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International Mobility of Students in Western Balkan Countries



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OECD data: International student mobility has been rising.

Beine et al (2013): From 1975 to 2008 the number of students who study abroad has been multiplied by a factor 4.

One of the six objectives in the Bologna Declaration (1999)

Leuven agreement in 2009: The goal for 2020 is to have at least 20% of students graduating in EHEA with experience of studying or training abroad

Number of international students can be used as the proxy for internationalisation of higher education systems.

Serbia, Montenegro and Bosnia and Herzegovina



Universities in the countries of former Yugoslavia have the tradition of internationalisation.

Significant level of harmonization with other countries in Europe

International students are undoubtedly an under-researched phenomena.

Rumbley (2012): complexity of phenomenon and process of collecting data

EUROSTUDENT in 2014: Discovering factors influencing the student's choice to be involved in international mobility or not

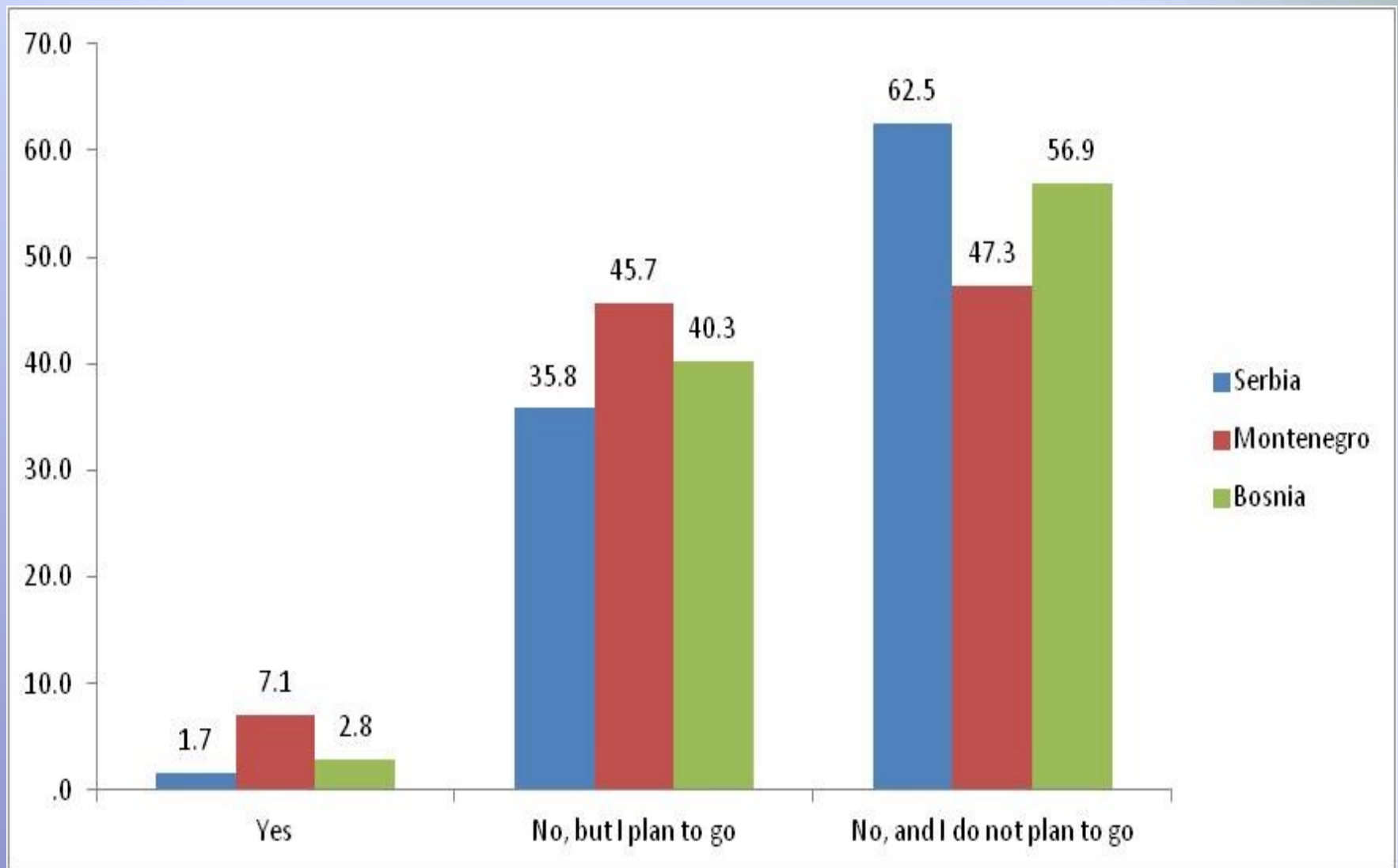
Econometric models, Logistic regression

Comparing international mobility

The results of this research study will help policy makers in HE to understand the phenomena and to develop appropriate mobility strategies in order to promote and intensify international mobility of students in the region.

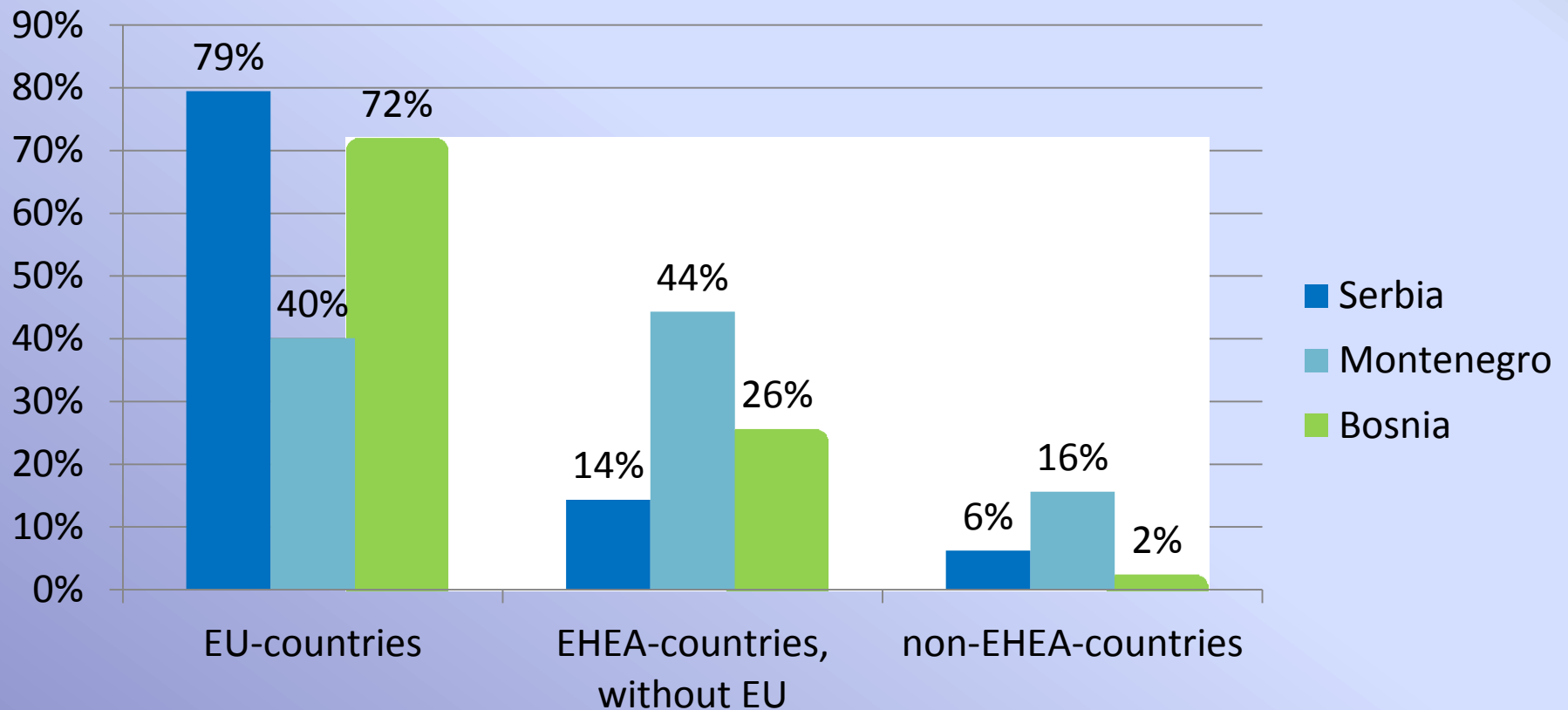


Have you ever been enrolled abroad as a student in higher education?



