

# Determinants of Ideal Family Size and its Alternatives

Results from a Dutch Survey

---

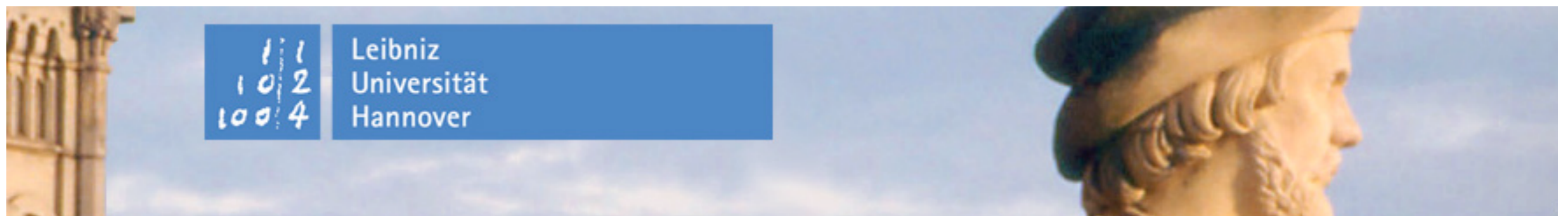
Christoph Bühler    Leibniz University Hanover

In collaboration with:

Joshua R. Goldstein    Max Planck Institute for Demographic Research, Rostock

Saskia Hin    Max Planck Institute for Demographic Research, Rostock

Workshop Rational Choice Sociology: Theory and Empirical Applications  
Venice International University, San Servolo, November 30, 2011



# Structure

---

- Theoretical part
  - ▶ Reproductive desires and fertility
  - ▶ Determinants of reproductive desires
- Empirical part
  - ▶ The Dutch LISS panel
  - ▶ Measurement of ideal family size and its alternatives
  - ▶ Determinants of ideal family size
  - ▶ Determinants of family size preferred second
  - ▶ Determinants of continuous and discontinuous preference orders
- Conclusions

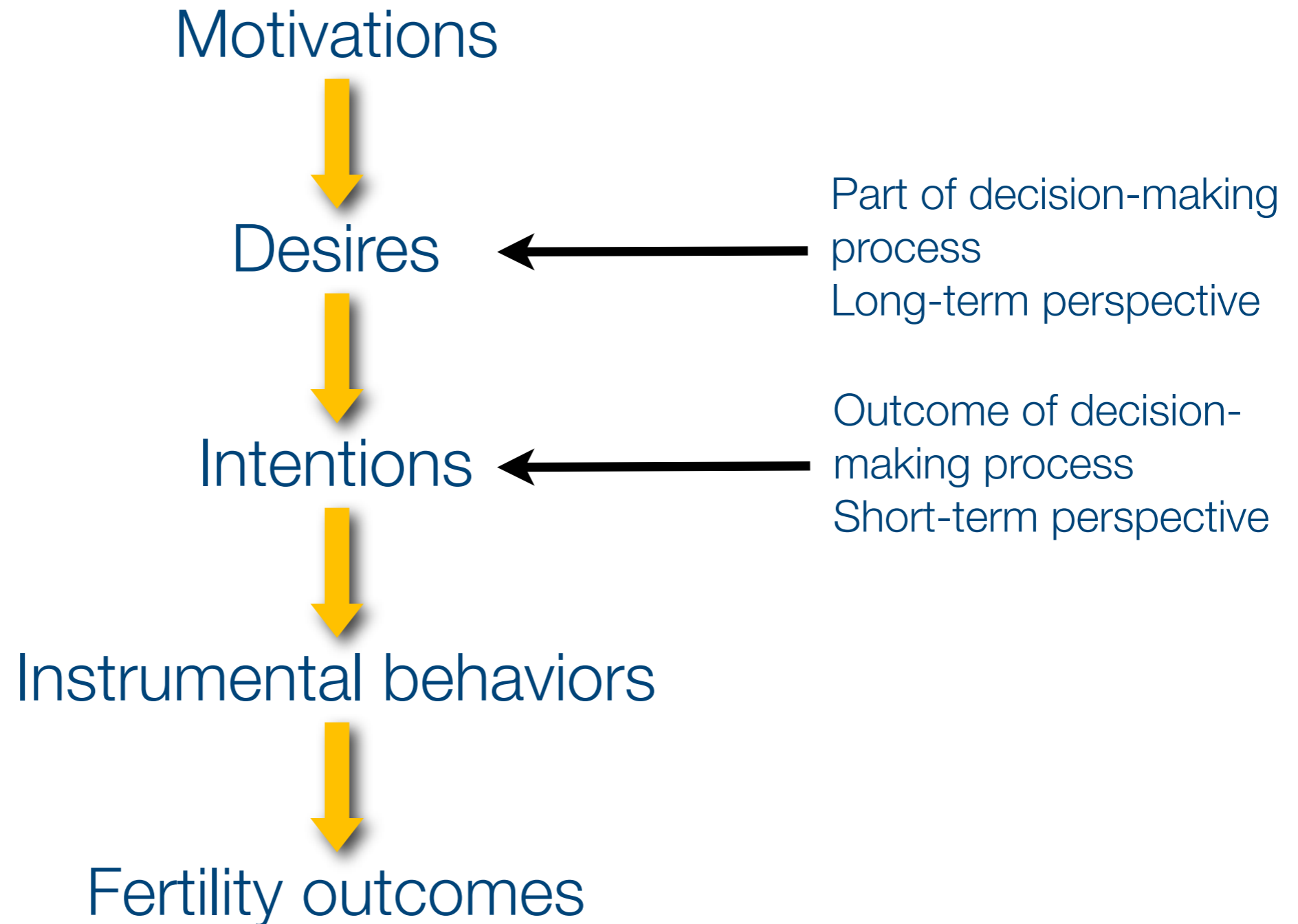
# The Role of Reproductive Desires in Fertility Research

