

# Namibia

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

## # A tibble: 87 x 4
##   age `1991` `2001` `2011`
##   <dbl> <dbl> <dbl> <dbl>
## 1     0 24851. 23909. 32157
## 2     1 21976. 23883. 28690.
## 3     2 21726. 24603. 28220
## 4     3 21259. 25041. 27500.
## 5     4 21247. 25458. 27077
## 6     5 20771. 25430. 26048.
## 7     6 20065. 25264. 24803.
## 8     7 19362. 25259. 23924.
## 9     8 18677. 25248. 23376.
## 10    9 18357. 25517. 23940.
## # ... with 77 more rows
```

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

## # A tibble: 87 x 4
##   age `1991` `2001` `2011`
##   <dbl> <dbl> <dbl> <dbl>
## 1     0 24861. 23791. 31976
## 2     1 21883. 24016. 28452.
## 3     2 21600. 24629. 28036.
## 4     3 21144. 24966. 27342.
## 5     4 21149. 25281. 26940.
## 6     5 20679. 25177. 25925.
## 7     6 19965. 24978. 24627.
## 8     7 19163. 24795. 23618.
## 9     8 18386. 24574. 23047
## 10    9 17972. 24684. 23621.
## # ... 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_logpop_m
##	6.3825062	4.0887541	6.4401437	4.0887541
##	log_tau2_gx_m	log_lambda_gx_age_f	log_lambda_gx_age_m	log_lambda_gx_age_m
