

Mali

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

```
## # A tibble: 18 x 5
```

	aggr.age	`1976`	`1987`	`1998`	`2009`
*	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>
1	0	589461.	713518.	824505	1320900.
2	5	469318.	587737.	752056.	1140163.
3	10	365111.	454909.	626383.	935907.
4	15	313740.	372253.	514432.	776702.
5	20	283085.	329380.	426025.	651759.
6	25	256486.	293568.	357175.	544213.
7	30	221242.	249780.	305540.	441083.
8	35	176439.	204643.	254144.	346151.
9	40	140031.	168372.	204333	279300.
10	45	112098.	138593.	164032.	230165.
11	50	92157.	114941.	134674.	187778.
12	55	77736.	96562.	110227.	148978.
13	60	65678.	81473.	90043	116856.
14	65	48225.	61222.	68496.	87673.
15	70	32268.	40138.	47588.	62602.
16	75	22262.	20646.	25240	36935.
17	80	17833.	28025.	0	44491.
18	85	14930.	NA	NA	NA

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

```
## # A tibble: 18 x 5
```

	aggr.age	`1976`	`1987`	`1998`	`2009`
*	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>
1	0	587090.	719841.	839795	1353138.
2	5	478652.	609625.	784428	1184616.
3	10	371670.	471434.	649420.	960509.
4	15	294640.	352163.	496697	741664.
5	20	236401.	274904.	378379.	570403.
6	25	201103.	230469.	303352.	461460.
7	30	183257.	202136.	263623.	393090.
8	35	162001.	178354.	231512.	332552.
9	40	137909.	156129.	194900.	279044.
10	45	116691.	134533.	161088.	233669.
11	50	99549.	115354.	134245	192469.
12	55	84109.	99363.	113027.	156346.
13	60	67783.	83852.	94609.	125246.
14	65	47273.	62772.	73709	94561.
15	70	30306.	40520.	52309.	67163.
16	75	20072.	21079.	29751	41651.
17	80	14093.	25047.	0	42759.
18	85	14057.	NA	NA	NA