---

- Reproductive desires are central to...
  - ▶ ... theories about fertility in modern societies
    - In contraceptive societies, the demand for children is significantly influenced by reproductive desires.
  - ▶ ... family and population policy
    - Mismatch between reproductive desires and fertility outcomes.
- However, desires are not central to empirical research on fertility
  - ▶ Theoretical reasons:
    - Neoclassical economics: desires are constant → fertility is exclusively explained by opportunity structures.
    - Cultural theories: primarily macro-theoretical.
  - ▶ Empirical reasons:
    - Desires define ‚Moving Targets‘ → weak predictive ability to forecast future reproductive outcomes.
    - Increasing research on reproductive intentions.

# From Reproductive Motivations to Fertility Outcomes

---



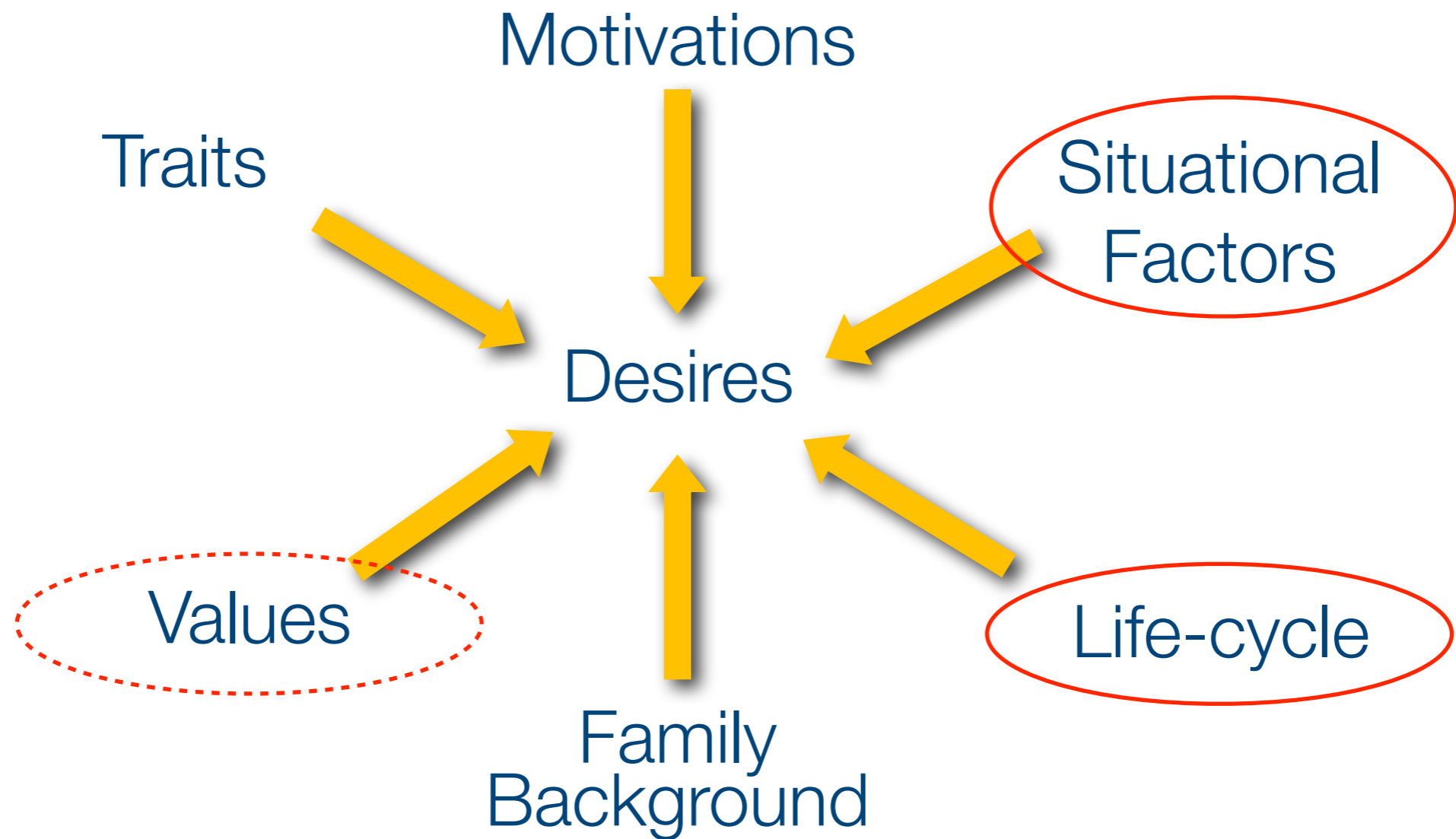
# Preference Orders of Reproductive Aims