##	3.3157863	7.9034915	7.9331971	8.0000000
##	log_lambda_gx_agemtime_m	log_lambda_tp	log_lambda_tp_0_inflated_sd	log_lambda_tp_0_inflated_sd
##	6.9077711	3.5684004	0.3161121	0.3161121
##	log_marginal_prec_psi_f	log_marginal_prec_A_f	log_marginal_prec_B_f	log_marginal_prec_B_f
##	4.3057552	6.8130174	6.9245804	4.3057552
##	log_marginal_prec_B_m	log_lambda_phi_f	log_lambda_psi_f	log_lambda_psi_f
##	6.8979976	4.3312805	4.3170185	1.0000000
##	log_lambda_A_f	log_lambda_B_f	log_lambda_phi_m	log_lambda_phi_m
##	4.3079411	4.3209101	4.3426708	4.3079411
##	log_lambda_epsilon_m	log_lambda_A_m	log_lambda_B_m	log_lambda_B_m
##	4.0649622	4.3069738	4.2984001	4.0649622

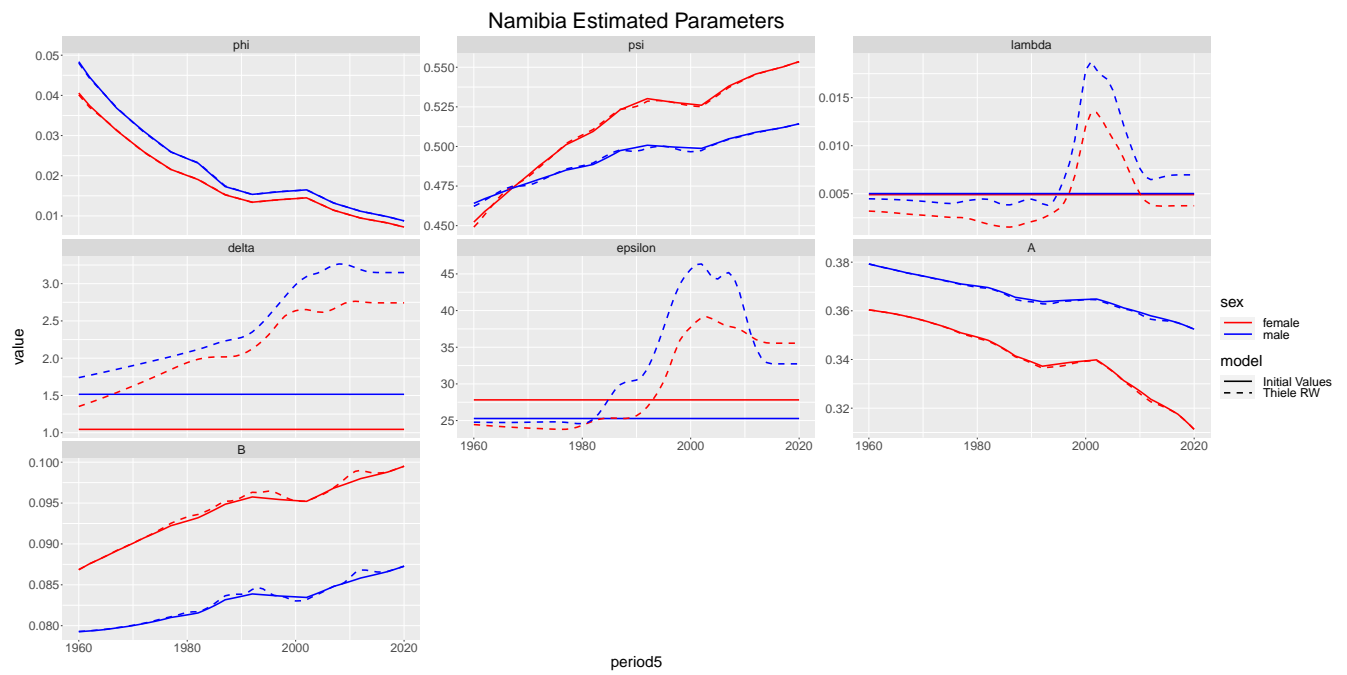


Figure 1: Estimated parameters

