Rwanda

```
## [1] "Census Females"
  # A tibble: 18 x 5
##
##
                `1978`
                         `1991`
                                 `2002`
                                          `2012`
      aggr.age
##
         <dbl>
                 <dbl>
                          <dbl>
                                  <dbl>
                                           <dbl>
##
                                        771978
   1
             0 466037. 653170 665141
##
             5 361325. 580142. 577688
            10 304639. 474522. 558736. 655970.
##
   3
##
            15 275639. 373865 494688. 588830.
##
   5
            20 231462. 308889. 420437
                                        520983.
##
   6
            25 173641. 269890 337174. 453729
##
   7
            30 130320. 233112. 264493. 379522.
##
   8
            35 111521. 182968. 215660. 305718.
##
   9
            40 100240. 133279. 179419. 244142.
                86457. 105644. 146335. 200541
## 10
            45
                74057. 92709. 113963. 167144.
## 11
            50
##
  12
            55
                62652.
                        79171.
                                 86033. 136175.
##
  13
            60
                49547.
                         64911.
                                 65745. 104611
## 14
            65
                32385.
                         50270
                                 50987.
                                          76197.
## 15
            70
                13319.
                         40610
                                 38045.
                                          54853.
## 16
            75
                22368.
                         35965
                                 21734
                                          39347.
## 17
            80
                    NA
                            NA
                                 14707
                                          26706.
            85
                                  8231
                                          26496.
## 18
                    NA
                            NA
## [1] "Census Males"
  # A tibble: 18 x 5
##
                `1978`
                         `1991`
                                 `2002`
                                          `2012`
      aggr.age
##
         <dbl>
                 <dbl>
                          <dbl>
                                  <dbl>
                                           <dbl>
                               655090
##
   1
             0 462588. 644055
                                        768049
##
   2
             5 358634. 566505
                                563351
                                        757421
            10 303160. 460628. 536404. 640364.
##
   3
            15 273928. 358739. 463566. 569188.
##
    4
##
   5
            20 226121. 293768. 383778. 499650.
##
   6
            25 161692. 261421. 299168. 428454.
##
   7
            30 110684. 229449. 228871. 350632.
##
   8
                87492. 177671. 185847. 274429.
##
   9
                79283. 122634. 154300. 209778
            40
## 10
            45
                71068. 86745 123156. 167014.
## 11
            50
                61257.
                         71374. 91774. 136966.
## 12
                51816.
                         62772.
                                 65381. 108245.
            55
## 13
            60
                42545.
                         52764.
                                 47457.
## 14
            65
                30119.
                         41664.
                                 36184.
                                          54291.
## 15
            70
                14043.
                         32755
                                 27764.
                                          36581.
## 16
            75
                23333.
                         33020
                                 16255
                                          25146.
## 17
            80
                    NA
                            NA
                                 12081
                                          17154.
## 18
            85
                    NA
                            NA
                                  6610
                                          17077.
Thiele log-Normal Hump RW
```

user system elapsed ## 52.97 1.14 54.34 ## [1] "relative convergence (4)"

Thiele log-Normal Hump RW (Pop 5-9 to 70-74, DHS 15-19 to 45-49)

```
## user system elapsed
## 41.66 0.75 42.60
```

[1] "relative convergence (4)"

