

# The occupational status of immigrants in Western and non-Western societies

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## Abstract

This study examines existing hypotheses on cross-national differences in immigrants' labor market integration. Unlike previous research, which focused on Western countries, we study the occupational status of immigrants in both Western and non-Western countries. We use census data for 45 Western and non-Western destination countries and test hypotheses derived from human capital and discrimination theory applying multilevel modeling. The analysis shows that differences in immigrants' occupational attainment can partly be explained by pre-migration language exposure, economic advancement of the origin country, geographical distance, group size, and the religious as well as socioeconomic distance of immigrant groups and the majority population. Despite differences in the magnitude of effects, patterns of immigrants' occupational attainment appear comparable between Western and non-Western societies. We do not find compelling evidence that human capital factors are consistently more important in Western societies.

## Keywords

Cross-national research, ethnic inequality, immigrants, labor market, non-Western societies

## Introduction

With 232 million people on the move worldwide, international migration is nowadays growing faster than in any other period since the 1960s (United Nations (UN), 2013a). By 2013, almost 3.2 percent of the world's population was living outside their country of origin (UN, 2013b). Although migration rates to Western destinations have remained persistently high and continued to increase over the recent decades, it is non-Western societies that are among the countries with the highest share of foreign-born individuals and largest growth rates in immigrant stocks (Lowell, 2010; UN,

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2013a). By 2000, 28 countries hosted almost three quarters of all international immigrants, 17 of which were non-Western destination countries (UN, 2013b).

So far, research focused on investigating the labor market integration of immigrants in Western societies, with a particular emphasis on studying a few countries in great detail. Many studies appeared that focused on a single immigrant group, or just a few groups, in one receiving country. In the United States, for instance, in-depth studies were done on the employment position of Mexicans (Aguilera and Massey, 2003; Pearlman, 2011; Portes and Rumbaut, 1996) and other groups, such as Black immigrants (Corra and Kumina, 2009; Kalmijn, 1996; Model, 1991) and Asian immigrants (Chiswick, 1983; Zeng and Xie, 2004). In Europe, various studies appeared on Turks in Germany (Kalter, 2011), Turks and Moroccans in The Netherlands (Tesser and Dronkers, 2007) and Indians in the United Kingdom (Heath and Cheung, 2007; Model and Ladipo, 1996; Model and Lin, 2002).

Investigating idiosyncratic cases gives us a rich account of the specific history and unique context in which groups are situated. From a theoretical and analytical perspective, however, it is important to supplement these studies with comparative research. Comparing the integration of multiple immigrant groups and of immigrants across multiple destination countries gives us insights into more general patterns of immigrant adaptation that go beyond the single case. A substantial body of literature focused on describing labor market inequalities of specific groups in specific settings. With a few exceptions, little cross-national work was done on labor market integration of immigrants (Fleischmann and Dronkers, 2010; Kogan, 2006; Model and Ladipo, 1996; Pichler, 2011; Van Tubergen et al., 2004). Importantly, these studies were exclusively concerned with immigrants in Western nations.

Although non-Western societies represent a considerable share of destinations with high net immigration rates, previous comparative research largely neglected to study the labor market integration of immigrants in these destinations. By focusing on one important aspect of labor market integration, namely, occupational status, this article investigates variation in ethnic stratification across both Western and non-Western countries. The first aim of the article is exploratory: to empirically assess how large ethnic penalties are in Western and non-Western countries. Following Firebaugh's (2008) plea for the importance of replication in social research, the second aim of this article is to consider theoretical models developed and tested in Western countries (Fleischmann and Dronkers, 2010; Kogan, 2006; Model and Ladipo, 1996; Pichler, 2011; Van Tubergen et al., 2004) and to examine how well these well-known models and hypotheses apply to the situation of immigrants in non-Western countries. Our starting point is that the theories on human capital as well as theories of discrimination are applicable to non-Western countries as well (Brown, 2010; Kuepie et al., 2009; Patrinos, 2000; Sahn and Alderman, 1988). However, we also develop and test a new hypothesis about possible differences between Western and non-Western nations. Based on modernization theory arguments, we expect to see that in Western countries achievement-based mechanisms (i.e. human capital) will be a more decisive factor than in non-Western countries, in which the role of more ascription-based characteristics (i.e. discrimination) will be more pronounced.

In order to test our hypotheses, we made use of the Integrated Public Use Microdata Series International (Minnesota Population Center, 2010). This harmonized, large-scale data set contains census information on both Western and non-Western destinations, covering the period from 1987 to 2007. In total, the data allow for comparisons of 45 destination countries, 201 origin countries and 1661 immigrant communities (i.e. combinations of origin by destination countries for which we have observations). By analyzing the economic incorporation of immigrants in 45 destinations, we are able to study between-country variations with immigrants in a great variety of destination countries: rich (Switzerland) as well as poor destinations (Mali), predominantly Christian (USA)

or Muslim (Iraq) as well as secular destinations (Cuba) and destinations with low (Austria) or high (South Africa) unemployment rates. Applying multilevel modeling techniques enables us to appropriately test our hypotheses.

## Theories on the labor market integration of immigrants

How can we explain cross-national variation in immigrants' labor market integration? The literature on the economic incorporation of immigrants in Western countries emphasized explanations on three levels (e.g. Van Tubergen et al., 2004). First, the *country of destination* affects the immigrants' economic incorporation by providing opportunities and restrictions to economic success. Receiving nations might, for instance, differ in their restrictiveness of entry regulations or the supply of job vacancies. Second, irrespective of the receiving nation, immigrants are shaped by their *country of origin*, be it the influence of the origin-specific norms and values, educational systems, or its political conditions. The specific combinations of origin and destination characteristics constitute a third macro effect; the *ethnic community*. Host societies might be especially popular among certain origin groups which then form sizable communities in these destination countries. Mexicans in the United States, Turks in Germany, or Indians in the United Kingdom constitute prominent examples of these immigrant communities. Whereas origin groups can be present in multiple destinations, each combination of origin group and destination country is unique in itself.

Theoretically, hypotheses about human capital and discrimination are proposed on each level (Fleischmann and Dronkers, 2010; Kogan, 2006; Model and Lin, 2002; Van Tubergen et al., 2004). We re-iterate these well-known hypotheses shortly, one by one. A more thorough discussion of the theoretical underpinnings of each hypothesis can be found in Van Tubergen et al. (2004), Kogan (2006), Van Tubergen (2006) and Fleischmann and Dronkers (2010).

### Human capital theory

Human capital theory argues that an individual's economic position is determined by his or her amount of accumulated human capital, which typically refers to education and work experience (Becker, 1980). Generally speaking, the more human capital an individual has acquired, the higher his or her productivity will be. Consequently, the chances to enter the labor market or reach higher status positions increase with higher human capital endowment.

According to human capital theory, cross-national differences in the economic incorporation of immigrants are a result of two mechanisms: (1) differences in the composition of immigrant groups with respect to human capital at arrival and (2) differences in accumulating human capital thereafter. For instance, one immigrant group might do especially well in one destination because its members are equipped with a high and adequate amount of human capital at arrival. Another group may have trouble entering the labor market due to its low investment in human capital prior to migrating and its underinvestment in destination-specific human capital after arrival. In this article, we will focus on the first mechanism.