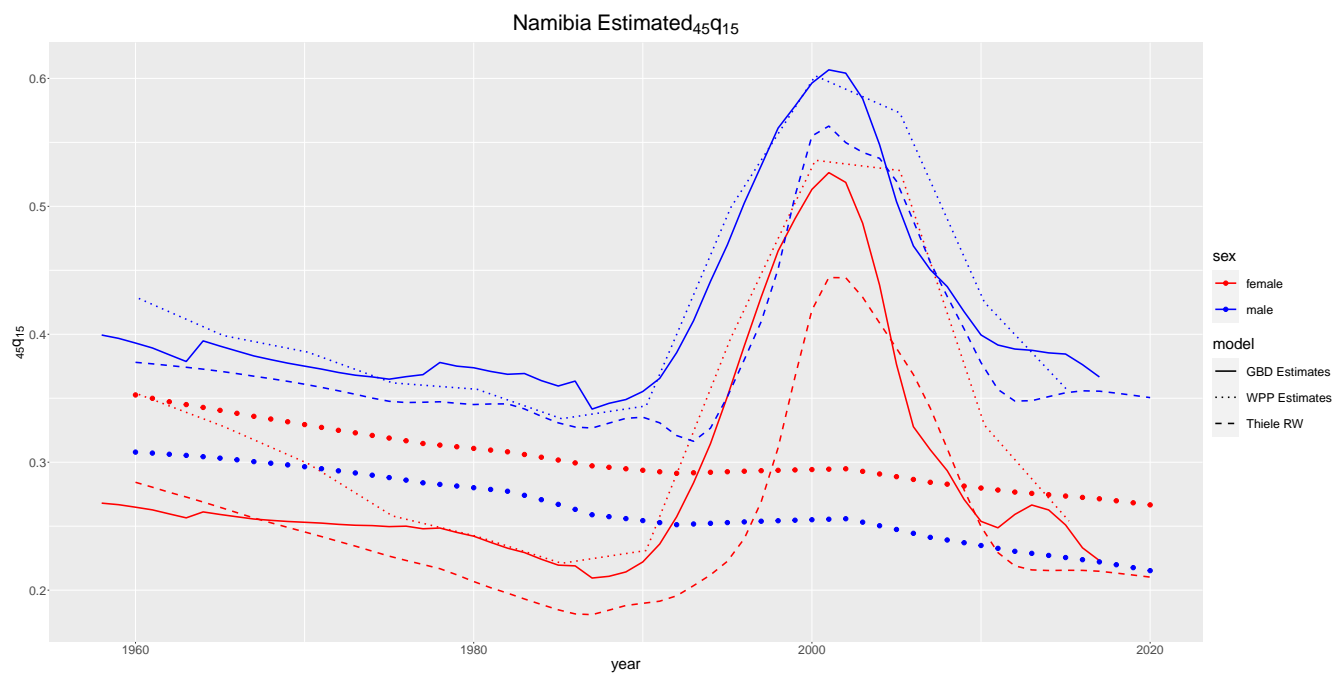


Figure 2: Estimated  $_{45}q_{15}$

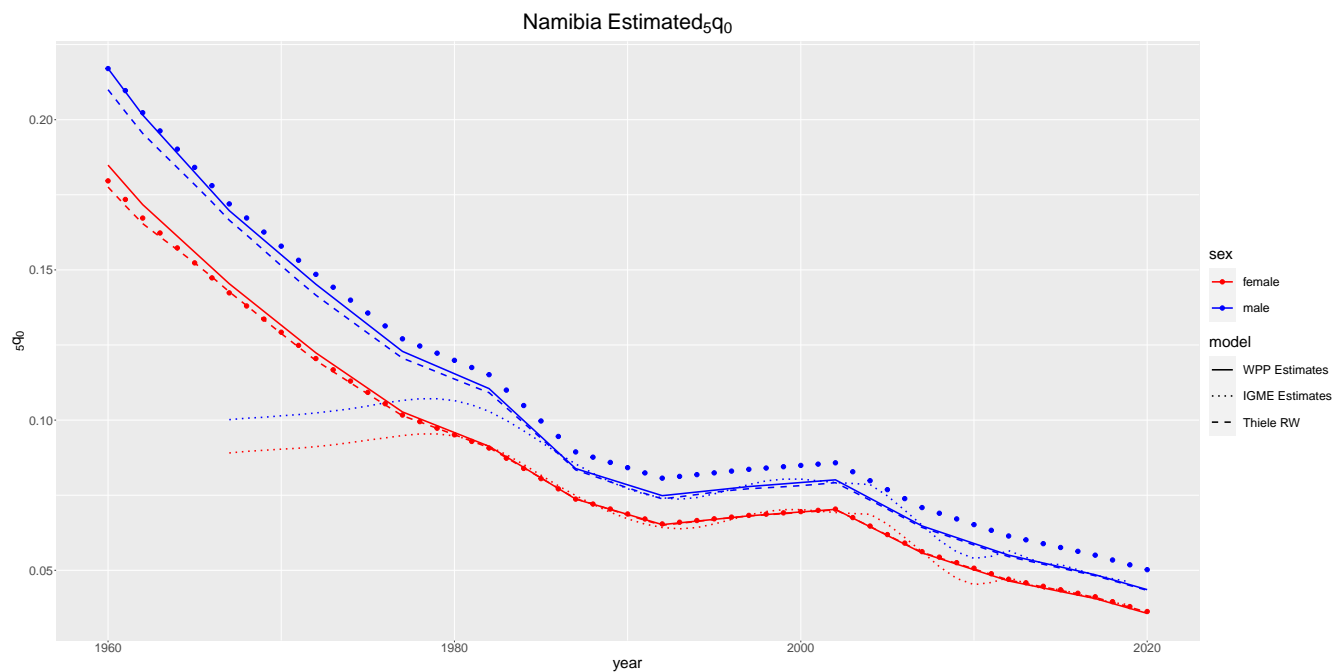


Figure 3: Estimated  ${}_5q_0$

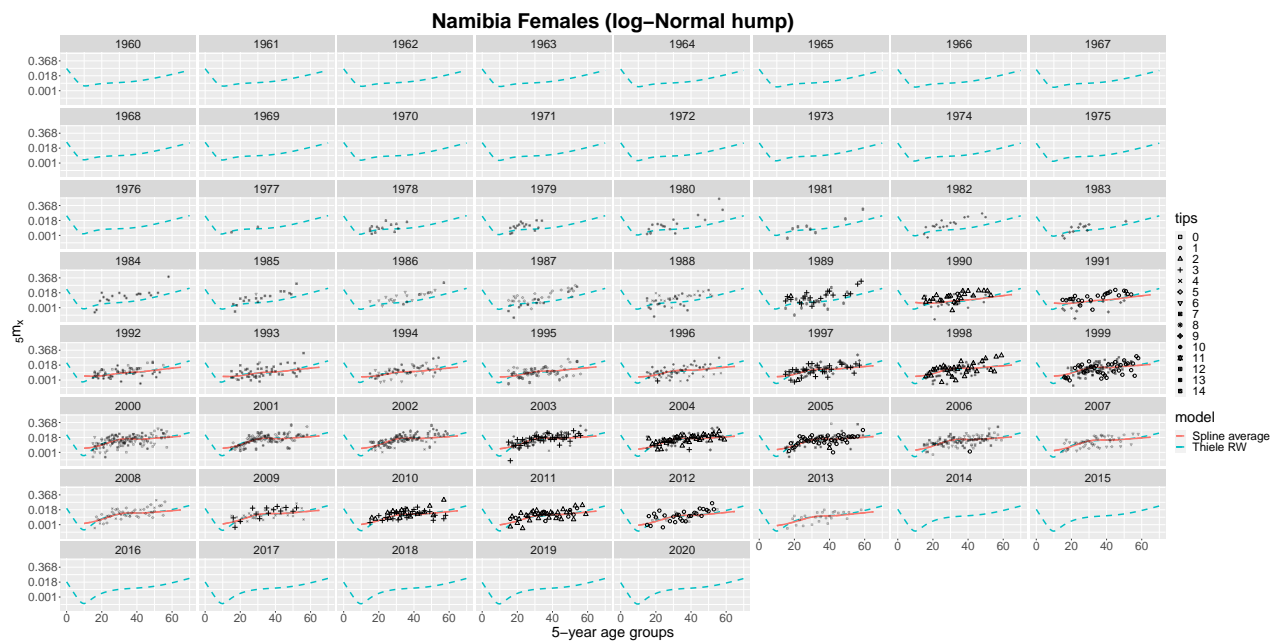


Figure 4: Mortality Schedules

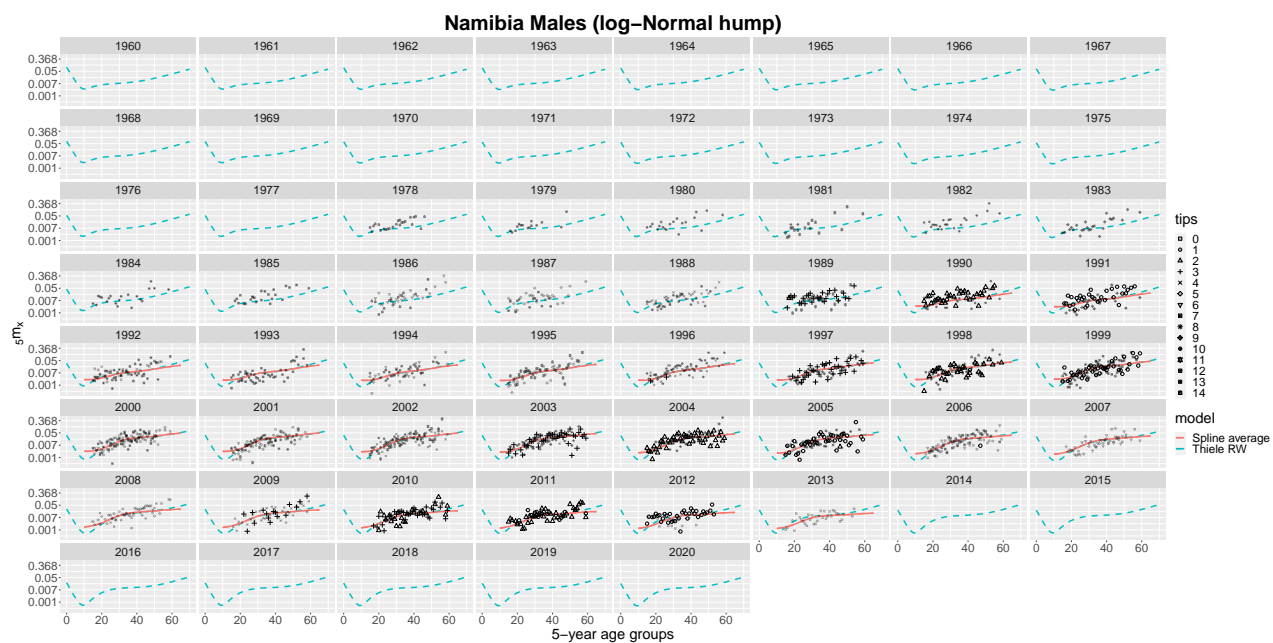


Figure 5: Mortality Schedules

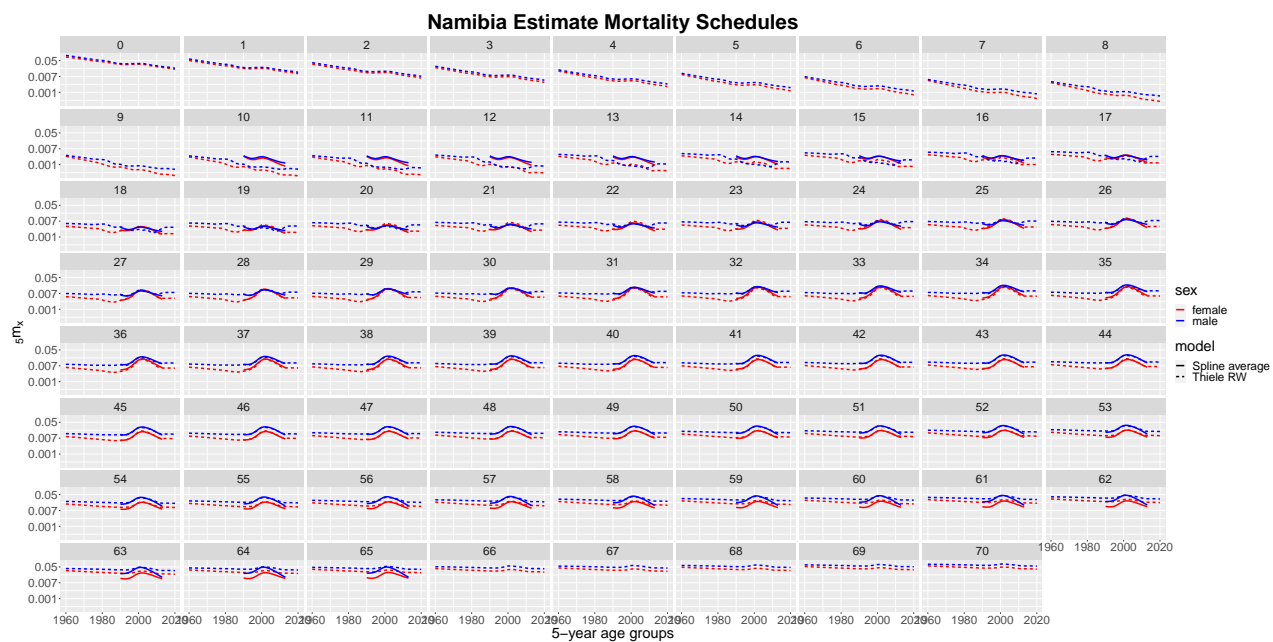


Figure 6: Mortality Schedules

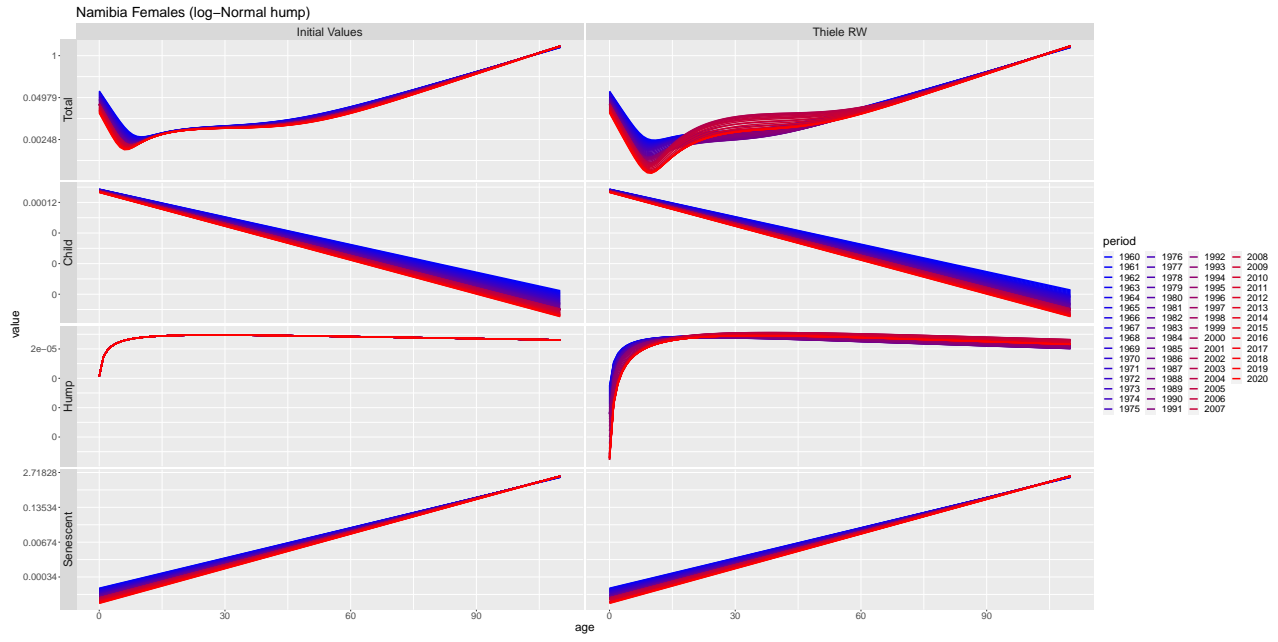