Thiele log-Normal Hump RW

```
## user system elapsed
## 27.30 0.39 27.80
```

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

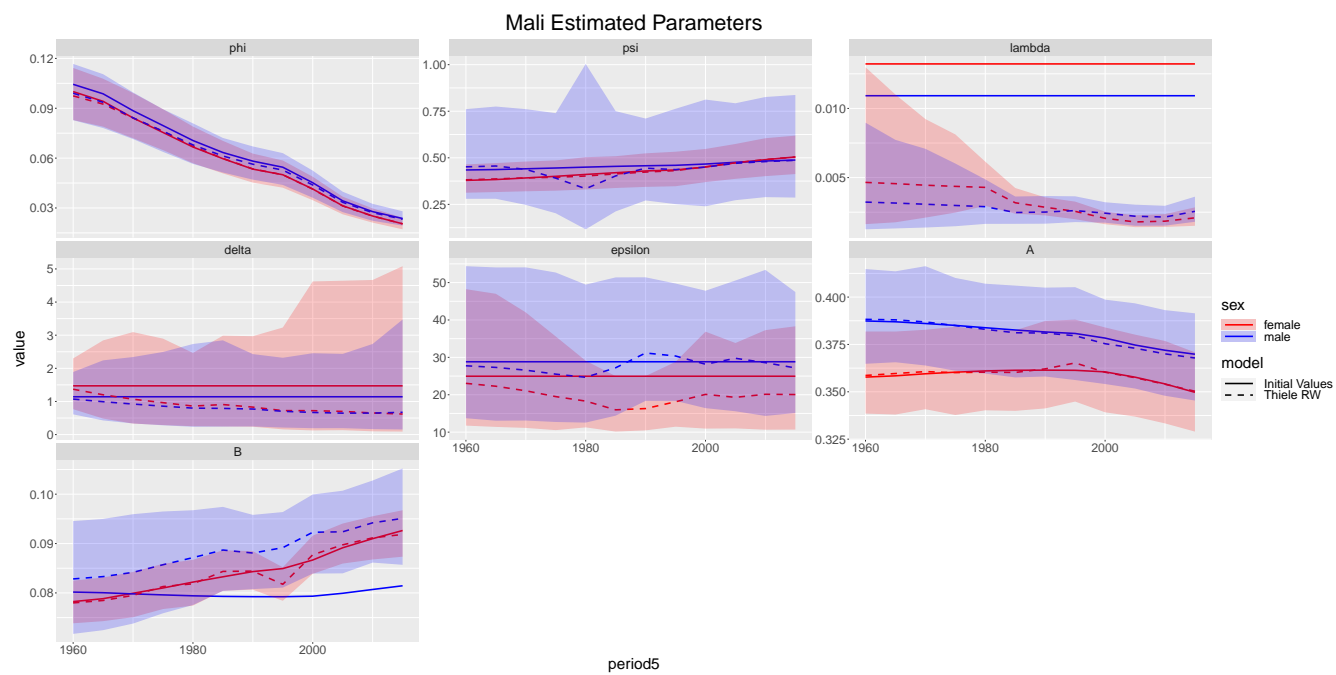


Figure 1: Estimated parameters