One reason for cross-national differences in labor market attainment relates to comparative advantages some immigrant groups possess over others. For one, they might already be fluent in the destination country language, providing access to higher status jobs that rely on language skills (Chiswick and Miller, 2003; Duleep and Regets, 2002; Hwang et al., 2010; Van Tubergen et al., 2004). In this respect, host-country language proficiency opens up new job opportunities that are otherwise inaccessible for immigrants. Immigrants who are exposed to the destination country language prior to migrating therefore have a comparative advantage over those immigrants who do not have these language skills as part of their human capital portfolio. Furthermore, because highly

developed countries are more likely to devote more resources to schooling than do less-developed countries, we expect immigrants from economically more advanced countries to hold positions with higher occupational status (Bratsberg and Ragan, 2002; Duleep and Regets, 2002; Van Tubergen, 2006). Moreover, the transferability of human capital can be considerably restricted for some origin groups (Friedberg, 2000). Educational credentials obtained in less-developed countries are either less valued in economically advanced destinations or employers cannot judge the quality of credentials and refrain from hiring these immigrants.

Cross-national differences may also arise because certain origin–destination combinations foster either positive or negative skill selection (Borjas, 1987; Chiswick, 1999). The underlying assumption is that of income-maximizing actors choosing between their country of origin and a foreign destination in order to get the highest returns on their human capital investments (Chiswick, 1978, 1999; Massey et al., 1998). Negative selection occurs when migrants from origin countries with a high degree of income inequality move to countries that protect low-ability workers against poor labor market outcomes by means of redistributing high-ability worker taxing (Borjas, 1987, Van Tubergen et al., 2004). In other words, the lower the relative income inequality of destination and origin country, the lower the occupational status of immigrants. Moreover, political suppression and instability may prompt individuals to leave their origin country for non-economic reasons, making them less well prepared and informed about the destination country labor market (Chiswick, 1978; Duleep, 2008; Van Tubergen, 2006). Conversely, migration imposes direct travel costs on individuals, forcing those to more carefully plan migration and economic integration thereafter. The literature, therefore, expects migrants from politically suppressive origin countries to have lower occupational attainment and migrants from more distant origin countries to have higher attainment (Fleischmann and Dronkers, 2010; Van Tubergen et al., 2004).

### *Discrimination theory*

In a discrimination framework, differences across countries arise in case some origin groups are facing more discrimination than others within certain destinations. Although there is no single discrimination theory, it is generally assumed in sociology and social-psychology that individuals have a preference for in-group interaction and discriminate against out-groups (Brown, 2010; Portes and Rumbaut, 2001). Discrimination in the context of labor market integration materializes when employers favor in-group candidates over applicants from the out-group, pay lower wages or even refuse to hire out-group members despite equal qualification. Under certain conditions, discrimination will be stronger and cross-national variation in economic success can be due to differences in the degree of discrimination immigrants are exposed to in the destination country.

In general terms, discrimination is expected to be higher in situations where there is more competition for scarce resources, such as labor market positions (Blalock, 1967; Scheepers et al., 2002; Schneider, 2008). Since larger immigrant groups possess a bigger economic, cultural, or political threat potential, the native population is more likely to discriminate against them in order to secure their economic interests. In addition, competition intensifies in periods of economic downturn, with the majority group discriminating more against out-groups to maintain their level of economic prosperity. This leads us to expect that immigrants will have lower occupational status in countries with higher unemployment rates (Coenders and Scheepers, 1998; Fleischmann and Dronkers, 2010; McDonald and Worswick, 1998). And finally, earlier research asserts that immigrant groups with higher social–cultural distance to the native population face higher risk of discrimination (Coenders et al., 2008; Model and Lin, 2002; Polek et al., 2010; Portes and Rumbaut, 1996). Since immigrants are not considered a homogenous group by the majority population, individuals may feel more distant toward some immigrant groups than toward others (Model and Lin, 2002; Polek

et al., 2010; Portes and Rumbaut, 1996). In general, the feeling of cultural distance is being assessed on the grounds of culture, physical appearance, and socioeconomic background. We re-examine this notion by focusing on religious and socioeconomic distance, expecting occupational status to decline with increasing cross-group differences.

One theoretical extension of this study is related to the interplay of cultural distance and relative group size. We argue that the presumed negative effects of cultural distance and group size reinforce each other. Thus, particularly groups that are both large and culturally distant are threatening to the majority population. When groups are small, cultural differences can go unnoticed or are not perceived as threatening. When groups are large but culturally similar to the host country, one would likewise expect to see little discrimination. Thus, the negative relationship between cultural distance and occupational status will be stronger, the larger the immigrant group.

### *Theoretical applications to Western and non-Western countries*

We apply standard theoretical models to both Western and non-Western countries. The issue at stake is not whether human capital and discrimination theory work only in one context but not in the other. There is ample evidence to suggest that individual human capital endowment is just as positively associated with labor outcomes in Western countries as it is in non-Western countries (Kuepie et al., 2009; Sahn and Alderman, 1988). In other words, highly educated individuals are also on average more likely to secure high-income or high-status jobs in non-Western societies, as is the case in Western societies. Likewise, out-group prejudice and discrimination are not bound to one context but seem to be a common feature in intergroup relations (Brown, 2010; Patrinos, 2000). This is also not to say that there is no cross-national variation in the degree of discrimination.

Rather, the question is whether Western and non-Western societies differ substantially and systematically in the extent to which *contextual* human capital and discrimination factors exert influence on the occupational attainment of immigrants. Drawing on insights from stratification research on the consequences of *modernization*, we expect to see that some theories find more support in one context than in the other. Proponents of modernization theory argued that the allocation of labor market resources becomes less dependent on ascribed characteristics of individuals and more dependent on personal achievement during the process of modernization (Ganzeboom et al., 1991; Inglehart, 1997; Treiman, 1970). In other words, the relative impact of human capital on labor market outcomes is *assumed* to increase with modernization while the relative impact of group-based attributes such as gender, ethnicity, and religious affiliation gradually loses strength over time. With respect to the situation of immigrants, this would imply that ethnic discrimination and processes of in-group preferences are less prevalent in more modern societies (Inglehart, 1997; Inglehart and Welzel, 2005). Following the tenets of modernization theory, we expect that discrimination exerts a stronger effect and human capital a weaker effect on labor market outcomes in non-Western societies as compared to Western societies.

From a discrimination perspective, expectations concerning differences between Western and non-Western societies are less clear-cut. As stated above, competition for scarce resources potentially increases intergroup competition and as a possible by-product increases discriminatory practices to secure economic interests of the dominant group (Blalock, 1967; Scheepers et al., 2002; Schneider, 2008). Experimental research clearly documents that individuals show strong in-group favoritism when having to allocate resources between groups (Hoffmann et al., 1996; Ruffle and Sosis, 2006; Tajfel, 1970). However, it is far from clear how 'the size of the pie' factors into the process of in-group favoritism. Resource competition could be stronger in the context that is richer in resources. Conversely, applying the within-country perspective of increase in competition in

times of economic hardship to differences between Western and non-Western societies, we would expect a stronger association between discrimination factors and immigrant's occupational attainment in non-Western societies (Coenders and Scheepers, 1998; Fleischmann and Dronkers, 2010). In summary, the predictions derived from discrimination theory are at this point ambiguous.

