Who Benefits from Guidance Counseling? Insights into Native and Immigrant Students of Low Social Origin

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APPENDIX

A: Information on the RCT

Tab. A1: Distribution of predictors of university enrollment between experimental conditions

	Treatment	Control	Diff.
Academic achievement	0.04	-0.04	0.09
N	625	634	
Intention to enroll in university	0.01	-0.01	0.02
N	646	658	

Operationalization: academic achievement as GPA of seven school subjects; intention to enroll in university on a five-point Likert scale; z-standardized values (wave 1).

Tab. A2: Distribution of immigrant status across experimental conditions

	Treatment	Control
Natives	44 (153)	42 (147)
Immigrants	56 (195)	58 (202)
Overall	100 (348)	100 (349)
Missing information	(4)	(2)

Information on persons of low social origin (wave 1); percentages with raw numbers in parentheses.

Tab. A3: Compliance with random assignment by immigrant status

	in percent					
	Natives			**Immigrants**		
Random	*Treatment received*			*Treatment received*		
assignment	no	yes	total	no	yes	total
Treatment	22	78	100	15	85	100
Control	85	15	100	80	20	100
Total	52	48	100	48	52	100

	in numbers					
	Natives			**Immigrants**		
Random	*Treatment received*			*Treatment received*		
assignment	no	yes	total	no	yes	total
Treatment	27	96	123	24	134	158
Control	99	18	117	129	32	161
Total	126	114	240	153	166	319

Information on persons of low social origin (wave 4).

Tab. A4: Panel attrition between experimental conditions on predictors of enrollment

	All respondents					
	No participation in wave 4			**Participation in wave 4**		
	Treatment	Control	Diff.	Treatment	Control	Diff.
Academic achievement	-0,07	-0.22	0.15	0.07	0.00	0.07
N	125	125		500	509	
Intention to enroll in university	-0.14	-0.15	0.01	0.05	0.03	0.02
N	134	133		512	525	
	Immigrants of low social origin					
	No participation in wave 4			**Participation in wave 4**		
	Treatment	Control	Diff.	Treatment	Control	Diff.
Academic achievement	0.03	-0.35	0.38	0.08	-0.22	0.30
N	36	38		147	155	
Intention to enroll in university	0.05	-0.05	0.10	0.20	0.06	0.14
N	34	38		152	160	
	Natives of low social origin					
	No participation in wave 4			**Participation in wave 4**		
	Treatment	Control	Diff.	Treatment	Control	Diff.
Academic achievement	-0.14	0.08	-0.22	0.20	0.12	0.08
N	29	30		119	112	
Intention to enroll in university	-0.44	-0.12	-0.32	-0.03	-0.13	0.10
N	30	29		120	117	

Operationalization: academic achievement as GPA of seven school subjects; intention to enroll in university on a five-point Likert scale; z-standardized values; both variables measured in wave 1.

Tab. A5: Distribution of predictors of enrollment between experimental conditions by immigrant status

	Natives			**Immigrants**		
	Treatment	Control	Diff.	Treatment	Control	Diff.
Academic achievement	0.14	0.11	0.02	0.07	-0.24	0.31
N	148	142		183	193	
Intention to enroll in university	-0.11	-0.13	0.02	0.17	0.04	0.13
N	150	146		186	198	

Persons of low social origin; operationalization: academic achievement as GPA of seven school subjects; intention to enroll in university measured on a five-point Likert scale; z-standardized values; both variables measured in wave 1.

Tab. A6: Distribution of generation status and country of origin

Natives	43 (240)	Natives	43 (240)
1. Generation	4 (23)	Turkey	19 (106)
2. Generation	45 (253)	Poland	9 (49)
3. Generation	8 (43)	Former Soviet Union	5 (26)
		Residual Category	25 (138)
Overall	100 (559)		100 (559)

Persons of low social origin (analytical sample); percentages with raw numbers in parentheses.

B: Detailed values for main results

Table B1: *LATE* of the counseling program, for all persons of low social origin

	b
Program participation (Reference: no participation)	0.129 ** (0.064)
Constant	0.538 *** (0.038)
Observations	563
Adj. R^2	0.023

Results of an IV regression with enrollment at wave 4 being the outcome; random assignment to experimental conditions serves as an instrument for program participation; SD in parentheses; model with robust standard errors; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (two-tailed).