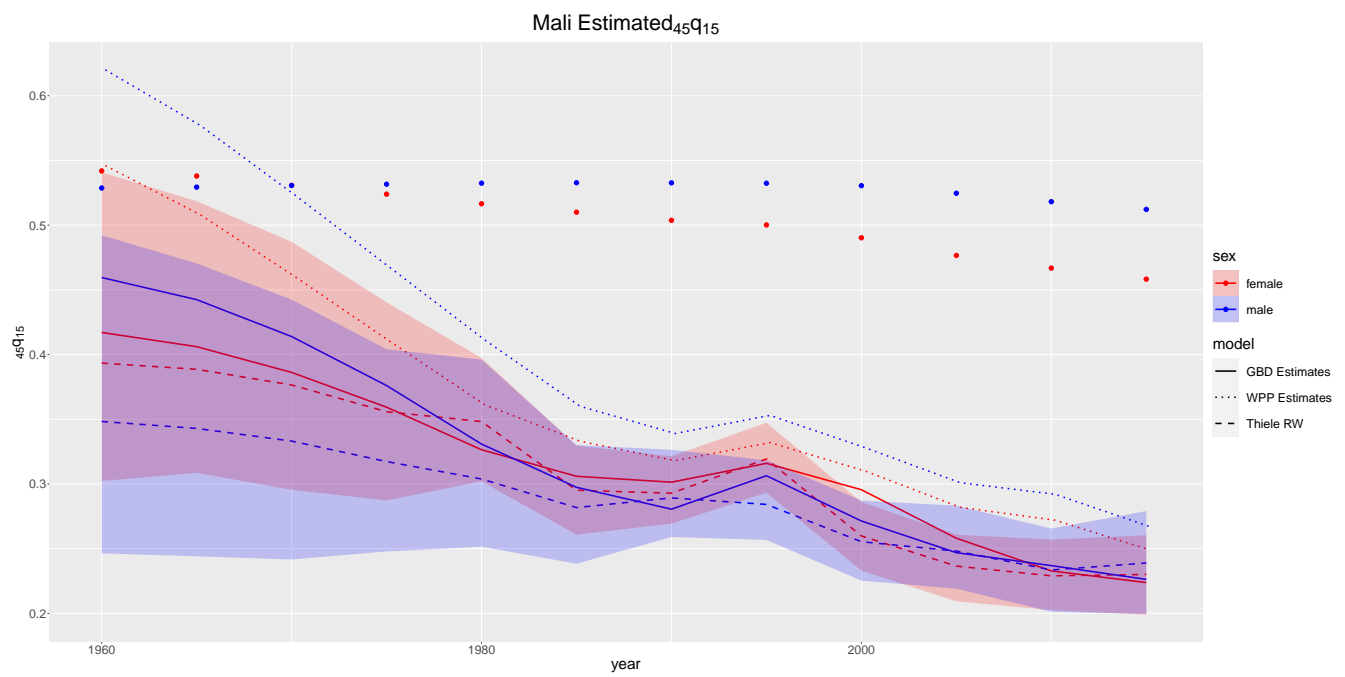


Figure 2: Estimated $_{45}q_{15}$

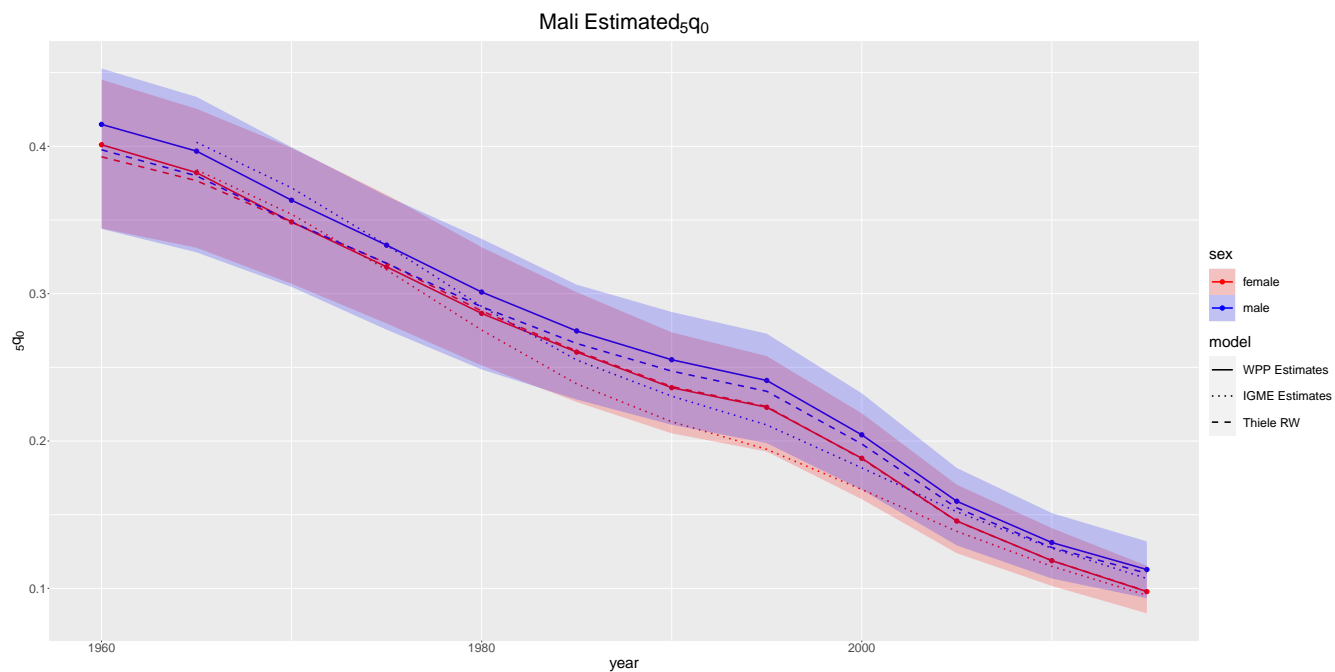


Figure 3: Estimated $5q_0$

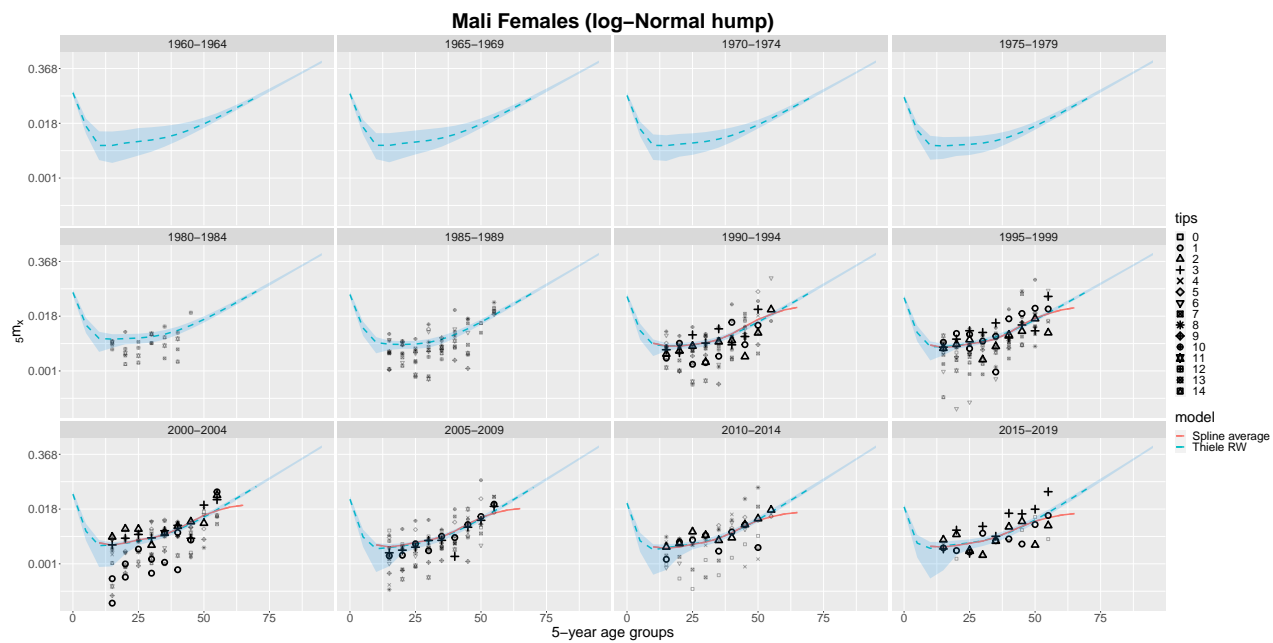


