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Christof van Mol and Peter Ekamper

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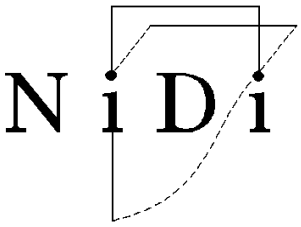

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Abstract

The Erasmus programme is generally considered the flagship of intra-European exchange programmes in higher education, with more than 3 million participants since 1987. Whereas a number of studies investigated the determinants of student mobility decisions, no knowledge exists on the main destination cities of European exchange students. Our research note exactly aims at filling this gap in the academic literature. Making use of a unique dataset from the European Commission containing micro-level data on the full population of Erasmus students for study purposes in 2012-2013 (n = 211,267), we provide a descriptive overview of the spatial distribution of Erasmus students at the city level. The results reveal that European exchange students are mainly attracted by capitals and second tier metropolitan cities. Furthermore, the analysis reveals significant variation regarding the main region of origin of mobile students within most destination countries.

Keywords: Erasmus student mobility; destination choices; cities; spatial distribution; European Union

Introduction

Over the past decades, international student mobility and migration significantly increased. Whereas in 1975, 0.8 million students were enrolled outside their country of citizenship, this number increased to 4.5 million in 2012 (OECD, 2014). Globally, Europe is the main destination of international students, hosting 48 per cent of all international students (OECD, 2014). In contrast to other world regions, the most common form of student mobility in Europe is credit mobility, whereby students go abroad for a limited period of time in the framework of an exchange programme (Brooks & Waters, 2011). This is principally the result of the Erasmus programme, the largest European student exchange scheme for higher education students. Since its initiation in 1987, more than three million students studied in another European country within this framework (European Commission, 2014). Today, more than 4,000 institutions from over 30 countries participate, and its annual budget exceeds 450 million euro (Souto Otero, Huisman, Beerkens, De Wit, & Vujić, 2013). In sum, these impressive numbers indicate that international students now form an intrinsic part of the 'new European map of migration' (King, 2002).

Despite the substantial number of students moving internationally as well as the importance attached to student mobility at a political level (see e.g. Brooks & Waters, 2011; Findlay, 2011; Van Mol, 2014), international student mobility has long been neglected by migration scholars (Findlay, King, Stam, & Ruiz-Gelices, 2006; King & Raghuram, 2013). Consequently, much remains to be done. One of the main lacuna in the emerging literature concerns information on destination cities of exchange students (Insch & Sun, 2013; Llewellyn-Smith & McCabe, 2008). This is partly due to data limitations. When providing contextual overviews of the Erasmus programme, educational practitioners, politicians and scholars generally rely on the annual statistics published at the website of the European Commission. These statistics cover the main home and host universities as well as Erasmus student flows between countries. In scholarly terms, they allowed to investigate how specific characteristics of higher education institutions and countries explain student mobility flows within Europe (e.g. Rodríguez González, Bustillo Mesanza, & Mariel, 2011). Data on the main destination cities of Erasmus students, however, is non-existent today.

Gaining insight into the spatial distribution of Erasmus student mobility at the city level, is relevant for advancing our understanding of the mobility decision process of exchange students. In the literature on international migration it is suggested that people are rather attracted by countries than by particular localities, as individuals generally move to

