

# The Same Social Elevator? Intergenerational Class Mobility of Second- Generation Migrants across Europe

## Supplementary Materials

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**Supplementary Table S1: Overview of Countries and Waves**

	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8	Wave 9	Obs.	Obs. Native	Obs. Second Gen	Share Second Gen.
<b>AT</b>	1338	1435	0	0	0	1064	1235	1416	6488	6067	421	.065
<b>BE</b>	989	990	953	936	994	952	939	888	7641	7350	291	.038
<b>BG</b>	0	665	1193	1238	1189	0	0	971	5256	5175	81	.015
<b>CH</b>	1027	852	782	698	679	648	644	599	5929	5606	323	.054
<b>CZ</b>	1671	0	1390	1581	1154	1290	1569	1486	10141	9650	491	.048
<b>DE</b>	1691	1672	1588	1746	1756	1785	1666	1305	13209	12244	965	.073
<b>DK</b>	1027	982	1012	1010	1021	950	0	924	6926	6837	89	.013
<b>EE</b>	1010	704	783	990	1250	1099	1187	1079	8102	6040	2062	.255
<b>ES</b>	850	1105	1422	1101	1009	1097	1094	902	8580	8494	86	.01
<b>FI</b>	1385	1287	1537	1240	1443	1330	1222	1095	10539	10489	50	.005
<b>FR</b>	0	1181	1205	998	1057	1021	1071	1004	7537	6953	584	.077
<b>GB</b>	1032	1282	1322	1281	1114	1069	907	1100	9107	8852	255	.028
<b>GR</b>	1194	0	1190	1300	0	0	0	0	3684	3542	142	.039
<b>HR</b>	0	0	565	717	0	0	0	891	2173	1932	241	.111
<b>HU</b>	908	876	905	985	1204	985	848	927	7638	7466	172	.023
<b>IE</b>	1000	801	927	1199	1369	1174	1280	962	8712	8688	24	.003
<b>IT</b>	0	0	0	0	504	0	1242	1205	2951	2907	44	.015
<b>LT</b>	0	0	0	715	1126	1143	1114	973	5071	4781	290	.057
<b>LV</b>	0	0	1012	0	0	0	0	458	1470	1210	260	.177
<b>NL</b>	1111	1135	1056	1090	1065	1098	982	969	8506	8240	266	.031
<b>NO</b>	1205	1171	1037	984	1004	848	904	830	7983	7915	68	.009
<b>PL</b>	1117	1111	1075	1145	1255	1046	1118	907	8774	8651	123	.014
<b>PT</b>	966	1136	1104	1046	1148	629	704	567	7300	7134	166	.023
<b>SE</b>	1181	1119	1071	836	1016	979	840	752	7794	7514	280	.036
<b>SI</b>	578	690	637	716	625	604	713	701	5264	4734	530	.101
<b>SK</b>	863	1011	1081	1111	1184	0	0	603	5853	5635	218	.037
<b>Total</b>	22143	21205	24847	24663	24166	20811	21279	23514	182628	174106	8522	.049

## Supplementary Table S2: Descriptive Statistics

Variables	Mean/ Proportion	Obs.
<b>Destination Class</b>		
Salariat	34.42	62860
Middle Class	25.00	45665
Working Class	40.58	74103
<b>Origin Class</b>		
Salariat	18.00	32866
Middle Class	29.58	54013
Working Class	52.43	95749
<b>Unemployed</b>		
Yes	93.65	171034
No	6.35	11594
<b>Migration Background</b>		
No Migration Background	95.33	174106
Eastern Europe	3.38	6170
MENA Region	1.07	1949
South America	0.22	403
<b>Gender</b>		
Male	48.08	87801
Female	51.92	94827
<b>Age</b>		
	43.66	182628
<b>Domicile</b>		
A big City	19.73	36032
Suburbs or Outskirts of Big City	11.19	20445
Town or Small City	31.20	56972
Country Village	31.01	56639
Farm or Home in Countryside	6.87	12540

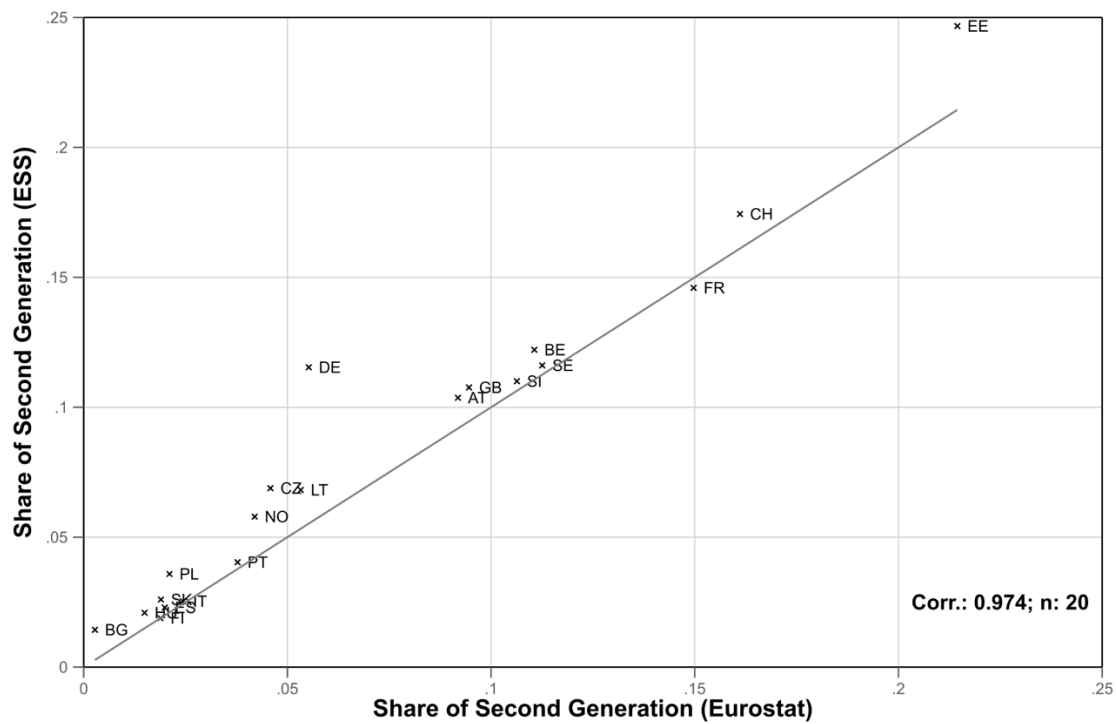
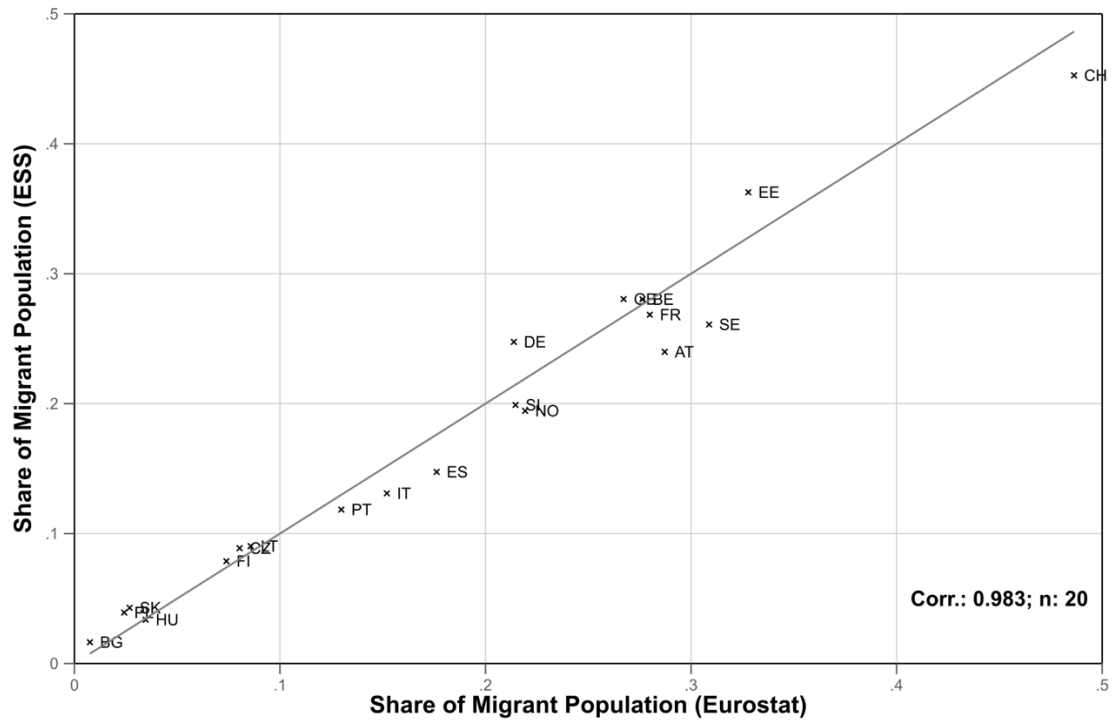
**Supplementary Table S3: Share of Migrants and Second-Generation Migrants by Country**

