

**Immigration Policy and the Economic Integration of Immigrants: A Cross-National Comparison\***

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## **Abstract**

### **Immigration Policy and the Economic Integration of Immigrants: A Cross-National Comparison**

Although a great deal of existing research on immigration has had implications for immigration policy, very little of this research has attempted to assess directly the effects of policy on immigrant outcomes. This project uses high-quality individual-level data from European countries, Canada, Australia, and the United States combined with data on immigration policies and labour market structures in those countries to estimate crossed random-effects multilevel models to determine how inter-country variations in immigration policies affect the household income, unemployment, and the receipt of welfare benefits among immigrants. By permitting the inclusion of individual-level characteristics predicting individual levels of the economic integration variables, as well as characteristics of both destination and origin countries, these models assess the effects of a wide variety of broad immigration and settlement policies on the labour market experiences of immigrants, including skill selection, annual quotas, family reunification, and admission of refugees. The main conclusion from the analysis is that many of these policies have the intended effect on immigrant use of destination country welfare benefits, but no important effects on any of the other measures of economic integration.

## **Introduction**

Until quite recently, research on the economic integration of immigrants into destination countries focused on one destination country at a time while comparing immigrants from many origin countries.<sup>1</sup> Although this research has been instrumental in exploring the role of such factors as discrimination, human capital, ethnic capital, and labour market duality in accounting for relative immigrant disadvantage in specific national labour markets, it does not permit variation in the institutional structures and immigration policies of host countries required to understand how these structures and policies may impact on immigrant success in the labour market. The emphasis in this research has instead been on how characteristics of the immigrants themselves and, to a lesser extent, characteristics of their origin countries (e.g. Wanner 1998) affect economic outcomes, such as rates of employment, earnings, occupational attainment, or unemployment.

Although increasing scholarly attention has been devoted to understanding the influence of characteristics of host societies on the reception and integration of immigrants,<sup>2</sup> a great deal of this research studies policy or institutional influences in the context of a single society, restricting the generalizability of findings. However, consistent with Portes' (1999) call for more cross-national comparisons to test immigration theories, a number of scholars have examined how institutional features of the host society impact on immigrants' labour market outcomes using cross-national designs. They have done this either by studying a single immigrant group in two or more host societies (Cheng, 1994; Model et al., 1999; Lewin-Epstein et al., 2003; Kogan, 2003) or by incorporating multiple countries of origin groups migrating to multiple destination countries (Reitz, 1998; Reitz et al., 1999). In all cases this research has been limited to a small number of host countries, and generally to the traditional immigrant receiving societies, so these authors have not been able to model explicitly the cross-national differences in effects they observe. Instead, their explanation of these observed differences involves differences in policies and institutions of the host countries, but is usually ad hoc and not clearly tied to theory. A number of scholars have independently and simultaneously seen that a stricter test of hypotheses regarding the effects of host country policies or institutions and/or origin country characteristics requires a design that incorporates data for both multiple origin countries and multiple host countries sufficiently large in number to support a multilevel analysis (van Tubergen et al. 2004, 2005;

Kogan, 2004, 2007) in which characteristics of individual migrants constitute the first level and characteristics of the host country and/or the country of origin the second level. The present paper takes this approach. Unlike previous research, the goal of this paper is to determine how destination countries' immigration policies contribute to or detract from immigrants' ability to integrate economically, controlling for both individual-level factors and structural characteristics of both country of origin and country of destination.

### **International Migration in the 20<sup>th</sup> Century**

At this point in history, it is no longer sufficient for comparative research on immigration to concentrate on the traditional immigrant receiving countries, specifically Canada, the United States, Australia, New Zealand, or, early in the 20<sup>th</sup> century, Argentina. These were the primary receiving nations for migrants leaving Europe up to roughly the end of World War I (Massey et al., 1998). After a period between the two world wars during which international migration was greatly reduced, there was substantial movement of again mainly European migrants to the traditional receiving countries. During the 1960s a period of "post-industrial migration" (Massey et al., 1998) began, characterized by both an increase in the number of sending and receiving countries and by a shift in the supply of immigrants away from traditional European sources to less developed Third World countries (Castles and Miller, 2009). Canada's experience is typical. With changes to immigration regulations in the 1960s eliminating the system of "preferred nationalities" in favor of a point system that screens immigrants on the basis of labour market suitability, the predominant immigrant flow shifted from Europe to Asia between the 1970s and the 1990s. Indeed, by 1991 a majority of immigrants coming to Canada originated in Asia (McVey and Kalbach, 1995).

After World War II the diversity of immigrant receiving countries began to increase, but initially consisted of flows of foreign workers considered temporary ("guest workers") to countries including Britain, Belgium, France, Luxembourg, the Netherlands, and Germany, as well as workers imported from former colonies in the cases of Britain, France, and the Netherlands (Castles and Miller, 2009). However, by the 1980s European countries that for a century had experienced large-scale emigration, such as Spain, Portugal, Italy, and Greece, also became net receivers of immigrants. After the demise of communist governments in the Soviet Union and Eastern Europe in the late 1980s and early 1990s eliminated regimes that

prohibited most emigration by their citizens, Hungary, Poland, and the Czech and Slovak Republics emerged as destinations for the large number of refugees created by the economic and political chaos in states further to the east and south. As a consequence, several of these countries will also be included in this analysis even though their experience as immigrant receiving countries is very recent. The “globalization of international migration” (Castles and Miller, 2009) has created a substantial number of immigrant receiving countries in the Middle East, particularly the oil-producing countries, and Asia, particularly Japan, Korea, Hong Kong, Taiwan, Singapore, Malaysia, and Thailand. Since data of the kind required by the analysis here are not readily available for countries in these regions, we are not able to include them.

### **Policy Effects: A Mixed Record**

Although humanitarian considerations, including family reunification and concern for the plight of refugees, often motivate immigration policies, the ultimate motivation is generally economic, to fill gaps in the labour force created by an insufficient domestic labour supply. As a consequence, policies generally revolve around who gets in and what sorts of skills they bring with them. While it would seem to be a simple matter to hypothesize policy effects on socioeconomic outcomes among immigrants, the available research suggests that it is not at all simple. Based on the results of case studies of nine immigrant receiving countries which comprise the chapters of their edited volume, Cornelius et al. (2004) claim support for two general hypotheses.<sup>3</sup> Their “convergence hypothesis” states that the more developed immigrant receiving countries are growing more similar in their policies to control illegal immigration and refugee flows, the outcome of those policies, their policies to integrate immigrants once they arrive, and public opinion regarding immigration and government immigration policies. What they call the “gap hypothesis” argues that in “all major industrialized democracies” a gap has emerged between the goals of immigration policy and observed outcomes, and that this gap grows wider over time. This is documented by the authors of several chapters in their book as well as in research by others (Duleep and Regets, 1992; Reitz, 1998). Two examples should suffice. In a number of countries, including the U.S. (Calavita, 1994), Germany (Kurthen, 1995), and Denmark (Enoch, 1994), policies originally introduced to control the number of immigrants ended up promoting more immigration and encouraging permanent settlement of those originally admitted as guest

workers. Second, a country's immigration policy may on the face of it be less selective on the basis of skills, yet result in more highly skilled immigrants than countries with explicit skill selection schemes. This is the case for most country of origin groups in the U.S., where policy focuses less on skill selection, compared to Canada and Australia, both of which rely on a point system to screen some categories of immigrants.

Additional complications are created by the way in which government policies beyond those designed to regulate immigration may affect immigrant integration (Reitz, 2002). These include not only programs directly influencing immigrant settlement, such as language training, assistance with housing or employment counseling, but also broader policies regarding inter-ethnic relations, education, or the labour market. This may account for the preponderance of existing studies of policy effects being case studies, since such a design makes it possible for the researcher to attend to the subtle relationships among policies and their outcomes in a single national context. While we may lose the ability to incorporate such subtleties in an analysis using a "large-N" design, we gain the ability to observe variance in the economic integration of various origin groups and to determine broadly if such variance is related to policy differences. Given the often indeterminate nature of the fit between policies and their outcomes described above, perhaps the most reasonable general hypothesis to entertain would be the "gap hypothesis" of Cornelius et al. (1994), under which either weak or no policy effects are observed. We discuss this further in the next section in which we consider the specific dimensions of immigration policy and their measures.

