Appendix A. **Regions and higher education cities in Belgium**

Figure A1. Administrative regions and largest higher education cities in Belgium

Spatial boundaries are according to the NUTS classification of the Local Administrative Units system as defined by the Commission Regulation No. 1059/2003, set up by Eurostat.

(1) Regions are NUTS-1 units. There are three regions in Belgium, i.e. Flanders, Wallonia, Brussels-Capital Region.

(2) Provinces are NUTS-2 units. Belgium constitutes 11 provinces, i.e. Antwerpen, Limburg, Oost-Vlaanderen, Vlaams-Brabant, West-Vlaanderen, Hainaut, Liège, Luxembourg, Namur, Brabant wallon, Brussels-Capital Region.

(3) *Metropolitan* cities are Brussels-Capital Region, Antwerp, Ghent, Charleroi and Liège. *Regional* cities are Aalst, Arlon, Brugge, Doornik, Genk, Hasselt, Kortrijk, La Louvière, Leuven, Mechelen, Mons, Namur, Oostende, Roeselare, Sint-Niklaas, Turnhout, Verviers. This distinction is based on the urban facilities/provisions and the extent to which these are used by local residents and/or non-local residents (Van Hecke et al., 2009). The spatial units are defined based on the municipalities, i.e. LAU-2 units, formerly NUTS-5. There are 589 Belgian municipalities. Populations range from 56 (Honnelles) to 445,570 (Antwerp), densities from 1 inh./sq.km (Honnelles) to 19,442 inh./sq.km (Saint-Josse-ten-Node, part of the Brussels-Capital Region). Table A1 provides some general characteristics of the largest higher education cities.

Table A1. Main characteristics of the largest higher education cities

HE cities	Population (1/10/2001)[a]	Density (1/10/2001)[a]	Job ratio (1/1/2006)[b]	Wealth Index (average 2004-2006)[c]
Brussels-Capital Region[e]	964,405	5,975 with municipal values ranging from 1,903 to 19,442	86 with municipal values ranging from 38 to 232	88 with municipal values ranging from 52 to 114
Antwerp	445,570	2,179	93	95
Ghent	224,685	1,439	106	106
Charleroi	200,233	1,962	68	79
Liège	184,550	2,660	85	86
Namur	105,248	599	87	101
Leuven	88,581	1,564	113	119
Mons	91,123	622	77	89
Hasselt	68,373	669	109	113
Louvain-la-Neuve	27,703	840	86	105

[a] Derived from the 2001 census, authors' calculations.

[b] Source: Vlaamse Arbeidsrekening, Job ratio as the annual average of 2006

[c] Source: Statistics Belgium; The Wealth Index is a summary index that compares the mean fiscal income per inhabitant of an administrative unit (here LAU-2) with the mean fiscal income of a Belgian citizen. The Wealth Index of Belgium is set equal to 100. An index value below 100 indicates that the mean income per resident within a specific municipality is below the national mean income. The opposite is true for index values of more than 100.

[e] In this study, the Brussels-Capital Region constitutes of its 19 municipalities.

Reference

Van Hecke, E., Halleux, J., Decroly, J., & Mérenne-Schoumaker, B. (2009).

Woonkernen en Stadsgewesten in een Verstedelijkt België (Monografie 9:

Verstedelijking). Brussels: FOD Economie, K.M.O., Middenstand en Energie -

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Appendix B. Descriptive statistics

Table B2. Descriptive statistics of the entire 2001 student population (N=82,530; 19 deceased young adults before first move excluded) and the mobile graduate population not officially domiciled in the HE city in 2001 (N=56,578); respectively used to model (1) graduates' residential mobility and (2) attractiveness of HE cities for mobile graduates.

	2001 Student Population		Mobile Graduate Population[1]	
	N	%	N	%
HE City				
Brussels-Capital Region (BCR)	16,620	20.14	9,281	16.40
Antwerp	7,411	8.98	4,784	8.46
Ghent	12,609	15.28	9,579	16.93
Charleroi	1,399	1.70	697	1.23
Liège	7,928	9.61	5,520	9.76
Namur	2,464	2.99	1,622	2.87
Leuven	8,961	10.86	6,972	12.32
Mons	3,134	3.80	2,172	3.84
Hasselt	2,597	3.15	1,852	3.27
Louvain-la-Neuve	3,995	4.84	3,183	5.63
Other regional cities	7,521	9.11	5,069	8.96
Small cities	7,891	9.56	5,847	10.33
StudAcc				
No	57,815	70.05	36,224	64.02
Yes	24,715	29.95	20,354	35.98
Res01				
Not in HE city	68,448	82.94	56,578	100.00
In HE city	14,082	17.06	0	0.00
Urban01				
Central city	21,291	25.80	6,806	12.03
Agglomeration	10,815	13.10	8,871	15.68
Banlieue	14,462	17.52	11,717	20.71
Commuterzone	16,217	19.65	13,227	23.38
Other BE municipalities	19,745	23.92	15,957	28.20
EduPar				
Low	13,374	16.21	8,373	14.80
Intermediate	19,733	23.91	13,956	24.67
High	41,048	49.74	28,853	51.00
Unknown attainment	7,385	8.95	5,396	9.54
OccupStat				
White collar	41,744	50.58	52,805	93.33
Independent - managerial function	15,207	18.43	10,829	19.14
Blue collar	10,933	13.25	7,217	12.76
Unemployed - in search for job	2,749	3.33	1,549	2.74
Unknown occupational status	11,897	14.42	7,611	13.45

