Wasting human capital. The impact of education on labour market status of the foreign-born and women in Europe.

PHD working paper

Perttu Salmenhaara,
Licentiate of Social Science,
Phd student at University of Helsinki

August 9, 2013

ISBN 978-952-67853-1-8

Wasting human capital. The impact of education on labour market status of the foreign-born and women in Europe.

Abstract. This article compares the correlation between formal education and labour market status of the native-born and two foreign-born groups in two countries. Indicators of labour market status are employment rate and over-qualification rate. The foreign-born groups are the Turkish-born and people born in the former Yugoslavia. The countries are Sweden and Germany.
In each group, the correlation is examined by gender. It shows that with the same education level, the foreign-born and women are less often employed and when they are employed, the job meets their education level less often. The foreign-born and women are under-represented especially in professional and expert occupations, when compared to their native-born peers and men. While previous research about the issue includes several causal hypotheses, the results suggest these groups experience labour market marginalisation that is related to ethnicity, gender and contextual variables. These variables cause individuals unequal opportunities to use their human capital. The analysed OECD's DIOC dataset offers good possibilities for future research.

Contents

Tables and figures

1. Theoretical introduction

This article focuses on the relationship between education and labour market status. Generally speaking, in post-industrial labour markets, there is a positive correlation between the two: when education level increases, also labour market status increases. The inventor of the term "post- industrial society" argues that

> [t]echnical skill, in the post-industrial society, is what economists call 'human capital.' An 'investment' in four years of college, according to initial estimates of Gary Becker,[i] yields, over the average working life of the male graduate, an annual return of about 13 percent. Graduation from an elite college (or elite law school or business school) gives a further differential advantage to over graduates of 'mass' or state schools. Thus, the university … has now become the arbiter of class position. As the gatekeeper, it has gained a quasi-monopoly in determining the future stratification of the society (Bell 1999 [1973], 410).

This argument has been relatively influential in the business world, in politics and in social science. Bell (1999 [1973]) applied the concept of human capital from Becker (1993 [1964]) who conducted a study about the correlation between education level and earnings, arguing that "high school and college education greatly raise a person's income, even after netting out direct and indirect costs of schooling … earnings of more educated people are almost always well above the average …" (ibid. 17). The finding applies to all OECD countries and there is solid enough empirical evidence to back up this argument.[ii] The correlation has been studied empirically in a comparative framework and the impact of human capital is obvious:

> [t]he OECD Directorate for Education devotes a major effort to the development and analysis of the quantitative, internationally comparable indicators that it publishes annually in Education at a Glance. These indicators enable educational policy makers and practitioners alike to see their education systems in the light of other countries' performances.

The results support the argument: "higher levels of educational attainment typically lead to greater labour participation and higher employment rates" (OECD 2011a, 118). In addition, in the OECD countries, unemployment rates decrease when education level increases and better education protects against lay-offs at times of economic depression (ibid.).

The empirically evident argument about the positive impact of education is summarised in a London School of Economics' textbook chapter about the causes of social stratification in modern societies, authored by some of the world's leading sociologists: "[e]ducation is one of the strongest predictors of occupation, income, and wealth later in life." (Giddens, Duneier, Appelbaum et al. (2009, 213)

This correlation can be examined with precise empirical indicators. In this paper, the indicator of education level is the level as specified in the International Standard Classification of education ISCED (UNESCO Institute for Statistics 2012). It is an international education standard that allows for comparing educational degrees obtained in different countries.[iii]

Labour market status, again, is measured with two indicators: employment rate (ER) and occupational status. Firstly, employment rate expresses the share of the employed of the total population. Secondly, occupational status expresses which kinds of jobs they do. It is measured with the International Standard Classification of Occupations (ISCO) of the International Labour Organisation (ILO). Over-qualification rate expresses the relationship between education and occupation: to which extent occupations of the employed match their education levels?

According to grounding theories about the post-industrial labour market (Becker 1964; Bell 1973), the positive correlation between education level and labour market status appears as in the figure below. When educational level increases, so does occupational status. The dotted line describes the general situation in which there is no over-qualification.
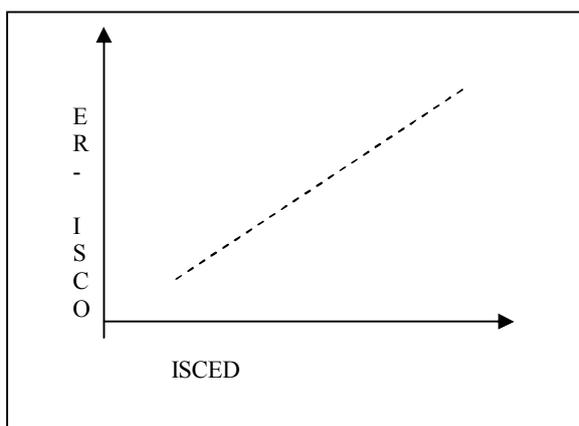
Figure 1. Positive correlation between education and indicators of labour market status in OECD countries' labour markets, general situation.

