Angola

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

## # A tibble: 87 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 77 more rows

## [1] "Census Males"

## # A tibble: 87 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 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_
##                  5.3164540                  4.1571053                  5.3289601                  4
##             log_tau2_gx_m         log_lambda_gx_age_f         log_lambda_gx_age_m          log_lambda_g
##                  3.6723612                  7.6572342                  7.8027012                 7
##       log_lambda_gx_agetime_m             log_lambda_tp log_lambda_tp_0_inflated_sd          log_disp
##                  6.9077579                  2.4834817                  0.6198622                  0
##      log_marginal_prec_psi_f        log_marginal_prec_A_f        log_marginal_prec_B_f       log_marginal_pr
##                  4.3173346                  6.7933779                  6.6869692                  4
##         log_marginal_prec_B_m            log_lambda_phi_f            log_lambda_psi_f            log_lambda_
##                  6.9234302                  4.3313841                  4.3183244                  4
##                log_lambda_A_f              log_lambda_B_f            log_lambda_phi_m               log_lamb
##                  4.3062472                  4.2997146                  4.3510404                  4
##          log_lambda_epsilon_m              log_lambda_A_m              log_lambda_B_m
##                  4.5253056                  4.3072125                  4.3121486
```
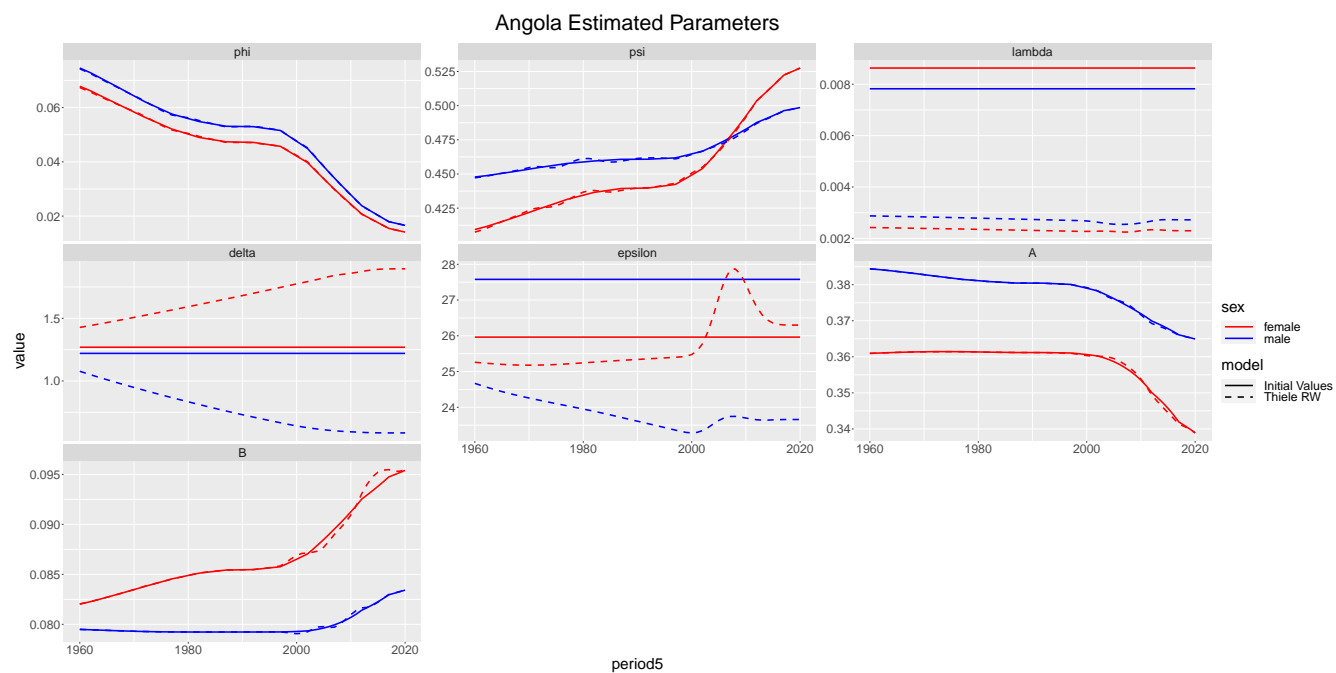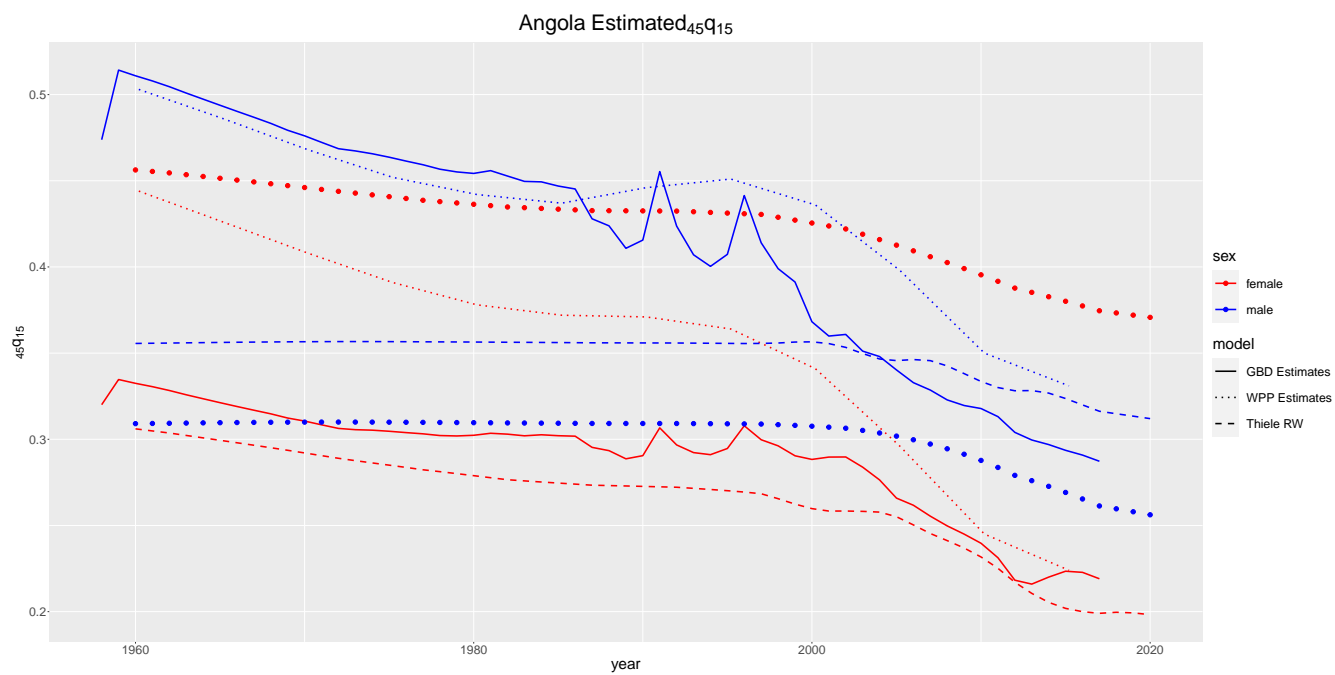
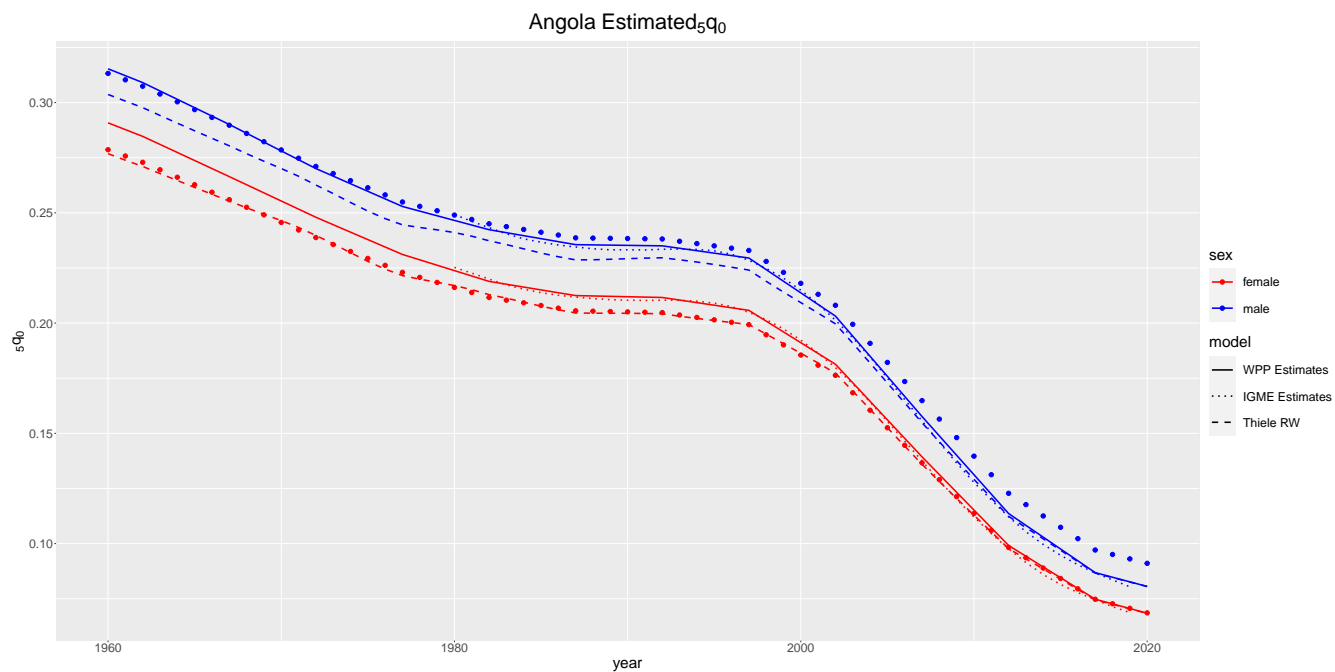Figure 1: Estimated parameters

Figure 2: Estimated $_{45}q_{15}$
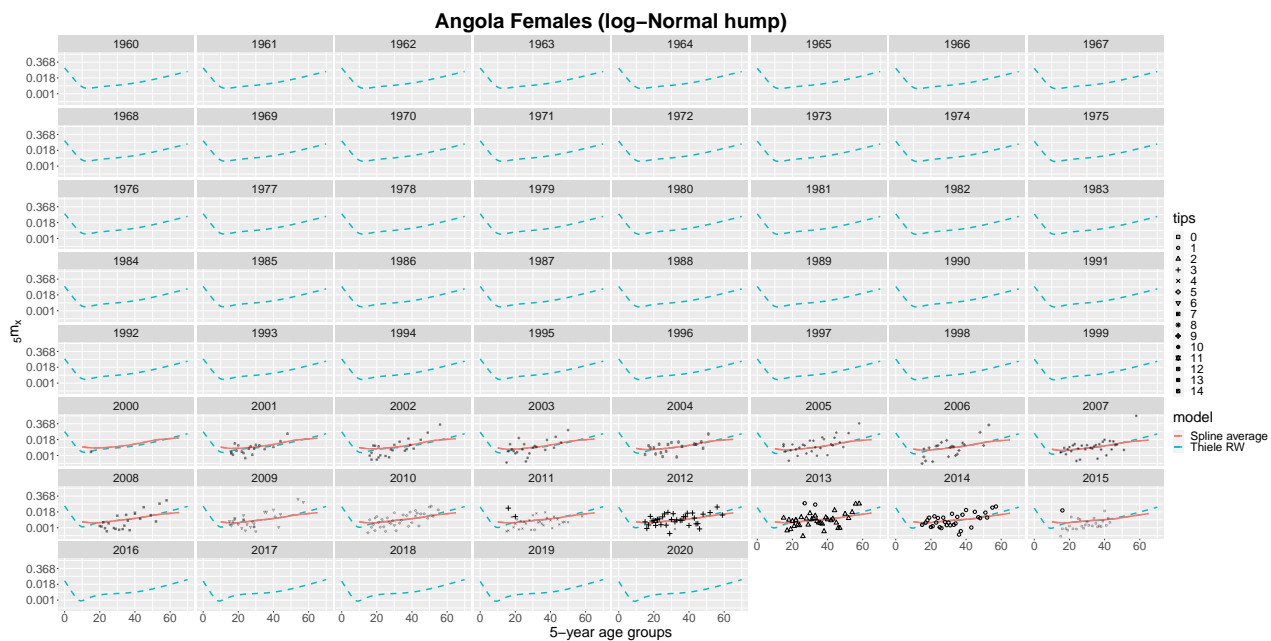
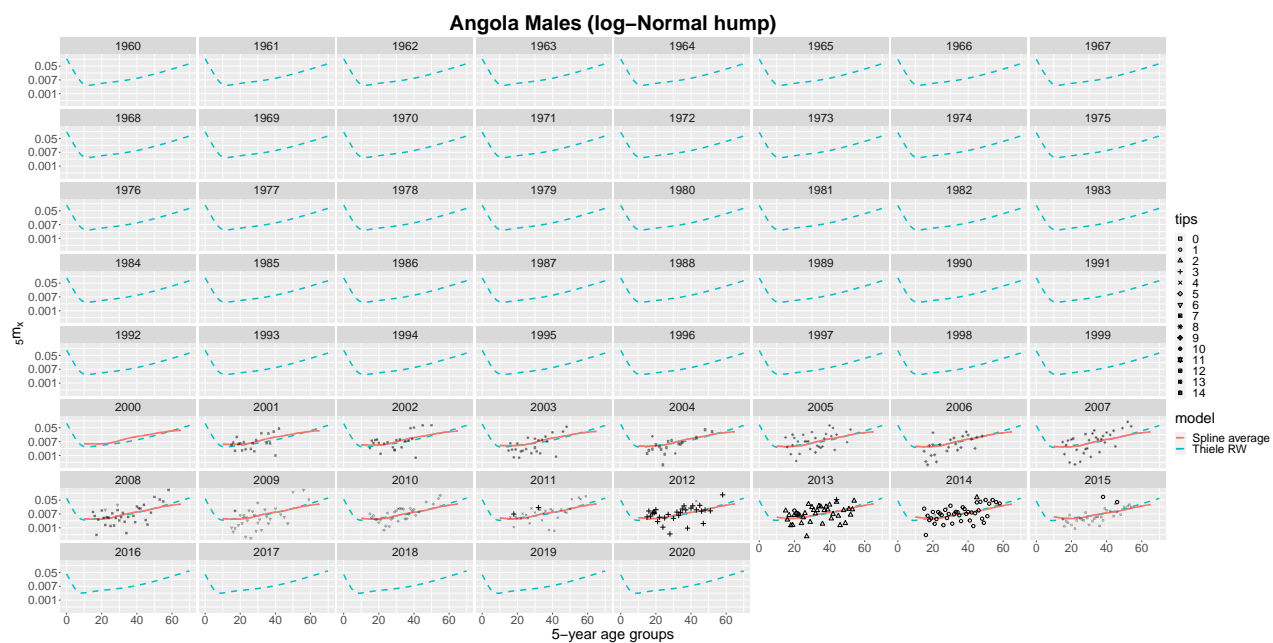Figure 3: Estimated $_5q_0$

