

Kenya

[1] "Census Females"

A tibble: 18 x 8

| ## | aggr.age | `1962` | `1969` | `1979` | `1989` | `1999` | `2009` | `2019` |
|-------|----------|---------|---------|----------|----------|----------|----------|----------|
| ## * | <dbl> | <dbl> | <dbl> | <dbl> | <dbl> | <dbl> | <dbl> | <dbl> |
| ## 1 | 0 | 705064. | 1046380 | 1423936. | 1891568. | 2256516. | 2940322. | 2978323. |
| ## 2 | 5 | 597154. | 874226. | 1235895. | 1708725. | 2055280. | 2735980. | 3064593. |
| ## 3 | 10 | 477386. | 691456. | 1046913. | 1476419. | 1934383. | 2438712. | 2977774. |
| ## 4 | 15 | 395882. | 550900. | 872886. | 1226523. | 1748105. | 2146642. | 2652670. |
| ## 5 | 20 | 367906. | 464071. | 701504. | 1019471. | 1482544. | 1940959. | 2304416. |
| ## 6 | 25 | 336176. | 392957. | 546283. | 821903. | 1176768. | 1657743. | 2043947. |
| ## 7 | 30 | 272548. | 318636. | 423762. | 615387. | 900106. | 1300974. | 1753184. |
| ## 8 | 35 | 208542. | 257704. | 334882. | 464691. | 706673. | 1001392. | 1385454. |
| ## 9 | 40 | 161280. | 208136. | 274175. | 370261. | 547466. | 777107. | 1087393. |
| ## 10 | 45 | 124664. | 167178. | 227571. | 298181. | 426343. | 621651. | 866858. |
| ## 11 | 50 | 92140. | 136058. | 184967. | 239216. | 335929. | 486662. | 679125. |
| ## 12 | 55 | 67382. | 109512. | 142658. | 192942. | 258435. | 370542. | 556669. |
| ## 13 | 60 | 53409. | 88640. | 109394. | 158686. | 207777. | 289461. | 452658. |
| ## 14 | 65 | 39397. | 66777. | 84777. | 123427. | 168755. | 223312. | 354144. |
| ## 15 | 70 | 26466. | 45690. | 62651. | 90086. | 129033. | 171156. | 265847. |
| ## 16 | 75 | 17945. | 30620. | 86752. | 60564. | 82113. | 118734. | 181084. |
| ## 17 | 80 | 14141. | 21530 | NA | 94209. | 121769. | 224687. | 118391. |
| ## 18 | 85 | 17121. | 26621 | NA | NA | NA | NA | 141785. |

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| ## * | <dbl> | <dbl> | <dbl> | <dbl> | <dbl> | <dbl> | <dbl> | <dbl> |
| ## 1 | 0 | 680883. | 1058102 | 1424953. | 1914189. | 2308755. | 3002234. | 2997631. |
| ## 2 | 5 | 609628. | 901502. | 1244344. | 1728441. | 2097298. | 2809453. | 3102097. |
| ## 3 | 10 | 513677. | 726541. | 1052936. | 1484869. | 1952354. | 2523246. | 3040190. |
| ## 4 | 15 | 386214. | 565756. | 851898. | 1189315. | 1694212. | 2142963. | 2651859. |
| ## 5 | 20 | 289232. | 441444. | 664211. | 936316. | 1368457. | 1791316. | 2159206. |
| ## 6 | 25 | 250085. | 352038. | 519992. | 760638. | 1097757. | 1518251. | 1840199. |
| ## 7 | 30 | 221413. | 290906. | 404695. | 604081. | 874258. | 1262642. | 1615620. |
| ## 8 | 35 | 189179. | 244789. | 312473. | 470056. | 691971. | 1002938. | 1362683. |
| ## 9 | 40 | 162241. | 203129. | 258557. | 370463. | 540968. | 782174. | 1125199. |
| ## 10 | 45 | 137093. | 167854. | 221009. | 291860. | 428326. | 623496. | 898890. |
| ## 11 | 50 | 107131. | 138027. | 181751. | 233257. | 335648. | 488150. | 687325. |
| ## 12 | 55 | 81154. | 116068. | 143338. | 186345. | 248443. | 373342. | 537408. |
| ## 13 | 60 | 64459. | 98553. | 114261. | 148130. | 189804. | 283422. | 419991. |
| ## 14 | 65 | 47331. | 75013. | 93665. | 114381. | 149855. | 205573. | 316734. |
| ## 15 | 70 | 33717. | 50794. | 66506. | 86192. | 115173. | 150987. | 223830. |
| ## 16 | 75 | 24812. | 33529. | 87947. | 66706. | 79747. | 99893. | 138307. |
| ## 17 | 80 | 20104. | 22078 | NA | 82347. | 95999. | 159220. | 81682. |
| ## 18 | 85 | 25148. | 29194 | NA | NA | NA | NA | 83593. |

Thiele log-Normal Hump RW

| ## | user | system | elapsed |
|----|-------|--------|---------|
| ## | 36.66 | 0.64 | 37.33 |

```
## [1] "relative convergence (4)"
```