## Data and methods

We test our hypotheses by using data from the Integrated Public Use Microdata Series International (IPUMS-I). This data set consists of harmonized censuses from 62 countries with 397 million person records and is coded and documented consistently across countries and over time to facilitate comparative research (Minnesota Population Center, 2010). Data for at least one of our dependent variables was available for 45 destinations: 12 Western societies (Austria, Canada, France, (West) Germany, Greece, Ireland, Israel, Portugal, Spain, Switzerland, the United Kingdom, and the United States) and 33 non-Western societies, namely Belarus, Bolivia, Brazil, Cambodia, Chile, Costa Rica, Cuba, Egypt, Guinea, Iran, Iraq, Kyrgyzstan, Malawi, Malaysia, Mali, Mexico, Mongolia, Nepal, Panama, Peru, Philippines, Puerto Rico, Romania, Rwanda, Senegal, Sierra Leone, Slovenia, South Africa, Sudan, Tanzania, Thailand, Uganda, and Venezuela.<sup>1</sup>

Some countries provide several censuses spanning a time period from 1960 to 2007. In order to reduce missing information on the macro variables, we limit the data to the most recent census per country, thus covering the years 1987–2007.<sup>2</sup> Table 7 in Appendix 1 provides an overview of all 45 countries, their scores on the destination country characteristics, the three biggest immigrant groups, and the respective census year.

The analysis is restricted to first-generation immigrants, that is, persons born outside the country of current residence. Immigrants were identified by their country of birth. It was not possible to identify immigrants of the second generation and beyond. Moreover, it is unclear whether and to what extent the census data also contain illegal immigrants.

Due to the massive data volume and to facilitate computation, random sub-samples are drawn, restricting the number of respondents in large immigrant communities (e.g. Mexicans in the United States) to 2000. Furthermore, in order to avoid the influence of cross-national differences in schooling and retirement, only respondents between the age of 25 and 54 years enter the analysis. In total, the data set consists of 45 destination countries, 201 origin groups, 1661<sup>3</sup> immigrant communities, and 388,206 male and female immigrants.

## Dependent variable

*Occupational status.* The IPUMS-I data provides both the raw occupational codes ('OCC') classified according to the system used by the national censuses and a substantially less detailed one-digit International Standard Classification of Occupations (ISCO-88) version ('OCCISCO'), which we only used for robustness checks (see Note 4). In order to obtain more detailed occupational status scores, we recoded the raw country-specific occupational codes to four-digit ISCO-88 codes and subsequently converted them to International Socio-Economic Index of Occupational Status (ISEI) scores.<sup>4</sup> The ISEI was designed to compare occupational status attainment across societies (Ganzeboom et al., 1992). Fortunately, the raw codes for the majority of countries in this analysis are already in four-digit ISCO-88 format. The remaining countries are carefully transferred into this format using widely available coding guidelines (e.g. <http://www.harryganzeboom.nl/isco88/index.htm>). Similar resources provide tools to convert the four-digit ISCO-88 scores to ISEI scores (see, for example, the Stata module 'ISKO').

## Independent variables

### Destination level

*Unemployment rate (natives).* The unemployment rates of the destination countries were computed from the census data. It expresses the proportion of unemployed or inactive native workers, 25 to 54 years of age, of the total native population within the same age range at the time of the census.

### Origin level

*Gross domestic product per capita origin country.* Economic advancement is represented by the gross domestic product (GDP) of the origin country (Heston et al., 2006). This variable refers to differences before respondent's arrival. However, since information on immigrants' duration of stay is only available for a few countries, economic advancement is measured as the 10-year average GDP score of the period starting 15 years prior to each census (e.g. for census data from the United States in 2005, the GDP scores for Mexicans represent the average of the Mexican GDP from 1990 to 2000). This period serves as a rough approximation of the time point of arrival, as nearly 80 percent of immigrants for which we have information on that issue indicate duration of stay to be 5 years or longer. Note that this procedure was also applied for other predictors that measure differences at arrival, that is, political suppression and relative income inequality. By doing so, we aim to account for the fact that the data cover a period of 20 years and differences-at-arrival variables may vary over time. Moreover, all these variables are measured in units that are comparable across countries as well as time (i.e. GDP per capita is purchasing power parity (ppp) adjusted with 2000 serving as the reference year).

*Political suppression.* Information on the level of political suppression in the country of origin was obtained from the Polity IV Project (Marshall and Jaggers, 2009). The Polity IV Project provides data on the authoritarian characteristics of states for comparative research purposes. Their measure of political suppression ranges from -10 (full autocracies) to +10 (full democracies). The scale was reversed to be in line with our hypotheses.

### Community level

*Dominant language.* We set up a dummy variable indicating whether the dominant language of the country of origin corresponds to the dominant language of the country of destination on the basis of the language situation in each of the countries at the end of the 20th century (Grimes, 2000). A dominant language was considered to be the language used by at least 40 percent of the destination or origin countries' inhabitants.

*GINI ratio (destination/origin).* This variable measures income inequality of the country of destination relative to the country of origin starting 15 years prior to each census. The degree of inequality is computed by the GINI formula. Information was obtained from the United Nations University (2008).

*Geographic distance.* The distance between two countries is measured in 1000 kilometers and was calculated using the 'great circle distance method'. Geographical information was gathered from the Central Intelligence Agency (CIA) World Fact Book (CIA, 2010). In order to take into account that travel costs may increase at a diminishing rate with increasing distance, we include a quadratic term of geographic distance. Although one could obviously think about cases in which travel costs over larger distances are rather low, in general, geographic distance is associated with higher travel costs.

*Relative group sizes.* The relative group size represents the percentage share of each immigrant group of the whole population within one destination and was computed from the census data.

*Religious distance.* The religious distance measure indicates whether the country of origin shares the dominant religious denomination of the destination country (0) or not (1) (Brierley, 1997). We differentiated between Christian, Muslim, Jewish, Buddhist, Hindu, and other countries.

*Average absolute educational distance.* To measure socioeconomic distance, we rely on the absolute difference in the average educational attainment between the native population and each immigrant group. Education was measured on a seven-point scale, where 1: no schooling/less than primary education; 2: some primary education; 3: primary completed; 4: lower secondary education; 5: secondary completed; 6: post-secondary/some college; and 7: university completed.

## Controls

A number of control variables are included to account for cross-national variation that is due to compositional differences of the various immigrant communities.

*Age.* Age was measured in years. We also add a quadratic term of age.

*Education.* Education was measured as a categorical variable: no schooling/less than primary education, some primary education, primary completed, lower secondary education, secondary completed, post-secondary/some college, and university completed.

*Marital status.* Marital status was transformed to a dummy variable, with married respondents scoring 1 and single, divorced, separated, or widowed respondents scoring 0.

*Number of children in the household.* This variable indicates the number of children in the household, ranging from 0 (no children present) to 9 (households having 9 or more children present).

*Sex.* Preliminary analysis did not reveal substantial differences in the effects of macro characteristics on economic incorporation of male and female immigrants. That is not to say that there are no gender differences with respect to the individual-level effects. However, the focus of this article rests on macro-level patterns. We therefore decided to pool the two subgroups in multivariate analysis controlling for gender on the individual level, with male immigrants as reference category. Appendix 1 Table 8 presents the results of our preliminary analysis.

*Size of the un- and low-skilled sector (natives).* This variable records the percentage of native respondents aged 25 to 54 years with ISEI scores between 16 and 33 of the total employed population. It is meant to capture the labor market structure of the respective destination countries (Kogan, 2006).