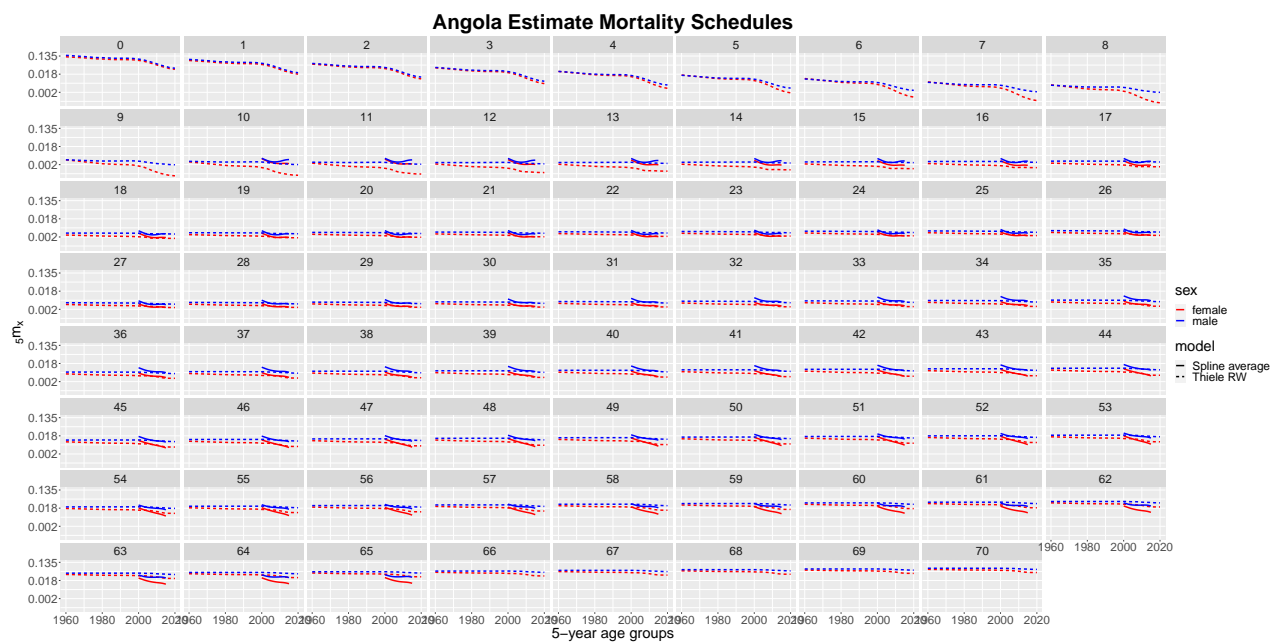Figure 4: Mortality Schedules

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Figure 5: Mortality Schedules
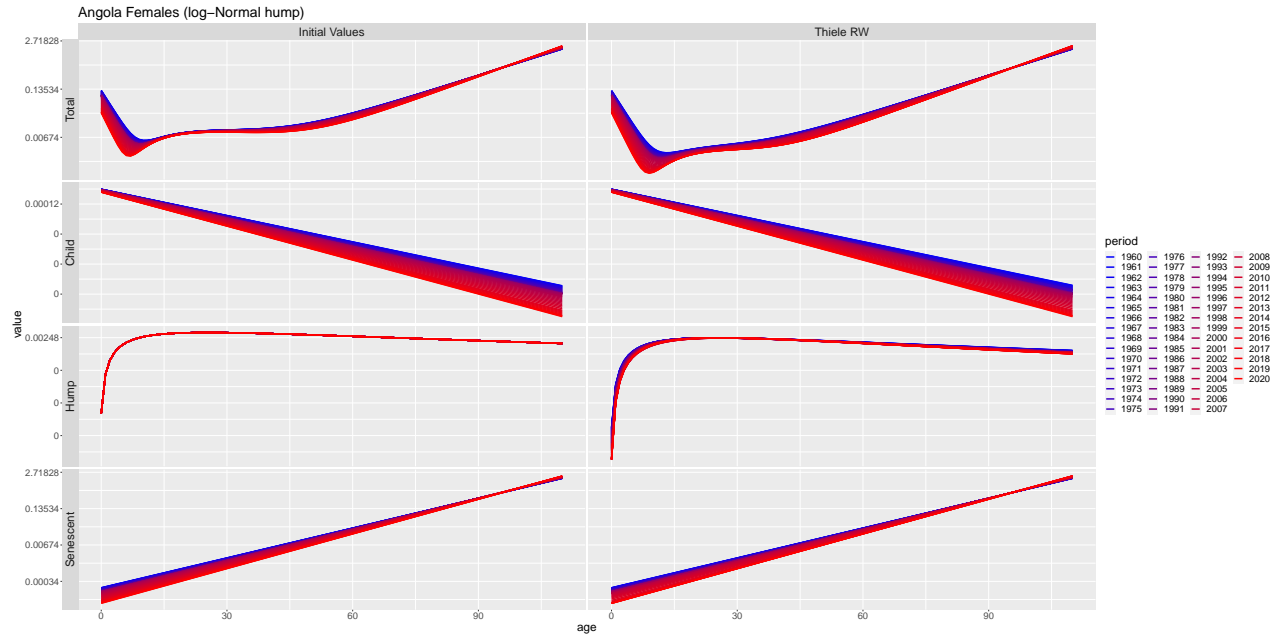

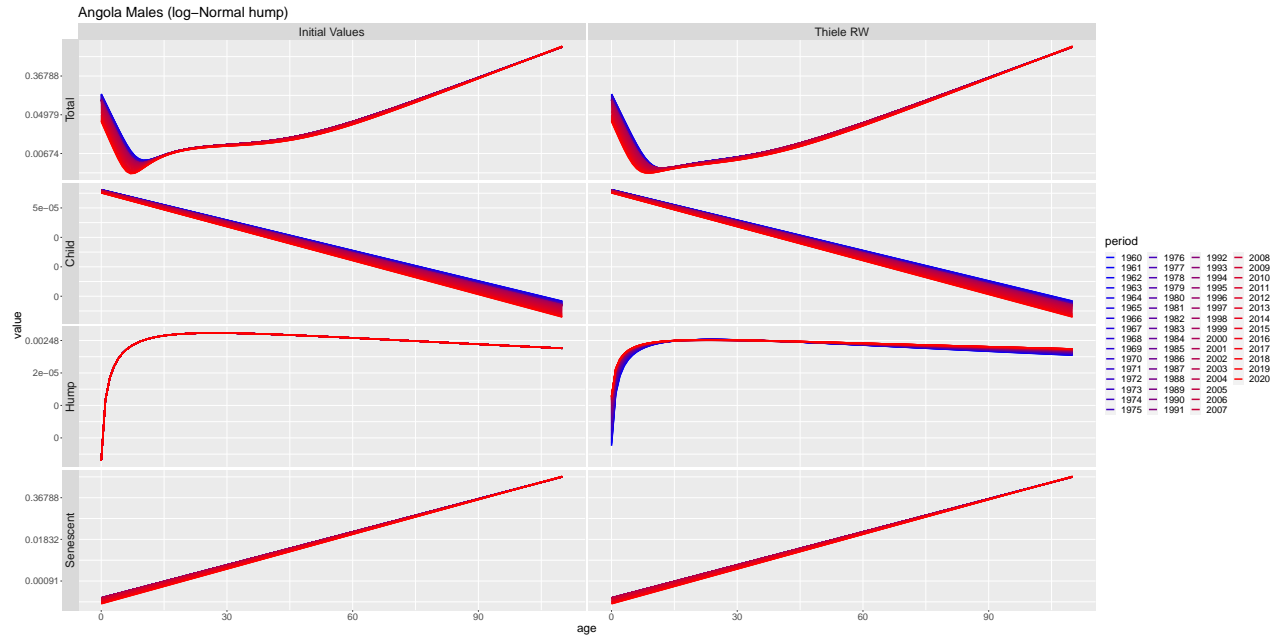Figure 6: Mortality Schedules

5

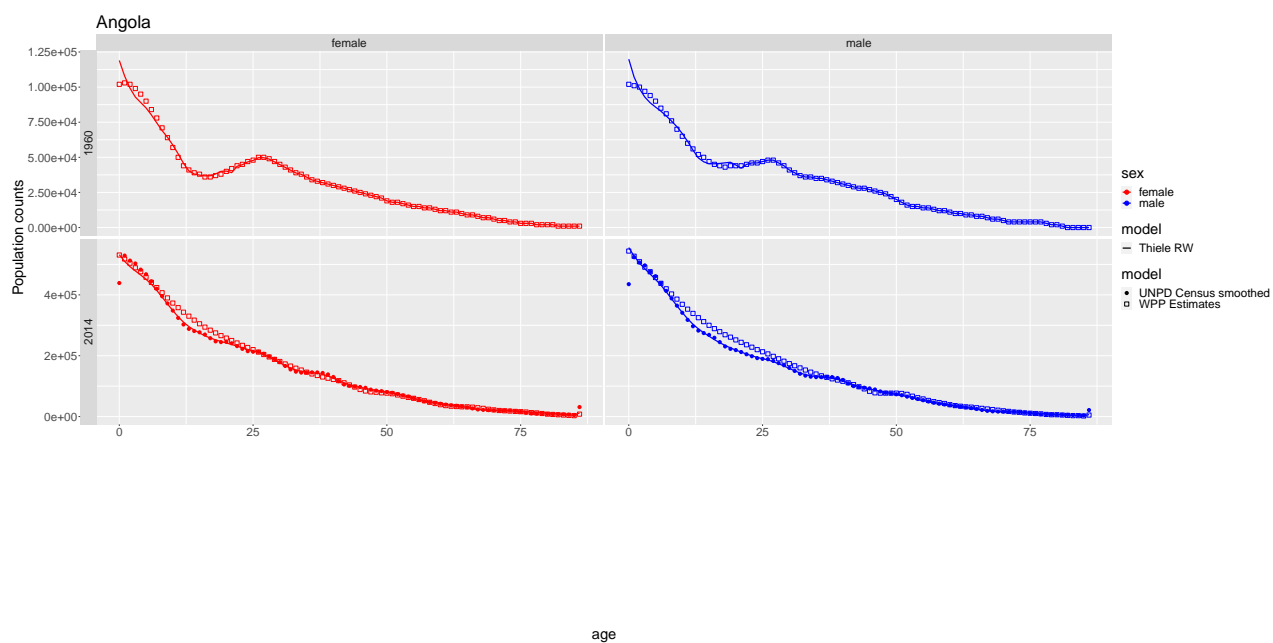Figure 7: Thiele Decomposed