### **Defining the Dimensions of Immigration Policy**

Rather than informally comparing immigrant economic integration in a few nations that differ in their immigration policies, we attempt to measure more formally the dimensions of policy for the countries included in the multilevel analysis. Despite the complexities of the immigration policies of specific countries, key policy decisions that must be faced by any country admitting immigrants revolve around the number to be admitted, whether they will be admitted on the basis of economic, family reunification, or humanitarian grounds or some combination of the three, whether or not they will be screened and on what basis, what settlement assistance, if any, will be provided, and under what conditions they may be granted citizenship. Although these are the key concerns, other policy matters include how

illegal immigrants will be dealt with, including policing of unauthorized arrivals, adjudicating refugee claims, and controlling the employment of illegal workers, extension of voting privileges, and international agreements governing the flow of immigrants and temporary foreign workers, including free trade agreements.

Although they use them to develop a typology of immigrant-receiving nations instead of in the sort of analysis presented here, a promising set of policy dimensions that lend themselves to empirical measurement were developed by Lynch and Simon (2003). These dimensions include admissions rates, the prevalence of illegal migration, the use of systems of preferences, the ease with which immigrants become naturalized citizens, the degree of internal regulation of immigrants, the amount of discretion afforded immigration authorities, and the presence of policies facilitating the integration of immigrants into the host society.

Admission rates vary widely for the countries considered here, both between countries and over time. The traditional immigration countries still have by far the highest ratios of immigrant admissions to native-born population, though the admission ratios of some of the new immigration countries of Europe have been increasing. In the case of illegal or undocumented migration, the United States continues to have the highest rate. This results from a combination of a long common border with a less affluent country, a vested interest on the part of some employers to hire undocumented labour, and weak internal controls. Australia, Canada, and New Zealand have the most formalized systems of preferences which are based on a points system that benefits potential immigrants who have high levels of education, occupational skills that are in demand, and skill in an official language, though other countries also have systems of preferences in place. Rates of naturalization also range widely, with Canada and Australia regularly having the highest rates. Countries that admitted a majority of immigrants as guest workers, such as Germany, tend to have extremely low rates of naturalization. Whether or not a country attempts to regulate the activities of immigrants appears to depend largely on whether their legal system is based on common law or civil law principles (Lynch and Simon, 2003). Thus countries such as Canada, Australia, the United States, and Great Britain impose few controls on the movements of immigrants, while Germany and France, which issue internal identity cards to all residents, are able to scrutinize the movements of their immigrant populations. The traditional immigrant receiving countries are also characterized by greater political oversight of the bureaucracy overseeing

immigration, often with legislative bodies setting immigration quotas and governing terms and conditions of entry. Finally, there is great variation in the extent to which host societies assist immigrants in their integration, particularly economic integration. At one extreme, countries such as Australia, Germany, and Israel provide a great deal of assistance to recent immigrants, including such things as job training, housing assistance, language training, and social welfare benefits. At the other extreme, countries such as the U.S. and Japan have few programs to assist immigrants. While many countries, including Canada and New Zealand, have few direct government programs assisting immigrants, governments provide indirect assistance by funding nongovernmental organizations that work with immigrants.

The vast majority of theorizing and empirical research on policy effects has been restricted to policies governing admission quotas and selective preference systems. Little attention has been paid to the other dimensions of policy. In the case of selectivity, comparisons of immigrants to Canada and Australia, countries that utilize a point system to screen for employment-related characteristics, such as education, experience, language ability, and a job offer, to immigrants to the U.S. or Israel, which have less selective policies, (Borjas 1988; Lewin-Epstein et al, 2003; Reitz 1998) find that immigrants to Canada and Australia tend to have higher earnings. However, in Canada and Australia, as well as New Zealand, another country using a point system, only a minority of immigrants is assessed by the point system, since it is not used to screen refugees and family members. It is certainly true that within Canada immigrants in the economic class that are screened by the point system have higher initial earnings than refugees and family members, though the earnings of the latter two groups also converge with the earnings of the native born well within the span of a career (Wanner, 2003). Consistent with other research we hypothesize that the more selective a host country's immigration policy, the higher the household incomes and occupational status of immigrants to that country, and the lower the likelihood that they will be unemployed and depend on welfare benefits. Nevertheless, we expect that controlling for time since migration would weaken or altogether eliminate these effects.

Hypotheses regarding the effects on economic integration of the other dimensions of policy are less well founded. Only recently have researchers begun to address the effects of the remaining dimensions of immigration policy identified by Lynch and Simon (2003): admissions rates, the prevalence of illegal migration, the ease with which immigrants become



naturalized citizens, the degree of internal regulation of immigrants, and the amount of discretion afforded immigration authorities. Their arguments have persuaded me that such factors may influence the success of immigrants' economic integration. I therefore add to the models the following measures of the migration policies of the destination countries included in the analysis: the inflow of refugees; whether or not immigration is regulated by an annual quota system, the level of granting of long-term residence rights to immigrants; and the recognition of family reunification as a principle or concept in immigration law, including the right of family reunification for non-married couples and family members beyond spouse and children.

While not strictly within the realm of immigration policy, the combination of unemployment insurance, income redistribution, and social services and assistance that comprise a welfare regime (Esping-Andersen, 1990) likely reinforce the effects of more direct governmental efforts at immigrant settlement assistance. (see Kogan, 2007). To capture the importance of welfare regimes for the success of immigrants in the labour market we include the following characteristics of the social security systems of the destination countries: the percentage of GDP spent on social security expenses, and the degree of full access to the social security system for immigrants' family members.

### **Data, Measures, and Methods**

*Data Sources.* While there is a strong case to be made for a comparative study of the impact of immigration policy on the socioeconomic success of immigrants, obtaining data on a sufficient number of countries turns out to be a difficult matter. An ideal research design to address the questions raised here would involve having large samples for all countries that are receivers of immigrants to capture sufficient numbers of immigrants, detailed measurement on the necessary variables that is exactly comparable across countries, and surveys that are repeated frequently (preferably on an annual basis) over a long period of time, at least a decade. While such data requirements might be met for a few countries, they cannot be perfectly met at this time for the large-scale comparison I propose. The choice of data, therefore, represents a compromise to maximize both the number of countries represented and measurement detail for certain key variables.

Data on the new immigration countries of Europe were obtained from the European Social Survey (ESS).<sup>4</sup> Although originally designed as a survey of attitudes and values, the ESS has a rich array of social background and socioeconomic variables to support research of the kind described here. Interviewing for Round 1 of the ESS took place during 2002 for 21 of the 23 countries participating. What makes this survey particularly attractive for purposes of this research is that it is designed to be longitudinal, in this case a sequence of cross sections, with Round 2 interviewing taking place in 2004, and Round 3 in 2006. Round 4 data from 2008 are now available, but several countries surveyed in earlier rounds are still missing from the available file, therefore it will not be included here. While the sample sizes in each round are relatively small for research on immigrants, by merging the three rounds, the sample size is adequate.

The quality of the data in the ESS are enhanced by the care taken by the research team to devise equivalent sampling strategies in all countries and to translate the source questionnaire, originally designed in English, into all relevant languages in the countries covered by the survey. Immigrants are included in the sampling frame of each country, since the sampling frame includes all persons age 15 or over who reside in private households regardless of citizenship, nationality, or language. A valuable feature of the ESS is inclusion of detailed measures of variables key to this analysis that are not collapsed in the public use version of the data. Thus, exact country of birth, a three-digit occupational code that can be converted into an internationally comparable measure, a measure of financial status in the form of household income, detailed occupational codes that can be converted into International Socioeconomic Index scores, source of income, labour force status, years since migration (albeit in collapsed form), and citizenship are all available in the ESS, along with the usual demographic measures such as age, sex, educational attainment, and marital status. This permits us to estimate properly specified models at the individual level.

Data for the United States come from the March 2002 Labour Force Survey (US Bureau of the Census), while the Canadian data is from the Public Use Microdata File of the 2001 census (Statistics Canada). Both of these surveys provide measures of all variables available in the ESS, though in some cases with less detail. However, the sample sizes of these surveys are considerably larger than those available in the ESS. Therefore, I drew a simple random sample from each of 6000 cases. While this represents a considerable sacrifice of data, it

prevents the two larger samples from dominating statistical inference in the models. Data for Australia come from the 2005 Australian Survey of Social Attitudes (AuSSA), the second in a biennial series that studies social attitudes and behaviour of Australians (Wilson et al., 2006). AuSSA is Australia's official survey in the International Social Survey Program and also contains all the necessary measures for this analysis.

