



How Berlin Attracts the Turkish “New Wave”: Comparison of Economic and Socio-Cultural Pull Factors for Highly Skilled Immigrants

Author: Mehmet Oğuzhan Okumuş

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Sigrid Betzelt, Eckhard Hein (lead editor), Martina Metzger, Martina Sproll, Christina Teipen, Markus Wissen, Jennifer Péduessel Wu, Reingard Zimmer

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Abstract:

This paper investigates the impact of economic and socio-cultural pull factors on migration decisions of graduate students and highly skilled professionals with a specific focus on recent highly skilled Turkish immigration in Berlin. The main hypotheses of this study are that economic factors play a significantly more important role in the migration decisions of highly skilled professionals whereas socio-cultural factors have a significantly more impact on graduate student migration. The data are collected through an online survey and analyzed in the light of previous literature on highly skilled immigration. Compatible with the results of earlier studies, the findings reveal significant differentiation in the effect of economic pull factors on highly skilled professionals compared to graduate students, especially in the domains career opportunities, employment opportunities and expectations for a higher quality of life. Socio-cultural pull factors appear to have insignificant difference despite being favored more by immigrants who moved to Berlin through an educational channel. Altogether, these results indicate the importance of diversified migration policies for the distinct needs of different highly skilled groups.

JEL Classification Codes: J61, J15, K37, O15, F66

Key Words: Highly skilled immigration, Brain drain, Germany, Turkey

Contact: moguzhanokumus@gmail.com

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1. Introduction

Neoliberal populism pursued by Erdoğan's government as an amalgamation of neoliberal austerity measures and political Islam deepened the political and economic instability in Turkey especially over the past 5 years (Akçay, 2018). Among many dire consequences of these adverse conditions, Turkey has been experiencing a growing wave of qualified human resource outflow, as expressed by Turkish Industry and Technology Minister Mustafa Varank (Gürsel, 2018). This wave of immigrants is composed of professionals with higher educational backgrounds, as well as people migrating through educational channels and they are generally directed to developed countries such as the United States, Canada and the United Kingdom (Stacey, 2018). As the fourth biggest economy of the world and the leading country of the European Union, Germany also constitutes one of the favorite places of this immigration movement (Acar, 2017:7). This wave of brain exchange appears to be an observable phenomenon in particular for the capital city of Germany, Berlin, thanks to an international scene, relatively affordable rents, cheap food, availability of non-commercial activities and already existing Turkish cultural life (Bader & Scharenberg, 2010:84; Lehmann, 2017). Historically, the main focus on the impact of immigration on the cities and developed countries was centered on the emergence of low skilled groups, and urban-related problems pertaining to their concentration in working-class neighborhoods, yet recently, migrants with higher educational backgrounds and skills draw the attention of academia as well as policy makers at local, regional and national levels (Plöger & Becker, 2015:1518). Moreover, migration of highly skilled labor and graduate students is no longer regarded as a temporary phenomenon, parallel to the increasing number of opportunities for long-term and permanent settlements for those who can properly integrate into the labor market, particularly in the sectors, which are experiencing or expected to experience labor shortages in the future, in developed countries such as Germany (Faist et al., 2017:8).

In an earlier conceptualization of Koser and Salt (1997), highly skilled immigration was constructed with respect to two main perspectives, namely economic and socio-cultural dynamics. Based on this approach, the role of economic and socio-cultural factors within an urban context have long been investigated while explaining the motivational factors of highly skilled immigrants (Koser & Salt, 1997; Yanaşmayan, 2014, Plöger & Becker, 2015), yet the motivational differences among the major groups in the concept of "highly skilled immigrants" remained limited in previous literature. Therefore policies targeting the improvement of the conditions for highly skilled immigrants might miscalculate their differentiated needs. In order

to investigate this differentiation, Mahroum (2001) identified five major groups under highly skilled immigrants, namely, (i) senior managers and executives, (ii) engineers and technicians, (iii) scientists, (iv) entrepreneurs, and (v) students, and he further claimed that there might be motivational differences among them, such that a scientist might relocate abroad as a result of scientific curiosity whereas an entrepreneur might consider labor market conditions or possible profits. For simplicity, the manuscript will stick to the categorization of highly skilled immigrants under two groups, (i) graduate students and (ii) highly skilled professionals.

1.1. Research Question

The Turkish New Wave is generally considered as a homogenous group which has identical needs and motivations, namely a group of young people who are disgusted with the political situation in Turkey and the authoritarianism of Erdoğan, hence they prefer to “live in exile” instead of living in their home country where they see little future for themselves (Pearson, 2018). However, the group consists of graduate students and highly skilled professionals, or those who come to Berlin for educational purposes and those who are present in Berlin for professional purposes, and therefore their motivations and their needs would differ from each other. The main research question of the study is how economic and socio-cultural pull factors in Berlin have an impact on immigration decisions of highly skilled Turkish¹ individuals, who move to Berlin, either through educational channels or for professional purposes.

To investigate this in a systematic manner, the thesis will group the main motivations in two domains, namely economic and socio-cultural aspects. These two groups of pull factors are particularly selected in order to point out Neoliberal populism in Turkey as a background. Within this framework, economic incentives for choosing Berlin emerge as an urge of staying away from neoliberal welfare state policies and their destructive impacts on wages, employment and career opportunities, and general quality of life. On the other hand, socio-cultural needs originate from moderate Islamist oppression and the conservative turn of Turkey under the

¹ It should be noted that the term “Turkish” will be used throughout the paper in order to indicate citizens of Turkey, which includes individuals from diverse ethnic minority groups such as Kurdish, Arabic, Armenian, Greek, Jewish, and so forth, and not to mention ethnic nationalities (Turk) or ethno-linguistic and racial backgrounds going back to Central Asia (Turkic). The term “from Turkey” is not preferred on the grounds of possible arrivals in Europe from other countries by using Turkey as a transit country for migration. For instance, a Syrian doctor who spent several years in Turkey as a refugee might further move to European countries after learning Turkish and partially integrated to cultural dynamics of Turkey. In this case, the doctor would be a “highly skilled immigrant from Turkey” but in fact there are different dynamics between the motivational backgrounds of individuals. For that reason, the reference will be citizenship instead of departure country.

populist policies of the Erdoğan government, which lead highly skilled individuals to emigrate in other destinations where they have more social rights and at the same time easily integrate throughout existing migration networks or reduced language barriers. The scope of the investigation will be limited to the attracting factors.

1.2.Methodology

The methodology of this study will be a mixture of the literature review on highly skilled immigration and brain gain, results of two unpublished surveys and an online survey conducted with highly skilled Turkish individuals in Berlin.

1.3.Hypothesis

The hypothesis of this study will be:

- $H_0: E_E = E_W; S_E = S_W$

Economic pull factors will not have a significantly different impact for the highly skilled Turkish immigrants who moved to Berlin for educational purposes (E_E) compared to those coming with work purposes (E_W).

Socio-cultural pull factors will not have a significantly different impact for the highly skilled Turkish immigrants who moved to Berlin for educational purposes (S_E) compared to those coming with work purposes (S_W).