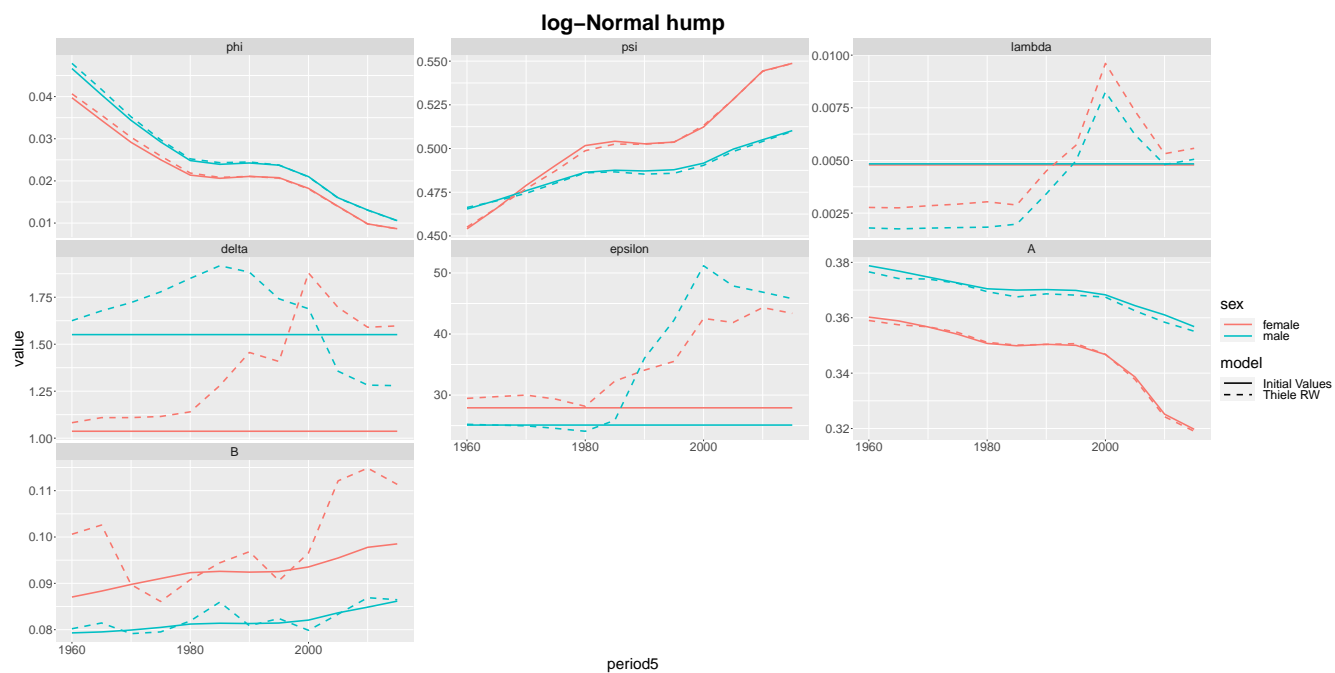


Figure 1: Estimated parameters

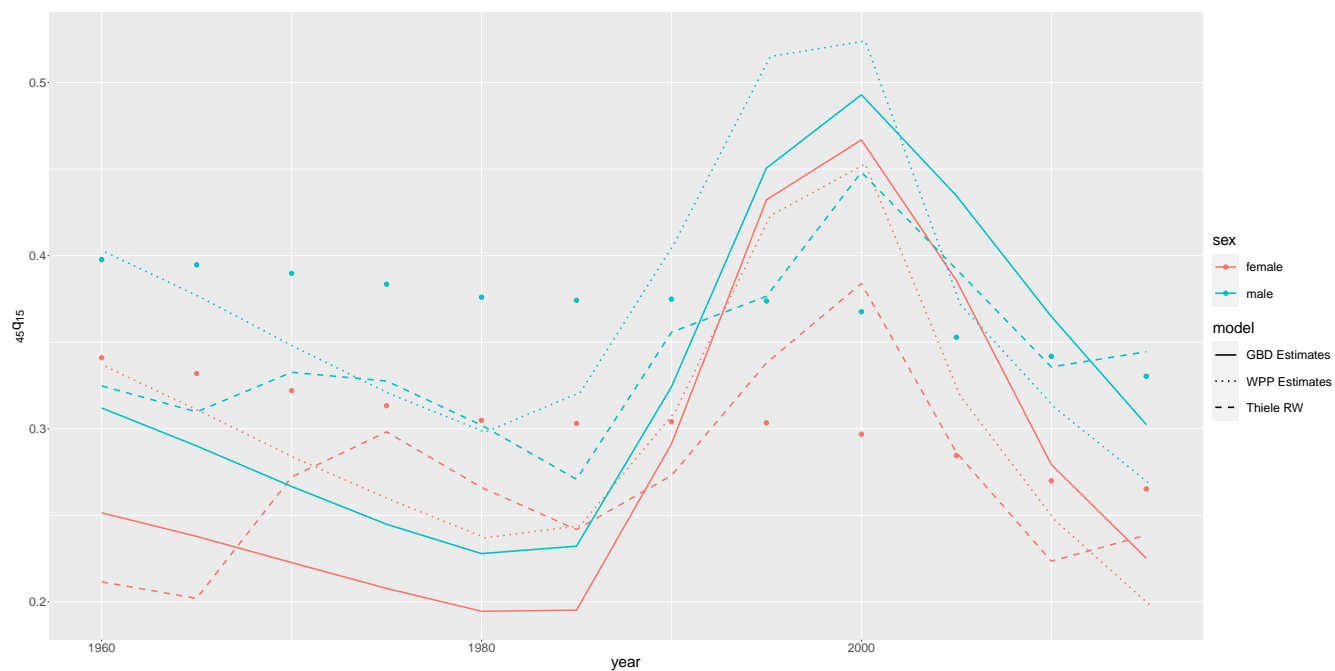


Figure 2: Estimated $_{45}q_{15}$