	<b>Migrants Share ESS (2012-2016)</b>	<b>Migrants Share Eurostat (2014)</b>	<b>Migrants Share Eurostat (2021)</b>	<b>Second Gen. Share ESS (2012-2016)</b>	<b>Second Gen. Share Eurostat (2014)</b>	<b>Second Gen. Share Eurostat (2021)</b>
<b>AT</b>	23.99	28.72	34.41	10.37	9.19	24.07
<b>BE</b>	28.03	27.64	34.16	12.21	11.06	20.91
<b>BG</b>	1.64	.75	0.53	1.43	.28	.34
<b>CH</b>	45.27	48.63	54.01	17.44	16.11	35.16
<b>CZ</b>	8.87	8.04	8.76	6.89	4.58	4.54
<b>DE</b>	24.75	21.38	34.21	11.54	5.52	21.14
<b>DK</b>	14.16	.	15.09	5.73	.	11.96
<b>EE</b>	36.27	32.79	30.75	24.67	21.45	10.77
<b>ES</b>	14.74	17.62	21.75	2.29	1.99	18.75
<b>FI</b>	7.87	7.39	13.69	1.88	1.88	10.9
<b>FR</b>	26.84	27.99	28.58	14.59	14.97	14.59
<b>GB</b>	28.04	26.72	.	10.76	9.46	.
<b>HU</b>	3.37	3.47	4.53	2.09	1.49	2.99
<b>IE</b>	23.05	.	32.68	5.7	.	26.38
<b>IT</b>	13.09	15.2	16.85	2.53	2.43	13.76
<b>LT</b>	9.03	8.57	8.06	6.82	5.33	4.18
<b>NL</b>	18.89	.	27.75	8.95	.	16.18
<b>NO</b>	19.45	21.93	28.14	5.79	4.2	21.47
<b>PL</b>	3.92	2.42	1.86	3.58	2.11	.51
<b>PT</b>	11.85	12.98	14.24	4.04	3.78	8.7
<b>SE</b>	26.09	30.88	36.58	11.61	11.25	25.26
<b>SI</b>	19.9	21.46	26.81	11	10.63	10.07
<b>SK</b>	4.29	2.69	2.37	2.6	1.89	1.05

Migrant share and second-generation share in the ESS are calculated as a weighted average across waves 6-8 (2012-2016) for all ethnic groups. Migrant share in Eurostat is taken from the aggregate statistics provided by Eurostat and based on the European Union Labour Force Survey ad-hoc Modules 2014 and 2021. Supplementary Figure 1 shows the association between the ESS measures and the Eurostat measures for 2014. The correlations are quite high with 0.983 for all migrants and 0.974 for second-generation immigrants.

## Supplementary Figure S1: Association of Measures from ESS and Eurostat

Supplementary Figure S1 shows the association of measures from ESS and Eurostat for share of migrants (upper panel) and second-generation migrants (lower panel).



**Supplementary Table S4: Marginal Distributions for Natives and Second Generation**

AT	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	15.5	35	14.2	25.9
Middle Class	38	25.2	21.7	21.2
Working Class	46.5	39.8	64.2	53
Net Difference Index		16.2		13.8

BE	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	20.3	40.1	13.4	24.4
Middle Class	34.2	25.9	27.9	28.1
Working Class	45.5	34	58.7	47.6
Net Difference Index		20		14.2

BG	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	21.7	27.8	23.8	25.8
Middle Class	25.7	16.4	15.2	18.6
Working Class	52.6	55.8	61	55.6
Net Difference Index		0.4		4.8

CH	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	20.4	43.2	24	38.5
Middle Class	30.3	29.9	23.7	26.8
Working Class	49.3	26.9	52.3	34.8
Net Difference Index		29.5		20.3

CZ	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	18.3	28.6	17.7	30.7
Middle Class	32.4	24	20.1	21.2
Working Class	49.4	47.4	62.2	48.1
Net Difference Index		6.8		16.6

DE	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	16.7	37.7	14.1	30.9
Middle Class	37	30.4	26.2	30.4
Working Class	46.3	31.9	59.7	38.7
Net Difference Index		23.3		24.8

DK	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	23.3	33.6	20.8	33.8
Middle Class	34.3	26.9	33.1	22.1
Working Class	42.4	39.5	46	44.1
Net Difference Index		8.2		8.5

EE	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	27.5	36.9	26.6	28.2
Middle Class	28.7	20.2	19.3	18.5
Working Class	43.8	42.9	54.1	53.3
Net Difference Index		5.9		1.4

ES	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	12	29.3	20.3	24.5
Middle Class	27.8	29.1	35.6	20.2
Working Class	60.1	41.6	44.1	55.3
Net Difference Index		23.2		-6.6

FI	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	15.8	34.1	22.4	27.1
Middle Class	32.1	20.7	31.1	21.6
Working Class	52.1	45.3	46.4	51.3
Net Difference Index		14.6		-1.2

FR	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	18.1	33.6	18.4	31.3
Middle Class	38.7	29.7	30.3	27.4
Working Class	43.2	36.6	51.3	41.3
Net Difference Index		14.2		14.4

GB	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	25.2	36.8	35.5	37
Middle Class	30	29.1	22.3	29.3
Working Class	44.9	34.1	42.2	33.7
Net Difference Index		14.4		6.4

GR	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	7.6	18.6	6.7	13.6
Middle Class	24.2	34	14.4	30.2
Working Class	68.2	47.4	78.9	56.3
Net Difference Index		22.8		22.5

HR	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	13.1	24	22.4	26.6
Middle Class	29.3	25.1	32	28.4
Working Class	57.7	50.8	45.5	45.1
Net Difference Index		10.6		2.6

HU	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	9.6	24.7	16.2	33.9
Middle Class	21.1	19.3	18.7	11.9
Working Class	69.3	56	65.1	54.3
Net Difference Index		16.6		15.3

IE	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	15.8	34.4	54.8	47.1
Middle Class	21	23.9	21.1	26.4
Working Class	63.2	41.7	24.1	26.6
Net Difference Index		25		-7

IT	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	9.7	27.8	5.6	12.3
Middle Class	29.7	30.9	34.7	12.4
Working Class	60.5	41.3	59.7	75.3
Net Difference Index		24.5		-12.1

LT	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	15.2	25.8	21.1	25.2
Middle Class	24.6	15.6	17.5	14.7
Working Class	60.3	58.5	61.3	60.1
Net Difference Index		5.7		2.5

LV	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	21.6	25.7	24.1	26.1
Middle Class	26.1	19.5	22.4	19.9
Working Class	52.3	54.8	53.5	54
Net Difference Index		0		0.6

NL	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	22.9	44.8	18	37.5
Middle Class	34.8	29.2	36.2	30.9
Working Class	42.3	26	45.8	31.6
Net Difference Index		25.1		22.2



NO	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	26.2	38.4	31.1	19.4
Middle Class	32.6	26.4	39.5	16.3
Working Class	41.2	35.2	29.4	64.3
Net Difference Index		11.6		-32.4

PL	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	11.3	29.7	10.4	25.6
Middle Class	21.2	17.6	15.5	15.6
Working Class	67.5	52.7	74.1	58.8
Net Difference Index		19.1		17.7

PT	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	5.5	19.5	20.4	26
Middle Class	22.7	24	27.8	18.8
Working Class	71.8	56.5	51.9	55.1
Net Difference Index		18.4		0.1

SE	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	27.7	39.5	24.7	30.3
Middle Class	35.8	24.9	36.2	26.1
Working Class	36.6	35.6	39.1	43.6
Net Difference Index		8.1		-0.1

SI	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	17.3	34.6	19.5	33.4
Middle Class	27.5	30.3	23.3	31.7
Working Class	55.2	35.1	57.2	34.9
Net Difference Index		24.3		23.9

SK	Majority		Second Gen.	
	Origin	Destination	Origin	Destination
Salariat	15.6	28.3	17	27.7
Middle Class	27.2	23.8	24.9	27.1
Working Class	57.2	48	58.1	45.2
Net Difference Index		13.2		15.2

## Supplementary Table S5: Educational Attainment in ESS and Eurostat

In Supplementary Table S5, I tabulate educational attainment among natives and second-generation migrants, once as derived from the ESS and once from the Labour Force Survey (Eurostat). In the ESS, I sorted respondents according to their educational attainment based on the ES-ISCED (Levels 0-2: Low; Levels 3-4: Mid; Level 5: High). I calculated weighted percentages for the working-age population from waves 6 to 8 (2012-2016). The percentages for migrants correspond to second-generation immigrants from all ethnic background (not only those from unprivileged backgrounds). The percentages in the column Eurostat are based on the aggregate data provided by Eurostat with the online data code LFSO\_14BEDU and are based on the EU-LFS ad-hoc module 2014. Therein, educational attainment is equivalently classified according to ISCED levels. Comparing the percentage of migrants with low education in the ESS (e.g., 30 percent in AT) with those in Eurostat (e.g., 26 percent in AT) demonstrates that ESS did not systematically underrepresent low educated migrants as compared to Eurostat.