Descriptive statistics for the dependent and independent variables are presented in Table 1. Missing observations are present at all levels of our data set. We used multiple imputation techniques to deal with missing data (Enders, 2010; Schafer and Graham, 2002). Missing observations are imputed separately for the contextual and the individual level. To do so, we first created separate macro-level data sets and imputed the missing values in 10 data sets at the contextual levels using predictive mean matching. To obtain more precise imputations, improve power and potentially reduce bias – without altering the substantive interpretation of coefficients – we followed an



**Table 1.** Descriptive statistics of dependent and independent variables (N = 388,205).

	Range	Mean <sup>a</sup>	SD <sup>a</sup>	Percentage imputed
<b>Dependent variable</b>				
Occupational status	16.00–90.00	42.68 (38.92)	17.13 (18.41)	
<b>Destination level</b>				
Unemployment rate (natives, in percent) <sup>b</sup>	7.44–54.81	23.70 (31.94)	6.53 (12.52)	
Percentage of Low-skilled native workers <sup>b</sup>	8.80–35.95	14.66 (23.77)	3.41 (6.39)	
<b>Origin level</b>				
GDP origin (in 1000 US\$) <sup>b</sup>	0.34–32.61	8.34 (7.75)	7.84 (7.31)	8.41
Political suppression <sup>b</sup>	–10 to 10	–2.36 (–1.50)	5.83 (6.16)	14.26
<b>Community level</b>				
Dominant language	0/1	.07 (.15)		
GINI ratio (Des./Or.) <sup>b</sup>	0.40–2.85	0.94 (1.31)	0.26 (.41)	15.19 <sup>c</sup>
Geographical distance (in 1000 km)	0.01–18.82	2.95 (4.15)	2.19 (3.65)	
Relative group size (in percent) <sup>b</sup>	.00–8.68	0.25 (.09)	0.73 (.46)	
<b>Cultural distance</b>				
Average educational distance <sup>b</sup>	.00–4.86	0.66 (1.50)	0.47 (.98)	
<b>Individual level</b>				
Female	0/1	.45 (.37)		
Age <sup>b</sup>	25.00–54.00	38.77 (38.20)	8.28 (8.33)	
<b>Educational attainment</b>				
Less than primary/no schooling	0/1	0.02 (.17)		4.40
Some primary education	0/1	0.02 (.10)		
Primary completed	0/1	0.14 (.15)		
Lower secondary education	0/1	0.10 (.12)		
Secondary completed	0/1	0.26 (.21)		
Post-secondary/some college	0/1	0.17 (.09)		
University completed	0/1	0.28 (.16)		
Married	0/1	0.70 (.75)		0.32
Number of children <sup>b</sup>	0.00–9.00	1.13 (1.56)	1.27 (1.77)	6.27

GDP: gross domestic product.

Values without parentheses refer to Western societies, values in parentheses to non-Western societies.

<sup>a</sup>Means and standard deviations of migrants to non-Western destinations in parentheses.

<sup>b</sup>Variables grand-mean centered in the analysis.

<sup>c</sup>The ratio was computed ex post imputation; 11.10 percent of the GINI scores were missing for the country of origin.

inclusive strategy and added auxiliary variables to the imputation models (e.g. Collins et al., 2001).<sup>5</sup> In order to deal with missing observations at the individual level, we used multilevel multiple imputation implemented in the mice-package for R, thus obtaining 10 imputed data sets (Van Buuren and Groothuis-Oudshoorn, 2011).

## Methods

We use cross-classified multilevel linear regression techniques to model the occupational status of immigrants. Multilevel methods account for the nesting structure and the dependency across

observations from the same origin, destination, and/or community. Ignoring it would result in underestimated standard errors, leading to possibly unjustified support for hypotheses related to destination, origin, or community effects (Snijders and Bosker, 1999). Random intercept models with four components are estimated using maximum likelihood estimation.

We found no evidence of multicollinearity among the independent variables: variance inflation factors are below 2.5 and the condition indices never exceed 20. Furthermore, we checked for influential cases; however, none of the countries seemed to be overly influential on all parameter estimates combined as expressed by Cook's distance (Nieuwenhuis et al., 2009; Snijders and Bosker, 1999).<sup>6</sup>

## Results

### *Descriptive analysis*

In order to explore immigrants' economic incorporation in Western and non-Western countries, we present descriptive figures for occupational status for a selection of destinations, origins, and immigrant communities, and for illustrative purposes separately for male and female immigrants (Tables 2 and 3). The immigrant communities presented here are a subset of sizable and widely spread origin groups. To ensure reliable descriptive figures, we only include immigrant communities with at least 500 respondents. For this reason, not all countries of origin and destination are listed.

Table 2 shows that origin differences are clearly visible when the mean occupational status across the seven origin groups is compared. Turks show considerably lower scores than do migrants from the United Kingdom (38.8 vs 50.2). Furthermore, differences are still present when comparing the two groups within the same destination, suggesting that characteristics of the country of origin are affecting immigrants' occupational attainment irrespective of the choice of destination. However, the disadvantaged labor market position of Turks appears to be primarily in Western societies. In non-Western societies, Turkish migrants even outperform migrants from the United Kingdom (51.4 vs 46.8).

This in turn points to the influence of the destination country. Overall, our study shows that, in absolute terms, immigrants have on average a higher occupational status in Western destination countries. However, the picture changes when comparing the occupational attainment of immigrants in Western and non-Western societies to the respective native population. Migrants to non-Western societies score persistently higher than the native population. For instance, migrants to South Africa outperform the native population by almost eight points. Similar patterns are also visible in other non-Western societies, ranging from two points in the Philippines to a 15-point advantage in Brazil or Egypt. In the majority of Western societies, however, immigrants are disadvantaged as compared to the native population, with ethnic penalties amounting up to ten occupational status points (Germany).

Finally, Tables 2 and 3 also provide insight into community effects. The Chinese community in the United States seems to be rather successful. On the contrary, Indian immigrants in Greece score on average more than 35 points lower than their Chinese counterparts in the United States. Likewise, the Spanish community in Mexico has an average occupational status of 57.0, whereas Turks in Austria only score 33.

### *Variance components*

In order to get an impression of the relative partition of the overall variance, we estimated intercept-only models and calculated intra-class correlations based on the variance components (Table 4).

**Table 2.** Occupational status of male immigrants for a selection of seven origin groups and 21 countries of destination.

	Country of origin							All groups (mean)	Natives (mean)
	China	Colombia	Germany	India	Spain	Turkey	United Kingdom		
Country of destination									
<i>Western</i>									
Austria	36.6		44.0	36.8		33.4	46.0	39.0	41.4
Canada	51.5		48.5	44.9			51.7	47.6	47.1
France					42.5	33.6		39.9	43.2
Germany			N/A			30.3		31.4	42.2
Greece			41.8	22.9		43.9	52.0	36.0	42.0
Ireland	33.7		49.6	40.8			43.4	40.3	43.1
Israel						39.7		41.4	44.4
Portugal			46.8	42.1	49.7		52.3	42.3	39.0
Spain	37.1	34.7	43.4	41.8	N/A		48.0	37.7	42.0
Switzerland			56.1	40.1	38.0		59.5	44.9	47.3
United Kingdom			45.6	44.0	39.9		N/A	44.5	43.3
United States	58.0	43.9	50.6	62.5	54.1	54.2	55.8	47.0	48.3
Mean (Western)	49.0	40.9	47.0	46.7	43.1	36.9	49.2	42.0	42.5
<i>Non-Western</i>									
Brazil	50.0		55.2		52.4			50.1	34.5
Chile		60.3	54.6		56.5			47.6	40.8
Egypt			59.8				60.1	53.5	38.4
Mexico	46.9	64.3	56.8		57.0			50.1	35.9
Nepal				35.3				31.9	28.6
Panama	40.2	38.4						41.9	39.1
Philippines	34.1			30.7			30.2	35.2	33.5
South Africa	48.6		55.0	52.9			55.1	44.9	37.0
Venezuela	46.2	33.7			47.4			44.1	38.6
Mean (non-Western)	42.1	41.9	53.6	40.3	51.4	51.4	46.8	39.6	33.1
All destinations (mean)	45.5	41.2	49.5	44.5	47.6	38.8	50.2	41.5	41.2

Figures based on ethnic communities with at least 500 respondents. The average occupational status refers to immigrants and natives 25 to 54 years of age.

