

# Burundi

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

## # A tibble: 87 x 3
##   age `1990` `2008`
##   <dbl> <dbl> <dbl>
## 1     0 103518. 148758.
## 2     1  96768. 144323.
## 3     2  99280. 146587.
## 4     3  97050. 141195.
## 5     4  94570. 135456.
## 6     5  90921. 129473.
## 7     6  87877. 124627.
## 8     7  84441. 120157.
## 9     8  80363. 115997.
## 10    9  75950. 111774.
## # ... with 77 more rows
```

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

## # A tibble: 87 x 3
##   age `1990` `2008`
##   <dbl> <dbl> <dbl>
## 1     0 103634. 145551.
## 2     1  96811. 140828.
## 3     2  98842. 142434.
## 4     3  96650. 137049.
## 5     4  93967. 131193.
## 6     5  90198. 125015.
## 7     6  87060. 120024.
## 8     7  83568. 115331.
## 9     8  79567. 110945.
## 10    9  75243. 106514.
## # ... 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
##	6.0401093	5.0141161	6.0408818	4.0141161
##	log_tau2_gx_m	log_lambda_gx_age_f	log_lambda_gx_age_m	log_lambda_gx_age_m
##	3.4433047	8.6214788	8.3053592	7.0141161
##	log_lambda_gx_agemtime_m	log_lambda_tp	