

**Linking Migration Reasons and Origins to Labour Market Outcomes:  
Recent Evidence from Europe**  
Mehtap Akgüç and Cécile Welter-Médée  
*Online Appendix / Annexe en ligne*

Table C-1 – Estimation of earnings equation (Table 2) – detailed results with control variables  
(Dependent variable: earnings decile, ordered probit estimation)

		Main equation			
		(1)	(2)	(3)	(4)
Age		0.063*** (0.009)	0.067*** (0.009)	0.063*** (0.009)	0.063*** (0.009)
Age squared		-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Presence of child at home		0.086*** (0.028)	0.088*** (0.028)	0.097*** (0.028)	0.098*** (0.028)
Female		-0.487*** (0.025)	-0.506*** (0.025)	-0.490*** (0.025)	-0.491*** (0.026)
Marital status (Ref. <i>Single</i> )					
	<i>Widowed, divorced or legally separated</i>	0.001 (0.045)	0.025 (0.045)	0.044 (0.046)	0.043 (0.045)
	<i>Married</i>	0.155*** (0.031)	0.183*** (0.032)	0.200*** (0.032)	0.197*** (0.032)
Language skills (Ref. <i>Basic/no skill</i> )					
	<i>Intermediate</i>	0.169*** (0.041)	0.133*** (0.043)	0.151*** (0.042)	0.152*** (0.042)
	<i>Advanced</i>	0.465*** (0.041)	0.415*** (0.043)	0.436*** (0.042)	0.428*** (0.043)
	<i>Mother tongue</i>	0.672*** (0.044)	0.549*** (0.048)	0.573*** (0.047)	0.574*** (0.048)
Education level (Ref. <i>Low</i> )					
	<i>Medium</i>	0.190*** (0.027)	0.189*** (0.027)	0.182*** (0.028)	0.186*** (0.028)
	<i>High</i>	1.016*** (0.036)	1.019*** (0.036)	0.962*** (0.036)	0.963*** (0.036)
Degree of urbanisation (Ref. <i>Rural area</i> )					
	<i>Cities</i>	0.044 (0.032)	0.082** (0.032)	0.087*** (0.033)	0.092*** (0.033)
	<i>Towns and suburbs</i>	0.161*** (0.033)	0.171*** (0.033)	0.177*** (0.034)	0.183*** (0.033)
cut1	Constant	-0.490*** (0.185)	-0.568*** (0.187)	-0.815*** (0.190)	-0.906*** (0.192)
cut2	Constant	0.361* (0.185)	0.288 (0.187)	0.039 (0.191)	-0.051 (0.193)
cut3	Constant	1.037*** (0.185)	0.964*** (0.187)	0.718*** (0.191)	0.630*** (0.193)
cut4	Constant	1.520*** (0.185)	1.448*** (0.187)	1.205*** (0.191)	1.120*** (0.193)
cut5	Constant	1.944*** (0.186)	1.874*** (0.187)	1.636*** (0.191)	1.554*** (0.193)
cut6	Constant	2.290*** (0.186)	2.223*** (0.187)	1.989*** (0.191)	1.909*** (0.193)

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cut7				
Constant	2.626*** (0.186)	2.561*** (0.188)	2.332*** (0.191)	2.254*** (0.193)
cut8				
Constant	3.008*** (0.187)	2.946*** (0.188)	2.722*** (0.192)	2.649*** (0.194)
cut9				
Constant	3.495*** (0.188)	3.436*** (0.189)	3.220*** (0.193)	3.154*** (0.195)
Migration reason	Yes	No	Yes	Yes
Place of origin	No	Yes	Yes	Yes
Interactions (migration reason × place of origin)	No	No	No	Yes
Host country fixed effects	Yes	Yes	Yes	Yes
Number of observations	14637	14637	14637	14637

Notes: See details in Table 2.

Source: EU-LFS 2014 ad hoc module.