AT	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	24	23	27	24
Mid	59	47	56	50
Low	17	30	17	26
Obs.	2250	282		

BE	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	30	17	35	25
Mid	42	43	39	40
Low	28	40	25	35
Obs.	3114	506		

CH	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	20	19	32	29
Mid	65	56	55	48
Low	15	25	12	23
Obs.	1961	632		

CZ	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	15	20	19	15
Mid	72	66	68	64
Low	13	13	12	22
Obs.	4408	299		

DE	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	17	14	25	14
Mid	67	60	61	48
Low	16	26	14	38
Obs.	5245	695		

EE	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	31	28	31	32
Mid	52	61	49	53
Low	17	11	20	15
Obs.	2819	1168		

ES	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	27	17	34	27
Mid	28	27	22	27
Low	45	56	44	46
Obs.	3764	108		

FI	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	25	12	35	22
Mid	55	41	46	42
Low	19	47	19	36
Obs.	4230	93		

FR	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	17	16	30	32
Mid	58	61	46	43
Low	25	23	23	24
Obs.	3189	597		

GB	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	24	35	32	38
Mid	47	40	42	40
Low	29	25	24	20
Obs.	3306	441		

HU	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	19	29	20	21
Mid	62	59	58	51
Low	19	11	22	27
Obs.	3648	74		

IT	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	15	16	16	16
Mid	44	45	43	44
Low	41	38	42	40
Obs.	2347	75		

LT	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	25	30	30	33
Mid	59	58	54	54
Low	16	12	16	13
Obs.	4022	258		

NO	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	30	28	37	40
Mid	48	42	42	35
Low	22	31	21	25
Obs.	2964	186		

PL	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	23	17	23	22
Mid	37	37	61	68
Low	40	45	16	10
Obs.	3929	124		

PT	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	18	24	18	24
Mid	25	30	22	30
Low	58	46	59	45
Obs.	2804	124		

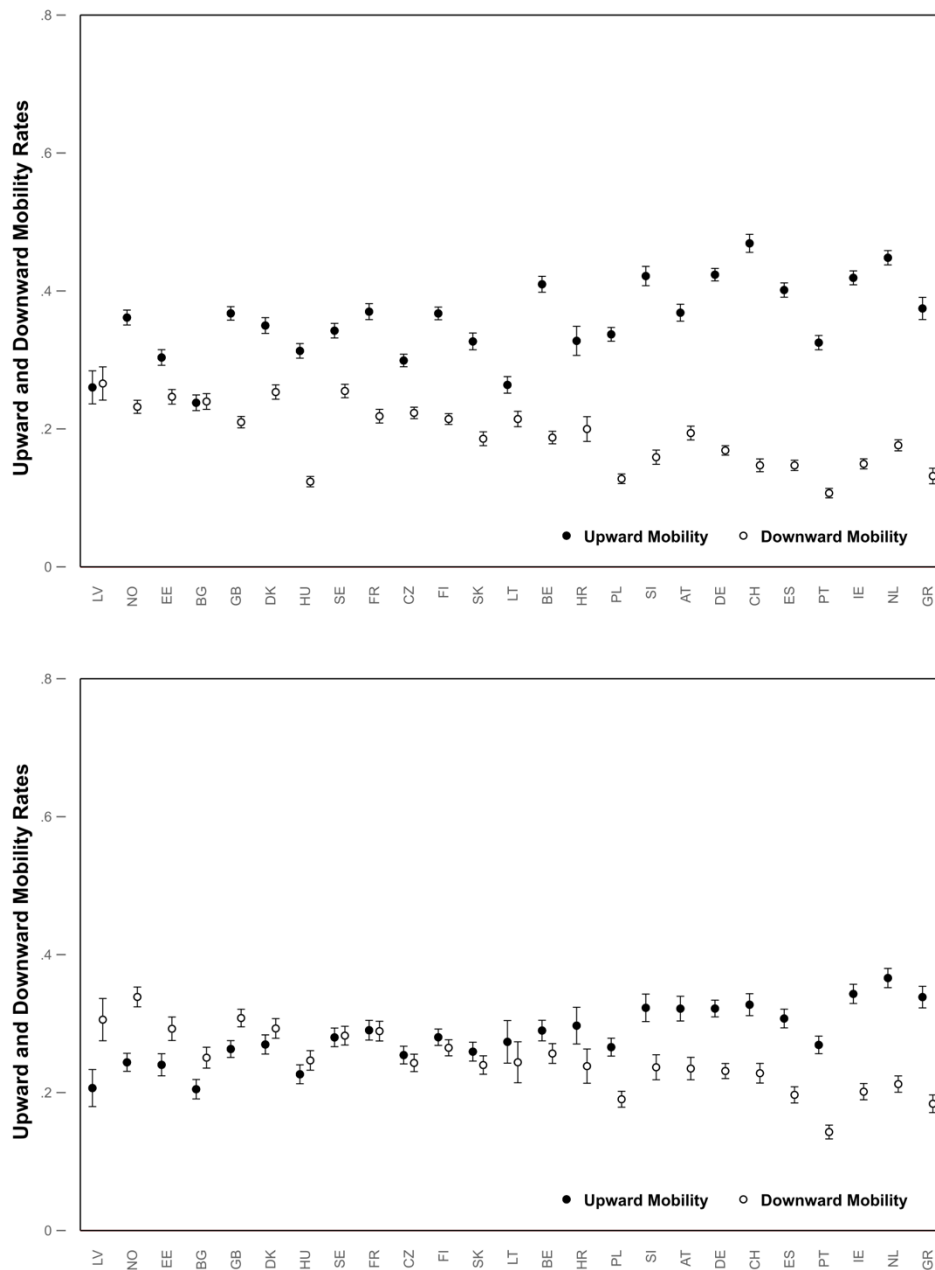
SE	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	24	19	33	28
Mid	58	54	49	46
Low	18	28	16	22
Obs.	2832	466		

SI	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	20	19	27	28
Mid	62	63	55	56
Low	18	18	18	16
Obs.	2329	279		

SK	ESS		Eurostat	
	Native	Migrant	Native	Migrant
High	16	16	18	20
Mid	70	71	67	68
Low	14	12	16	12
Obs.	1309	31		

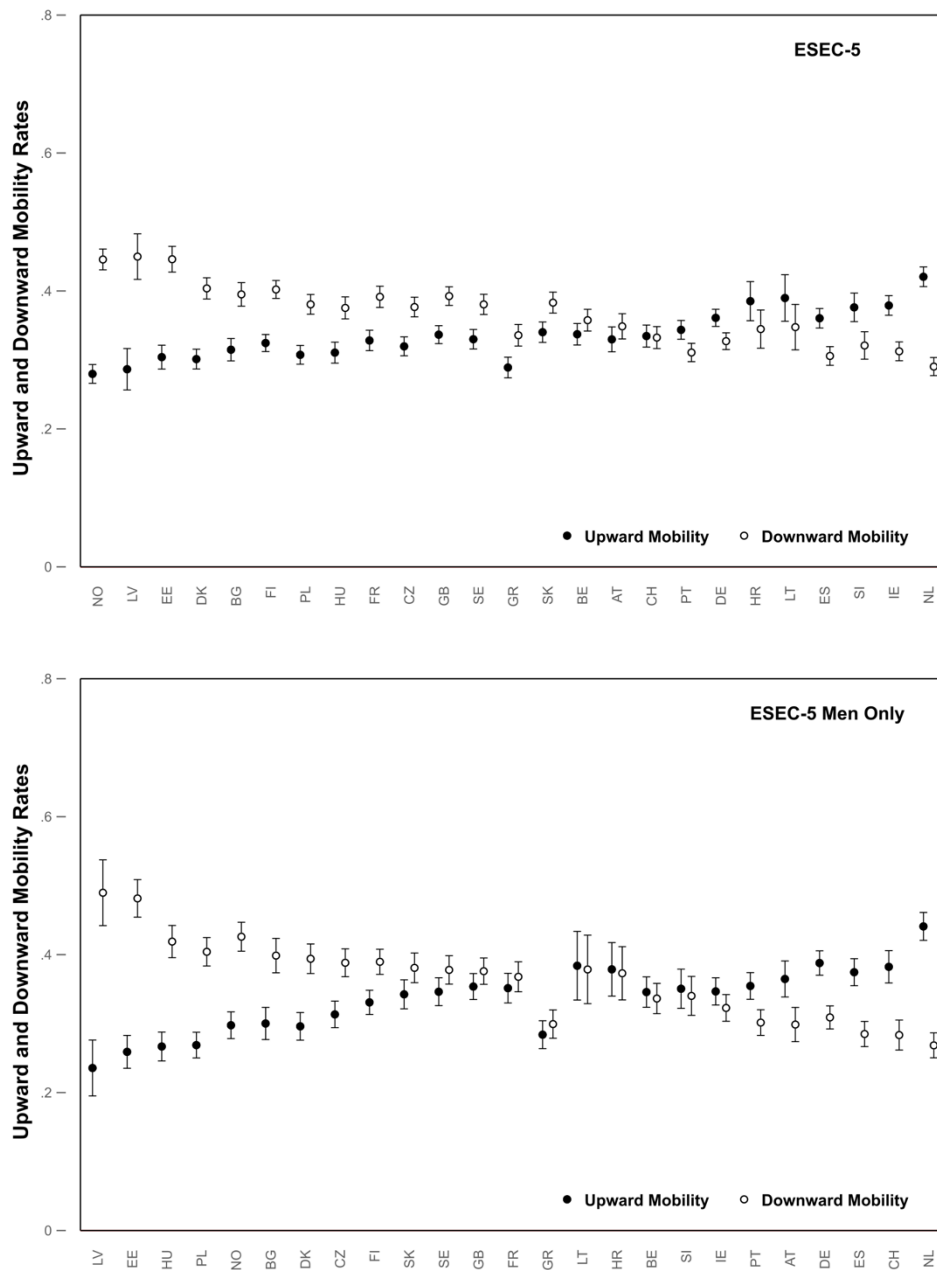
## Supplementary Figure S2: Rates of Upwards and Downwards Mobility I