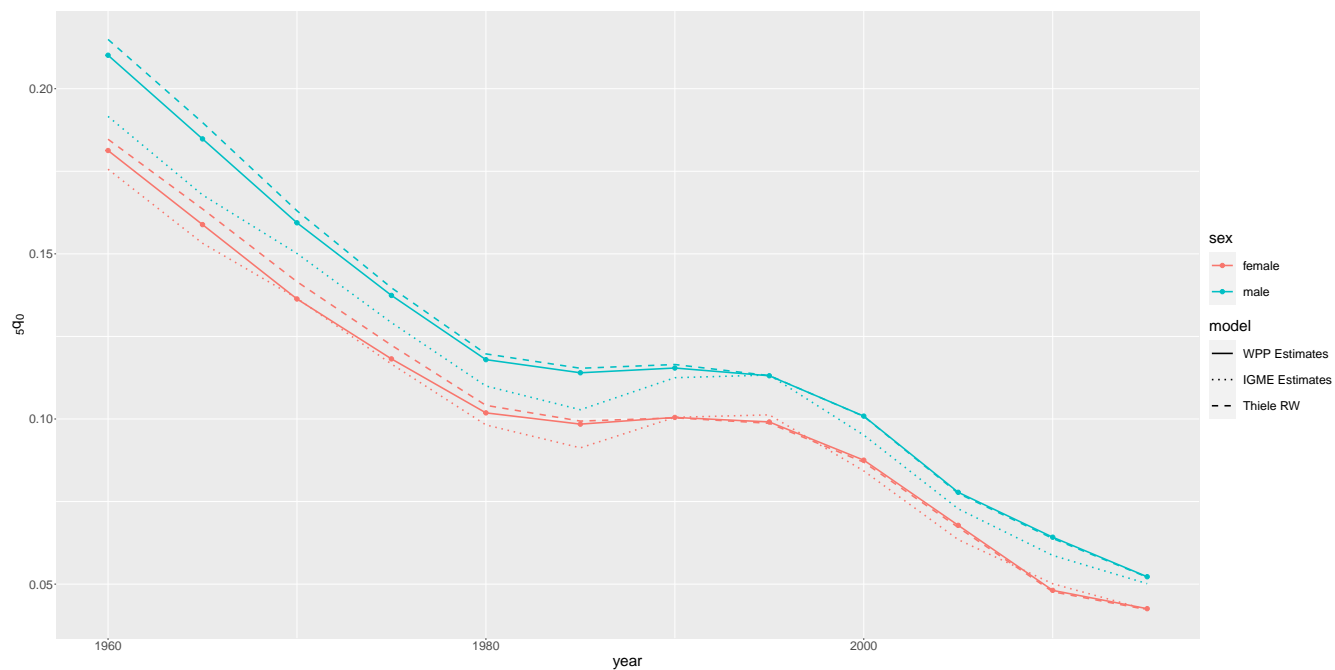


Figure 3: Estimated $_{5}q_0$

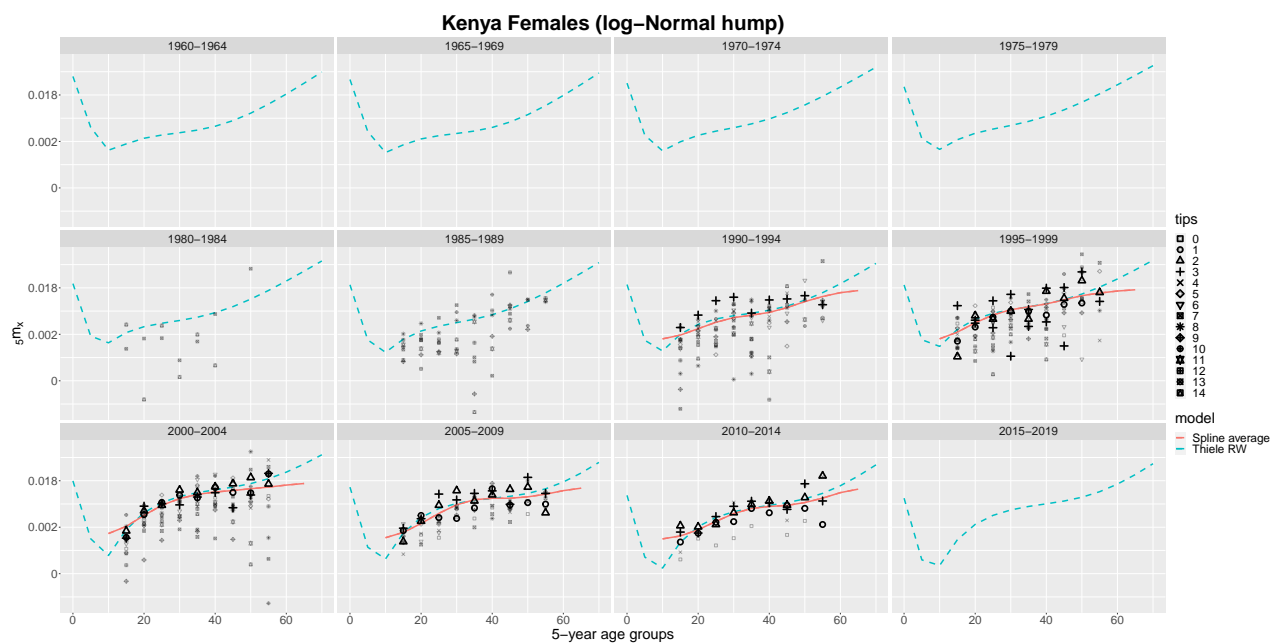


Figure 4: Mortality Schedules

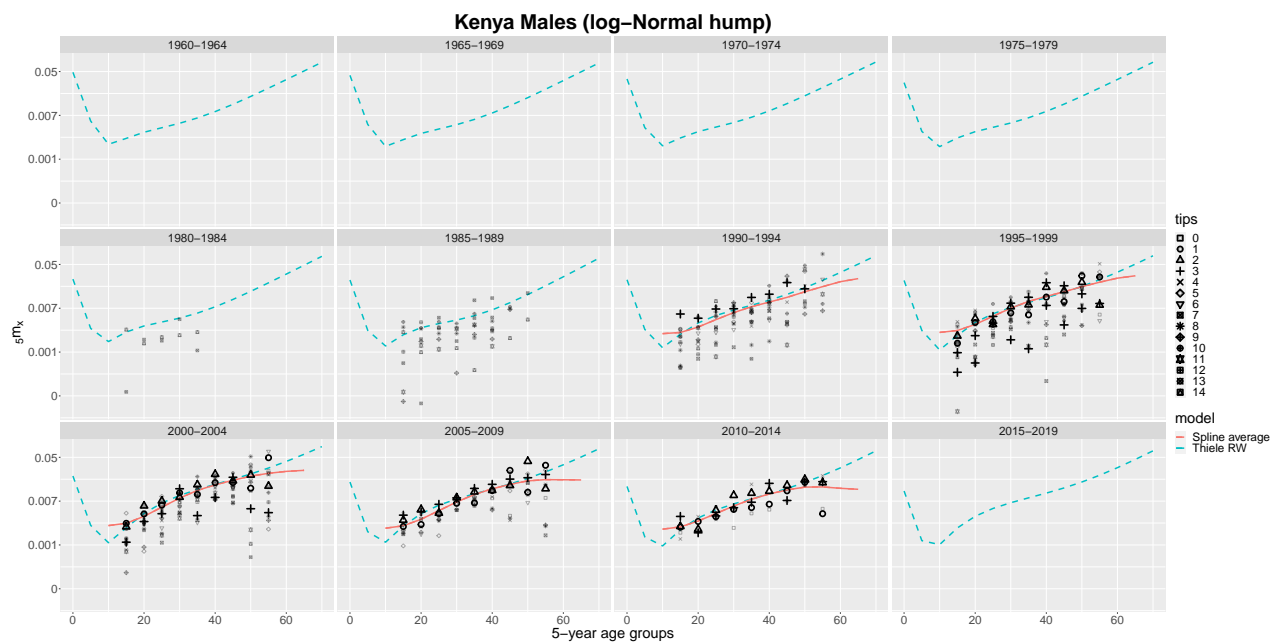