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Table C-2 – Full interaction coefficient estimates for earnings equation with sample selection

Interaction: migration reason × place of origin	Full coefficient estimate	Std. error
Economic reason with no job × Other EU	-0.242***	(0.056)
Economic reason with no job × Other Europe	-0.219***	(0.070)
Economic reason with no job × North Africa	-0.194*	(0.127)
Economic reason with no job × Other Africa	-0.241*	(0.144)
Economic reason with no job × Middle East	-0.203	(0.296)
Economic reason with no job × Asia	-0.492***	(0.099)
Economic reason with no job × NAAO	-0.263	(0.265)
Economic reason with no job × CSA	-0.217**	(0.095)
Family × Other EU	-0.355***	(0.087)
Family × Other Europe	-0.256***	(0.082)
Family × North Africa	-0.375**	(0.178)
Family × Other Africa	-0.593***	(0.155)
Family × Middle East	-0.601**	(0.307)
Family × Asia	-0.688***	(0.136)
Family × NAAO	-0.549**	(0.248)
Family × CSA	-0.276**	(0.109)
Study × Other EU	0.219*	(0.128)
Study × Other Europe	0.049	(0.168)
Study × North Africa	-0.012	(0.338)
Study × Other Africa	-0.467***	(0.159)
Study × Middle East	-0.136	(0.361)
Study × Asia	-0.349**	(0.149)
Study × NAAO	-0.486	(0.336)
Study × CSA	0.441***	(0.155)
Refugee × Other EU	-0.233	(0.183)
Refugee × Other Europe	-0.385***	(0.110)
Refugee × North Africa	-0.441	(0.313)
Refugee × Other Africa	-0.845***	(0.167)
Refugee × Middle East	-1.321***	(0.322)
Refugee × Asia	-0.833***	(0.187)
Refugee × NAAO	5.129***	(0.325)
Refugee × CSA	0.170	(0.526)

Notes: The total interaction coefficients are calculated based on the estimations from interaction models in column 4 of Table 4 (with sample selection). Only migrants (natives are excluded) aged 15-64, living in private households in an EU country (except Germany, Denmark, the Netherlands, and Ireland), who were aged 15 or above at the moment of arrival in the destination country, and (of those employed) are employed full-time (excluding self-employed people), are included. Robust standard errors are in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Source: EU-LFS 2014 ad hoc module.

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**Table C-3 – Occupation–skill group estimations**  
**(Dependent variable: occupation by skill groups, ordered probit estimations)**

	(1)	(2)	(3)	(4)
Reason for migration (Ref. <i>Economic with job</i> )				
<i>Economic without job</i>	-0.421*** (0.033)		-0.362*** (0.033)	-0.558*** (0.077)
<i>Family</i>	-0.230*** (0.034)		-0.225*** (0.034)	-0.298*** (0.061)
<i>Study</i>	0.039 (0.052)		0.069 (0.053)	-0.035 (0.108)
<i>Refugee</i>	-0.380*** (0.066)		-0.312*** (0.066)	0.344 (0.228)
<i>Other</i>	-0.076 (0.049)		-0.118** (0.049)	-0.333*** (0.090)
Place of origin (Ref. <i>EU-15 and EFTA countries</i> )				
<i>Other EU</i>		-0.820*** (0.040)	-0.778*** (0.040)	-1.010*** (0.073)
<i>Other Europe</i>		-0.774*** (0.042)	-0.730*** (0.042)	-0.811*** (0.085)
<i>North Africa</i>		-0.730*** (0.065)	-0.699*** (0.066)	-0.846*** (0.123)
<i>Other Africa</i>		-0.560*** (0.047)	-0.541*** (0.049)	-0.435*** (0.144)
<i>Middle East</i>		-0.394*** (0.098)	-0.374*** (0.094)	-0.010 (0.171)
<i>Asia</i>		-0.557*** (0.044)	-0.544*** (0.045)	-0.486*** (0.087)
<i>North America, Australia and Oceania (NAAO)</i>		0.266*** (0.095)	0.288*** (0.094)	0.359 (0.220)
<i>Central and South America (CSA)</i>		-0.780*** (0.047)	-0.755*** (0.047)	-1.006*** (0.107)
Individual controls				
<i>Age</i>	0.015* (0.009)	0.008 (0.009)	0.010 (0.009)	0.011 (0.009)
<i>Age squared</i>	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
<i>Presence of child at home</i>	-0.047* (0.026)	-0.055** (0.025)	-0.048* (0.025)	-0.050** (0.025)
<i>Female</i>	-0.200*** (0.023)	-0.181*** (0.022)	-0.179*** (0.023)	-0.180*** (0.023)
<i>Marital status (Ref. Single)</i>				
<i>Widowed, divorced or legally separated</i>	-0.095** (0.041)	-0.028 (0.041)	-0.022 (0.041)	-0.018 (0.041)
<i>Married</i>	0.018 (0.029)	0.072** (0.030)	0.079*** (0.030)	0.081*** (0.030)
<i>Language skills (Ref. Basic/no skill)</i>				
<i>Intermediate</i>	0.018 (0.043)	0.034 (0.042)	0.036 (0.043)	0.031 (0.042)
<i>Advanced</i>	0.398*** (0.044)	0.413*** (0.043)	0.399*** (0.043)	0.390*** (0.042)
<i>Mother tongue</i>	0.629*** (0.045)	0.543*** (0.045)	0.528*** (0.045)	0.523*** (0.045)
<i>Education level (Ref. Low)</i>				
<i>Medium</i>	0.206***	0.242***	0.225***	0.227***