- $H_1: E_W > E_E$

Economic pull factors in Berlin are significantly more effective for highly skilled Turkish immigrants with working purposes (E_W) than for those with educational purposes (E_E).

- $H_2: S_E > S_W$

Socio-cultural pull factors in Berlin are significantly more effective for the highly skilled Turkish immigrants with educational purposes (S_E) than for those with working purposes (S_W).

2. Literature Review

2.1. Conceptual Discussion on Highly Skilled Immigration

To begin with the discussion on highly skilled immigration, the concept “highly skilled” needs to be clearly defined. There has been no consistent definition or measurement indicated for the concept “highly skilled” in the international academic and policy literature due to data-related and conceptual reasons (Lowell & Batalova, 2005:1). Nevertheless, not all university graduates entering the labor market can necessarily be considered as “workers”. For instance, students are considered as an important part of highly skilled immigration, and international student policy has long become a fundamental aspect in the international competition for high-level skills (Chaloff & Lemaître, 2009:24). Although some studies on highly skilled immigration excluded students from their dataset (Docquier et al., 2009; Brücker et al., 2013), recent investigations have been challenging the assumptions that students are temporary residents of a country, but rather they constitute an important population in the overall migration (Ozcurumez & Yetkin Aker, 2016:64).

Despite the complexities indicated by the term “highly skilled”, the framework of OECD and European Commission/Eurostat defines the group as individuals who have either successfully completed a tertiary education or employed in occupational roles which normally require tertiary qualifications, such as an undergraduate degree (Mulholland & Ryan, 2016:143; Organisation for Economic Co-operation and Development, 2016). For that reason, “highly skilled immigration” is used as an umbrella term, which includes immigrants with higher education backgrounds, i.e. individuals with a minimum Bachelor degree, including advanced/graduate students and professionals such as academicians, managers, directors, IT specialists (Cervantes & Guellec, 2002; Ozcurumez & Yetkin Aker, 2016:61) as well as innovators, entrepreneurs, scientists and teachers (World Bank, 2018:28). In this study, the “highly skilled” individuals will be operationally defined parallel to the definition of the OECD and EU framework, and individuals who have a tertiary degree and living outside of their country of birth will be considered as highly skilled immigrants, regardless of their status of employment.

Other than level of education, previous literature also differentiates skill-based immigration, which happens through professional and educational channels, from kinship-based immigration, such as family reunions, or humanitarian-based immigration, like asylum applications due to the social, economic or political crisis in the host countries (Aydemir,

2014:2-3). This study also sticks to the differentiation among skill-based, kinship-based and humanitarian-based immigration, and highly skilled immigration is conceptualized as the motivation to move another country without any familial motivation or asylum application processes.

2.2.Pull Factors of Highly Skilled Immigration

Economic and socio-political factors in both sending and target countries can become the source of the migration, where the attractive elements in target country are considered as “pull factors” and repulsive aspects in home country are named as “push factors” (Dinbabo & Nyasulu, 2015:33). In other words, pull factors refer to pleasing offers in the target destinations including higher welfare conditions, higher salaries and better career options, whereas push factors denote the negative aspects of home countries which force individuals to emigrate other destinations such as economic stagnation, lack of political and social freedom, and so forth (Cheng & Yang 1998: 627). In the previous literature, there are several prominent pull factors especially for highly skilled individuals such as higher income expectations (World Bank 2018:85), employment opportunities (Cebolla-Boado & Miyar-Busto 2017:5), existing income inequalities on behalf of higher income groups (Milanovic, 2016), facilitated legal requirements and pro-highly skilled immigration policies (Bailey & Mulder, 2017:2696), existing transnational networks and use of language (World Bank 2018:85), and availability of high-quality higher education (Kahanec & Králiková, 2011:4). Pull factors of a destination deserve notice since they determine the level of immigrants’ participation in different areas including social, economic, political or cultural domains, and the degree of their access to information, resources and infrastructure as their local counterparts (Plöger & Becker, 2015:1522). Although the pull factors of highly skilled immigration are not limited to these aspects, this study will be dealing with the pull factors which can be categorized as either economic factors or socio-cultural factors, for the simplicity of the analysis.

Parallel to previous literature, the scope of economic pull factors in this study will constitute 4 main impacts; these are wage differentials, employment opportunity, career options, and quality of life with respect to higher living standards and low costs of living. Among these main pull factors, taking the advantage of high wage opportunities has always been considered as the main motivation factor for immigration in the previous literature, which basically claims that individuals tend to migrate to the destinations where they can earn more money (Smith, 2010; Hicks, 1932; Kerr et al, 2017:9). Apart from the factors regarding wage,

migration flows of highly skilled individuals tend to be directed to labor markets with both currently superior and promising future employment opportunities (World Bank, 2018:85-95). Previous studies showed that the labor market opportunities appear as strong drives of locational choice, attracting skilled workers with employment supply as well as international students (Chankseliani, 2016; Crescenzi and Holman, 2017). Together with the possibility of finding suitable employment, progressing in their careers appears as the most important goal for highly skilled immigrants (Crescenzi & Holman, 2017:623). The results of previous studies also indicate the importance of career-oriented motivations such as achieving a high educational degree or gaining work experience abroad upon the decision of highly skilled individuals to relocate (Plöger & Becker, 2015:1524). Last but not least, the presence of a higher quality of life in terms of higher living standards and affordable living costs motivates highly skilled individuals to migrate to another destination. In addition to the aforementioned economic factors, quality of life has a significant impact on urban and inter-regional migration of the highly skilled (Crescenzi & Holman, 2017:606). For instance, progressive social security systems which provide high level of protection from unemployment, illness, or acute downward social mobility ensure higher living standards for highly skilled immigrants, especially for professionals whose families are also living with them (Faist et al., 2017:36), hence serving as an important incentive for migration.

Despite the diversity of economic pull factors, the dynamics for the immigration of graduate students and highly skilled professionals cannot be limited to availability of economic opportunities, given the social and political hardship that they face in their home countries. For that reason, socio-cultural aspects of pull factors also need to be taken into consideration based on the discussion in the previous literature. This study will stick to the conceptualization of a recent study conducted by Faist et al. (2017) on the immigration of highly skilled Indian individuals to Germany, which considers the socio-cultural aspects of pull factors in four main domains, namely transnational social ties of migrants, spatial and social mobility, social (in)equality and social integration.