However, this general correlation changes, when one does not look at the labour market as a whole and includes all groups. If instead, one looks more closely at the situation among some of the marginalised groups, the correlation between education level and both indicators of the labour market status turns out to be different.

In almost all OECD countries, employment rates are lower for the foreign-born than for the native-born (OECD 2007; 2008; 2009; 2010; 2011b; 2012). In the OECD, in 2005/06, about 68 percent of the foreign-born and 69 percent of natives aged 15 to 64 were employed (Widmaier & Dumont 2011, 8). This difference in employment rates has sometimes been used as evidence of unequal opportunities that would be caused mainly by two things: firstly, by social networks (Granovetter 1985; 1995 [1974]; 2011; Burt 1992; Van Nieuwenhuze 2009, 191-200; Portes 2010; Portes & Sensenbrenner 1993; Portes & Bach 1985; Lancee 2012;) and/or secondly, by discrimination (Kraal, Roosblad, Wrench et al 2009, 12; Nilsson & Wrench 2009; Kofman, Roosblad & Keuzenkamp 2009; Carlsson 2009).

However, employment rates as such say little about their causes, because also several other variables affect individuals' labour market statuses. Inequality of opportunity is only one of these reasons, and, like was discussed above human capital is the most affecting single variable. Therefore, the impact of education level controlled for. Because the main explanatory variable is human capital (Lancee 2012, 72; commentary in Burt 2000), employment rates should be looked at by education level. This has previously been done by Lancee (2012, concerning immigrants in Germany and the Netherlands) and Rydgren (2004, concerning immigrants in Sweden).

However, these studies focus only on how education level affects employment rates. I find even this approach insufficient: even though it controls for education level, it ignores a fair share of immigrants, namely those, who do have a job. Therefore in this paper, the impact of education level is measured also among the employed immigrants. This is an important aspect of measuring under-usage of immigrants' human capital, because a relatively great share of immigrants' human capital is wasted in the case of those immigrants who are employed. The scale problem is revealed by Quintini (2011):

> Mismatches between workers' competences and what is required by their job are widespread in OECD countries. Studies that use qualifications as proxies for competences suggest that as many as one in four workers could be over-qualified and as many as one in three could be under-qualified for their job. However, there is significant variation across countries and socio-demographic groups. Our meta-analysis of country studies suggests that over 35% of workers are over-qualified in Sweden compared with just 10% in Finland, with most other OECD countries located between these two extremes. There is also extensive evidence that youth are more likely to be over-qualified than their older counterparts and the same is found to be true for immigrant workers compared with a country's nationals. On the other hand, no definitive evidence has been found of the persistence of qualification mismatch, with some papers showing that over-qualification is just a temporary phenomenon that most workers overcome through career mobility and others finding infrequent transitions between over-qualification and good job matches. Across the board, over-qualified workers are found to earn less than their equally-qualified and well-matched counterparts but more than appropriately-qualified workers doing the same job. Under-qualified workers are found to earn more than their equally-qualified and well-matched counterparts but less than appropriately-qualified workers doing the same job. Over-qualified workers are also found to be less satisfied about their job and more likely to leave their work than well-matched workers with the same qualifications (Quintini 2011)

The key concepts of this paper, ver- and under-qualification, take a closer look at the employed people and measure how individuals' education correlates with their occupation (OECD 2007, 158). There are several possible definitions of over-qualification (OECD 2007, 136). In this paper, over-qualification refers to the normative definition that focuses on the correspondence of education level and the job held (OECD 2007, 136). Over-qualification will be defined in more detail below but, put simply, qualification means that a person's education level (ISCED) is higher than her or his occupational status (ISCO). Under-qualification means the opposite. Previous literature about over-qualification is surveyed in Quintini (2011).

Higher unemployment levels by education level and higher over-qualification rates mean that investments in education do not bring similar kinds of returns to all; instead, the foreign-born and women pay a price for being foreign-born and/or women.