---

- How to handle empirically the changing nature of reproductive desires?
  - ▶ Panel-design
  - ▶ Information on alternative reproductive goals
    - Individuals have preference orders of desired reproductive goals shaped by the expected utilities of these aims.
    - Knowledge about alternative goals provides insight in latent desires towards larger or smaller families.
- Testing the usefulness of reproductive preference orders
  - ▶ Do respondents with latent desires for larger or smaller families differ according to their social characteristics?
  - ▶ Do the characteristics that promote a larger/smaller ideal family size also promote latent desires for a larger/smaller family?

# Determinants of Reproductive Desires

---



# Determinants of Reproductive Desires

---

- Life-course

- ▶ Age (WROSCH & HECKHAUSEN 1995, SETTERSTEN & HÄGESTAD 1996, LIEFBROER 2009)
  - Negative effect: adaptation of ideal desires to realistic ones, biological and cultural deadline around the age of 40.
- ▶ Number of children born (MILLER & PASTA 1995, LIEFBROER 2009)
  - Positive influence of a first child: perceptions of socially ideal family size, undesired gender of the first child, „childbearing promotes childbearing“.
  - Negative influence after the second child: socially ideal family size has been reached, increasing costs.

# Determinants of Reproductive Desires

---

- Situational factors

- ▶ Marital status (LIEFBROER 2009)

- Positive influence of marriage: institutional precondition for fertility.
- Positive influence of cohabitation: alternative to marriage, partner present.

- ▶ Employment situation (HEILAND ET AL. 2008)

- Positive influence of working: source of income, reduction of economic uncertainty.
- Positive influence of being in education: ideal ideas at the beginning of reproductive life.

- ▶ Level of education (HEILAND ET AL. 2005, SOBOTKA 2009)

- Positive influence of higher educational levels: higher confidence in personal abilities, economic certainty.

- ▶ Income (HEILAND ET AL. 2008; BECKER 1960)

- Negative influence of having no income: costs of children can only inadequately be met, economic uncertainty.
- Positive or negative influence of amount of income : quality vs. quantity of children.

- Gender

- ▶ Positive influence of women: larger family orientation



# Determinants of Reproductive Desires

---

- Attitudes

- ▶ Positive influence of gender role models that combine work and family: preference for work and having children.
- ▶ Positive influence of child-friendly attitudes.

# The Dutch LISS Panel

---

- Longitudinal Internet Studies for the Social Sciences (LISS)
  - ▶ Probability sample of households in the Netherlands
  - ▶ Start in October 2007
  - ▶ Population in February 2008:
    - 5,176 households with 8,026 participating persons
  - ▶ Monthly surveys (20 to 30 minutes)
    - 50% interview time for LISS Core Study
    - 50% interview time for specific topics
- Population considered in the survey:
  - ▶ Men aged 16 to 50, women aged 16 to 45
  - ▶ Target population in August 2010: 4,018 persons
    - Response in August 2010: 2,591 persons (64.5%)
    - Response in September 2010: 2,173 persons (54.1%)
- Population considered in the analyses: 1,549
  - ▶ Age range: 16 to 45
  - ▶ Missing cases in covariates

# Measurement of ideal family size and its alternatives

---

- Forced choice (GOLDBERG & COOMBS 1963, COOMBS 1974)

- ▶ Ideal family size:

“For you personally, what would be the ideal number of children you would like to have? These children could be born to you or adopted”

- ▶ Alternatives:

“Suppose you couldn’t have that number, but had to choose between *[one child below]* and *[one child above]*. Which would you choose?” ”

- Pairwise-comparison (Terhune and Kaufmann 1973)

*If the respondent has children:*

“Imagine once more that you could start your reproductive life over again. Let’s suppose you could have children when you wanted them, they could be born to you or adopted, and the mixture of boys and girls was just right.”