$$\chi^2(4) = 157.187, p = .000$$

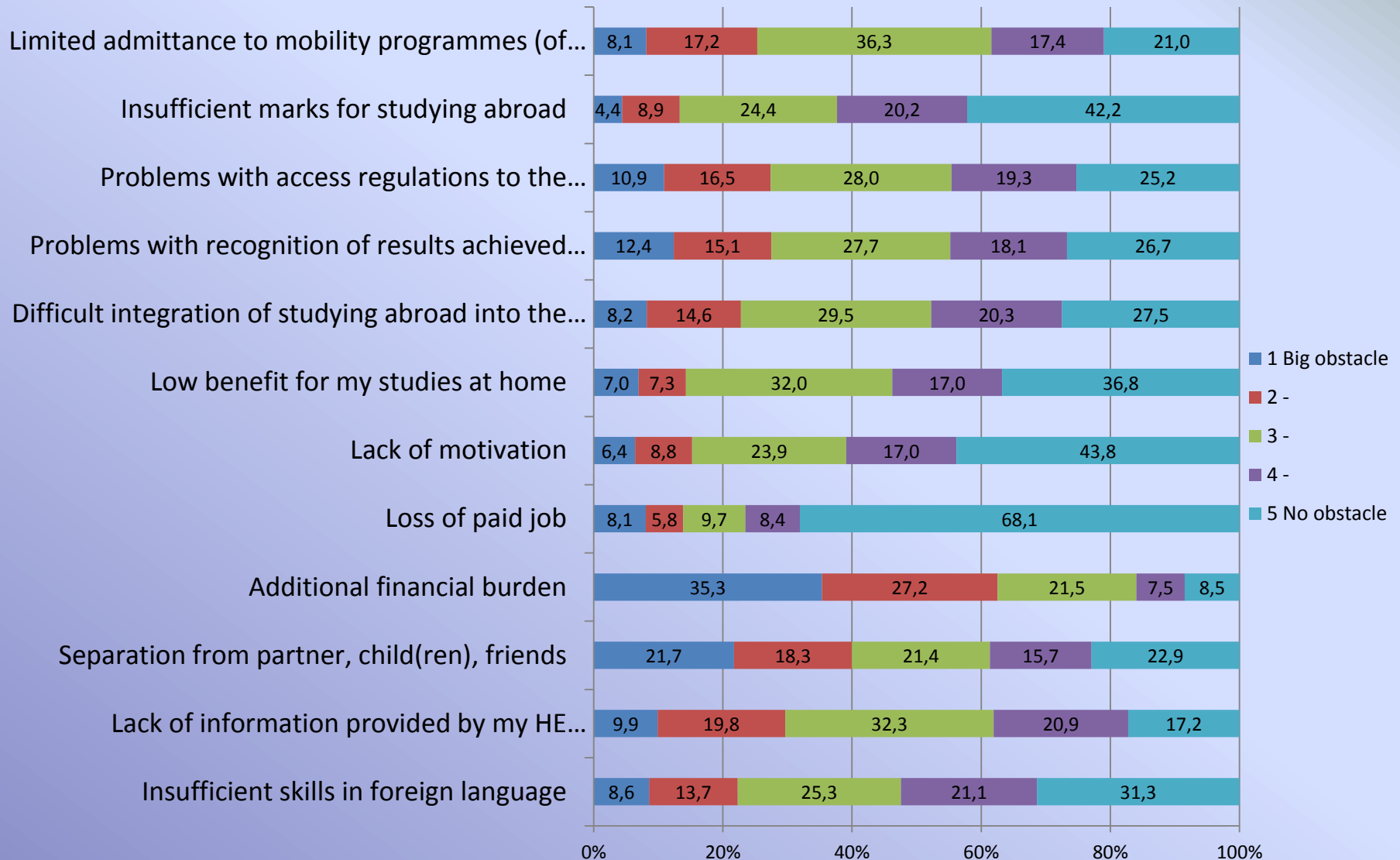
Choice of region/country for realised enrolment abroad



What country did you go to?

