

Valuation of Apprenticeship and Job Attributes - Results from two Discrete Choice Experiments



Sara Möser, David Glauser, Rolf Becker
DAB-Panelstudy, Universität Bern

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Research question

The choice of an apprenticeship position and first employment after VET is based on the rational evaluation of the apprenticeship and job characteristics. We ask: **Which aspects are relevant when students decide where to receive their training and apprentices choose where to work?**

Method

We analyse two discrete choice experiments on hypothetical apprenticeship and employment offers that were conducted on students one year prior to leaving compulsory school and respectively during vocational training. The experiments were included in wave 2 and 5 of the DAB panel study which documents educational and occupational trajectories of adolescents in German-speaking Switzerland.

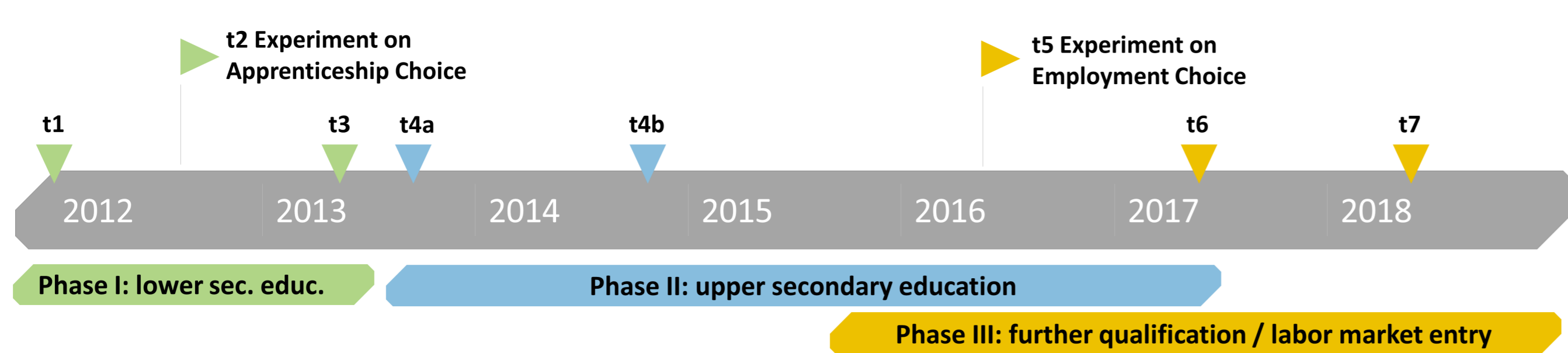


Figure 1: Timeline DAB panel study

The respondents were asked to imagine, that they had applied for various apprenticeship resp. employment vacancies within their desired occupation. Two employers are now offering them a position, and they have to decide which offer they would rather accept. The positions varied in five resp. six characteristics, with two to four levels.

All respondents who intended to begin an apprenticeship after graduation from lower secondary school and had not yet signed a training contract took part in the first experiment. The second experiment was presented to all DAB respondents who intended to take up an employment after the end of their current VET.

Experiment on Apprenticeship Choice	
respondents	1,500
realised choice sets	9,000
Nr. of choice sets	192 in 32 blocks à 6 choice sets
D-efficiency	95.88

Apprenticeship Attributes	levels
apprentice wage in 1st year of VET	400, 500, 600 or 700 CHF
matches desired specialisation	yes or no
duration of commute (one way)	30 or 60 Minutes
possibility to be taken on by the company	yes or no
working hours	daytime, Mo.–Fr. (normal) evenings and weekends