In this paper, the correlation between ISCED and indicators of labour market status is examined separately in three immigrant groups in three countries. The correlations are compared with the native-born. In all groups, both genders will be looked at separately. This comparative setting allows for comparison between groups and countries, and studying if similar correlations exist in these different cases. In two of the countries, the groups are the same: Turks and immigrants from the former Yugoslavia in Sweden and Germany. The groups and countries are chosen because of four reasons: 1) for long, Turks were the largest labour migrant group in Europe since the Second World War, 2) the breaking of Yugoslavia in the 1990s produced massive refugee flows and made ex-Yugoslavians one of the largest refugee group in Europe, 3) in both cases, much of migration from these areas ended up in Germany and Sweden and thus 4) both communities are relatively large in both Germany and Sweden. Previous literature about the role of these immigrant groups in Europe is voluminous, including e.g. Massey et al. (2005 [1998)]), Abadan-Unat (2011, 7-29) and Akdündüz (2012). In addition to these two immigrant groups and countries, there is a third receiving country that allows for studying the impact of length of stay and generation: the Netherlands. For the Netherlands, several immigrant groups are included. That part of the analysis is based on results of Zorlu & Hartog (2008; also Zorlu (2011). [iv]

Labour market status is measured with the two above-mentioned indicators: employment rate and over-qualification rate. A secondary analysis is carried out, based on both statistical data (DIOC 2006 data) and previous research (Widemaier & Dumont 2011; Zorlu 2011; Zorlu & Hartog 2006; Quintini 2011).

The paper is structured as follows: after this theoretical introduction come the research question, data, method, analysis, the conclusion and finally the need for future research. The contribution of this paper to previous research is methodological: using the rigid statistical model of elaboration in studying over-qualification.

2. Research question

The research questions of this paper are: what is the relationship between education and labour market status in European countries, when it comes to foreign-born groups and women? Do they benefit from education similarly to the native-born and men?

One way to show the difference between correlations is to look at the correlation in different groups. In rigid, statistical terms, this means that one elaborates the relationship between indicator of education level and indicators of labour market status. This rigid statistical frame of analysis appears as follows:

- Education level is the independent variable (X). Its indicator is the ISCED level.
- Labour market status is the dependent variable (Y). Its indicators are employment rate and over-qualification rate;
- correlation between X and Y is affected by a third variable (Z). The research question concerns the value of X and the part of Y that the value of X does not explain. That unexplained part equals the impact of the third variable (Z). The focus groups represent the most crucial third variables: country of residence, country of birth and sex. Including three countries in the analysis reveals the possible influence of country of residence on the correlation between immigrants' education level and labour market status. The research design is presented below in figure two.
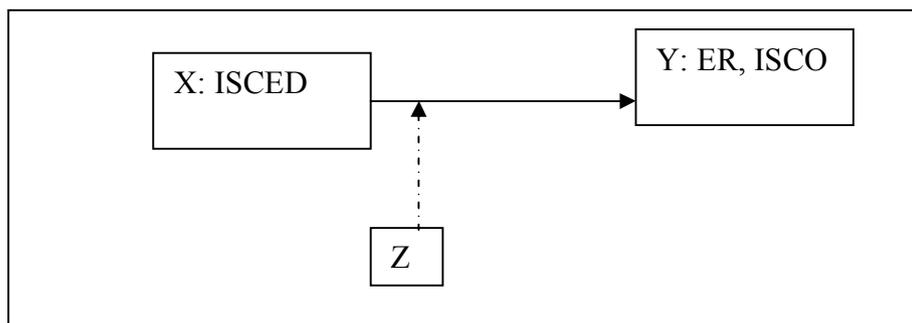
Figure 2. Research design.

Below, this formula is applied to empirical analysis of DIOC data. This means that the variables X, Y and Z will be specified so that they are represented by empirical variables in the DIOC data.

3. Data

I use secondary statistical aggregate data, supplemented with previous research results. The statistical data is from the Database on Immigrants in OECD Countries (DIOC), released in 2008 by the OECD. It is described in the methodological annex of OECD 2008. 165:

> [The database] contains information on several demographic and labour market
> characteristics of the population of … OECD countries … by country of birth. … [The data]
> includes a number of variables, which makes it possible to generate a
> great variety of cross-tabulations on the population characteristics within the OECD countries
> by country of birth. (OECD 2008,185)

The DIOC data is available for free at
http://www.oecd.org/els/internationalmigrationpoliciesanddata/dioc.htm (accessed 5 March 2013). It is cross-sectional and its sources are census data (Germany) and population register data (Sweden) (OECD 2008, annex A). The data includes a great number of variables, such as age, gender, country of birth, country of residence, level of education, age, and several indicators of labour market outcomes. It includes the population aged 15+ around the year 2000 for 28 OECD countries (OECD 2008; Widmaier & Dumont 2011). Definitions of the analysed variables are as follows:

-LFS_LFS, "Labour force status" 1: employed, 2: unemployed, 3: inactive, 99: unknown labour force status
-EDU_LFS, "Educational attainment level (broad)" 1: no education, completed primary and uncompleted secondary education (ISCED 0/1/2), 2: completed secondary education (ISCED 3/4), 3: completed tertiary education (ISCED 5/6), 99: unknown education
-OCCUPATION,   "Occupation": 2-digit ISCO-88 classification.