Figure 4: Mortality Schedules

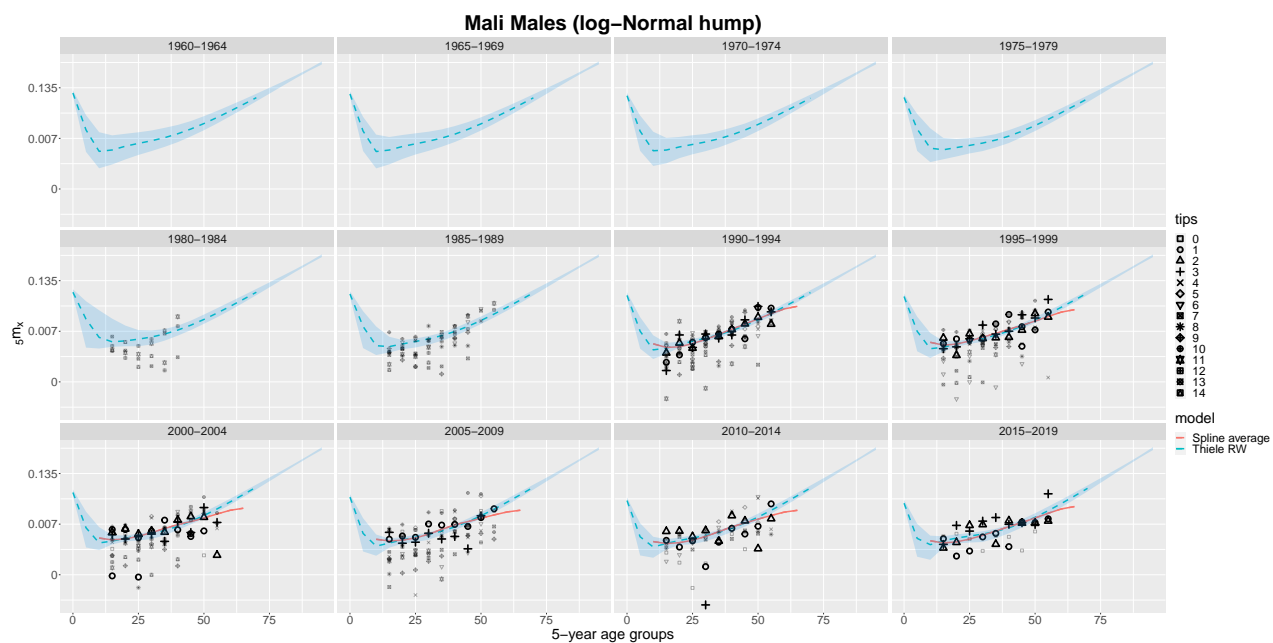


Figure 5: Mortality Schedules

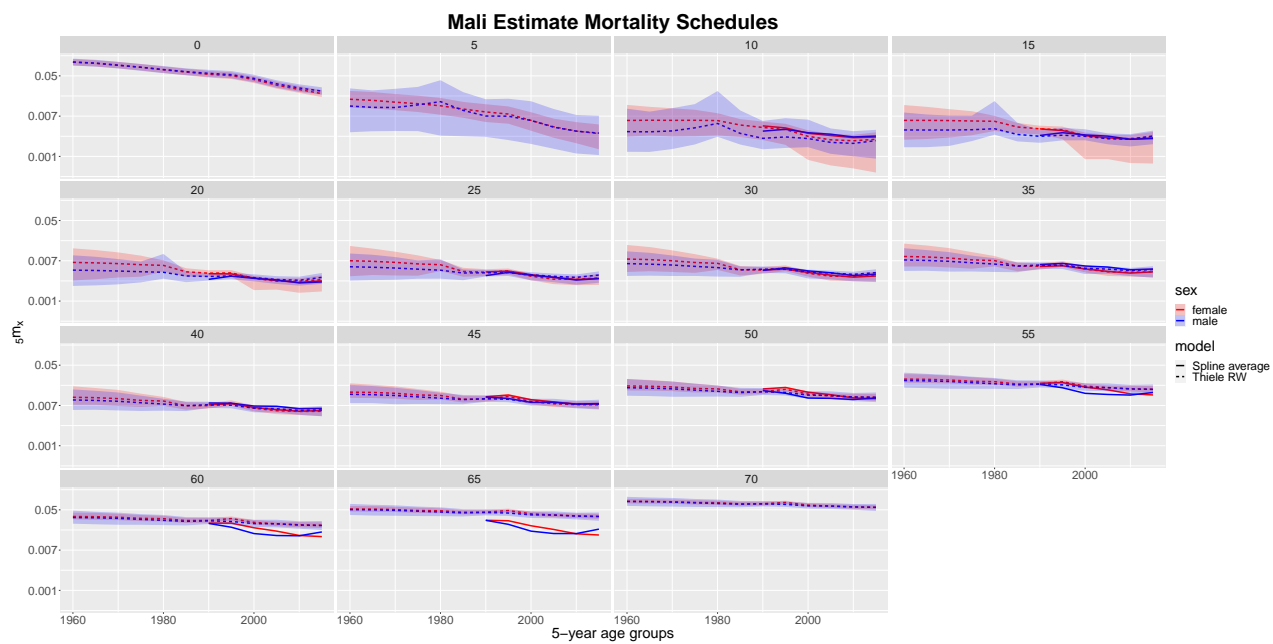


Figure 6: Mortality Schedules

