

Is the link between education and attitudes towards foreigners driven by differences in cultural values and beliefs? Evidence from Switzerland

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Foreword



- Pour que votre salaire ne baisse pas et que vous ne perdiez pas votre emploi!

Introduction

Research questions

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Examine the relevance of the labour market competition hypothesis in explaining individual attitudes towards equal opportunities for foreign and Swiss citizens

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- Research question 1:
Does *education* measure labour-market skills?
- Research question 2:
Does *unemployment* shape attitudes towards foreign citizens?

Data

Data source

- Data from the Swiss Household Panel survey
- First sample since 1999 (*SHP_1* sample)
- Focus on the first wave, used as a cross-section

Why focusing only on the first wave?

- The sample size at the first wave is the highest
⇒ the number of missing values are the smallest
- While the dependent variable y is an ordered response taking on the values $\{1, 2, 3\}$ in all waves (where 1 is 'in favour of equal opportunities for foreigners', 2 is 'neither of them' and 3 is 'in favour of better opportunities for Swiss citizens'), the responses can be coded as $\{1, 2, 3, 4, 5\}$ only in 1999 given that individuals having responded 1 or 3 were also asked at the first wave 'Are you rather in favour or strongly in favour?'
- Two important proxies of individuals' values and beliefs are only available at the first wave: (i) opinion on Swiss tradition and (ii) trust in organisations for the defence of human rights

Sample selection

Selection criteria	Active		Non-active	
	No. of i	%	No. of i	%
Individual interview completed	5,301	100.0	2,498	100.0
Swiss voters	4,468	84.3	1,958	78.4
Valid inform. on attitudes towards foreigners	4,307	81.2	1,877	75.1
Employed	4,222	79.6		
Valid inform. on unemployment risk	4,090	77.2		

Source : Swiss Household Panel, first wave in the *SHP_1* sample, data are unweighted.

Empirical methods

Explaining attitudes towards foreigners in Switzerland

(1) Incorporating years of education and unemployment:

$$y_i^* = \alpha_S S_i + \beta U_i + \mathbf{X}_i \boldsymbol{\gamma} + \epsilon_i$$

(2) Replacing years of education by levels of education:

$$y_i^* = \alpha_1 L_{1i} + \alpha_3 L_{3i} + \beta U_i + \mathbf{X}_i \boldsymbol{\gamma} + \epsilon_i$$

y_i^* = unobserved latent variable for attitudes towards foreigners,

S_i = years of actual education,

L_{hi} = levels of actual education with $h \in \{1, 2, 3\}$,

U_i = a dummy variable for being unemployed or a discrete variable based on a 0 to 10 scale indicating the risk of unemployment,

\mathbf{X}_i = a vector of observed personal characteristics.

Estimation technique

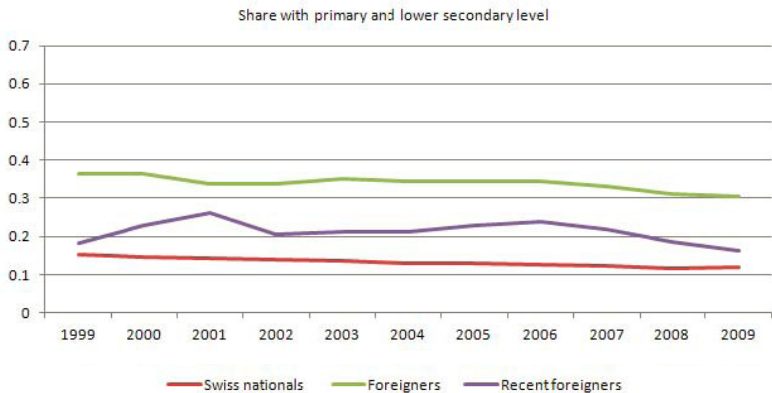
The empirical analysis is based on the ordered probit estimation technique where