localities where there are job opportunities (e.g. Geis, Uebelmesser, & Werding, 2013; Hofmann, 2015; Moral-Pajares & Jimenez-Jimenez, 2014; Palmer & Pytliková, 2015). Nevertheless, we argue this might not hold true for exchange students. After all, it has been amply demonstrated that Erasmus students are mainly motivated by experiential instead of academic goals (e.g. Findlay et al., 2006; Teichler, 2004; Van Hoof & Verbeeten, 2005; Van Mol & Timmerman, 2014). Analyses at the macro-level seem to confirm this trend, revealing that Erasmus student mobility is biased towards Mediterranean countries, which would be attractive because of their climate (Rodríguez González et al., 2011). We expect that besides the characteristics of host institutions and countries, students also consider characteristics of host cities when making mobility decisions. After all, the host city is the physical environment where the educational experience will take place (Cubillo, Sánchez, & Cerviño, 2006). Descriptive information on the main destination cities of Erasmus students might thus stimulate future research, opening possibilities to broaden existing frameworks explaining student mobility flows by institutional and country-level factors (e.g. Mazzarol & Soutar, 2002), by adding a crucial intermediate context in the decision-making process, namely the destination city. In addition, such descriptive information is helpful for researchers empirically investigating the dynamics of intra-European student exchanges, as it allows to situate particular fieldwork settings within the broader European context. With this research note, we provide such descriptive overview, focusing on the general attractiveness of destination cities of Erasmus students as well as the relative popularity of each city according to the students' region of origin.

Data and methods

Our analysis is based on micro-level data from the European Commission, covering the full population of Erasmus students in the 2012-2013 academic year. Our overview is restricted to student exchanges for study purposes (n = 211,267), as student mobility for work placements might follow different patterns. For each destination institution, we mapped the spatial location. Thereafter, we aggregated incoming student numbers for institutions located in the same city. Some of the localities were very small towns located in the immediate environment of (very) large cities. As we expected students going to these small locations are mainly attracted by these nearby larger cities instead of the small locality, we aggregated them with the larger cities if the distance between both localities was less than ten kilometer.

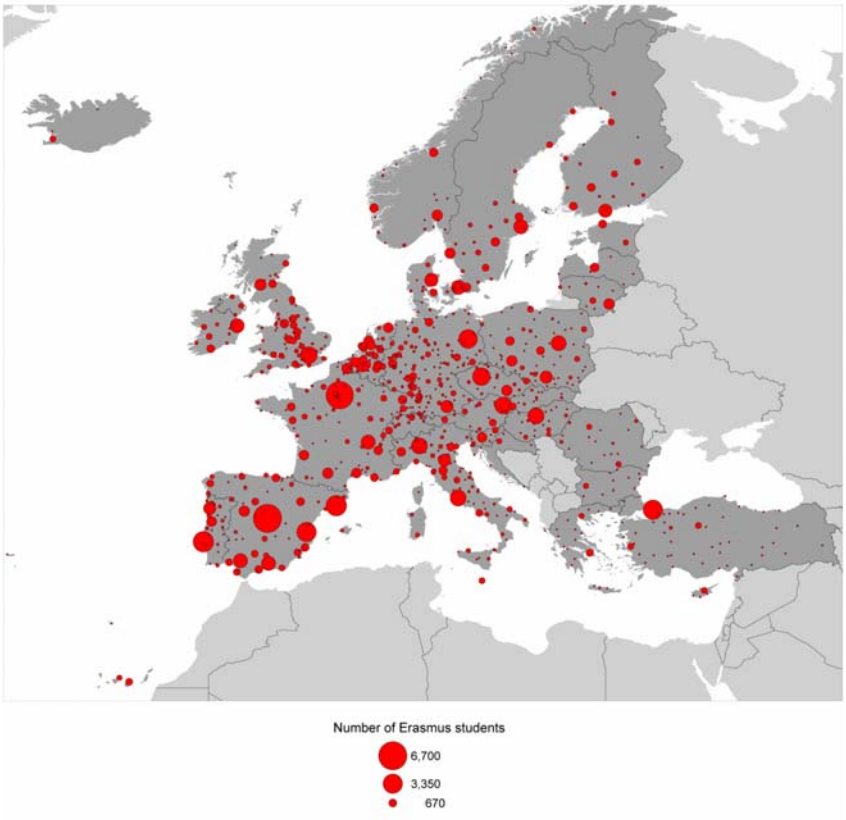
The relative popularity of each city according to students' region of origin in each city is calculated as the highest ratio between the actual percentage of Erasmus students from a

region of origin in that city and the expected percentage of Erasmus students from that region. This expected percentage is calculated as if all students by region of origin would be distributed equally over all cities. The expected distribution differs per country as Erasmus students are not eligible for an exchange in their own country of origin.