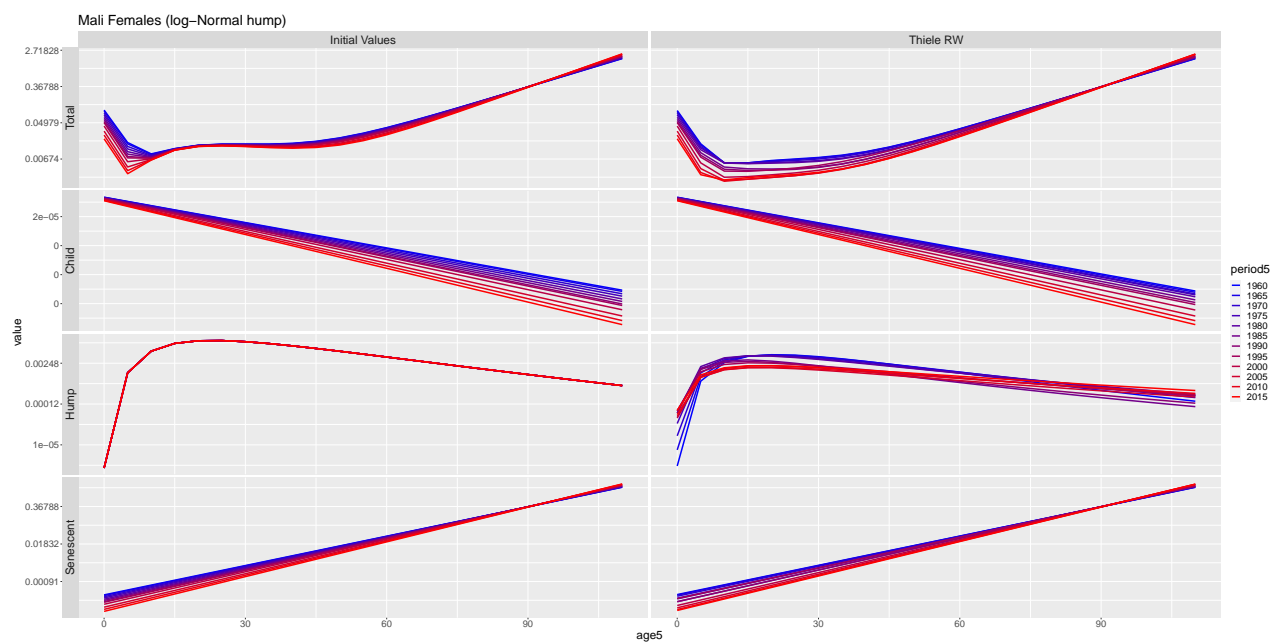


Figure 7: Thiele Decomposed

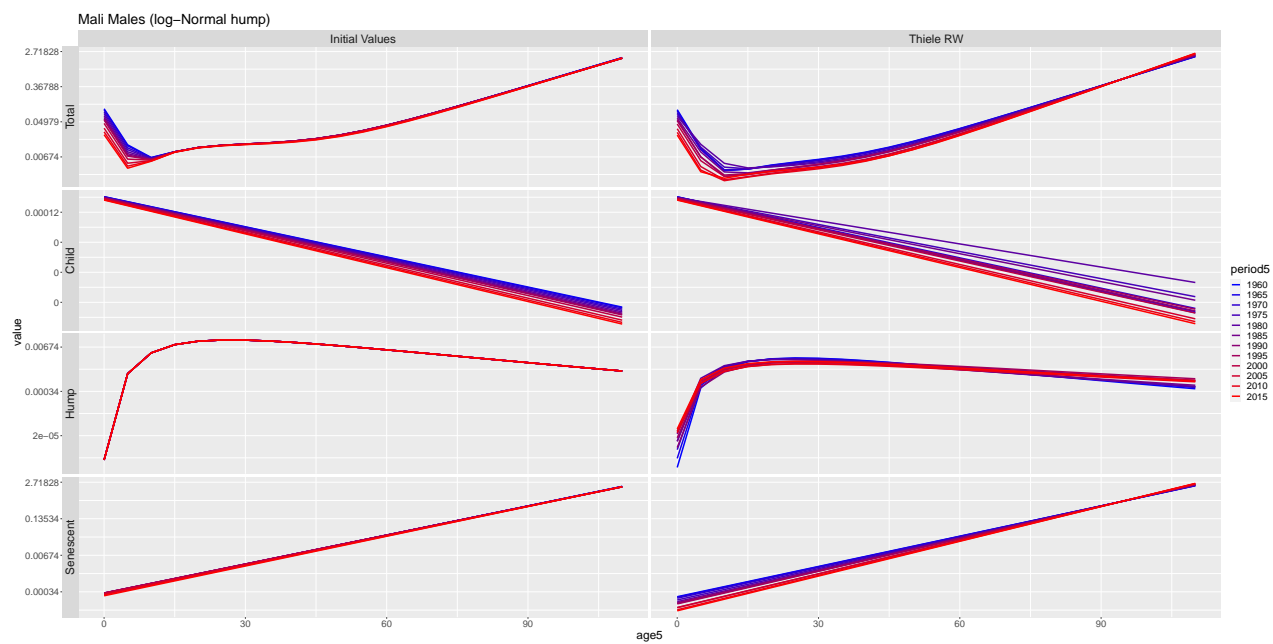


Figure 8: Thiele Decomposed

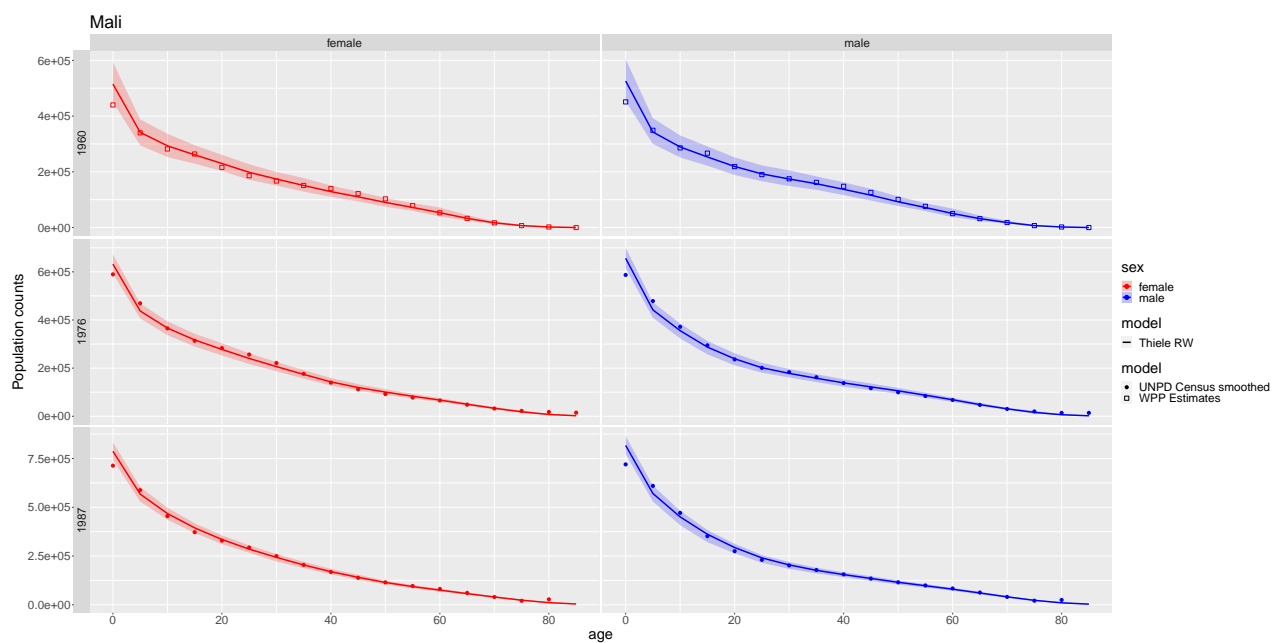


Figure 9: Population

