Sierra Leone

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

## # A tibble: 18 x 3
##    aggr.age  `1963`   `1974`
## *     <dbl>   <dbl>    <dbl>
## 1         0 190018  223665.
## 2         5 135060  189314.
## 3        10 116405. 142745.
## 4        15 104452. 121475.
## 5        20 104845. 119120.
## 6        25 101898. 114809.
## 7        30  88015. 101087.
## 8        35  70258.  81896.
## 9        40  52918.  64715.
## 10       45  39610.  50686.
## 11       50  30574.  39039.
## 12       55  17602   30868.
## 13       60  25818   27100.
## 14       65  51340   21764.
## 15       70     NA   15843.
## 16       75     NA   12014.
## 17       80     NA   10006.
## 18       85     NA   13352.

## [1] "Census Males"

## # A tibble: 18 x 3
##    aggr.age  `1963`   `1974`
## *     <dbl>   <dbl>    <dbl>
## 1         0 187317  217093.
## 2         5 145589  193154.
## 3        10 108972. 147748.
## 4        15  88493. 112157.
## 5        20  82709. 101119.
## 6        25  82128.  99176.
## 7        30  79258.  91232.
## 8        35  72234.  79540.
## 9        40  61518.  68321.
## 10       45  50220.  57722.
## 11       50  40077.  46440.
## 12       55  24158   36722.
## 13       60  30136   31022.
## 14       65  59169   24342.
## 15       70     NA   17900.
## 16       75     NA   13296.
## 17       80     NA    9892.
## 18       85     NA   13611.
```

Thiele Normal Hump

```
##    user  system elapsed
## 55.85    0.45   56.47
```

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

Thiele log-Normal Hump

```
##    user  system elapsed
##   47.11    0.27   47.67
```

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

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

```
##    user  system elapsed
##   51.68    0.22   52.39
```
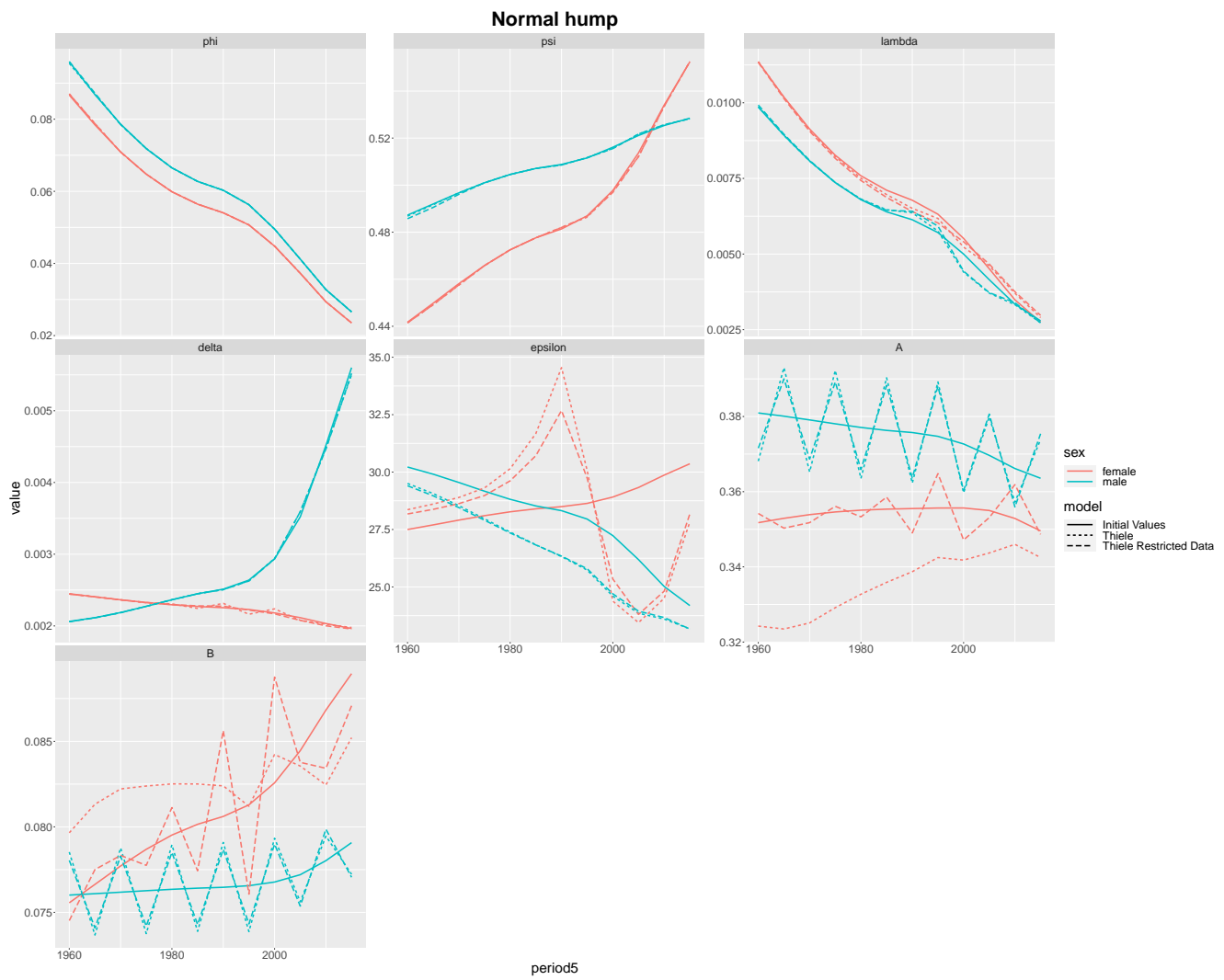
```
## [1] "relative convergence (4)"
```

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

```
##    user  system elapsed
##   50.83    0.31   51.33
```

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

Figure 1: Estimated parameters

```
## Using Sex as id variables
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## Warning: Removed 16 rows containing missing values (geom_point).