*If the respondent doesn’t have children:*

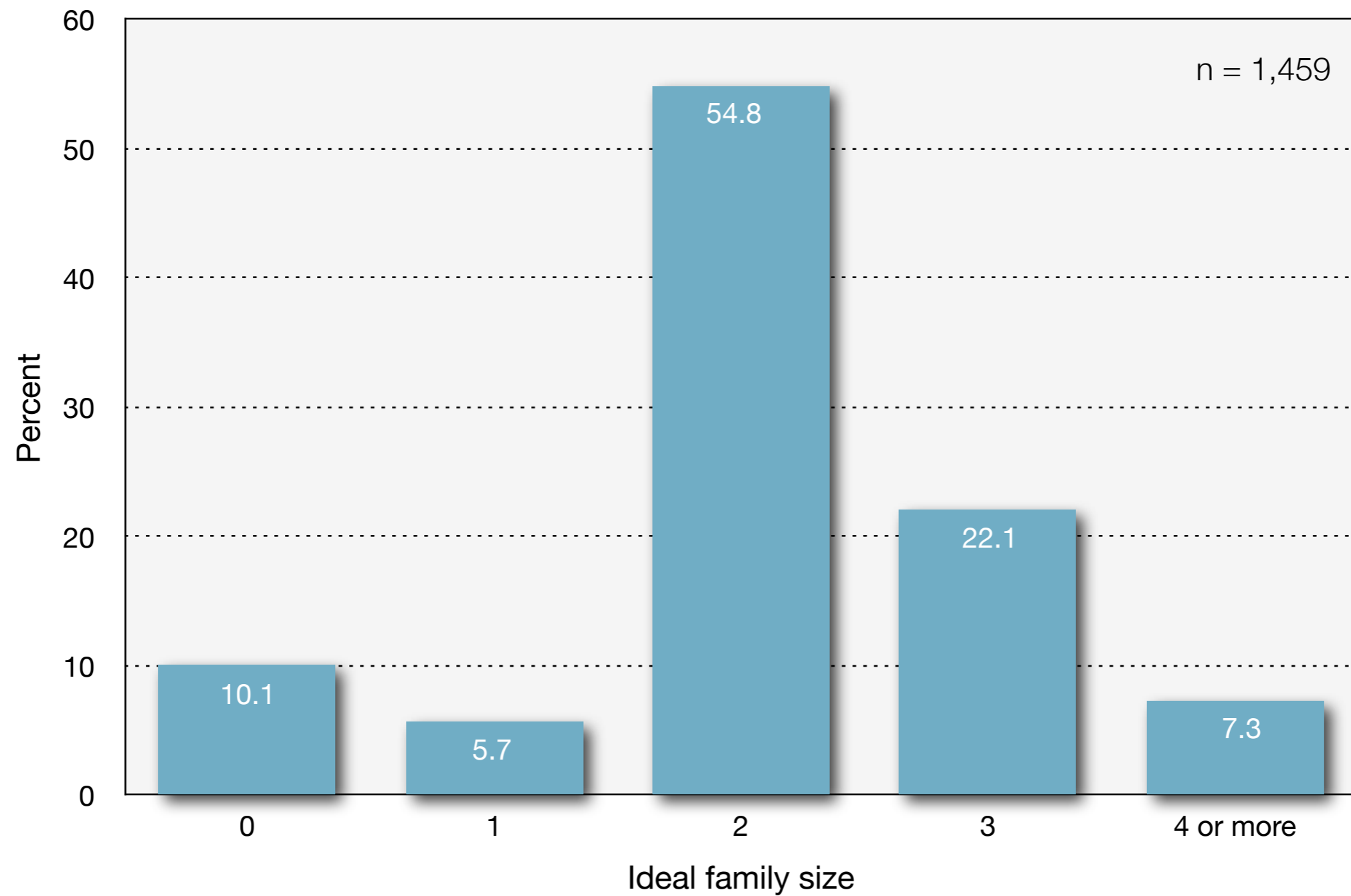
“Let’s suppose you could have children when you wanted them, they could be born to you or adopted, and the mixture of boys and girls was just right.”