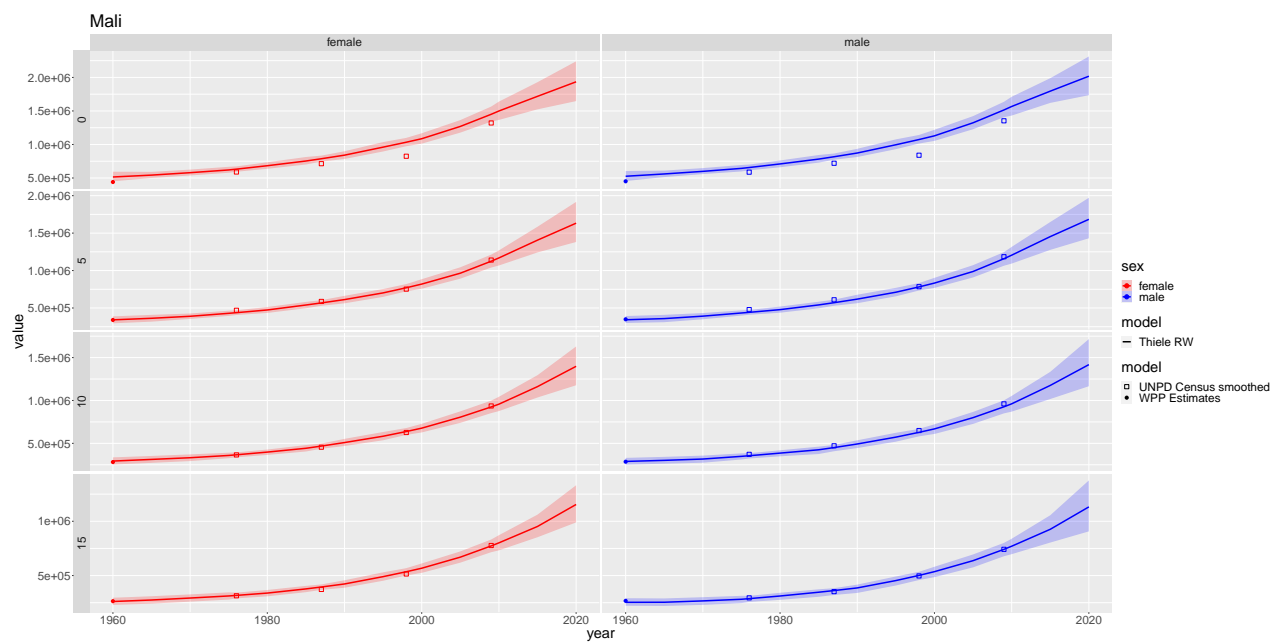


Figure 10: Population

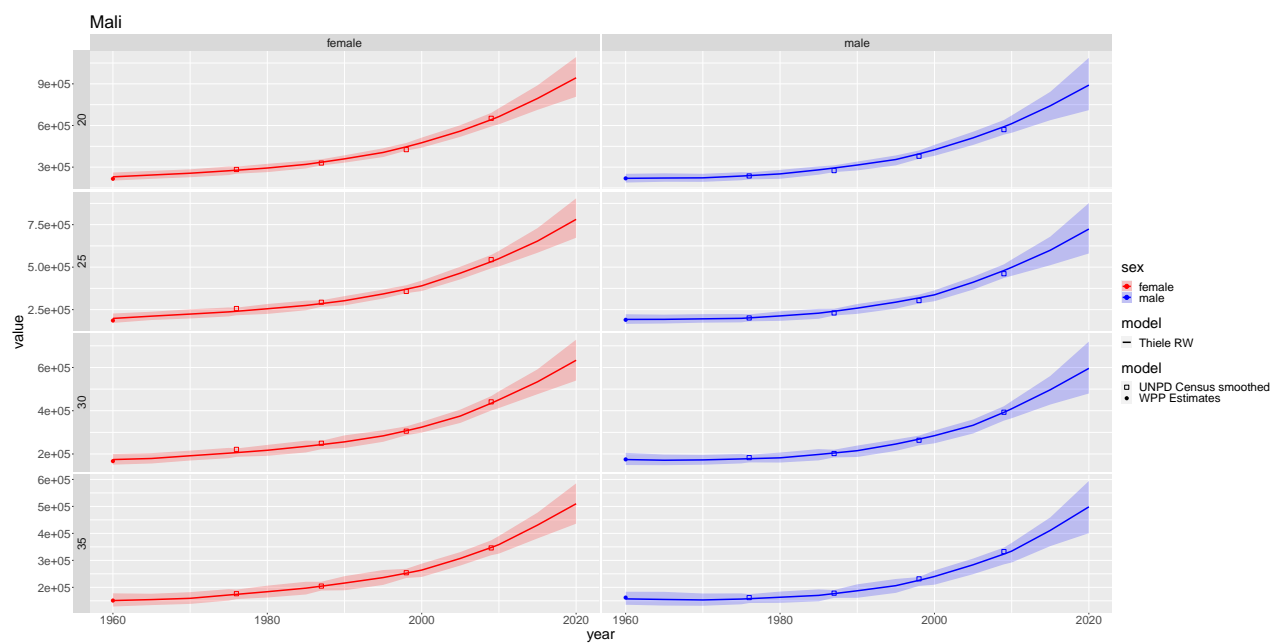


Figure 11: Population

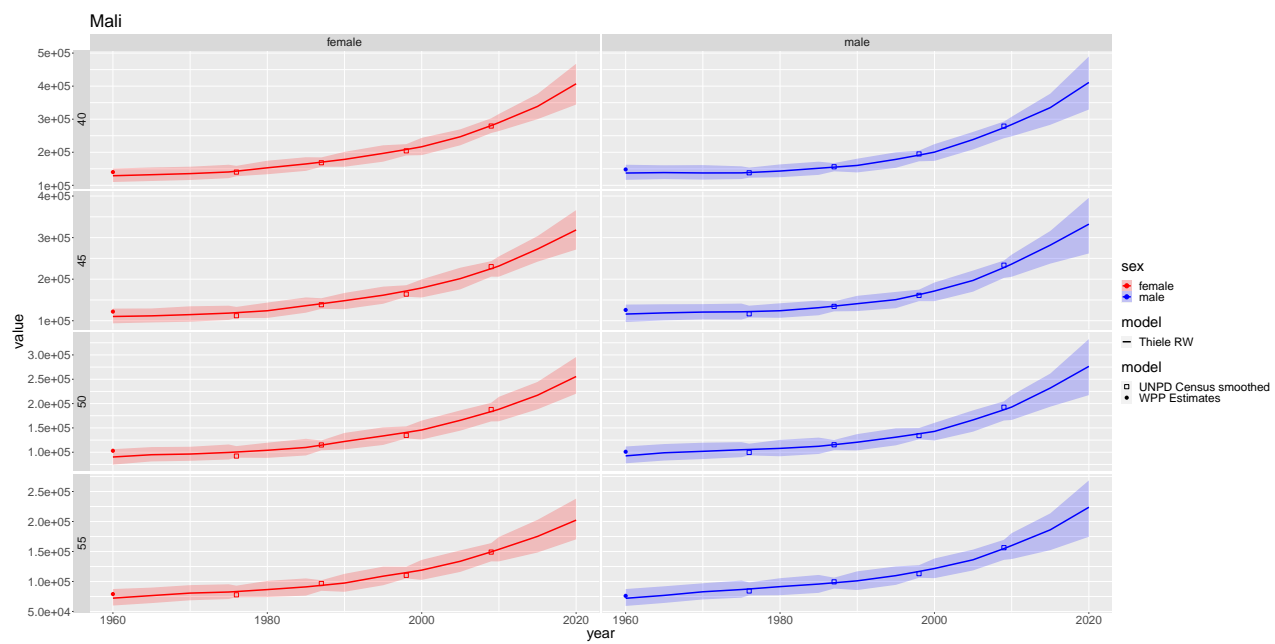


Figure 12: Population