log_lambda_tp_0_inflated_sd	log_lambda_tp_0_inflated_sd
##	6.9077281	1.6295947	-1.9386188	0.0141161
##	log_marginal_prec_psi_f	log_marginal_prec_A_f	log_marginal_prec_B_f	log_marginal_prec_B_f
##	4.3321500	6.8240012	7.0045383	4.0141161
##	log_marginal_prec_B_m	log_lambda_phi_f	log_lambda_psi_f	log_lambda_psi_f
##	7.0724576	4.3825064	4.3428362	2.0141161
##	log_lambda_A_f	log_lambda_B_f	log_lambda_phi_m	log_lambda_phi_m
##	4.3081921	4.3219316	4.4004557	4.0141161
##	log_lambda_epsilon_m	log_lambda_A_m	log_lambda_B_m	log_lambda_B_m
##	4.5181881	4.3085975	4.3291817	4.0141161

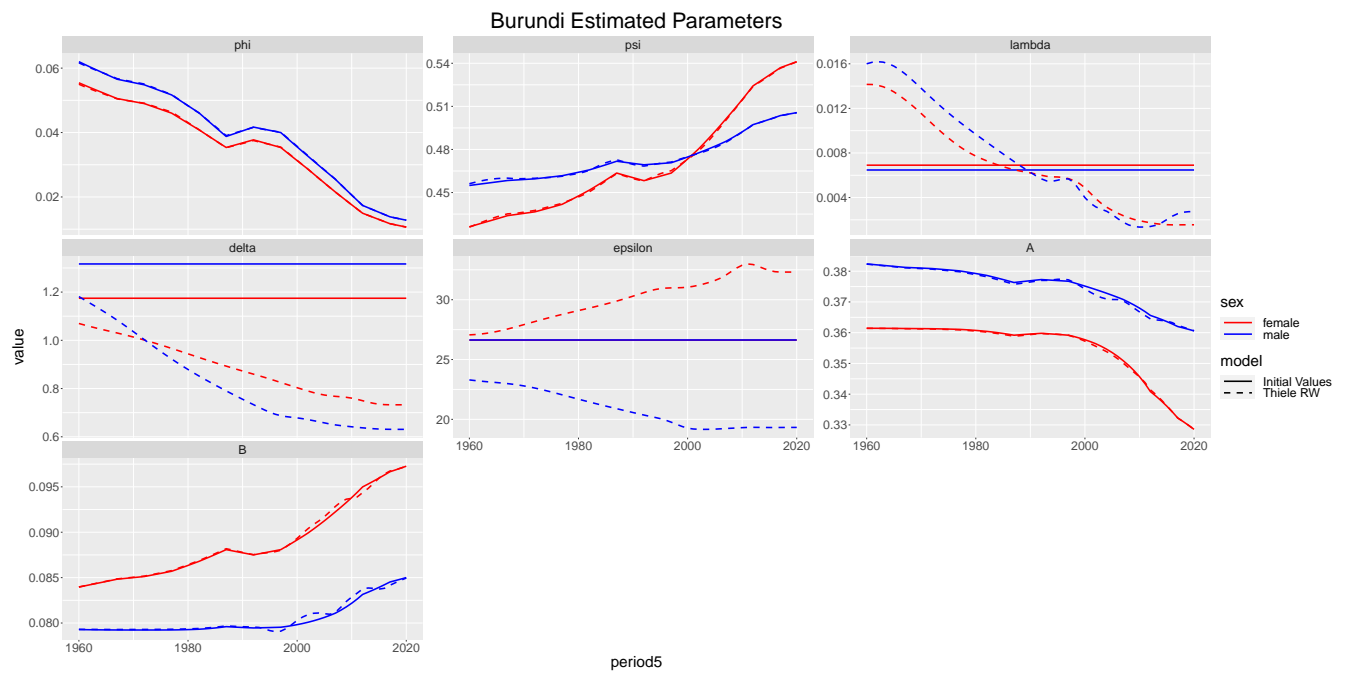


Figure 1: Estimated parameters

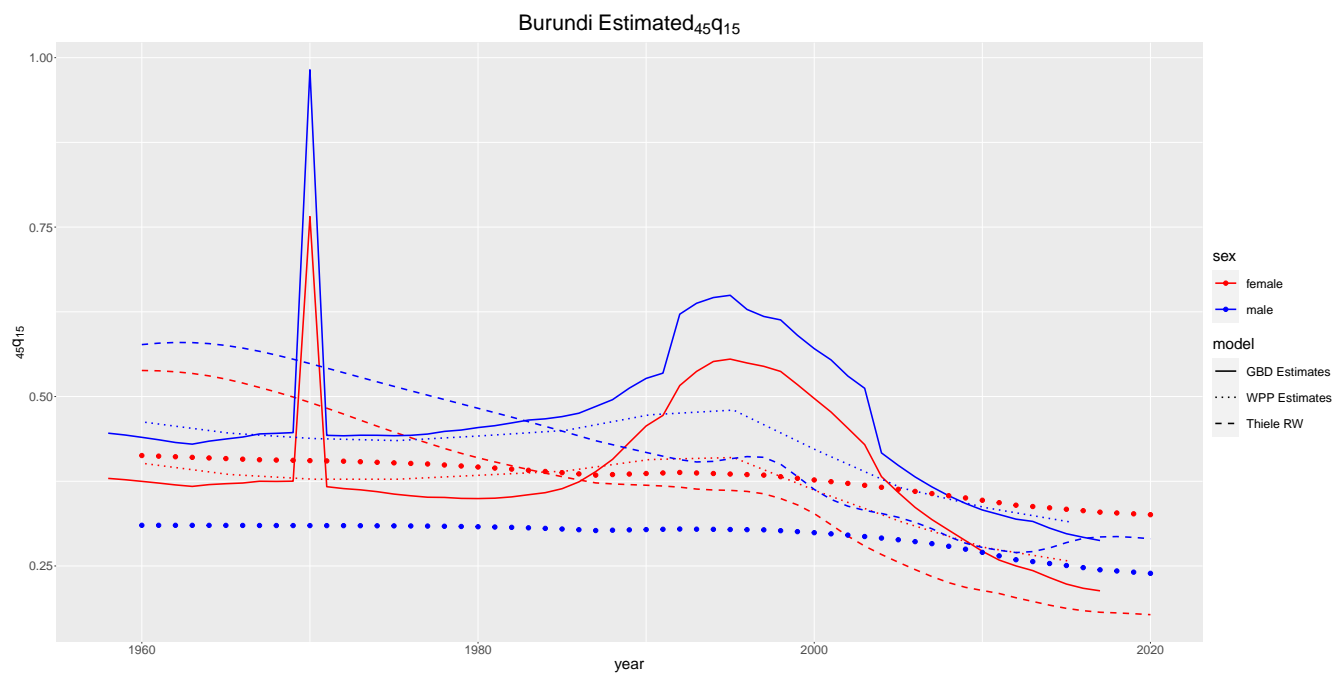


Figure 2: Estimated  ${}_{45}q_{15}$