Supplementary Figure S2 shows patterns of upwards and downward mobility across countries. In the upper panel mobility rates are calculated using the three-class ESeC for destination and the three-class indicator provided by the ESS for origin. In the lower panel, three-class ESeC is used for destination and origin class in a smaller set of waves.



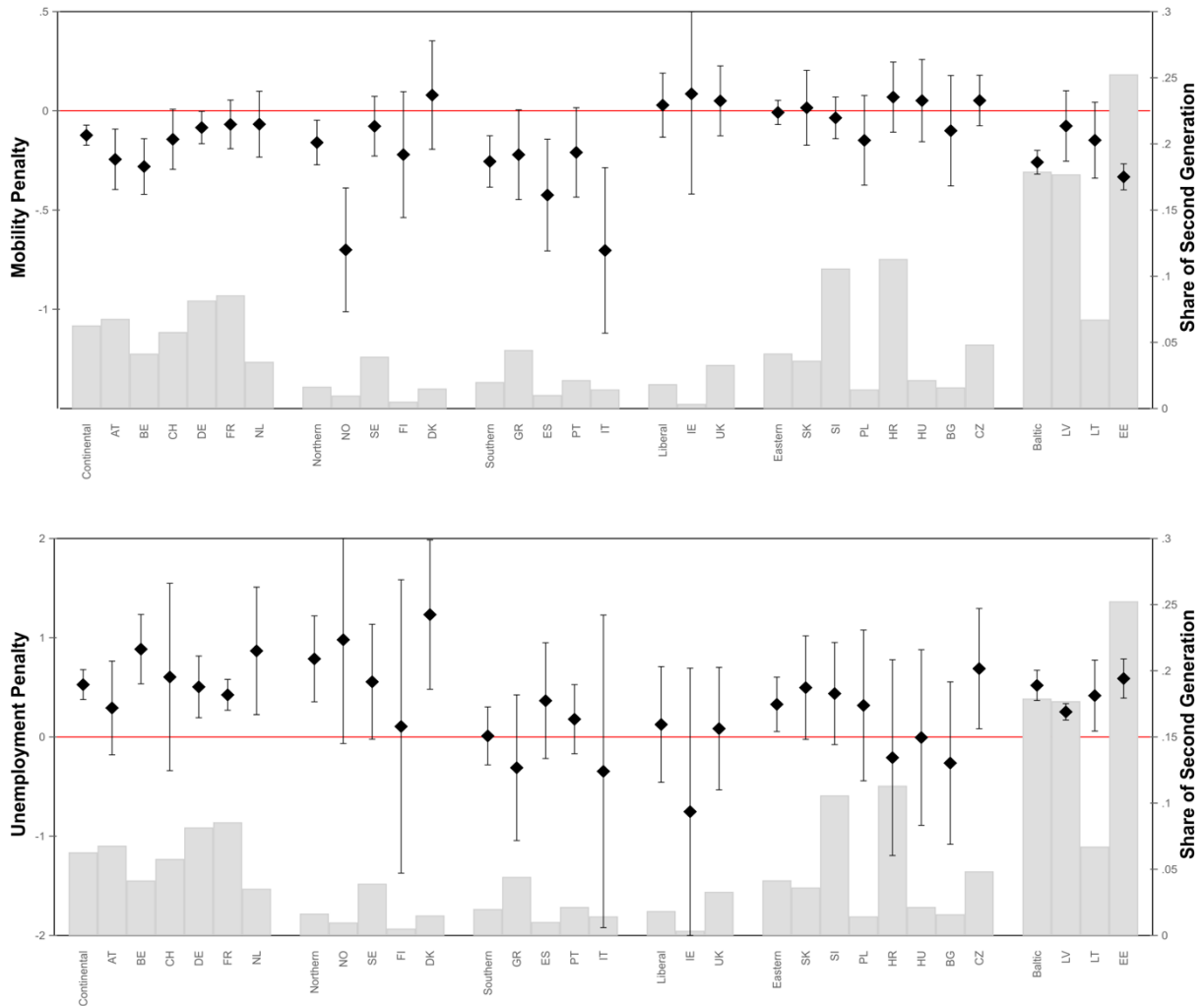
## Supplementary Figure S3: Rates of Upwards and Downwards Mobility II

Supplementary Figure S3 (upper panel) uses the five-class ESeC and shows patterns for men and women combined. Finally, the lower panel presents the five-class ESeC scheme for men only and closely relates to past work by Bukodi et al. (2020, p. 949).



## Supplementary Figure S4: Ethnic Penalties by Country

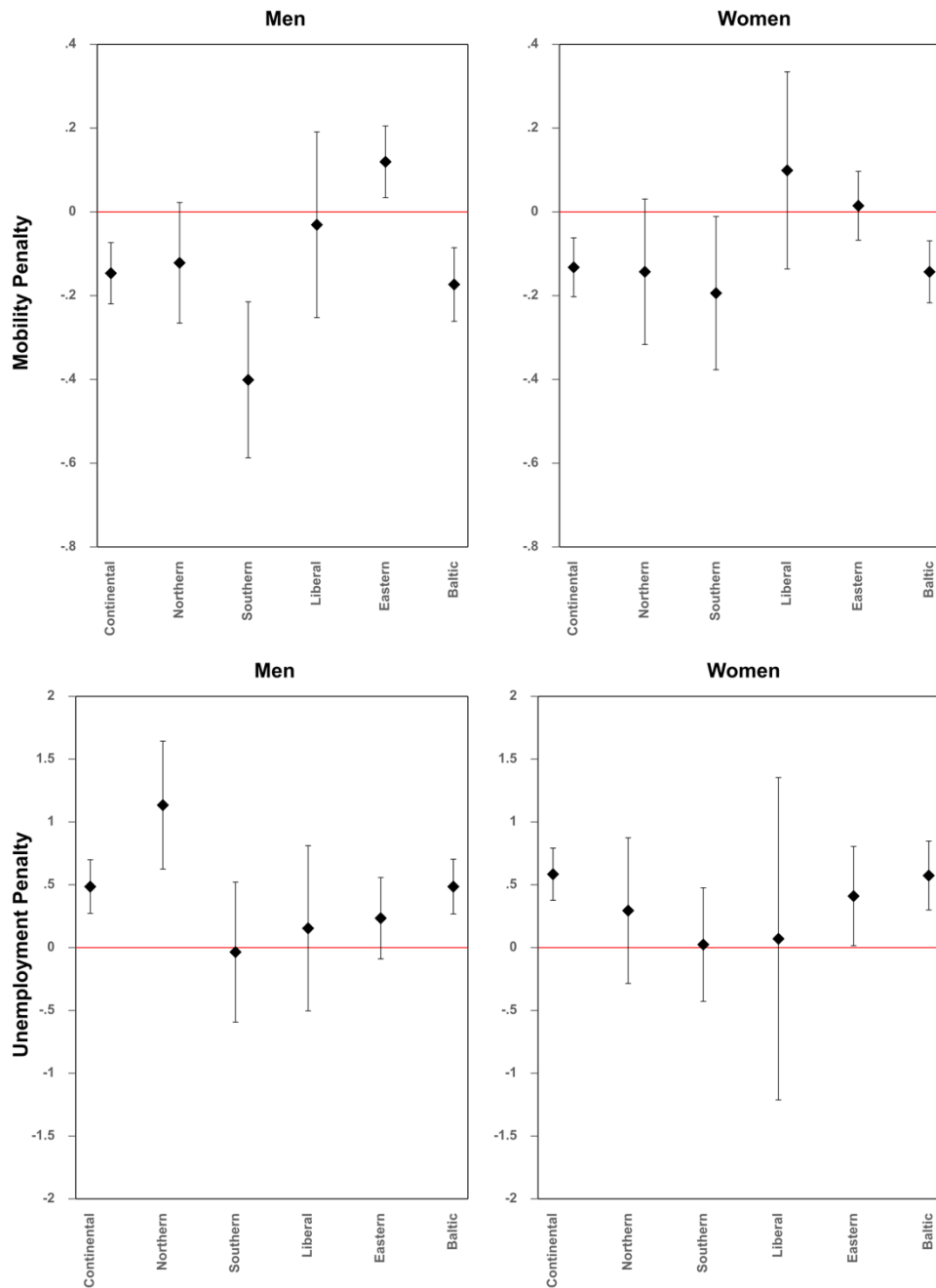
Supplementary Figure S4 reports ethnic penalties for mobility (upper panel) and unemployment (lower panel) by country. In doing so, the figure complements the main analysis and shows that, next to variation across country clusters, there is also variation within country clusters.