Given the emphasis here on the functioning of the labour market, the subpopulation used is restricted to immigrant men and women age 20 to 64 who had non-zero incomes. In the case of the two economic measures that are characteristics of households, household income and receipt of welfare benefits, I do not estimate separate models for men and women, while for the individual-level measures, occupational status and unemployment, separate models for men and women are reported. This is justified by the evidence I found for significant differences in the coefficients of these models.

*Measuring Immigrant Status.* Immigrant status is simply measured by respondent's country of birth. Those who were not born in the surveyed country are classified as immigrants, while those who were born in the surveyed country are considered to be native born. While simple and conventional, this approach to measurement gives rise to a number of problems, which cannot be solved with neither the data sets used here nor with other available cross-national data. First of all, due to the greater geographical mobility of managers and professionals since 1945 related to employment in business and government, the number of children born outside their parents' native country may have increased. For instance the child of a Dutch employee of *Shell* might be born in Africa or the child of a US soldier might be born in Germany. One can argue that by failing to make this distinction, the number of better-integrated immigrants are overestimated. On the other hand, this failure highlights a problem of defining immigrants: how many years must a child of a Dutch employee of *Shell* born in Africa live outside the Netherlands before he or she becomes a 'real' immigrant? Would such children define themselves as immigrants? Would other members of Dutch society define them as immigrants?

A second definitional problem is related to changing national boundaries and is particularly relevant to Europe. Due to the changes in the political frontiers after 1945 (the annexation to Poland of some formerly German territory; the extension of Russia at the expense of Polish territory) and due to the subsequent displacement of large populations, an

unknown number of ‘native-born’ persons would be measured as being born outside their country, e.g. a German born in Königsbergen (East Prussia), now living in Germany or a Pole born in Lvov (Ukraine), now living in Poland. Again, one can argue that by failing to make this distinction, I overestimate the number of better-integrated immigrants. On the other hand, this failure highlights a conceptual problem in defining an immigrant: for how many generations must a Polish family live in Russia before it is no longer considered Polish? This issue also extends to the large number of immigrants originating in the former European colonies as well as from independent less-developed countries who migrated to Europe or North America. Their children, born in these immigrant-receiving countries, are conventionally measured as native born and thus not considered to be immigrants. However, typically in these countries this second generation will continue to be considered to be “immigrants” and have a lower level of integration in education and the labour market within the receiving countries (Portes & Rumbaut, 2001). Again, one can argue that by failing to make the distinction between first- and second-generation immigrants, the lack of integration of immigrants may be underestimated. On the other hand, this failure highlights the problem of defining immigrants noted above: for how many generations must a family originating in India live in the UK before they are no longer considered to be Indian?

Given the sampling procedures applied in constructing the data sets used here, they are unlikely to include illegal immigrants, although illegal immigrants are prominent in the popular images of immigrants in these more-developed countries, particularly Latin Americans crossing the Mexican border to the USA and North and Sub-Saharan Africans arriving on the Italian island of Lampedusa from Libya or landing on the beaches of southern Spain. These illegal immigrants also are important in the labour markets of these developed countries, although less visible at the bottom and most vulnerable. One can argue that by failing to include illegal immigrants in surveys, the level of integration of immigrants is overestimated. Therefore the results here should be seen as an indication of the labour market attainments of documented immigrants or of illegal immigrants who has become official by means of such mechanisms as loopholes in the law, general pardons, marriage, or fraud.

For descriptive purposes, I distinguish between immigrants arriving from a more developed country, defined as a country with a gross national income greater than US\$10,000 and immigrants arriving from a less-developed country, one with a GNI of

US\$10,000 or less. In the models reported below, this arbitrary distinction is replaced by the actual GNI of the country of origin.

*Individual-level Measures.* The four dependent variables used here are relative household income, occupational status, receipt of government welfare benefits, and unemployment. Household income includes all money income of a household, irrespectively of the source (paid labour, state subsidies, social security, pensions, etc). It is not corrected for household size, since this variable is included among the independent variables. In the case of Australia, Canada and the US, the local currency was converted into Euros at the prevailing exchange rate at the time of the surveys. This measure was then converted into standardized (z) scores on a country-by-country basis and in the full data set that also includes the native born to yield a relative measure. Household income is not an ideal index of immigrant success in the labour market, since it is only partially made up of earnings from employment, and may include income from such sources as self-employed earnings, transfer payments, and returns on investments, and it is in part a function of the number of wage earners in the household. I would argue, however, that in the case of immigrants, the total household income is a better indicator of their ability to adapt economically in the host country. In any case, few immigrants are likely to obtain a substantial portion of their household incomes from sources other than employment or self-employment earnings, and at least household size is controlled.

The socioeconomic index is based on the occupation of the respondent and indicates the social status or general attractiveness of his or her occupation. Detailed occupational codes in the data sets were recoded into International Socioeconomic Index (ISEI) scores (Ganzeboom et al. 1992). In the case of the European countries, this involved converting the International Standard Classification of Occupations (ISCO-88) values used by the European Social Survey into ISEI scores using recodes provided by Ganzeboom et al. For Australia, Canada, and the US, each local occupational code was converted into ISCO-88. Unemployment is measured as a dichotomous variable coded 1 if a respondent is not currently employed but looking for work and 0 if employed. Respondents not in the labour force are excluded. Receipt of welfare benefits is also dichotomous and coded 1 if the main source of a respondent's household's income is either social benefits or grants and/or unemployment benefits, 0 if the main source is any other. Other sources of income from

government programs, such as pension plans or "baby bonuses" are included in the "other" category.

Each of the models incorporates a slightly different set of individual-level predictors, as can be seen by comparing the top panels of Tables 3-6. Predictors common to all models are: years of education, estimated labour force experience, marital status, years since migration, and size of place of residence at the time of the survey. Educational attainment is measured by years of schooling, which was recoded from the educational level measures for each country. Estimated labour force experience is simply age minus years of schooling minus 5. Much research on immigration has shown that returns to destination country experience far exceeds returns to origin country experience, but the crude measure of years since migration available in the ESS made it difficult to accurately make this distinction. Marital status is a dummy variable coded 1 if the respondent is married or living in a common-law or civil partnership, 0 otherwise. The ESS does not provide a continuous measure of years since migration, but I coded the five available categories to their midpoints. The models for relative household income contain the largest number of individual predictors, adding to the list just described respondent's occupational status measured by means of the ISEI score, number of persons in the household, and a dummy variable for gender coded 1 for males, 0 for females.

*Country-level Measures: Immigration Policies in the Destination Countries.* The focal independent variables in this analysis are measures of destination country immigration policies. Consistent with the dimensions of immigration policy discussed above, I have identified the following specific indicators of immigration policy that are consistently measured in each of the 23 countries:

- Net in-migration rate (Immigration – Emigration: CIA World Factbook).
- Degree of naturalization of immigrants: the number of naturalization decisions (Eurostat, 2001; OECD, 2003) as a percentage of the stock of immigrants.
- Immigration regulated via annual quota system (Migration Policy Group, 2004).<sup>5</sup>
- Skill-selective immigration policy (Migration Policy Group, 2004 Country).<sup>6</sup>
- Long-term residence rights, in years (various sources).
- Recognition of family reunification as a principle or concept in immigration law (OECD 2000).

- Right of family reunification for non-married couples, including cohabiters and registered partners, often homosexual (OECD, 2000; MPG, 2004).
- Right of family reunification beyond spouse and children, e.g. parents, siblings, others (OECD, 2000; MPG, 2004).
- Full access to social security benefits for family members (various sources).
- Refugees per thousand population, 2001 (OECD 2002).

Table 1 shows detailed values for these policy variables. Of the destination countries

**[Table 1 about here]**

represented here, only Poland exhibits a negative net migration rate. Aside from Luxembourg, which imports a large number of foreign workers from other EU countries, the "traditional" immigrant receiving countries, including Australia, Canada, and the US, have the highest net migration rates. In contrast, it is European countries, particularly Scandinavian countries, which have the highest rates of naturalization. Countries that have annual quota systems also tend to rely on skill selection policies, with a correlation of 0.67 for these countries. In the measure here, long-term residence rights are distinguished from the permanent resident status used in the traditional immigrant receiving countries. Four separate dimensions of family reunification policies are used here. While all but three of the destination countries permit family reunification for nuclear family members, fewer permit extended family members, and fewer yet extend the right to non-married couples. The smallest number of countries permit family access to social security benefits. Even then, most impose a waiting period or eligibility is means tested. The destination countries vary widely in the extent to which they admit refugees, though the tends to vary from year to year based on world political circumstances. Once again, the Scandinavian countries, along with Austria, Belgium, Ireland, and Switzerland, have the highest rates for the period measured.