Findings

Figure 1 shows that students go to a great variety of destinations, 884 locations in total. The top-20 destinations of Erasmus students are (in descending order): Madrid (6,697 students), Paris (6,423), Barcelona (3,801), Lisbon (3,693), Valencia (3,434), Istanbul (3,395), Berlin (3,230), Prague (2,949), Vienna (2,689), London (2,616), Budapest (2,522), Roma (2,508), Milan (2,388), Warsaw (2,108), Sevilla (2,079), Stockholm (1,979), Granada (1,960), Lyon (1,928), Dublin (1,901), and Copenhagen (1,901). An overview of the fifty most popular cities can be consulted in annex 1.

Figure 1. Number of Erasmus students* by destination city, 2012-2013



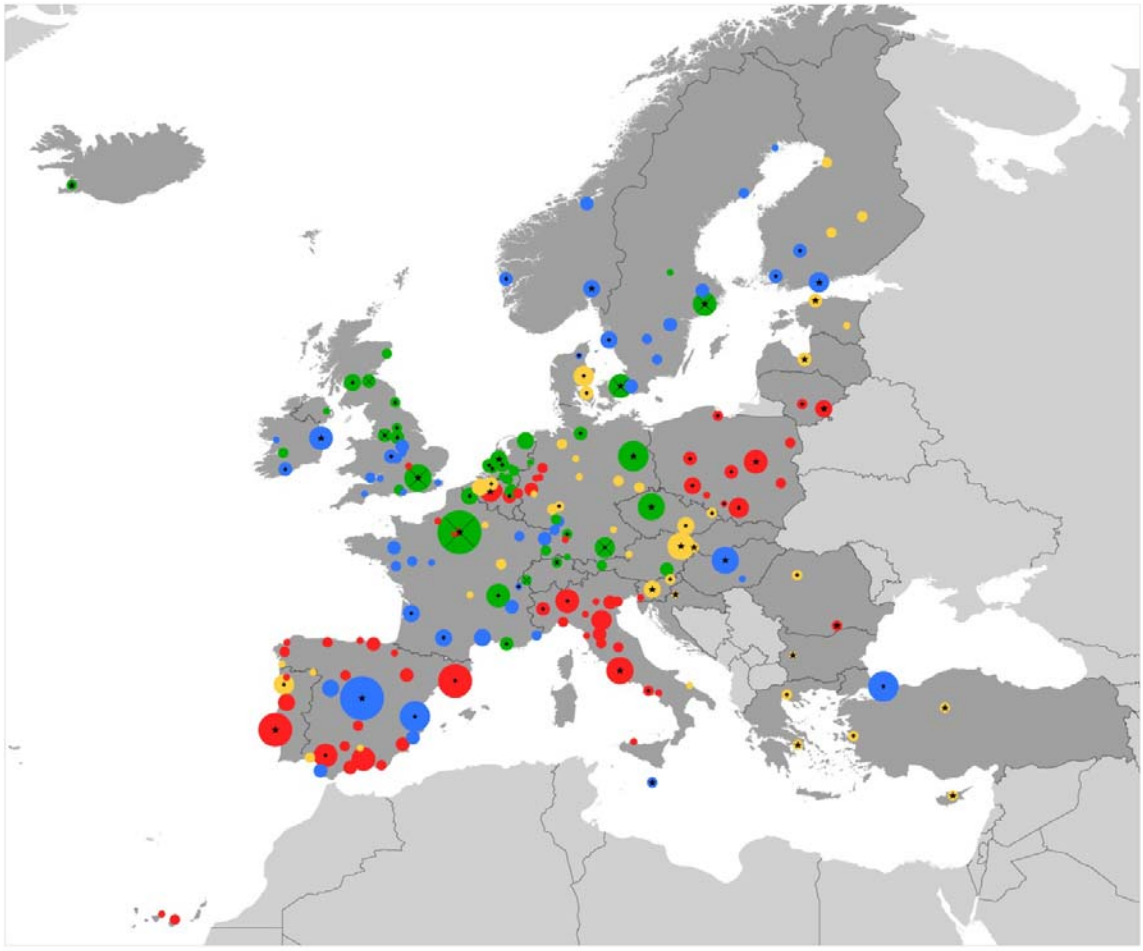
Source: European Union Directorate-General for Education and Culture – Erasmus Mobility Statistics 2012-13

Note:

* Erasmus student exchanges for study purposes only (n = 211,267).