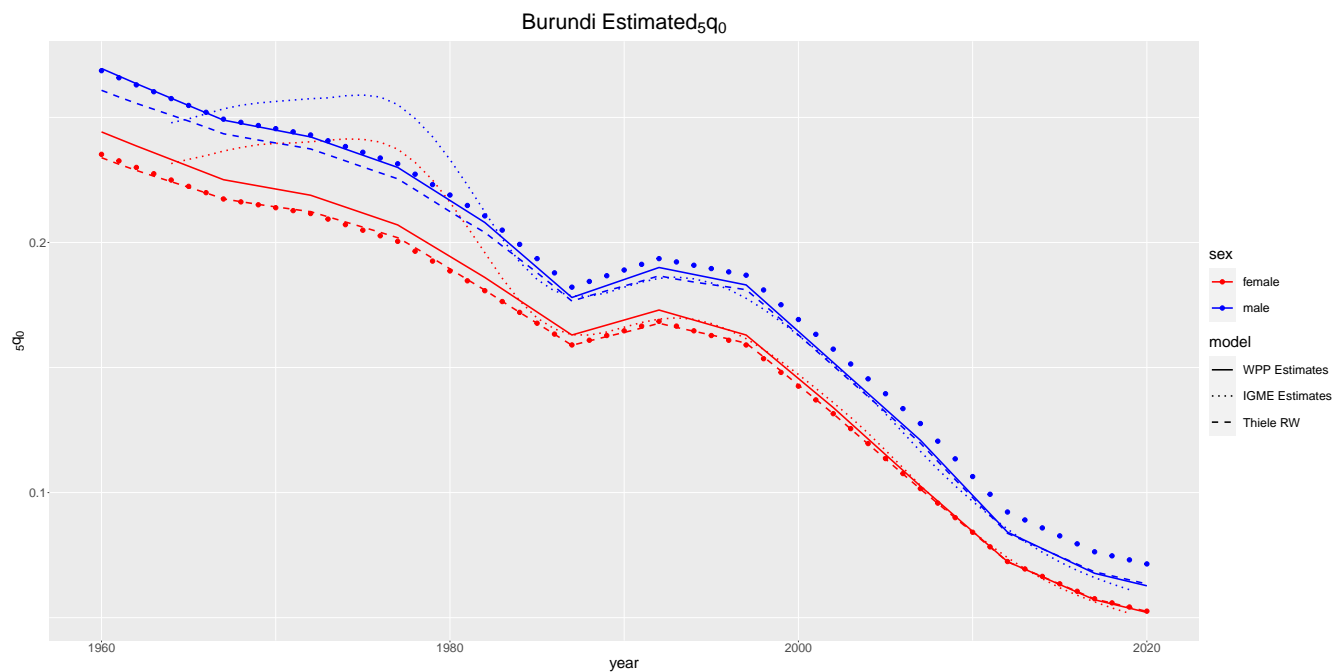


Figure 3: Estimated  ${}_5q_0$

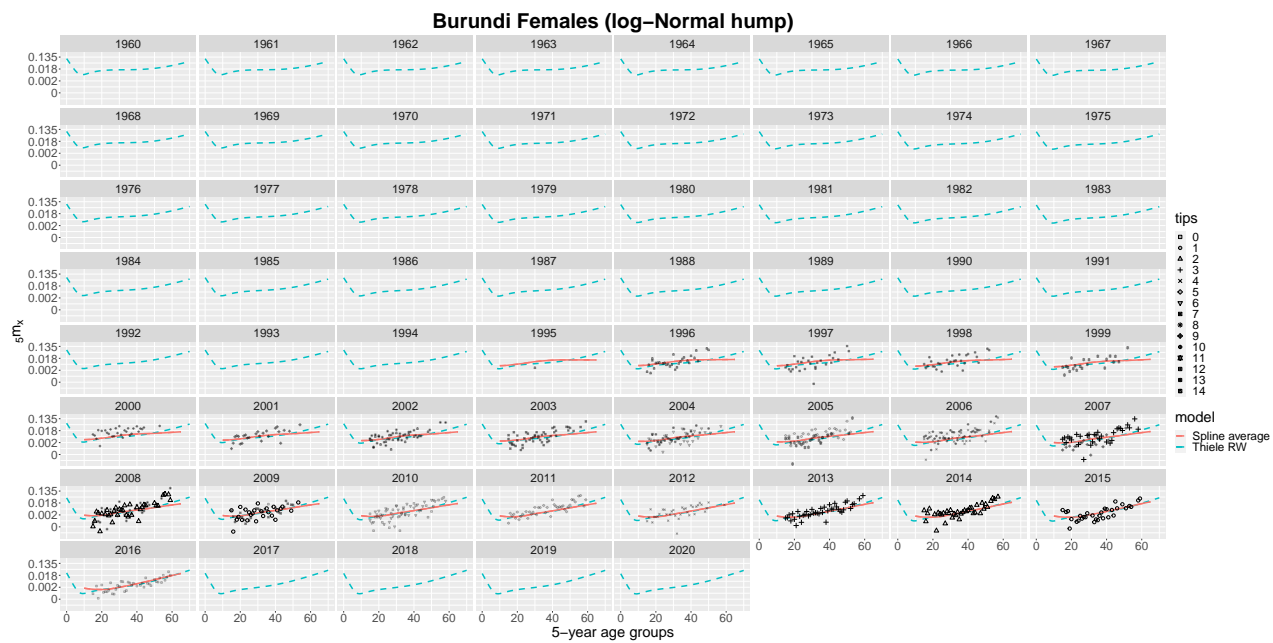


Figure 4: Mortality Schedules

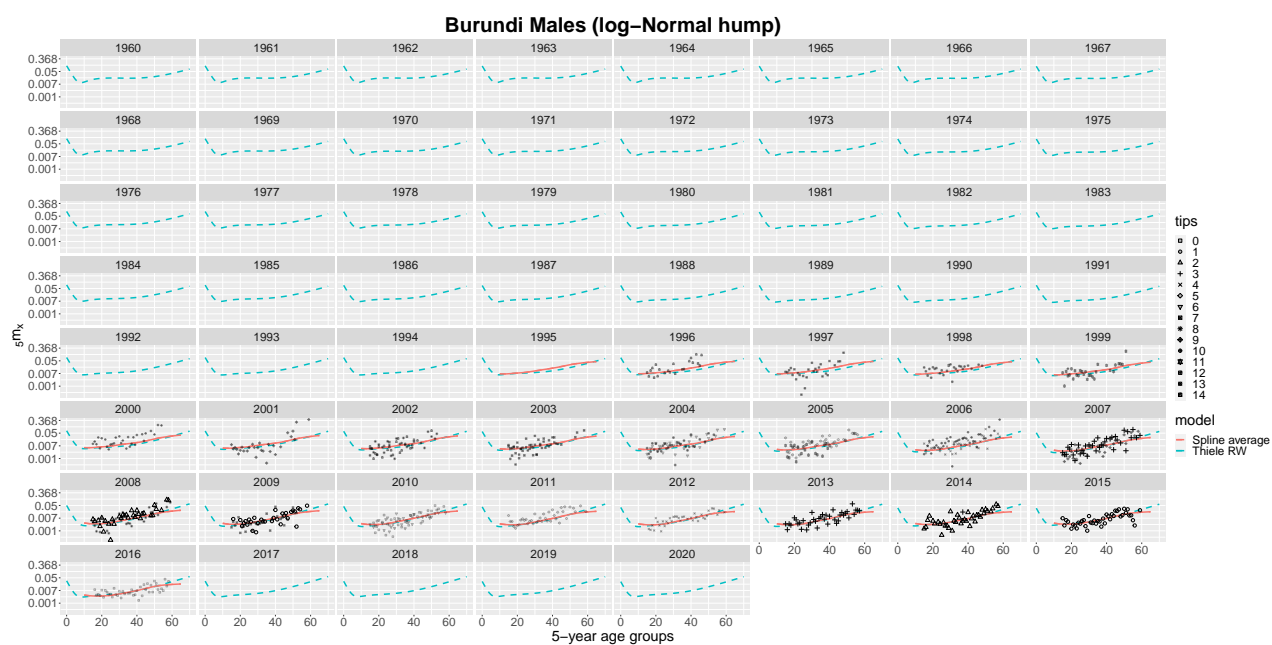


Figure 5: Mortality Schedules

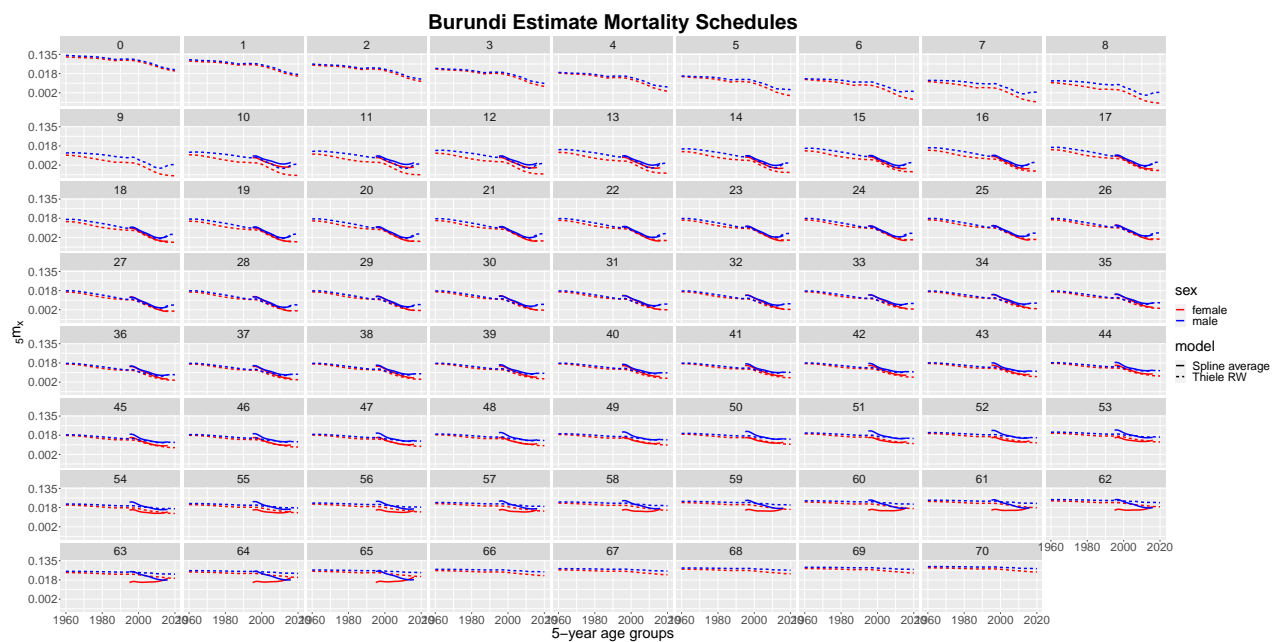


Figure 6: Mortality Schedules

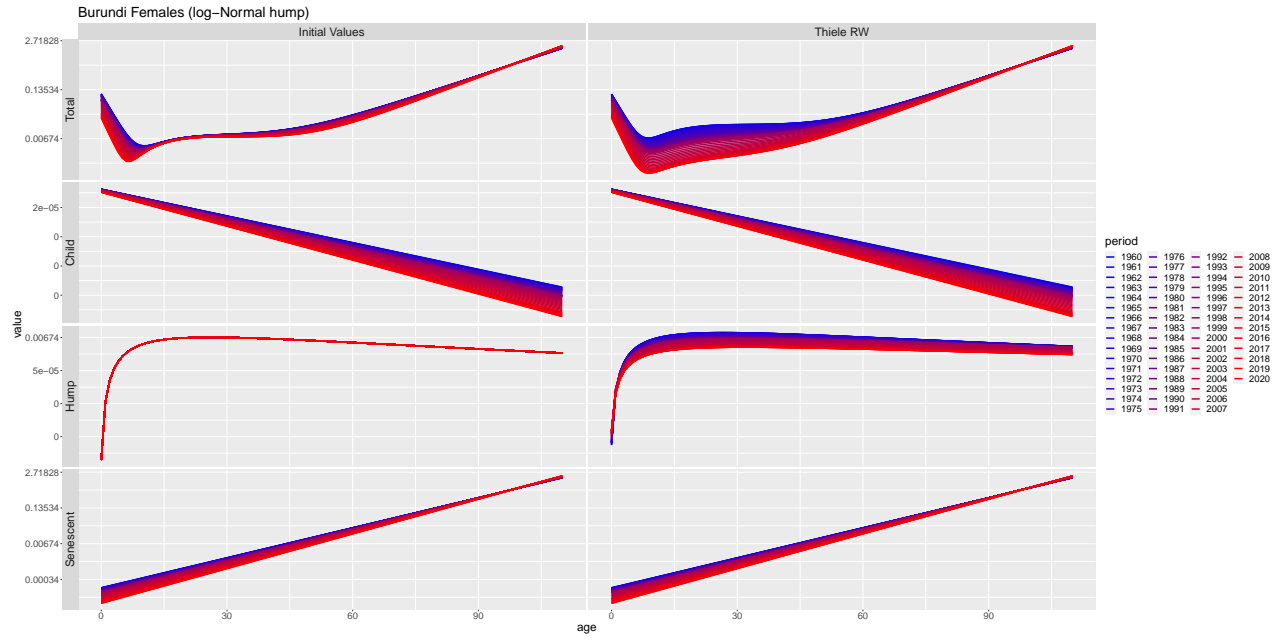


Figure 7: Thiele Decomposed