Figure 5: Mortality Schedules

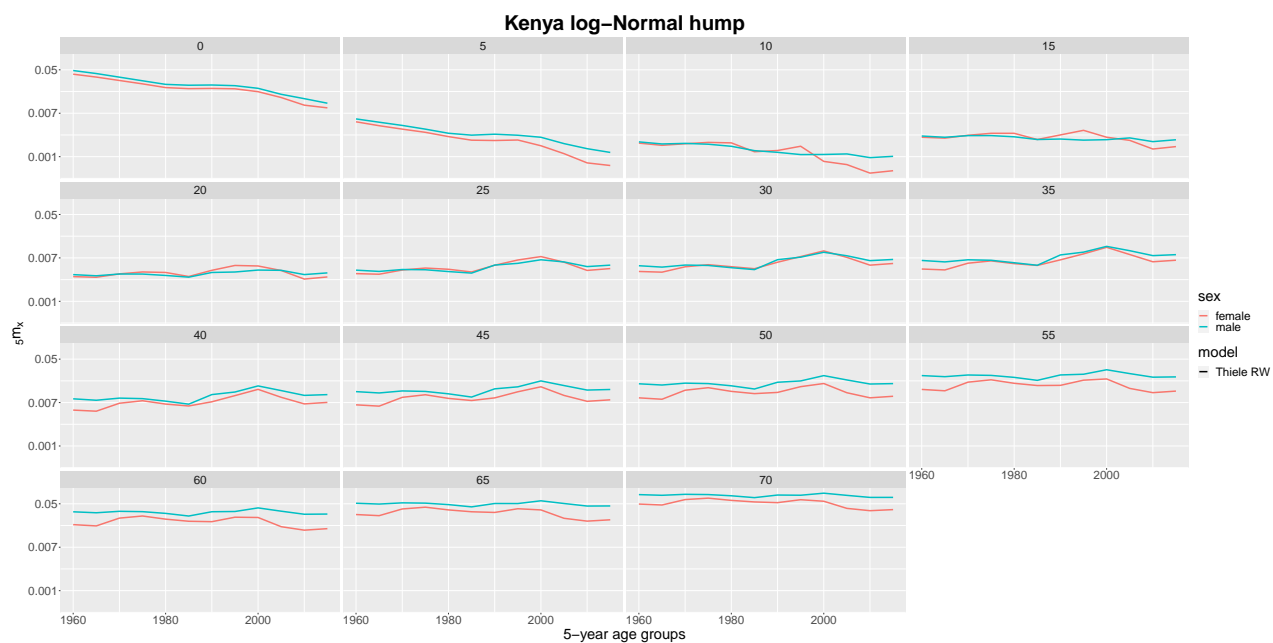


Figure 6: Mortality Schedules

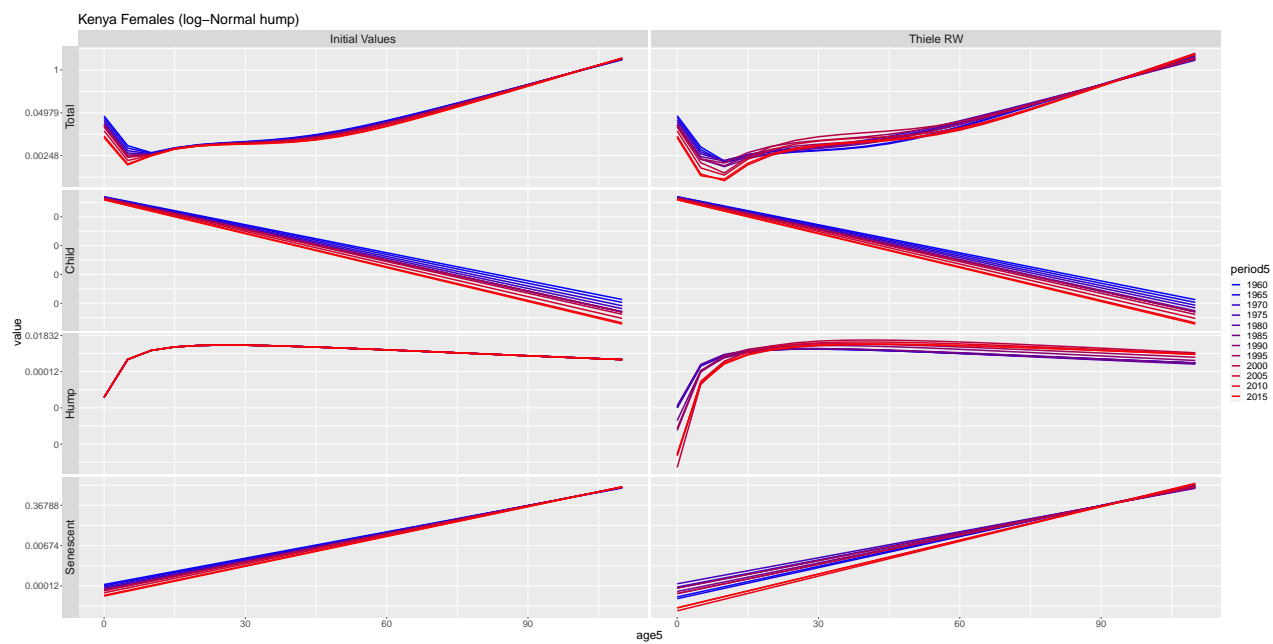


Figure 7: Thiele Decomposed