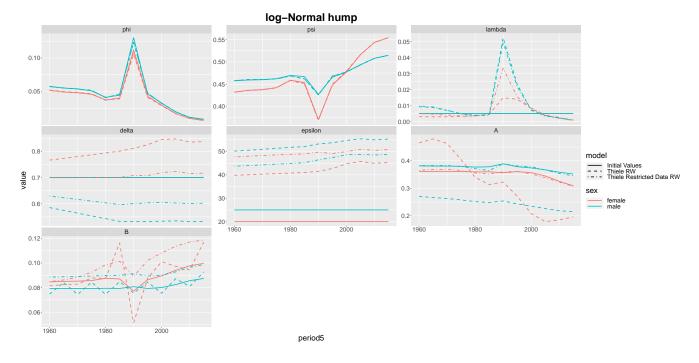


Figure 1: Estimated parameters

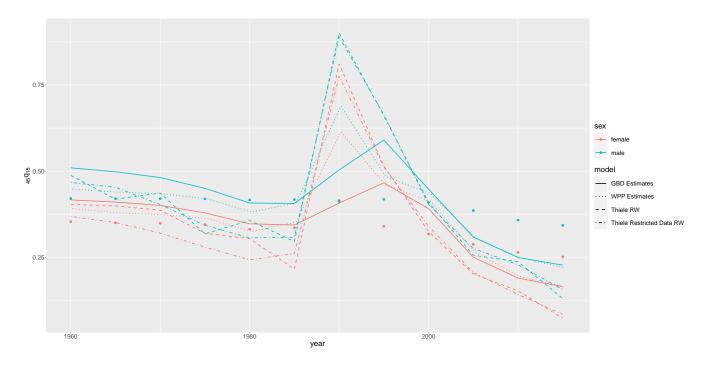


Figure 2: Estimated $_{45}q_{15}$

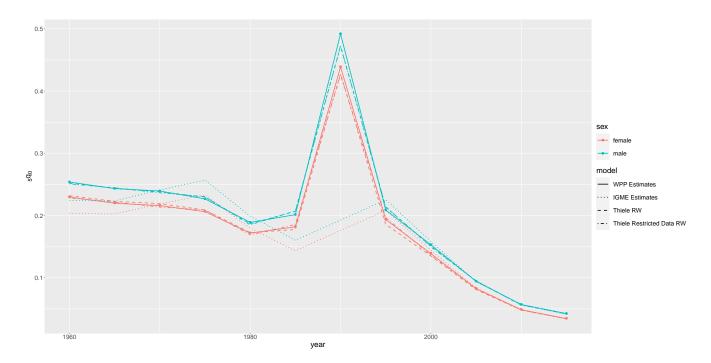


Figure 3: Estimated $_5q_0$

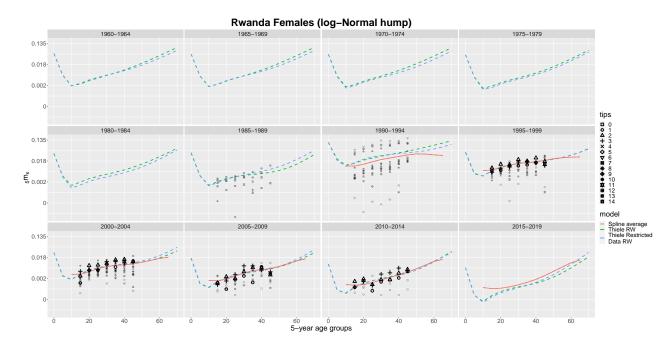


Figure 4: Mortality Schedules

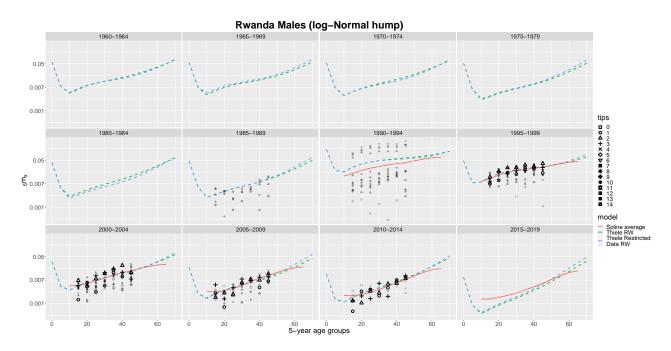


Figure 5: Mortality Schedules

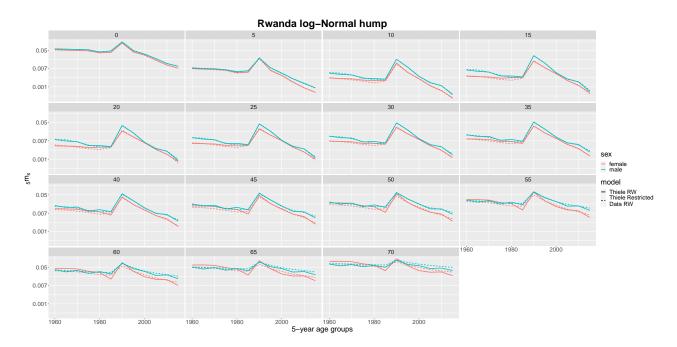