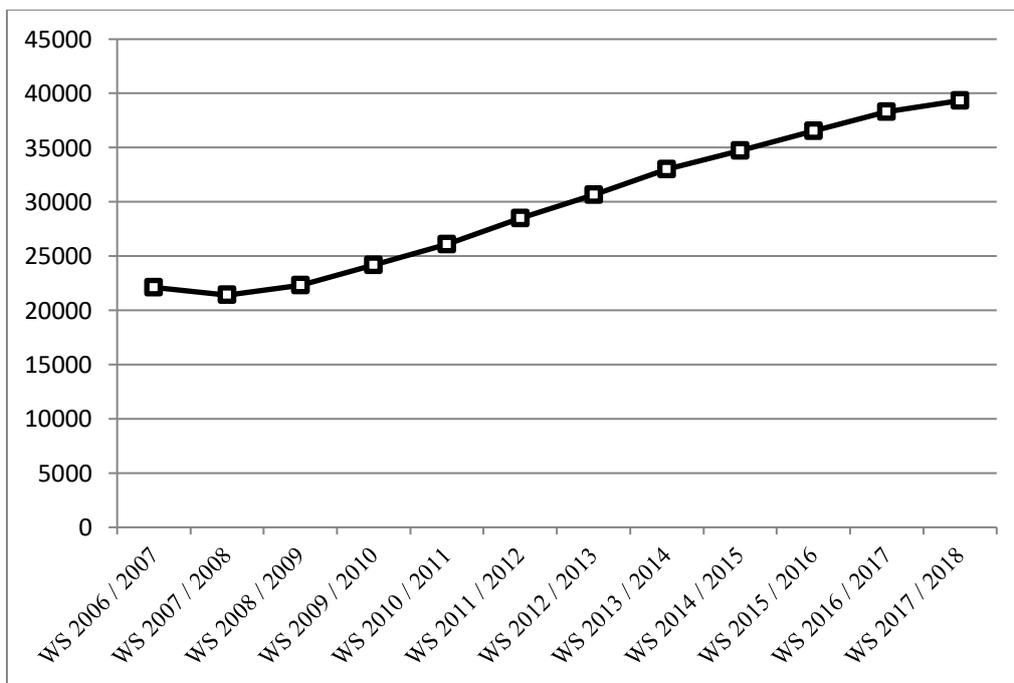
To begin with the transnational migration ties, the concept indicates the cross-border ties of international immigrants with other non-migrants located in the home country or other destination countries, such as family members or friends left behind, and the social practices they pursue with them (Faist et al., 2017:30). Presence of immigrant communities provides enclaves for individuals from similar cultural backgrounds, where previous immigrants who

have long been residing in the target country may ease the problems of newcomers especially related to accommodation or work and thereby diminishing the stress of adapting to a foreign culture (Liu, 2016:2-3), which is also beneficial for the highly skilled immigrants although their immigration patterns are considerably different from the previous waves of immigration. Secondly, spatial and social movements represent the urge for improving one's socio-economic conditions by changing destination as one of the oldest strategies of human-beings to deal with hunger and poverty (Faist et al., 2017:30). Considering the agglomeration effects argued by Kerr et al. (2017), the occupations and sectors which require people with high skills play a role as a magnet for the arrival of further highly skilled individuals due to "productivity spillover" – as in the case of Silicon Valley, Hollywood and Wall Street – and consecutively increasing the overall socio-economic standards of highly skilled individuals. Next, social inequality is defined as an unequal access to opportunities and rewards in the society pertaining to the imbalanced distribution of material and immaterial valuable assets such as income, wealth, employment, education or living environment opportunities, due to position of individuals in the society or their personal identities regarding to their race, gender, sexual orientation or religion (Faist et al., 2017:30). Significant feminization of highly skilled emigration in the recent years can be considered as a concrete example of social inequality based immigration motivations for highly skilled individuals, as reports indicate that the migration of highly skilled women to OECD countries rose by 157% in contrast to men with 106% from 1990 to 2010, and the total number of highly skilled immigrant women exceeded the total number of highly skilled immigrant men by 2010 (Kerr et al., 2017:9). Considering the reverse relationship between push and pull factors, the presence of decent living standards for women play a crucial role in their destination preferences, since what creates a reason for their emigration becomes an integral part of their expected solution after their immigration. Therefore this concept will be taken into account as a search for "social equality" to indicate the pull factor of immigration for highly skilled individuals. Finally, social integration refers to an interactive process of inclusion pertaining to the acceptance of migrants in the core institutions, relations and statuses of destination country through learning a new culture, acquisition of rights, building personal relations with local people and formation of feelings of belongingness and identification with the host society for immigrants, whereas from the part of host country, invention of ways to interact with newcomers and adaptation of institutions to their ever-changing requirements (Heckmann, 2005:17, as cited in Faist et al., 2017:30). In this regard, language proficiency and affiliation with host country culture are considered as two main aspects in the previous literature regarding migration motivations of highly skilled individuals (Liu, 2016:7).

2.3. Presence of Highly Skilled Turkish Individuals in Germany

The growing presence of highly skilled individuals from Turkey in Germany can be considered by the change in the number of students and number of EU Blue Card holders. Starting with the data on student arrivals from Turkey, the number has an increasing trend especially after the global economic crisis in 2008 and the total number of students reached to 39,338 in 2017/2018 Winter Semester, ranking as the 2nd greatest country of origin for student arrivals slightly behind China, whereas the value was recorded as 22,090 in 2006/2007 Winter Semester, as shown in Figure 1. Although the data of Eurostat (2018) does not provide a distribution with respect to the level of education for incoming students, however a general increase in the number of students will be very likely to increase the number of graduate students, especially considering the demographic results of two previous studies on New Wave individuals, where majority of individuals appeared to have at least bachelor degrees. In short, the overall increase in the number of students will be assumed as an indicator of growth in the total number of highly skilled immigration, despite the absence of categories.

Figure 1 - The Change in the Number of Students from Turkey in Germany

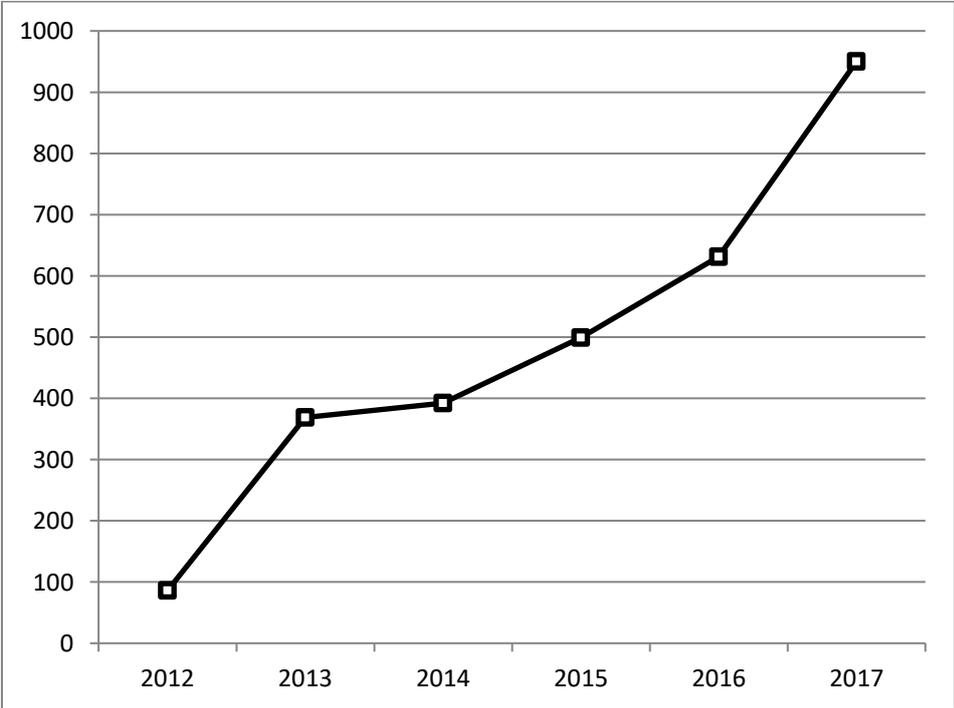


Source: Statistisches Bundesamt (Federal Statistical Office) 2018, Fachserie 11 Reihe 4.1

In addition to student arrivals, the number of EU Blue Cards granted to Turkish highly skilled professionals by Germany was recorded as only 86 in the initial year, when the directive was put into effect in 2012. Nevertheless, the number of highly skilled professionals who

obtained EU Blue Card has been continuously growing and reached to 950 professionals in 2017. Despite this growing trend, the total number of EU Blue Card holders is rather small, particularly compared to student arrivals. Figure 2 depicts the distribution over years after the implementation of the directive.