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```
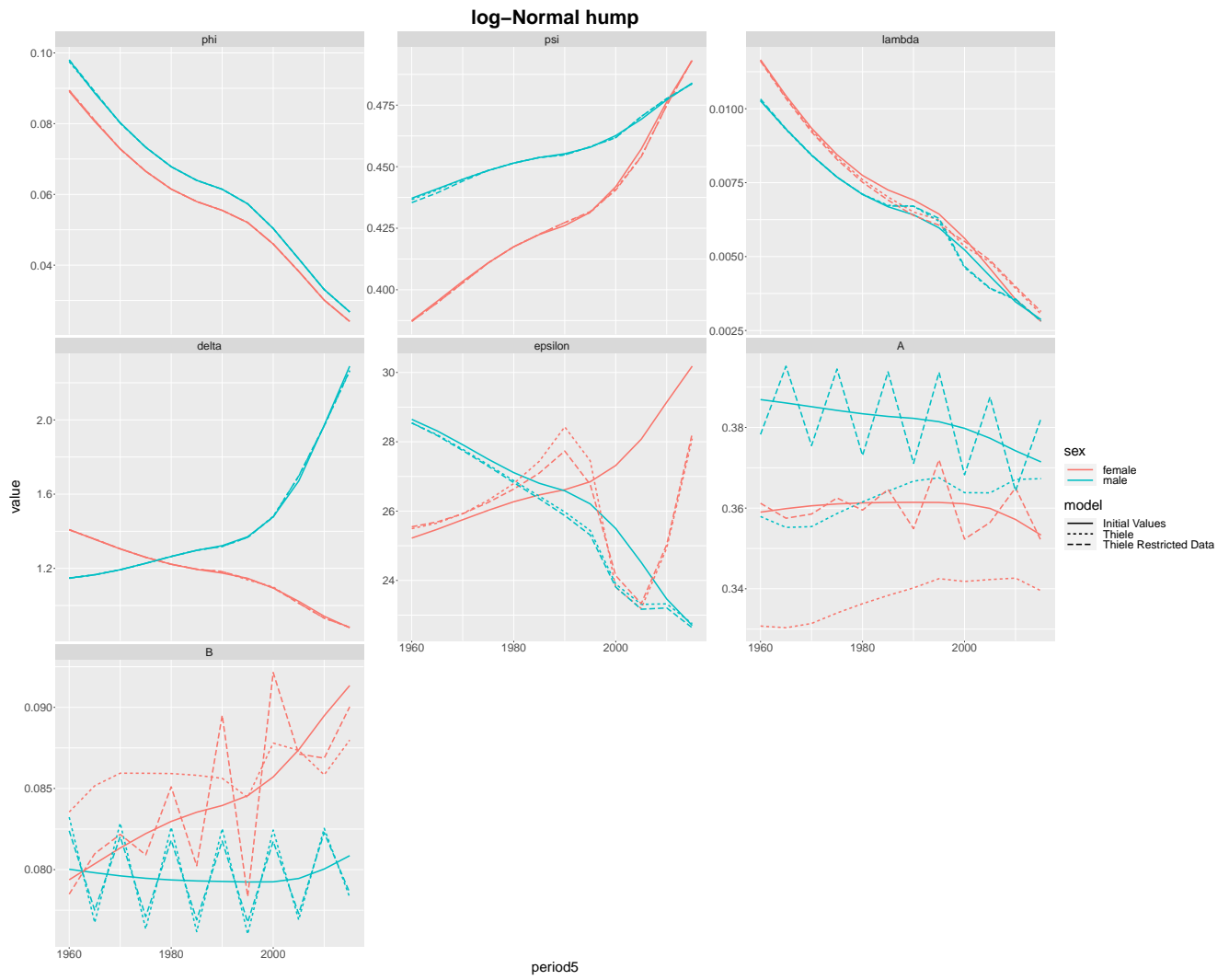
Figure 2: Estimated parameters
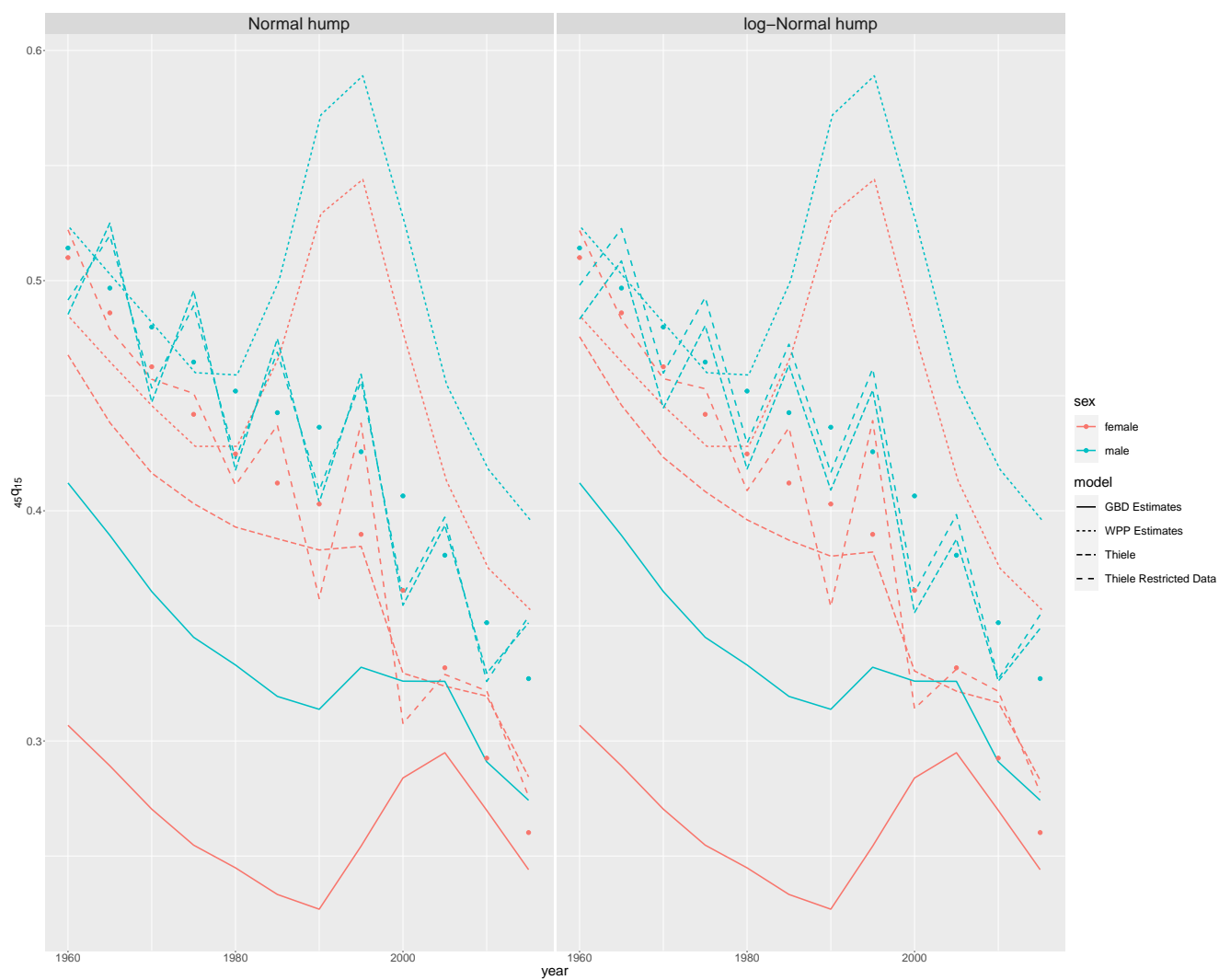
Figure 3: Estimated $_{45}q_{15}$