“Suppose you had to choose between having either *[random number between 0 and 4]* children or *[random number between 0 and 4]* children. Which would you choose?”

## Determinants of ideal family size

# Distribution of ideal family size

---



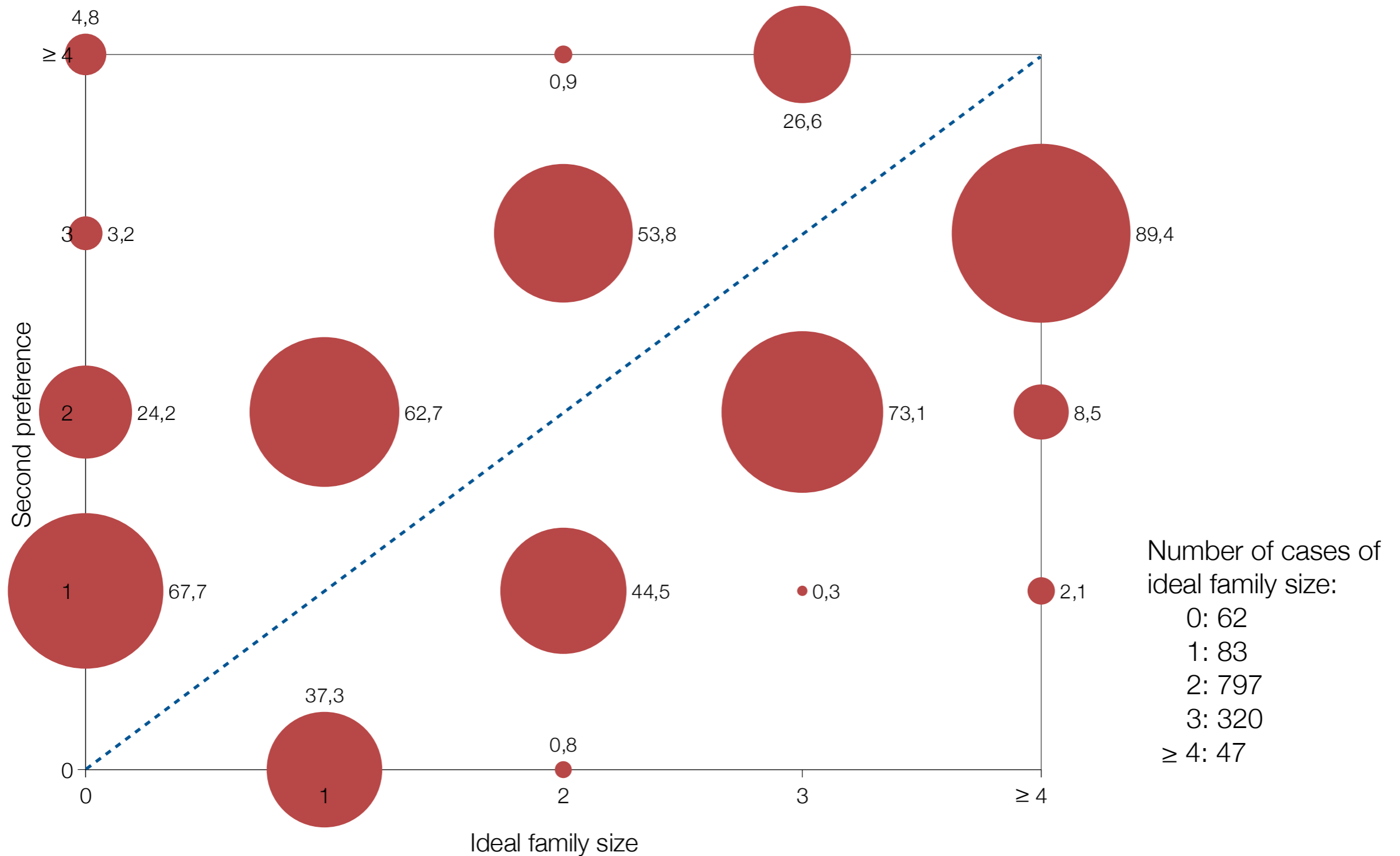
# Determinants of ideal family size

(multinomial logit, reference category: no child)

