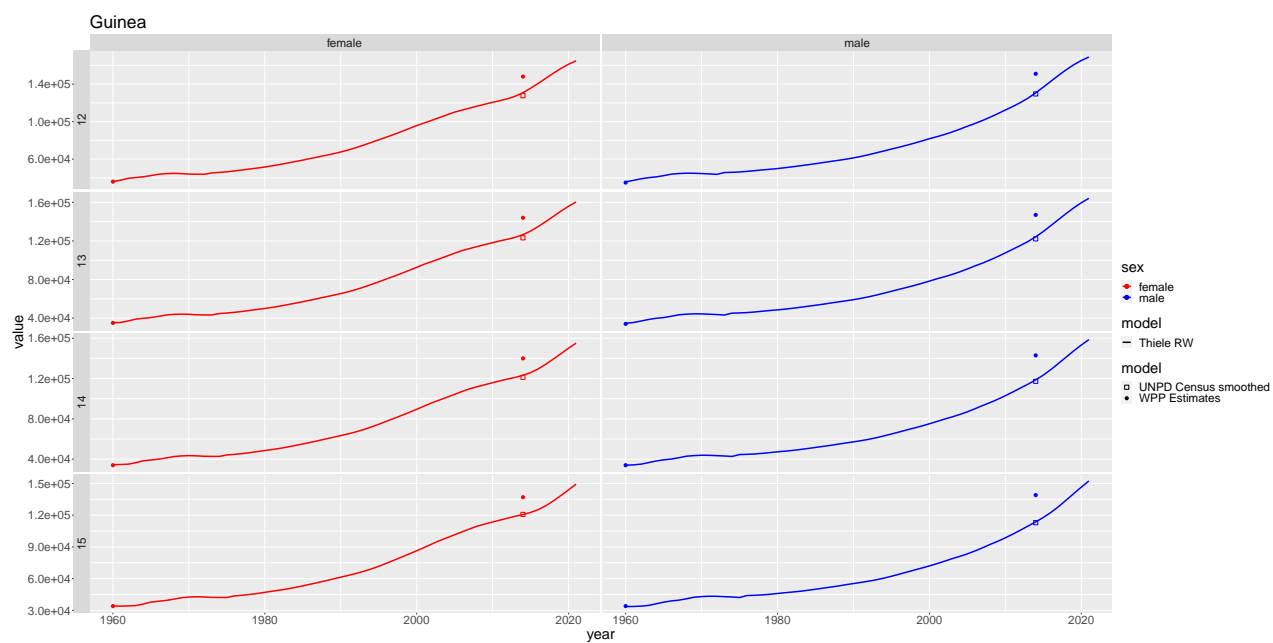
Figure 11: Population

