Cameroon

```
## [1] "Census Females"
## # A tibble: 86 x 2
       age `2005`
##
            <dbl>
      <dbl>
##
##
   1
         0 337748
##
   2
         1 306850.
##
   3
          2 289908.
##
          3 282849.
##
   5
        4 274259.
##
   6
          5 265117.
##
   7
          6 254493.
##
         7 245594.
## 9
          8 239763.
## 10
          9 232630.
## # ... with 76 more rows
## [1] "Census Females 5-year"
## # A tibble: 18 x 2
##
        age `1976`
##
      <dbl>
             <dbl>
##
   1
        0 605118.
##
   2
         5 512635.
##
   3
        10 411125.
##
   4
        15 345677.
##
   5
         20 305370.
         25 269228.
##
   6
##
   7
         30 240773.
##
  8
         35 215240.
## 9
         40 183224.
## 10
         45 149331.
## 11
         50 118695.
## 12
         55 92248.
## 13
         60 69672.
## 14
         65 48846.
## 15
         70 34361.
## 16
         75 23450.
## 17
         80 15762.
## 18
         85 16650.
## [1] "Census Males"
## # A tibble: 86 x 2
##
        age `2005`
##
      <dbl>
              <dbl>
##
   1
          0 343296
   2
##
          1 315010.
##
   3
          2 296499.
##
   4
          3 290401
##
   5
          4 281627.
```

5 272737.

##

6

```
##
   7
          6 262914.
## 8
          7 254492.
## 9
          8 249144.
## 10
          9 241906.
## # ... with 76 more rows
## [1] "Census Males 5-year"
## # A tibble: 18 x 2
##
        age `1976`
##
      <dbl>
              <dbl>
##
   1
          0 611324.
##
   2
          5 530589.
##
   3
         10 431534.
##
   4
         15 336850.
##
   5
         20 266002.
         25 221801.
##
   6
##
   7
         30 198387.
##
   8
         35 184225.
## 9
         40 165759.
## 10
         45 142701.
## 11
         50 117673.
## 12
         55 93580.
## 13
         60 71082.
## 14
         65 48797.
## 15
         70 32937.
## 16
         75 22064.
## 17
         80 14288.
## 18
         85 17413.
```

$Thiele\ log\text{-}Normal\ Hump\ Spline$

[1] "relative convergence (4)"

##	log_tau2_logpop	log_tau2_logpop	log_tau2_logpop	log_tau2_logpop	lo
##	5.2678030	6.0170946	5.3004236	6.0234079	
##	log_dispersion	log_dispersion	log_lambda_tp	tp_slope	
##	0.6148560	0.7078286	3.3215871	-0.0289957	
##	log_lambda_phi	log_lambda_psi	log_lambda_A	log_lambda_B	log_la
##	12.7384693	12.7099954	12.5947103	12.1615699	
##	log_lambda_epsilon				
##	3.9147778				