	One	Two	Three	Four or more		One	Two	Three	Four or more
Female	1.900*	1.216	1.400	2.187**	<i>Age</i>				
<i>Marital status</i>					15 to 24	1.906	12.025***	37.431***	36.887***
Married	1.039	1.366	1.783*	1.686	25 to 29	2.127	5.393***	17.382***	11.899***
Cohabitation	0.855	1.335	0.995	0.680	30 to 34	1.717	3.456***	7.293***	5.781***
Single	1	1	1	1	35 to 39	1.101	1.520	2.018*	2.062
<i>Occupational status</i>					40 to 45	1	1	1	1
Working	1.740	0.697	0.570	0.398*	<i>Number of children</i>				
In education	1.499	0.671	1.047	0.672	No child	0.344	0.024***	0.017***	0.022***
At home, other	1	1	1	1	One	9.609***	0.262**	0.266*	0.211*
<i>Educational level</i>					Two	1	1	1	1
Basic, secondary occupational	1	1	1	1	Three or more	0.690	0.292	4.417*	6.827**
Second. acadm.	0.769	1.257	1.629	2.400	<i>Design</i>				
Administration	1.499	1.478	1.289	1.293	Pairewise comp.	1.171	0.807	1.331	1.302
Tertiary	0.750	1.158	2.107**	3.603***	-2LL	2,812.519			
<i>Income</i>					X <sup>2</sup> (df)	832.05*** (84)			
No income	1.390	1.507	1.255	1.052	N	1,549			
Amount	1.030	1.031*	1.042**	1.035	Levels of significance: * ≤ 0.1; ** ≤ 0.05; *** ≤ 0.01				
<i>Attitudes</i>									
Working dad	1.230	0.971	1.023	1.319					
Working mom	1.364*	1.402***	1.453***	0.967					
Pro child	2.803***	5.262***	6.900***	8.608***					