Serbia		Montenegro		Bosnia	
Slovakia	28%	Serbia	20%	Croatia	22%
Bosnia	13%	Slovenia	20%	Germany	19%
Croatia	12%	Russia	9%	Austria	18%
Italy	12%	Austria	7%	Turkey	8%
Austria	12%	SAD	7%	SAD	6%

To what extent are or were the following aspects an obstacle for studying abroad to you?



Logistic regression

Method in which all predictors enter the equation simultaneously is chosen.

Dependent variable: Active approach to mobility:

- Value 0: student does not plan to study abroad
- Value 1: student already had mobility experience or plans to have it in the future.

38 available predictors:

- 18 socio-demographic,
- 8 satisfaction with studies,
- 12 barriers.

No.	Variable	Name
1	Age	e_age
2	Sex	e_sex
3	Qualification studied for Bachelor/Master/Other	e_qualification
4	Field of study	e_field
5	Type of HEI	e_hei
6	Study intensity	e_intens
7	Direct and delayed transition	e_transit
8	What is your current formal status as a student?	e_status
9	Highest educational attainment of parents	e_edupar
10	‘Dependency on income source’	e_depend
11	To what extent are you currently experiencing financial difficulties?	v3.8
12	Who do you live with during the study term/semester (Monday until Friday)? Parents/other relatives	v3.1.1
13	Who do you live with during the study term/semester (Monday until Friday)? Partner/spouse	v3.1.2
14	Who do you live with during the study term/semester (Monday until Friday)? My child(ren)/my partner’s child(ren)	v3.1.3
15	Who do you live with during the study term/semester (Monday until Friday)? With (an)other person(s) not mentioned above	v3.1.4
16	Who do you live with during the study term/semester (Monday until Friday)? I live alone	v3.1.5
17	Do you live in a student accommodation, i.e dormitory or halls of residence?	v3.2
18	Do you have any children?	v5.5.1

19	How satisfied are you with your studies concerning the quality of teaching?	v1.11.1_r
20	How satisfied are you with your studies concerning the organisation of studies and timetable?	v1.11.2_r
21	How satisfied are you with your studies concerning the possibility to select from a broad variety of courses?	v1.11.3_r
22	How satisfied are you with your studies concerning the university administration's attitude towards students?	v1.11.4_r
23	How satisfied are you with your studies concerning the teaching staff's attitude towards students?	v1.11.5_r
24	How satisfied are you with your studies concerning the study facilities?	v1.11.6_r
25	How do you rate your chances on the labour market after graduating from your current study programme? - on international level	v1.12.2
26	How do you rate your chances on the labour market after graduating from your current study programme? - on national level	v1.12.1

No.	Variable	Name
27	Insufficient skills in foreign language	v4.9a
28	Lack of information provided by my HE institution	v4.9b
29	Separation from partner, child(ren), friends	v4.9c
30	Additional financial burden	v4.9d
31	Loss of paid job	v4.9e
32	Lack of motivation	v4.9f
33	Low benefit for my studies at home	v4.9g
34	Difficult integration of studying abroad into the structure of my home study programme	v4.9h
35	Problems with recognition of results achieved abroad	v4.9i
36	Problems with access regulations to the preferred country (visa, residence permit)	v4.9j
37	Insufficient marks for studying abroad	v4.9k
38	Limited admittance to mobility programmes (of home/host institution)	v4.9l

Omnibus Tests of Model Coefficients

Country			Chi-square	df	Sig.
1 Serbia	Step 1	Step	413.704	105	.000
		Block	413.704	105	.000
		Model	413.704	105	.000
2 Montenegro	Step 1	Step	262.099	104	.000
		Block	262.099	104	.000
		Model	262.099	104	.000
3 Bosnia	Step 1	Step	283.389	105	.000
		Block	283.389	105	.000
		Model	283.389	105	.000

Model Summary

Country	Step	-2 likelihood	Log Cox & Snell R Square	Nagelkerke R Square
1 Serbia	1	1962.356 ^a	.208	.282
2 Montenegro	1	395.464 ^b	.416	.562
3 Bosnia	1	919.058 ^c	.274	.369