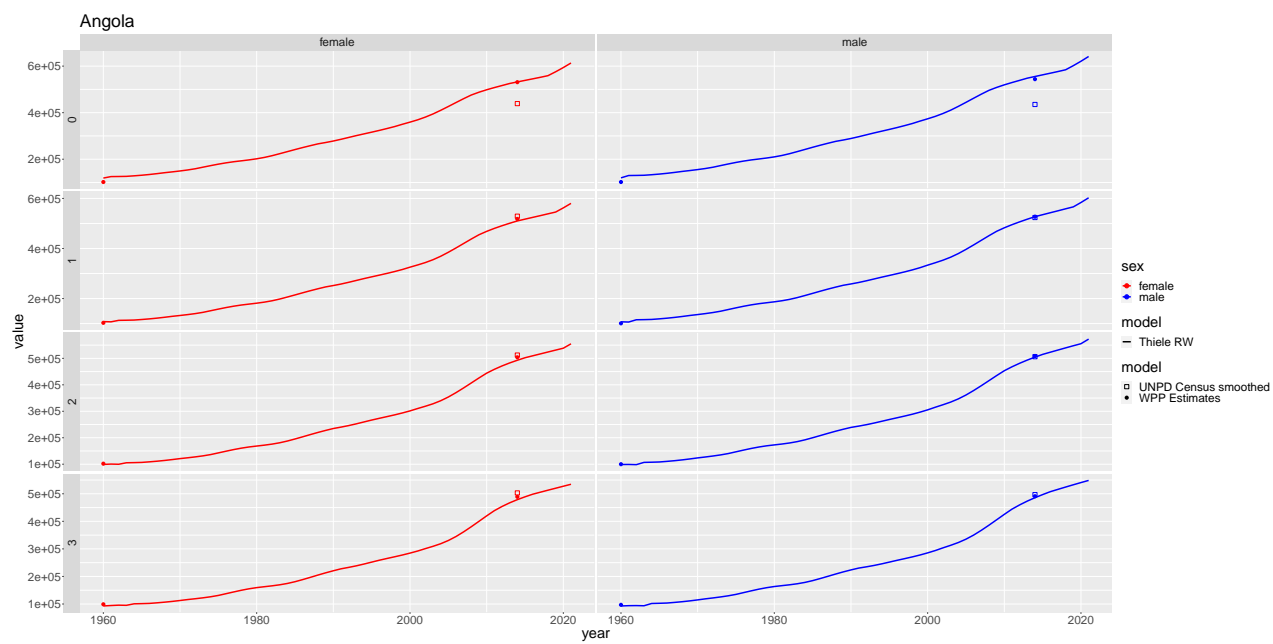Figure 8: Thiele Decomposed

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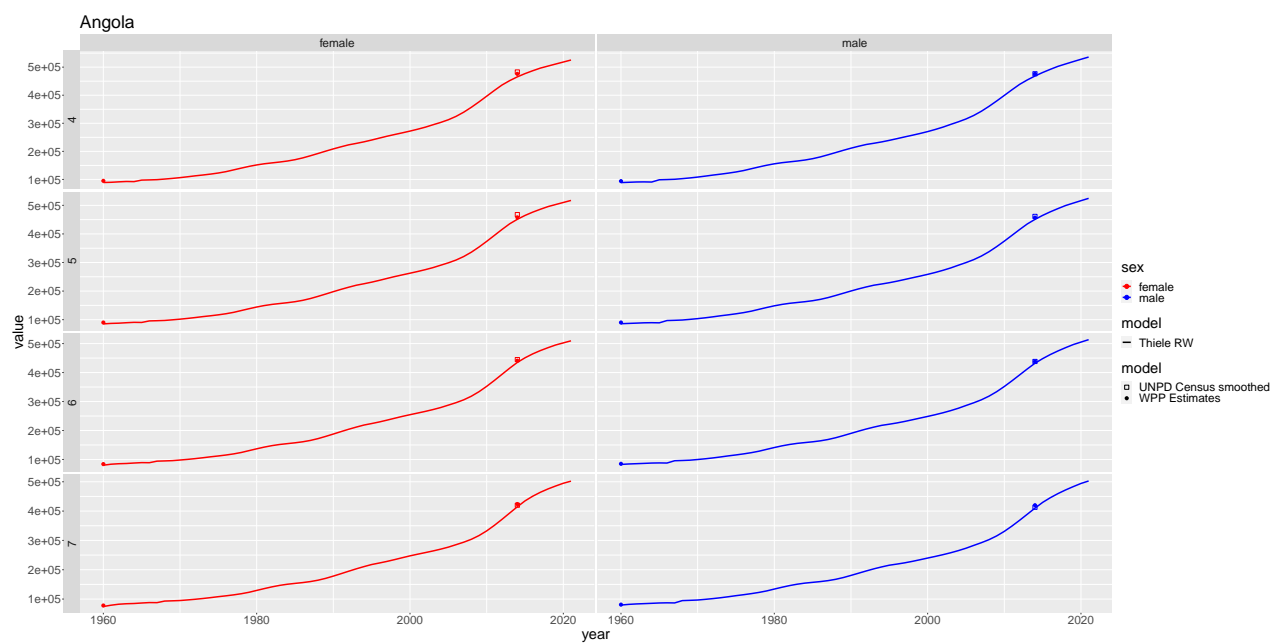Figure 9: Population

Figure 10: Population
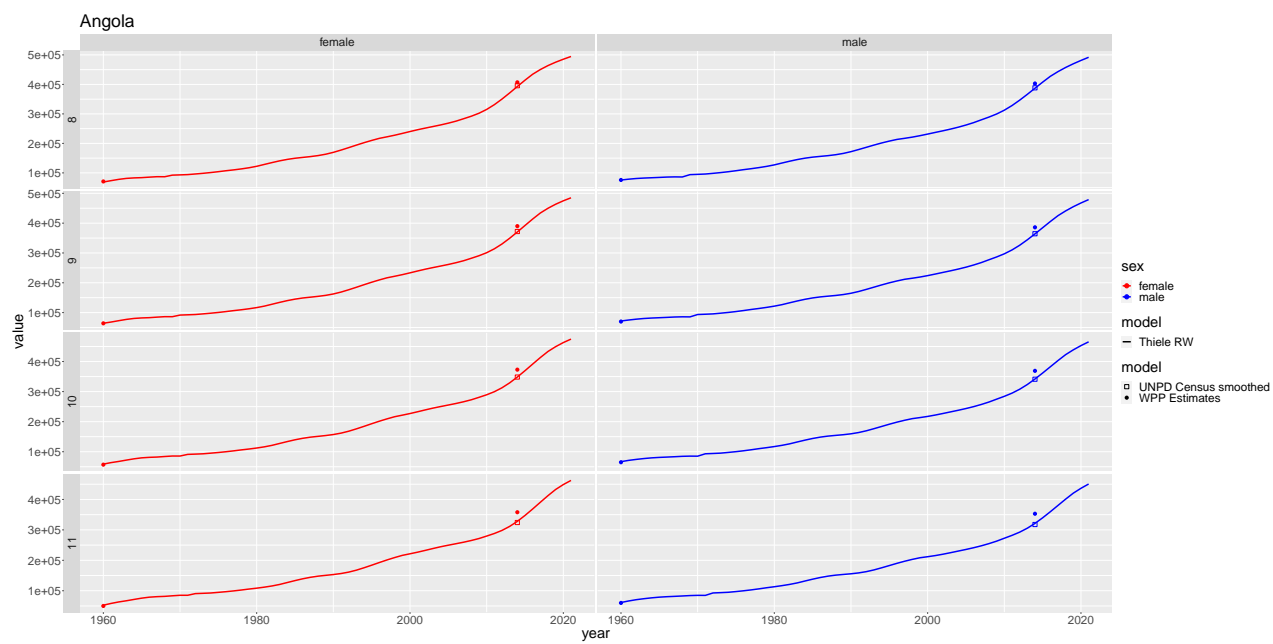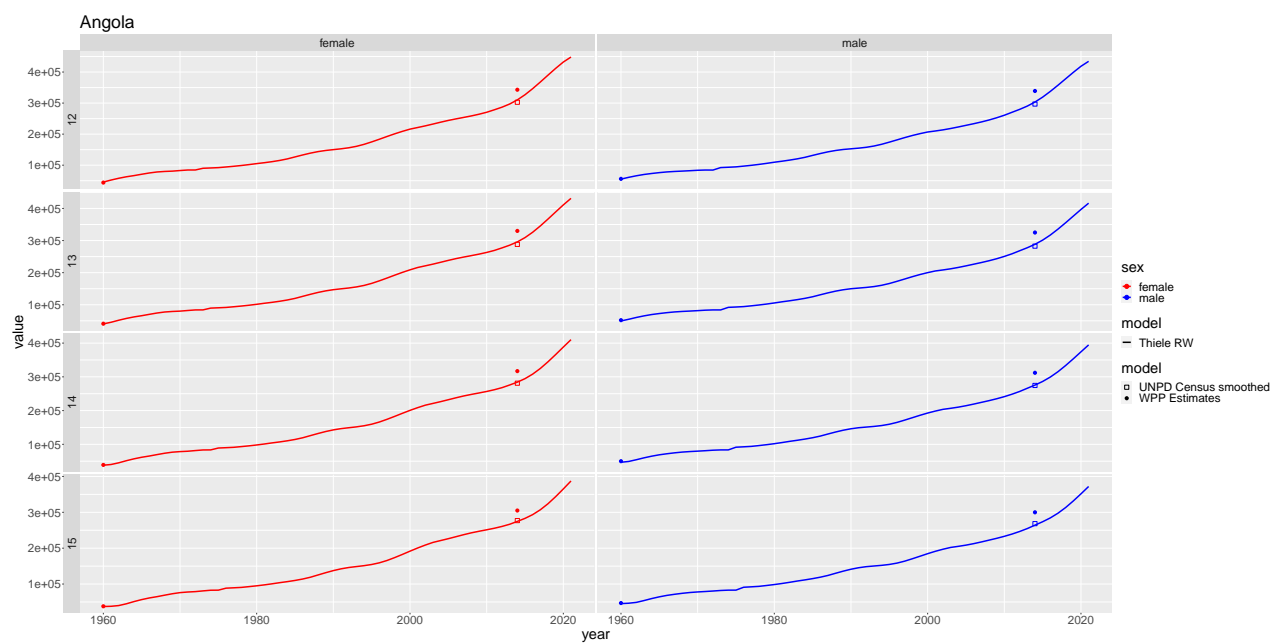
Figure 11: Population

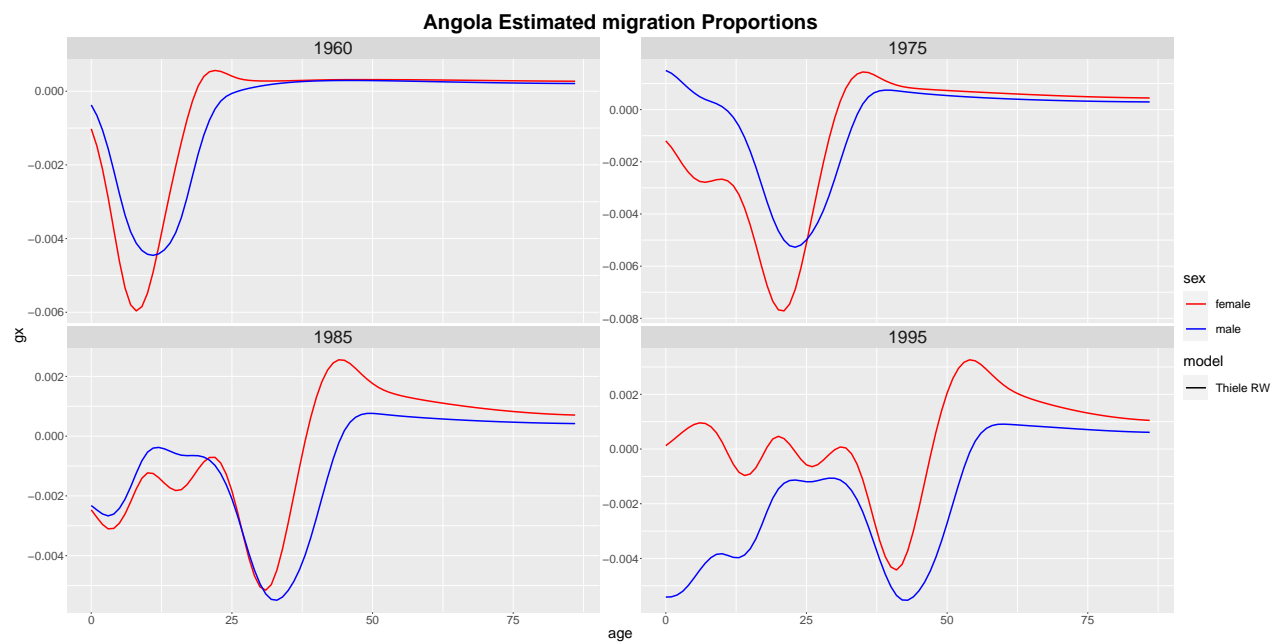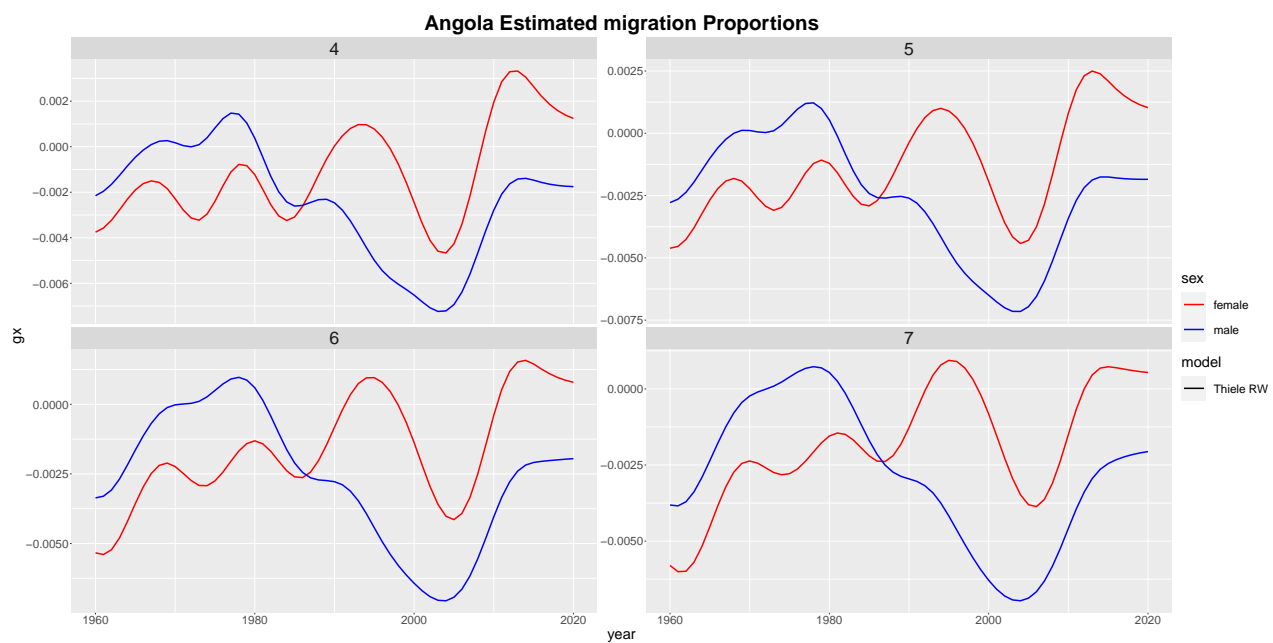Figure 12: Population