In Western countries, occupational status seems to vary more among communities (11%) than among origins (9%) and considerably more than among destinations (4%). As for non-Western countries, occupational status varies most among communities (14%). Furthermore, in non-Western countries, a larger variation is found across destination countries (10%) compared to origin countries (8%). The bigger importance of the receiving context compared to where migrants originated from in non-Western societies may be attributed to the greater variety of destinations under study. For instance, the level of economic advancement is considerably less variable among Western as compared to among non-Western destinations, with the latter including very poor countries (Malawi) as well as emerging markets such as Brazil.

### *Hypothesis testing*

The results for the linear regression models of immigrants' labor market integration are presented in Table 5. Separate analyses for Western and non-Western destinations were conducted. Models 1

**Table 3.** Occupational status of female immigrants for a selection of seven origin groups and 21 countries of destination.

	Country of origin							All groups (mean)	Natives (mean)
	China	Colombia	Germany	India	Spain	Turkey	United Kingdom		
Country of destination									
<i>Western</i>									
Austria	40.9		44.6	40.4		35.2	45.2	40.4	42.5
Canada	47.3		51.2	44.1			52.2	48.0	50.0
France					42.9	33.0		40.7	45.8
Germany			N/A			29.7		36.9	43.2
Greece			45.2			47.0	51.4	36.4	42.8
Ireland	36.8		50.5	42.2	49.4		47.1	42.5	48.0
Israel						45.5		45.4	50.4
Portugal			50.3		48.4			43.5	38.5
Spain	34.5	29.7	45.3		N/A		46.4	37.4	42.8
Switzerland			53.0		35.7	33.2	55.9	43.7	46.9
United Kingdom			46.9	41.3			N/A	45.2	44.0
United States	55.7	44.4	50.8	57.6	55.1	56.0	53.9	47.2	49.6
Mean (Western)	48.4	38.2	48.6	46.4	44.4	39.9	50.5	43.6	45.5
<i>Non-Western</i>									
Brazil					54.5			49.3	34.6
Chile								45.7	43.9
Egypt							48.0	46.3	50.0
Mexico					55.8			51.2	41.1
Nepal				27.6				28.7	26.1
Panama	41.7	38.6						41.1	43.3
Philippines	39.3			36.4			38.5	39.0	38.4
South Africa			53.6	54.5			52.5	47.7	33.9
Venezuela	47.1	32.8			52.0			43.8	43.3
Mean (non-Western)	43.9	40.5	52.8	35.1	54.1	50.2	49.2	37.7	33.9
All destinations (mean)	46.7	39.1	49.1	43.4	47.4	40.1	50.1	41.5	37.6

Figures based on ethnic communities with at least 500 respondents. The average occupational status refers to immigrants and natives 25 to 54 years of age.

and 3 include all the main effects and individual-level controls. Models 2 and 4 add the interaction effects of relative group size with cultural distance. The equality of regression coefficients is tested by formulating interactions of macro-level predictors with a group-membership dummy (Western vs non-Western) on a pooled data set.

To examine the relevance of the discussed effects, we also report the standardized effects of the continuous predictors in the text as expressed by the effect of a 1 SD change in the independent variables on occupational status.

We find support for the idea that immigrants from countries that shared the dominant language of the destination country have a comparative advantage over immigrant groups for which this is not the case and hence manage to attain a higher occupational status. For migrants to Western destinations, we found it to increase the occupational status by 0.8 points and for immigrants in non-Western societies by 1.1 points.

Higher economic advancement of the country of origin was associated with higher occupational status of immigrants. A 1 SD increase in the GDP of the country of origin is associated with an increase in occupational status by 2.8 points ( $.353 \times 7.84$ ) in Western and by 0.8 ( $.113 \times 7.31$ )

**Table 4.** Variance components of immigrants' economic incorporation.

	Occupational status		
	Destination	Origin	Community
Western destinations			
Variance component	11.72	25.59	31.24
Intra-class correlation	.040	.086	.105
Non-Western destinations			
Variance component	32.41	25.94	45.04
Intra-class correlation	.103	.082	.143

**Table 5.** Determinants of immigrants' economic incorporation in 12 Western and 33 non-Western societies.

	Occupational status				Western/non-Western difference
	Western		Non-Western		
	Model 1	Model 2	Model 3	Model 4	
Constant	28.954**	28.955**	32.348**	32.355**	
Destination					
Unemployment rate (natives, percent)	-0.141	-0.138	-0.065	-0.066	n.s.
Origin					
GDP per capita origin (1000 US dollar)	.353**	.352**	.113**	.112**	**
Political suppression	.107	.107	.020	.020	n.s.
Community					
Dominant language	.834*	.832*	1.138**	1.136**	n.s.
GINI ratio (Destination/origin)	-1.673	-1.656	-0.183	-0.186	n.s.
Geographic distance (in 1000 km)	.235**	.236**	.415**	.415**	**
Geographic distance <sup>2</sup>	-0.008*	-0.008*	-0.013**	-0.013**	**
Relative group size (percent)	-0.699**	-0.611*	-1.133**	-1.087**	n.s.
Religious distance	1.409**	1.416**	-0.522**	-0.530**	**
Average educational distance	-2.379**	-2.405**	-0.924**	-0.925**	**
Interaction					
Relative group size × Religious distance		-0.185		-0.242	n.s.
Micro-level controls					
Age	.022**	.022**	.064**	.064**	
Age <sup>2</sup>	-0.002**	-0.002**	-0.003**	-0.003**	
Education					
No schooling/less than primary (ref.)					
Some primary	.666**	.665**	1.239**	1.239**	
Primary completed	2.782**	2.782**	3.589**	3.589**	

(Continued)

Table 5. (Continued)

	Occupational status				Western/non-Western difference
	Western		Non-Western		
	Model 1	Model 2	Model 3	Model 4	
Lower secondary	3.752**	3.752**	6.570**	6.570**	
Secondary completed	7.451**	7.451**	12.582**	12.582**	
Post-secondary/some college	10.914**	10.914**	18.552**	18.552**	
University completed	23.148**	23.148**	28.403**	28.403**	
Married	.385**	.384**	.403**	.403**	
Number of children	-0.130**	-0.130**	-0.245**	-0.245**	
Female	.426**	.426**	-0.364**	-0.364**	
Macro-level controls					
Percentage of low-skilled jobs	-0.223*	-0.229*	-0.128**	-0.128**	
Deviance	2,015,530	2,015,529	1,089,851	1,089,849	
R <sup>2</sup> Full model	.31	.31	.42	.42	
R <sup>2</sup> Destination level	.42	.42	.70	.70	
R <sup>2</sup> Origin level	.81	.81	.96	.96	
R <sup>2</sup> Community level	.63	.63	.72	.72	
Observations					
Destination	12	12	33	33	
Origin	167	167	187	187	
Community	630	630	1030	1030	
Individual	250,804	250,804	137,401	137,401	

\* $p < .05$  (two-tailed); \*\* $p < .01$  (two-tailed), n.s.: difference not significant.

points in non-Western societies. Originating from an economically more developed origin country is hence more rewarding in Western societies. The difference between the two contexts is statistically significant.

