

Positive Ethnic Choice Effects are Persistent Over Time but not Across Minority Generations: Evidence from Switzerland

Richard Nennstiel

Online Anhang

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Table S1: Educational pathways after ninth grade in Switzerland (“What kind of training or job will you probably start after the summer holidays?”)

German term in the survey	English term	Academic education	VET	NEET/Interim solutions
Gymnasium, Kantonsschule	Academic track	x		
Ausbildung Primarlehrerin	Teachers college	x		
Diplommittelschule, Fachmittelschule	Specialized middle school	x		
Anlehre (2 Jahre)	Apprenticeship (2 years)		x	
Berufslehre (3-4 Jahre)	Apprenticeship (3-4 years)		x	
Handels-, Verkehrs-, Wirtschaftsmittelschule	Commercial college		x	
Schulisches Zwischenjahr	Additional school year			x
Praktisches Zwischenjahr (Internship, au pair)	Internship, au pair			x
Vorlehre	Pre-apprenticeship			x
Andere Ausbildung	Other education			x
Etwas anderes	Sth. else			x
Job, bezahlte Arbeit	Job, paid work			x

Source: PISA2000-PISA2012, ÜGK2016.

Table S2: Model variables and the corresponding questions in the surveys (PISA2000-2012 and ÜGK2016)

Variable	Question(s) in the survey	Operationalization/ observed values
Migration background, Migration region	In which country were you / was your father/mother born?	Switzerland; Germany, France, Austria & Belgium; Italy, Spain & Portugal; Balkans & Turkey; Other countries
One Swiss-born parent	generated based on migration background answers	no, yes
Born in Switzerland	generated based on migration background answers	no, yes
Generational status	generated based on the variables "Migration background", "Born in Switzerland" and "One Swiss-born parent"	1st, 2nd, 2.5th
Highest ISEI 08 of the parents	What is your mother's/mother's job? (automatically generated based on parental ISCO-08)	10-90
Secondary school track	Which of the following school types do you currently attend? (automatically generated)	Basic requirements Extended requirements Academic track No selection/other
Age (in months)	When were you born? (automatically generated)	142 - 234
Gender	Are you female or male? (automatically generated)	male, female
Canton	automatically generated	one of the 26 cantons or undifferentiated
Region	automatically generated based on the municipality of the school	village, small town, town (not in ÜGK2016), city
Competence mean	automatically generated based on test results in mathematics and/or reading (WLE)	test scores range from 112-885 (PISA) and -5.709-5.214 (ÜGK)
Student weight	automatically generated	inverse student sampling probability
School weight	automatically generated	inverse school sampling probability

Source: PISA2000-PISA2012, ÜGK2016.

Table S3: Multilevel linear probability models predicting direct ethnic choice effects (academic track vs. rest) over time by minority groups

	2000		2003		2006	2009		2012		2016	
	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.
Migration background (Ref: Swiss)											
Minority students	0.03*		0.06***		0.03***	0.05***		0.05***		0.05***	
DE, FRA, BEL & AUT		0.00		0.03**			0.04*		0.03		0.05***
IT, SP & POR		0.02		0.04***			0.02*		0.03**		0.05***
Balkans & TUR		0.07***		0.06***			0.05***		0.06***		0.04***
Other		0.04		0.08***			0.06***		0.05***		0.06***
Lower sec. school type (Ref: academic)											
Extended req.	-0.45***	-0.45***	-0.46***	-0.46***	-0.43***	-0.55***	-0.54***	-0.48***	-0.48***	-0.47***	-0.47***
Basic req.	-0.54***	-0.54***	-0.55***	-0.55***	-0.53***	-0.60***	-0.59***	-0.52***	-0.52***	-0.53***	-0.53***
No selection/other	-0.41***	-0.42***	-0.56***	-0.56***	-0.51***	-0.53***	-0.53***			-0.42***	-0.42***
Age in months											
	-0.00	-0.00	-0.00*	-0.00*	-0.00**	-0.00*	-0.00*	-0.00***	-0.00***	-0.00**	-0.00**
Academic achievement											
	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.05***	0.05***
Social origin: HISEI											
	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Region type (Ref: village)											
Small town	0.03	0.02	0.06***	0.05***	0.02	0.01	0.01	0.03	0.03	0.04**	0.04**
Town	0.08*	0.08*	0.08***	0.08***	0.11***	0.05*	0.05*	0.10***	0.10***		
City	0.13*	0.13*	0.14***	0.14***	0.17***	0.13***	0.13***	0.18***	0.17***	0.09***	0.09***
Boy (Ref: girl)	-0.08***	-0.08***	-0.08***	-0.08***	-0.07***	-0.06***	-0.06***	-0.07***	-0.07***	-0.08***	-0.08***
Intercept	0.39**	0.41**	0.44***	0.47***	0.44***	0.53***	0.53***	0.86***	0.87***	0.76***	0.76***
SD(schools)	0.09***	0.09***	0.09***	0.09***	0.10***	0.08***	0.08***	0.07***	0.07***	0.07***	0.07***
SD(students)	0.31***	0.31***	0.30***	0.30***	0.31***	0.28***	0.28***	0.30***	0.30***	0.32***	0.32***
<i>N</i>	7994	7994	20800	20800	19947	15678	15678	14082	14082	21994	21994

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: Canton regression coefficients not depicted.