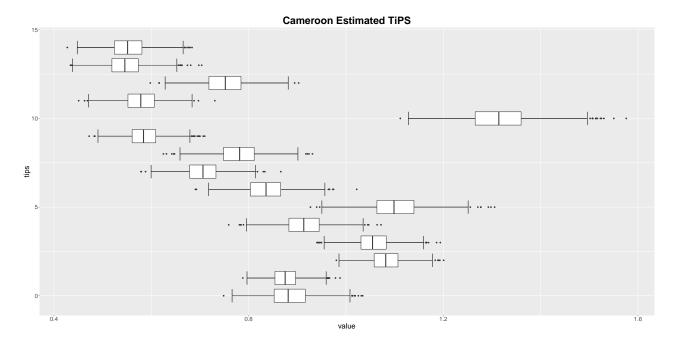


Figure 1: Estimated TiPS

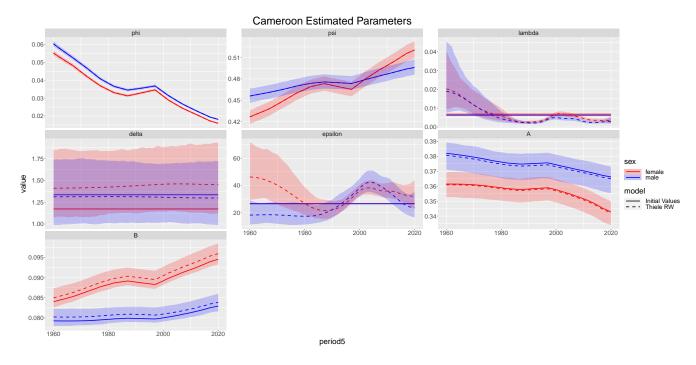


Figure 2: Estimated parameters

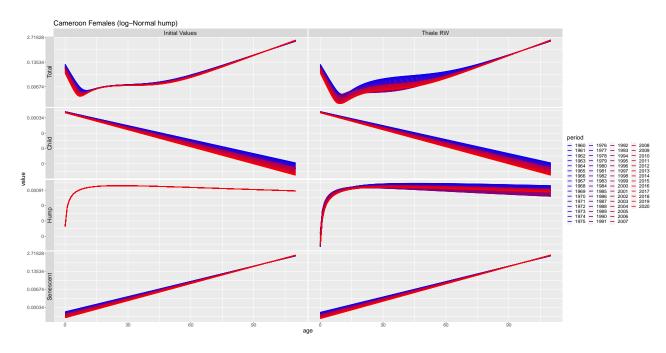


Figure 3: Thiele Decomposed

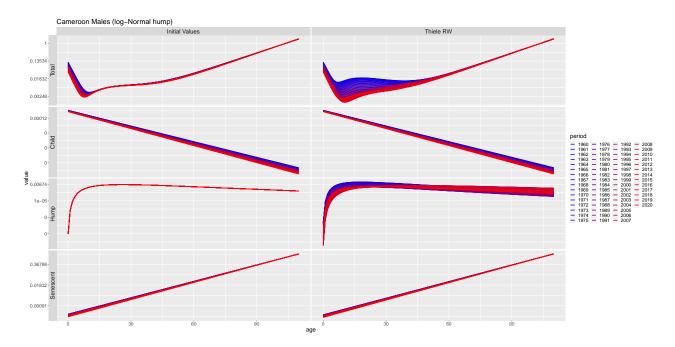


Figure 4: Thiele Decomposed

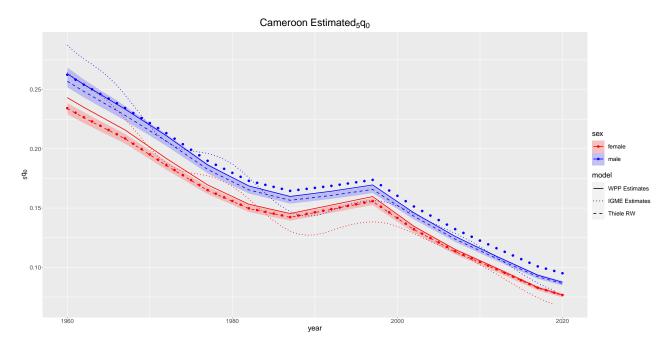