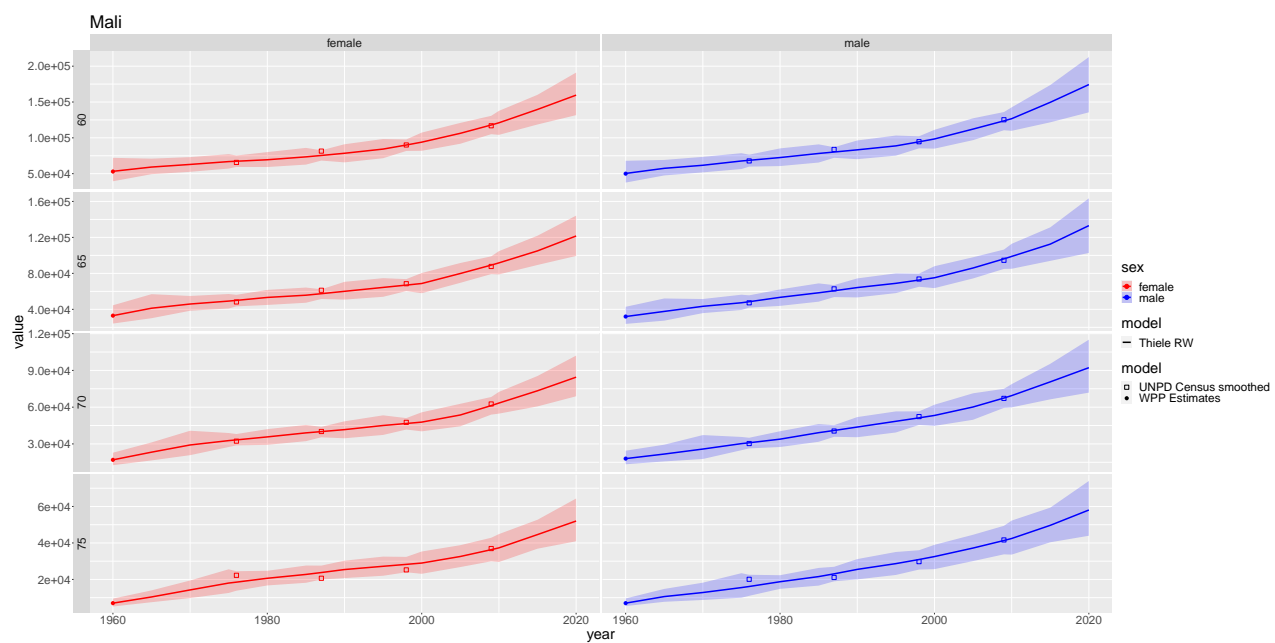


Figure 13: Population

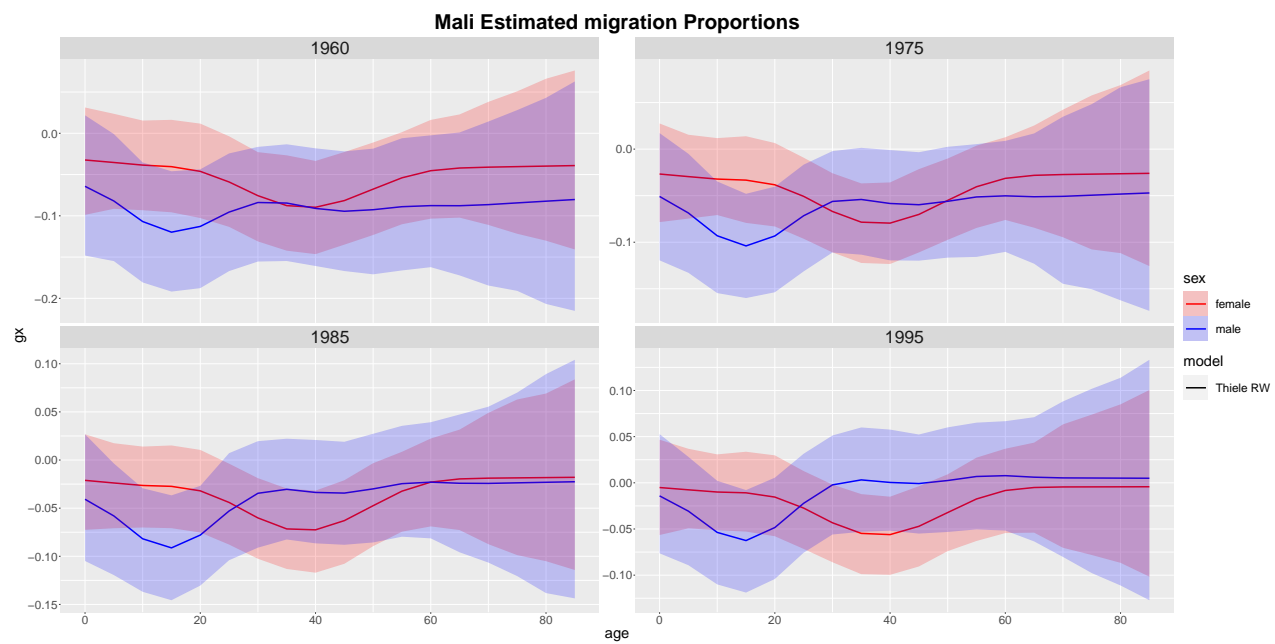


Figure 14: Migration

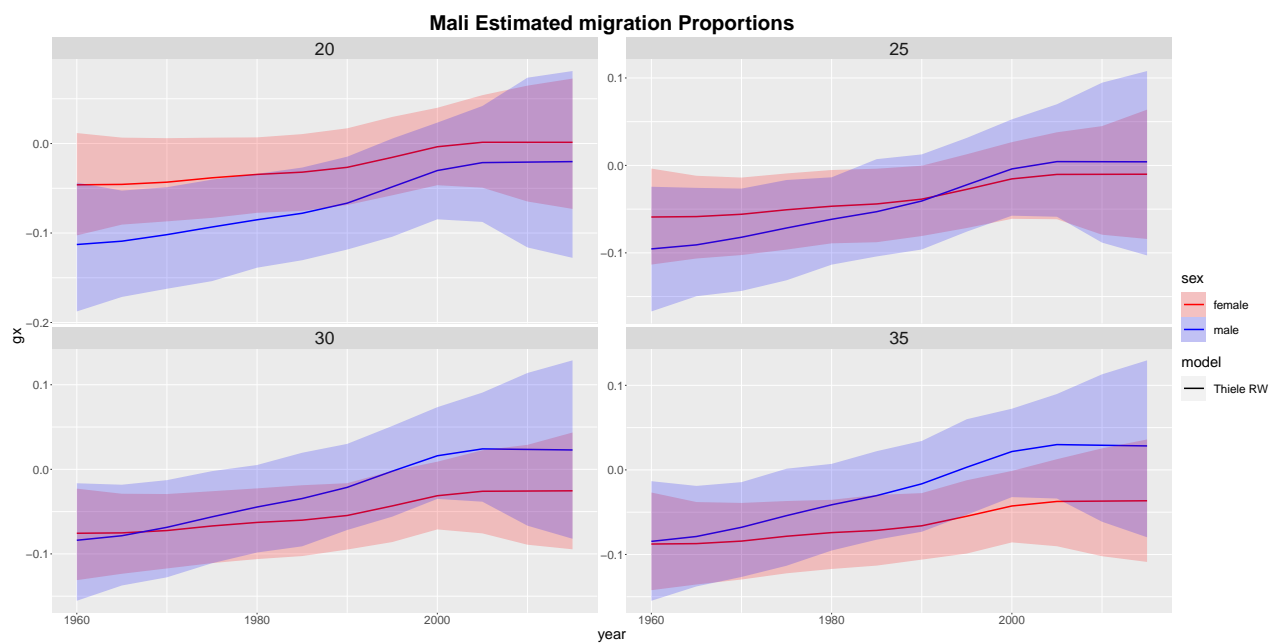


Figure 15: Migration