*Country-level Measures: Country of Origin Predictors.* Countries that have been colonies or dependencies of more-developed countries tend to retain a special relationship with the colonizing country, since many residents of such countries speak the language of the colonizer and immigrants from the former colony are often given an advantage in applying for permanent resident status. Therefore a binary variable coded 1 if an immigrants country was a former colony, 0 if not is included in the models. Countries coded have been or still are

colonies (for instance India for the UK, the Spanish-speaking countries of Latin America for Spain, and Brazil for Portugal) or dependent countries (Puerto Rico and the Philippines for the USA). In the cases of Austria, Germany, the UK and Sweden they also included those countries that were a part of their former territories (for example Hungary, Czechoslovakia, and the former Yugoslavia for Austria; Norway for Sweden).

Two additional characteristics of country of origin are included in the models. Gross national income (United Nations Development Programme, various years; CIA World Factbook, various years) is included as a continuous measure of economic development. One indicator of the cultural distance between origin and destination countries is differences in predominant religion, defined as the religion adhered to by at least 50 percent of a country's population. Since all of the destination countries can be characterized as predominantly Christian, I chose to include a dummy variable coded 1 if an immigrant's country of origin is predominantly Muslim, 0 otherwise.

*Country-level Measures: Country of Destination Predictors.* As in the case of the origin countries, the GNI per capita of destination countries (United Nations Development Programme, 2004) is included in the models. This is necessary, because of the range of development of the destination countries included, from the middle income countries of Eastern Europe to the high income countries of Western Europe and North America. Although much previous research has used Esping-Andersen's classification of welfare regimes as liberal, conservative, or social democratic as a welfare policy measure, I thought it more plausible that the actual government support available to immigrants would be more likely to affect their economic integration. Therefore, included as a destination-country-level predictor is social expenses as a percentage of GDP in 1998 (OECD, 1999b). I anticipate that this variable will positively affect receipt of welfare benefits, but it is difficult to hypothesize effects on the other economic integration variables. The models for relative household income, occupational status, and welfare usage all include the destination country's overall unemployment rate (CIA, 2004), while the models for men's and women's unemployment include separate measures of unemployment by sex.

Since it is reasonable to expect that the level of each of the measures of economic integration will in part be a function of the overall level among the native born in the



destination country, included as predictors in their respective models are the mean household income among the native born, mean occupational status score for the native born, separately for men and women, percentage receiving welfare benefits among the native born, and native-born men's and women's unemployment rates. All of these values are computed on a country-specific basis from the merged data analyzed here. Including these variables for the native born in the destination countries also makes it possible to interpret the intercept in a model including only these predictors as the difference in each of the dependent variables between immigrants and the native born.

In addition to the predictors described above, all models also include a set of dummy variables for year of survey, with 2001 as the reference category, to adjust for any changes in the dependent variable over the elapsed time from 2001 to 2006. These coefficients are not reported, since over all the models just two are weakly significant, a negative effect of the 2005 dummy for the occupational status full model, and a negative effect of 2005 for the welfare benefits model.

*Models and Estimation Methods.* For the core of the analyses I use a cross-classified random effects multilevel modeling approach (Raudenbush and Bryk, 2002). Multilevel models are generally considered to be the best method to assess the effects of macro-level characteristics on individual behavior (Snijders & Bosker, 1999; Hox, 2002), because this method takes the nested structure of the macro and micro data into account. The cross-classified random effects model carries this one step further by nesting level-1 units within a combination of two level-2 classifications, origin countries and destination countries in this case. As consequences of history and socialization, respondents with certain characteristics are not randomly distributed among either origin or destination countries, but are clustered within specific countries or combinations of countries. If this nested structure is not appropriately taken into account, the estimation of effects may be biased.

The specific model used here estimates country of destination and country of origin additive random effects, but not the destination by origin interaction. This is because the within-cell sample sizes are frequently either very small or zero, making it difficult to distinguish the interaction variance from the random within-cell variance (Raudenbush and Bryk, 2002:378).

Another advantage of multilevel analysis is the possibility of replacing country indicators with variables that are assumed to produce different outcomes between countries, such as immigration policies or labour market characteristics. In this way multilevel analysis takes into account that the number of macro-level units is restricted (23 countries in the present case), and uses this number via empirical Bayes methods to estimate the significance of the effects of the macro-variables on parameters of the individual-level model. With 23 destination countries and 188 origin countries represented in the data, there are sufficient units at level-2 to make reliable estimates in such a random intercept model (Snijders & Bosker, 1999: 43-44).

The individual-level model in each case is:

$$(dependent\ variable)_{ij} = \beta_{0j} + \beta_{1j}(individual\ predictors)_{ij} + e_{ij}$$

where the dependent variable is observed values of a continuous variable, in the cases of relative household income and occupational status, and the log odds of scoring one on a binary variable in the cases of unemployment and receipt of welfare benefits. The coefficients,  $\beta_{1j}$ , are the linear effects of the individual predictors. In the case of the logistic regressions, these will be reported as odds ratios for ease of interpretation. The error term,  $e_{ij}$ , is normally distributed for the models with a continuous dependent variable. For the binary logistic regressions, the error term is assumed to have a standard logistic distribution with a fixed variance of  $\pi^2/3$ . Level 2 of the crossed random-effects model takes the constant of the level-1 model as its dependent variable:

$$\beta_{0ij} = \gamma_{00} + \gamma_{01}(destination\ country\ predictors)_j + \gamma_{02}(origin\ country\ predictors)_k + \gamma_{03}(destination\ country\ policies)_j + \mu_{0j} + \mu_{0k}$$

Here, the constants are a function of two sets of destination country predictors, economic characteristics and immigration policies, and a set of origin country predictors. The effects of each of the country-level predictors are represented by  $\gamma$ . The errors in this model,  $\mu_{0j}$  and  $\mu_{0k}$ , are the crossed random-effects reflecting remaining variation in the constants across destination countries and origin countries. Although the two levels are described separately, they are estimated as a single mixed model using appropriate estimation commands in Stata's xt package (Stata Corp., 2010). As an indicator of the fit of the linear mixed models for relative household income and occupational status I compute an estimated  $R^2$  by generating

predicted values from the model, correlating them with observed values, and taking their square root.

As a result of the merger of these data sets, the effective sample size after eliminating cases with missing values on the variables is in excess of over 9,800 cases. Therefore, the use of conventional p-values to test null hypotheses is likely to result in finding even negligible effects to be statistically significant. As a result, I supplement these tests with Bayesian Information Criterion (BIC) values initially proposed by Schwarz (1979) and further developed by Raftery (1995). The BIC statistic addresses the question: given the observed data, which model,  $M_1$  or  $M_2$ , is more likely given the data? In the case of models in which the fit is assessed by means of a deviance distributed as Chi-square where some hypothesized model,  $M_k$ , is being compared to the null model, Raftery proposes that a version of BIC based on comparisons to the null model, BIC', be defined as follows:

$$\text{BIC}' = -\chi^2 + p_k \ln(n)$$

where  $n$  refers to sample size,  $\chi^2$  is the likelihood-ratio test statistic for testing some hypothesized model,  $M_k$  against the null model, and  $p_k$  is the number of independent variables. In the case of the multilevel models estimated here,  $\chi^2$  is the Wald approximation to the LRT statistic. In this form, negative values of BIC' indicate that the hypothesized model has a higher probability than the null model. As well, the more negative the value of BIC', the more likely the model.

## Results

Before looking at the policy effects, I report some descriptive measure showing economic outcomes for immigrants compared to the native-born in these 23 destination countries in Figures 1 through 4. The figures also indicate differences between immigrants originating in less-developed countries (LDCs) compared to those originating in more-developed countries (MDCs). This provides a preliminary look at the variability in these dependent variables across both origin and destination countries. These results should be viewed as merely descriptive of patterns in the data, since I do not report confidence intervals or significance tests for them. Although I use a relative, within-country measure of household income in the model testing policy effects, Figure 1 reports household income expressed in Euros and adjusted for any inflation between surveys. There is great variability across countries, because I include several countries with relatively low gross domestic incomes, particularly

those in Eastern Europe. In a majority of countries, the household incomes of immigrants from less-developed

**[Figure 1 about here]**

countries are lower than those of the native-born, but the household incomes of immigrants from more developed countries tend to be higher than those of the native-born. The only exceptions to this pattern are France, Italy, and Portugal. The finding for immigrants from LDCs is confirmed by a great deal of previous research. However, little research examines the situation of immigrants from MDCs, aside from research on the "brain drain" from one more developed country to another (e.g. Zhao et al, 2000). That in a sizeable majority of the countries represented here immigrants from MDCs have higher household incomes than the native born is likely the result of many of these immigrants arriving as corporate transfers or with jobs arranged, but more research on this question is warranted.