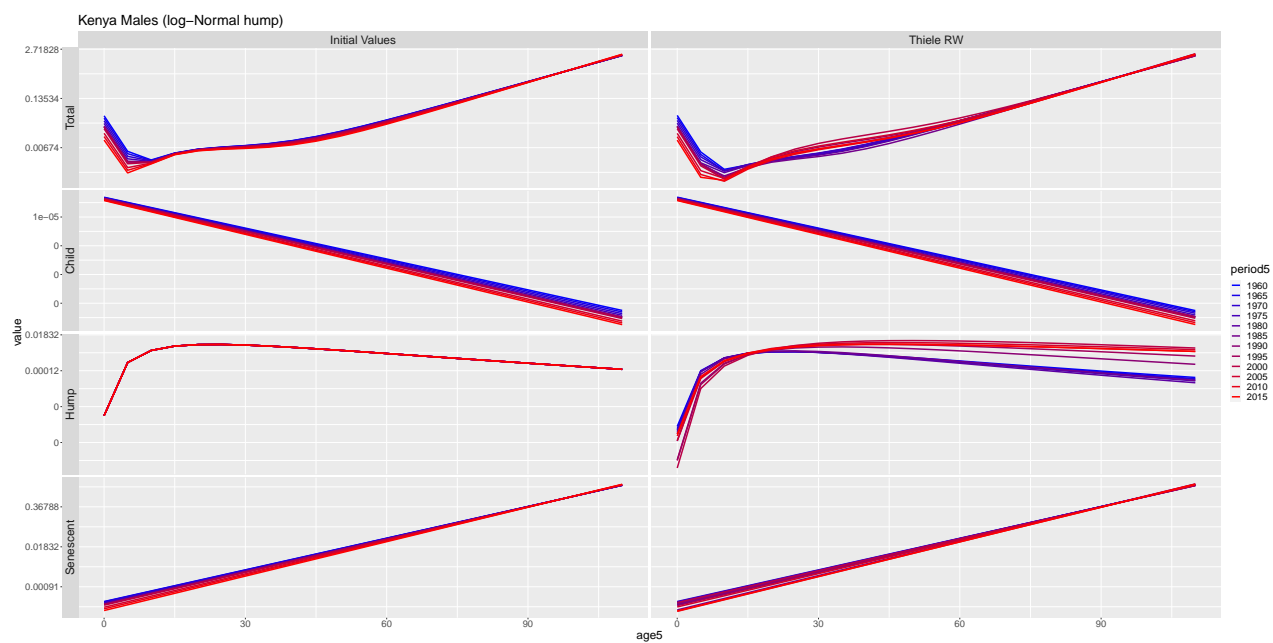


Figure 8: Thiele Decomposed

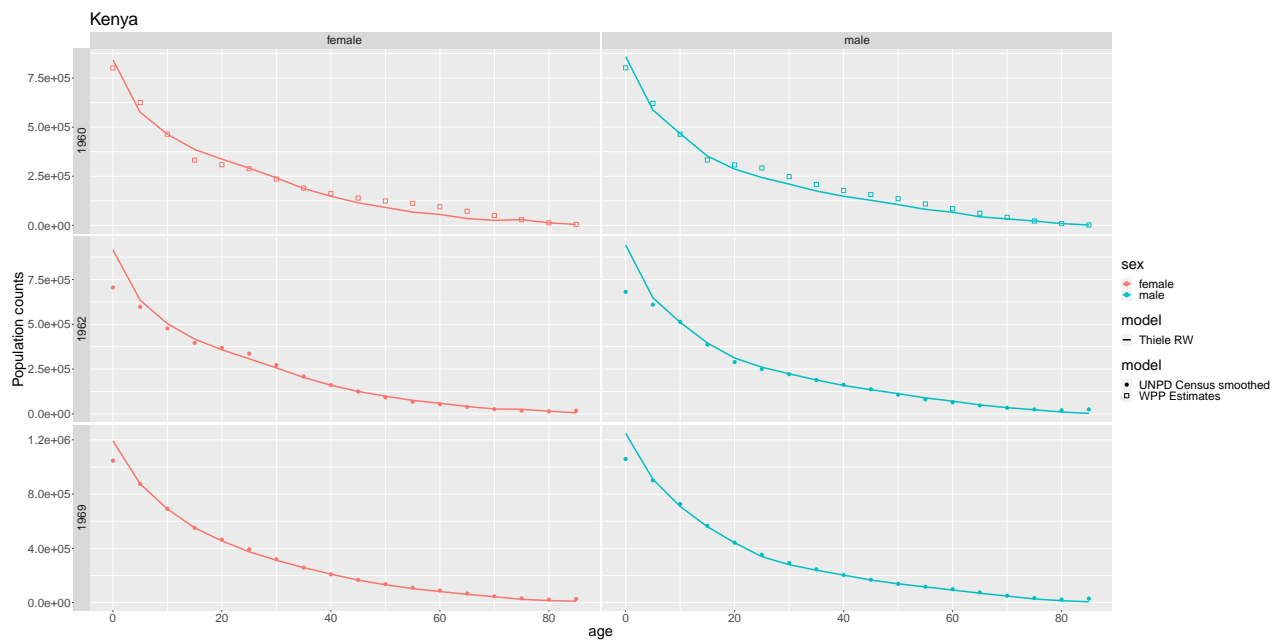


Figure 9: Population

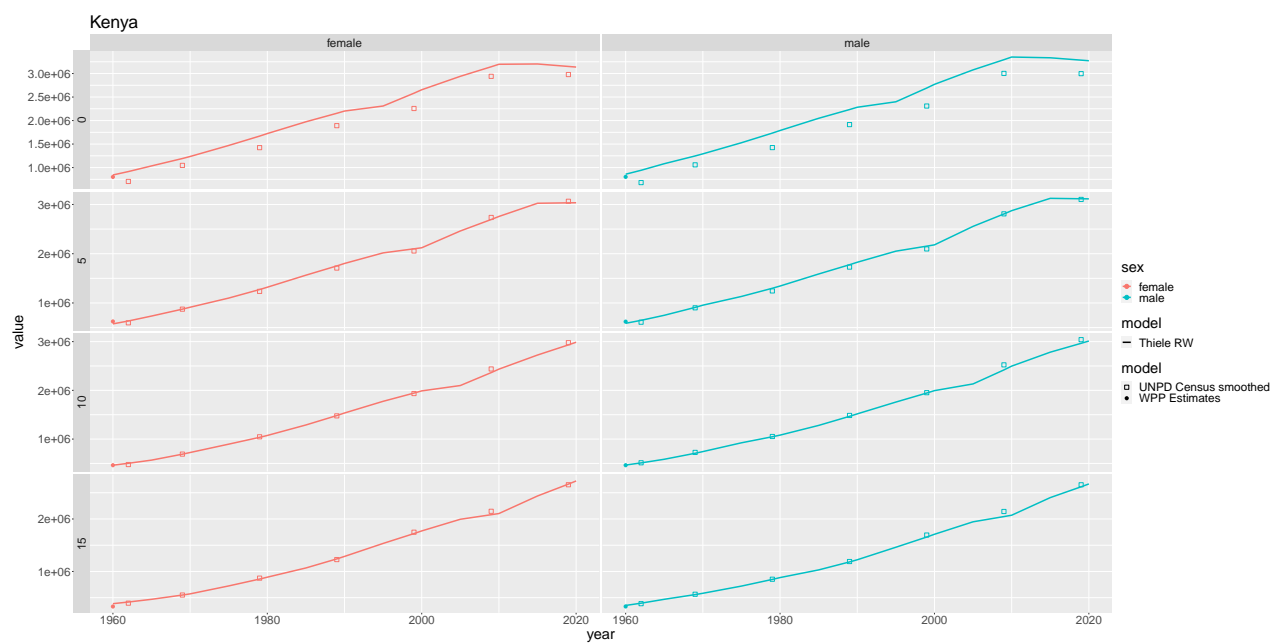