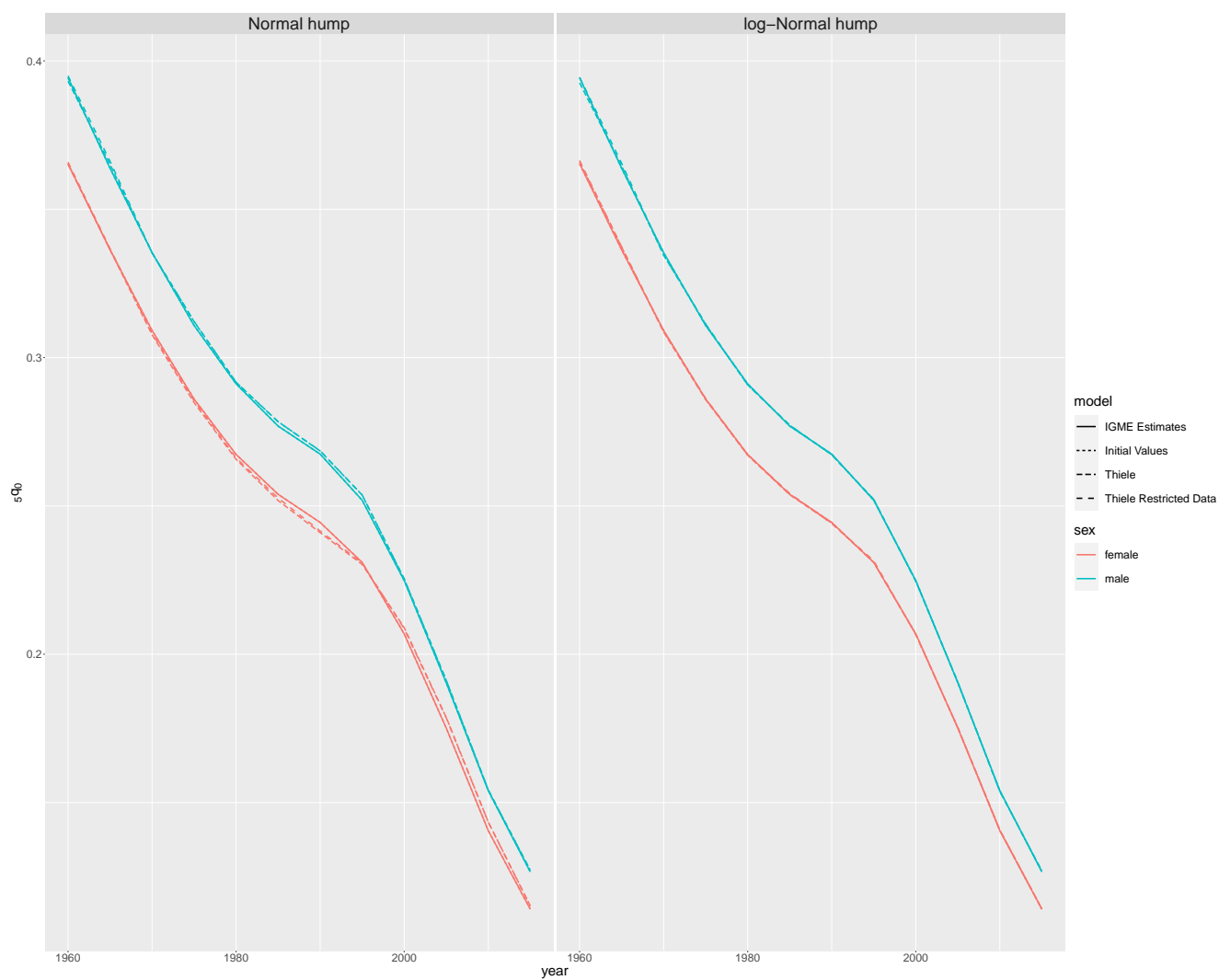
Figure 4: Estimated $_5q_0$
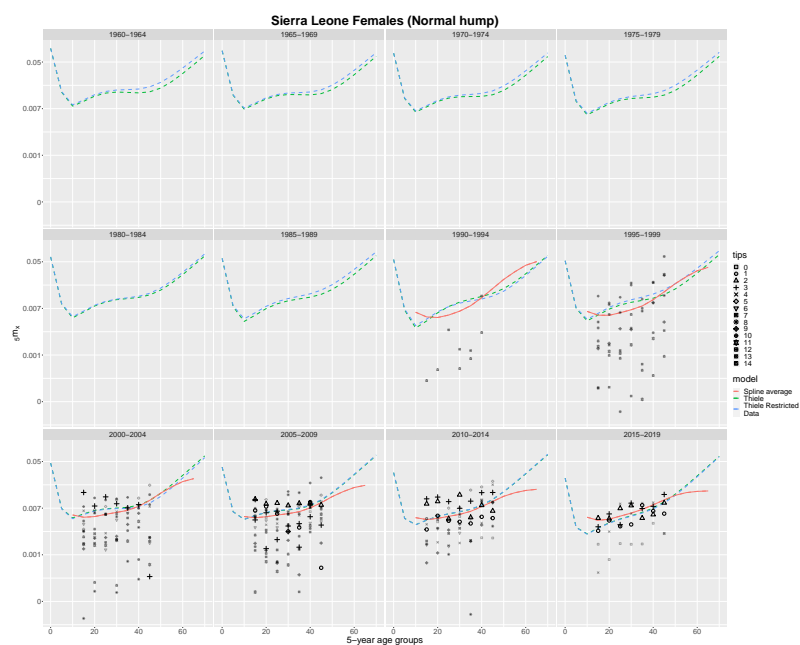
Figure 5: Mortality Schedules
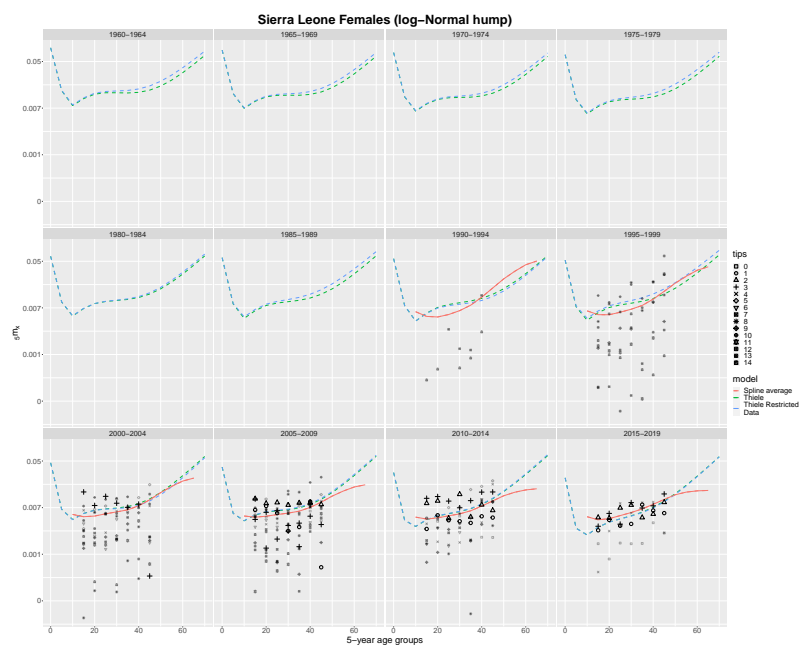
Figure 6: Mortality Schedules