This interpretation of the higher incomes of immigrants from MDCs is supported by the results in Figure 2. Here, I compare the occupational status, as measured by the International

**[Figure 2 about here]**

Socio-economic Index, of the native-born to immigrants from LDCs and MDCs separately for men and women. With very few exceptions, the average occupational status of immigrants from MDCs exceeds that of the native born among both men and women. Also with few exceptions, the mean occupational status of immigrants from LDCs is lower than that of the native born, but this is particularly true for men.

Figure 3 shows percentages of the households of immigrants from LDCs and MDCs and

**[Figure 3 about here]**

the native-born who receive government welfare benefits. What stands out in this graph is the huge variability from country to country, with countries such as Spain, Portugal, and Greece having very low levels, and countries such as Australia, Belgium, Canada, Finland, and the Netherlands being characterized by high levels. In nearly all cases, however, immigrants from LDCs have much higher rates of welfare receipt than the native-born. Surprisingly, in many countries those coming from MDCs have higher levels of welfare receipt than the native-born, but the contrast is not nearly so great as that with immigrants from LDCs.

In the case of unemployment, shown in Figure 4, the pattern is similar to that observed for the other economic variables: for both men and women, immigrant unemployment rates,

**[Figure 4 about here]**

particularly among immigrants from LDCs, are higher than native rates in nearly every country. Countries with extremely high unemployment rates among immigrants from LDCs tend to be European countries which have accepted large numbers of asylum seekers over the past two decades. Finland stands out in this regard. A great deal of research has shown that, as a group, refugees have the most difficult time integrating economically in the destination country (e.g. Wanner, 2003). Finland has received members of such groups as Somalis fleeing civil war, Kurds mainly from Iraq, refugees fleeing the Balken conflicts, and, more recently, Kosovar Albanians and Roma people from Eastern Europe (Migration Information Source, 2010) These refugees constitute a sizeable percentage of all immigrants to Finland, hence the extreme rates of unemployment and receipt of welfare benefits (see Figure 3).

Table 2 reports unconditional intra-class correlations for all the economic outcomes for immigrants, including separate values for men and women in the cases of occupational status

**[Table 2 about here]**

and unemployment. Despite being labeled "correlations," these coefficients actually indicate the proportion of the variance in each dependent variable explained by destination country or by origin country, and represent another way of viewing inter-country variability in the dependent variables. They are computed as:

$$r(destination) = \frac{\psi_1}{\psi_1 + \psi_2 + \theta}$$

and

$$r(origin) = \frac{\psi_2}{\psi_1 + \psi_2 + \theta}$$

where  $\psi_1$  equals the variance in intercepts of the models within destination countries but between origin countries,  $\psi_2$  is the variance in intercepts within origin countries but between destination countries, and  $\theta$  represent the variance or the remaining random errors. Another way of thinking about the intra-class correlations is as the correlation between the total residuals for any two immigrants from the same origin country or to the same destination country. The values reported in Table 2 are unconditional, because they are based on models with no other covariates except the year of survey. The third column of this table is simply

the sum of the first two, and indicates the total variation in intercepts due to all possible combinations of origin and destination countries.

In the case of household income and occupational status, more variation is observed among immigrants from different origin countries to the same destination than among immigrants to different destination countries from the same origin, considerably more in the case of occupational status. This is likely due to all destination countries being more developed, although the destination countries in Eastern Europe included are middle income countries. The lower value for the household income coefficient is due in part to the standardization I imposed on this variable, i.e. it is measured in relative terms within countries. The case of welfare receipt is quite different: there is considerably more variation across destination countries than across origin countries, perhaps because destination countries vary considerably in the generosity of their welfare benefits and the extent to which immigrants qualify for them. Intra-class correlations for unemployment differ between men and women. For men, there is considerably more variation across origin countries, while for women the reverse is true.

The main results are reported in Tables 3 through 6, which report models for each of the economic outcomes separately. In the case of relative household income, none of the

**[Table 3 about here]**

destination country policies has a significant effect, consistent with the "gap hypothesis" of Cornelius et al. In fact, none of the destination country characteristics has a significant effect. However, all three origin country characteristics have significant effects, with higher household incomes being associated with origin countries that are former colonies of the destination country and higher gross national incomes, and lower average household incomes among immigrants from predominantly Muslim countries. Confidence in the importance of these country of origin effects is raised by the more negative BIC' value associated with Model 2 in this table when compared with Model 1. All of the individual-level variables have significant effects on relative household income, with the sole exception of gender, which only indicates that it does not matter whether a male or a female is reporting the household income.

Parallel models for occupational status are shown in Table 4, but this time separately for men and women.<sup>7</sup> Based on conventional null hypothesis tests, several significant destination

**[Table 4 about here]**

country policy effects are evident. Policies permitting family reunification for unmarried partners negatively affect average occupational status for both men and women, as do policies permitting a larger percentage of refugees, but only among men. Policies that permit the family reunification of nonnuclear family members result in higher average levels of occupational status among immigrants for both men and women. While these conventional significance tests support the effects of several immigration policy measures on occupational attainment among immigrants, the BIC' prime criterion suggests that Model 2 is the preferred model, since it has the lowest negative value. As in the case of household income, this model is driven by the strong effect of gross national income of immigrants country of origin: the average ISEI score of immigrants increases by about one-fifth of a point for each additional thousand dollars of gross national income of their origin country. Unlike the case of household income, some effects of destination country characteristics are evident in Table 4. As expected, the average occupational status of the native-born affects immigrant occupational status for both men and women. This is an occupational structure effect that reflects differences in the availability of higher status jobs across countries. Also for both men and women, destination country unemployment rate negatively affects average occupational attainment among immigrants. Anomalously, women migrating to higher income countries tend to obtain lower ranking occupations. This may be the result of such women failing to have their credential recognized and being relegated to lower ranking occupations to a greater degree in higher income countries, though the same should be true for men.

The third economic outcome is receipt some form of social assistance, either welfare or unemployment insurance benefits. As the unconditional intra-class correlation and the data shown in Figure 3 attest, there is substantial variation in this outcome across the destination countries. Table 5 shows the modeling results. Since, like household income, this is a

**[Table 5 about here]**

household-based outcome, there are no separate models for men and women. Unlike the other outcomes, there are some strong immigration policy effects on receipt of welfare benefits. In this case, BIC' provides the same conclusion: the model including policy effects is the preferred model. Unlike the coefficients in Tables 3 and 4, the coefficients reported

here are multiplicative odds ratios, so that values less than one indicate negative effects, and values greater than one positive effects. On average, immigrants to a country with a skill-selection policy are nearly 90 percent less likely to be in receipt of benefits than immigrants to countries without such a policy. The presence of a family reunification policy works in the opposite direction: the presence of such a policy greatly increases the likelihood that immigrants will receive benefits. Qualifying that, family reunification that includes unmarried partners actually reduces the odds of receiving welfare benefits. A puzzling finding here is the effect of policies granting access to social support for family members. Immigrants are considerably less likely to receive benefits in countries that permit family access. This is the result of the extensive controls in these models, since in a model without either level-1 or level-2 controls (not shown here), this effect is strongly significant, and positive. Aside from a small, barely significant negative effect of naturalization rate, the final immigration policy effect is that of percentage refugees, and it is a substantial one. For each additional percentage point, immigrants are nearly 40 percent more likely to receive welfare benefits. This is likely the result of the extreme vulnerability of asylum seekers who may have spent many years in a refugee camp lacking educational and employment opportunities.

The final economic outcome to be considered is unemployment, with separate models for men and women reported in Table 6. Like the results for household income and occupational **[Table 6 about here]**

status, and consistent with the results of Fleischmann and Dronkers (2010) for 13 European countries, there is little evidence of large policy effects on the average likelihood of unemployment among immigrants. By conventional criteria, just two policies influence unemployment among women, with a quota system reducing the likelihood and family reunification that includes extended family members increasing the likelihood. None are significant for men. In the case of origin country characteristics, only the GNI per capita reached significance such that being born in a higher income country is associated with lower unemployment rates for both men and women. As for destination country characteristics, none affect the odds of unemployment for men, but for women higher levels of social expenditures raise the odds, while migrating to a higher income country reduces them. Although the Wald Chi-square is significant for all models reported here, taking into account degrees of freedom with the BIC' statistic shakes confidence in these models. According to



this criterion, the only model that is to be preferred to the null model is Model 1 for men. In all other cases, BIC' is actually positive, indicating that the null model is to be preferred.