Determinants of family size preferred second

# Distributions of family size preferred 2<sup>nd</sup> by ideal family size

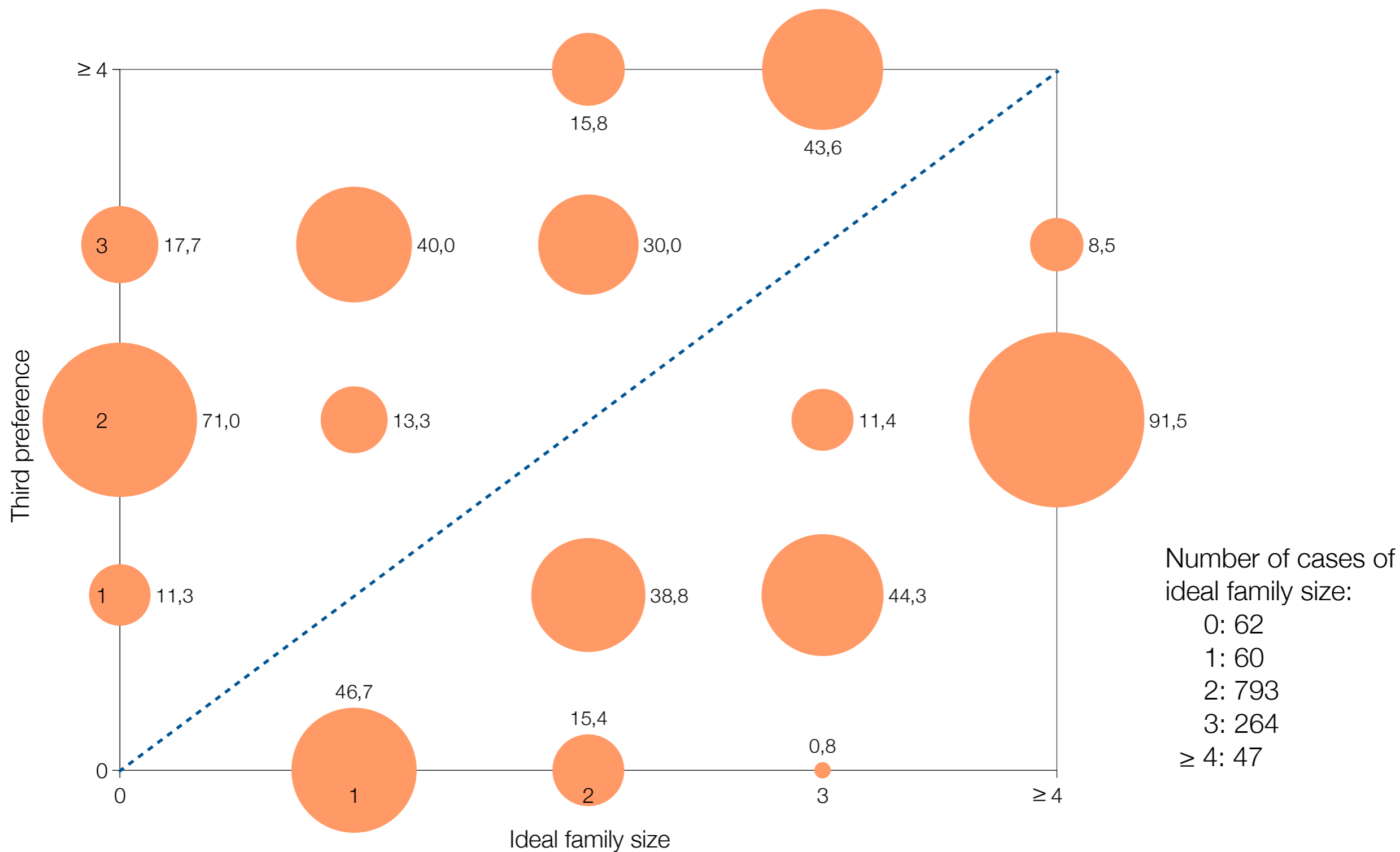


# Determinants of family size preferred 2<sup>nd</sup>

(logit)

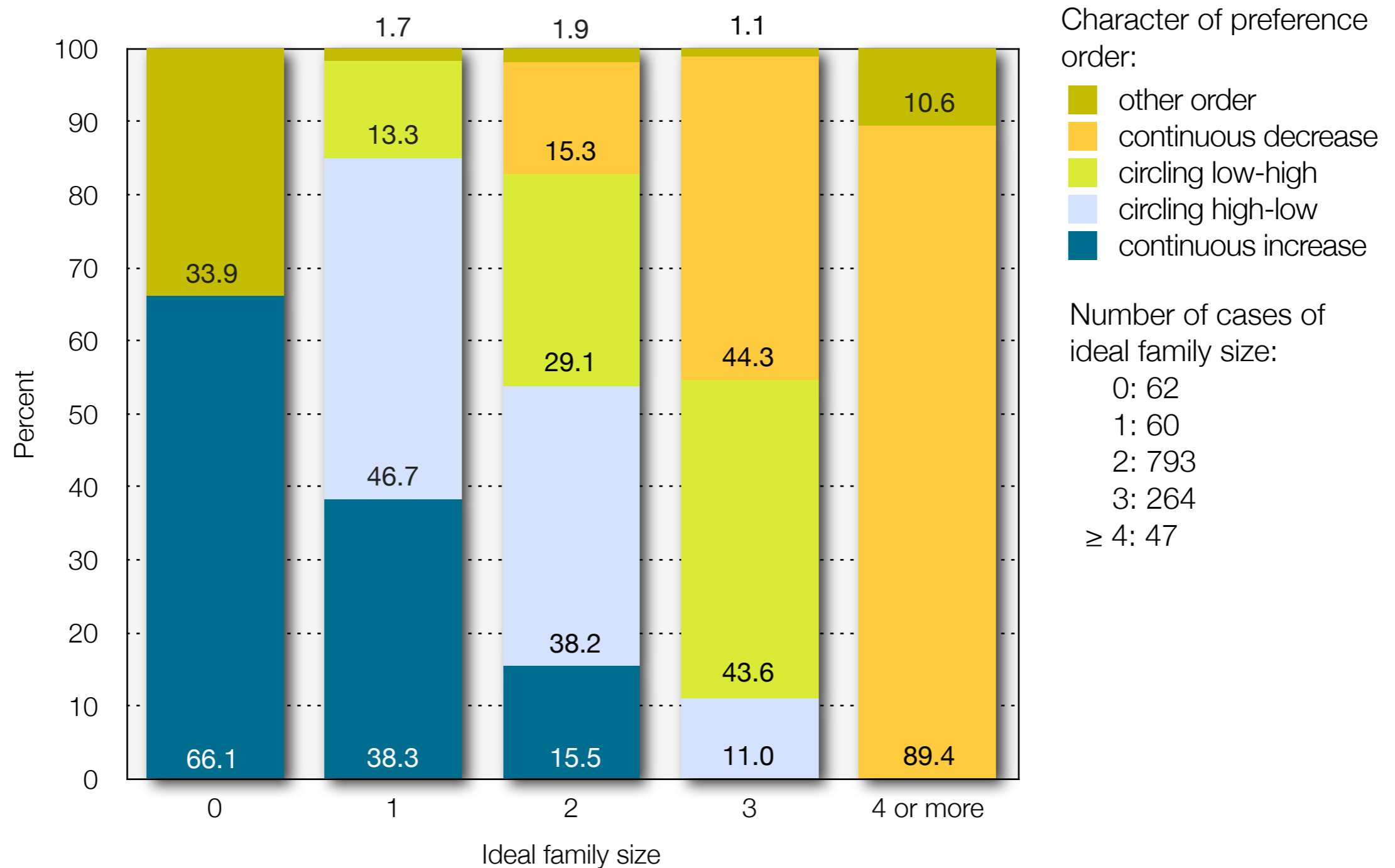
	One 0 vs. 2	Two 1 vs. 3	Three 2 vs. ≥ 4		One 0 vs. 2	Two 1 vs. 3	Three 2 vs. ≥ 4
Female	0.377	1.423**	1.343	<i>Age</i>			
<i>Marital status</i>				15 to 24	0.105	2.848***	3.785*
Married	0.440	1.215	1.099	25 to 29	0.778	3.282***	5.555***
Cohabitation	15.243***	0.811	1.228	30 to 34	0.165*	2.160***	2.254*
Single	1	1	1	35 to 39	0.204	1.916***	0.684
<i>Occupational status</i>				40 to 45	1	1	1
Working	0.202	0.820	0.913	<i>Number of children</i>			
In education	1	1.803	0.830	No child	0.207	0.425***	0.179***
At home, other	1	1	1	One	1	0.521**	0.638
<i>Educational level</i>				Two		1	0.576
Basic, secondary occupational	1	1	1	Three	1.373	1.476	1
Second. acadm.	2.172	1.711**	1.060	Four or more		8.473**	1.196
Administration	1.148	1.465*	1.629	<i>Design</i>			
Tertiary	1.077	2.067***	1.109	Pairewise comp.	4.386*	1.093	0.500**
<i>Income</i>				Constant	0.077	5.548	0.190
No income	0.016**	0.902	1.494	-2LL	63.733	1,014.917	336.792
Amount	0.871*	1.011	1.003	X <sup>2</sup> (df)	45.960*** (19)	64.943*** (22)	32.438* (22)
<i>Attitudes</i>				N	83	784	318
Working dad	1.975	0.995	1.112	Levels of significance: * ≤ 0.1; ** ≤ 0.05; *** ≤ 0.01			
Working mom	5.653***	0.926	1.111				
Pro child	1.498	1.028	1.115				