7
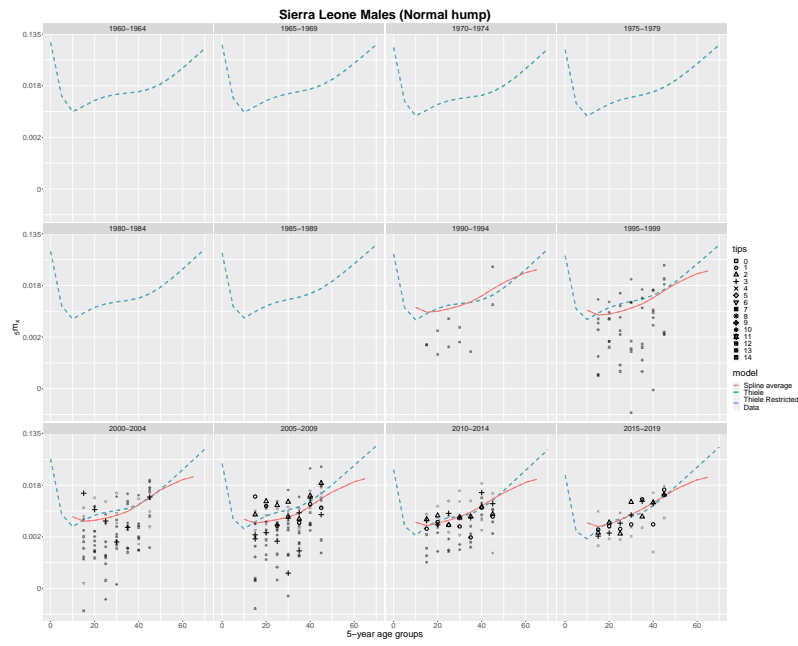
Figure 7: Mortality Schedules
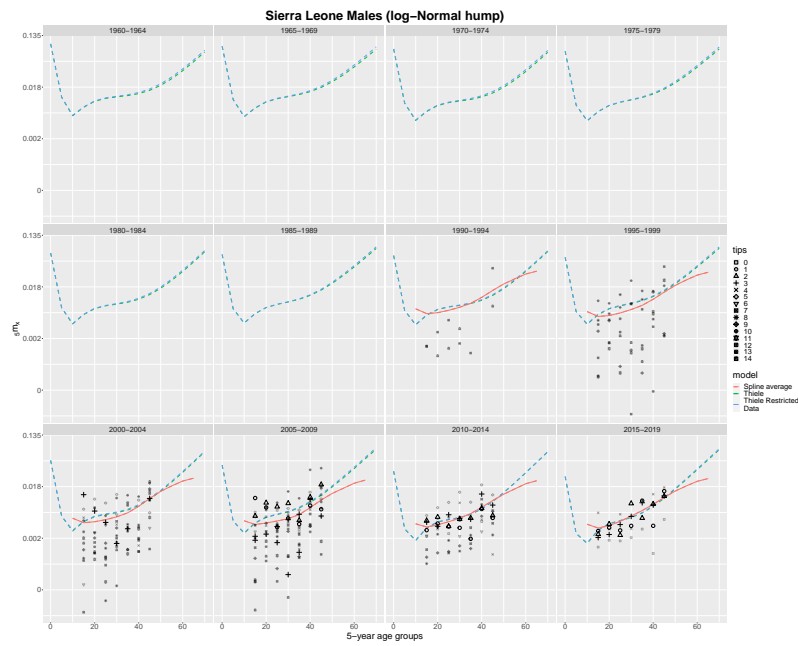
Figure 8: Mortality Schedules
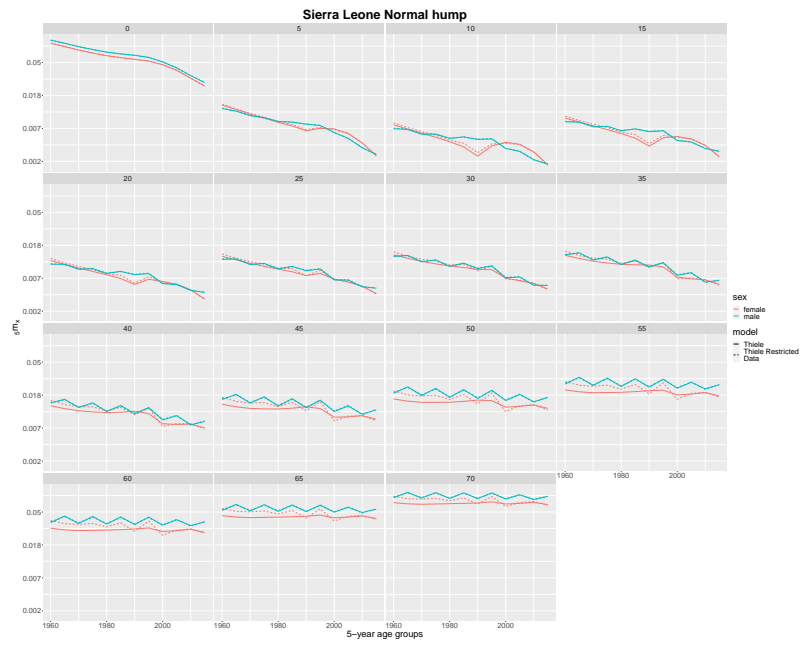
Figure 9: Mortality Schedules