Figure 2 - EU Blue Card Holders from Turkey in Germany



Source: Eurostat, 2018. EU Blue Cards by type of decision, occupation and citizenship [migr_resbc1]

3. Method

An online survey in Turkish is prepared by using Google Forms. The survey consists of 3 major sections and begins with the section composed of 5 questions regarding immigration into Germany which aim to ensure whether the participants fit the focus group of this study. The first 2 questions ask the country of birth (Turkey, Germany, Other) and the city of residence (Berlin, Other) of participants. Those who select “Germany” in the first question and/or “Other” in the second question are discarded from the analysis, since the target of this investigation is to analyze the motivations of highly skilled immigrants who come from Turkey to Berlin in particular, without any type of return motivation to their place of birth. Following these initial 2 questions, the questions are presented pertaining to general information about participants when they first come to Germany with a motivation to stay longer than 6 months, such as their date of arrival with respect to 6 significant political events throughout 6 years in Turkey starting

from Gezi protests in May 2013 to last general and presidential elections in June 2018, their purpose of arrival (Education, Work, Other), and the highest level of education they completed before coming to Germany. Participants who come to Berlin other than education and work will not be taken into consideration since they have different motivations than highly skilled immigrants as defined in the literature. Finally, participants lacking a college degree upon first arrival in Germany to stay longer than 6 months are also ruled out since the focus group of the study is highly skilled immigrants, which operationally defined in this study as consisting of graduate students and highly skilled professionals.

As the next step, participants who indicate their city of residence as “Berlin” proceed to the second section where the survey provides 10 questions assessing the degree of economic and socio-cultural aspects for the arrival of respondents in Berlin. Economic aspects contain questions which measure the quality of life, cost of living, wages, career opportunities, and employment opportunities, whereas socio-cultural aspects include questions regarding the presence of close social ties in Berlin, presence of an active social life, freedom of thought and lifestyle, perception of lower language barriers and existing migration networks, each of these sub-groups are represented by 1 question. The questions are presented in the form of 6-points Likert scale, which would prevent respondents from giving neutral answers and rather, it would provide an orientation whether the mentioned impact is positively or negatively related. Participants are also reminded to evaluate these questions with respect to their initial motivations when they decided to move to Berlin for the first time, and not their post-migration motivations according to which they might extend their residence beyond their original plan². At the third and last section of survey, demographic information regarding gender and age level will be requested from participants.

The survey is posted to recently arrived Turkish community groups on Facebook, which are highly populated by students and highly skilled individuals, namely New Wave in Berlin, Ötekilerin Berlin Dalgası (Berlin Wave of Others – founded as a reaction against the former group) and Alamancılar as well as some other community groups which are functionally created and specifically populated by certain people, such as Turkish Tech Berlin (Expatriate group), FU Berlin Türkiye (Student group), and kuir+lubunBERLIN (LGBTI+ community group). The members of these groups are asked to participate in the survey in 1 week period. Finally, the

² The conceptualization of “further stay” discussed further by Yanaşmayan (2014).

collected data are analyzed in IBM SPSS Statistics 20 package program, by using within samples t-test and one-way ANOVA, with respect to significance level $p < .05$.

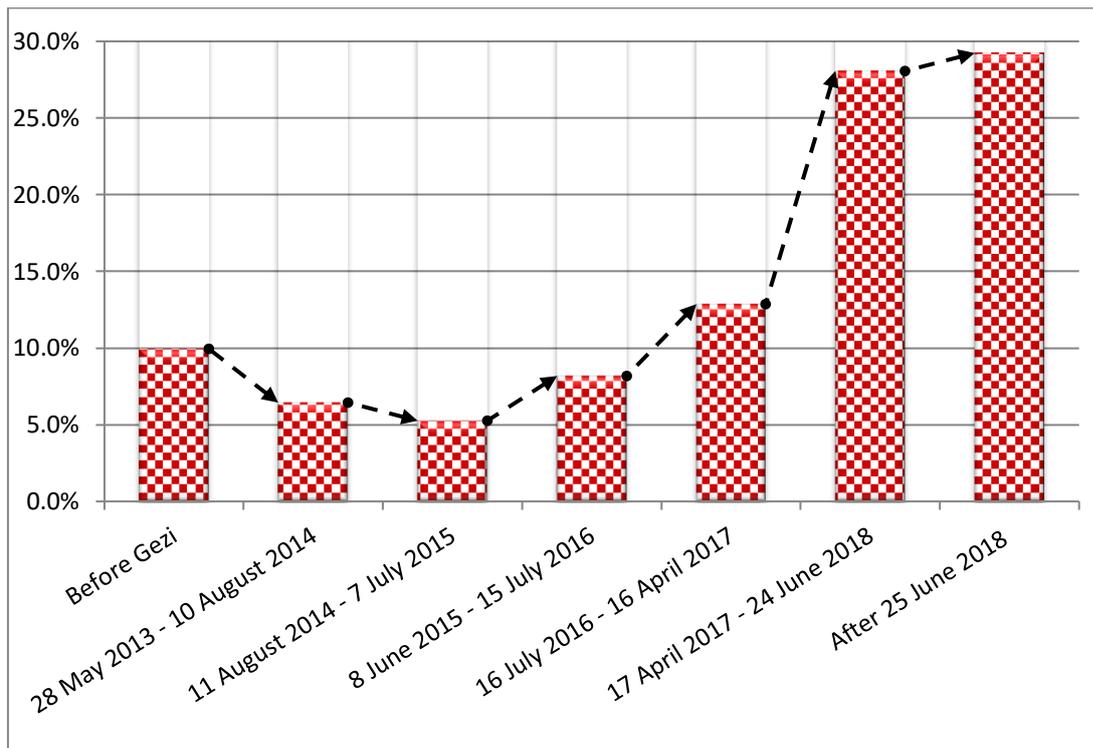
4. Results

A total of 227 data entry has been made to the online survey. 56 data entries were excluded, which contain answers incompatible with the intended focus group of the study, such as people who were born in Germany, people who do not live in Berlin, people who come for purposes other than education or work, and/or people without a minimum bachelor degree. For that reason, remaining 171 participant data were used for the main analysis ($N = 171$).