Source: PISA2000-PISA2012, ÜGK2016; based on $m = 50$ multiple imputed data sets; weighted data; my own calculations.

Table S4: Multilevel linear probability models predicting direct ethnic choice effects (academic track vs. rest) over time by migrant generation and minority groups

	2000		2003		2006	2009		2012		2016	
	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.
Minority students (Ref: Swiss)											
1st generation	0.05**		0.08***		0.05***	0.05***		0.07***		0.06***	
2nd generation	0.05*		0.07***		0.05***	0.06***		0.05***		0.06***	
2.5th generation	0.02		0.03**		0.02	0.04***		0.03**		0.04***	
1st generation - DE, FRA, BEL & AUT		-0.03		0.04			0.04		0.08*		0.06*
1st generation - IT, SP & POR		0.02		0.11***			0.06*		0.07**		0.06***
1st generation - Balkans & TUR		0.07***		0.08***			0.05**		0.12*		0.09***
1st generation - Other		0.05*		0.10***			0.05*		0.04*		0.06***
2nd generation - DE, FRA, BEL & AUT		-0.01		0.07**			0.04		-0.00		0.11**
2nd generation - IT, SP & POR		0.02		0.07***			0.04**		0.05**		0.04**
2nd generation - Balkans & TUR		0.09***		0.05**			0.05***		0.05***		0.04***
2nd generation - Other		0.06		0.12***			0.08***		0.09***		0.09***
2.5 generation - DE, FRA, BEL & AUT		0.01		0.02			0.04*		0.02		0.02
2.5 generation - IT, SP & POR		0.03		0.01			0.00		0.02		0.05**
2.5 generation - Balkans & TUR		-0.05		0.03			0.06		0.03		0.04
2.5 generation - Other		0.02		0.06***			0.06***		0.04*		0.04**
Lower sec. school type (Ref: academic)											
Extended req.	-0.45***	-0.45***	-0.46***	-0.46***	-0.43***	-0.55***	-0.54***	-0.48***	-0.48***	-0.47***	-0.47***
Basic req.	-0.54***	-0.54***	-0.55***	-0.55***	-0.53***	-0.60***	-0.60***	-0.52***	-0.52***	-0.53***	-0.53***
No selection/other	-0.41***	-0.42***	-0.56***	-0.56***	-0.50***	-0.53***	-0.53***			-0.42***	-0.42***
Age in months	-0.00	-0.00	-0.00**	-0.00**	-0.00**	-0.00*	-0.00*	-0.00***	-0.00***	-0.00**	-0.00**
Academic achievement	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.05***	0.05***
Social origin: HISEI	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
Region type (Ref: village)											
Small town	0.03	0.02	0.05***	0.05***	0.02	0.01	0.01	0.03	0.03	0.04**	0.04**
Town	0.08*	0.08*	0.08***	0.08***	0.11***	0.05*	0.05**	0.10***	0.10***		
City	0.13*	0.13*	0.13***	0.13***	0.16***	0.13***	0.13***	0.17***	0.17***	0.09***	0.09***
Boy (Ref: Girl)	-0.08***	-0.08***	-0.08***	-0.08***	-0.07***	-0.06***	-0.06***	-0.07***	-0.07***	-0.08***	-0.08***
Intercept	0.41**	0.41**	0.46***	0.49***	0.44***	0.52***	0.53***	0.86***	0.87***	0.76***	0.76***
SD(school)	0.09***	0.09***	0.09***	0.09***	0.10***	0.08***	0.08***	0.07***	0.07***	0.07***	0.07***
SD(student)	0.31***	0.31***	0.30***	0.30***	0.31***	0.28***	0.28***	0.30***	0.30***	0.32***	0.32***
N	7994	7994	20800	20800	19947	15678	15678	14082	14082	21994	21994

* $p < 0.05$, + $p < 0.01$

Note: Canton regression coefficients not depicted.

Source: PISA2000-PISA2012, ÜGK2016; based on $m = 50$ multiple imputed data sets; weighted data; my own calculations.