When over-education rates were calculated, ISCO and ISCED levels were re-coded into three groups. As will be explained below, relationships between ISCED and labour market status were calculated by comparing the re-coded ISCED and ISCO classifications with each other. Labour force status was already coded and its correlation with employment rate was counted in the same manner.

4. Method

At this phase, indicators of education and labour market status are included in the frame of analysis. From the table 1.7. of the DIOC 2006, I choose, firstly, an independent variable, education (edu_lfs). Then, I choose two dependent ones (indicators of labour market status): labour force status (LFS_LFS) and occupation (occupation). These are needed to count the impact of the ISCED on employment, and to count over-qualification rates. Thirdly, I choose the focus groups and look at the correlation in two countries

(country), two immigrant groups, or to be precise, in two countries of birth (COUB) and two genders (SEX). Correlation between X and Y is counted separately for each combination of country of birth and sex as in figure three:
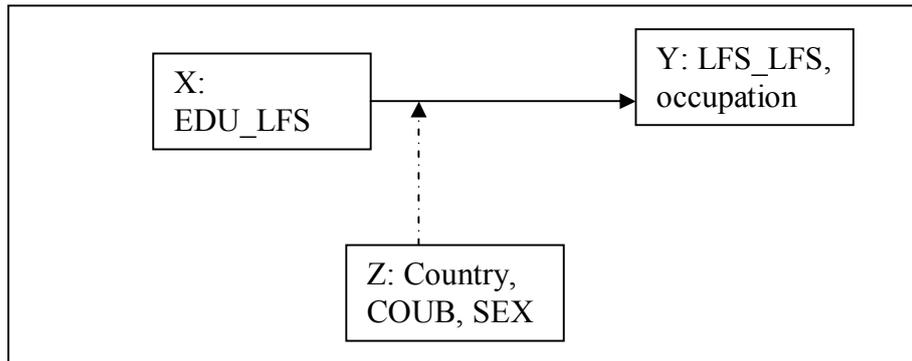

Figure 3. Research design, including exact indicators.

The variable values of the DIOC data do not fit the ISCED and ISCO classifications as such. SEX, country and COUB are already coded in the data, but ISCED and ISCO rates have to be re-coded for the analysis. They need to be re-coded because they are in the form of the original classifications: nine-step ISCED classification and the 100-step ISCO-88 classification.

Employment rates are counted for total working-age populations in the focus groups. Over-education rates are counted only for the employed, e.g. for those, whose LFS_LFS value was three (because only the employed have ISCO rates).

Over-education rates are counted as the relationship between ISCO and ISCED. The re-coded categories of both ISCED and ISCO were Low, intermediate and high. Re-coding of the ISCED and ISCO-88 are described below in tables 1 and 2. The classification is a relatively empirical one, because these levels represent concrete education levels and professions.

Level of studies	Re-coded levels of studies		
	Low-skilled (1)	Intermediate (2)	Skilled or highly skilled (3)
Pre-primary education or preschool (starting at age 2 or 3)	X		
Primary education (starting at age 5, 6 or 7 and running for four to six years)	X		
Lower secondary education (running 2 to 6 years, with an average of three)	X		
Upper secondary education (running for 2 and 5 years)		X	
Post secondary non-tertiary education		X	
The first stage of tertiary education (university)			X
Second stage of tertiary education (university)			X

Table 1. Conversion of ISCED 7 categories to three categories (applied from OECD 2007, 156).

ISCO-88	Re-coded three categories		
	Low-skilled (3)	*Intermediate (2)*	*Highly skilled (1)*
(0: Armed Forces)			
1: legislators, senior officials and managers			X
2: professionals			X
3: technician and associate professionals			X
4: clerks		X	
5: service workers and shop and market sales workers		X	
6: skilled agricultural and fishery workers		X	
7: craft and related trades workers		X	
8: plant and machinery operators and assemblers		X	
9: elementary occupations	X		

Table 2. Conversion of ISCO-88 9 categories to three categories.

When both ISCED and ISCO consist of three levels, a person is over-qualified, if his ISCED level is higher than his ISCO level. The correspondence between ISCED level and ISCO level is portrayed below in table three (OECD 2007, 156, Table (Table I.A2.3)).[v]

		ISCO employment level		
		Low skilled	Intermediate	Skilled or highly skilled
ISCED education level	Low skilled		Underqualified	Underqualified
	Intermediate	Overqualified		Underqualified
	Skilled or highly skilled	Overqualified	Overqualified	

Table 3. Correspondence between ISCED education level and ISCO employment level (OECD 2007, 156).

5. Analysis

In the DIOC data, the focus consisted of a number of sub-groups that represented all possible different combinations of labour force status, country of birth, country of residence, sex, and education level. Country of birth (COUB) is the primary variable in the DIOC data. These combinations were expressed by COUB. Each COUB included a relatively great number of sub-groups, each having their own COUB value. This value represented the number of people in the sub-population.