Figure 13: Population
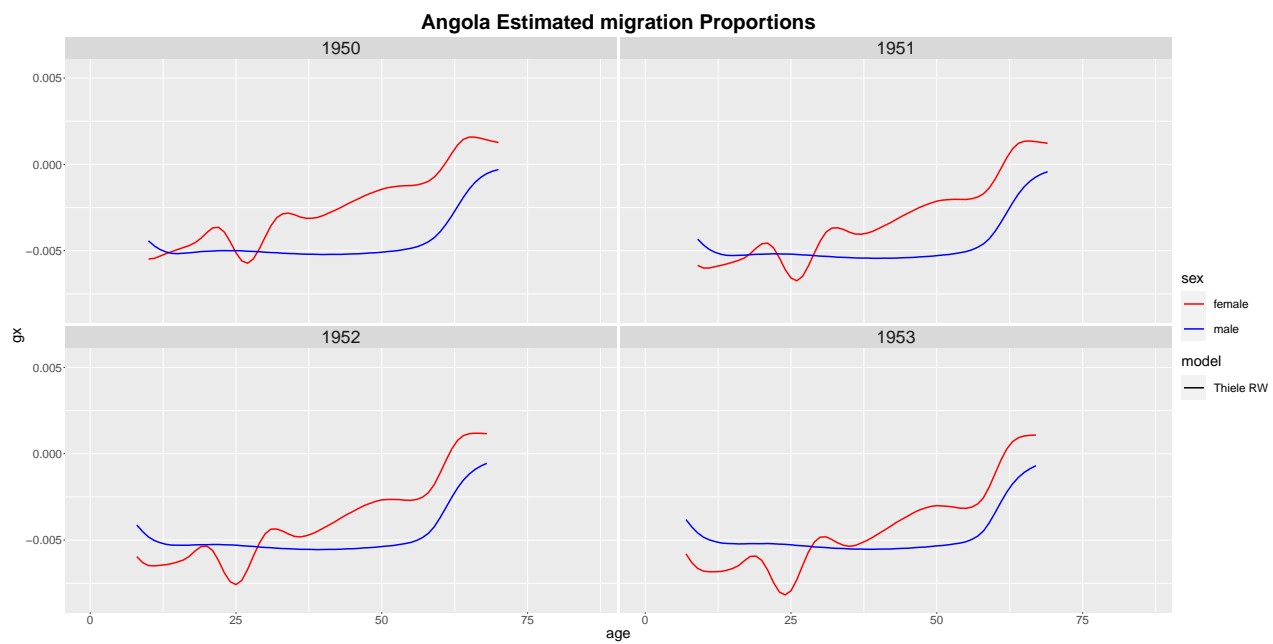

Figure 14: Migration
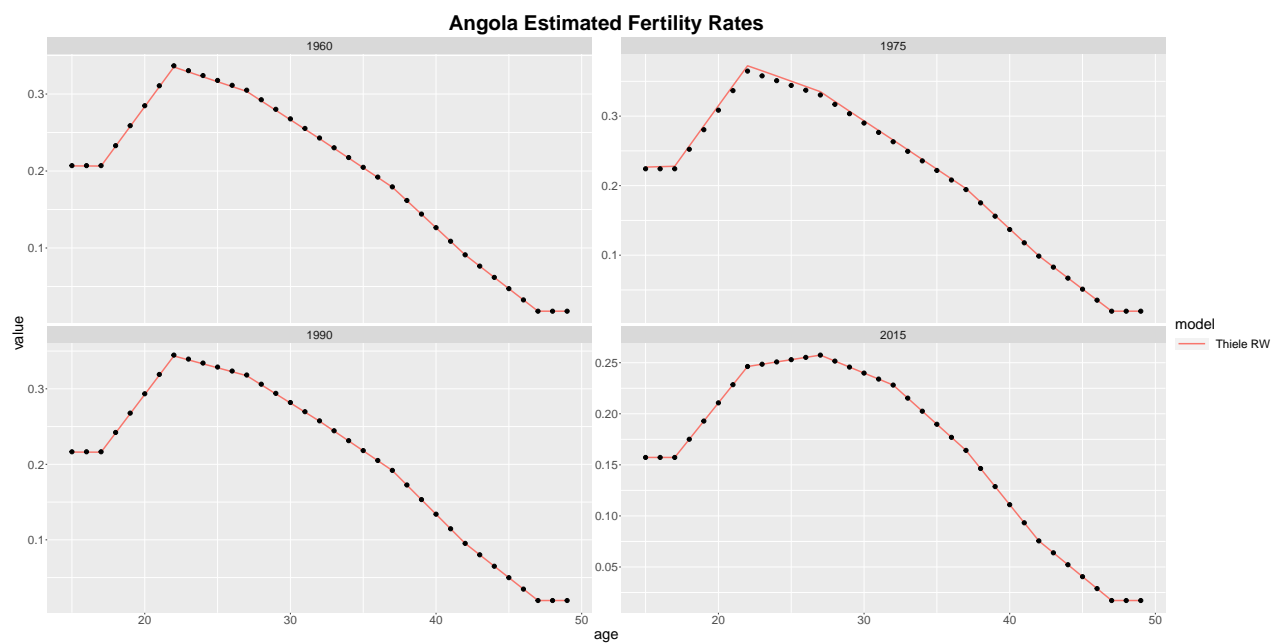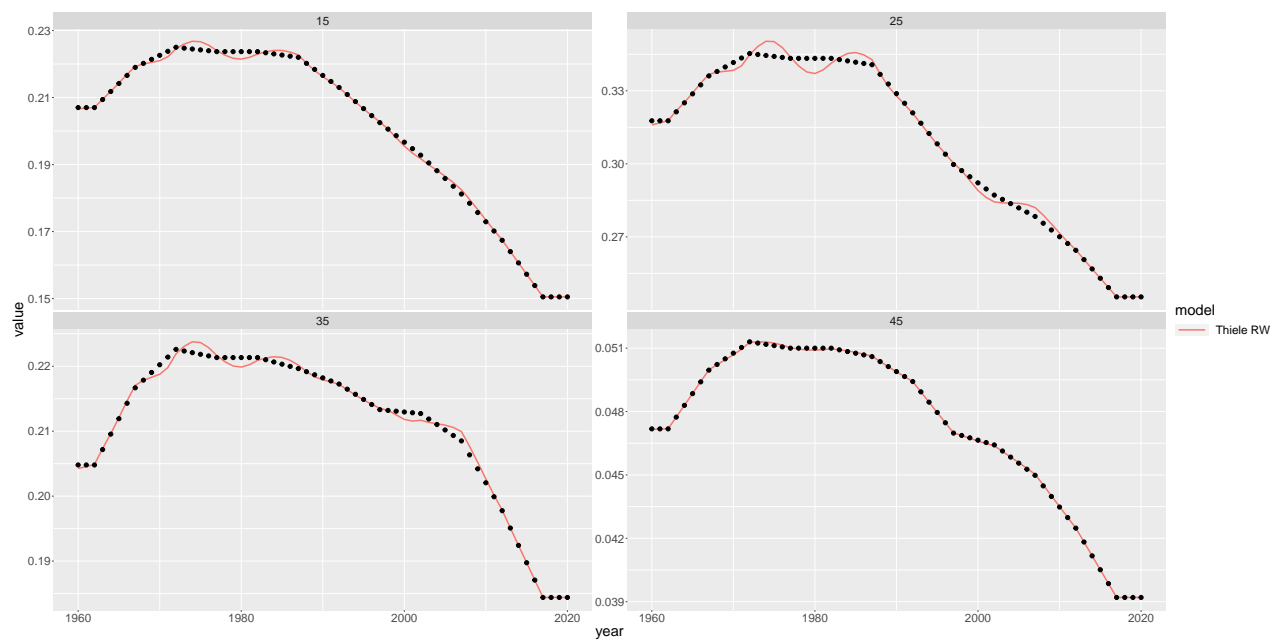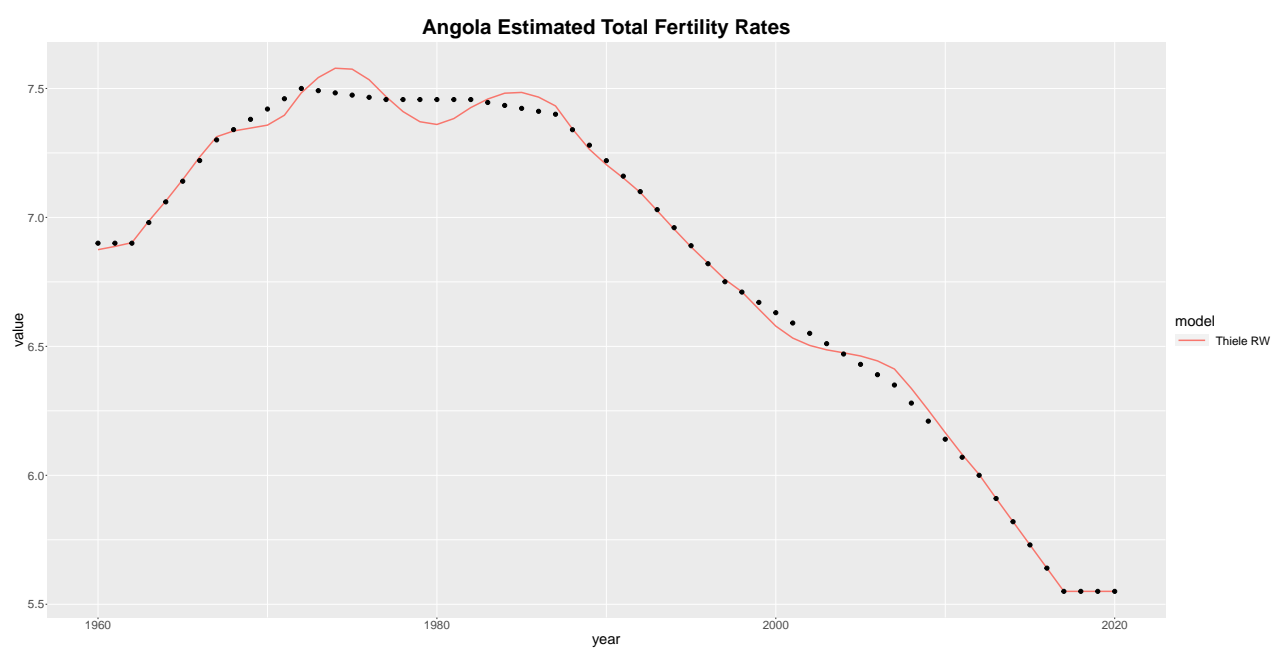
Figure 15: Migration

Figure 16: Migration

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Figure 17: Fertility

Figure 18: Fertility

Figure 19: Total Fertility