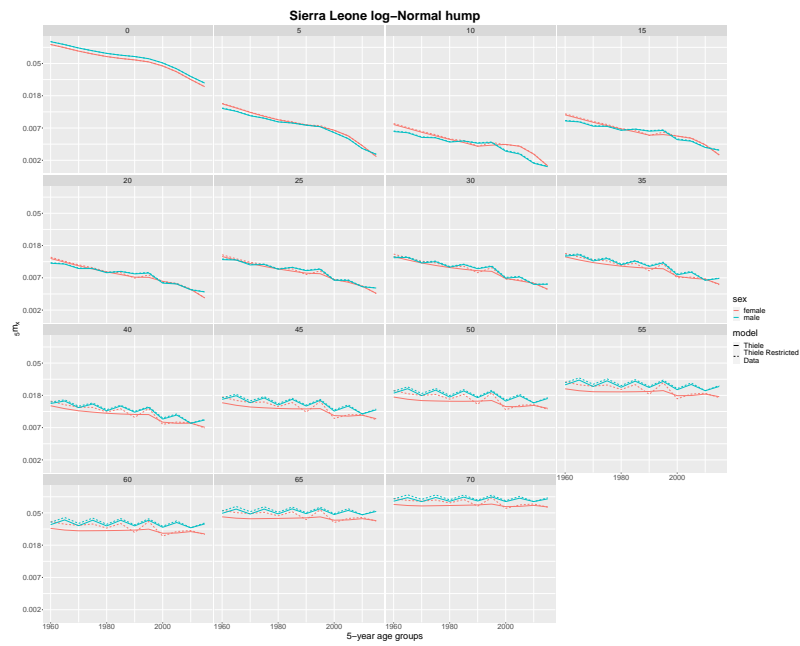
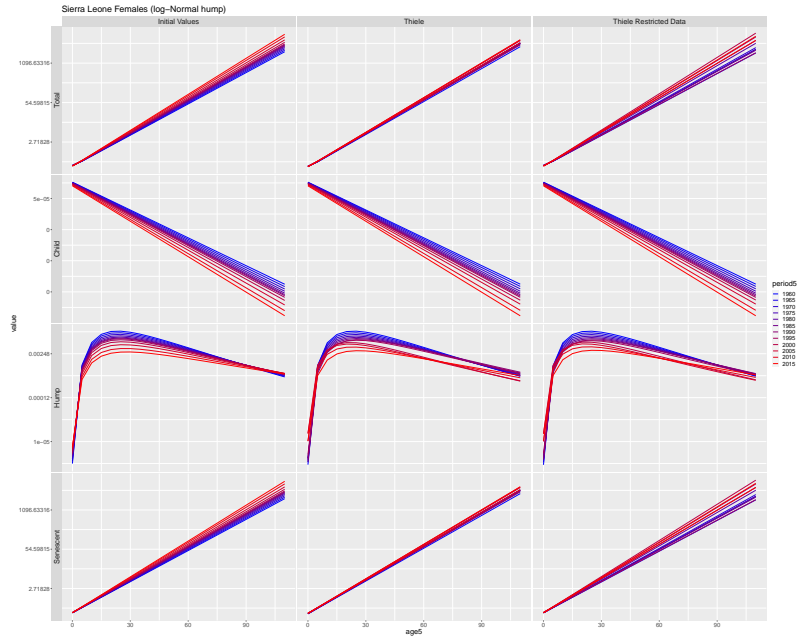Figure 10: Mortality Schedules
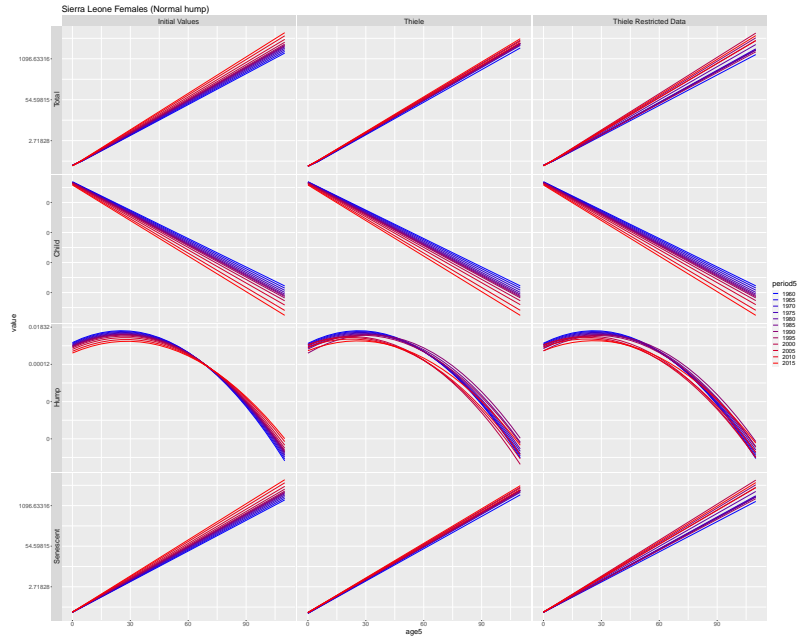
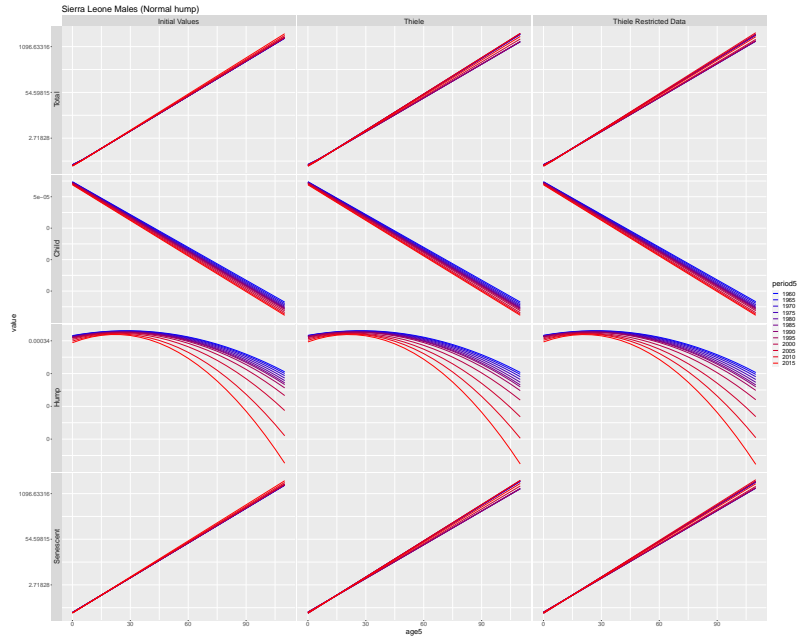Figure 11: Thiele Decomposed