Figure 7: Thiele Decomposed

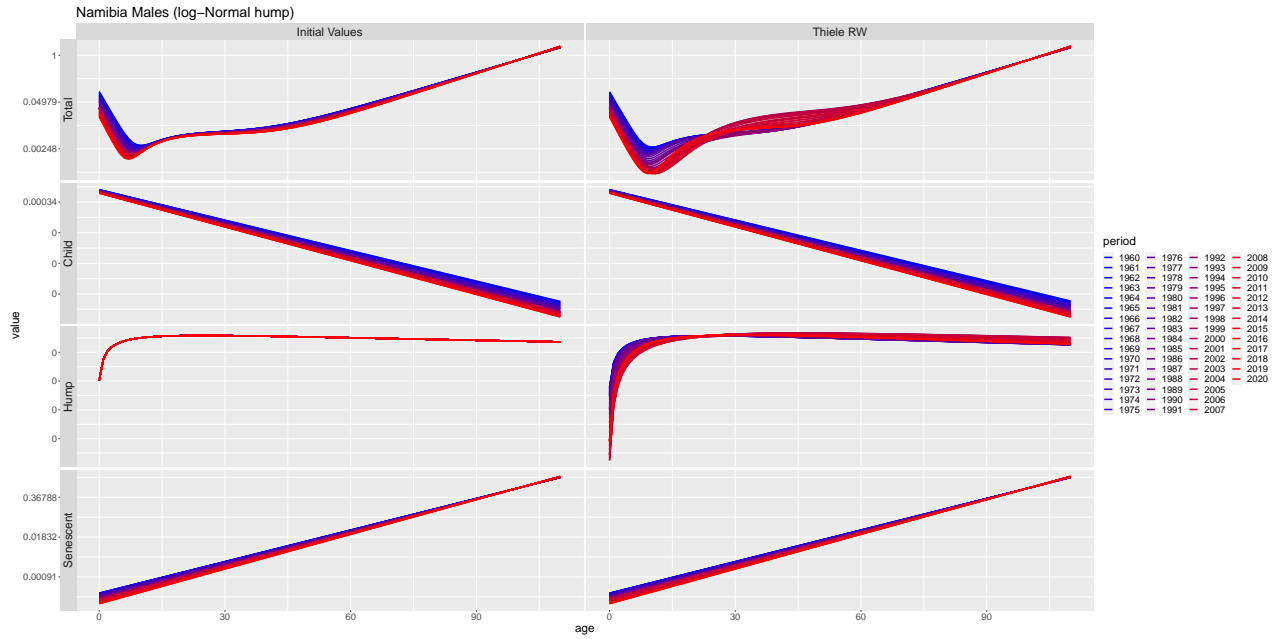


Figure 8: Thiele Decomposed

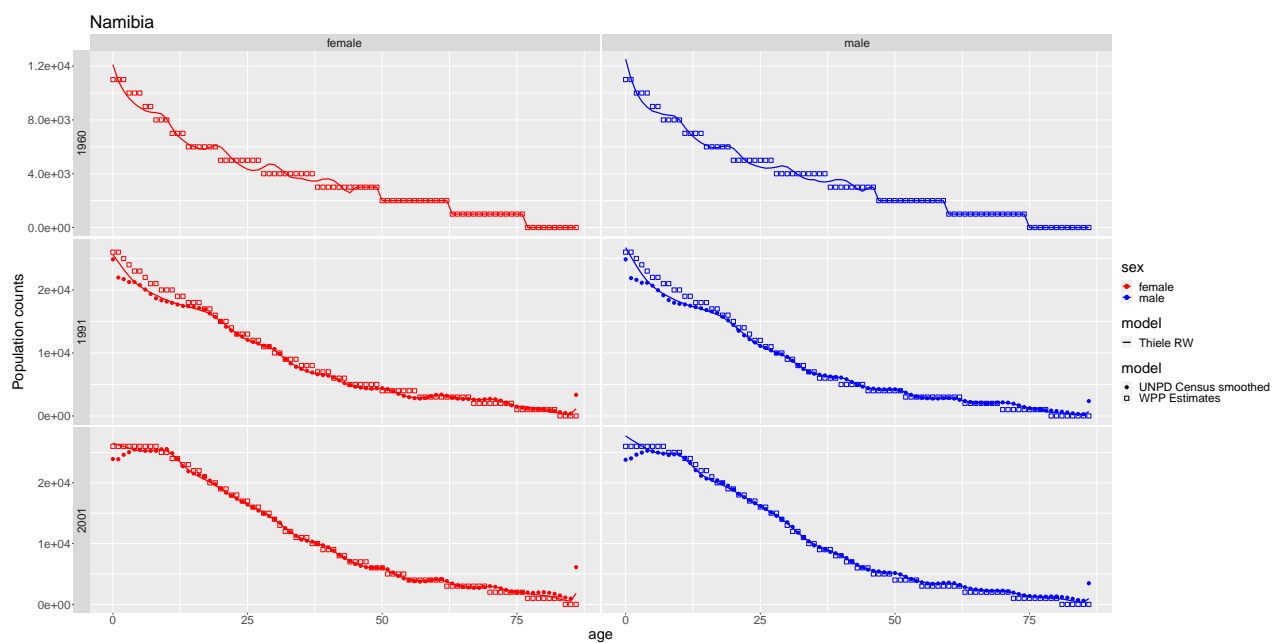


Figure 9: Population



Figure 10: Population



Figure 11: Population

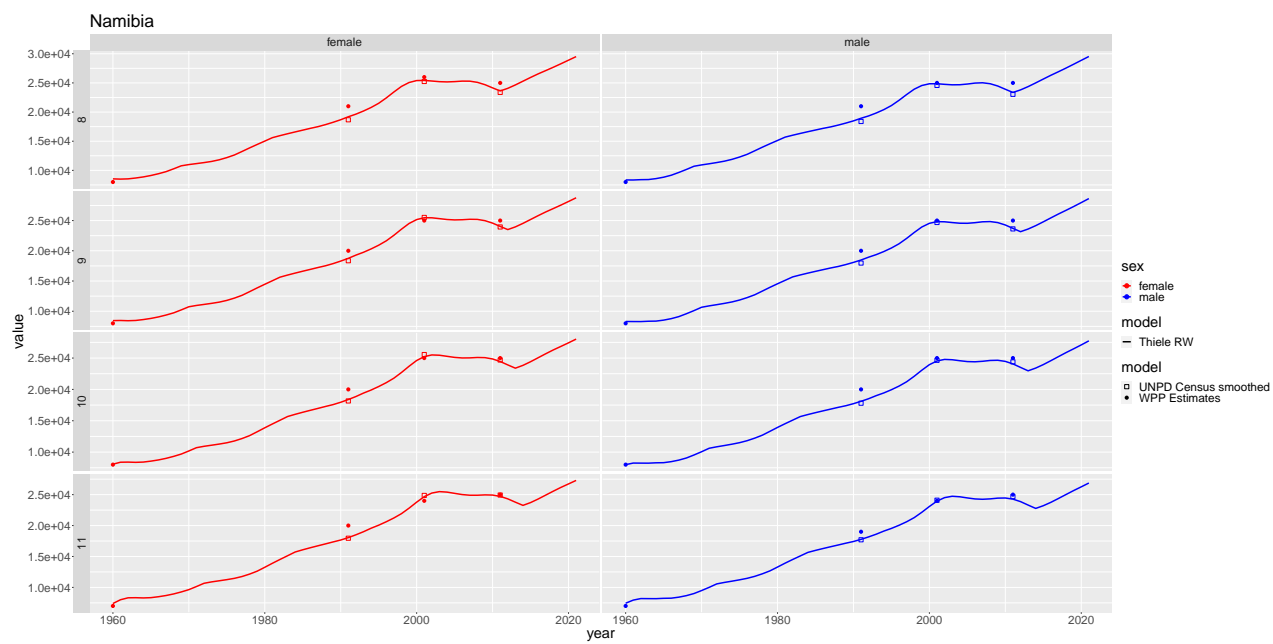


Figure 12: Population



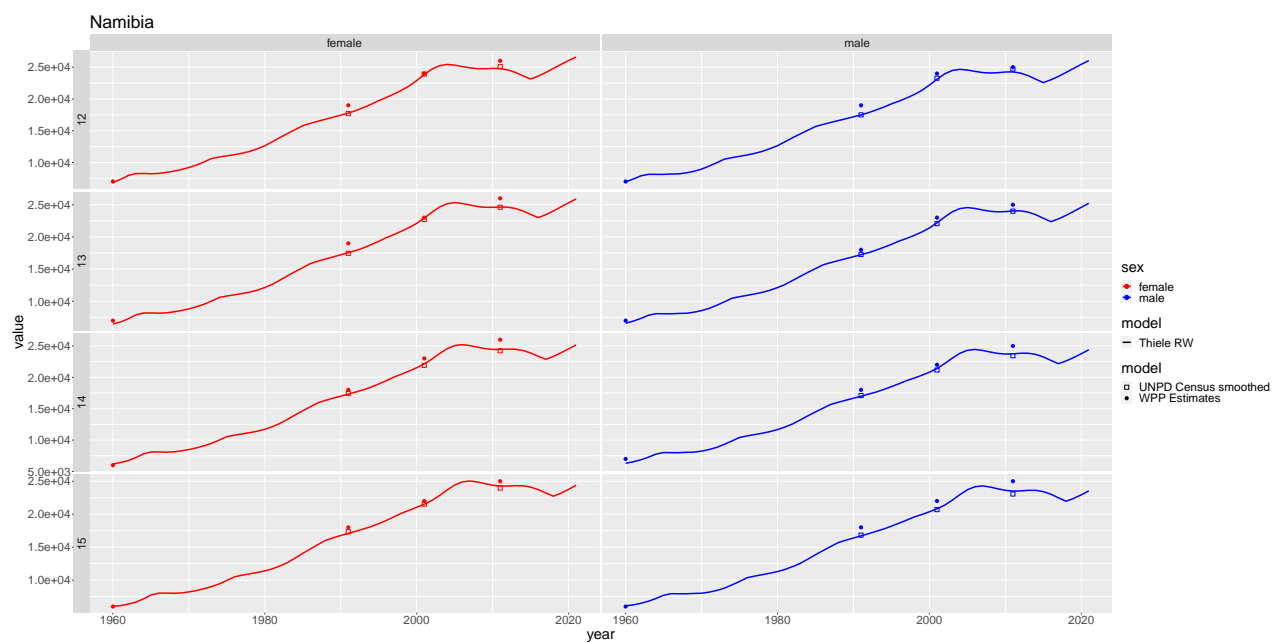


Figure 13: Population