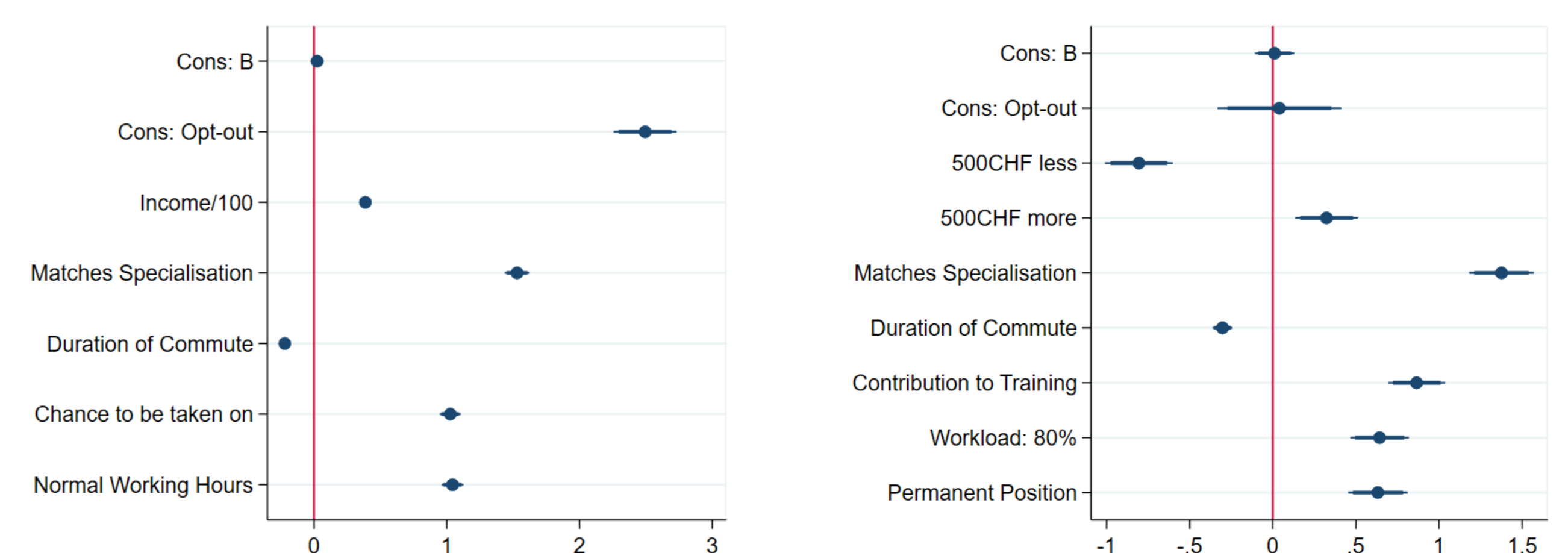
Experiment on Employment Choice	
respondents	420
realised choice sets	1662
Nr. of choice sets	144 in 36 blocks à 4 choice sets
D-efficiency	90.28

Employment Attributes	levels
wage	500 CHF less than expected; as expected; 500 CHF more than expected
matches desired specialisation	yes or no
duration of commute (one way)	30 or 60 Minutes
financial contribution to further training	yes or no
type of contract	permanent or temporary position
workload	part time 80% or full time 100% position

Results

- The results are in line with theoretical assumptions derived from rational choice theory: the higher the expected benefit of an alternative, the higher the probability of choosing that option and vice versa. Both monetary and non-monetary apprenticeship and job characteristics influence the choice of apprenticeship position and choice of first employment after VET.
- We find considerable preference heterogeneity, which can partly be accounted for by socio-economic status and labour market specific subjective utility.

Conditional Logit Estimation



- The findings show that the fit of the job description with the aspired occupational specialisation is the most relevant aspect for apprenticeship and employment choice.
- A higher income, a shorter commute, the possibility of being taken on by the company and not working in the evenings or weekends increase the attractiveness of an apprenticeship position.
- A higher income, a shorter commute, a financial contribution to further training and a permanent contract increase the attractiveness of an employment position.
- Part time employment is generally preferred by apprentices seeking first employment after training.
- Apprentices display *loss aversion*. If the offered salary is lower than the anticipated income, the subjective utility of the employment option is reduced to a higher degree, than the increase in utility caused by a salary that exceeds expectations.

Willingness to Pay Estimation

Apprenticeship		Employment	
Reservation wage	285 CHF	Further training	820 CHF
Matches specialisation	395 CHF	Matches specialisation	1,162 CHF
Commute per min.	5.7 CHF	Commute per min	28 CHF
Chance to be taken on	265 CHF	Part time 80%	601 CHF
Normal working hours	269 CHF	Permanent position	534 CHF

- In sum, the monthly wage of an apprenticeship of horrors, that does not match the desired specialisation, with an hour long one way commute, without the possibility to be taken on by the company and with shifts at weekends and in the evening, the apprentice wage would have to be 1394 CHF, to compensate for all the disadvantageous characteristics and still be chosen. The ideal apprenticeship, on the other hand, would be chosen even if the wage is as low as 285 CHF.
- For the choice of a first employment after VET, the WTP estimation shows that the salary for a 100% job with an hour commute, without financial support of further training, with a fixed term contract that is not in line with the desired specialisation, would have to be 4,227 CHF higher than for the ideal job.

Contact:

Sara Möser; Fabrikstrasse 8; CH-3012 Bern; sara.moeser@edu.unibe.ch; +41 (0)31 631 5356; www.dab.edu.unibe.ch/