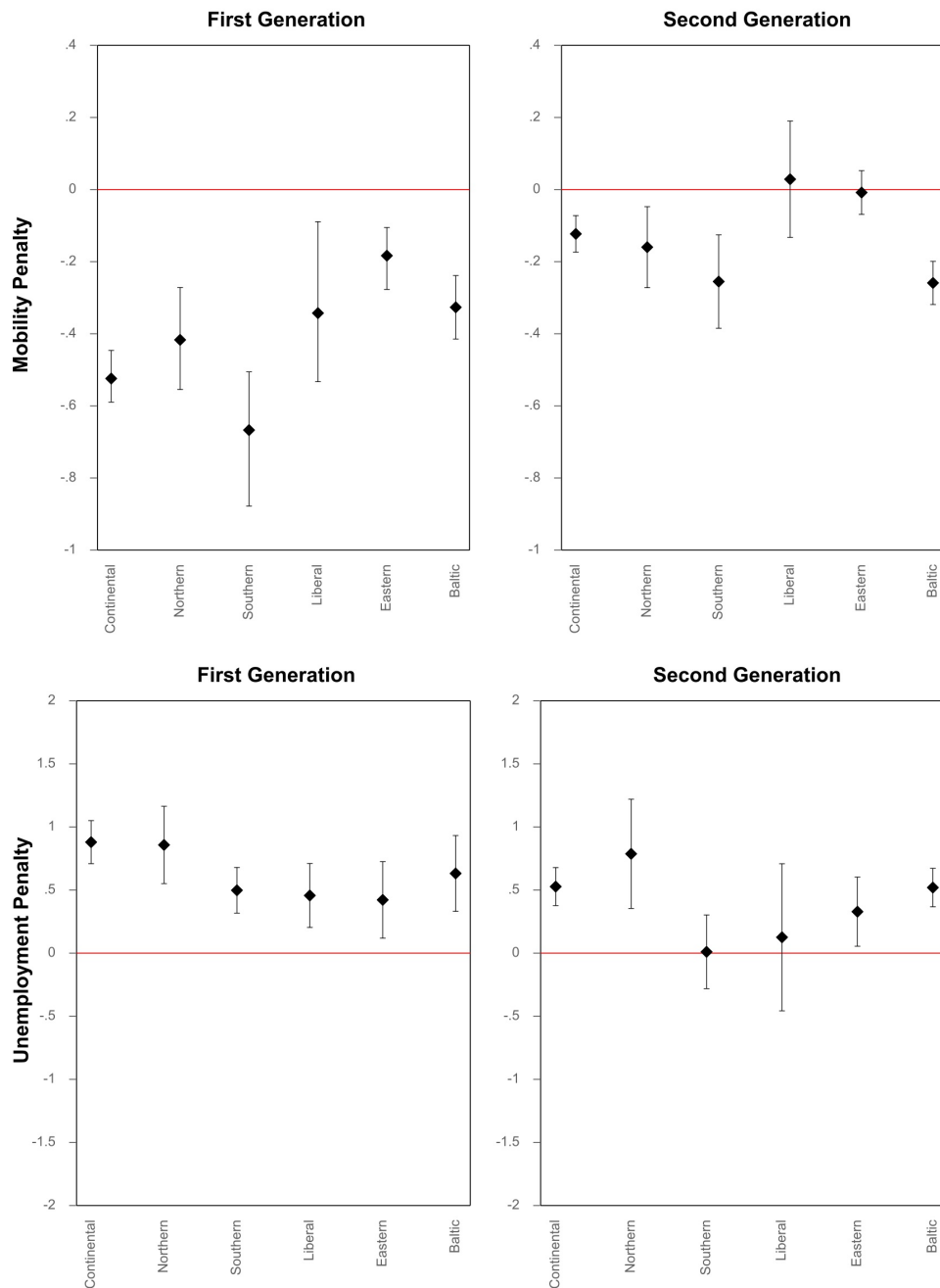
## Supplementary Figure S5: Ethnic Penalties by Gender

Supplementary Figure S5 shows ethnic penalties for intergenerational mobility and unemployment for men (left) and women (right). The overall patterns for men and women are quite similar with subtle differences with regard to statistical significance that can be attributed to the reduced sample size when analyzing the effects separately.



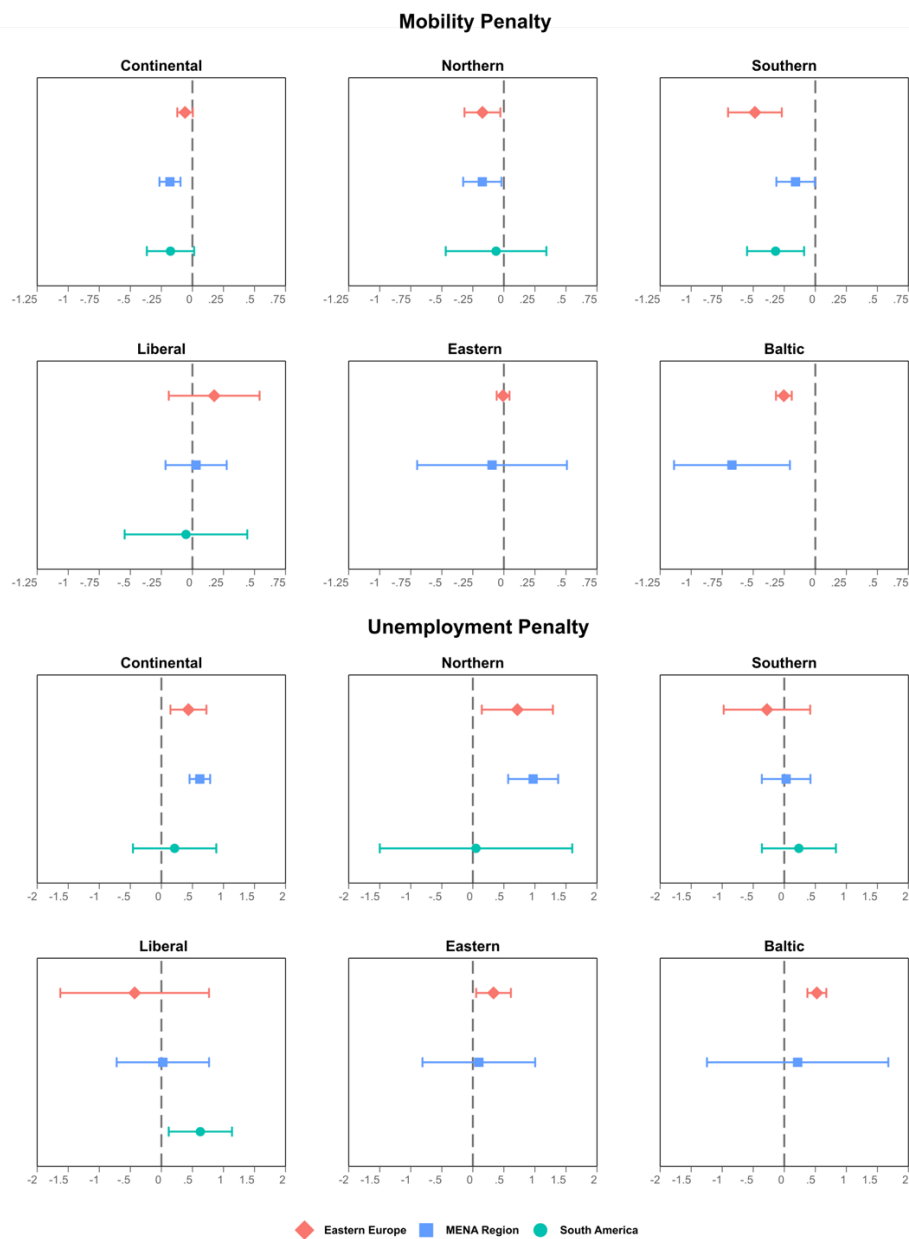
## Supplementary Figure S6: Ethnic Penalties by Migrant Generation

Supplementary Figure 6 shows ethnic penalties for intergenerational mobility and unemployment for first-generation migrants (left) and second-generation migrants (right). Mobility penalties reduce drastically across generations for all country groups. For unemployment, ethnic cleavages reduce only in some host countries (like the Southern and Liberal country clusters), whereas the assimilation process is slower in others (like the Continental, Northern, and Baltic country clusters).