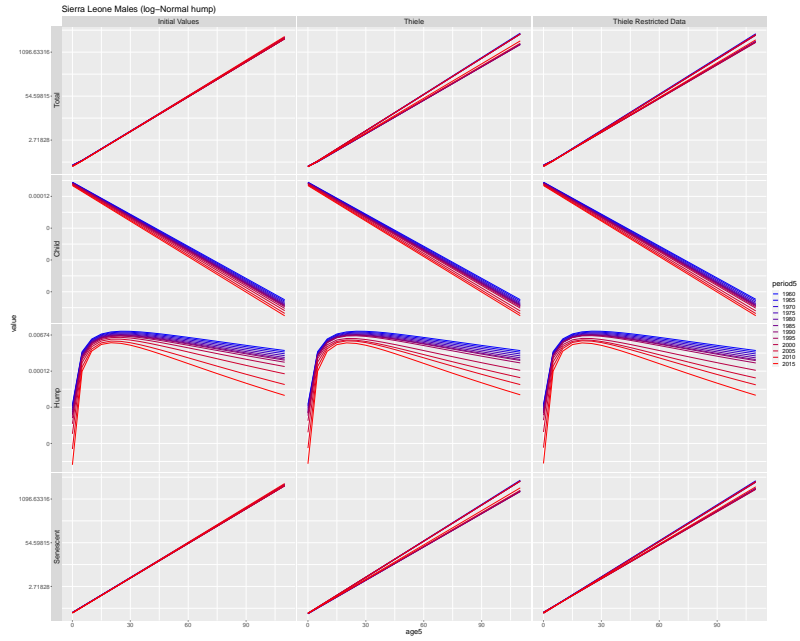Figure 12: Thiele Decomposed

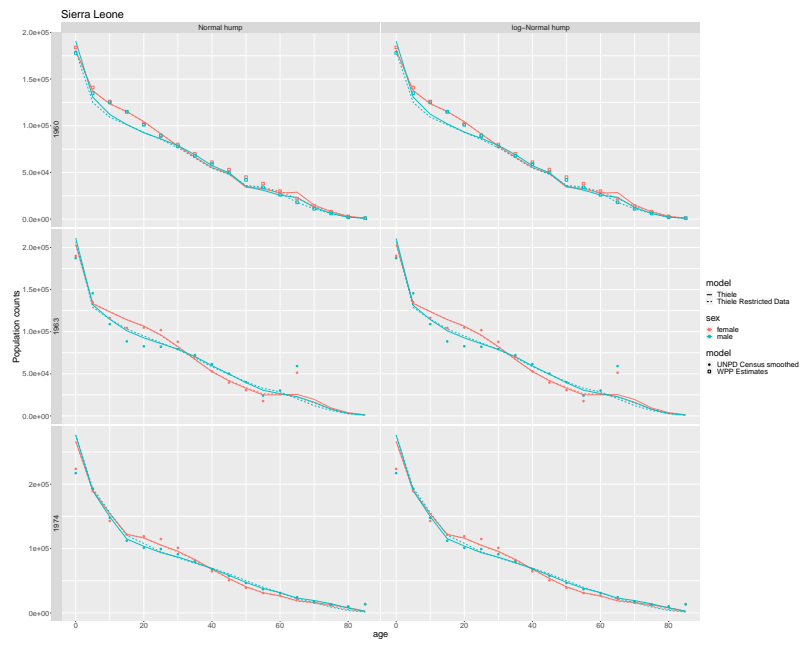Figure 13: Thiele Decomposed
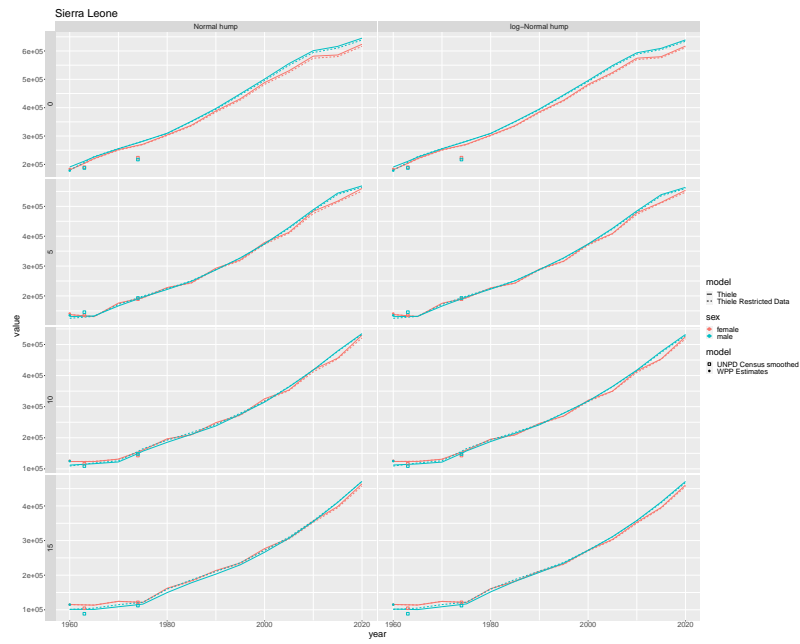