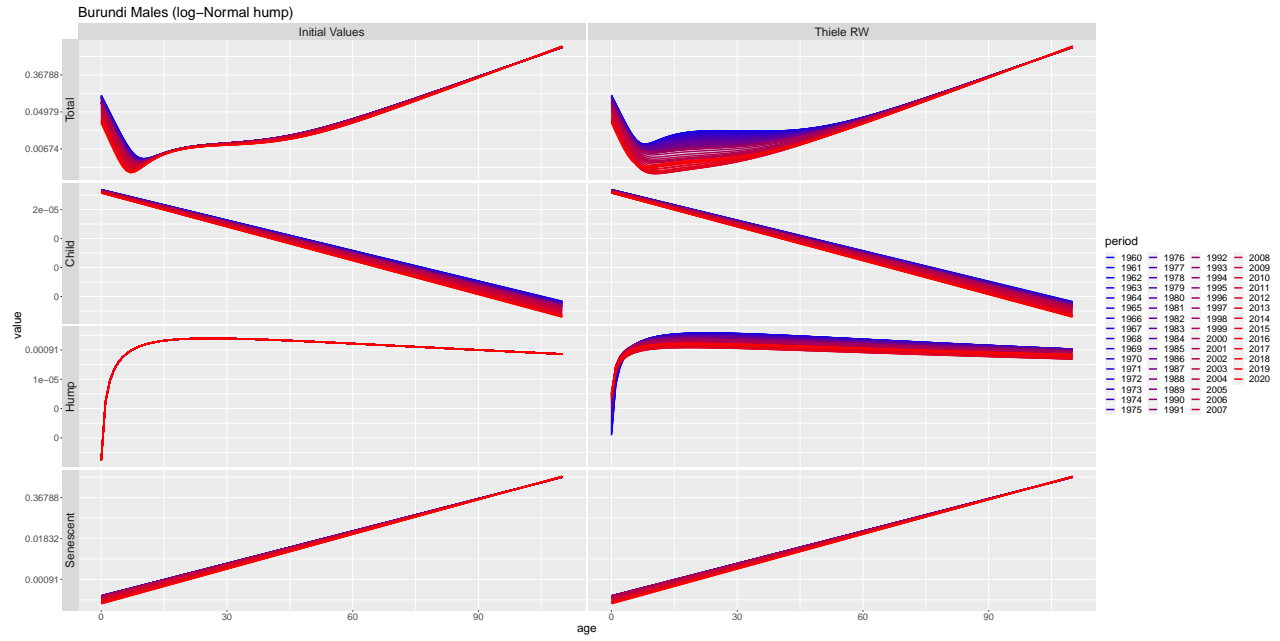


Figure 8: Thiele Decomposed

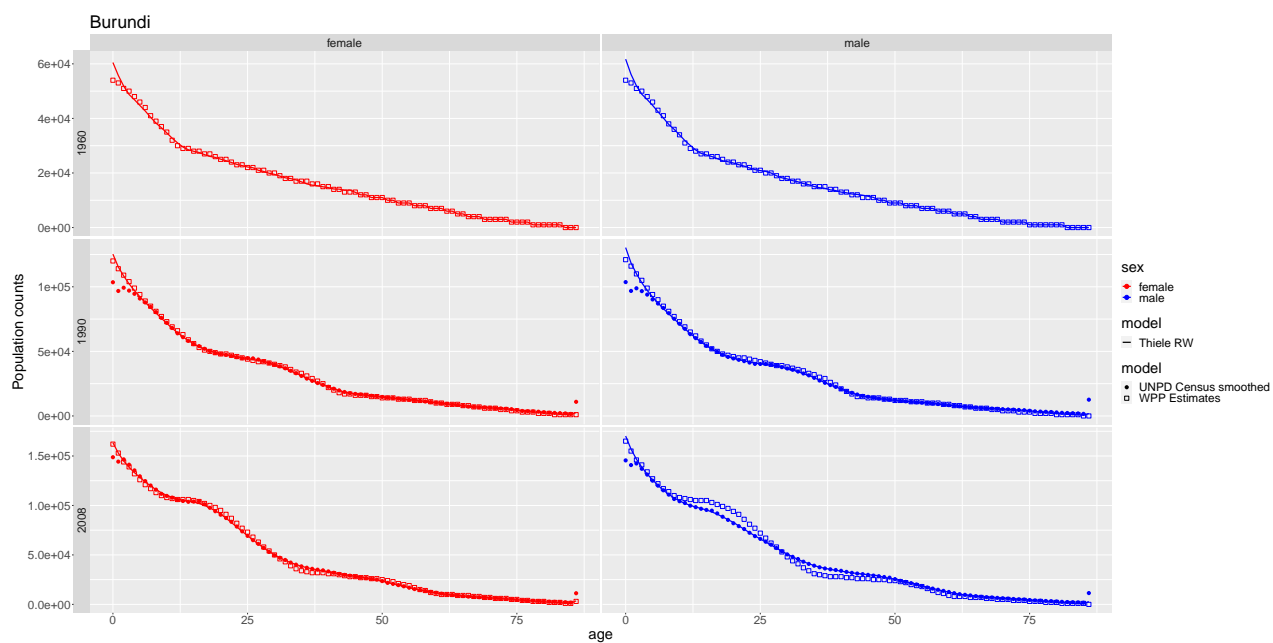


Figure 9: Population

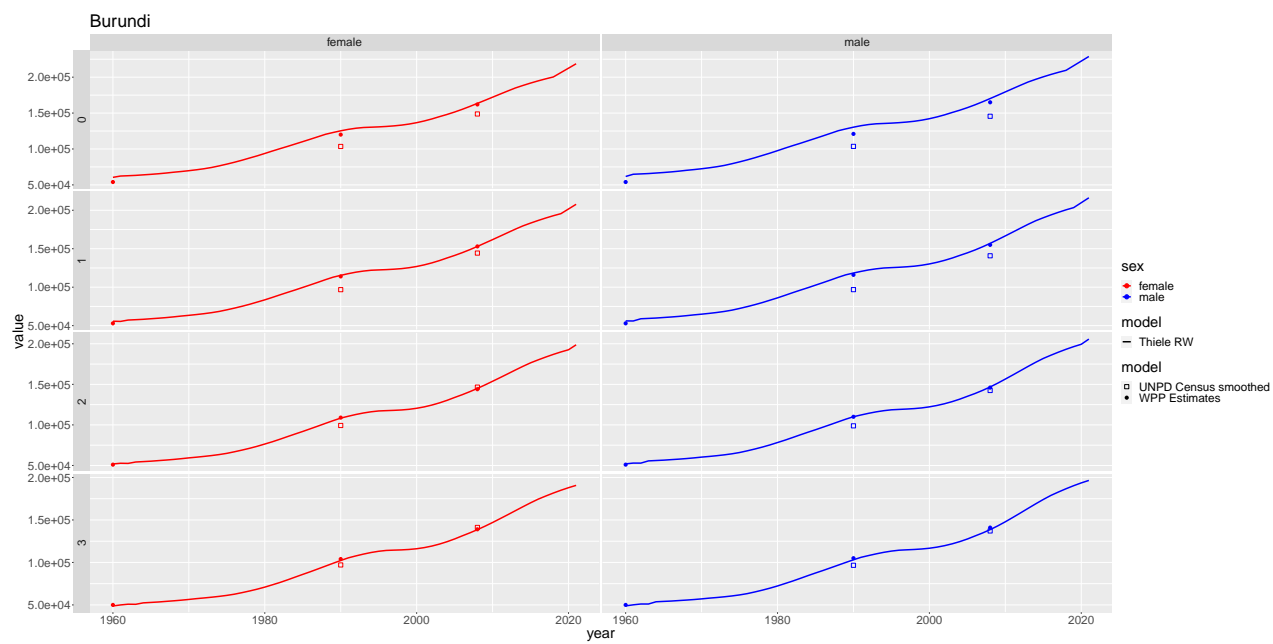


Figure 10: Population

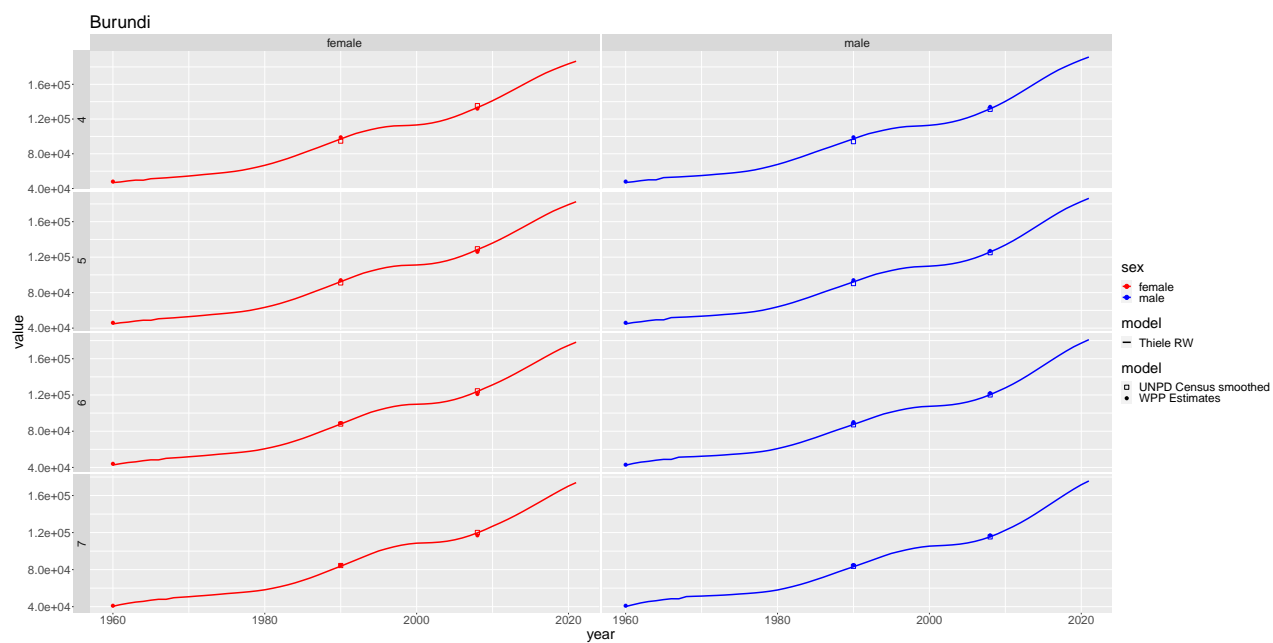


Figure 11: Population



Figure 12: Population



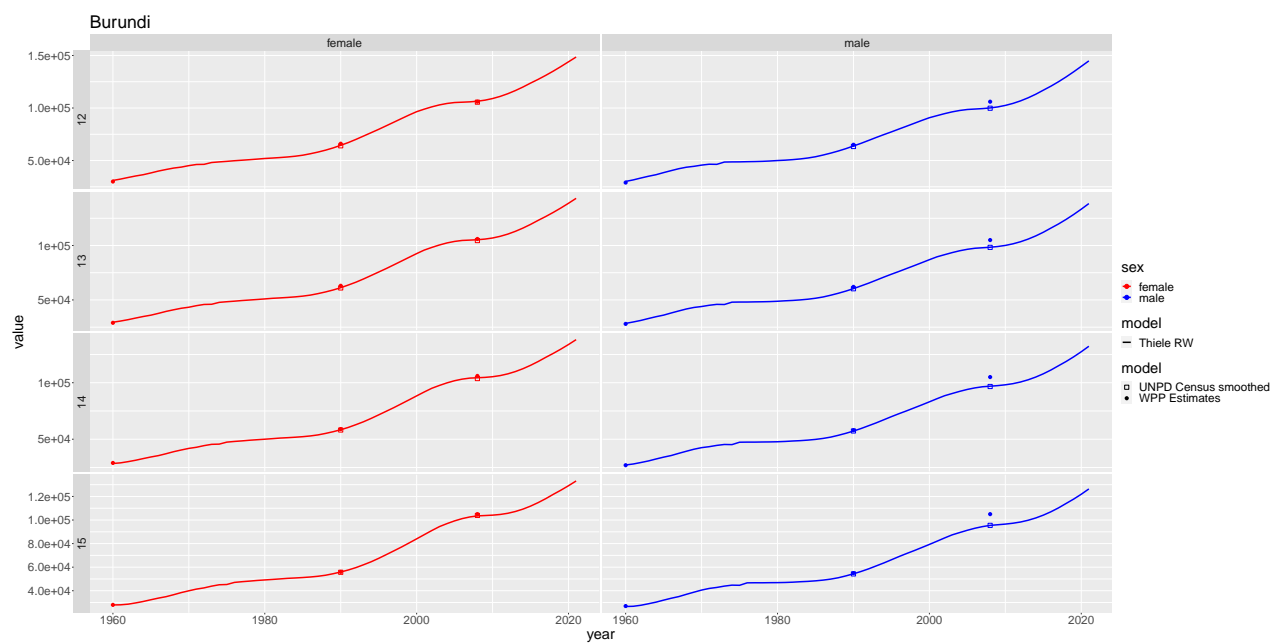


Figure 13: Population

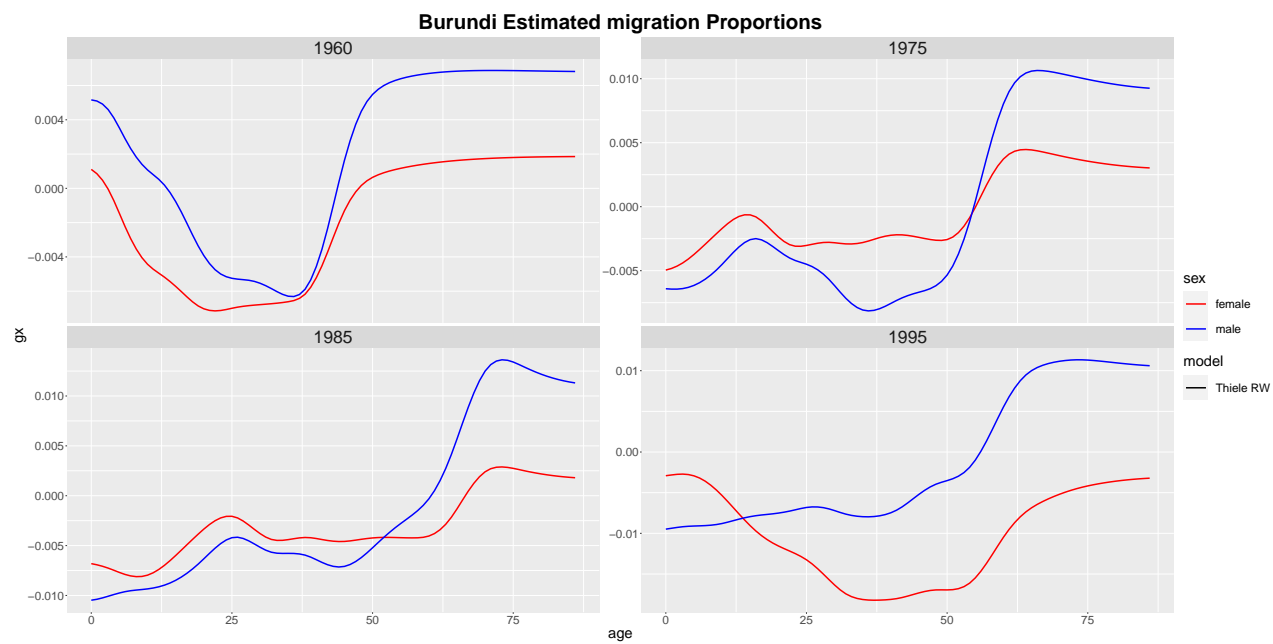