Figure 5: Estimated $_5q_0$

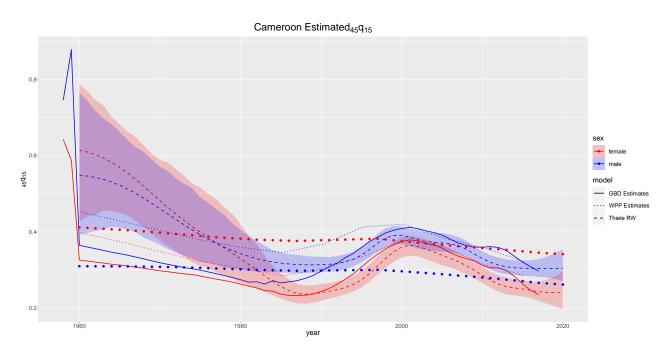


Figure 6: Estimated $_{45}q_{15}$

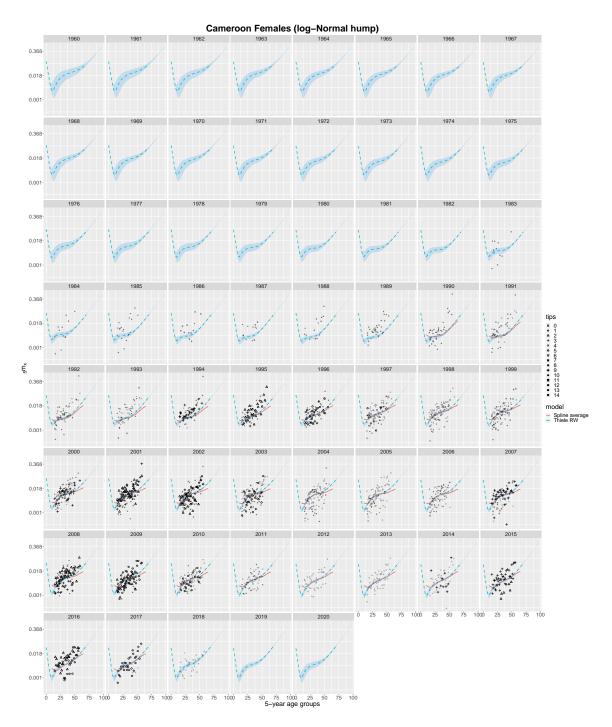


Figure 7: Mortality Schedules

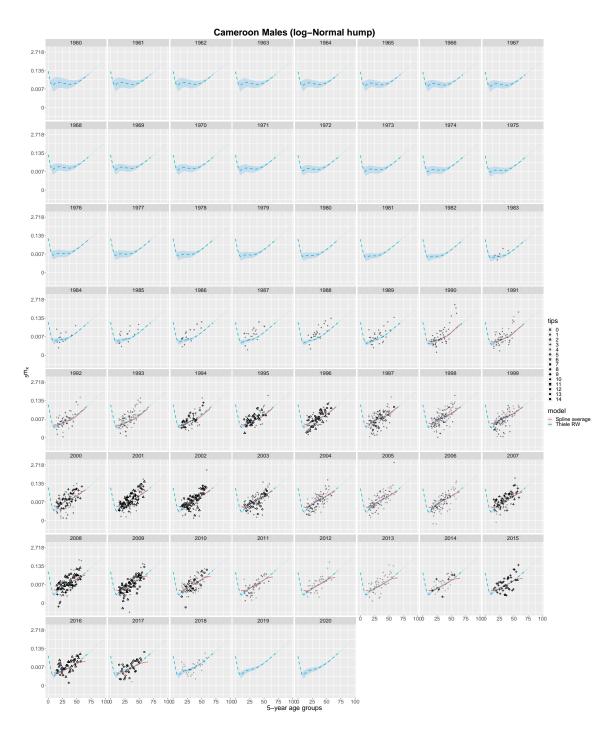


Figure 8: Mortality Schedules

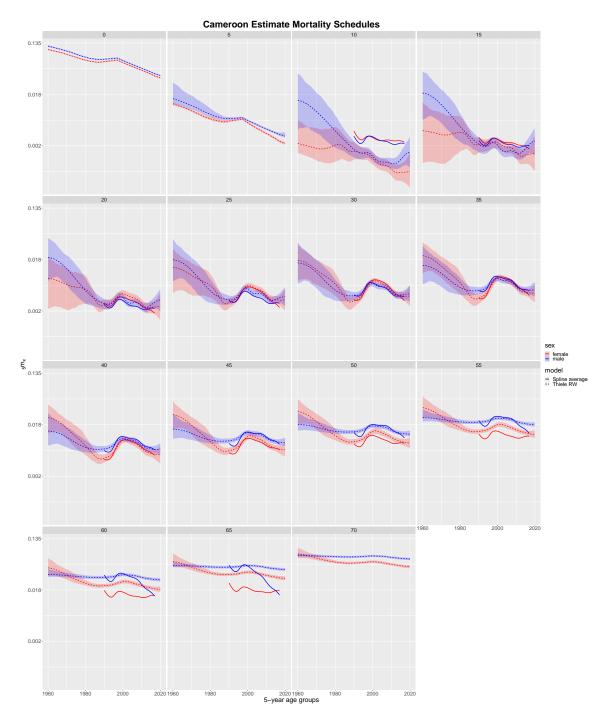