$$\epsilon_i | \text{covariates} \sim \text{Normal}(0, 1).$$

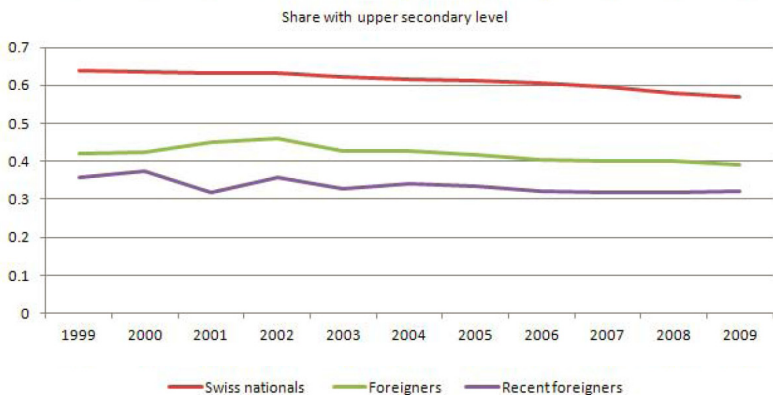
The continuous latent variable y_i^* can be thought of as the *propensity* to exhibit positive attitudes towards foreigners. The observed response categories are tied to the latent variable as follows:

$$y_i = \begin{cases} 1 & \text{(Strongly in favour of better opportunities for Swiss citizens)} & \text{if } y_i^* \leq \mu_1 \\ 2 & \text{(Rather in favour of better opportunities for Swiss citizens)} & \text{if } \mu_1 < y_i^* \leq \mu_2 \\ 3 & \text{(Neither of them)} & \text{if } \mu_2 < y_i^* \leq \mu_3 \\ 4 & \text{(Rather in favour of equal opportunities for foreigners)} & \text{if } \mu_3 < y_i^* \leq \mu_4 \\ 5 & \text{(Strongly in favour of equal opportunities for foreigners)} & \text{if } \mu_4 < y_i^* \end{cases}$$

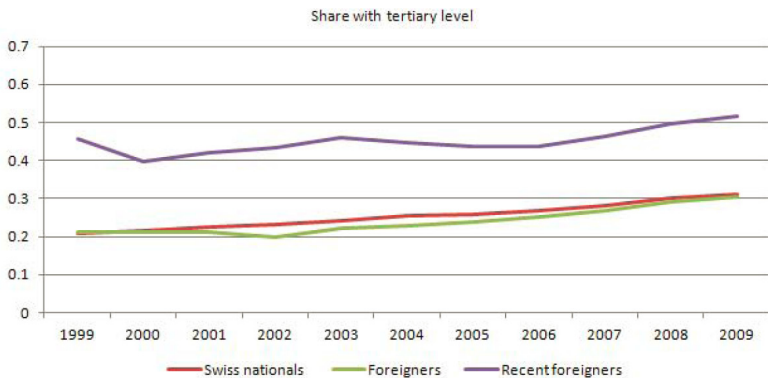
Some stylized facts (1)



Some stylized facts (2)



Some stylized facts (3)



Theoretical framework consistent with the labour market competition hypothesis (1)

- The Heckscher–Ohlin approach “predicts that immigrants pressure the wages of similarly skilled natives nationwide” (Scheve and Slaughter, 2001)
- Given that foreigners recently settled in Switzerland are overrepresented at both the bottom and the top of the education distribution, we expect low- and high-educated foreigners to be opposed by the equivalent educational category:

$$\alpha_1 < 0 \quad \text{and} \quad \alpha_3 < 0.$$

Theoretical framework consistent with the labour market competition hypothesis (2)

- As stated by Scheve and Slaughter (2001) and Hainmueller and Hiscox (2007), if education is highly correlated to individuals' values and beliefs, the relationship between the educational attributes of workers and their attitudes towards foreigners should have very little, if anything, to do with fears about labour-market competition:

$$\alpha_1 = 0 \quad \text{and} \quad \alpha_3 = 0.$$

Theoretical framework consistent with the labour market competition hypothesis (3)

- Does *unemployment* induce more exposure to labour-market competition from foreigners?
- In order to investigate possible interactions between unemployment and education, we also estimate the model on three subsamples: (i) individuals with in/complete primary or lower secondary level, (ii) those with upper secondary level and (iii) those with tertiary level.