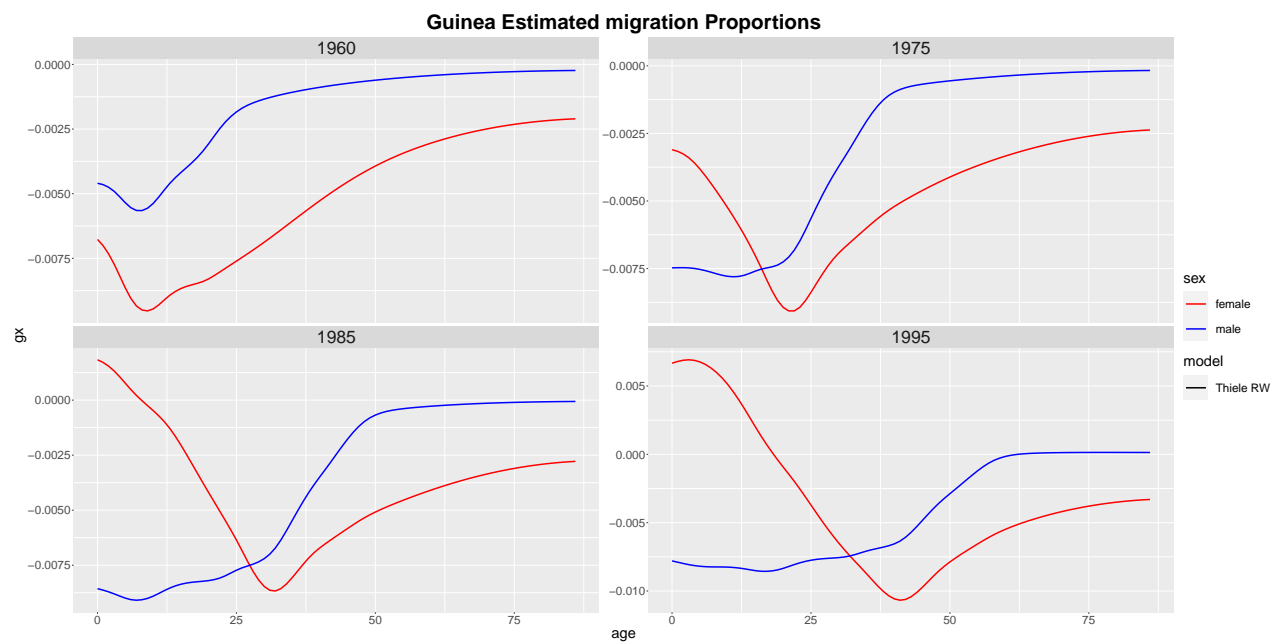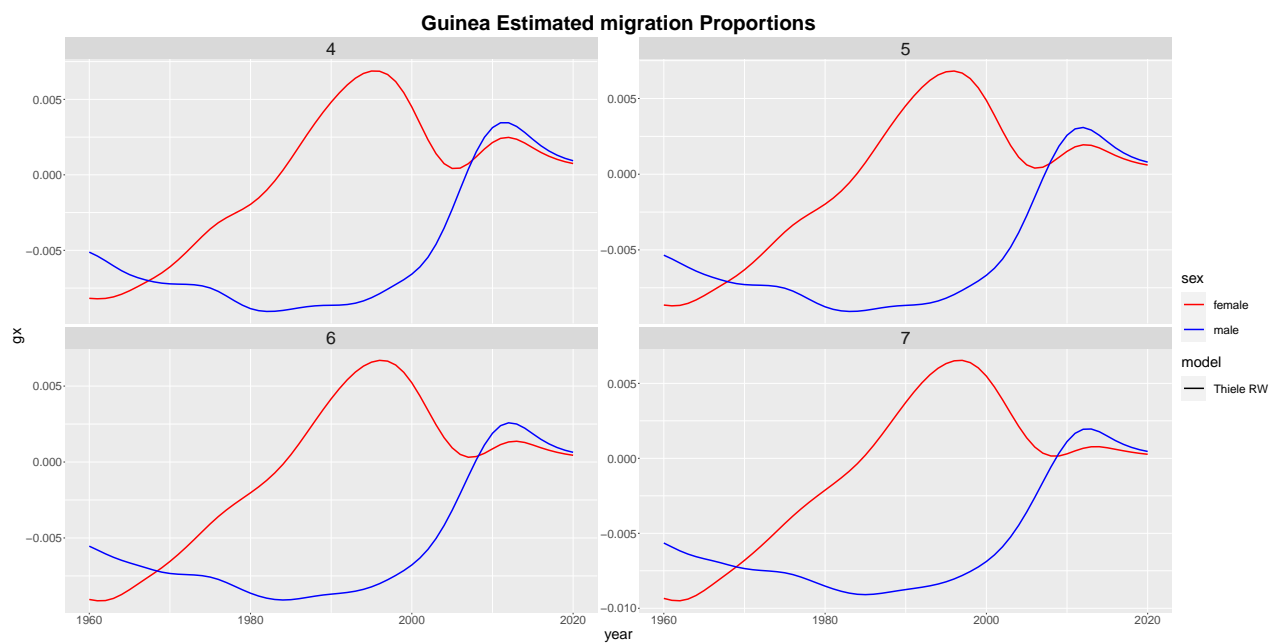Figure 12: Population