The total size of each group was counted by summing up the number of people taken by different COUB.

Over-qualification rates were counted by looking at the number of people with different ISCED-ISCO-combinations separately in each focus group and by counting the percentage of each combination in the concerned group. Over-qualified were those, whose education level (ISCED, represented by EDU_LFS) was better than their occupation (ISCO).

6.   Conclusion

Results are presented below (Figure 4). Instead of exact scatter plots for each focus group, I present two trend lines. They are placed on a grid that represents the three ISCED and ISCO levels: Low, Intermediate (I) and High.[vi] The dotted line describes the correlation among men and the native-born. The straight line represents the correlation among women and foreign-born groups.

If the correlation between education level and labour market status was similar to all groups, the trend lines would not differ and there would only be one line, representing all groups. However, this was not the case. The foreign-born and women were left behind in most education levels.
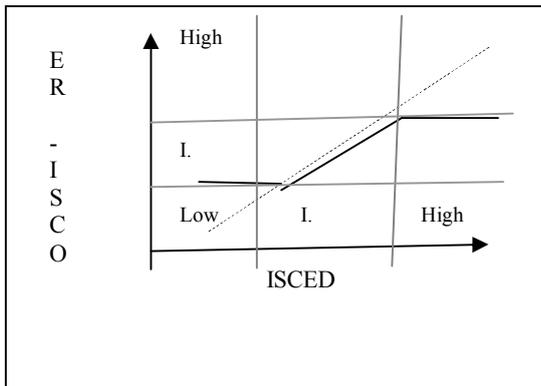

Figure 4. Positive correlation between education and indicators of labour market status in OECD countries' labour markets, elaborated situation.

In general, the foreign-born and women benefited from education less than the native-born and men. At the low education level, foreign-born people and women had even better labour market statuses, than the native-born and men (see also Widemaier & Dumont 2011, 8-9).

> On ISCED level 2, the foreign-born and women were left behind slightly. The difference was the greatest concerning the highest educated (ISCED 3). When groups with university diplomas were compared, women and foreign-born people with ISCED level 3 education, i.e. holding first or second stage university diplomas, were less likely to work in the highest ISCO-1 level jobs, i.e. as legislators, senior officials or professionals, than their native-born and male peers.

> A useful distinction can be applied here: it takes between two kinds of factors that affect immigrants' labour market status. It is described by Kraal, Wrench, Roosblad et al 2009, 12):

>> There has been a tradition of media and politicians emphasising what might be called 'supply-side' factors in explaining why post-war labour migrants and their descendants in Western European countries have for long been overrepresented in long-term unemployment or in poorly paid, insecure and generally undesirable work. Immigrants are seen as having a weak command of the local language, a poor educational history, and fewer qualifications than their indigenous counterparts. Therefore, 'integration policies' try to reduce these supply-side disadvantages by encouraging immigrants to take language courses, improve their education and attend vocational training courses … In recent years, however, there has been an increasingly vocalised concern throughout the EU that this approach is flawed. … Even with language fluency and comparable education, members of minority ethnic groups are shown to suffer labour market exclusion and marginalisation when compared to their autochthonous peers. Here, demand-side factors are more important in constraining the employment opportunities of ethnic minorities in Europe, regardless of how well equipped these individuals might be.

There seems to be a structural glass ceiling, and it is on the demand-side (as in this paper, human capital of the supply-side was controlled for). Wasting immigrants' and women's human capital does not seem to be decreasing, because evidence from the first round of DIOC shows that the OECD, the over-qualification gap between the native-born and the foreign-born widened between the years 2000 and 2005/6.[vii] One can ask, can ageing Europe afford these kinds of demand-side glass ceilings.

Discussion

As a consequence of this demand-side glass ceiling, much of immigrants' and women's potential go unrecognised. In ageing Europe, mismatch between labour supply and demand is problematic, because the share of the working-age population is shrinking and that of the elderly is increasing.[viii] This demographic issue and the worsening imbalance between demand and supply of labour is discussed in OECD 2012, 124-157 and its impact on migratory flows in Martiniello & Rath (2012). In short, the OECD countries currently have a distorted age structure. Their birth rate peaked after the Second World War, but soon declined to a low level and has remained there. The size of these large age groups is disproportionate in relation to the age cohorts that were born after them. In many sectors, employers already lack the workers they need (Lynch & Pfohman 2013). Europe needs new immigrants to contribute to economic development and the welfare state (Martiniello & Rath 2012). *During the next fifteen years, the large age cohorts will exit working age. Younger age* groups that enter working age are much smaller and thus the percentage of the working-age population decreases. At the same time, the size of the elderly age groups increases. The outcome is a demand pressure for services and income transfers which are too extensive for the public sector to respond to. In the rest of the world, where most people live, the same kind of a process is expected to take place a few decades later. As a response, governments seek to 1) increase the productivity of work, 2) increase employment rates and 3) increase immigration of the required workers (OECD 2012, 124-157; Valtiontilintarkastajat 2005).