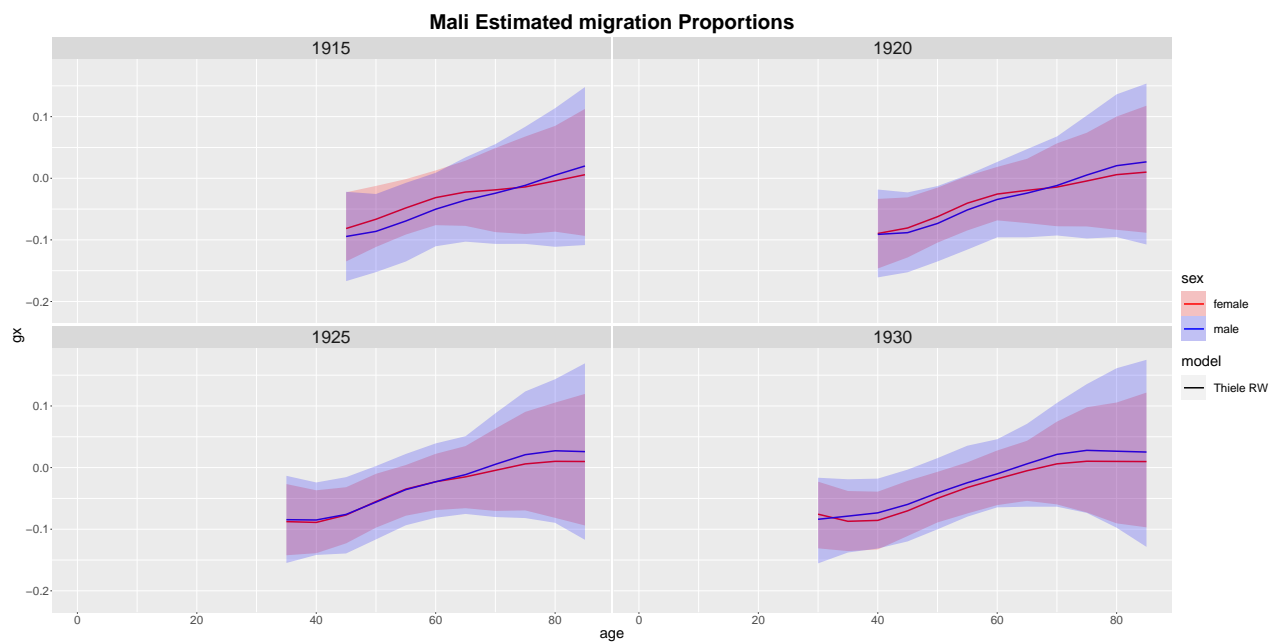


Figure 16: Migration

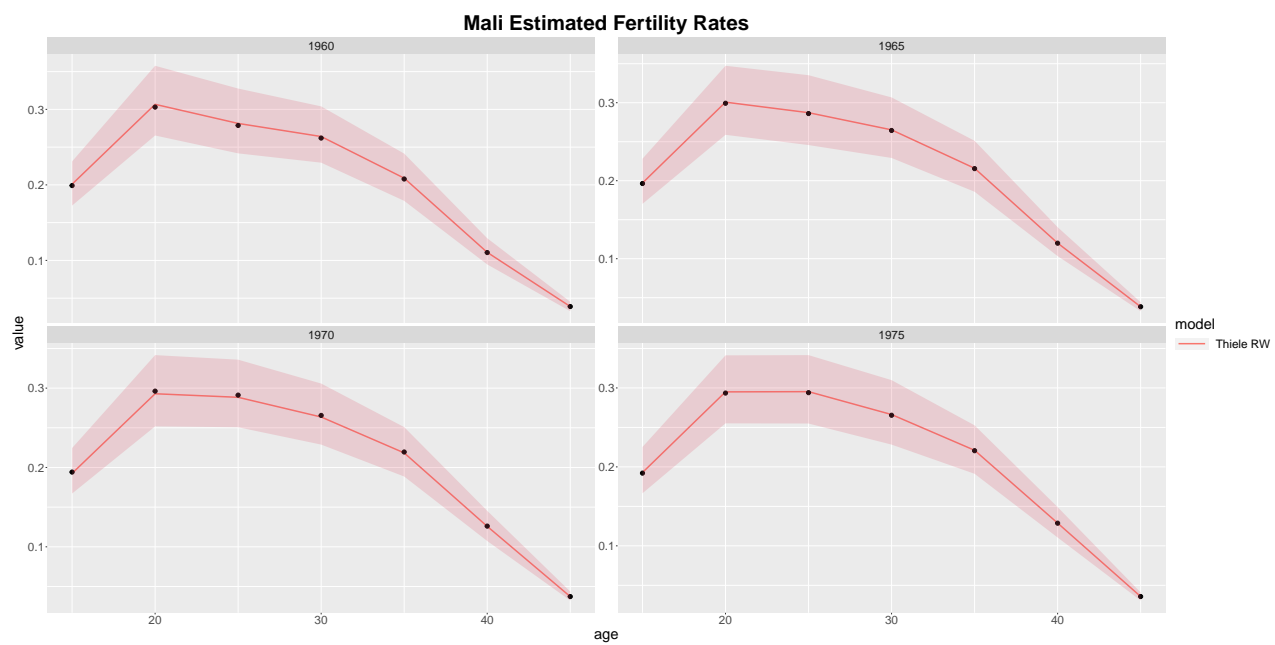


Figure 17: Fertility

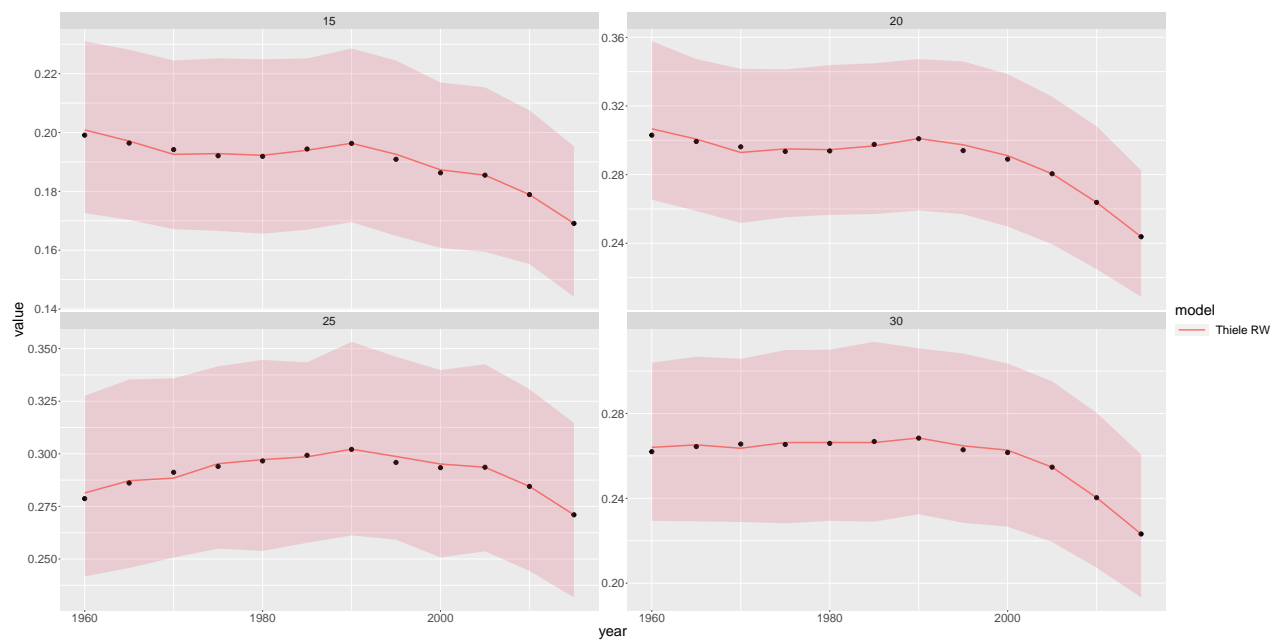


Figure 18: Fertility