Figure 14: Migration

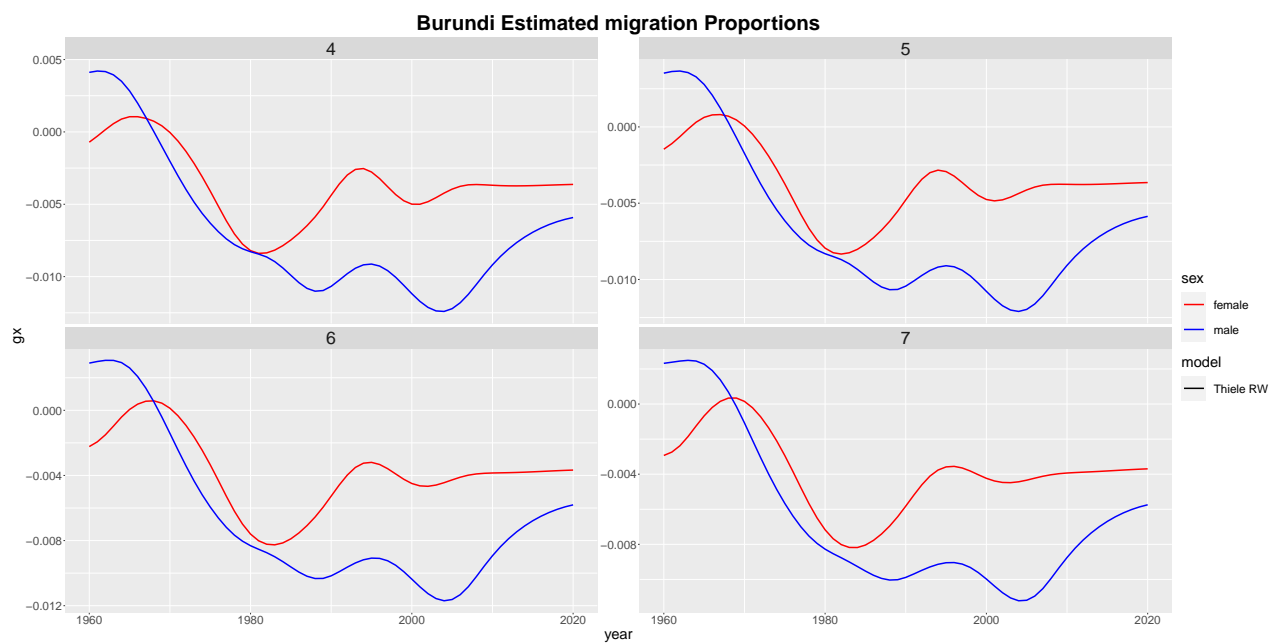


Figure 15: Migration

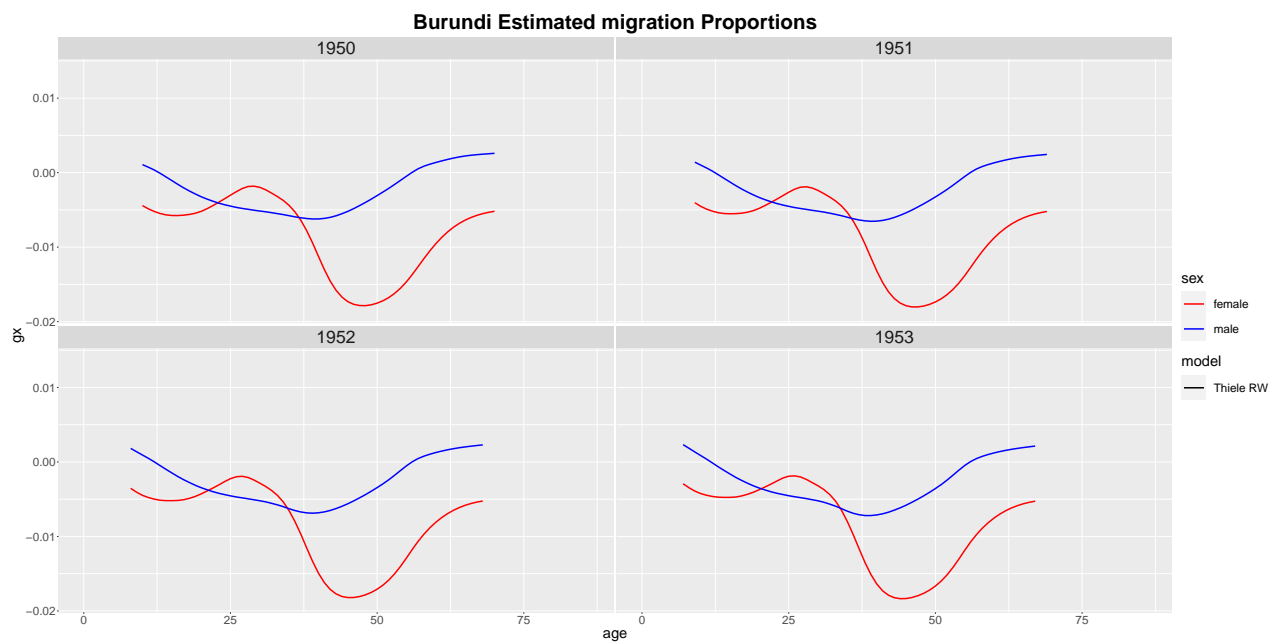


Figure 16: Migration

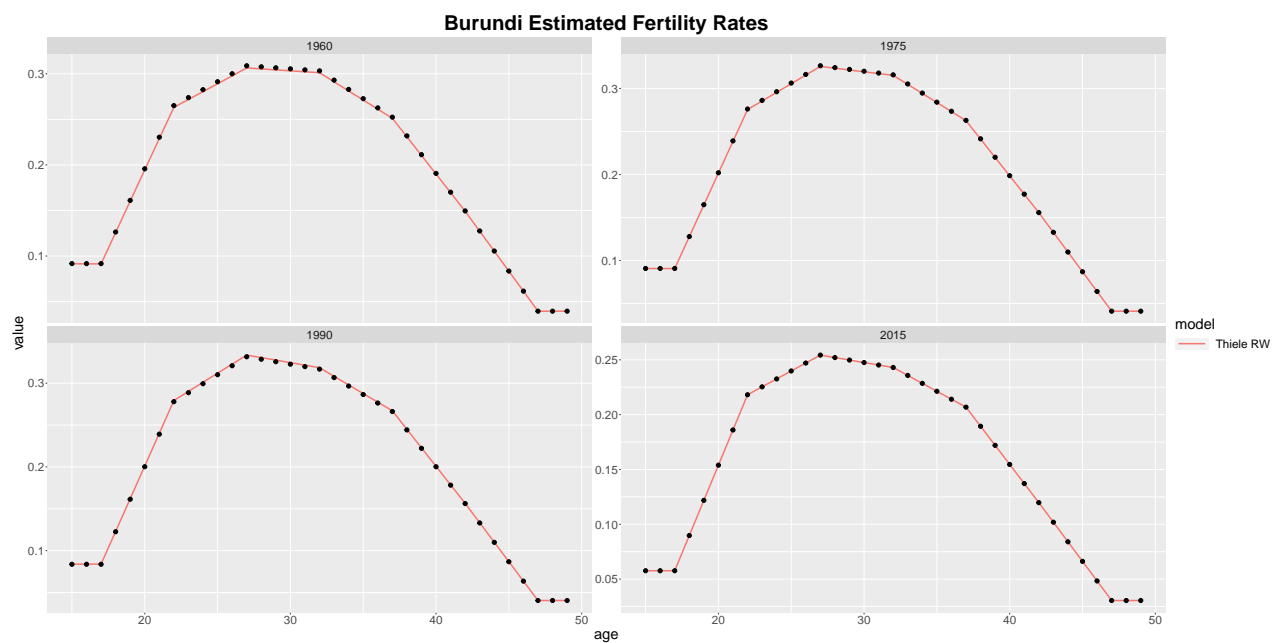


Figure 17: Fertility

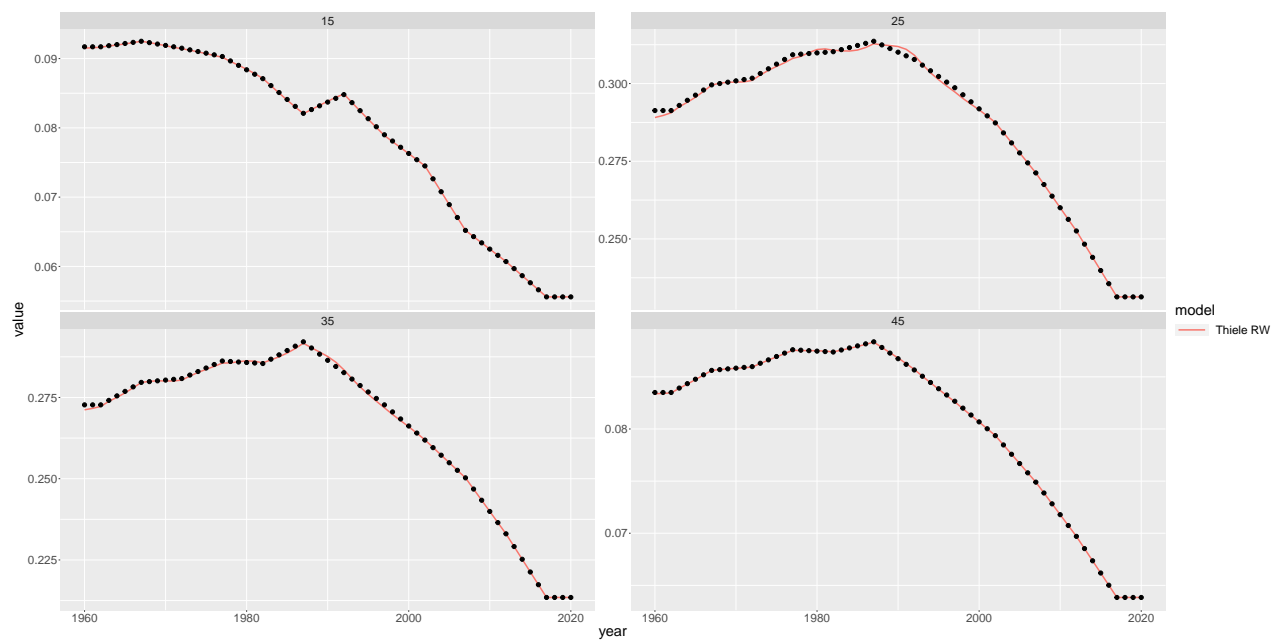


Figure 18: Fertility

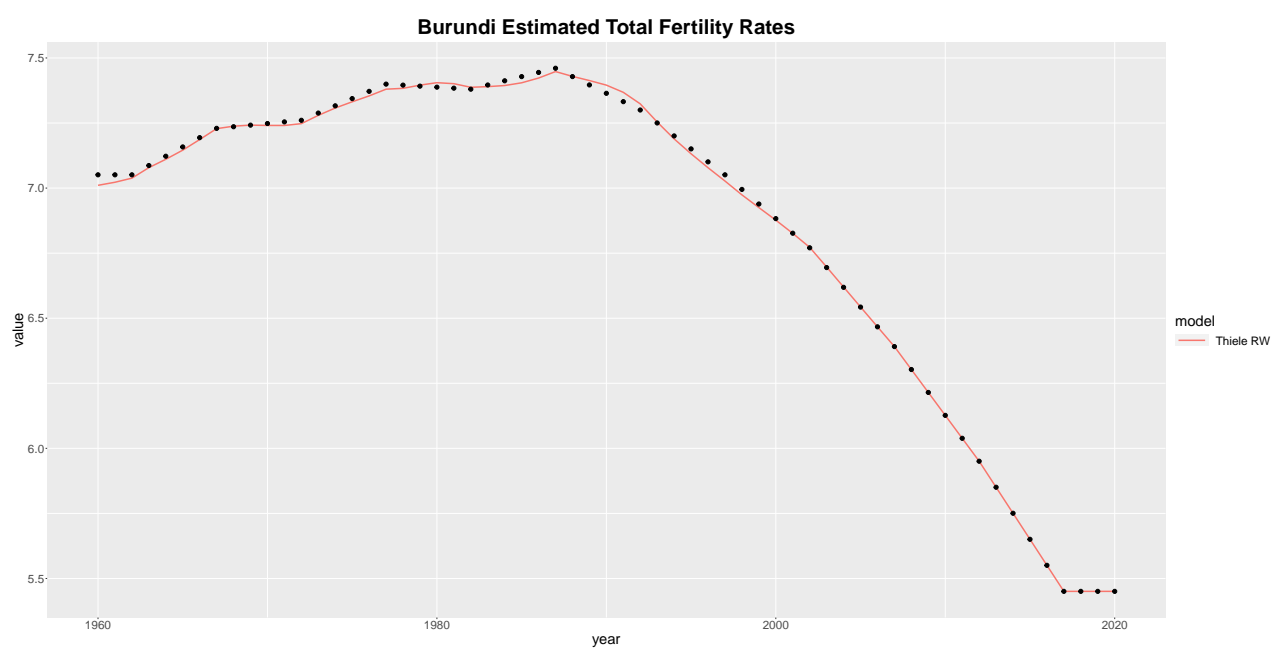


Figure 19: Total Fertility