We formulated three hypotheses concerning the selection of immigrant groups in terms of human capital. Neither the degree of relative income inequality, nor the degree of political suppression in the country of origin significantly affects the occupational status of immigrants. Nonetheless, migrants traveling longer distances from origin to destination report, on average, a higher occupational status. Our results support this notion with immigrants to Western societies scoring 0.5 and to non-Western societies scoring 1.3 points more on the ISEI scale for each standard deviation increase in the geographical distance measure. The quadratic term of geographic distance is significant and negative, indicating that the positive effect is increasing at a decreasing rate. This might indicate that increasing an already large distance between origin and destination bears less on travel costs and thus less on skill selection. For instance, the difference in the effect for migrants traveling from Japan to the United States as compared to migrants from South Korea is estimated to be smaller than the difference between Colombians and Costa Rican migrants although the distance is roughly the same. Note that the effect of geographic distance is of moderate size and the differences between Western and non-Western societies are significant.

We now turn to the hypotheses derived from discrimination theory. We expected that large migrants groups might be more likely to face discrimination by the majority population. The effect of relative group size on occupational status lends support for this hypothesis. Increasing the relative size of an immigrant group by 1 SD yields a comparatively small decrease in the occupational status by 0.5 both in Western and non-Western countries.

We further anticipated that in destination countries with higher proportions of the native population being unemployed or inactive, discrimination against immigrants would be higher. However, we do not find support for this hypothesis.<sup>7</sup>

Our analysis further shows that, in contrast to our hypothesis, religiously distant immigrants in Western societies show on average a 1.4 points higher occupational status as compared to not religiously distant immigrants. Immigrant groups that do not share the dominant religion of the destination country do face a 0.5 reduction in occupational status in non-Western societies. Furthermore, we hypothesized that large, religiously distant immigrant groups are facing more discrimination and thus show less labor market integration as compared to large groups that are not religiously distant. Our results show no evidence that the effect of relative group size on occupational status is conditional on belonging to a religiously distant group or not.

With respect to the social–economic distance, we expected that immigrant groups with a higher average absolute educational distance to the native population would fare less well regarding their occupational attainment. In line with our prediction, the larger the average absolute educational gap between an immigrant community and the native population, the lower their occupational standing. Increasing the average absolute educational distance by 1 SD yields a decrease of occupational status by 1.1 points for immigrants to Western and a 0.9 point decrease for migrants to non-Western destinations.

Finally, we hypothesized that the effect of characteristics related to human capital will be more important in modern, that is, Western societies. Contrary to our expectation, human capital hypotheses receive support to an equal extent in both contexts. However, some of the relationships are stronger in Western societies, notably, the effect of economic advancement of the origin country. Nonetheless, the effect of geographic distance is stronger in non-Western societies. We would, therefore, conclude that with respect to the importance of human capital–related factors, the evidence does not consistently point to a higher relevance in Western destination countries. We also expected for discrimination theory to perform better when investigating non-Western societies. Table 5 only shows significant differences for the effect of religious distance. It is negative in non-Western societies as opposed to a positive effect in Western destinations. In summary, the results do not provide strong evidence to support our hypotheses. Table 6 provides a summary of the findings.

How successful is the theoretical model in explaining the variation across destinations, origins, and communities (see Table 4)? Our final model in Table 5 explains 42 percent of the variation across destinations in Western countries and 70 percent in non-Western societies. Additional analysis (not shown) indicates that this is primarily due to the differential sorting of origin groups across receiving nations, that is, compositional differences between the destination countries with respect to the origin groups present therein. The variation in the occupational status across origin groups is almost fully accounted for by our models, ranging from 81 percent of explained variance in Western countries to 96 percent in non-Western societies. The  $R^2$ s for the community level are lower compared to corresponding figures for the origin level, but still indicate a substantial amount of explained variance of 63 percent in the Western and 72 percent in the non-Western context.

## Conclusion and discussion

Despite non-Western societies hosting a considerable share of international migrants, the literature predominantly focused on the labor market integration of immigrants in Western societies. This

**Table 6.** Summary of findings.

Hypothesis regarding immigrants' labor market integration	Hypothesized effect	Empirical finding		Level
		Western	Non-Western	
<b>Human capital theory</b>				
H1: Pre-migration language exposure	+	+	+	Community
H2: Economic advancement	+	+	+	Origin
H3: Relative income inequality (Des./Or.)	+	0	0	Community
H4: Political suppression	-	0	0	Origin
H5: Geographical distance	+	+	+	Community
<b>Discrimination theory</b>				
H6: Relative group size	-	-	-	Community
H7: Unemployment rate	-	0	0	Destination
H8: Religious distance	-	+	-	Community
H9: Average educational distance	-	-	-	Community
H10: Religious distance × Relative group size	-	0	0	Community

Results refer to Table 5. + = positive effect; - = negative effect; 0 insignificant finding.

article represents a first attempt to fill this gap by investigating why and to what extent characteristics of the country of destination, the country of origin, and the immigrant community affect the economic incorporation of immigrants in Western and non-Western societies. In order to explain differences across countries with respect to immigrants' economic incorporation, we replicate well-known hypotheses derived from human capital and discrimination theory. Using multilevel modeling techniques, we put these theories to the test with census data from the IPUMS-I, which provides a unique source to investigate the occupational status of immigrants in 12 Western and 33 non-Western receiving nations. We thereby contribute to the growing cross-national comparative literature on the economic incorporation of immigrants in Western countries (Fleischmann and Dronkers, 2010; Heath and Cheung, 2007; Kogan, 2006; Model and Ladipo, 1996; Model and Lin, 2002; Van Tubergen, 2006; Van Tubergen et al., 2004). Five main conclusions can be drawn from our study.

*First*, in both Western and non-Western countries macro conditions are important for the labor market incorporation of immigrants. About 25 to 33 percent of the variation in occupational status is attributable to the country of destination, the country of origin, and the immigrant community. This means that macro-level conditions are important to consider when trying to understand the labor market performance of immigrants.

*Second*, the theoretical model tested in this article explains a substantial part of the macro-level variation, in both Western and non-Western nations. Regarding origin and community differences, around 63 to 96 percent is explained. This means that we can very well understand why a certain origin group is consistently outperforming another origin group across receiving countries. Likewise, we can predict that the combination between a certain origin group and a certain destination country will lead to unfavorable labor market performance. Variations across receiving countries are also well understood for non-Western countries (70% explained), but less well for Western countries (42%). One major reason is that with respect to host-country conditions, we tested only the role of the unemployment rate of native-born persons, whereas other factors may be of decisive



importance. We strongly encourage future research to study in more depth the role of migration policies (e.g. Donato et al., 2008; Reitz et al., 1999). Migration policies can affect both the influx of migrants, conditions under which immigrants are allowed to permanently reside and work, and anti-discrimination regulations. The Migration Integration Policy Index (Huddleston et al., 2011) is a useful tool in systematically analyzing these differences; however, data are currently available only for 31 Western societies and need to be extended to non-Western societies.