### **Discussion and Conclusions**

Although originally designed to apply to policies on how many immigrants should be admitted by a host country rather than their economic integration after arrival, I took seriously the Cornelius et al. "gap hypothesis" under which "significant and persistent gaps exist between official immigration policies and actual policy outcomes" (2004: 4) and assumed that it would apply to other forms of immigration policy. Broadly, I further assumed that policies intended to achieve labour market objectives, such as skill selection or quota policies, were intended to enhance immigrant economic integration, while policies intended to achieve humanitarian goals, such as accepting refugees or permitting family reunification, were considered to be irrelevant to economic integration or even have a negative effect on them.

Using cross-classified random-effects multilevel models, I examined the effects of destination country policies on four economic outcomes among immigrants, household income, occupational status, unemployment and use of welfare benefits separately, and found, consistent with the gap hypothesis, little evidence for predicted policy effects for the first three outcomes. However, several significant policy effects were found for receipt of welfare benefits, particularly for presence of a skill selection policy and the proportion of refugees in a country's immigrant stream.

Of the destination country predictors, none had consistent effects on the economic outcomes. Of the origin country predictors the only characteristic that uniformly influenced the outcomes is gross national income per capita. Immigrants from higher income countries were observed to have higher average household incomes, higher average levels of occupational status, and lower likelihoods of being unemployed or receiving welfare benefits. These effects may be a consequence of the greater cultural, social and economic distance between less-developed countries of origin and the typically more-developed country of destination, which decreases the applicability of their human capital. Another explanation might be based on the lower quality of education in low-income countries of origin in comparison with that available in more developed countries, which means that the controls in the models for human capital

factors are insufficient. A third explanation might be based on discrimination against immigrants, particularly immigrants of another racial background, in the labour markets of host countries. This discrimination may not necessarily be ideologically motivated (“Blacks are inferior”), but can appear economically rational (“Migrants use our language less well than equally educated natives”; “My clients prefer blond sales personnel”; “My employees are more likely to listen to a native boss”), or can be the unintended consequence of protection of workers by labour market regulations and social security systems by calling for a sharper distinction between insiders and outsiders.

This paper represents just a start on this line of research. One possible direction might be to replace the individual macro-level policy measures with policy typologies, perhaps of the sort suggested by Lynch and Simon (2003), under the assumption that it is a combination of various policies and labour market characteristics that determine economic outcomes for immigrants and not a set of isolated characteristics. Another possibility is to use the considerably richer array of policy measures assembled by the British Council and Migration Policy Group (Niessen et al., 2007), though these measures are available only for countries of the European Union and Canada, and their sheer number would make modeling difficult. Another important direction would be to examine the labour market achievements of the 1.5 and second-generation children of immigrants, because these are the generations which should be expected to integrate successfully into the economy and society of the host country. (Portes & Rumbaut, 2001). A cross-national study initiated by Heath (2006) using available national statistics on the labour market achievements of the second generation yielded quite negative results for the children of immigrants to the countries of continental Europe, in contrast to positive results for those living in Australia, Canada and the USA. Similar results were obtained for the scholastic achievement of second-generation immigrant students in countries of Europe and the Pacific Rim by Levels et al. (2008). They found that second generation students from less developed countries of Latin America, North Africa, and West Asia achieved considerably lower math scores than those students whose parent were native born. Such results undermine any optimism concerning prospects for the economic, social and cultural integration of migrants and their children arriving from less-developed countries into European societies in the near future.

Another suggestion for future research to come out of the analysis here is the convincing finding that immigrants from more-developed countries tend to do better in their destination country labour markets than those born in that country. This is true based on both the crude analysis represented by Figures 1-4 and by the models including many controls at both the individual level and the country level. I previously observed that this might be due to these immigrants having arranged employment before migrating or being subjected to a corporate transfer. They may also have an easier time having their credentials recognized than is true for immigrants from less-developed countries. Some older research on internal migration found that migrants do better in terms of occupational attainment than do non-migrants (e.g. Blau and Duncan, 1967), but little research has taken up the question for the case of international migrants, aside from the "brain-drain" literature previously mentioned.

In one key respect, the design used here is flawed: to optimally study policy effects requires a quasi-experimental design (Rossi et al., 2004) in which the outcome is measured both before and after the introduction of policy, then compared to the same outcome in countries lacking the policy. This would present severe data problems for the study of immigration policies, since one could not simply lump together all immigrants to a country, as I have done here. Instead, immigrants arriving before the policy implementation must be compared to immigrants arriving after implementation, since only the latter group would be subject to the policy. While sufficient data might be available for a few countries to execute such a design, the sort of broad cross-national comparisons made here would likely not be possible. Another problem is that the Cornelius et al. "convergence hypothesis" is in fact being confirmed, as the immigration policies of countries have become more similar over time, making it more difficult to identify a "control country" lacking a particular policy. For example, in 2008, the UK launched a points system to screen immigrants for skills and education much like the systems that have been long used in Australia, Canada, and New Zealand. Although in the results reported here a skill-selection policy had the sole effect of reducing the odds that immigrants would use welfare benefits, this may be enough to convince countries lacking such a policy to adopt it. Despite the negative effects of accepting a large percentage of refugees or having a family reunification policy on both average

occupational status and the likelihood of welfare use among immigrants, I doubt that many countries would abrogate their humanitarian commitments to alter such policies.

## Notes

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<sup>1</sup> This research literature is far too voluminous to cite in its entirety. Some representative work is cited in Albas and Nee (2003) for the United States, Li (2003) for Canada, and Zimmermann (2005) for various European countries.

<sup>2</sup> Jeffrey Reitz has been particularly active in promoting research that examines the effect of host society institutions and policies on immigrant integration, organizing a conference on the topic in 2001 and editing a special issue of the *International Migration Review* (see Reitz, 2002 for the introduction to the issue) and editing a book (Reitz, 2003) incorporating papers presented at the conference.

<sup>3</sup> Cornelius and his colleagues refer mainly to the policy question of controlling the number of immigrants entering a country, either legally or illegally. Indeed, most theorizing about immigration issues has been restricted to ascertaining the determinants of migration (Massey et al., 1998).

<sup>4</sup> The ESS is funded jointly by the European Commission, the European Science Foundation, and academic funding bodies in each of the participating countries. A Central Co-ordinating Team at the Centre for Comparative Social Surveys, City University, London is led by Roger Jowell. See the project web site at [www.europeansocialsurvey.org](http://www.europeansocialsurvey.org) for further details.

<sup>5</sup> Quota system here means a regulatory approach which sets a maximum limit on the number of work or residence permits granted in the course of one year. Non-quota systems are represented by no or a fragmented migration policy, an official immigration moratorium, immigration on grounds of asylum, refugee, family reunification, ethnic origin or special skill provisions. (MPG, 2004).

<sup>6</sup> This means that ex ante selection based on labour market requirements prevails. Such a policy is not always easy to identify as most countries have certain labour market considerations (e.g. companies can request special employees on basis of their skills) built into their migration laws, but skill-selection usually means special a priori schemes which are focused on highly skilled workers.

<sup>7</sup> Models not shown here that include interactions with the male dummy variable indicate that many effects differ between males and females, supporting my decision to report models separately by gender.