Figure 13: Population
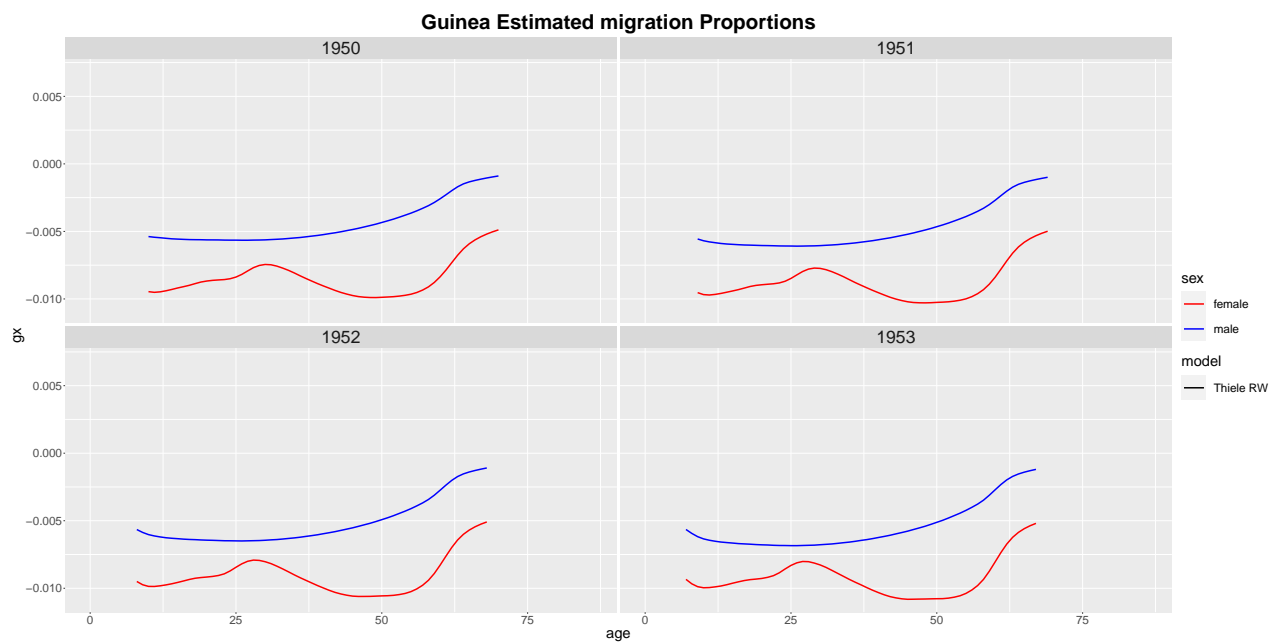

Figure 14: Migration
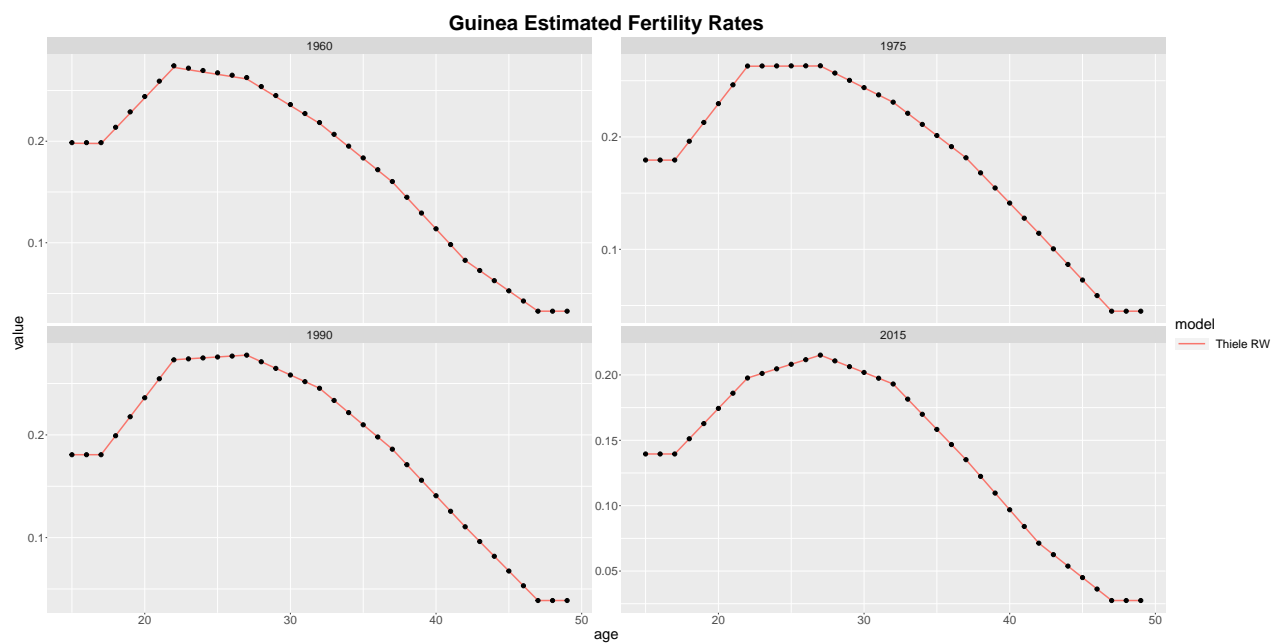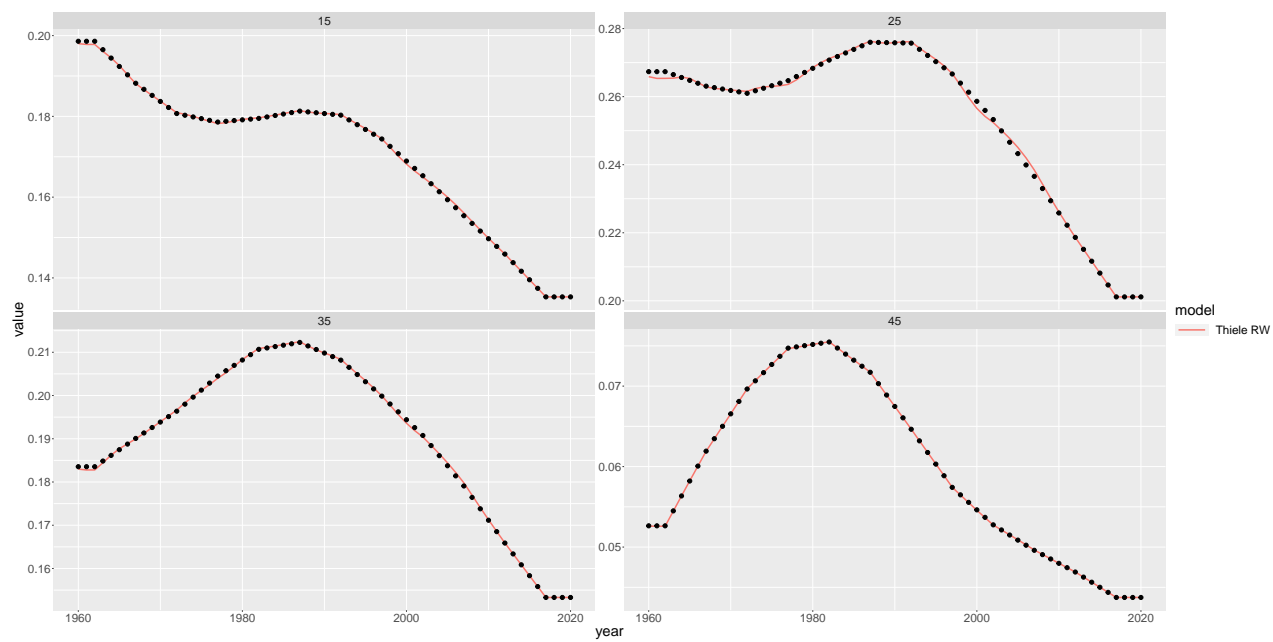