The most remarkable demographical findings of the study can be summarized as follows:

- The analysis regarding the date of arrival of participants indicate a gradual increase over time, such that, individuals who arrived in Berlin after the last General and Presidential Elections on 24 June 2018 appear as the largest group with 29.1% ($n = 50$) closely followed by those who arrived in the former period corresponding to constitutional referendum on 16 April 2017 until the 2018 elections with 28.2% ($n = 48$), then comes the group which arrived after failed coup attempt on 15 July 2016 to the 2017 Referendum with 12.9% ($n = 22$), and then the former period between the (First) General Elections on 7 June 2015 to coup attempt with 8.2% ($n = 14$) and finally the period between the Presidential Elections on 10 August 2014 to the First General Elections in 2015 with 5.3% ($n = 9$). Additionally, participants who arrived in Berlin before the beginning of Gezi Protests on 28 May 2013 account for 9.9% of the total sample ($n = 17$) and those who moved to Berlin in the period right after Gezi Protests until the Presidential Elections in 2014 constitute 6.4% ($n = 11$). Figure 3 represents the distribution of arrivals for highly skilled with respect to historically significant political events in Turkey.

Figure 3 - Distribution of Arrivals throughout the Years



- Considering the purpose of arrival, the majority of participants moved to Berlin for educational purposes as graduate students with 60.2% (n = 103) whereas those who moved to Berlin with professional interests account for the 39.8% (n = 68).
- The age group analysis demonstrates that participants between 25 and 31 years old constitute the majority of the sample with 60.2% (n = 103), followed by the age group 32-38 with 20.5% (n = 35).

Having discussed the general properties, a t-test was conducted in order to understand the direction and significance of the economic and socio-cultural pull factor impacts on the migration decisions of highly skilled Turkish individuals. The results suggest that both economic (M = 4.25, SD = .96) and socio-cultural (M = 3.64, SD = .89) pull factors have significant positive effect on migration decisions ($t(170) = 10.295$, $p < .001$; $t(170) = 2.026$, $p < .05$, respectively). Table 1 and Table 2 summarize the t-test results for two main groups.

Table 1 – Descriptive Analysis for Main Groups**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
Economic Mean	171	4,2550	,95893	,07333
Socio-Cultural Mean	171	3,6386	,89477	,06843

Table 2 – t-Test Analysis for Main Groups**One-Sample Test**

	Test Value = 3.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Economic Mean	10,295	170	,000	,75497	,6102	,8997
Socio-Cultural Mean	2,026	170	,044	,13860	,0035	,2737

Pursuing this further, a t-test analysis was conducted to measure the impact of sub-groups. The results showed that freedom of thought and lifestyle ($M = 5.18$, $SD = 1.88$) has the highest significant impact as a pull factor, followed by higher quality of life motivations ($M = 4.72$, $SD = 1.15$), both at a significance level $p < .001$. Moreover, presence of an active social life ($M = 4.35$, $SD = 1.43$), affordable costs of living ($M = 4.27$, $SD = 1.38$), career opportunities ($M = 4.33$, $SD = 1.51$), employment opportunities ($M = 4.01$, $SD = 1.62$) and higher wages ($M = 3.95$, $SD = 1.55$) appear as other significantly effective factors at $p < .001$. Table 3 and Table 4 reflect the t-test results for sub-groups.

Table 3 – Descriptive Analysis for Sub-Groups

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
QoL	171	4,72	1,149	,088
SocialLife	171	4,35	1,432	,110
CostofLiving	171	4,27	1,380	,106
Freedom	171	5,18	1,187	,091
Wage	171	3,95	1,552	,119
Career	171	4,33	1,506	,115
Employment	171	4,01	1,625	,124

Table 4 – t-test Analysis for Sub-Groups

	Test Value = 3.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
QoL	13,874	170	,000	1,219	1,05	1,39
SocialLife	7,716	170	,000	,845	,63	1,06
CostofLiving	7,288	170	,000	,769	,56	,98
Freedom	18,528	170	,000	1,681	1,50	1,86
Wage	3,818	170	,000	,453	,22	,69
Career	7,184	170	,000	,827	,60	1,05
Employment	4,070	170	,000	,506	,26	,75

After measuring the impact of main groups and sub-groups, an ANOVA was conducted in order to understand the differentiation in the economic and socio-cultural impacts with respect to the purpose of arrival, as the main research question of this study. The results of main groups demonstrate that economic factors are significantly more effective for those who moved to Berlin on professional grounds ($M = 4.57$, $SD = .81$) compared to those moved for educational purposes ($M = 4.04$, $SD = .99$) ($F(1,169) = 13.633$, $p < .001$). However, there is no significant difference between highly skilled professionals and graduate students in terms of socio-cultural pull factors ($p > .05$), despite those who moved to Berlin for educational purposes ($M = 3.74$, $SD = .91$) indicate a higher score compared to those arrived for professional

aspirations ($M = 3.48$, $SD = .85$). Table 5 and Table 6 show the descriptive and ANOVA results for the main groups.

Table 5 – Descriptive Statistics for ANOVA

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		
					Lower Bound	Upper Bound	
Economic Mean	Education	103	4,0427	,99357	,09790	3,8485	4,2369
	Work	68	4,5765	,81003	,09823	4,3804	4,7725
	Total	171	4,2550	,95893	,07333	4,1102	4,3997
Socio-Cultural Mean	Education	103	3,7398	,91086	,08975	3,5618	3,9178
	Work	68	3,4853	,85366	,10352	3,2787	3,6919
	Total	171	3,6386	,89477	,06843	3,5035	3,7737

Table 6 – ANOVA for Main Groups

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Economic Mean	Between Groups	11,669	1	11,669	13,633	,000
	Within Groups	144,654	169	,856		
	Total	156,323	170			
Socio-Cultural Mean	Between Groups	2,653	1	2,653	3,360	,069
	Within Groups	133,452	169	,790		
	Total	136,105	170			

Further analysis of economic factors reveals significant differentiation for 3 sub-groups, namely higher quality of life, career opportunities and employment opportunities. Starting with the higher quality of life aspect, the motivation of highly skilled professionals ($M = 5.04$, $SD = .80$) is higher than graduate students ($M = 4.50$, $SD = 1.29$) ($F(1,169) = 9.468$, $p < .01$). Moreover, career opportunities are significantly more effective for those who moved to Berlin with professional aims ($M = 4.91$, $SD = 1.17$) compared to those for educational purposes (M

= 3.94, SD = 1.58) ($F(1,169) = 18.764, p < .001$). Similarly, employment opportunities also play a significantly more positive role for highly skilled immigrants who arrived to Berlin for work-related reasons ($M = 4.59, SD = 1.46$) than for those coming for education-related purposes ($M = 3.62, SD = 1.62$) ($F(1,169) = 15.756, p < .001$). Table 7 and Table 8 represent the descriptive and ANOVA results for sub-groups.