# Distributions of family size preferred 3<sup>rd</sup> by ideal family size





# Characters of preference orders (up to 3<sup>rd</sup> preference) by ideal family size



# Determinants of continuous and discontinuous preference orders

(multinomial logit, only respondents with an ideal family size of two children, reference category: 2-1-0)

	2-3-4	2-3-1	2-1-3		2-3-4	2-3-1	2-1-3
Female	2.756***	2.207***	2.123***	<i>Age</i>			
<i>Marital status</i>				15 to 24	2.903	3.093**	1.320
Married	3.620***	1.650	2.109**	25 to 29	4.929**	2.890**	1.101
Cohabitation	1.125	0.879	1.190	30 to 34	7.754**	2.100*	1.102
Single	1	1	1	35 to 39	2.089*	1.326	0.694
<i>Occupational status</i>				40 to 45	1	1	1
Working	0.522	1.166	1.323	<i>Number of children</i>			
In education	4.691**	2.129	1.634	No child	0.410*	0.645	1.522
At home, other	1	1	1	One	0.812	0.757	1.696
<i>Educational level</i>				Two	1	1	1
Basic, secondary occupational	1	1	1	Three or more	5.670**	2.900	2.108
Second. acadm.	1.368	2.920**	1.752	<i>Design</i>			
Administration	1.780	2.120**	1.712*	Pairewise comp.	0.795	1.073	0.857
Tertiary	3.083***	3.056***	1.767*	-2LL		1,901.372	
<i>Income</i>				X <sup>2</sup> (df)		133.81*** (63)	
No income	0.462	0.836	0.699	N		778	
Amount	1.024	1.008	1.002				
<i>Attitudes</i>				Levels of significance: * ≤ 0.1; ** ≤ 0.05; *** ≤ 0.01			
Working dad	1.286	0.825	0.925				
Working mom	0.813	0.926	0.949				
Pro child	1.200	1.390*	1.467**				

# Conclusions

---

- Characteristics of the life-course exert the strongest influences
  - ▶ In most cases, the desire for a large ideal or alternative family size declines with age.
  - ▶ Respondents tend to desire the number of children they already have.
- The influence of situational factors is highly party specific
  - ▶ Ideal and alternative family sizes are influenced in different ways.
  - ▶ Respondents with basic or secondary occupational education tend to have smaller ideal and alternative family sizes.
  - ▶ Attitudes matter primarily for ideal family size.
    - Womens' combinations of work and family matter, but not mens' ones.
- The majority of respondents „circles“ around the ideal family size.
- Open topics
  - ▶ How important is the continuous and discontinuous character of preference orders?
  - ▶ Artificial orders because of the upper limit of „four or more“ children
  - ▶ Analyses separated by parity, age and gender