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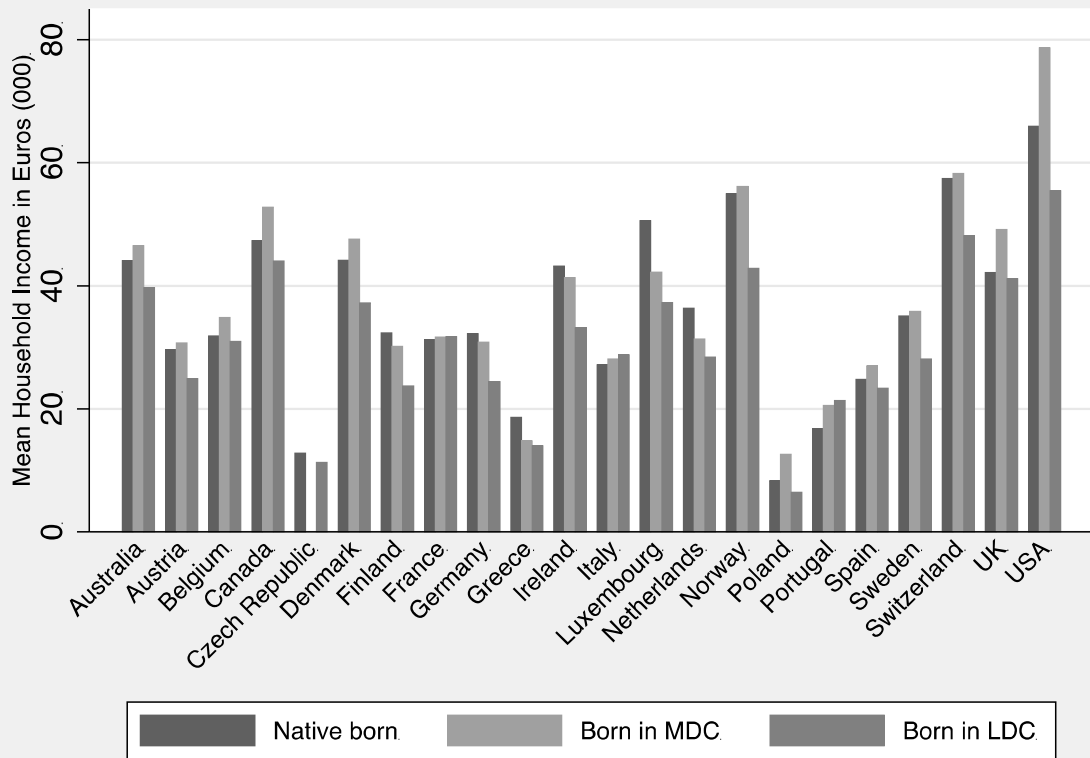


Figure 1. Mean Household Income in Thousands of Euros by Type of Country of Birth and Destination Country.

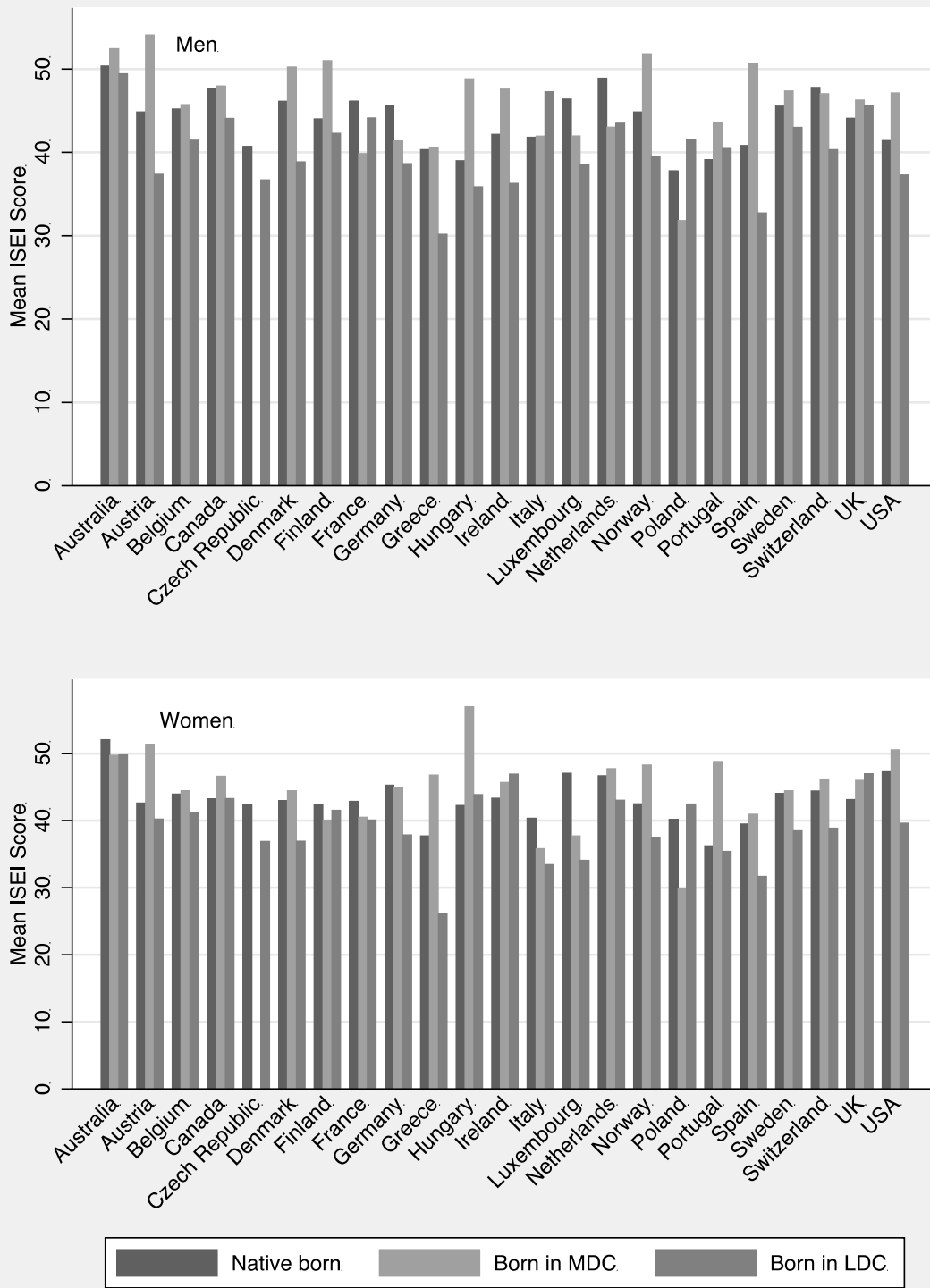


Figure 2. Mean ISEI Score by Type of Country of Birth and Destination Country

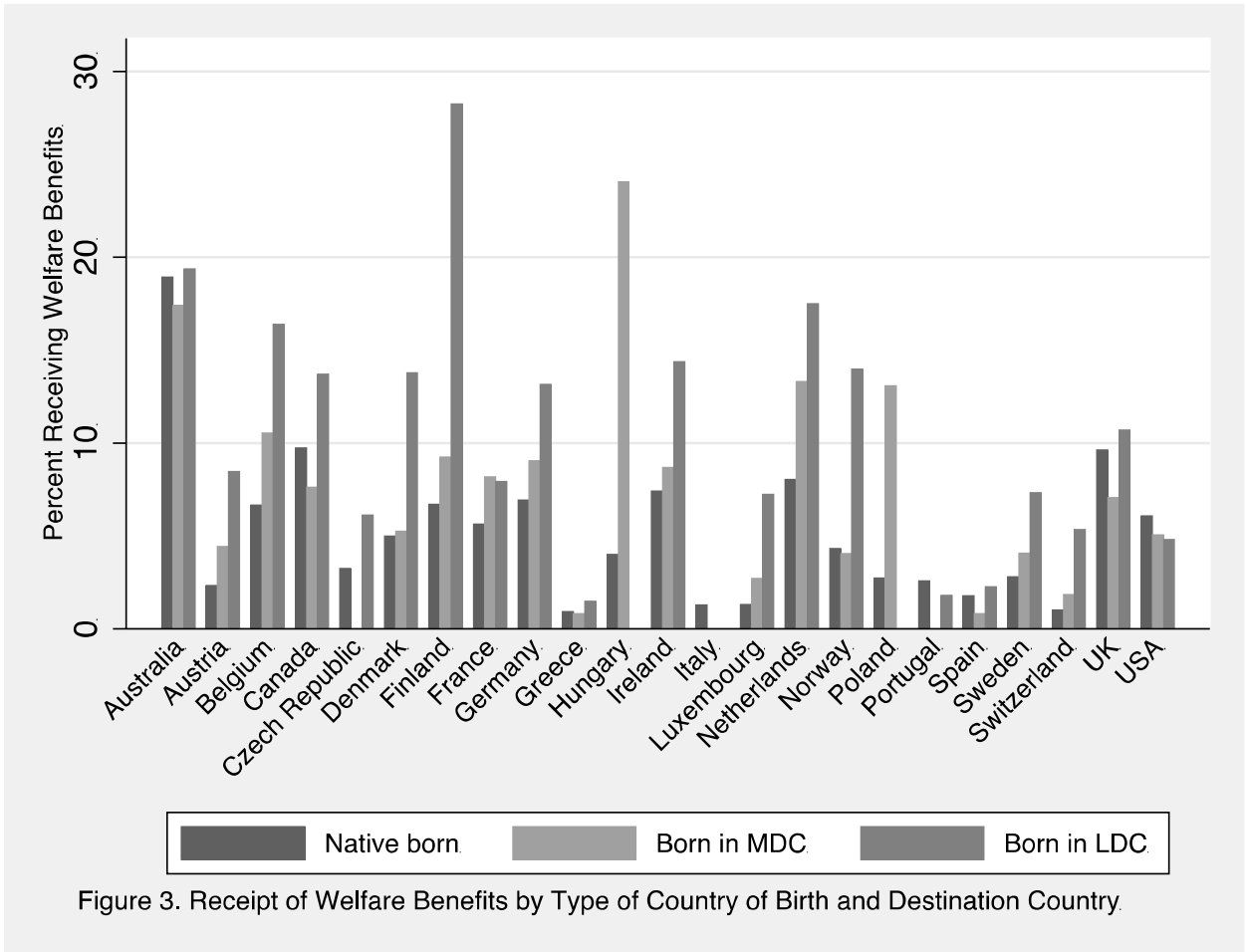


Figure 3. Receipt of Welfare Benefits by Type of Country of Birth and Destination Country.