## Supplementary Figure S7: Origin-Destination Interactions for Ethnic Penalties

Supplementary Figure S7 shows penalties for three major ethnic groups (Eastern European, MENA region, South America) in the six country clusters. Second-generation immigrants from Southern American countries are not reported for Eastern and Baltic host countries due to their low number. In general, penalties for the three ethnic groups follow a similar pattern, even though it seems that, overall, Southern American migrants are less disadvantaged and there remain subtle differences for origin groups across destination countries.



## Supplementary Table S6: Country-Level Indicators I

Supplementary Table S6 shows macro-level indicators for each country. Specifically, it provides an overview of the language proficiency of first-generation migrants in 2014 and 2021, as well as the share of refugees and the share of migrants in 2014. The correlation of language proficiency across the two waves of data collection is relatively strong (corr: 0.954; n=26), suggesting that language proficiency varies more strongly across countries than across time. Entries correspond to percentages of the (first-generation) migrant population. Dots indicate missing values. All values are taken from the European Union Labour Force Survey ad-hoc modules 2014 and 2021.

	Language Proficiency 2014	Language Proficiency 2021	Share of Refugees 2014	Share of Econ. Migrants 2014
AT	63.2	53.73	9.90	31.65
BE	63.2	59.73	9.50	26.04
BG	70.32	.	.	.
CH	62.74	65.99	4.43	34.11
CZ	75.88	74.82	0.70	43.62
DE	58.39	56.01	8.75	26.44
DK	.	49.93	.	.
EE	21.2	17.6	.	17.06
ES	76.06	76.56	0.51	46.59
FI	57.23	44.8	8.53	22.5
FR	64.9	60.72	4.43	24.36
GB	67.65	.	4.59	44.52
GR	62.5	58.31	0.25	47.47
HR	97.17	97.65	14.93	21.01
HU	92.39	86.31	.	40.77
IE	.	80.88	.	.
IT	66.13	60.26	0.47	50.58
LT	56	63.81	.	.
LV	36.6	31.63	.	16.44
NL	.	46.49	.	.
NO	46.25	57.02	12.59	31.37
PL	73.79	72.77	.	39.47
PT	89.7	90.36	2.30	17.33
SE	65.05	61.28	20.59	14.92
SI	51	56.91	2.84	44.03
SK	.	83.9	.	.

## Supplementary Table S7: Country-Level Indicators II

Supplementary Table S7 shows macro-level indicators for each country. Specifically, it shows weighted averages of anti-immigrant attitudes for waves 4 to 6 in column 2 and for waves 7 to 9 in column 3. Values range from 0 to 10 with higher values indicating that anti-immigrant sentiments prevail more strongly in the population. In columns 4 to 7, I report weighted averages of the social integration measure, indicated by answers by the respondents to how often they socially meet with friends, relatives, or colleagues (from 1 to 7; 1 never; 7 every day; source: ESS).

	<b>Anti-Immigrant Attitudes (2008-2012)</b>	<b>Anti-Immigrant Attitudes (2014-2018)</b>	<b>Social Integration Majority Pop. (2008-2012)</b>	<b>Social Integration Migrants (2008-2012)</b>	<b>Social Integration Majority Pop. (2014-2018)</b>	<b>Social Integration Migrants (2014-2018)</b>
<b>AT</b>		5.33			5.07	5.09
<b>BE</b>	5.41	5.15	5.21	5.18	5.23	5.2
<b>BG</b>	4.59	5.92	4.99	4.79	5.08	4.34
<b>CH</b>	4.35	4.37	5.31	5.27	5.32	5.12
<b>CZ</b>	5.84	6.03	4.8	4.91	4.72	4.79
<b>DE</b>	4.75	4.46	4.93	4.95	4.95	4.91
<b>DK</b>	4.48	4.74	5.52	5.56	5.5	5.55
<b>EE</b>	5.24	5.07	4.66	4.26	4.52	4.11
<b>ES</b>	4.93	4.62	5.42	5.07	5.31	4.89
<b>FI</b>	4.55	4.56	5.14	4.98	5.09	5.13
<b>FR</b>	5.39	5.17	5.28	5.17	5.29	5.1
<b>GB</b>	5.59	4.73	4.95	4.95	4.82	4.79
<b>GR</b>	7.04		4.17	3.87		
<b>HR</b>	5.48	5.2	5.54	5.51	5.59	5.69
<b>HU</b>	5.93	6.38	3.77	3.74	3.69	3.62
<b>IE</b>	5.22	4.39	4.75	4.64	4.71	4.52
<b>IT</b>	5.39	6	5.04	4.92	4.95	4.71
<b>LT</b>	4.97	4.77	4.38	4.2	4.32	4.03
<b>LV</b>	5.84	4.15	5.1	4.85	4.88	4.74
<b>NL</b>	4.78	4.82	5.54	5.39	5.6	5.39
<b>NO</b>	4.5	4.41	5.65	5.23	5.66	5.06
<b>PL</b>	4.18	4.58	4.37	4.08	4.2	3.66
<b>PT</b>	5.64	4.69	5.89	5.91	5.86	5.68
<b>SE</b>	4	3.9	5.6	5.59	5.65	5.51
<b>SI</b>	5.63	5.72	4.73	4.85	4.75	4.82
<b>SK</b>	5.62	5.9	4.85	4.69	4.77	5.28

### Supplementary Table S8: Country-Level Indicators III

Supplementary Table S8 shows macro-level indicators for each country. Specifically, it presents the score of each country on the aggregate MIPEX indicator and the anti-discrimination dimension. Comparisons across 2010 and 2018 show that the measures are relatively constant across time and there is stronger variation between countries than across waves.

	<b>MIPEX 2010</b>	<b>Anti- Discrimination 2010</b>	<b>MIPEX 2018</b>	<b>Anti- Discrimination 2018</b>
<b>AT</b>			40.51	53.12
<b>BE</b>	74.23	100.00	68.84	100.00
<b>BG</b>	38.82	100.00	41.24	100.00
<b>CH</b>	45.35	38.17	45.79	38.17
<b>CZ</b>	44.1	64.21	47.08	64.21
<b>DE</b>	54.85	70.46	57.72	70.46
<b>DK</b>	43.22	50.67	48.32	50.67
<b>EE</b>	47.25	48.29	52.41	48.29
<b>ES</b>	53.49	51.04	56.79	59.38
<b>FI</b>	79.53	86.83	86.39	100.00
<b>FR</b>	51.55	79.17	54.76	79.17
<b>GB</b>	65.57	93.75	53.54	93.75
<b>GR</b>	48.34	66.67	.	.
<b>HR</b>	.	.	40.73	70.83
<b>HU</b>	43.15	95.83	44.63	95.83
<b>IE</b>	56.68	86.46	59.15	93.75
<b>IT</b>			55.49	77.75
<b>LT</b>	34.57	51.04	38.19	51.04
<b>LV</b>			36.41	66.67
<b>NL</b>	66.99	85.42	55.67	85.42
<b>NO</b>	73.42	64.58	66.81	64.58
<b>PL</b>	37.74	62.50	42.23	62.50
<b>PT</b>	81.03	100.00	83.83	100.00
<b>SE</b>	85.99	100.00	86.82	100.00
<b>SI</b>	46.67	84.00	48.66	90.25
<b>SK</b>	35.06	70.17	37.04	78.50