Figure 6: Mortality Schedules

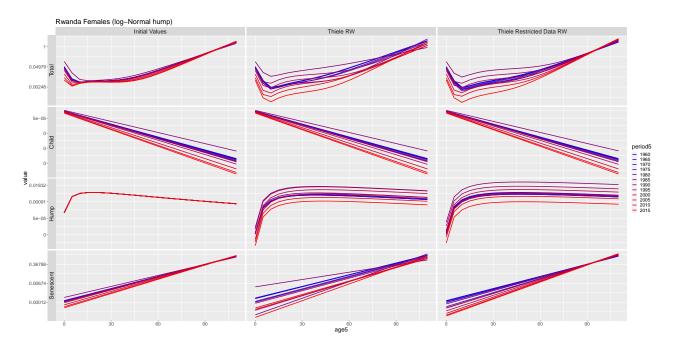


Figure 7: Thiele Decomposed

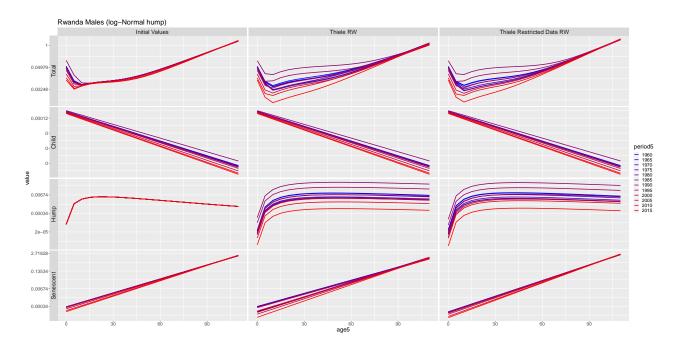


Figure 8: Thiele Decomposed

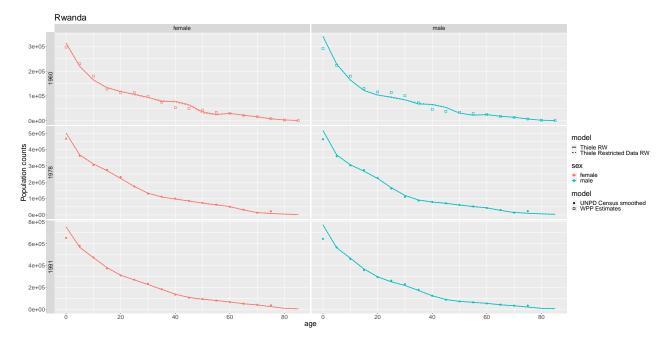


Figure 9: Population

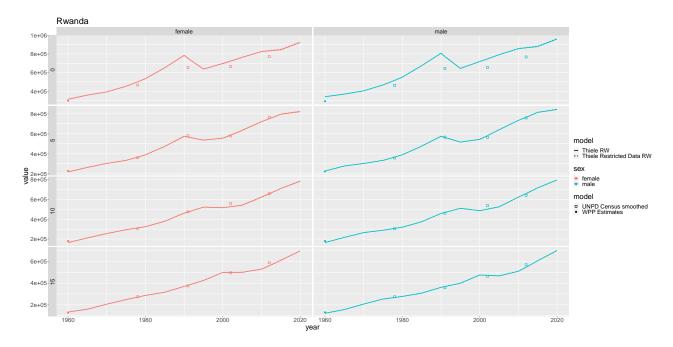


Figure 10: Population

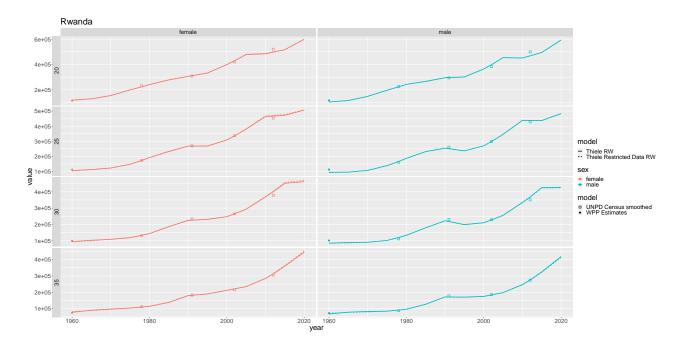


Figure 11: Population

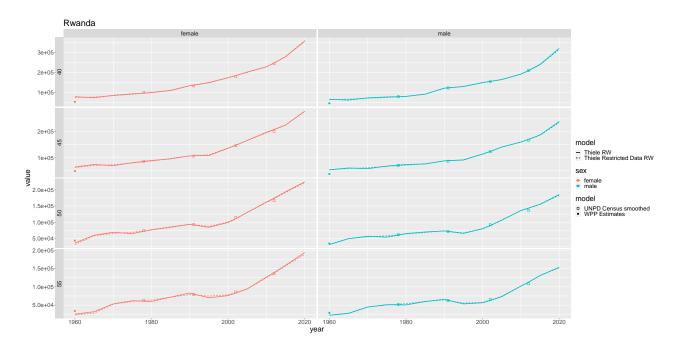