Hosmer and Lemeshow Test

Country	Step	Chi-square	Df	Sig.
1 Serbia	1	5.631	8	.688
2 Montenegro	1	11.804	8	.160
3 Bosnia	1	9.619	8	.293

Classification Table

Country	Observed		Predicted		
			mobility		Percentage Correct
			0	1	
1 Serbia	mobility	0	898	181	83.3
		1	312	384	55.2
	Overall Percentage				72.2
2 Montenegro	mobility	0	151	46	76.8
		1	31	260	89.3
	Overall Percentage				84.3
3 Bosnia	mobility	0	413	102	80.2
		1	123	247	66.7
	Overall Percentage				74.6

SERBIA (1)	B	S.E.	Wald	Sig.	Exp(B)
e_intens(2)	.791	.195	16.403	.000	2.205
e_qualification(2)	-0.718	0.343	4.395	0.04	0.488
Select from a variety of courses v1.11.3_r(2)	0.456	0.161	8.012	0.00	1.578
Study facilities v1.11.6_r(2)	-0.588	0.197	8.899	0.00	0.556
Chances on int. labour market v1.12.2(1)	-0.469	0.195	5.804	0.02	0.626
Who do you live with v3.1.3	1.711	0.733	5.450	0.02	5.535
Financial difficulties v3.8(1)	-0.580	0.235	6.120	0.01	0.560
Financial difficulties v3.8(2)	-0.507	0.221	5.291	0.02	0.602
Financial difficulties v3.8(3)	-0.537	0.250	4.634	0.03	0.584
Foreign language v4.9a(1)	0.581	0.258	5.066	0.02	1.788
Foreign language v4.9a(2)	0.699	0.239	8.552	0.00	2.012
Foreign language v4.9a(3)	0.997	0.247	16.328	0.00	2.710
Foreign language v4.9a(4)	0.920	0.237	15.116	0.00	2.509
Lack of information v4.9b(3)	-0.668	0.245	7.436	0.01	0.513
Lack of information v4.9b(4)	-0.947	0.269	12.361	0.00	0.388
Separation v4.9c(2)	0.752	0.189	15.823	0.00	2.122
Separation v4.9c(3)	0.639	0.206	9.579	0.00	1.894
Separation v4.9c(4)	0.931	0.192	23.439	0.00	2.537

SERBIA (2)	B	S.E.	Wald	Sig.	Exp(B)
Additional financial burden v4.9d(1)	0.954	0.161	34.893	0.00	2.595
Additional financial burden v4.9d(2)	0.867	0.174	24.818	0.00	2.379
Additional financial burden v4.9d(3)	1.074	0.255	17.670	0.00	2.927
Additional financial burden v4.9d(4)	0.803	0.259	9.604	0.00	2.232
Motivation v4.9f(4)	1.381	0.309	19.993	0.00	3.977
Low benefit at home v4.9g(2)	-1.172	0.279	17.582	0.00	0.310
Low benefit at home v4.9g(3)	-0.951	0.300	10.031	0.00	0.386
Low benefit at home v4.9g(4)	-0.802	0.286	7.892	0.00	0.448
Difficult integration v4.9h(2)	0.854	0.278	9.438	0.00	2.348
Difficult integration v4.9h(3)	0.803	0.291	7.631	0.01	2.233
Difficult integration v4.9h(4)	0.671	0.290	5.360	0.02	1.957
Recognition of results achieved v4.9i(2)	-0.476	0.241	3.890	0.05	0.621
Recognition of results achieved v4.9i(4)	-0.739	0.264	7.856	0.01	0.478
Recognition of results achieved v4.9l(4)	-1.128	0.287	15.458	0.00	0.324

As expected, significant predictors are also student satisfaction with their studies concerning the possibility of selecting **broad variety of courses, concerning the study facilities and their perspective about chances on the labour market after graduating** from their current study on international level.