Figure 14: Thiele Decomposed

Figure 15: Population
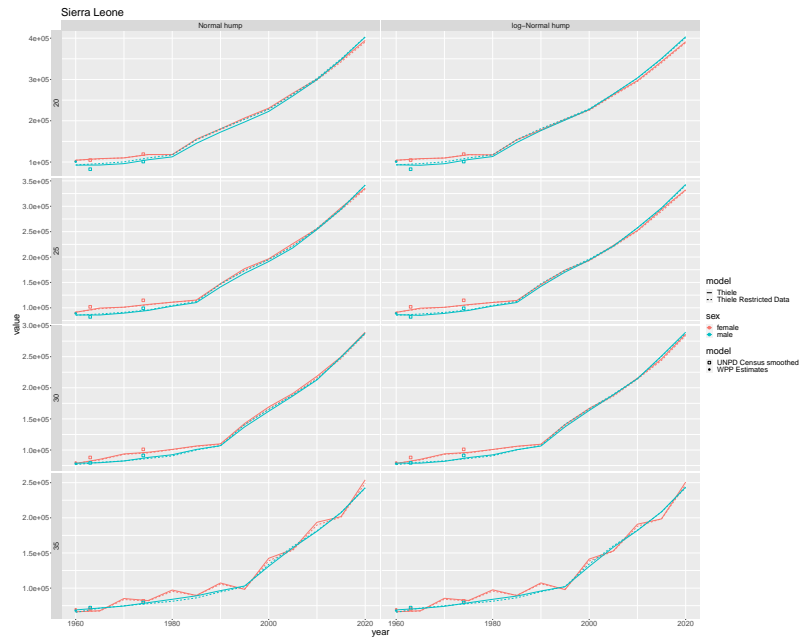

Figure 16: Population

Figure 17: Population
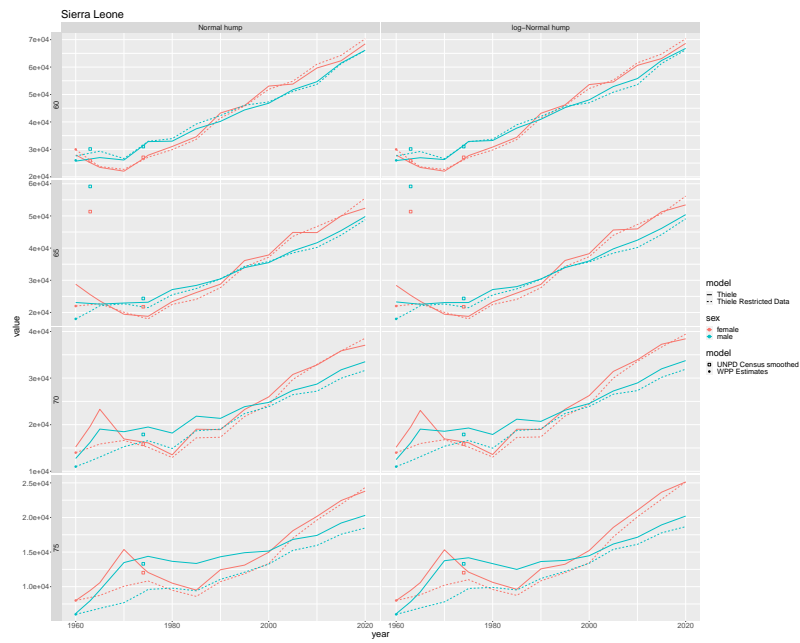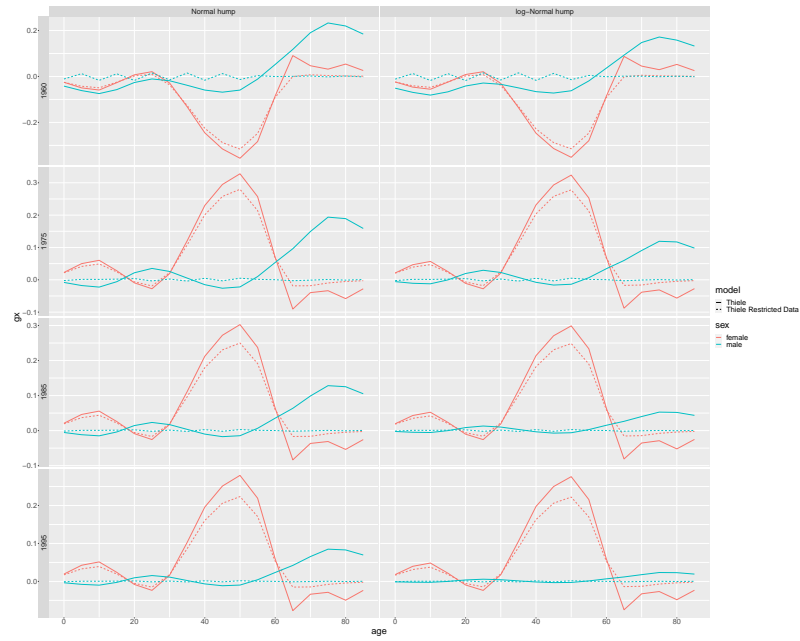