**Supplementary Table S9: Multilevel Ordered Probit Model on Class Attainment**

	(S9.0)	(S9.1)	(S9.2)	(S9.3)	(S9.4)	(S9.5)	(S9.6)
<b>Origin Class</b> (Ref.: High)							
Mid	-0.364*** (0.008)	-0.363*** (0.008)	-0.377*** (0.010)	-0.362*** (0.008)	-0.364*** (0.008)	-0.363*** (0.008)	-0.364*** (0.008)
Low	-0.770*** (0.008)	-0.769*** (0.008)	-0.780*** (0.010)	-0.768*** (0.008)	-0.770*** (0.008)	-0.770*** (0.008)	-0.770*** (0.008)
<b>Migration Background</b> (Ref.: None)							
Second Generation	-0.146*** (0.013)	-0.107*** (0.014)	-0.106*** (0.017)	-0.149*** (0.013)	-0.148*** (0.013)	-0.149*** (0.013)	-0.131*** (0.014)
Language Proficiency		-0.057 (0.039)					
Second Generation x Language Proficiency		0.075*** (0.011)					
Share of Refugees			0.036 (0.046)				
Second Generation x Share of Refugees			-0.047** (0.019)				
Anti-Immigrant Attitudes				-0.053*** (0.006)			
Second Generation x Anti-Immigrant Attitudes				0.017 (0.014)			
Social Integration Difference					0.006* (0.004)		
Second Generation x Social Integration Difference					-0.084*** (0.016)		
MIPEX						0.073* (0.038)	
Second Generation x MIPEX						-0.033** (0.016)	
Anti-Discrimination (MIPEX)							-0.006 (0.040)
Second Generation x Anti-Discrimination (MIPEX)							0.051*** (0.013)
Share of Migrants in Population	0.006 (0.009)	0.006 (0.009)	-0.019 (0.014)	-0.005 (0.009)	0.006 (0.009)	0.007 (0.009)	0.007 (0.009)
Var (Country)	0.041*** (0.011)	0.038*** (0.011)	0.031*** (0.011)	0.038*** (0.011)	0.041*** (0.011)	0.036*** (0.010)	0.040*** (0.011)
Observations	182,628	182,628	116,320	182,628	182,628	182,628	182,628
Number of groups	26	26	16	26	26	26	26
LL	-188468	-188442	-119944	-188428	-188453	-188464	-188460
Chi2	15375***	15421***	9682***	15448***	15401***	15382***	15389***

Notes: The dependent variable Destination Class is coded such that higher values correspond to higher class. Not reported: Gender, Age, Domicile. The independent variables are standardized. Post-stratification weights applied. Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Supplementary Table S10: Multilevel Logit Model on Unemployment**

	(S10.0)	(S10.1)	(S10.2)	(S10.3)	(S10.4)	(S10.5)	(S10.6)
<b>Origin Class (Ref.: High)</b>							
Mid	0.190*** (0.033)	0.189*** (0.033)	0.221*** (0.042)	0.184*** (0.033)	0.191*** (0.033)	0.189*** (0.033)	0.190*** (0.033)
Low	0.507*** (0.031)	0.505*** (0.031)	0.542*** (0.040)	0.497*** (0.031)	0.507*** (0.031)	0.506*** (0.031)	0.507*** (0.031)
<b>Migration Background (Ref.: None)</b>							
Second Generation	0.426*** (0.041)	0.404*** (0.043)	0.399*** (0.051)	0.436*** (0.042)	0.423*** (0.041)	0.434*** (0.041)	0.422*** (0.041)
Language Proficiency		0.213** (0.098)					
Second Generation x Language Proficiency		-0.062* (0.033)					
Share of Refugees			-0.149 (0.134)				
Second Generation x Share of Refugees			0.018 (0.057)				
Anti-Immigrant Attitudes				0.188*** (0.020)			
Second Generation x Anti-Immigrant Attitudes				-0.020 (0.042)			
Social Integration Difference					-0.078*** (0.012)		
Second Generation x Social Integration Difference					-0.058 (0.050)		
MIPEX						-0.053 (0.104)	
Second Generation x MIPEX						0.081* (0.046)	
Anti-Discrimination (MIPEX)							0.174* (0.100)
Second Generation x Anti-Discrimination (MIPEX)							-0.027 (0.042)
Share of Migrants in Population	0.113*** (0.035)	0.121*** (0.035)	-0.095* (0.056)	0.159*** (0.036)	0.097*** (0.035)	0.112*** (0.035)	0.116*** (0.035)
Var (Country)	0.269*** (0.076)	0.230*** (0.065)	0.267*** (0.096)	0.260*** (0.075)	0.270*** (0.077)	0.267*** (0.076)	0.242*** (0.069)
Observations	182,628	182,628	116,320	182,628	182,628	182,628	182,628
Number of groups	26	26	16	26	26	26	26
LL	-42198	-42194	-26162	-42152	-42176	-42196	-42196
Chi2	1426***	1433***	931.7***	1509***	1470***	1432***	1429***

Notes: The dependent variable Unemployment is coded 1 if respondent was unemployed at time of interview. Not reported: Gender, Age, Domicile, Constant. The independent variables are standardized. Post-stratification weights applied. Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



## Supplementary Table S11: Robustness Check I

Supplementary Table S11 reports robustness checks for the outcomes of Model (3.1) and Model (3.2) in Table 3. More specifically, S11.1, S11.2, and S11.4 include only observations in a +/- 2-year interval around the year at which the contextual variables were measured (that is, ESS-waves 5-9). S11.1 and S11.2 show that the main results hold in this reduced sample. S11.3 and S11.4 include the share of economic migrants (measured by all those who indicated ‘Education Reasons’, ‘Employment – job found before migrating’, and ‘Employment – no job found before migrating’) as macro-level predictor variable. The coefficients point in the theoretically expected direction. That is, ethnic penalties are attenuated if the share of economic migrants is larger.

	(S11.1)	(S11.2)	(S11.3)	(S11.4)
Origin Class (Ref.: High)				
Mid	-0.458*** (0.0166)	-0.468*** (0.0191)	-0.388*** (0.0177)	-0.452*** (0.0176)
Low	-0.869*** (0.0224)	-0.862*** (0.0301)	-0.836*** (0.0218)	-0.870*** (0.0256)
Migration Background (Ref.: Majority Population)				
Second Generation	-0.135*** (0.0246)	-0.106*** (0.0230)	-0.144*** (0.0201)	-0.149*** (0.0232)
Language Proficiency 2014	-0.0227 (0.0271)			
Second Generation x Language Proficiency 2014	0.134*** (0.0202)			
Share of Refugees		0.0292 (0.0209)		
Second Generation x Share of Refugees		-0.0738** (0.0311)		
Share of Economic Migrants			0.0135 (0.0161)	0.0213 (0.0178)
Second Generation x Share of Economic Migrants			0.133*** (0.0232)	0.127*** (0.0295)
Share of Migrants in Population	0.0906*** (0.0225)	0.110*** (0.0227)	0.0630*** (0.0159)	0.0792*** (0.0172)
Country Fixed Effects	No	No	No	No
Wave Fixed Effects	Yes	Yes	Yes	Yes
Log Pseudolikelihood	-99039	-73738	-146876	-90356
Countries	22	16	20	20
Country-Round Clusters	93	69	134	85
Observations	96,442	71,490	142,304	87,973

Notes: Ordered Probit Model. The dependent variable Destination Class is coded such that higher values correspond to higher class. Not reported: Gender, Age, Domicile. Post-stratification weights applied. Country-year clustered standard errors reported in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Supplementary Table S12: Robustness Check II

Supplementary Table S12 reports robustness checks for the outcomes of Model (3.1) and Model (3.2) in Table 3. S12.1 adds a cultural dimension to the composite index based on respondents' agreement with a statement asking if a country's cultural life is undermined or enriched by migrants. S12.2 and S12.3 calculate anti-immigrant attitudes from the European Value Study. To this purpose, I used three items asking if immigrants take away jobs from natives (G038), immigrants increase the crime problem (G040), and immigrants are a strain on the welfare system (G041). Again, I calculated the weighted average agreement among natives in waves 4 (2008) and 5 (2018) of the EVS and match it to waves of the ESS such that the distance between ESS and EVS waves is minimized. I use one index solely based on the first statement in S12.2 and one index calculated from all three statements S12.3. S12.1-S12.3 support the main analysis and show no evidence for a linear statistical association between anti-immigrant attitudes and ethnic penalties.

In models S12.4 and S12.5 I test for the robustness of the findings for social integration. Specifically, S12.4 uses an alternative indicator from ESS for social integration and takes the difference between migrants and the majority population in weighted averages of responses to how many people the respondent has with whom he/she can discuss personal matters. In S12.4, I take one value for each country averaged across waves 6 to 9 and analyse the whole sample. In S12.5, I calculate country-wave specific averages and analyse only the waves in which the context variable has been measured. In S12.4, I drop country dummies due to potential collinearity with the time-invariant contextual predictor variable and control for share of migrants in the population instead. S12.5 includes country and wave dummies. S12.4 shows that the identified effect in Table 3 is robust to using another indicator, however, S12.5 suggests that it does not hold in the reduced sample.

