EFFECTS OF CHILDBEARING POSTPONEMENT ON COHORT FERTILITY IN GERMANY

Olga Pötzsch, Bettina Sommer
Federal Statistical Office of Germany

Joint Eurostat/UNECE Work Session on Demographic Projections
Rome, 29 – 31 October 2013
1. Cohort fertility

2. Recuperation Index

3. Future cohort fertility?
Cohort Fertility in Germany 2011

Completed fertility per woman

Cumulative fertility up to given age per woman

© Statistisches Bundesamt
Development of cumulative cohort fertility compared to cohort 1973 (~ 1,5 children per woman)

Births per 1000 women, Germany 2011
Development of cumulative cohort fertility compared to cohort 1973 (~ 1,5 children per woman)

Births per 1000 women, Germany 2011
1. Cohort fertility

2. Recuperation Index

3. Future cohort fertility?
Absolute change in cumulative fertility

\[ F_D C = P_c + R_c = -0.07 \]

\( P_c \) (cumulative fertility decline until trough age) = -0.59

\( R_c \) (absolute recuperation between trough age and the end of reproductive life) = +0.52

Trough (minimum) at age \( m = 25 \)

'Postponement' 'Recuperation'

$RI_c = \frac{R_c}{P_c} \times 100$

$P_c$ (cumulative fertility decline until trough age) = -0.59

$R_c$ (absolute recuperation between trough age and the end of reproductive life) = +0.52

Trough (minimum) at age $m = 25$

'Postponement' 'Recuperation'

Recuperation Index and deviation of cumulative fertility rate from 1946 reference cohort, western Germany (%)
Recuperation Index and deviation of cumulative fertility rate from 1960 reference cohort, eastern Germany(%)
1. Cohort fertility

2. Recuperation Index

3. Future cohort fertility?
## Estimations of completed fertility – West and East Germany

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Year</th>
<th>West</th>
<th>1977</th>
<th>2011</th>
<th>2026</th>
<th>2028</th>
<th>1979</th>
<th>1977</th>
<th>2026</th>
<th>2028</th>
<th>1979</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>1,20</td>
<td>1,54</td>
<td>1,57</td>
<td>1,57</td>
<td>1,56</td>
<td>1,56</td>
<td>1,57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>1,22</td>
<td>1,56-1,58</td>
<td>1,56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Destatis estimation based on RI - (02.2013)**


**M. Myrskylä stochastic projection (03.2013)**

© Statistisches Bundesamt
Future cohort fertility -

age at childbearing and birth interval
Age of mothers at birth of first child by total number of their children (years)

Mothers 35 to 44 years old, all children live at mother's household, still; microcensus

© Statistisches Bundesamt
# Birth interval and age of mother at childbearing

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>Change against 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interval – median – to preceding child</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. birth</td>
<td>3,3</td>
<td>+0,1</td>
</tr>
<tr>
<td>3. birth</td>
<td>3,9</td>
<td>0,0</td>
</tr>
<tr>
<td><strong>Age at 3. birth</strong></td>
<td>33,0</td>
<td>+0,14</td>
</tr>
<tr>
<td><strong>Age at 1. birth (all mothers)</strong></td>
<td>29,2</td>
<td>+0,34</td>
</tr>
</tbody>
</table>

© Statistisches Bundesamt
Summary

Average age at 1st birth

25 years

29 years
Summary

Average age at 1st birth

25 years
3.5 children per mother
Mothers with 3 or more children
1.6 children per mother
Mothers with 1 or 2 children

© Statistisches Bundesamt
Summary

Average age at 1st birth
- 25 years

Children per mother
- 3.5 children per mother (Mothers with 3 or more children)
- 1.6 children per mother (Mothers with 1 or 2 children)

Proportion of childless women
- 12% in 1965
- 23% in 2012

Average age at 1st birth:
- 29 years in 2012
Summary

- 2.0 children per mother * 80% = 1.6 children per woman
- 1.9 children per mother * 80% = 1.5 children per woman
- 2.0 children per mother * 77% = 1.5 children per woman

12% to 23%
Cohort fertility in Germany 2011 and future development

Completed fertility, children per woman

Cumulative fertility up to given age per woman

© Statistisches Bundesamt
Contact:

F2 “Population, Microcensus, Living and Migration“
Bettina Sommer bettina.sommer@destatis.de
Olga Pötzsch olga.poetzsch@destatis.de