Figure 9: Mortality Schedules

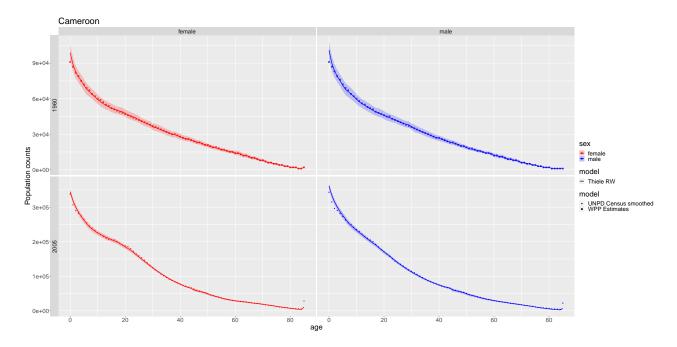


Figure 10: Population

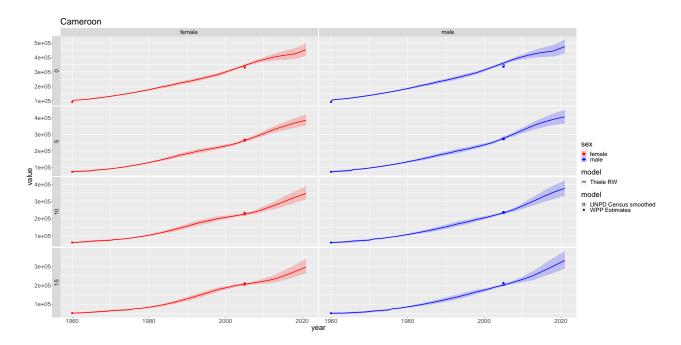


Figure 11: Population

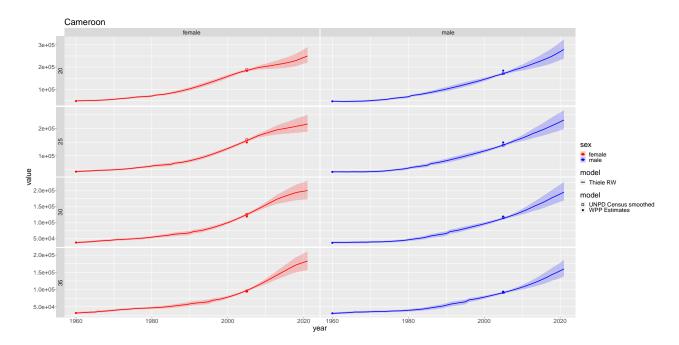


Figure 12: Population

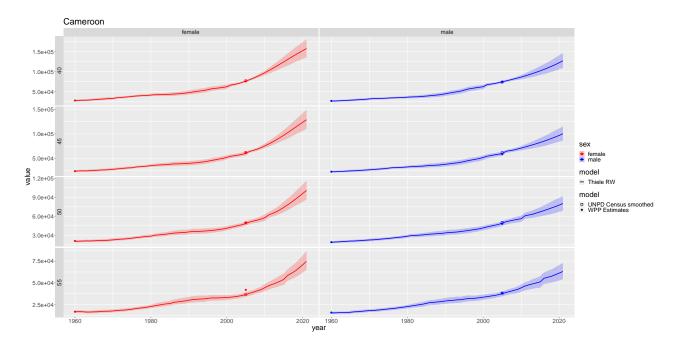
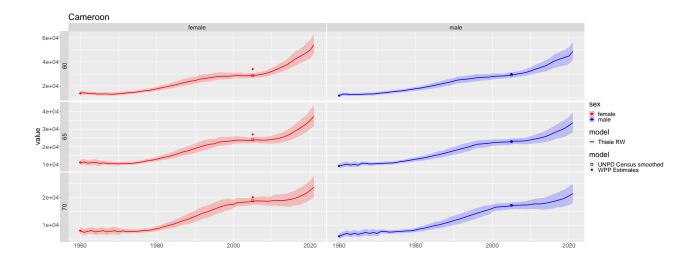