Table B2: *LATE* of the counseling program, effect heterogeneity measured by an interaction between participation and immigrant status

	b
Program participation (Reference: no participation)	0.219** (0.099)
Immigrant status (Reference: natives)	0.089 (0.077)
Interaction term (Program participation/immigrant status)	-0.153 (0.130)
Constant	0.488 (0.057)
Observations	559
Adj. R^2	0.022

Results of an IV regression with enrollment at wave 4 being the outcome; random assignment to experimental conditions and the interaction between immigrant status and assignment to experimental conditions serve as instruments for program participation and the interaction between immigrant status and program participation; SD in parentheses; model with robust standard errors; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (two-tailed).

Tab. B3: Immigration-specific differences on rational choice parameters at baseline measurement

	Motive for upward mobility	Costs	Success probability	
Immigrant status	0.426 ***	- 0.037	0.001	0.067
(Reference: natives)	(0.088)	(0.086)	(0.091)	(0.086)
Academic performance				0.172 ***
				(0.021)
Constant	-0.362 *	0.527 ***	- 0.115	-1.776 ***
	(0.201)	(0.196)	(0.293)	(0.357)
Observations	548	553	555	530
Adj. R^2	0.073	- 0.003	0.032	0.162

Results of linear regressions with rational choice parameters measured at wave 1 being the outcome; operationalization: all outcomes measured on a five-point Likert scale, z-standardized values; model with school fixed effects and robust standard errors; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (two-tailed).

C: Robustness checks

Tab. C1: *LATE* of the counseling program, effect heterogeneity measured by an interaction between participation and immigrant status, *controlling for academic performance*

	b
Program participation (Reference: no participation)	0.198** (0.096)
Immigrant status (Reference: natives)	0.179** (0.072)
Interaction term (Program participation/immigrant status)	-0.220* (0.123)
Academic performance at baseline	0.182*** (0.018)
Constant	0.463*** (0.054)
Observations	533
Adj. R^2	0.146

Results of an IV regression with enrollment at wave 4 being the outcome; random assignment to experimental conditions and the interaction between immigrant status and assignment to experimental conditions serve as instruments for program participation and the interaction between immigrant status and program participation; academic performance at baseline measured as GPA of seven school subjects ranging from 15 (very good) to 0, z-standardized values; SD in parentheses; model with robust standard errors; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (two-tailed).

Tab. C2: ITT analyses of the impact of the counseling program, effect heterogeneity measured by an interaction between assignment to experimental conditions and immigrant status

	b	b
Program participation (Reference: no participation)	0.137** (0.063)	0.122** (0.060)
Immigrant status (Reference: natives)	0.069 (0.061)	0.147** (0.057)
Interaction term (Program participation/immigrant status)	-0.094 (0.084)	-0.139* (0.079)
Academic performance at baseline		0.188*** (0.018)
Constant	0.521*** (0.046)	0.492*** (0.044)
Observations	559	533
Adj. R^2	0.005	0.148

Results of ITT analyses with enrollment at wave 4 being the outcome; academic performance at baseline measured as GPA of seven school subjects ranging from 15 (very good) to 0, z-standardized values; SD in parentheses; model with robust standard errors; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (two-tailed).

Tab. C3: *LATE* of the counseling program, effect heterogeneity measured by an interaction between participation and immigrant status, *with school fixed effects*

	b	b
Program participation (Reference: no participation)	0.193 ** (0.096)	0.196 ** (0.093)
Immigrant status (Reference: natives)	0.096 (0.075)	0.182 ** (0.071)
Interaction term (Program participation/immigrant status)	-0.118 (0.127)	-0.201 * (0.122)
Academic performance at baseline		0.081 *** (0.009)
Constant	0.613 *** (0.112)	-0.171 (0.133)
Observations	559	533
Adj. R^2	0.049	0.165

Results of IV regressions with enrollment at wave 4 being the outcome; random assignment to experimental conditions and the interaction between immigrant status and assignment to experimental conditions serve as instruments for program participation and the interaction between immigrant status and program participation; academic performance at baseline measured as GPA of seven school subjects ranging from 15 (very good) to 0, z-standardized values; SD in parentheses; model with robust standard errors and school fixed effects; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (two-tailed).

Table C4: *LATE* of the counseling program, effect heterogeneity measured by an interaction between participation and immigrant status, *different specification of immigrant status*

	b
Program participation (Reference: no participation)	0.219** (0.099)
Immigrant status (Reference: natives)	0.089 (0.082)
Interaction term (Program participation/immigrant status)	-0.132 (0.136)
Constant	0.488 (0.057)
Observations	516
Adj. R^2	0.024

Results of an IV regression with enrollment at wave 4 being the outcome; random assignment to experimental conditions and the interaction between immigrant status and assignment to experimental conditions serve as instruments for program participation and the interaction between immigrant status and program participation; in specifying immigrant status, immigrant individuals of the third generation are excluded of the analysis; SD in parentheses; model with robust standard errors; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ (two-tailed).