Fertility Development in the Aftermath of German Unification

Michaela Kreyenfeld und Anja Vatterrott
Background

Total Fertility Rate


West Germany
East Germany

0.5
1.0
1.5
2.0

### HFD-Data for East Germany

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Order Specific Data</th>
<th>Order Specific Data</th>
<th>Area Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956-1989</td>
<td>HFD</td>
<td>HFD</td>
<td>with East Berlin</td>
</tr>
<tr>
<td>1990-2000</td>
<td>HFD</td>
<td>--</td>
<td>without East Berlin</td>
</tr>
<tr>
<td>2001-2008</td>
<td>HFD</td>
<td>HFC</td>
<td>without East Berlin</td>
</tr>
<tr>
<td>2009-2010</td>
<td>HFD</td>
<td>HFD</td>
<td>without East Berlin</td>
</tr>
</tbody>
</table>

Notes: Human Fertility Database (HFD), Human Fertility Collection (HFC)
First Birth in East Germany

- Low age at first birth before unification
- Increase towards high West German ages after unification

Second Births in East Germany

- „Second Birth Crisis“ in the aftermath of unification (Sackmann 1999; Huinink 2005)
Background

Total Fertility Rate

East Germany
Background

What happened to the Second Births in the aftermath of German Unification?
In order to understand East German fertility after unification, we need order specific data.

In order to fully understand East German fertility after unification, we need exposure data.
Data: German Pension Registers
German Pension Data

Data Extract: Versichertenkontenstichprobe 2008
Sample: Females of the cohorts 1935-1977
Sample Size: About 140,000 women
Advantages of German Pension Data

- Register data with fertility information
- Exposure data
- Identification of East-to-West-migrants possible
Pension Data in the Lexis-Diagramme

Data
Coverage of the German Pension Data

- Not included
  - Life-time farmers
  - Life-time civil servants
  - Life-time self employed

Persons who collected pension points in Germany, but who do no longer live in the country
Validity of the Data?

CTFR East Germany

CTFR West Germany

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>East</td>
<td>2.2</td>
<td>2.0</td>
<td>1.9</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>West</td>
<td>2.2</td>
<td>2.0</td>
<td>1.8</td>
<td>1.7</td>
<td>1.6</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Legend:
- 3 + Children
- 2 Children
- 1 Child
Pre-Unification (Cohorts 1960-64)

Unification Cohorts (Cohorts 1965-69)

Post-Unification Cohorts (Cohorts 1970-74)
Results: First Birth
First Births

Survival Functions
West Germany

Survival Functions
East Germany

Cohorts 1960-64
Cohorts 1965-69
Cohorts 1970-74

Age of Woman

Age of Woman
First Births

Hazard Rates

West Germany

East Germany

Cohorts 1960-64
Cohorts 1965-69
Cohorts 1970-74

Cohorts 1960-64
Cohorts 1965-69
Cohorts 1970-74
Results: Second Births
Second Births

Hazard Rates

East Germany

Years Since Last Birth

Cohorts 1960-64
Cohorts 1965-69
Cohorts 1970-74
Second Births

Pension Data in the Lexis-Diagramme

Age 50

Year

1920 1940 1960 1980 2000 2010

1980

Second Births
Second Birth Rates by Year
(Results from Proportional Hazard Model, Controlled for Age)
Second Birth Rates by Year of First Birth
(Results from Proportional Hazard Model, Controlled for Age)
Mean Duration between First and Second Birth

- East Germany
- West Germany


- 1980/81: 4.1
- 1982/83: 4.2
- 1984/85: 4.4
- 1986/87: 4.0
- 1988/89: 5.9
- 1990/91: 5.1
- 1992/93: 3.8
- 1994/95: 4.4
Conclusion

Total Fertility Rate

East Germany
Comments Welcome!