Results

Ordered probit model: Baseline model

Equation	(1)	(2)
<i>S</i>	0.086** (0.006)	
<i>L</i> ₁		-0.190** (0.053)
<i>L</i> ₃		0.361** (0.039)
Unemployed	-0.018 (0.126)	-0.028 (0.126)
Control variables	yes	yes
Canton dummies	yes	yes
Proxies for values and beliefs	no	no
Ideology: left-right position	no	no
Observations	4,307	4,307

Linearized standard errors in parentheses, ** $p < 0.05$, * $p < 0.10$

Notes: Coefficient estimate, data are weighted.

Ordered probit model: Active vs. non-active

Equation	Active		Non-active	
	(1)	(2)	(1)	(2)
<i>S</i>	0.086** (0.006)		0.053** (0.009)	
<i>L</i> ₁		-0.190** (0.053)		-0.199** (0.061)
<i>L</i> ₃		0.361** (0.039)		0.285** (0.075)
Unemployed	-0.018 (0.126)	-0.028 (0.126)		
Control variables	yes	yes	yes	yes
Canton dummies	yes	yes	yes	yes
Proxies for values and beliefs	no	no	no	no
Ideology: left-right position	no	no	no	no
Observations	4,307	4,307	1,877	1,877

Linearized standard errors in parentheses, ** $p < 0.05$, * $p < 0.10$

Notes: Coefficient estimate, data are weighted.

Ordered probit model: Adding individuals' values and beliefs

Equation	(1)	(2)	(1)	(2)
<i>S</i>	0.086** (0.006)		0.053** (0.007)	
<i>L</i> ₁		-0.190** (0.053)		-0.050 (0.054)
<i>L</i> ₃		0.361** (0.039)		0.233** (0.040)
Unemployed	-0.018 (0.126)	-0.028 (0.126)	0.128 (0.130)	0.119 (0.130)
Control variables	yes	yes	yes	yes
Canton dummies	yes	yes	yes	yes
Proxies for values and beliefs	no	no	yes	yes
Ideology: left-right position	no	no	no	no
Observations	4,307	4,307	4,307	4,307

Linearized standard errors in parentheses, ** $p < 0.05$, * $p < 0.10$

Notes: Coefficient estimate, data are weighted.

Ordered probit model: Employed and unemployment risk

Equation	(1)	(2)	(1)	(2)
S	0.085** (0.007)		0.051** (0.007)	
L_1		-0.194** (0.055)		-0.053 (0.056)
L_3		0.347** (0.040)		0.214** (0.041)
Unemployment risk	-0.009 (0.007)	-0.011 (0.007)	-0.008 (0.007)	-0.009 (0.007)
Control variables	yes	yes	yes	yes
Canton dummies	yes	yes	yes	yes
Proxies for values and beliefs	no	no	yes	yes
Ideology: left-right position	no	no	no	no
Observations	4,090	4,090	4,090	4,090

Linearized standard errors in parentheses, ** $p < 0.05$, * $p < 0.10$

Notes: Coefficient estimate, data are weighted.

Ordered probit model: Estimates by educational level

Educational level	Sec I	Sec II	Ter
Unemployed	0.303 (0.272)	-0.065 (0.160)	0.410 (0.330)
Control variables	yes	yes	yes
Canton dummies	yes	yes	yes
Proxies for values and beliefs	yes	yes	yes
Ideology: left-right position	no	no	no
Observations	589	2,543	1,175
Unemployment risk	0.009 (0.019)	-0.002 (0.009)	-0.037** (0.016)
Control variables	yes	yes	yes
Canton dummies	yes	yes	yes
Proxies for values and beliefs	yes	yes	yes
Ideology: left-right position	no	no	no
Observations	537	2,412	1,141

Linearized standard errors in parentheses, ** $p < 0.05$, * $p < 0.10$

Notes: Coefficient estimate, data are weighted.

Concluding comments

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- Results from the baseline model is in line with prior research: low-educated workers exhibit anti-foreigner attitudes ($\alpha_1 < 0$) while those high-educated hold positive attitudes ($\alpha_3 > 0$)
- Controlling for individuals' values and beliefs indicates that the significant relationship between a low level of education and attitudes vanishes ($\alpha_1 = 0$)
- While being unemployed does not affect attitudes towards foreign citizens, a higher risk of unemployment is negatively associated with attitudes only among high-educated workers
- Limitation: unemployment is not randomly determined, so this variable is likely to be endogenous in our equations and thus to be correlated with ϵ_i