

# Doing science, forgoing childbearing?

## Evidence from a sample of female scientists in Austria

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### Research questions

- What are female scientists' fertility ideals and intentions?
- Which number of children are they able to realise?
- How do they succeed in combining academic work and motherhood?

Female scientists are compared with two groups of women:

(a) tertiary educated and (b) secondary and lower educated non-scientists.

### Data

- Sample of women who had applied for a grant at the Austrian Academy of Sciences
- Data collection in 2009 in face-to-face interviews as additional sample to the Austrian Generations and Gender Survey
- 196 female scientists in Austria
- Aged 25-45, working in different scientific fields



### Introduction

For Austrian women, higher education often pairs with lower fertility.

Female scientists are not only highly educated but some job characteristics of academic work obstruct easy compatibility with childcare, e.g. long working hours, high job and geographic mobility, keeping up-to-date knowledge, ideally no gaps in publication record.

Some consequences are:

- Selection of women out of science: only 25% of Austrian researchers and 20% of professors are women
- Forgoing childbearing: female scientists and professors in Austria and Germany have extraordinarily high levels of final childlessness of 45-60% (e.g. Buchholz 2004, Metz-Göckel 2009).  
Are such high levels of childlessness intended or are they an involuntary outcome caused by obstacles?

### Context factors: employment and partnership

Female scientists show a strong work orientation. Both their employment rate and the share of full-time employed is higher than among their counterparts. For instance, 41% of female scientists work 45+ hours compared to 15% of tertiary educated and 11% of secondary and lower educated.

Temporary contracts are more frequent in science: they are held by 75% of female scientists, 20% of tertiary educated and 9% of secondary and lower educated. Academic work involves geographic mobility: 2/3 of scientists aged 35-45 stayed at least once abroad for three or more months. The three groups of women do not differ in their level of work satisfaction.

Female scientists are as likely as their peers to have a partner. But they are more probable to cohabit or live apart together. One third of female scientists have a partner who is also a scientist. The three groups of women show equal levels of partnership satisfaction.

### Fertility ideals, intentions and behaviour

#### What are female scientists' fertility ideals and intentions?

Female scientists perceive on average two children as ideal, just as the other two groups of women (Figure 1). Results are similar for intentions.

However, for both ideals and intentions we note a drop for older female scientists. They adapt their ideals and intentions once they realise they cannot fulfil them.

Voluntary childlessness is similarly low: 11% of female scientists, 8% of tertiary educated and 6% of secondary and lower educated aged 25-34 definitely or rather want to stay childless.

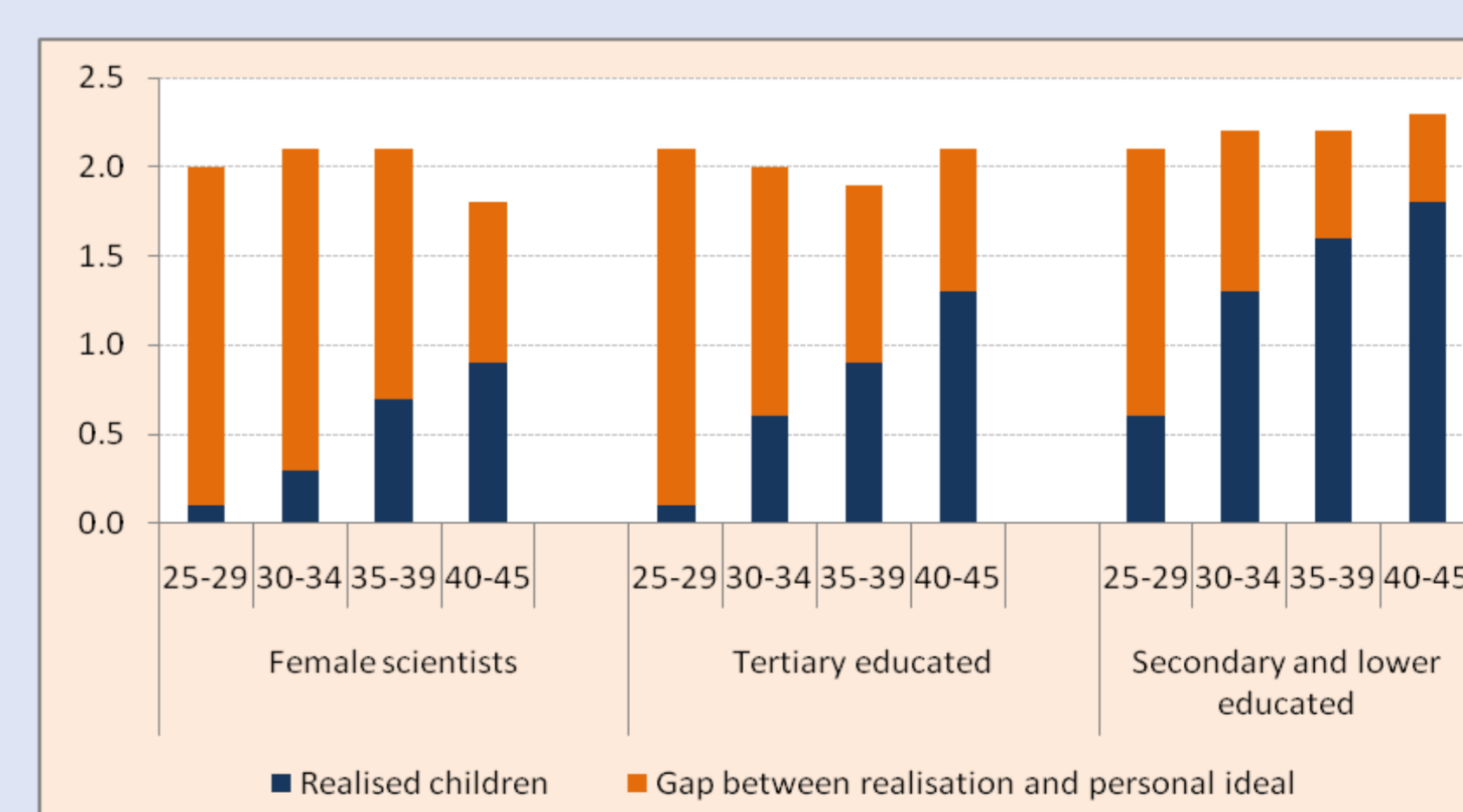


Figure 1: Gap between mean ideal number of children and mean number of children born by age groups