Potential obstacles

Namely, students rate on following aspects have turned out to be significant: **insufficient skills in foreign language, lack of information provided by their HE institution, separation from partner, child(children) or friends, additional financial burden, lack of motivation, difficult integration of studying abroad into the structure of their home study programme and problems with recognition of results achieved abroad.**

MONTENEGRO	B	S.E.	Wald	Sig.	Exp(B)
e_age(2)	-1.912	.591	10.470	.001	.148
Organisation and timetable v1.11.2_r(1)	.863	.425	4.112	.043	2.370
Chances on int. labour market v1.12.2(1)	-1.229	.575	4.568	.033	.293
Dormitory v3.2	-1.455	.663	4.811	.028	.233
Foreign language v4.9a(3)	1.465	.740	3.914	.048	4.326
Lack of information v4.9b(3)	-1.336	.591	5.108	.024	.263
Separation v4.9c(1)	1.355	.571	5.632	.018	3.876
Separation v4.9c(3)	1.877	.605	9.606	.002	6.531
Separation v4.9c(4)	1.359	.559	5.918	.015	3.893
Additional financial burden v4.9d(1)	1.511	.440	11.789	.001	4.530
Additional financial burden v4.9d(2)	1.722	.526	10.693	.001	5.593
Additional financial burden v4.9d(3)	2.041	.907	5.068	.024	7.699
Motivation v4.9f(1)	-1.721	.838	4.223	.040	.179
Recognition of results achieved v4.9i(1)	1.766	.719	6.025	.014	5.847
Recognition of results achieved v4.9i(3)	1.544	.714	4.670	.031	4.683

On the contrary to Serbian model, the most significant social-demographic predictors in Montenegrin model are **age and accommodation**, although odds ratios are quite low. Interestingly, satisfaction concerning the organisation of studies and timetable as well as and students' perspective about their chances on the labour market on the national level after graduating has shown significant contribution to model prediction.

Potential obstacles

Students perceptions of **insufficient skills in foreign language, lack of information provided by their HE institution, separation from partner, child(children) or friends, additional financial burden and problems with recognition of results achieved abroad** as possible obstacles for studying abroad has high influence on model.

BIH	B	S.E.	Wald	Sig.	Exp(B)
e_edupar	.653	.271	5.810	.016	1.922
e_qualification(2)	.785	.379	4.299	.038	2.193
e_status	-.602	.206	8.554	.003	.548
Financial difficulties v3.8(3)	-.781	.360	4.718	.030	.458
Foreign language v4.9a(4)	-.712	.349	4.161	.041	.491
Separation v4.9c(2)	1.014	.293	11.965	.001	2.756
Separation v4.9c(3)	.843	.321	6.898	.009	2.324
Separation v4.9c(4)	.727	.291	6.229	.013	2.070
Additional financial v4.9d(1)	.521	.242	4.622	.032	1.684
Additional financial v4.9d(2)	1.319	.263	25.188	.000	3.738
Additional financial v4.9d(3)	1.109	.353	9.885	.002	3.031
Additional financial v4.9d(4)	.850	.374	5.153	.023	2.340
Motivation v4.9f(2)	1.813	.719	6.357	.012	6.127
Motivation v4.9f(3)	1.960	.721	7.393	.007	7.097
Motivation v4.9f(4)	2.973	.719	17.098	.000	19.542
Insufficient marks v4.9k(1)	-1.582	.554	8.146	.004	.205
Insufficient marks v4.9k(2)	-1.136	.500	5.154	.023	.321
Insufficient marks v4.9k(4)	-1.196	.519	5.310	.021	.302
Admittance to mobility programmes v4.9l(4)	-1.147	.385	8.877	.003	.317

As for the Bosnian model, significant socio-demographic predictors are: **funding of studies (status), qualification, education of parents and students rate of experiencing financial difficulties**. Self-financing students have 0.5 lower probabilities to have positive attitude about mobility than budget students. Also, students whose parents are highly educated have almost two times higher probabilities to experience mobility than students whose parents don't have higher education.

Possible obstacles

Namely, it refers to following aspects: **insufficient skills in foreign language, separation from partner, child(children) or friends, additional financial burden, lack of motivation, insufficient marks for studying abroad and limited admittance to mobility programmes (of home/host institution)**.

Conclusions

Why is it so important for developing countries, and especially for Serbia, Montenegro and BIH to improve the mobility of their students?

Countries in the region have the opportunity to change their role in the world of higher education

Transformation from sending country to target country for international students

The brain drain issue...

Stay-rate for OECD countries is on average 25%

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Thank you for your attention

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