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Figure S1: Ethnic choice effects (academic track vs. rest) over years, differentiated by minority groups (other minority group classification)

Note: GER = Germany, FRA = France, AUT = Austria, BEL = Belgium, IT = Italy, SP = Spain, POR = Portugal, TUR = Turkey. Source: PISA2000-PISA2012, ÜGK2016; estimates based on 50 multiple imputed data sets; my own calculations.

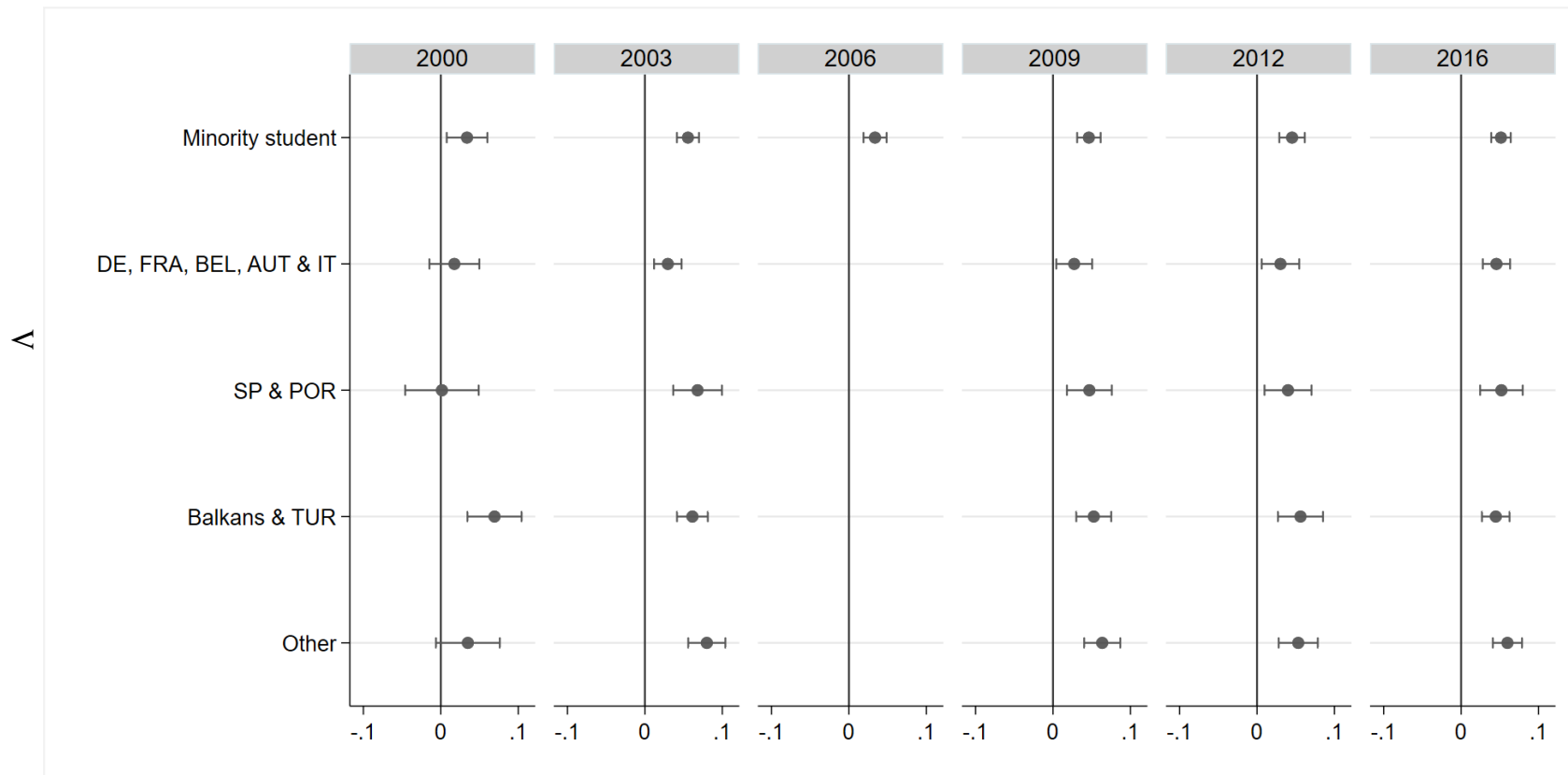


Figure S3: Ethnic choice effects (academic track vs. rest) over years, differentiated by minority groups (MID)

Note: GER = Germany, FRA = France, AUT = Austria, BEL = Belgium, IT = Italy, SP = Spain, POR = Portugal, TUR = Turkey. Source: PISA2000-PISA2012, ÜGK2016; estimates based on 50 multiple imputed data sets; my own calculations.