### Combining academic work and motherhood

Female scientists return quickly back to work: 30% work 30+ hours when having a child aged 0-2, but only 15% of tertiary educated and 7% of secondary and lower educated (Figure 2).

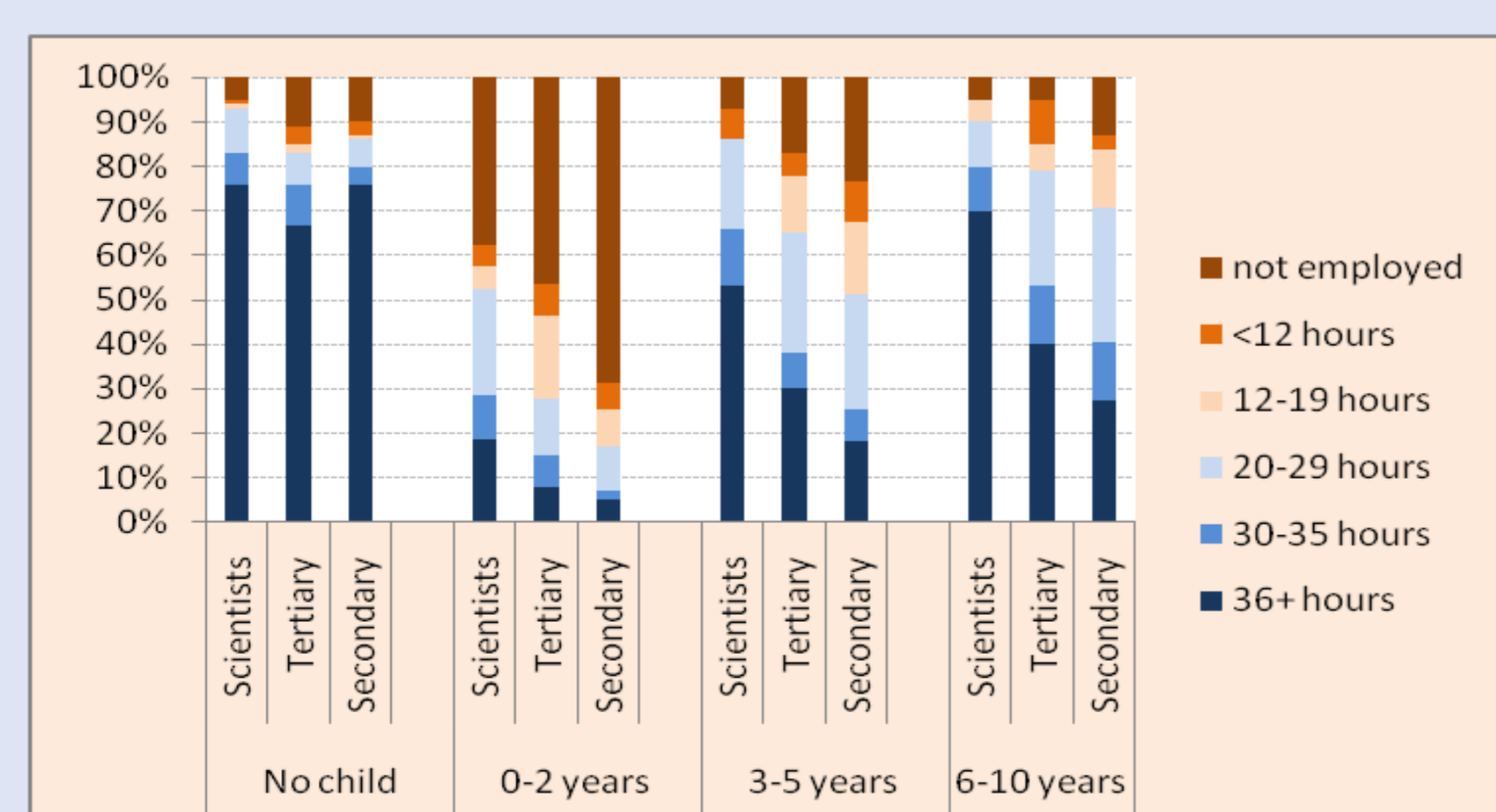


Figure 2: Number of working hours by age of youngest child

How should childcare tasks be divided between the family and the public for children under three?

55% of female scientists think tasks should be divided between the two. Only 15% of female scientists believe the family should be the main carer, but 35% of tertiary educated and 62% of secondary and lower educated.

#### How well are female scientists able to realise their ideals and intentions?

They start childbearing later and end up with a conspicuously lower number of children than their peers (Figure 1). 44% of female scientists, 29% of tertiary educated and 16% of secondary and lower educated remain childless in the age group 40-45.

### Literature

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Metz-Göckel, S. (2009). Wissenschaftlicher Nachwuchs ohne Nachwuchs? Zwischenergebnisse des Projekts "Wissen- oder Elternschaft? Kinderlosigkeit und Beschäftigungsverhältnisse an Hochschulen in Deutschland." Technische Universität Dortmund, Hochschuldidaktisches Zentrum.

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