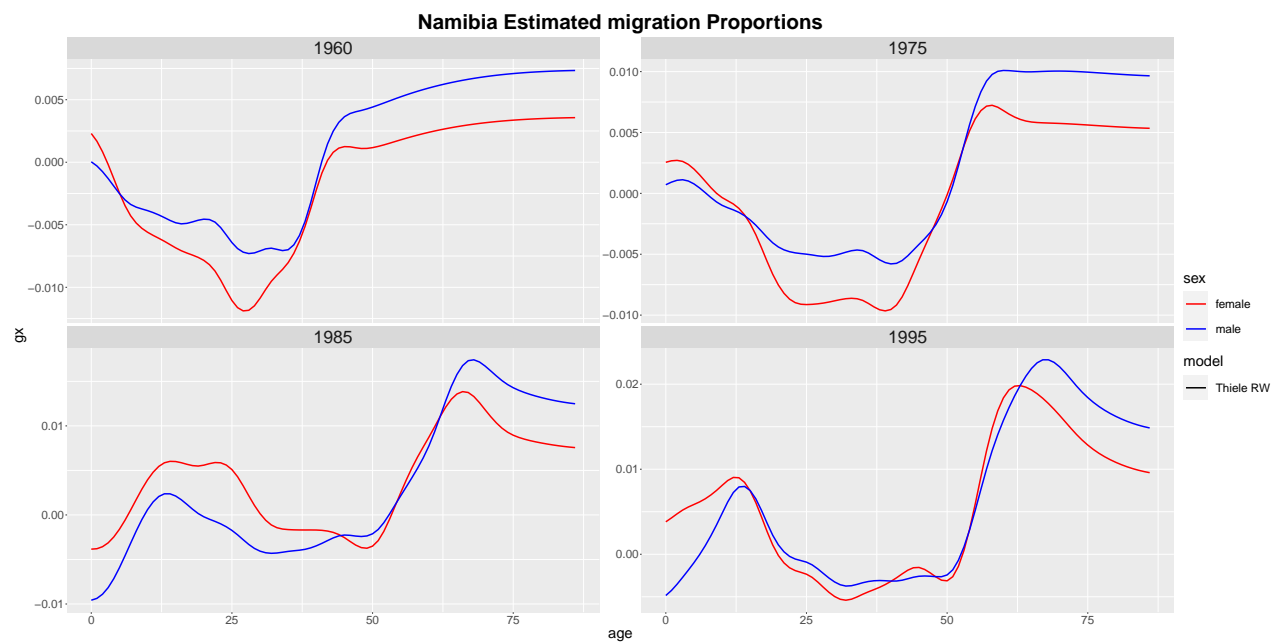


Figure 14: Migration

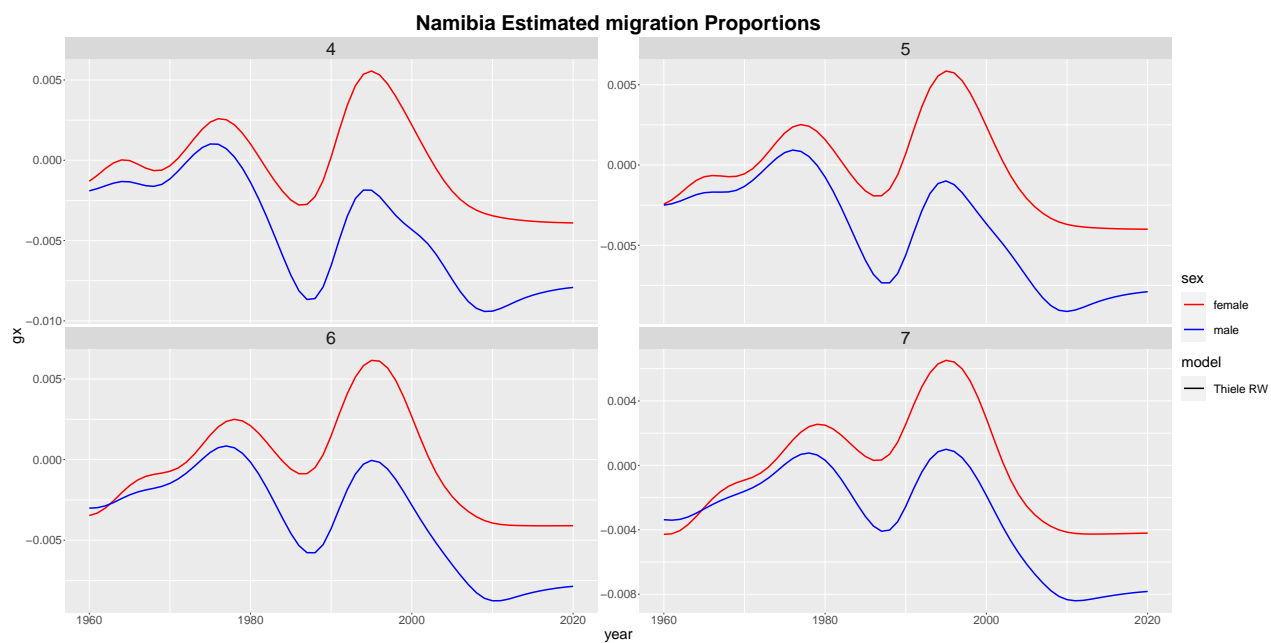


Figure 15: Migration

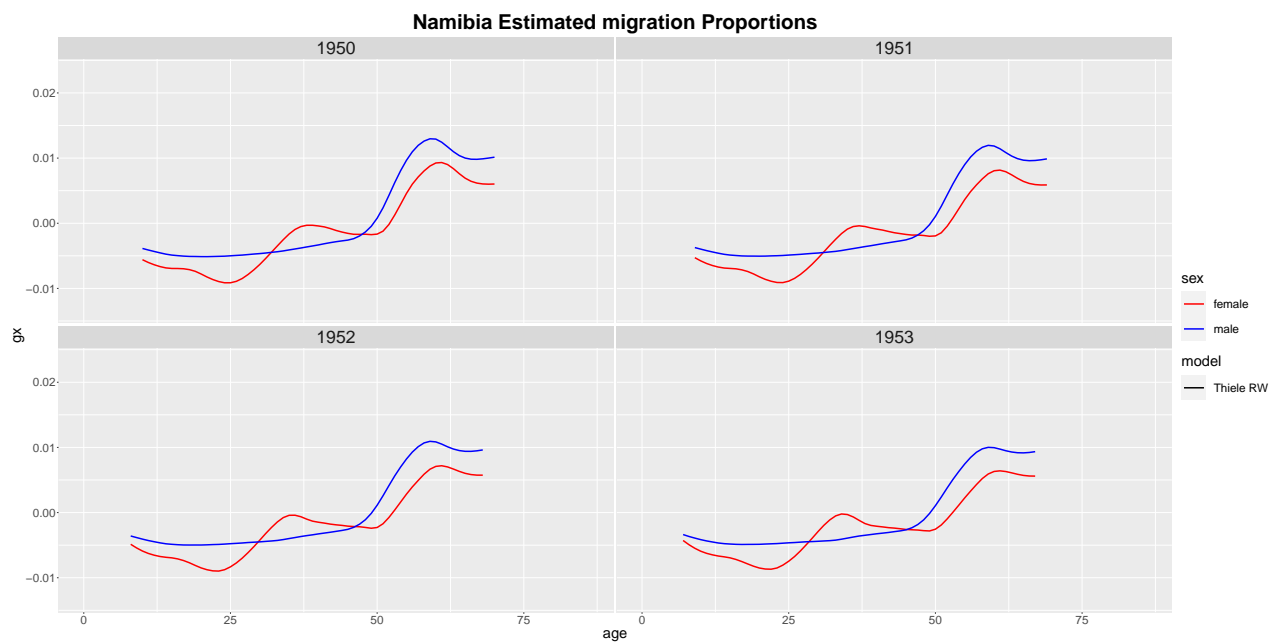


Figure 16: Migration

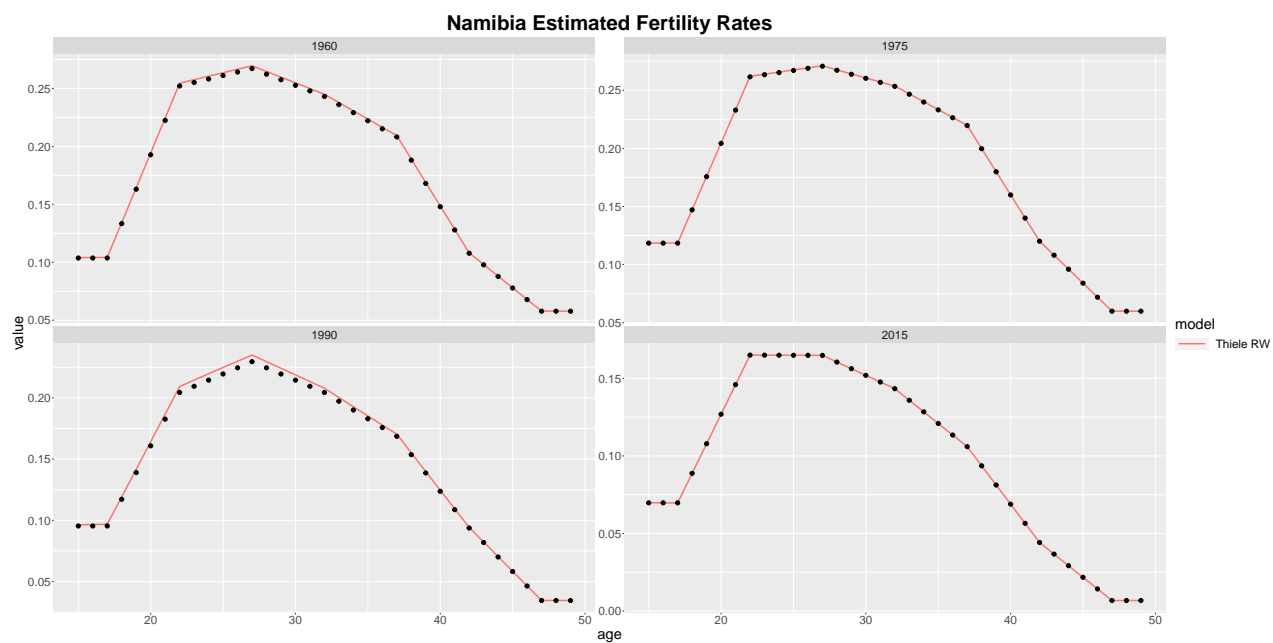


Figure 17: Fertility

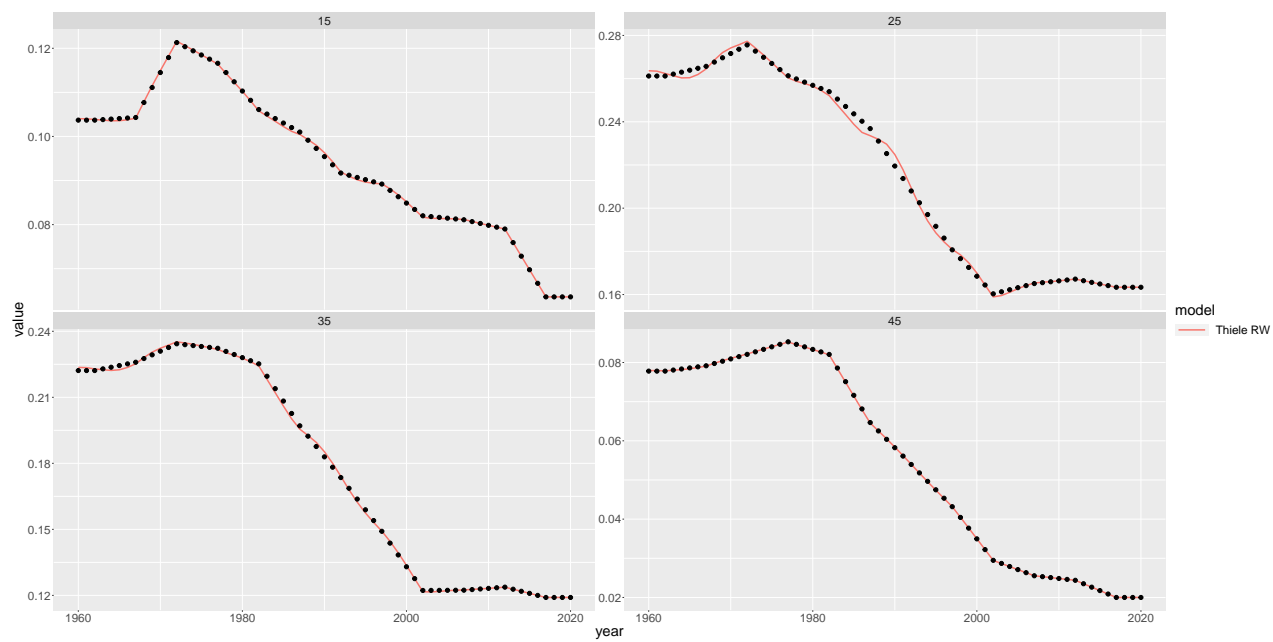


Figure 18: Fertility

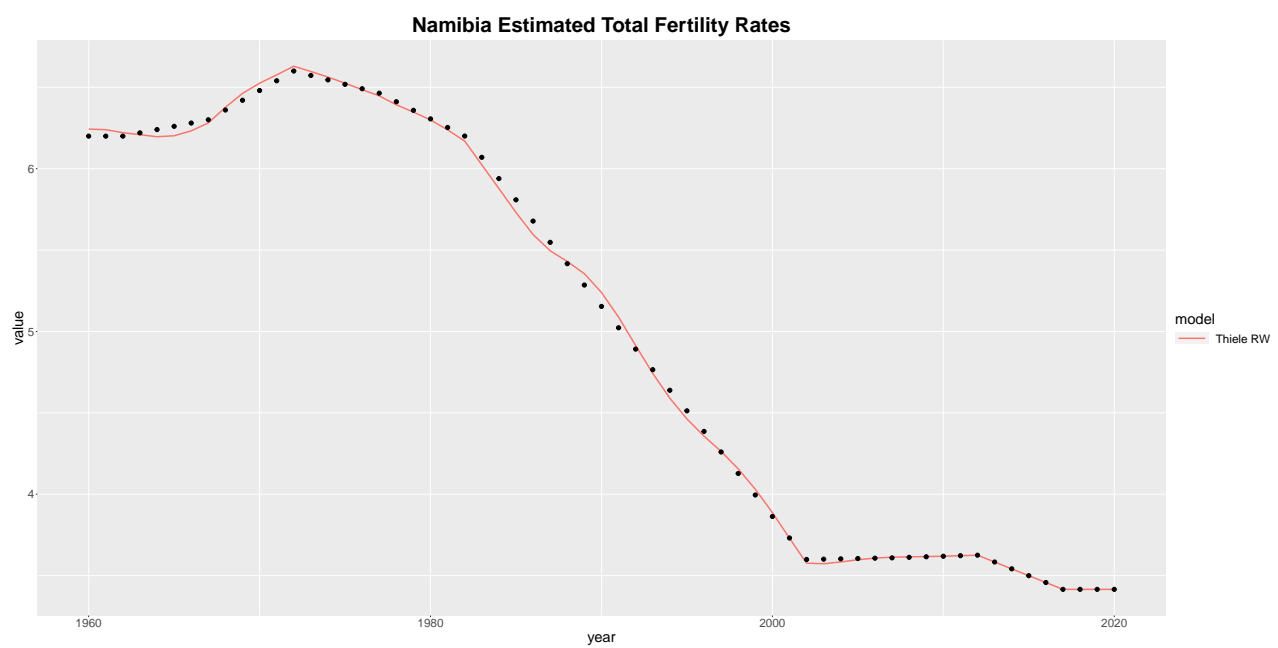


Figure 19: Total Fertility