*Third*, findings from our comparative research on 12 Western countries confirm results from earlier studies on Western countries, which were typically based on fewer countries and random probability surveys (e.g. Fleischmann and Dronkers, 2010; Model and Ladipo, 1996; Model and Lin, 2002, Kogan, 2006). This provides further support for several macro conditions that play a key role in the status attainment of immigrants. One key condition is pre-migration language exposure. Groups that were exposed to the dominant language of the host country before migration had a major advantage compared to groups that were not exposed to the destination language. In further support for human capital theory, we find that immigrants, who were born in more economically developed nations, outperform migrants from less-developed countries, irrespective of their country of destination and over and above their educational level. Furthermore, immigrants who have traveled over larger distances, and who were presumably more positively selected, do better in the labor market. Also, our study shows that group size is an important barrier for successful labor market integration. We find, like earlier studies (Van Tubergen, 2006), that the larger the size of the group to which an immigrant belongs, the lower his or her occupational status. This is in line with the hypothesis that larger groups are perceived as more threatening by the majority population, leading to stronger discrimination outside the ethnic community. Consequently, higher status jobs in the native-dominated labor market are more difficult to access for members of larger communities who might resort to lower skilled service jobs within their community. Finally, our analyses also replicates the finding that members of socioeconomically more distant immigrant communities in terms of education secure on average lower status jobs, even when controlling for immigrants' own education.

*Fourth*, some findings of our study on Western countries are not in line with earlier research. Unlike prior findings (Van Tubergen, 2006), we do not find that political suppression in the country of origin and relative income inequality – two conditions argued to play a role in migration selectivity – affect the occupational status of immigrants. One explanation could be that economic incorporation is a transitional process. After arrival, immigrants have to engage in a series of decisions. The first is concerned with participating in the labor force or not. In case they decide to do so, immigrants need to secure employment in order to be eligible for occupational status. Van Tubergen et al. (2004) and Fleischmann and Dronkers (2010) have shown that selection already strongly affects the odds of participating in the labor market and successfully securing employment. Thus, employed migrants (i.e. those who have an occupational status) tend to be already a select group of their own. In addition, specific characteristics of the destination likely counter selection mechanisms. For instance, a number of Western destinations grant privileged access to some migrant groups either due to originating from former colonies (France and the United Kingdom) or on religious grounds (Israel). In similar ways, high levels of informal employment and underemployment in combination with low availability of social welfare in non-Western societies are argued to induce individuals to more frequently seek self-employment as a viable alternative to scarce, paid labor, thus mitigating differences between positively and negatively selected immigrant groups (e.g. Blau, 1985; Pietrobelli et al., 2004). We believe that this issue deserves closer attention in future research.

The positive relationship between religious distance and occupational status in Western societies is also not in line with earlier findings (e.g. Model and Lin, 2002; Van Tubergen, 2006).

There are two possible explanations for this finding. First, a focus on religious distance might ignore possible racial effects (i.e. Latin-American origin countries are predominately of Christian descent but racially different from Western, Christian-majority destinations). Second, this positive effect may be interpreted in a transitional (selection) framework outlined above. Religiously distant immigrant groups were found to have lower odds of labor force participation and employment (Fleischmann and Dronkers, 2010; Van Tubergen et al., 2004), being employed implying that those immigrants from religiously distant origins who do manage to secure employment are positively selected on other dimensions (such as motivation or higher social capital endowment).

*Fifth*, our study does not provide strong evidence that patterns of immigrants' occupational attainment are fundamentally different between Western and non-Western societies. With a few exceptions, all macro conditions that are important in Western countries likewise play a role in non-Western countries. The remarkable similarity in findings is even found when we compare the standardized effects. However, the results also point to some intriguing differences in the strength of associations for select measures of human capital-related ideas. Our findings show that the positive effect of the economic development of the country of origin is statistically more important in Western than in non-Western countries. Conversely, we find that geographic distance is more relevant in non-Western countries. Overall, our study provides little evidence for the claim that skill- and achievement-based mechanisms are more important for immigrants in Western as compared to non-Western countries.

In summary, this study contributed to the literature by elucidating similarities and divergences in immigrants' labor market integration in Western and non-Western societies. Non-Western societies provide an excellent context for testing the explanatory power of established theories and identifying possible blind spots. Apart from other indicators of economic incorporation such as income or self-employment, future research could look into aspects of sociocultural integration of immigrants. For instance, how well can prominent explanations of ethnic intermarriage, mainly tested in Western countries (Kalmijn, 1998), also explain differences across non-Western societies? Can European-origin groups be characterized as more 'open' (i.e. showing low endogamy rates) than other groups? And are intermarriage rates higher in Western than in non-Western countries? Future research is required to answer these questions.

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## Notes

1. Appendix 1 Table 8 also presents the results for models that do not rely on the Western–non-Western dichotomy. Contextual differences in terms of modernization are then captured by interacting the explanatory variables with the Human Development Index (HDI), thus assessing modernization on a continuous scale. Since the results are very similar, we present the results of the Western–non-Western dichotomy in the main part of the text for reasons of easier interpretation. Appendix 1 Table 8 also reports additional robustness checks focusing on a narrower time frame of only 5 years. The results remain stable.
2. The UK census from 2001 did not provide a detailed account of the origin countries of its immigrants. We therefore used the census from 1991 instead. For the same reason, the Mexican census from 2000 was used instead of the more recent one from 2005. Immigrants in the census data from Belarus, Egypt, Germany, Iran, Senegal, Sudan, and Switzerland could only be identified by their country of citizenship. Additional analyses show that excluding these countries does not change the substantive conclusions. Hence, we included them in all models.

3. The number of respondents per community ranges from 17 to 2000, with an average community size of 206.
4. At the cost of information but with a possible gain in comparability, we also estimated models related to the occupational status based on the one-digit International Standard Classification of Occupations (ISCO) codes provided in the Integrated Public Use Microdata Series International (IPUMS-I) data (Minnesota Population Center, 2010). Results are presented in Appendix 1 Table 8.
5. These auxiliary variables were measured for both the country of destination and origin and correlate strongly with the variables to be imputed: imported and exported goods and services as percentage of the gross domestic product (GDP) (World Bank, 2010), the total economically active population (International Labour Organization (ILO), 2010), the illiteracy rate (United Nations Educational, Scientific and Cultural Organization (UNESCO), 2010), and separate variables for the degree of economic, social, and political globalization (Dreher, 2006).
6. We also investigated the standardized change of single estimates and identified several influential countries: Austria, Malaysia, Philippines, South Africa, Switzerland, and Uganda. Excluding these countries from the analysis does not change the substantive conclusion; hence, we included them in the final models.
7. In order to reduce the possibility that these results are dependent on the measure used for unemployment rate, we also estimated models where the unemployment rate was computed as the fraction of unemployed natives from the total economically active population (ILO definition) and models where data for the unemployment rate of the destination countries were obtained from the World Bank (2010). None of these changes in the parameterization of the model led to different conclusions.