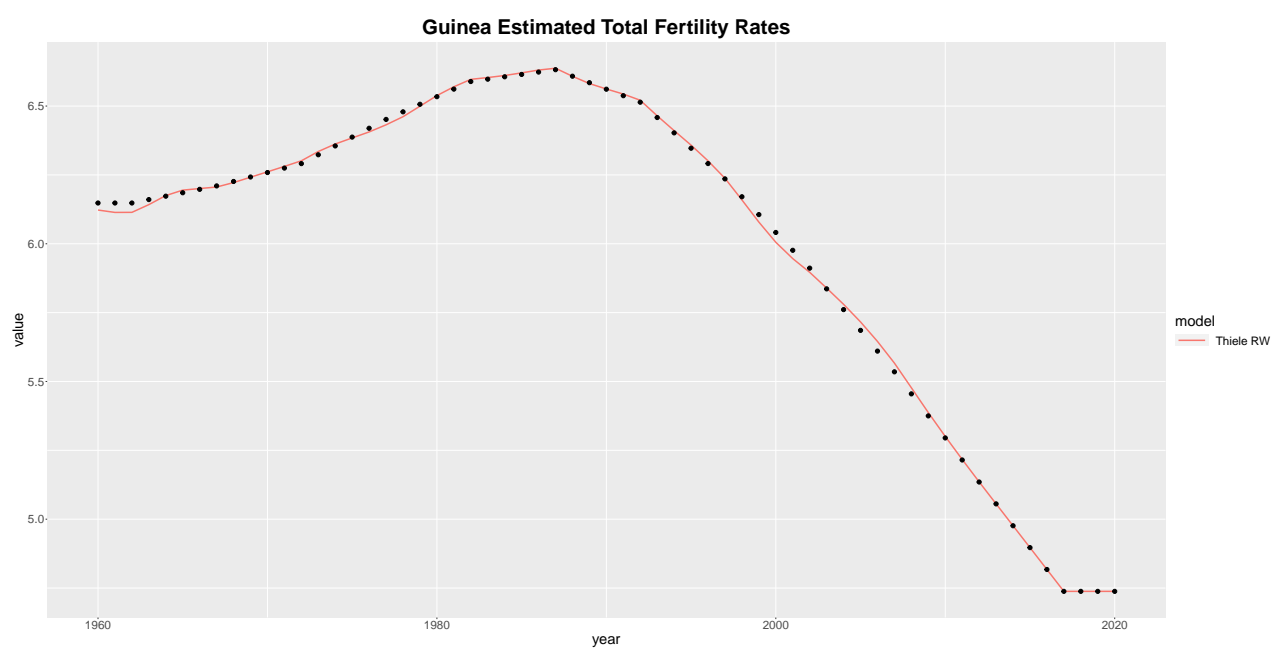
9

Figure 15: Migration

Figure 16: Migration

10

Figure 17: Fertility

Figure 18: Fertility

Figure 19: Total Fertility