Figure 18: Population

Figure 19: Population
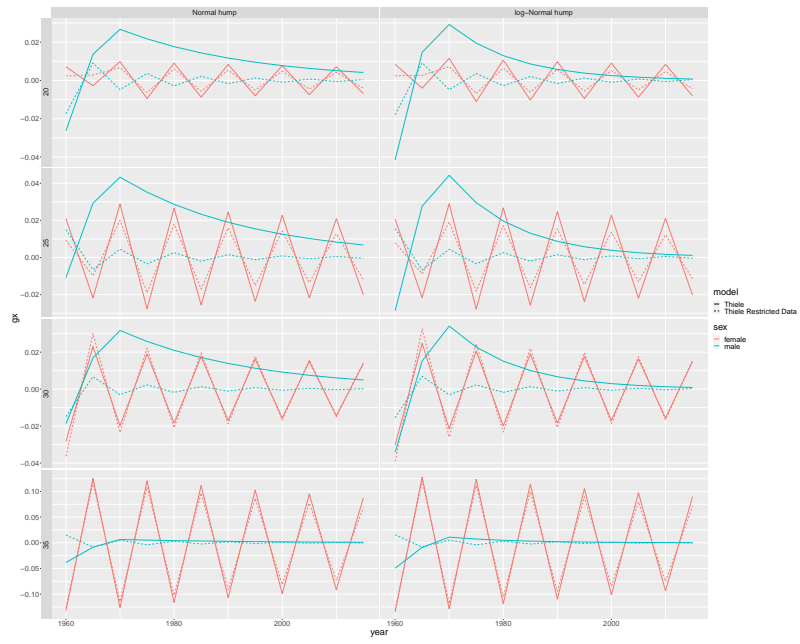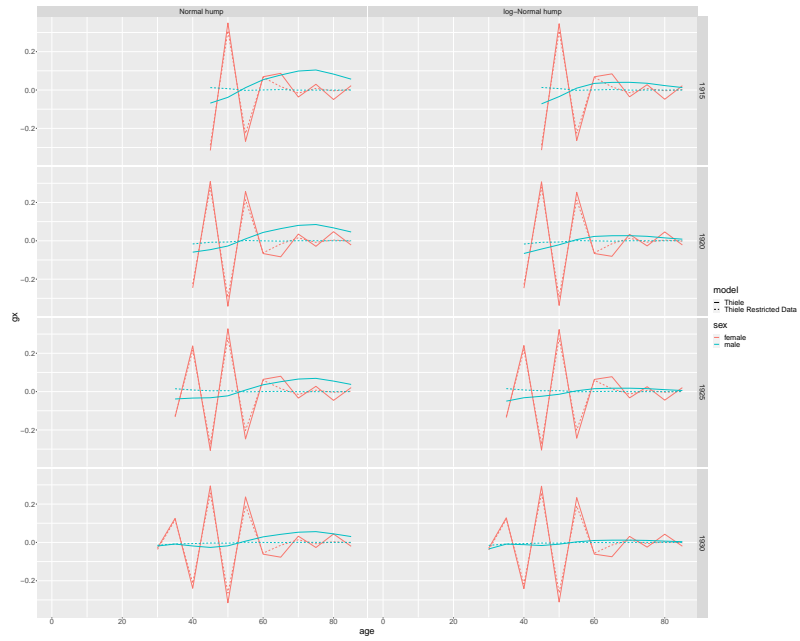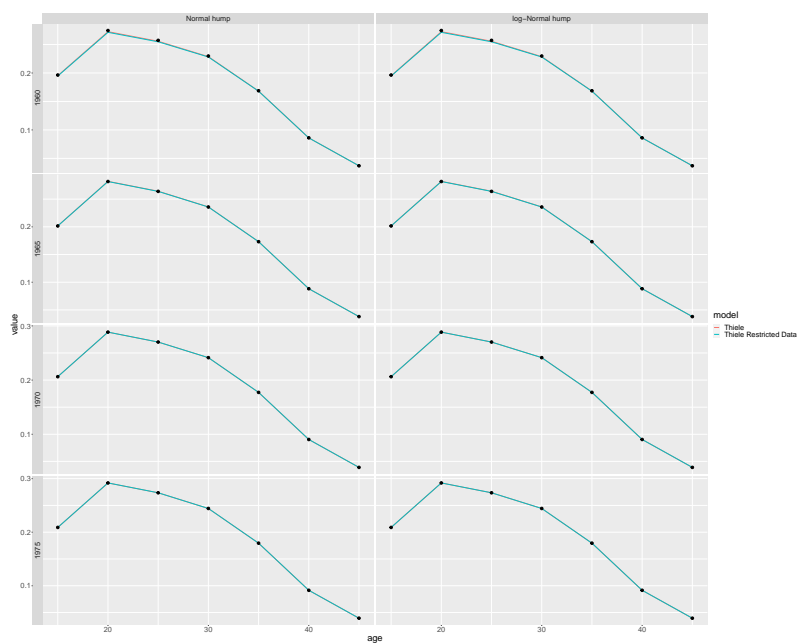

Figure 20: Migration

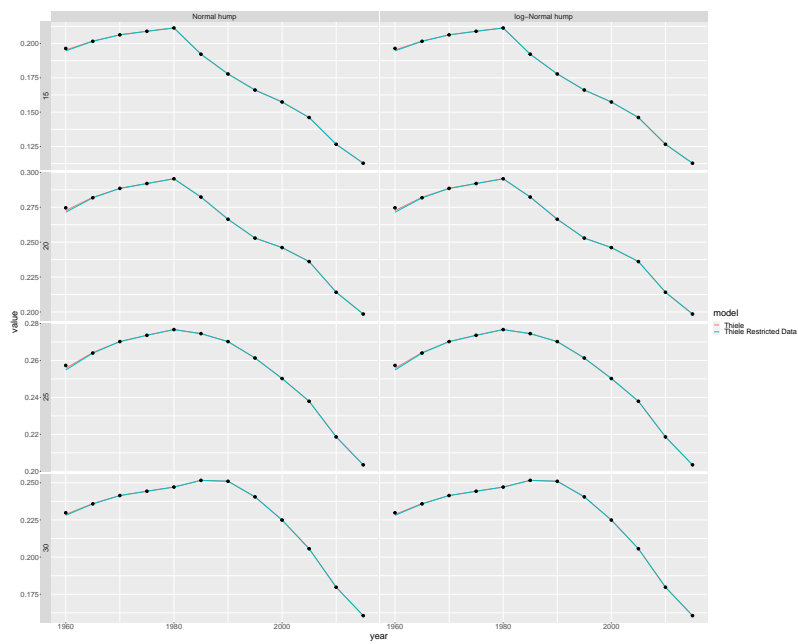Figure 21: Migration

Figure 22: Migration

Figure 23: Fertility

Figure 24: Fertility