Immigration policies seek to favour highly skilled immigrants, because productivity of work is the highest among the most educated (Acemoglu & Autor 2009): countries are engaged in competition for talent (Florida 2005, 3; Kuvik 2012). However, deskilling may occur (Kuvik (2012, 212); according to the DIOC data analysed in this paper, in Europe, labour market paths of skilled foreign-born and skilled women lead them outside of the labour market, to unemployment and away from jobs that would meet their education. A qualitative study about the concrete process of distorted labour market careers is provided by Van Nieuwenhuyze (2009) in a study about labour market paths of Senegambian immigrants in Barcelona, Spain, and Antwerp, Belgium.

7. Need for future research

This article focused only on correlations. The next logical step would be to look for causations between demand-side (contextual) variables and labour market statuses.

Results of this article show only that some demand-side factors prevent qualified immigrants and women from acquiring qualified jobs as often as their native-born and male counterparts. Demand-side factors are features of social structure (such as Granovetter 1985; 2011; Portes & Sensenbrenner 1993). However, it is not known, for example, which exact features of the social structure direct individuals' labour market careers away from jobs that match their qualifications. One could start searching for them on basis of a hypothesis by Green (1994; 1999; Vermeulen 2006, 14-15), according to which the contextual factors, two would have the most impact: the immigrant group itself and labour market context. Green (1999) argues that:

> The divergent comparison takes the immigrant group as constant and looks at similar groups in different settlement places. In this type of comparison, differences are found and explained at the level of the host environment (as the groups do not differ). The second type of comparison takes the host environment as constant and compares different immigrant groups in one place or city. This implies that differences will be found (and explained) at the level of immigrant groups themselves (Vermeulen 2006, 15; Green 1999).

In the DIOC data, these are represented by variables Country and COUB. Testing the demand-side hypothesis requires that the impact of group and country are isolated.

Firstly, a divergent comparison between the same immigrant community in two countries or cities shows the impact of the settlement place; the groups could be, for example, Turks in Sweden and Germany. Secondly, a divergent comparison between two foreign-born groups in the same country or city shows the impact of the immigrant group itself (Green 1999; 1994; Vermeulen 2006, 14-15). This comparison could look at, for example, Turks and ex-Yugoslavian immigrants in Stockholm or Berlin.

In the comparison, it is crucial to use the same indicators and compare similar education levels, as was done in this paper. When differences in the contextual factors are found, they have a fair explanatory power. The groups and countries may be other than the ones of this paper. However, as long as causations were searched for, indicators of labour market status and indicators of education level have to concern the same group, because they are the independent and dependent variables. This paper presents data about dependent variables. Future studies could then focus on finding independent variables, other than human capital.

Results of a new round of DIOC may possibly be expected later in 2013, when this article is being written. The first step, then, would be to analyse employment rates and over-qualification rates by education level from that data, which would constitute dependent variable values. The second step would be to find out the contextual causes, by doing the fore-mentioned divergent and convergent comparisons.

I plan to assess the independent contextual variables in my forthcoming articles (B and C). This causal hypothesis is what I searched for in a paper I presented at the ninth annual IMISCOE conference in August 2012 (Figure 2; Salmenhaara 2012). The comparisons are likely to be the trunk of my possibly forthcoming presentation at the tenth annual IMISCOE conference in August 2013.

Literature

Abadan-Unat, Nermin (2011) Turks in Europe. From guest worker to transnanational citizen. New York/Oxford: Bweghahn Books.

Acemoglu, Daron, Autor, David (2009) Lectures in Labor Economics – MIT Economics.Available at http://economics.mit.edu/files/4689 (accessed 14 April 2013).

Akdüdndüz, Ahmet (2012) Guest worker migration in post-war Europe (1946-1974): An analytical appraisal. In Marco Martiniello & Jan Rath (eds.) An introduction to international migration studies: European perspectives. Amsterdam: Amsterdam University Press, 181-210.

Becker, Gary S. (1993 [1964]) Human capital. A theoretical and empirical analysis with a special reference to education. Chicago: University of Chicago Press.

Bell, Daniel (1999 [1973]) The coming of the post-industrial society. A venture in social forecasting. New York: Basic Books.

Bommes, Michael & Holger Kolb (2006) Migrants' work, entrepreneurship and economic integration.In Rinus Penninx, Maria Berger & Karen Kraal (eds.) The dynamics of international migration and settlement in Europe. State of the art. Amsterdam: Amsterdam University Press, 99-132.