Figure 2 shows only cities receiving at least 250 Erasmus students, and indicates the capitals and second tier metropolitan regions (as defined in ESPON, 2013), as well as the cities hosting a world class higher education institution (defined as institutions included in the top-50 of the Times Higher Education Ranking and/or Shanghai Ranking for 2013).

Figure 2. Number of Erasmus students* by destination city (receiving at least 250 Erasmus students), type of city** and most overrepresented region of origin***, 2012-2013****



Source: European Union Directorate-General for Education and Culture – Erasmus Mobility Statistics 2012-13

Notes:

* Erasmus student exchanges for study purposes only.

** Capitals, second tier metropolitan regions (as defined in ESPON, 2013), and citeis hosting a world class higher education institution (defined as ionstitutions included in the top-50 of the Times Higher Education Ranking and/or Shanghai Ranking for 2013).

*** Regions of origin: Northern Europe (Denmark, Finland, Iceland, Norway, and Sweden) , Western Europe (Austria, Belgium, France, Germany, Ireland, Liechtenstein, Luxembourg, Netherlands, Switzerland, and United Kingdom), Eastern Europe (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia), and Southern Europe (Cyprus, Greece, Italy, Malta, Portugal, Spain, and Turkey).

**** The overrepresentation per destination city is calculated as the ratio between the actual percentage of Erasmus students from a region of origin in that city and the expected percentage of Erasmus students from that region of origin. The expected distribution of all Erasmus students over all destination cities is calculated as if all students by region of origin would be distributed equally over all cities. The expected distribution will differ per country since Erasmus students are not eligible for their own country of origin. The overall distribution for all destinations is 5.6% Northern, 41.5% Western, 16.8% Eastern, and 36.1% Southern European students, but for instance for German destinations the expected distribution is 6.5% Northern, 32.2% Western, 19.4% Eastern, and 41.8% Southern European students, due to the exclusion of students originating from Germany who are not eligible for destinations in Germany. In the case of for example Berlin there are 3.230 Erasmus students of which 12.8% Northern, 45.2% Western,12.7% Eastern, and 29.3% Southern European students, which gives the highest overrepresentation ratio of 1.96 (12.8%/6.5%) for Norther European students.

Furthermore, the figure indicates the relative popularity of each city according to students' regions of origin. This figure clearly illustrates that students are mainly attracted by larger European cities, instead of being attracted by the best universities. Only five of the twenty most popular locations (Copenhagen, London, Munich, Paris and Stockholm) host a world-class university. This suggests that international and large cities might have a larger appeal to Erasmus students instead of the prestige of the academic institution they will attend. Furthermore, the figure indicates interesting patterns regarding the region of origin of European exchange students. Students from Northern Europe are overrepresented in most cities hosting a world-class institution for higher education, but are nowhere the most overrepresented group in Eastern or Southern European cities – with the exception of Prague. Southern European students, in contrast, show to be mainly overrepresented in other Southern

European cities, as well as in Polish and Lithuanian cities. The overrepresentation of Eastern and Western European students, in contrast, shows to be more spatially dispersed. Overall, the figure reveals considerable variation in the regions of origin of incoming students within most cities.