Table 7 – Descriptive Statistics for Economic Sub-Groups ANOVA

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
QoL	Education	103	4,50	1,290	,127	4,25	4,76
	Work	68	5,04	,800	,097	4,85	5,24
	Total	171	4,72	1,149	,088	4,55	4,89
Career	Education	103	3,94	1,583	,156	3,63	4,25
	Work	68	4,91	1,168	,142	4,63	5,19
	Total	171	4,33	1,506	,115	4,10	4,55
Employment	Education	103	3,62	1,622	,160	3,30	3,94
	Work	68	4,59	1,458	,177	4,24	4,94
	Total	171	4,01	1,625	,124	3,76	4,25

Table 8 - ANOVA for Economic Sub-Groups

		Sum of Squares	df	Mean Square	F	Sig.
QoL	Between Groups	11,911	1	11,911	9,468	,002
	Within Groups	212,615	169	1,258		
	Total	224,526	170			
Career	Between Groups	38,540	1	38,540	18,764	,000
	Within Groups	347,121	169	2,054		
	Total	385,661	170			
Employment	Between Groups	38,291	1	38,291	15,756	,000
	Within Groups	410,704	169	2,430		
	Total	448,994	170			

In short, the findings indicate that:

- ❖ Economic pull factors in Berlin are significantly more effective for highly skilled Turkish professionals than for those who moved for educational purposes ($E_W > E_E$)
- ❖ Socio-cultural pull factors will not have a significantly different impact for the highly skilled Turkish immigrants who moved to Berlin for educational purposes compared to those coming with work purposes ($S_E = S_W$)

Turning back to hypotheses of this study:

- The findings reject $H_0: E_E = E_W; S_E = S_W$
- ✓ The findings fail to reject $H_1: E_W > E_E$
- The findings reject $H_2: S_E > S_W$

5. Discussion

As the findings of the study indicate, economic factors create a significantly higher motivation for highly skilled professionals to move in Berlin, compared with graduate students, as several other studies in the previous literature have shown. For instance, in her investigation on the extended stay decisions of highly skilled Turkish immigrants in three prominent European cities, namely Amsterdam, Barcelona and London, Yanaşmayan (2014) asserts that economic, employment- and career-related factors in destination cities such as higher wage differentials, sufficient career opportunities for high-skill demanding positions, and employment opportunities immigrants an international work experience constitute the primary motivations of highly skilled immigrants to extend their duration in host countries instead of turning back to Turkey. In addition to more competitive salaries, the comparison pertaining to quality of life concept indicates that a higher degree of work-life balance, which promises highly skilled individuals more time to spend their earnings, appears to have a key role in their decision to extend their residence (Yanaşmayan, 2014:30). The analysis of Parkins (2010) on the emigration motivations of Jamaican highly skilled individuals documented that occupation/skill compatibility and availability of economic opportunities in the destination countries are main motivators for highly skilled professionals who have already immigrated to other countries. Moreover, the detailed analysis of Köşer Akçapar (2009) on the immigration of highly skilled individuals from Turkey to U.S. revealed that the motivations of graduate students are mainly related to better research and education opportunities whereas the primary

reason for the arrival of young professionals from various branches as well as for the extension of their stay is indicated as economic factors pertaining to higher wage differentials, higher living standards, availability of employment and career opportunities, and so forth.

In this study, career opportunities, employment opportunities and higher quality of life domains of economic pull factors appear as significantly related, whereas higher wage expectations did not indicate significant difference in favor of highly skilled professionals similar to the findings of Ozcurumez and Yetkin Aker (2016) on the motivations of highly skilled and business Turkish nationals where higher wage expectations did not appear as determinant factor in the destination preferences of highly skilled Turkish immigrants. This indifference may originate from comparison difference between graduate students and professionals, since the wage levels specifically in Berlin might be higher than the expectations of students if they compare the levels with Turkey, especially considering the rapid devaluation of Turkish lira, while highly skilled professionals may not be expecting higher wage returns if they make a comparison with other destinations, such as industrially developed cities in Germany, or other economies like U.S., UK, Switzerland, Scandinavian countries and so forth.

On the other hand, socio-cultural aspects resulted as insignificant, despite favored by those who moved to Berlin through an educational channel. Among the sub-groups, the presence of close social ties appeared as the least relevant factor for both groups. In an earlier study conducted by Winchie and Carment (1989) on the motivations of highly skilled Indian immigrants in Canada revealed that the choice of destination is strongly influenced by the presence of friends or relatives in a certain destination. However, the weak connection in the Turkish case may stem from the social class differences, since historically the so-called “German-Turks” have been mostly coming from the families in rural areas, with a deficit in cultural and economic capital (Cağlar, 1995:317), whereas the families and other social ties of highly skilled individuals might be from middle-upper class of the society and concentrated in urban areas (Faist et al., 2017:9-10), which result in lower probability of close social ties between the recently arrived highly skilled and previous Turkish immigrants in Berlin. A previous study on German-Turks in Berlin also affirms that German-Turks have effective networks and relations among themselves, but their connection is considerably weak with the groups outside of Turkish migrant community (Cağlar, 1995:310). Limited connections can therefore, explain the irrelevancy of migration networks for the migration decisions of highly skilled Turkish individuals since the presence of existing social networks for Turkish nationals

in Berlin might create no meaningful motivation for choosing Berlin as the destination. Finally, considering the second wave Turkish immigration to Germany characterized by family reunions after the arrival of “guest workers” in 1961 (Aydın, 2016:4), the findings of this study reveal that migration patterns differ between highly skilled immigrants and previous lower skilled workers, which result in the demand for differentiated migration policies.

Nonetheless, the presence of an active social life in Berlin appeared as a significantly attractive factor for graduate students than highly skilled professionals. As discussed by Bader and Scharenberg (2010), Berlin offers an important cultural space especially for young people, characterized by non-commercial activities, an active nightlife (Oktay, 2015), music, dance and festivals (Garcia, 2016), which lure especially young people instead of middle-aged professionals, who tend to have families or interested in other activities. On the other hand, freedom of thought and lifestyle appeared not only the highest relevant factor among all other sub-groups, but it also resulted in a reverse impact in favor of highly skilled professionals more than graduate students. Considering the previous investigation on highly skilled Turkish immigrants, “freedom” has been the most influential factor regardless of gender, age groups or educational background³. Further analysis of the data with respect to the date of arrival variable show a significant differentiation between those who arrived to Berlin before Gezi Protests and those who moved in the following periods⁴, indicating that the need for freedom has been especially increasing recently, probably due to neoliberal populism in Turkey which constraint the economic, social and political capabilities of individuals.

Limitations

There might be several limitations which decrease the efficiency of intended study, hence influence the results. To begin with, the method of data collection through an online survey posted in community groups on Facebook might lead to some questions regarding reliability of answers, since there is no control over participants and respondents might intend to manipulate the data by giving random answers. However, the study did not assume that all participants who encounter the survey belong to the target group (i.e. highly skilled immigrants who emigrated from Turkey to Berlin for educational or working purposes), rather the focus group was created with respect to the answers of participants to the 4 out of 5 questions in the

³ “New Educational and Employment Migration from Turkey to Berlin” by Fenike Research (2018) and “Gender Aspects of Brain Drain: The Case of Turkish Immigrants in Germany” by Arslan & Okumus (2018)

⁴ At $p < .05$ for all periods

first section. Calculating the likelihood of a random respondent to give desired answers to be evaluated as a focus participant is around 11%, which indicates a low probability of random respondents in the focus group answers⁵.