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## Appendix I

**Table 7.** Descriptive characteristics of 45 destination countries.

Destination	Employment rate (in %) <sup>a</sup>	Three major sending countries	Census year	Total number of immigrant respondents per census
Austria	83.8	Yugoslavia, Turkey, Germany	2001	82,254
Belarus	85.5	Russia, Ukraine, Kazakhstan	2001	6287
Bolivia	65.8	Argentina, Brazil, Peru	2000	6271
Brazil	66.2	Portugal, Argentina, Uruguay	1999	23,656
Cambodia	91.1	Vietnam, Thailand, China	2008	7550
Canada	81.9	United Kingdom, India, China	2001	169,375
Chile	58.8	Peru, Argentina, Bolivia	2002	41,498
Costa Rica	61.1	Nicaragua, El Salvador, Panama	2000	23,539
Cuba	65.6	Russia, Spain, Ukraine	2002	887
Egypt	54.5	Palestine, Russia, Somalia	2006	14,883
France	86.8	Tunisia, Turkey, Algeria	2006	193,871
Germany	71.8	Turkey, Yugoslavia, Italy	1987	154,389
Greece	68.6	Albania, Germany, Georgia	2001	82,778
Guinea	81.1	Liberia, Sierra Leone, Ivory Coast	1996	20,229
Iran	49.5	Afghanistan, Iraq, Pakistan	2006	20,678
Iraq	46.1	Kuwait, Egypt, Iran	1997	7738
Ireland	77.3	United Kingdom, Poland, Lithuania	2006	70,467
Israel	69.3	Russia, Morocco, Ukraine	1995	131,335
Kyrgyzstan	75.9	Russia, Kazakhstan, Uzbekistan	1999	29,803
Malawi	70.5	Mozambique, Zambia, Zimbabwe	2008	15,715
Malaysia	68.5	Indonesia, Philippines, Bangladesh	2000	24,922
Mali	65.3	Ivory Coast, Burkina Faso, Guinea	1998	9809
Mexico	61.3	United States, Guatemala, Spain	2000	40,782
Mongolia	62.6	Russia, China, Kazakhstan	2000	594
Nepal	77.6	India, Hong Kong, Bhutan	2001	56,939
Panama	65.5	Colombia, China, Dominican Republic	2000	6741
Peru	65.4	Argentina, Colombia, Bolivia	2007	5111
Philippines	72.4	Bahrain, United Kingdom, China	2000	230,239
Portugal	78.3	Angola, France, Mozambique	2001	27,881

**Table 7.** (Continued)

Destination	Employment rate (in %) <sup>a</sup>	Three major sending countries	Census year	Total number of immigrant respondents per census
Puerto Rico	55.9	United States, Dominican Republic, Cuba	2005	2583
Romania	66.5	Moldavia, Bulgaria, Syria	2002	8001
Rwanda	92.6	Congo, Uganda, Burundi	2002	40,752
Senegal	59.1	Guinea, Mali, France	2002	6484
Sierra Leone	77.7	Guinea, Liberia, Nigeria	2004	4257
Slovenia	81.5	Yugoslavia, Macedonia, Germany	2002	12,816
South Africa	45.2	Mozambique, Zimbabwe, Lesotho	2001	70,725
Spain	63.9	Morocco, Ecuador, France	2001	90,656
Switzerland	84.4	Italy, Yugoslavia, Germany	2000	57,532
Sudan	53.9	Ethiopia, Chad, Eritrea	2006	8306
Tanzania	84.9	Burundi, Mozambique, Kenya	2002	46,913
Thailand	89.6	Burma, China, Japan	2000	2813
Uganda	68.4	Sudan, Congo, Rwanda	2002	28,915
United Kingdom	76.7	Ireland, India, Pakistan	1991	130,887
United States	84.9	Mexico, China, India	2005	277,544
Venezuela	61.4	Colombia, Spain, Portugal	2001	106,129

<sup>a</sup>The employment rate reflects the fraction of employed, native-born respondents aged 25 to 54 years, of the total native-born reference population and was computed from the Integrated Public Use Microdata Series International (IPUMS-I) census data.

**Table 8.** (a) Additional robustness checks.

	Model 1 including HDI	Samples from 1998–2002		One-digit ISCO	
		Western	Non-Western	Western	Non-Western
Constant	30.768**	27.605**	31.481**	8.76**	7.035**
Human Development Index (HDI)	-11.182**				
Interactions					
HDI × Unemployment rate	-0.321				
HDI × GDP per capita origin	0.602**				
HDI × Political suppression	0.212				
HDI × Dominant language	0.696				
HDI × GINI ratio	-4.686				
HDI × Geographic distance	-0.022*				
HDI × Relative group size	0.623				
HDI × Religious distance	9.971**				
HDI × Average educational distance	-4.764**				
Destination					
Unemployment rate (natives, %)	-0.326	-0.190**	.121	-0.018	.002
Origin					
GDP per capita origin (1000 US dollar)	0.231**	0.418**	0.067**	0.044**	0.019**
Political suppression	0.136	0.071	-0.068	0.001	0.004
Community					
Dominant language	0.619*	0.426**	1.380**	0.084*	0.045*
GINI ratio (Destination/Origin)	-1.879	-2.751	-0.133	-0.332	0.025
Geographic distance (in 1000 km)					
Geographic distance <sup>2</sup>	-0.033*	-0.016*	-0.048**	-0.002	-0.004**
Relative group size (%)	-1.687**	-0.950**	-1.011**	-0.139**	-0.111**
Religious distance	-6.763**	1.928**	-0.130*	.244**	-0.018*
Average educational distance	-2.379**	-2.295**	-1.994**	-0.483**	-0.196**
Micro-level controls					
Age	.036**	.031**	.066**	.004**	.014**
Age <sup>2</sup>	-0.003**	.001**	-0.002**	.001**	.001**
Education	4.712**	3.761**	3.849**	.656**	.548**
Married	0.378**	0.045	0.449**	0.007	0.111**
Number of children	-0.211**	0.071	-0.232**	-0.011**	0.008**
Female	0.327**	-0.236**	-0.242**	0.394**	0.238**
Macro-level controls					
Percentage of low-skilled jobs	-0.232*	-0.120	-0.075	-0.026	0.036

\* $p < .05$  (two-tailed); \*\* $p < .01$  (two-tailed).



## (b) Additional robustness checks (continued).

	Male immigrants		Female immigrants	
	Western	Non-Western	Western	Non-Western
Constant	28.553**	32.721**	29.51**	31.051**
Human Development Index (HDI)				
Interactions				
HDI × Unemployment rate				
HDI × GDP per capita origin				
HDI × Political suppression				
HDI × Dominant language				
HDI × GINI ratio				
HDI × Geographic distance				
HDI × Relative group size				
HDI × Religious distance				
HDI × Average educational distance				
Destination				
Unemployment rate (natives, %)	-0.154	.068	-0.125	.059
Origin				
GDP per capita origin (1000 US dollar)	.301**	.122**	.388**	.062*
Political suppression	.063	-0.042	.123	.006
Community				
Dominant language	1.292*	1.363**	.267**	.715**
GINI ratio (destination/origin)	-1.745	.011	-1.777	.269
Geographic distance (in 1000 km)	.210**	.362**	.162**	.536**
Geographic distance <sup>2</sup>	-0.004*	-0.048**	.006	-0.054**
Relative group size (%)	-0.770**	-1.150**	-0.747**	-0.952**
Religious distance	1.643**	-0.253**	1.349*	-0.225**
Average educational distance	-2.860**	-0.852**	-1.806**	-1.355**
Micro-level controls				
Age	.022**	.077**	-0.050**	.038**
Age <sup>2</sup>	-0.002**	-0.003**	-0.002**	-0.003**
Education	4.630**	4.420**	4.734**	5.337**
Married	.384**	.769**	.101	-0.115
Number of children	-0.009	-0.248**	-0.305**	-0.209**
Female				
Macro-level controls				
Percentage of low-skilled jobs	-0.253	-0.025	-0.131	-0.054

GDP: gross domestic product.

\* $p < .05$  (two-tailed); \*\* $p < .01$  (two-tailed).