Figure 10: Population

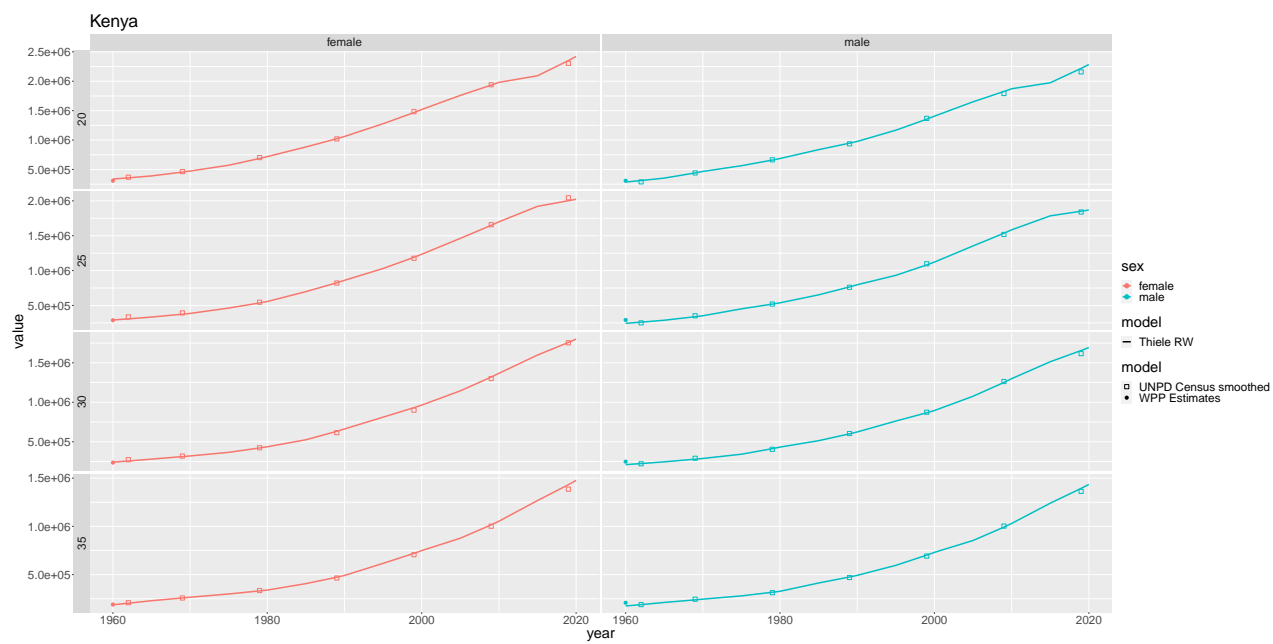


Figure 11: Population

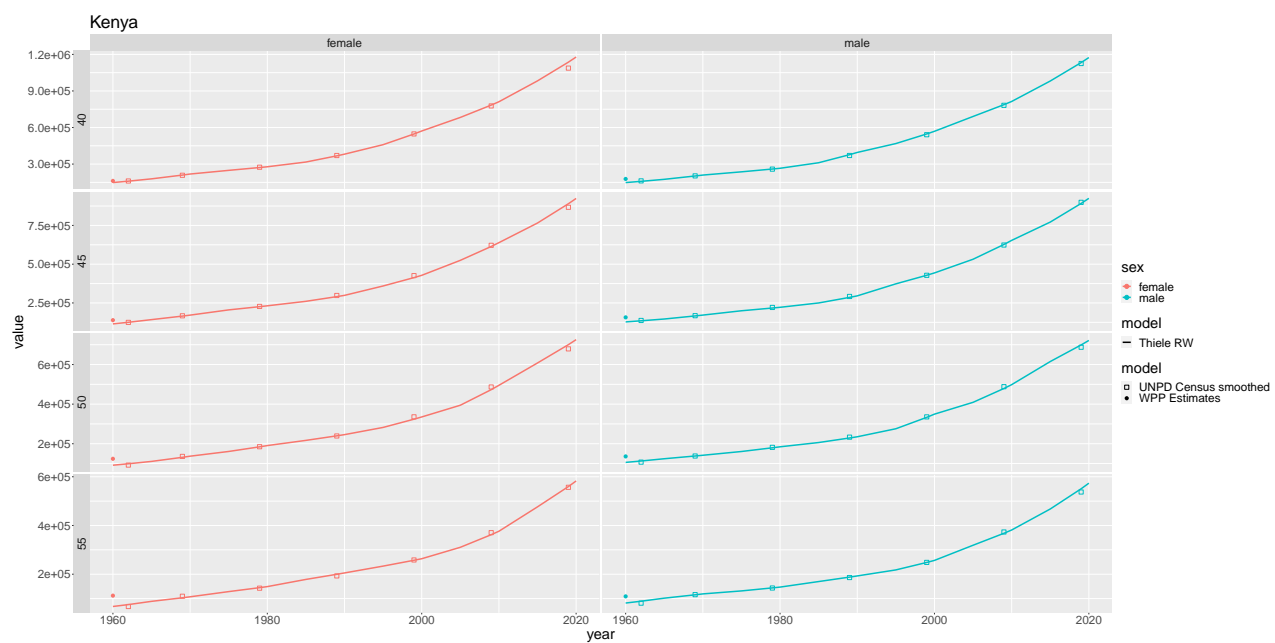


Figure 12: Population