Borjas, George J. (1989) Economic theory and international migration. International Migration Review 23 (3), Special Silver Anniversary Issue: International
Migration an Assessment for the 90's, 457-485.

Burt, Ronald (1992) Structural holes: the social structure of competition. Massachusetts: MIT Press.

Burt, Ronald (2000) Structural holes versus network closure as social capital. Pre-print of a chapter in Nan Lin & Cook, Karen & Burt, Ronald (Eds) Social Capital: Theory and Research . New York: Aldine de Gruyter.

Carlsson, Magnus (2009) Esseys on discrimination in hiring. Acta Wexionensia 189/2009. Wäjö: Wäxjö University.

Florida, Richard (2005) The flight of the creative class. The new global competition for talent. New York: Harper Collins.

Giddens, Anthony, Duneier, Mitchell, Appelbaum, Richard, Carr, Deborah (2009) Introduction to Sociology (Seventh Edition). New York / London: W.W. Norton.

Granovetter, Mark (1985) Economic action and social structure: the problem of embeddedness. American Journal of Sociology 91 (3), 481-510.

Granovetter, Mark (1995 [1974]) Getting a job. A study of contacts and careers. Chicago and London: University of Chicago Press.

Granovetter, Mark (2011) The impact of social structure on economic outcomes. In Granovetter, Mark & Swedberg, Richard (2011, eds.) The sociology of economic life. Boulder: Westview Press, 46-61.

Green, Nancy L. (1994) The Comparative Method and Poststructural Structuralism? New Perspectives for Migration Studies. Journal of American Ethnic History
13 (4), pp. 3-22.

Green, Nancy L. (1999) The Comparative Method and Poststructural Structuralism? New Perspectives for Migration Studies. In Lucassen Jan & Lucassen, Leo (eds.) Migration, migration history, history. Old paradigms and new perspectives,. Bern: Peter Lang, 57-72.

Handel, Michael J. (2012) Trends in Job Skill Demands in OECD
Countries. OECD Social, Employment and Migration
Working Papers, No. 143, OECD Publishing. Available at
http://dx.doi.org/10.1787/5k8zk8pcq6td-en (accessed July 18, 2013).

ILO, International Labour Organisation (2004) ISCO - International Standard Classification of Occupations homepage. http://www.ilo.org/public/english/bureau/stat/isco/isco88/ (accessed 15 April 2013).

Kofman, Eleonore, Roosblad, Judith, Keuzenkamp, Saskia (2009) Migrant and minority women, inequalities and discrimination in the labour market. In Kraal, Karen, Roosblad, Judith & Wrench, John (eds.), pp. 47-68).

Kuvik, Aimee (2012) Skilled migration in Europe and beyond: recent developments and theoretical considerations. In Marco Martiniello & Jan Rath (eds.) An introduction to international migration studies: European perspectives. Amsterdam: Amsterdam University Press, 211-236.

Lancee, Bram (2012) Immigrant Performance in the Labour Market: Bonding and Bridging Social Capital. Amsterdam: Amsterdam University Press.

Lynch, Catherine & Shannon Pfohman (2013) Hidden talents,
wasted talents ? The real cost of neglecting the positive contribution of migrants and ethnic minorities. Brussels: ENAR – European Network Against Racism. Available at
http://cms.horus.be/files/99935/MediaArchive/publications/20068_Publication_HiddenTalents_web.pdf
(accessed 14 April 2013).

Martiniello, Marco & Jan Rath (2012) An introduction to international migration studies: European perspectives. In Marco Martiniello & Jan Rath (eds.) An introduction to international migration studies: European perspectives. Amsterdam: Amsterdam University Press, 7-14.

Mügge, Liza (2011) Beyond Dutch Borders. Transnational politics among Colonial Migrants, Guest Workers and the Second Generation (Imiscoe research series). Amsterdam: Amsterdam University Press.

Nilsson, Angela & John Wrench (2009) Ethnic inequality and discrimination in the labour market. In Karen Kraal, Judith Roosblad & John Wrench (eds.) Equal opportunities and ethnic inequality in European labour markets. Discrimination, gender and policies of diversity. Amsterdam: Amsterdam University Press, 23-46.

OECD, organisation for economic cooperation and development (2007) International migration outlook (SOPEMI 2007). Paris: OECD.

OECD (2008) International migration outlook (SOPEMI 2008). Paris: OECD.

OECD (2009) International migration outlook (SOPEMI 2009). Paris: OECD.

OECD (2010) International migration outlook (SOPEMI 2010). Paris: OECD.

OECD (2011a) International migration outlook (SOPEMI 2010). Paris: OECD.