Figure 12: Population

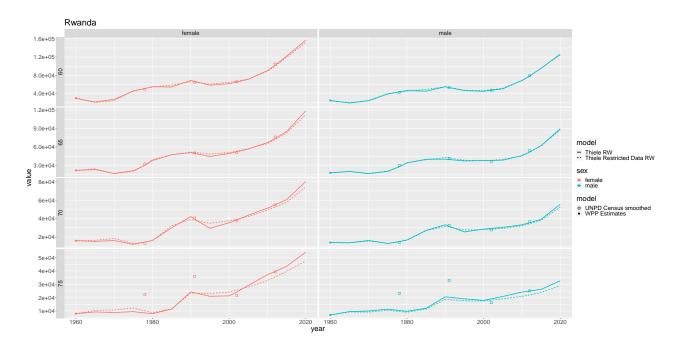


Figure 13: Population

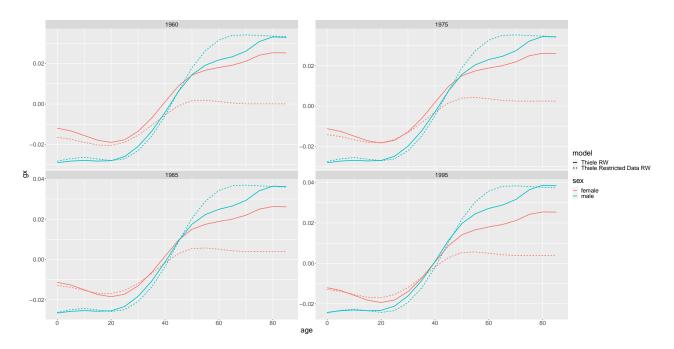


Figure 14: Migration

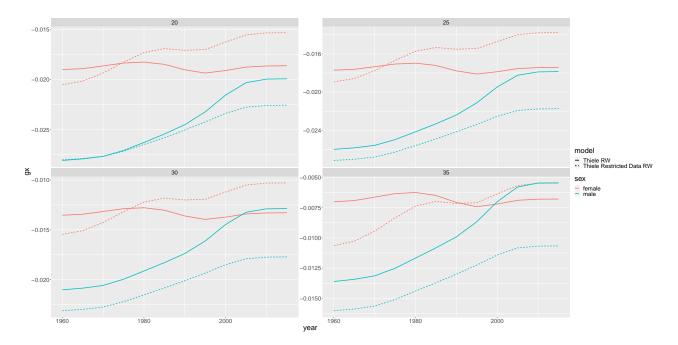


Figure 15: Migration

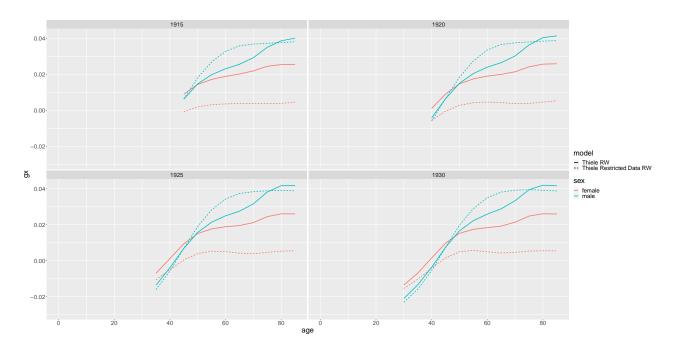


Figure 16: Migration

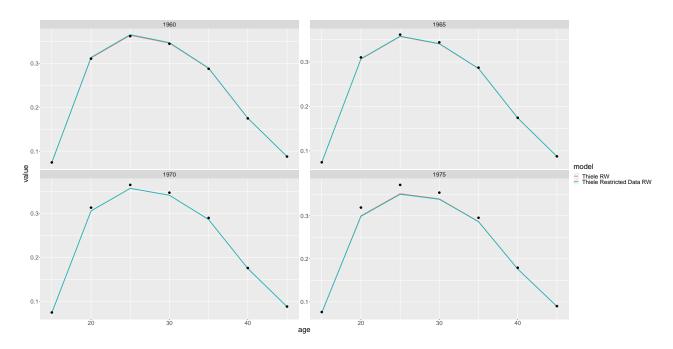


Figure 17: Fertility

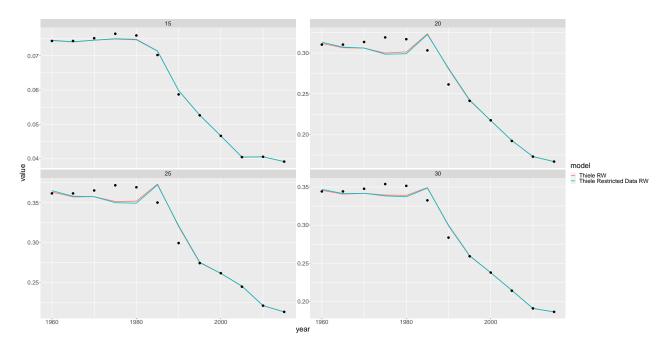


Figure 18: Fertility