	(S12.1)	(S12.2)	(S12.3)	(S12.4)	(S12.5)
Origin Class (Ref.: High)					
Mid	-0.362*** (0.0179)	-0.365*** (0.0183)	-0.365*** (0.0183)	-0.361*** (0.0168)	-0.431*** (0.0185)
Low	-0.768*** (0.0195)	-0.769*** (0.0200)	-0.769*** (0.0200)	-0.791*** (0.0196)	-0.819*** (0.0247)
Migration Background (Ref.: Majority Population)					
Second Generation	-0.151*** (0.0202)	-0.147*** (0.0210)	-0.148*** (0.0211)	-0.164*** (0.0177)	-0.147*** (0.0265)
Anti-Immigrant Attitudes (Broad)	-0.0556*** (0.0121)				
Second Generation x Anti-Immigrant Attitudes (Broad)	0.0211 (0.0184)				
Anti-Immigrant Attitudes (EVS)		-0.00827 (0.0109)			
Second Generation x Anti-Immigrant Attitudes (EVS)		0.0306 (0.0198)			
Anti-Immigrant Attitudes (EVS Broad)			-0.0159* (0.00957)		
Second Generation x Anti-Immigrant Attitudes (EVS Broad)			0.0199 (0.0196)		
Social Integration Difference 2				0.0724*** (0.0141)	0.0125 (0.00791)
Second Generation x Social Integration Difference 2				-0.108*** (0.0260)	-0.0333 (0.0283)
Share of Migrants in Population				0.0515*** (0.0178)	
Country Fixed Effects	Yes	Yes	Yes	No	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes
Log Pseudolikelihood	-188347	-181302	-181300	-186369	-92306
Countries	26	26	26	25	25
Country-Round Clusters	173	166	166	170	87
Observations	182,628	175,975	175,975	178,944	89,770

Notes: Ordered Probit Model. The dependent variable Destination Class is coded such that higher values correspond to higher class. Not reported: Gender, Age, Domicile. Post-stratification weights applied. Country-year clustered standard errors reported in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

### Supplementary Table S13: Robustness Check III

Supplementary Table S13 reports robustness checks for the outcomes of Model (3.5) and Model (3.6) in Table 3. In contrast to the main models, which use averaged scores of the MIPEX and the Anti-Discrimination dimension and control for the share of migrants in each wave, the supplementary models S13.1 and S13.2 use wave-specific scores of the policy indicators and include country dummies. The effects remain qualitatively identical, but S13.2 reproduces findings only at the 10 percent level of significance.

	(S13.1)	(S13.2)
Origin Class (Ref.: High)		
Mid	-0.439*** (0.0160)	-0.439*** (0.0161)
Low	-0.822*** (0.0214)	-0.822*** (0.0214)
Migration Background (Ref.: Majority Population)		
Second Generation	-0.158*** (0.0253)	-0.138*** (0.0232)
MIPEX	-0.00559 (0.0524)	
Second Generation x MIPEX	-0.0273 (0.0258)	
Anti-Discrimination (MIPEX)		-0.0270 (0.0585)
Second Generation x Anti-Discrimination (MIPEX)		0.0391* (0.0233)
Share of Migrants in Population		
Country Fixed Effects	Yes	Yes
Wave Fixed Effects	Yes	Yes
Log Pseudolikelihood	-117012	-117010
Countries	26	26
Country-Round Clusters	109	109
Observations	113,716	113,716

Notes: Ordered Probit Model. The dependent variable Destination Class is coded such that higher values correspond to higher class. Not reported: Gender, Age, Domicile. Post-stratification weights applied. Country-year clustered standard errors reported in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

## Supplementary Table S14: Robustness Check IV

Supplementary Table S14 reports robustness checks for the outcomes of Model (4.1) and Model (4.2) in Table 4. More specifically, S14.1, S14.2, and S14.4 include only observations in a +/- 2-year interval around the year at which the contextual variables were measured (that is, ESS-waves 5-9). S14.1 and S14.2 show that the main results hold in this reduced sample. S14.3 and S14.4 include the share of economic migrants, measures as all those who indicated ‘Education Reasons’, ‘Employment – job found before migrating’, and ‘Employment – no job found before migrating’) as macro-level predictor variable. The coefficients point in the theoretically expected direction, but do not reach statistical significance at the conventional 5-percent level.

	(S14.1)	(S14.2)	(S14.3)	(S14.4)
Origin Class (Ref.: High)				
Mid	0.259*** (0.0568)	0.336*** (0.0529)	0.303*** (0.0429)	0.337*** (0.0525)
Low	0.612*** (0.0639)	0.727*** (0.0631)	0.696*** (0.0489)	0.715*** (0.0640)
Migration Background (Ref.: Majority Population)				
Second Generation	0.261*** (0.0665)	0.230*** (0.0768)	0.306*** (0.0687)	0.190*** (0.0712)
Language Proficiency 2014	0.215*** (0.0664)			
Second Generation x Language Proficiency 2014	-0.139** (0.0611)			
Share of Refugees		-0.287*** (0.0886)		
Second Generation x Share of Refugees		0.278*** (0.106)		
Share of Economic Migrants			-0.0161 (0.0661)	0.0457 (0.0958)
Second Generation x Share of Economic Migrants			-0.0834 (0.0729)	-0.142* (0.0832)
Share of Migrants in Population	-0.0234 (0.0517)	-0.0971 (0.0740)	-0.0597 (0.0401)	-0.0739 (0.0528)
Country Fixed Effects	No	No	No	No
Wave Fixed Effects	Yes	Yes	Yes	Yes
Log Pseudolikelihood	-23721	-17276	-32998	-21042
Countries	22	16	20	20
Country-Round Clusters	93	69	134	85
Observations	96,442	71,490	142,304	87,973

Notes: Logit Model. The dependent variable Unemployment is coded 1 if respondent was unemployed at time of interview. Not reported: Gender, Age, Domicile, Constant. Post-stratification weights applied. Country-year clustered standard errors reported in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Supplementary Table S15: Robustness Check V

Supplementary Table S15 reports robustness checks for the outcomes of Model (4.3) and Model (4.4) in Table 4. The regression specifications run in parallel to those in Supplementary Table S12, but for unemployment as dependent variable. Supplementary Table S15 shows that there is no effect of anti-immigrant attitudes and social integration on ethnic penalties in unemployment.

	(S15.1)	(S15.2)	(S15.3)	(S15.4)	(S15.5)
Origin Class (Ref.: High)					
Mid	0.186*** (0.0372)	0.191*** (0.0383)	0.193*** (0.0383)	0.226*** (0.0404)	0.223*** (0.0458)
Low	0.499*** (0.0391)	0.502*** (0.0405)	0.506*** (0.0404)	0.631*** (0.0464)	0.557*** (0.0452)
Migration Background (Ref.: Majority Population)					
Second Generation	0.448*** (0.0536)	0.450*** (0.0554)	0.438*** (0.0531)	0.393*** (0.0542)	0.399*** (0.0680)
Anti-Immigrant Attitudes (Broad)	0.124** (0.0582)				
Second Generation x Anti-Immigrant Attitudes (Broad)	-0.0352 (0.0596)				
Anti-Immigrant Attitudes (EVS)		0.185*** (0.0528)			
Second Generation x Anti-Immigrant Attitudes (EVS)		-0.0795 (0.0706)			
Anti-Immigrant Attitudes (EVS, Broad)			0.00319 (0.0458)		
Second Generation x Anti-Immigrant Attitudes (EVS, Broad)			-0.00571 (0.0547)		
Social Integration Difference 2				-0.00389 (0.0573)	-0.0456 (0.0431)
Second Generation x Social Integration Difference 2				-0.0247 (0.0699)	0.0889 (0.0986)
Share of Migrants in Population				-0.0737* (0.0409)	
Country Fixed Effects	Yes	Yes	Yes	No	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes
Log Pseudolikelihood	-42114	-40602	-40624	-41809	-20546
Countries	26	26	26	25	25
Country-Round Clusters	173	166	166	170	87
Observations	182,628	175,975	175,975	178,944	89,770

Notes: Logit Model. The dependent variable Unemployment is coded 1 if respondent was unemployed at time of interview. Not reported: Gender, Age, Domicile, Constant. Post-stratification weights applied. Country-year clustered standard errors reported in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Supplementary Table S16: Robustness Check VI

Supplementary Table S16 reports robustness checks for the outcomes of Model (4.5) and Model (4.6) in Table 4. In contrast to the main models, which use averaged scores of the MIPEX and the Anti-Discrimination dimension and control for the share of migrants in each wave, the supplementary models S16.1 and S16.2 use wave-specific scores of the policy indicators and include country dummies. Like in the main analysis, the policy indicators have no impact on the ethnic employment penalty.

	(S16.1)	(S16.2)
Origin Class (Ref.: High)		
Mid	0.218*** (0.0457)	0.218*** (0.0457)
Low	0.519*** (0.0487)	0.519*** (0.0485)
Migration Background (Ref.: Majority Population)		
Second Generation	0.401*** (0.0594)	0.386*** (0.0615)
MIPEX	-0.128 (0.216)	
Second Generation x MIPEX	0.0525 (0.0698)	
Anti-Discrimination (MIPEX)		0.177 (0.215)
Second Generation x Anti-Discrimination (MIPEX)		-0.0154 (0.0564)
Share of Migrants in Population		
Country Fixed Effects	Yes	Yes
Wave Fixed Effects	Yes	Yes
Log Pseudolikelihood	-27175	-27175
Countries	26	26
Country-Round Clusters	109	109
Observations	113,716	113,716

Notes: Logit Model. The dependent variable Unemployment is coded 1 if respondent was unemployed at time of interview. Not reported: Gender, Age, Domicile, Constant. Post-stratification weights applied. Country-year clustered standard errors reported in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$