OECD (2011b) Education at a glance 2011: OECD indicators. Paris: OECD Publishing. http://dx.doi.org/10.1787/eag-2011-en (accessed 1 November, 2011).

OECD (2012) International migration outlook (SOPEMI 2012). Paris: OECD.

Portes, Alejandro (2010) Economic sociology. A systematic inquiry. Princeton: Princeton University Press.

Portes, Alejandro & Bach, Robert L. (1985) Latin journey: Cuban and Mexican immigrants in the United States. Berkeley & Los Angeles: University of California Press.

Portes, Alejandro & Julia Sensenbrenner (1993) Embeddedness and Immigration: Notes on the Social Determinants of Economic Action. The American journal of sociology 98 [6], 1320-1350.

Quintini, Glenda (2011) Over-Qualified or Under-Skilled: A Review of Existing Literature. OECD Social, Employment and Migration Working Papers, No. 121, OECD Publishing. http://dx.doi.org/10.1787/5kg58j9d7b6d-en (accessed 15 April 2013).

Rydgren. Jens (2004) Mechanisms of exclusion: ethnic discrimination in the Swedish labour market. Journal of Ethnic and Migration Studies 30 (4), 697-716.

Salmenhaara, Perttu (2012) The effect of country of birth and gender on individuals' wages in different countries' labour markets. Presentation at the 9th annual IMISCOE conference, Amsterdam, 29 August 2012.Helsinki: Perttu Salmenhaara. ISBN 978-952-67853-0-1 Available at http://salmenhaara.eu/wp-content/uploads/2012/08/120724_isbn_Salmenhaara_compilation15.pdf (accessed 15 April, 2013).

UNESCO Institute for Statistics (2012) ISCED: International Standard Classification of Education . Available at   http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx (accessed 14 June 2012).

Valtiontilintarkastajat [Finnish State Auditors] (2006) State Annual report 2006. Helsinki: The Parliament.

Van Nieuwenhuyze, Inge (2009) Getting by in Europe's Urban Labour Markets. Senegambian Migrants' Strategies for Survival, Documentation and Mobility (IMISCOE dissertations). Amsterdam: Amsterdam University Press.

Vermeulen, Floris (2006) The immigrant organising process. Turkish organisations in Amsterdam and Berlin and Surinamese organisations in Amsterdam, 1960-2000. Imiscoe dissertations. Amsterdam: Amsterdam University Press.

Widmaier, Sarah & Jean-Cristophe Dumont (2011) Are recent immigrants different? A new profile of immigrants in the OECD based on DIOC 2005/06. OECD Social, Employment and Migration Working Papers No. 126. Directorate for Employment, Labour and Social Affairs. Paris: OECD Publishing.

Zorlu, Aslan (2011) Occupational Adjustment of Immigrants. IZA Discussion Paper 6147.

Zorlu, Aslan & Hartog, Joop (2008) Employment Assimilation of Immigrants in the Netherlands. Tinbergen Institute Discussion Paper TI 2008-057/3.

---

[i] Becker 1993 (1964).

[ii] Empirical data, covering the past seventy years, shows a slow but steady trend of skills upgrading in European and American labour markets, according to an OECD working paper on job skill demands in OECD Countries (Handel 2012). This argument may exaggerate the impact of information technology (ibid.), but otherwise the skills upgrading argument sticks.

[iii] UNESCO developed the International Standard Classification of Education (ISCED) to facilitate comparisons of education statistics and indicators across countries on the basis of uniform and internationally agreed definitions. In 2011, a revision of ISCED was formally adopted by UNESCO Member States. The product of extensive international and regional consultations among education and statistical experts, ISCED 2011 takes into account significant changes in education systems worldwide since the last ISCED revision in 1997 (UNESCO Institute for Statistics 2012). See the ISCED homepage for more information and pitfalls of the system: http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx (accessed 7 April 2013).

[iv] Both papers test the Duleep-Regets hypothesis, according to which the greater the employment gap between natives and immigrants in the year of immigration, the faster the increase that follows. Thus, even though on average, employment rates of the native-born and the foreign-born do no not reach parity, employment probabilities converge over time.

[v] The method specified in Annex II.A2 of the International Migration Outlook 2007 (OECD 2007).

[vi] The figure is a guiding one only. I chose this high level of abstraction because of its clarity. The same choice was made in a classic study about immigrants' wage assimilation by Borjas (1989, 475).

[vii] Widemaier & Dumont compare the DIOC datasets of 2000 and 2005/6 and conclude that "[o]n average in the OECD, 30% of immigrants holding a university degree work in intermediate or low-skilled jobs. This figure increased by more than four percentage points compared to 2000 and the gap with the natives widened".

[viii] Exact population projections by 5-year age group are available at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database (accessed 15 April, 2013). The variable values are included in EUROPOP2010 - Convergence scenario, national level (proj_10c).