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		(0.025)	(0.026)	(0.026)	(0.026)
	<i>High</i>	1.192***	1.209***	1.145***	1.141***
		(0.035)	(0.035)	(0.035)	(0.035)
Degree of urbanisation (Ref. <i>Rural area</i> )					
	<i>Cities</i>	0.009	0.040	0.048	0.040
		(0.030)	(0.030)	(0.030)	(0.030)
	<i>Towns and suburbs</i>	0.041	0.059*	0.065**	0.066**
		(0.033)	(0.033)	(0.033)	(0.033)
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Cut1					
Constant		0.019	-0.464**	-0.608***	-0.710***
		(0.179)	(0.181)	(0.184)	(0.185)
Cut2					
Constant		1.423***	0.973***	0.844***	0.753***
		(0.178)	(0.180)	(0.184)	(0.185)
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Host country fixed effect	Yes	Yes	Yes	Yes	Yes
Interactions (migration reason × place of origin)	No	No	No	Yes	Yes
Pseudo R-squared	0.1900	0.2049	0.2113	0.2163	0.2163
Prob > Chi2	0.000	0.000	0.000	0.000	0.000
Number of observations	22,799	22,799	22,799	22,799	22,799

Notes: All models are estimated with ordered probit method using probability weights. Only migrants (natives are excluded) aged 15-64, living in private households in an EU country (except Germany, Denmark, the Netherlands and Ireland), and who were aged 15 or above at the moment of arrival in the destination country (including self-employed people) are included. Robust standard errors are in parentheses.

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Source: EU-LFS 2014 ad hoc module.

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**Table C-4 – Full interaction coefficient estimates for occupation model**

Interaction: migration reason × place of origin	Full coefficient estimate	Std. error
Economic reason with no job × Other EU	-0.218***	(0.062)
Economic reason with no job × Other Europe	-0.324***	(0.076)
Economic reason with no job × North Africa	-0.214*	(0.126)
Economic reason with no job × Other Africa	-0.582***	(0.153)
Economic reason with no job × Middle East	-0.703***	(0.203)
Economic reason with no job × Asia	-0.510***	(0.087)
Economic reason with no job × NAAO	-0.669***	(0.103)
Economic reason with no job × CSA	-0.283***	(0.103)
Family × Other EU	-0.081	(0.072)
Family × Other Europe	-0.320***	(0.077)
Family × North Africa	-0.370*	(0.208)
Family × Other Africa	-0.264*	(0.151)
Family × Middle East	-0.645***	(0.209)
Family × Asia	-0.411***	(0.086)
Family × NAAO	-0.334	(0.252)
Family × CSA	-0.014	(0.110)
Study × Other EU	0.459***	(0.130)
Study × Other Europe	0.345**	(0.144)
Study × North Africa	0.168	(0.226)
Study × Other Africa	-0.535***	(0.169)
Study × Middle East	-0.301	(0.320)
Study × Asia	-0.267**	(0.111)
Study × NAAO	-0.214	(0.388)
Study × CSA	0.842***	(0.169)
Refugee × Other EU	-0.030	(0.197)
Refugee × Other Europe	-0.417***	(0.113)
Refugee × North Africa	-0.455	(0.314)
Refugee × Other Africa	-0.589***	(0.171)
Refugee × Middle East	-1.089***	(0.299)
Refugee × Asia	-0.414***	(0.149)
Refugee × NAAO	3.149***	(0.314)
Refugee × CSA	0.418	(0.330)

Notes: The total interaction coefficients are calculated based on the occupation–skill group estimations with interaction specifications. Only migrants (natives are excluded) aged 15-64, living in private households in an EU country (except Germany, Denmark, the Netherlands, and Ireland), and who were aged 15 or above at the moment of arrival in the destination country (including self-employed people) are included. Robust standard errors are in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Source: EU-LFS 2014 ad hoc module.