Maternal employment transitions across Bundesländer
A latent curve approach

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Nutzerkonferenz zu den amtlichen Haushaltstatistiken
Mannheim, 30 September 2011
Structure of the presentation

1. Why mothers?
2. Operationalisation and data
3. Modelling involvement
4. Explaining involvement
5. Conclusion
Mothers, young children and employment

- Gendered participation patterns in employment
  - Women vs mothers → mother of young children
  - Transitions vs cross-sectional participation
  - ‘National’ behaviour vs subnational

- Why regions?
  - Composition of the labour supply
  - Variation in the job supply → constraints and opportunities
  - Economic history & persistent orientations to work

- Complexity of the data
  - Combining longitudinal and regional analysis
  - Sample size
  - Working-time and employment and transitions

- Case studies: Germany and the UK
Operationalising participation: involvement in paid work

- Mothers of under 6
- Involvement *intensity*
  - Not working, under 16h, 16-30h, 30h and more per week
  - Not involved: maternity/parental leave, economic inactivity, unemployed
- Involvement *variability* over time
  - Between levels of working-time, worklessness and work
  - End of parental leave, working-time increase, entry into full-time care
- Bundesländere + urban centres ≥ 500,000 inhabitants
- Data
  - MZ-Panel 2001-4
  - 4,921 transitions of mothers of under 6
- Quality issues
  - Attrition, residential mobility
  - Uneven regional populations
Involvement intensity of mothers of under 6 in Germany (1)

Maternal employment transitions across Bundesländer

- Percent working more than 30h per week vs. Percent employed

- States included: Bremen, Schleswig-Holstein, Berlin, Frankfurt, Saarland, Sachsen-Anhalt, Thüringen, Mecklenburg-Vorpommern, Brandenburg, Rest of Hessen, Baden-Württemberg, Stuttgart, Rest of Bayern
LGC model, Predicted vs observed transitions

Overall involvement level over 15 months

Wave

0 1 2 3

Observed  Model
Path diagram, Latent Curve Model of involvement

Within level (respondents)

Between level (regions)
## Latent growth model: initial results

<table>
<thead>
<tr>
<th>Transitions only</th>
<th>Full sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual level parameters</strong></td>
<td>Constrained to 0</td>
</tr>
<tr>
<td>Intercept (intensity) mean - $l_w$</td>
<td></td>
</tr>
<tr>
<td>Slope (variability) mean- $s_w$</td>
<td></td>
</tr>
<tr>
<td>Intercept variance - $\sigma_{l_w}^2$</td>
<td>3.05*** (.18)</td>
</tr>
<tr>
<td>Slope variance - $\sigma_{s_w}^2$</td>
<td>.76*** (.08)</td>
</tr>
<tr>
<td>Covariance $\text{cov}_{l_w,s_w}$</td>
<td>$-1.15$*** (.08)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regional-level variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (intensity) mean - $l_b$</td>
</tr>
<tr>
<td>Slope (variability) mean- $s_b$</td>
</tr>
<tr>
<td>Regional intercept variance $\sigma_{l_b}^2$</td>
</tr>
<tr>
<td>Regional slope variance $\sigma_{s_b}^2$</td>
</tr>
<tr>
<td>Covariance $\text{cov}_{l_b,s_b}$</td>
</tr>
<tr>
<td>$n$</td>
</tr>
</tbody>
</table>

Residual variance of involvement intensity in Germany

Maternal employment transitions across Bundesländer
Explaining regional variations in involvement

1. Systematic composition effects?
   - Social position (education)
   - Partnership status
   - Number of children
   - Age of the youngest child

2. (Regional jobs characteristics?)

3. Traditions of involvement (Sackmann 1997; Duncan et al 2002; Pfau-Effinger 2004)
   - Past involvement— >attitudes— >Present
   - Three or four worlds of women’s involvement?
     - Breadwinner industries
     - ‘Cotton girls’
     - Agriculture and marginal employment
     - BRD vs DDR?
### Involvement, family formation and social position

#### Transitions only  | Full sample
| Time varying variable | | |
|-----------------------|---|---|---|---|
| (Child is 0-3, effect at: Wave 1) | −1.52*** | (0.07) | −1.95*** | (0.11) |
| (... Wave 2) | −1.12*** | (0.09) | −1.61*** | (0.11) |
| (... Wave 3) | −1.22*** | (0.12) | −1.74*** | (0.12) |
| (... Wave 4) | −1.72*** | (0.23) | −2.36*** | (0.24) |

#### Intercept (intensity) factor regression coefficients

| 2^+ children | −.55*** | (0.13) | −.84*** | (0.20) |
| Age | .00 | (0.01) | .05** | (0.02) |
| Is single | .17 | (0.14) | .63*** | (0.21) |
| Post-secondary education | −.24 | (0.19) | .44+ | (0.25) |
| Degree or beyond (base: secondary) | .28 | (0.30) | 1.60*** | (0.43) |
| Intercept variance - \( \sigma^2_{IW} \) | 2.33*** | (0.17) | 9.60*** | (0.52) |

#### Slope (variability) factor regression coefficients

| 2^+ children | .14 | (0.08) | .06 | (0.07) |
| Age | −.00 | (0.01) | −.01+ | (0.00) |
| Is single | .14+ | (0.08) | .14* | (0.07) |
| Secondary education | .36** | (0.11) | .32*** | (0.08) |
| Degree or beyond (base: secondary) | .40** | (0.15) | .42** | (0.13) |
| Slope variance - \( \sigma^2_{SW} \) | .55*** | (0.07) | .60*** | (0.09) |
## Regional-level results

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>( \text{cov}_{lb,Sb} )</td>
<td>(-.26) ((.27))</td>
<td>(-.09) ((.20))</td>
</tr>
<tr>
<td>Intercept mean - ( lw )</td>
<td>0  ((.00))</td>
<td>Constrained to 0</td>
</tr>
<tr>
<td>Slope mean - ( Sb )</td>
<td>(.00) ((.00))</td>
<td>(-.02) ((.04))</td>
</tr>
<tr>
<td>Intercept variance - ( \sigma^2_{lb} )</td>
<td>(.04^+) ((.02))</td>
<td>(.62^*) ((.24))</td>
</tr>
<tr>
<td>Slope variance -( \sigma^2_{Sb} )</td>
<td>0 ((.00))</td>
<td>0 ((.00))</td>
</tr>
<tr>
<td>( n )</td>
<td>1,780</td>
<td>4,921</td>
</tr>
</tbody>
</table>

Composition effect across Bundesländer

Maternal employment transitions across Bundesländer
Attitudes towards the employment of mothers

Data: European Social Survey 2004

% who agree that women should be prepared to cut down on paid work for sake of family
% who DISagree that women should be prepared to cut down on paid work for sake of family

Data: European Social Survey 2004
Conclusions

- The Latent Growth Curve framework:
  - A promising alternative
  - Results not directly interpretable
  - Multilevel vs fixed effects
  - Further exploration of trajectory groups

- Explaining involvement
  - Some composition effects
  - Partial correspondence of attitudes and involvement
  - Poor regional match but East vs West

- Incidental findings

- Policy relevance
  - Inequalities are spatial
  - Regional differences in responses to policies
Und schließlich...

Vielen Danke für Ihre Aufmerksamkeit