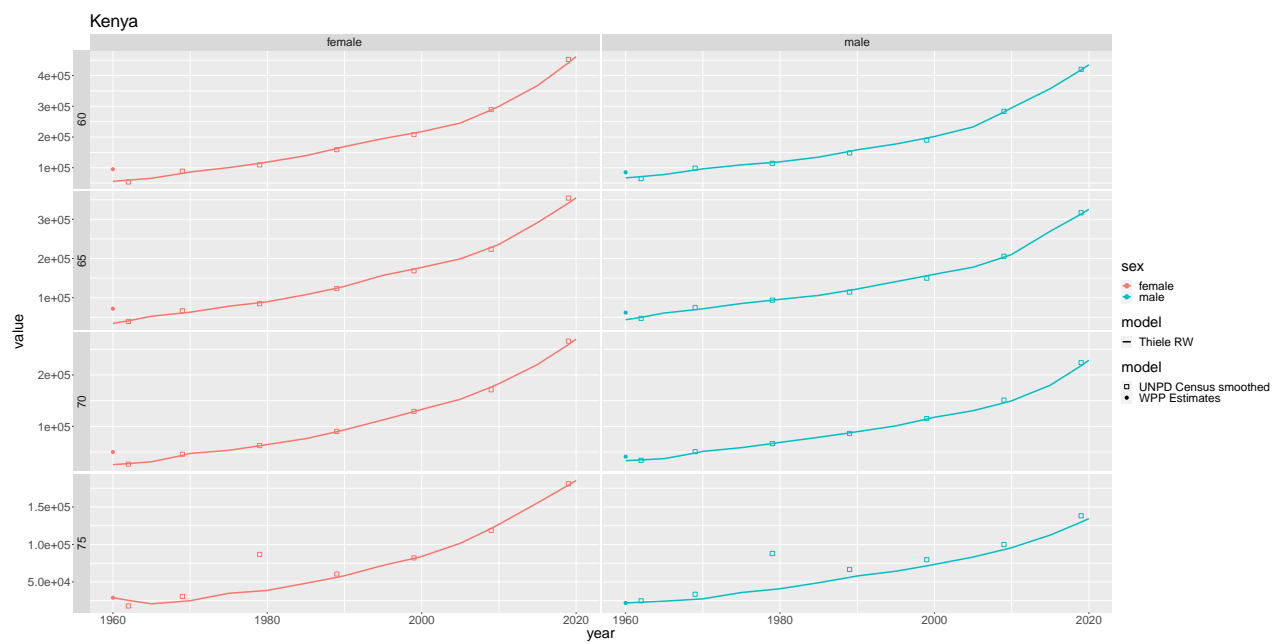


Figure 13: Population



Figure 14: Migration

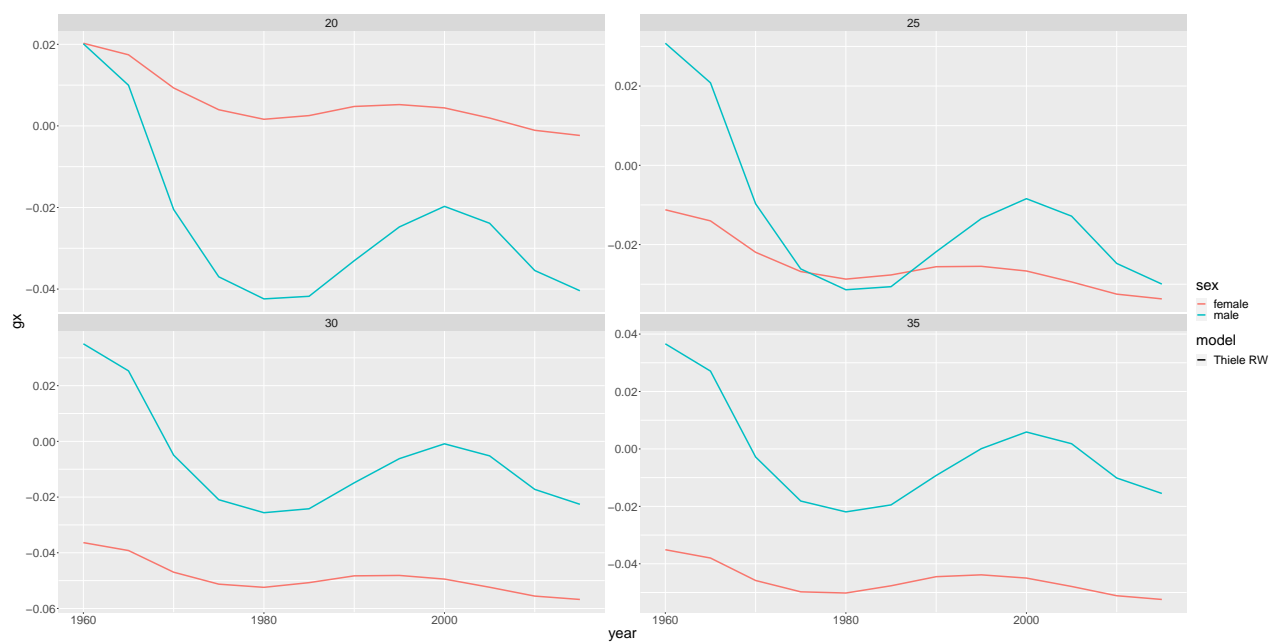


Figure 15: Migration