Besides that, the capability of answers to determine the focus group can be another question. For instance, Germany-born respondents were eliminated from the focus group in order to prevent “return migration” inclinations from being mixed with highly skilled immigration motivations, however, place of birth might not reflect where people spend their lives, and there might be cases in which people moved to another country right after their birth and therefore their motivations for migration can be different from what is assumed. Moreover, the data of participants who have been present in Germany after the last elections in June 2018 can be biased, since they have a potential to be short-term residents who might be temporarily living in Germany due to several reasons including Erasmus, internship, touristic visit, and so forth. The question itself asks the date of arrival of participants when they first came to Germany for a long-term stay and the information regarding “long-term stay” was briefly mentioned in the questionnaire, yet there is a possibility that participants are temporarily in Germany corresponding to the time they have spent so far. Nevertheless, neglecting the motivations of newly arrived immigrants on the basis of a minimum duration of stay threshold would not be suitable for the scientific purposes, especially considering the ever-changing political, social and economic dynamics of Turkey and their reflections on migration motivations of highly skilled individuals from one year to the other. Finally, despite discussed in detail, the definition of highly skilled individuals with respect to the level of graduation may lead to erroneous results, because there might be people with highly skilled qualifications such as foreign language, experiences in the field or excellent academic grades but without bachelor diploma. In particular, “studying at a university” has become nothing special and the education in some special high schools might be even better than an average college education in Turkey, although they are not providing a proper certificate for professional competence.

Another limitation can be considered as the capability of questions to measure intended economic and socio-cultural impacts. Although the subgroups of both impacts are formed with respect to previous literature and questions are designed in a Likert-scale procedure so that participants could evaluate the degree of effect for their arrival, participants might take the

⁵ The likelihood can be calculated as the following manner:
= $P_1(\text{Turkey, Other}) \times P_2(\text{Berlin}) \times P_4(\text{Education, Work}) \times P_5(\text{Bachelor, Master, PhD})$
= $(2/3) \times (1/2) \times (2/3) \times (3/6) = 1/9 \approx 11\%$

concepts into consideration in different ways. For example, the question evaluating the “lower cost of living” in Berlin might be biased, since participants coming from different cities in Turkey may have different reference points to compare the prices and determine what is expensive and what is cheap. Since the rent and other living costs are much higher in Istanbul compared to other cities like Ankara and Izmir, immigrants who are coming from Istanbul might be more likely to agree with the statement claiming that living costs are relatively lower in Berlin than people coming from other cities.

Finally, there is also a possibility that people may move to Berlin via an educational channel such as a graduate school acceptance, just in order to facilitate their arrivals for working purposes, since requirements for professional migration are rather challenging, for example, minimum income threshold for EU Blue Card or priority of German and EU-nationals for highly skilled jobs (*Vorrangprüfung*) compared to receiving an acceptance from an educational institution, as revealed by a focus group study on recently arrived highly skilled Turkish immigrants⁶.

6. Concluding Remarks

In conclusion, the findings of this study indicate that economic pull factors are significantly more effective for highly skilled professionals compared to graduate students in their migration to Berlin. This significant differentiation especially reveals itself in the domains of career opportunities, employment opportunities and a desire for higher quality of life. On the other hand, socio-cultural pull factors appear to have an equally important impact on the migration decisions of these two highly skilled groups, yet slightly favored by graduate students. Based on these results, this study concludes that highly skilled immigration is not a phenomenon in which one homogenous group of individuals prefer to change their location with an exact motivation, as generally claimed in the previous literature, and rather there are motivational differences between the groups who emigrate through educational channels and those who change their places for professional purposes, especially in terms of economic aspects. As the findings of this study indicate, higher quality of life, career opportunities and employment opportunities play a significantly more important role as pull factors for the

⁶ The event Yeni Dalga (New Wave) meets: Political Sunday Brunch took place on 9 December 2018, where SPD parliamentary group’s spokesperson on the Committee on Foreign Affairs in German *Bundestag*, Nils Schmid, and fifteen representatives from Turkish New Wave including students, professionals, artists, and journalists. The organization was considered as the next step of New Wave study by Fenike Research.

immigration decision of highly skilled professionals compared to graduate students. Acknowledgment of these differences constitutes a fundamental basis for implementing new immigration policies in an accurate manner, which in turn, will increase the benefit derived from the arrival of highly skilled individuals in a target country. Considering the potential of Germany for attracting highly skilled immigrants, the rise of right-wing and xenophobic discourse in predominant immigrant-attracting countries such as UK and U.S. may also increase the chances for Germany to lure more highly skilled individuals, given the global competition among countries in the skilled labor market. The crisis conditions in countries, as in the case of Turkey, might be excellent potential for Germany and EU in general, as well as for the sending countries, if these growing waves of immigration can be efficiently managed through effective immigration policies. All in all, immigration is not limited to the duration of a flight from one country to the other; rather it is a life- and even generations-long process related to ever-changing political, social and economic conditions, therefore understanding the motivations of immigrants will be a key to solve existing problems and to prevent new ones from coming into the stage.

7. References

- Acar, E. Ö. (2017). An outline from skilled emigration from Turkey to OECD countries: A panel data analysis. *International Journal of Economics and Innovation*, 3(1), 1-16.
- Akçay, Ü. (2018). *Neoliberal populism in Turkey and its crisis*. Working Paper, Institute for International Political Economy Berlin. No. 100/2018.
- Aydın, Y. (2016). *The Germany-Turkey migration corridor: Refitting policies for a transnational age*. Washington DC: Migration Policy Institute. 1-25.
- Aydemir, A. B. (2014). Skill-based immigration, economic integration, and economic performance. IZA World of Labor.
- Bader, I., & Scharenberg, A. (2010). The sound of Berlin: Subculture and the global music industry. *International Journal of Urban and Regional Research*, 34(1), 76-91.
- Bailey, A., & Mulder, C. H. (2017). Highly skilled migration between the Global North and South: gender, life courses and institutions. *Journal of Ethnic and Migration Studies*, 43(16), 2689-2703.