Figure 13: Population



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Figure 14: Population

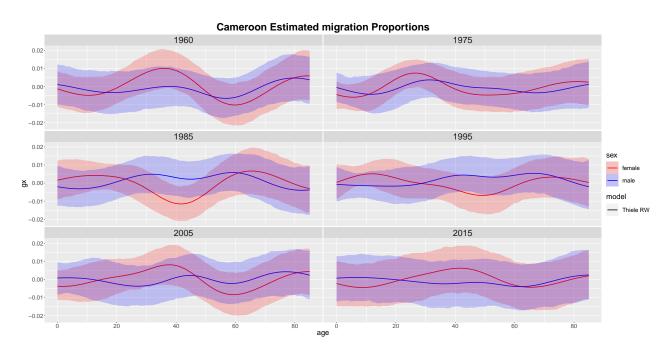


Figure 15: Migration

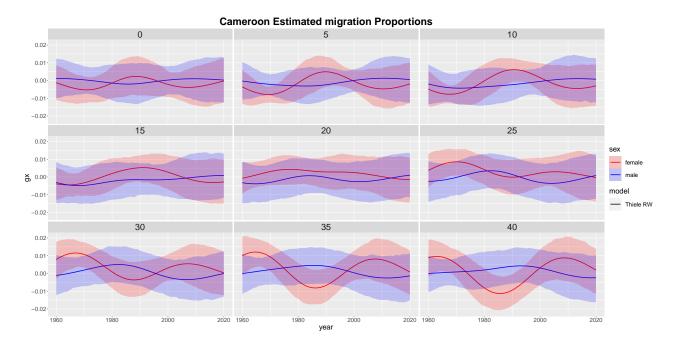


Figure 16: Migration

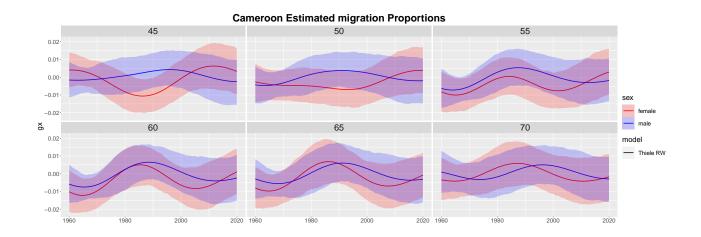


Figure 17: Migration

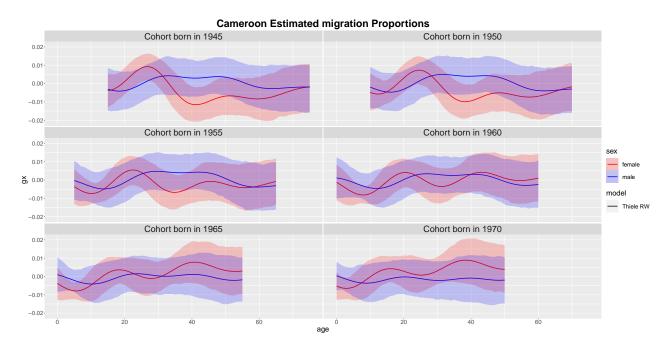


Figure 18: Migration

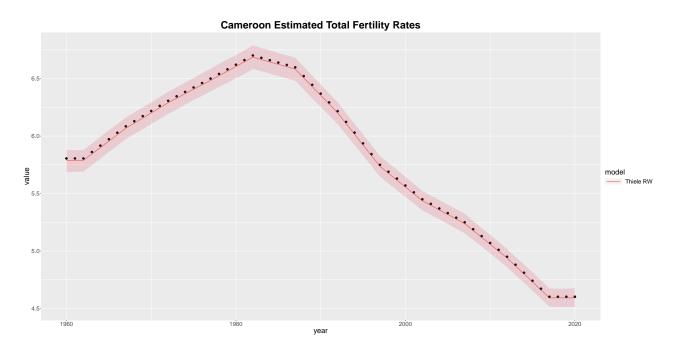


Figure 19: Total Fertility

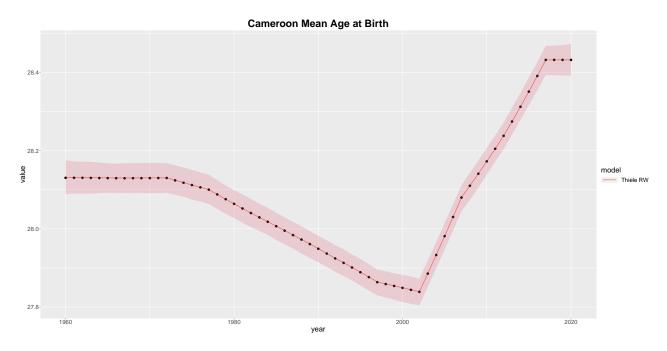


Figure 20: Mean age at births

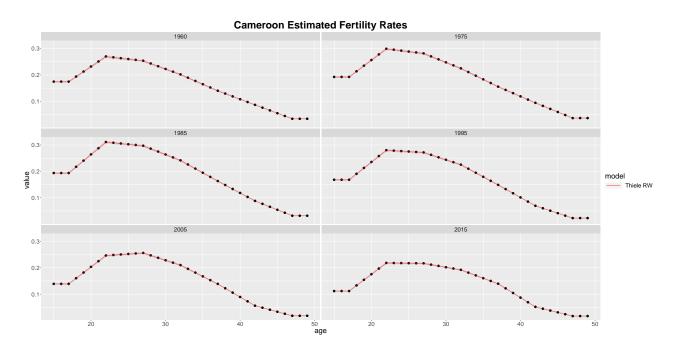


Figure 21: Fertility

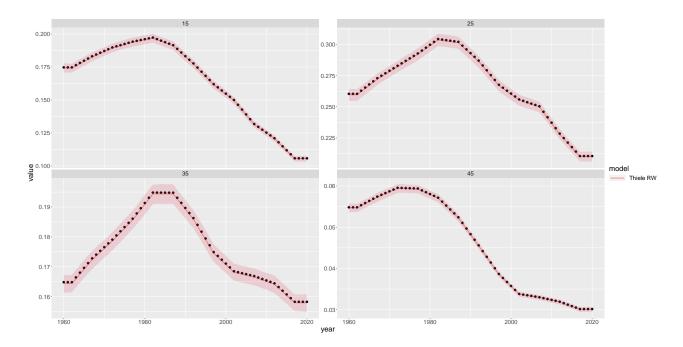


Figure 22: Fertility