Discussion

Although destination city characteristics probably play a crucial factor for explaining student mobility patterns within Europe, they have been largely neglected in the academic literature. With this research note, we aimed to take a first step in improving our understanding on the (uneven) distribution of Erasmus students across destination cities. Based on a unique dataset covering the full population of Erasmus students in 2012-2013, we showed that European exchange students head to a wide diversity of destinations. Nevertheless, capitals and large metropolitan regions are clearly more attractive than smaller localities. Furthermore, we revealed intriguing patterns regarding the zones of origin of exchange students across and within destination countries. The results suggest, for example, that the status of higher education institutions might be most important for Northern European students, as these students are overrepresented in cities hosting a world-class institution for higher education. In addition, students from Southern Europe seem to mainly move within their own region, as well as towards Eastern Europe. This pattern might be related to similarities between localities in terms of costs of living, culture and/or climate.

In sum, although the descriptive results presented in this research note have limited explanatory power, they show it is imperative for future research to take the city level into account. Future studies should investigate which specific characteristics make some cities more attractive than others, taking the students' country of origin into account. Possible foci hereby are cities' labour market characteristics, as well as the specific amenities cities provide in terms of, for example, transport infrastructure, costs of living, social cohesion, recreation areas and nightlife (for an example on internal labour migration within Germany, see Buch, Hamann, Niebuhr, & Rossen, 2014). More developed insights in the decision-making process of exchange students will not only feed academic research, but will also be very informative for educational practitioners, local administrations and policy-makers.

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Annex 1. Top-50 destination cities of European exchange students, 2012-2013

Rank	City	Number	Rank	City	Number
1	Madrid, ES	6,697	26	München, DE	1,596
2	Paris, FR	6,423	27	Krakow, PL	1,553
3	Barcelona, ES	3,801	28	Glasgow, UK	1,336
4	Lisbon, PT	3,693	29	Lille, FR	1,235
5	Valencia, ES	3,434	30	Amsterdam, NL	1,213
6	Istanbul, TR	3,395	31	Toulouse, FR	1,197
7	Berlin, DE	3,230	32	Göteborg, SE	1,167
8	Prague, CZ	2,949	33	Vilnius, LT	1,145
9	Vienna, AT	2,689	34	Wroclaw, PL	1,143
10	London, UK	2,616	35	Salamanca, ES	1,130
11	Budapest, HU	2,522	36	Brno, CZ	1,128
12	Roma, IT	2,508	37	Oslo, NO	1,126
13	Milan, IT	2,388	38	Ljubljana, SI	1,094
14	Warsaw, PL	2,108	39	Groningen, NL	1,086
15	Sevilla, ES	2,079	40	Bordeaux, FR	1,056
16	Stockholm, SE	1,979	41	Gent, BE	1,031
17	Granada, ES	1,960	42	Montpellier, FR	1,007
18	Lyon, FR	1,928	43	Coimbra, PT	995
19	Copenhagen, DK	1,901	44	Turin, IT	948
20	Dublin, IE	1,901	45	Leuven, BE	938
21	Helsinki, FI	1,857	46	Firenze, IT	934
22	Brussels, BE	1,791	47	Utrecht, NL	928
23	Aarhus, DK	1,767	48	Manchester, UK	902
24	Bologna, IT	1,666	49	Lund, SE	893
25	Porto, PT	1,638	50	Grenoble, FR	883

Source: European Commission, authors' own calculations.

The Erasmus programme is generally considered the flagship of intra-European exchange programmes in higher education, with more than 3 million participants since 1987. Whereas a number of studies investigated the determinants of student mobility decisions, no knowledge exists on the main destination cities of European exchange students. Our research note exactly aims at filling this gap in the academic literature. Making use of a unique dataset from the European Commission containing micro-level data on the full population of Erasmus students for study purposes in 2012-2013 (n = 211,267), we provide a descriptive overview of the spatial distribution of Erasmus students at the city level. The results reveal that European exchange students are mainly attracted by capitals and second tier metropolitan cities. Furthermore, the analysis reveals significant variation regarding the main region of origin of mobile students within most destination countries.

The Netherlands Interdisciplinary Demographic Institute (NIDI) is an institute for the scientific study of population. NIDI research aims to contribute to the description, analysis and explanation of demographic trends in the past, present and future, both on a national and an international scale. The determants and social consequences of these trends are also studied.

NIDI is a research institute of the Royal Academy of Arts and Sciences (KNAW).