- Brücker H., Capuano, S. & Marfouk, A. (2013). Education, gender and international migration: insights from a panel-dataset 1980-2010. *Institute for Employment Research*. Available at <https://www.iab.de/en/daten/iab-brain-drain-data.aspx>, accessed on 15.12.2018.
- Cağlar, A. S. (1995). German Turks in Berlin: social exclusion and strategies for social mobility. *Journal of Ethnic and Migration Studies*, 21(3), 309-323.
- Cebolla-Boad, H. & Miyar-Busto, M. (2017). What attracts highly skilled migration to Europe? *Temper Working Paper Series: Temporary versus Permanent Migration*. 1-36.
- Cervantes, M., & Guellec, D. (2002). The brain drain: old myths, new realities. *OECD Observer*, no. 230, pp. 40-43.
- Chaloff, J. & Lemaître, G. (2009). Managing Highly-Skilled Labour Migration: A Comparative Analysis of Migration Policies and Challenges in OECD Countries. *OECD Social, Employment and Migration Working Papers*, No. 79, OECD Publishing, Paris. <http://dx.doi.org/10.1787/225505346577>.
- Chankseliani, M. (2016). Escaping homelands with limited employment and tertiary education opportunities: Outbound student mobility from post-soviet countries. *Population, Space and Place*, 22(3), 301-316.
- Cheng, L., & Yang, P. Q. (1998). Global interaction, global inequality, and migration of the highly trained to the United States. *International Migration Review*, 32(3), 626-653.
- Crescenzi, R., & Holman, N. (2017). Why do they return? Beyond the economic drivers of graduate return migration. *The Annals of Regional Science*, 59(3), 603-627.
- Dinbabo, M., & Nyasulu, T. (2015). Macroeconomic immigration determinants: an analysis of 'Pull' factors of International migration to South Africa. *African Human Mobility Review*, 1(1), 27-53.
- Docquier, F., Lowell, B. L., & Marfouk, A. (2009). A gendered assessment of highly skilled emigration. *Population and Development Review*, 35(2), 297-321.
- Eurostat (2018). EU Blue Cards by type of decision, occupation and citizenship. Available at https://ec.europa.eu/eurostat/web/products-datasets/-/migr_resbc1, accessed on 08.01.2019.

- Faist, T., Aksakal, M., & Schmidt, K. (2017). Indian high-skilled migrants and international students in Germany: migration behaviors, intentions and development effects. *Bertelsmann Stiftung*. Available at https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/Indianhigh-skMigrants_2017_final_002_.pdf, accessed on 27.12.2018.
- Garcia, L. M. (2016). Techno-tourism and post-industrial neo-romanticism in Berlin's electronic dance music scenes. *Tourist Studies*, 16(3), 276-295.
- Gürsel, K. (2018). 'Gezi generation' fleeing Turkey. *Al-Monitor*. Available at <https://www.al-monitor.com/pulse/originals/2018/09/turkey-brain-drain-young-generation-fleeing.html>, accessed on 08.12.2018.
- Heckmann, F. (2005). Integration and integration policies: IMISCOE network feasibility study. Available at <http://www.efms.uni-bamberg.de/pdf/INTPOL%20Final%20Paper.pdf>, accessed on 18.01.2019.
- Hicks, J. (1932). *The theory of wages*. Macmillan, London.
- Kahanec, M. & Králiková, R. (2011). Pulls of International Student Mobility. *IZA Discussion Paper* No. 6233. Available at SSRN: <https://ssrn.com/abstract=1977819>.
- Kerr, S. P., Kerr, W., Özden, Ç., & Parsons, C. (2017). High-skilled migration and agglomeration. *Annual Review of Economics*, 9, 201-234.
- Koser, K., & Salt, J. (1997). The geography of highly skilled international migration. *International Journal of Population Geography*, 3(4), 285-303.
- Köşer Akçapar, Ş. (2009). Turkish highly skilled migration to the United States: New findings and policy recommendations. *Land of Diverse Migrations, Challenges of Emigration and Immigration in Turkey*, 109-248.
- Lehmann, T. (2017). Türkische exilanten: Abwarten in kleinistanbul [Turkey's exiled intellectuals find haven in "little Istanbul" of Berlin]. *Süddeutsche Zeitung*. Available at <https://www.sueddeutsche.de/kultur/berlin-exilanten-abwarten-in-kleinistanbul-1.3578264>, accessed on 16.12.2018.

- Liu, Y. (2016). To stay or leave? Migration decisions of foreign students in Japan. *Research Institute of Economy, Trade and Industry (RIETI) Discussion Paper Series, 16-E-097*. 1-18.
- Lowell, B. L., & Batalova, J. (2005). International migration of highly skilled workers: methodological and public policy issues. In *Population Association of America 2005 Annual Meeting Program*, 1-4.
- Mahroum, S. (2001). Europe and the immigration of highly skilled labour. *International Migration*, 39(5), 27-43.
- Milanovic, B. (2016). *Global inequality: A new approach for the age of globalization*. Harvard University Press.
- Mulholland, J. & Ryan, L. (2016). London is a much more interesting place than Paris: Place comparison and moral geographies of highly skilled migrants. In: Van Riemsdijk, M. and Wang, Q., eds. (2016) *Rethinking International Skilled Migration*. London: Routledge, pp. 135-153. ISBN 9781138918726 Available from: <http://eprints.uwe.ac.uk/33294>, accessed on 14.12.2018
- Oktay, E. (2015). *Nocturnal Transgressions: Nighttime Stories from Berlin, the New European Nightlife Capital* (Doctoral dissertation, Goldsmiths, University of London).
- Organisation for Economic Co-operation and Development. (2016). Brain drain – a world overview. Available at <http://www.oecd.org/dev/poverty/brain-drain-a-world-overview.htm>, accessed on 14.12.2018.
- Ozcurumez, S., & Yetkin Aker, D. (2016). What Moves the Highly Skilled and Why? Comparing Turkish Nationals in Canada and Germany. *International Migration*, 54(3), 61-72.
- Parkins, N. C. (2010). Push and pull factors of migration. *American Review of Political Economy*, 8(2), 6-24.
- Pearson, J. (2018). Headquarters of the Turkish ‘New Wave’: Hallo Machen. *The Needle*. Available at <http://needleberlin.com/2018/11/04/headquarters-of-the-turkish-new-wave-hallo-machen/>, accessed on 16.12.2018.

- Plöger, J., & Becker, A. (2015). Social networks and local incorporation—Grounding high-skilled migrants in two German cities. *Journal of Ethnic and Migration Studies*, 41(10), 1517-1535.
- Smith, A. (2010). *The Wealth of Nations: An inquiry into the nature and causes of the Wealth of Nations*. Harriman House Limited.
- Stacey, V. (2018). UK now top destination for Turkish students. *The Pie News*. Available at <https://thepienews.com/news/turkey-uk-overtakes-us-as-top-destination/>, accessed on 08.12.2018.
- Statistisches Bundesamt (Federal Statistical Office) (2018) Fachserie 11, Reihe 4.1. Available at https://www.destatis.de/DE/Publikationen/Thematisch/BildungForschungKultur/Hochschulen/StudierendeHochschulenEndg2110410187004.pdf?__blob=publicationFile, accessed on 23.12.2018.
- Winchie, D. B., & Carment, D. W. (1989). Migration and motivation: the migrant's perspective. *International Migration Review*, 23(1), 96-104.
- World Bank. (2018). *Moving for Prosperity: Global Migration and Labor Markets. Policy Research Report*. Washington, DC: World Bank. doi:10.1596/978-1-4648-1281-1. License: Creative Commons Attribution CC BY 3.0 IGO.
- Yanaşmayan, Z. (2014). Further stay or return? Insights from the highly educated Turkish migrants in Amsterdam, Barcelona and London. In *Migrant professionals in the city*, pp. 33-51. Routledge.

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