Table B1 continued	2001 Student Population		Mobile Graduate Population[1]	
	N	%	N	%
HE Type				
Professional Bachelor	40,643	49.25	27,055	47.82
Academic Bachelor	10,865	13.16	7,484	13.23
Academic Master	26,779	32.45	18,765	33.17
Postgraduate Master	4,243	5.14	3,274	5.79
NatOrig				
Belgium	69,306	83.98	49,774	87.97
Turkey - Morocco	2,840	3.44	774	1.37
Southern Europe	4,244	5.14	2,477	4.38
Western countries	3,727	4.52	2,350	4.15
non-Western countries	2,413	2.92	1,203	2.13
Age (Mean + Standard deviation)	21.43	1.183	21.44	1.177
Sex				
Male	39,358	47.69	25,479	45.03
Female	43,172	52.31	31,099	54.97
DistHEI				
< 15km			15,860	28.03
15-29km			16,750	29.61
30-49km			12,124	21.43
≥50km			11,844	20.93
DistMoved				
< 15km			33,838	59.81
15-29km			8,863	15.67
30-49km			6,295	11.13
≥50km			7,582	13.40
Density (Mean + Standard deviation)			1.44	1.723
Rental (Mean + Standard deviation)			11.07	3.565
Job (Mean + Standard deviation)			71.42	27.052

[1] Residential mobility observed between 1/10/2001 and 1/1/2010.

Source: census 1991 & 2001 and National Register, authors' calculations

Appendix C. Cumulative survival curves at mean of covariates, for attracted graduate migrants (N=13,442), by city of HE in 2001

Figure C1. Cumulative Survival, Cox Proportional Hazard - Model 1 (includes HEI location; controls for age)
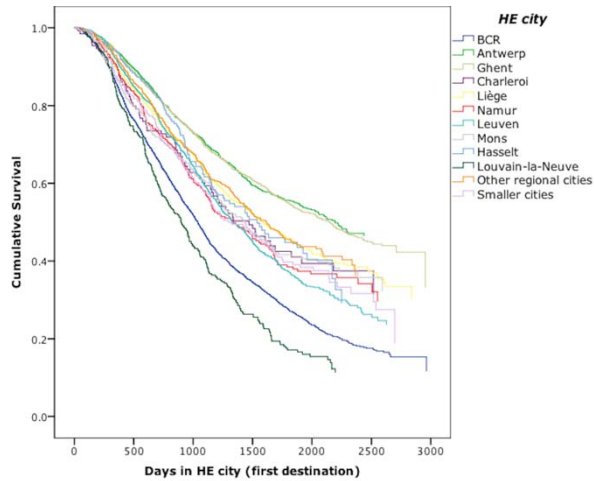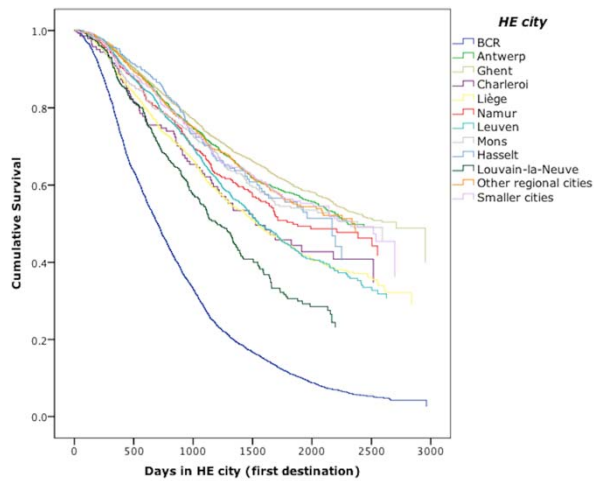

Figure C2. Cumulative Survival, Cox Proportional Hazard - Final model (includes HEI location; controls for demographic, socioeconomic, residential and contextual characteristics)

Source: census 1991 & 2001 and National Register 2001-2010, authors' calculations