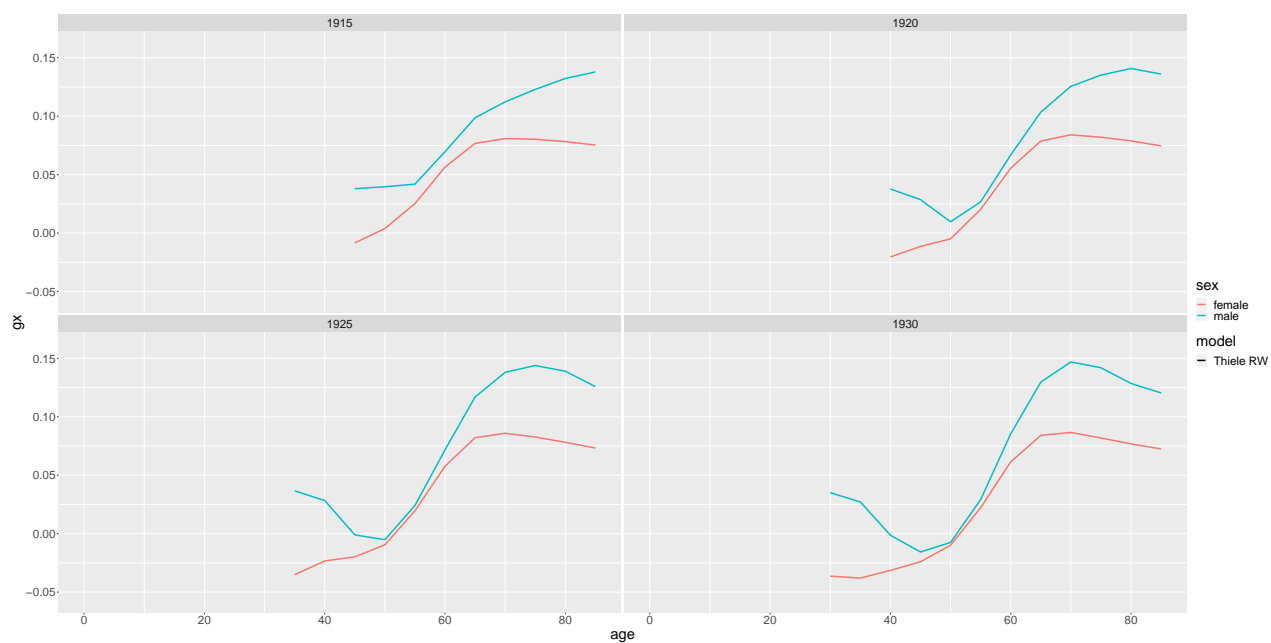


Figure 16: Migration

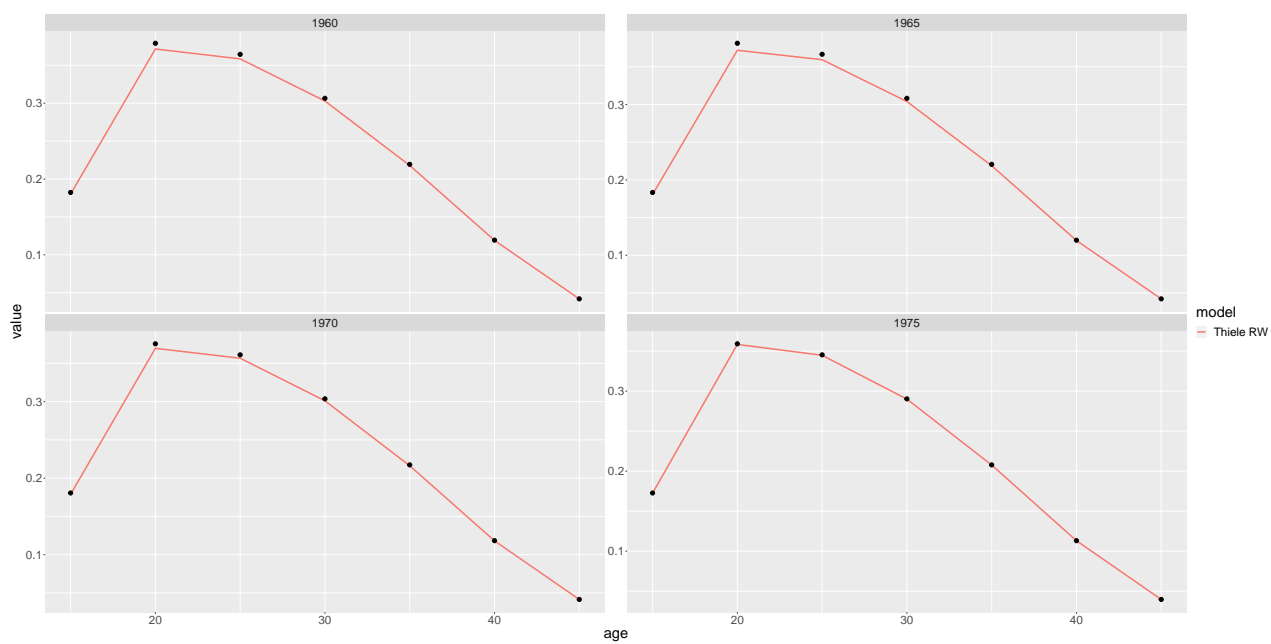


Figure 17: Fertility

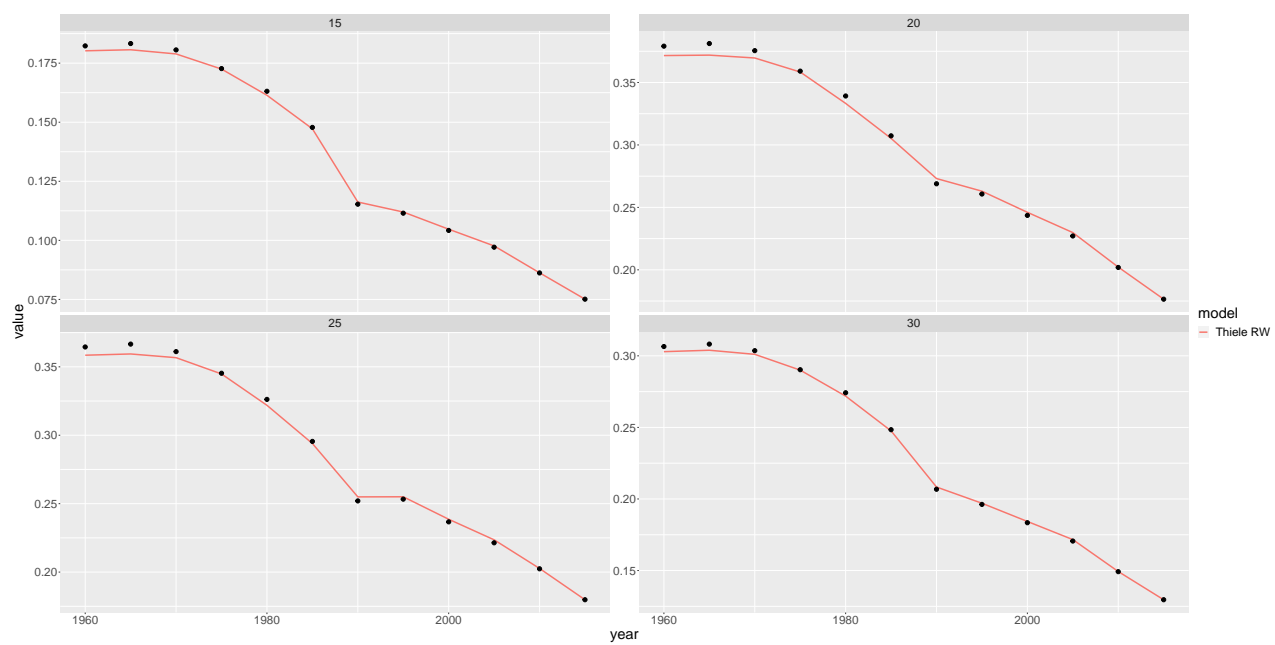


Figure 18: Fertility