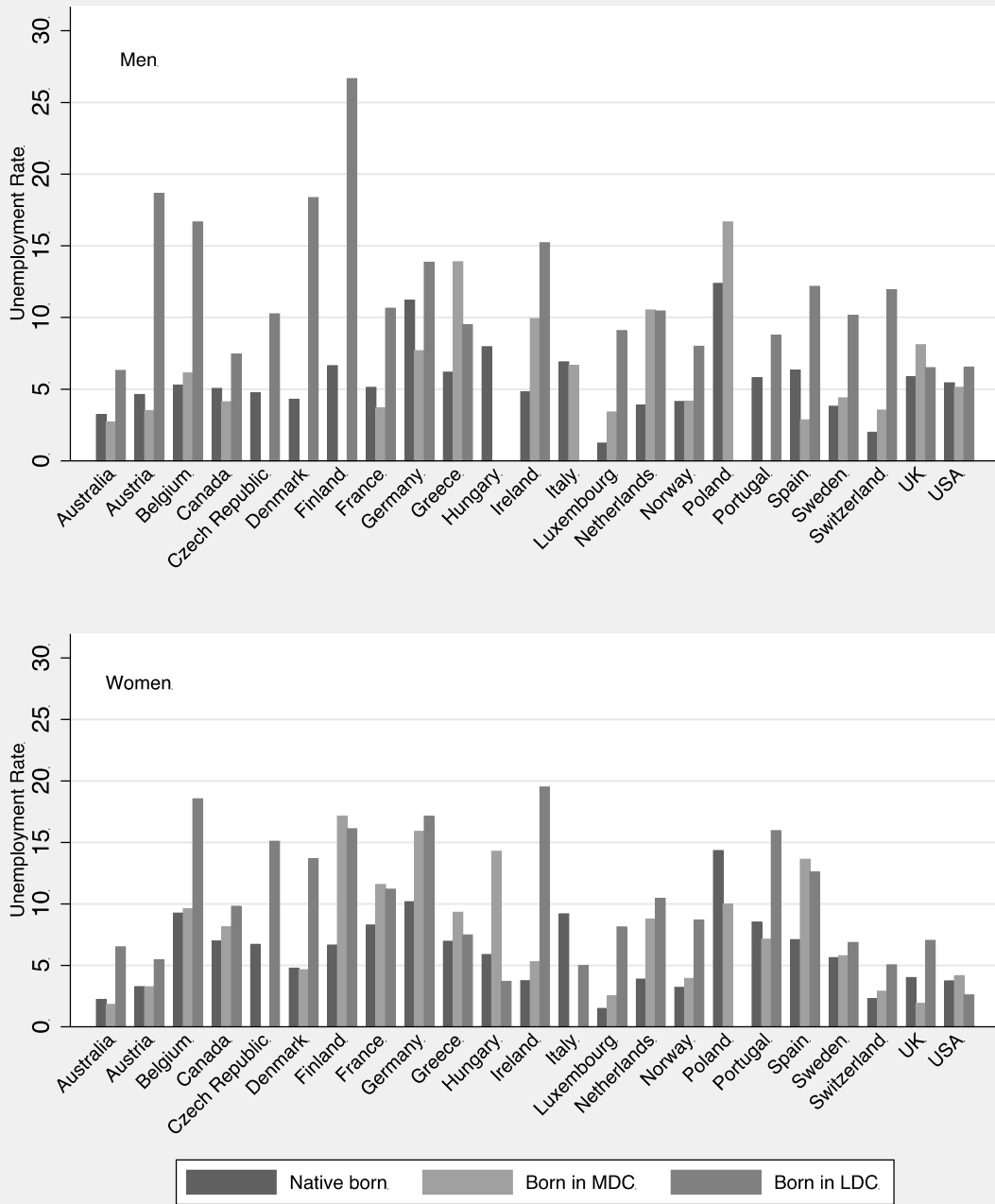


Figure 4. Unemployment Rate by Type of Country of Birth and Destination Country

Table 1. Measures of Destination Country Immigration Policies

Country	Net migration rate	Percent of immigrants naturalized	Annual quota system	Skill selection policy	Long-term residence rights, years	Family - reunification rights	Family reunification, non-married couples	Family reunification, extended family	Family access to social security	Refugees per thousand population
Australia	4.1	1.6	1	1	0	1	1	1	0	0.6
Austria	2.4	3.3	1	1	5	1	0	0	0	3.7
Belgium	1.0	7.2	0	0	7	1	0	1	1	2.4
Canada	6.0	4.3	1	1	0	1	0	1	1	1.4
Czech Republic	1.0	3.6	0	0	8	0	0	0	0	1.8
Denmark	2.0	7.3	0	0	7	1	1	0	0	2.3
Finland	0.6	3.3	0	0	2	1	1	1	0	0.3
France	1.5	4.6	0	0	10	1	1	0	0	0.8
Germany	2.2	2.6	0	0	5	1	0	0	1	1.1
Greece	2.0	0.3	1	1	10	1	0	0	0	0.5
Hungary	0.8	5.9	0	0	3	0	0	0	0	1.0
Ireland	3.6	0.9	0	1	10	1	0	0	0	2.7
Italy	2.1	1.0	1	0	5	1	0	1	1	0.2
Luxembourg	9.1	0.4	0	0	0	0	0	0	0	1.6
Netherlands	2.4	7.5	0	0	5	1	1	1	1	2.1
Norway	2.1	5.2	0	0	7	1	1	1	0	3.3
Poland	-0.5	0.6	0	0	5	1	0	0	0	0.1
Portugal	0.5	0.3	1	1	5	1	0	1	0	0.0
Spain	1.0	1.3	1	0	5	1	0	1	1	0.2
Sweden	1.0	9.1	0	0	5	1	1	0	0	2.7
Switzerland	1.4	2.1	1	1	10	1	0	1	0	2.9
United Kingdom	2.2	3.5	0	1	4	1	1	1	0	1.5
United States	3.5	3.1	1	1	0	1	0	1	0	0.3

Table 2. Unconditional Intra-Class Correlations\* for Outcome Variables

Outcome variable	Same destination, different origin	Same origin, different destination	Same origin, same destination
Household income	0.052	0.031	0.083
Occupational status, males	0.139	0.028	0.167
Occupational status, females	0.116	0.029	0.145
Welfare Usage	0.030	0.127	0.157
Unemployment, males	0.089	0.018	0.107
Unemployment, females	0.034	0.065	0.099

Note: All intra-class correlations significant beyond  $\alpha < 0.001$ .

\*Proportion of the variance in outcomes that is either between origin countries, between destination countries, or between combinations of the two.

**Table 3.** Crossed Random-Effects Multilevel Models for the Household Income of Immigrants to 22 Countries

	Model 1	Model 2	Model 3
<i>Individual-level predictors</i>			
Years of education	0.037***	0.037***	0.037***
Experience/10	0.106***	0.109***	0.108***
Experience Squared/1000	-0.205***	-0.214***	-0.213***
Marital status (married=1)	0.333***	0.335***	0.334***
Years since migration	0.007***	0.006***	0.006***
Size of place (1=city)	0.107***	0.109***	0.109***
International socioeconomic index	0.016***	0.016***	0.016***
Number of persons in household	0.114***	0.115***	0.115***
Gender (1=male)	0.031	0.031	0.031
<i>Country of origin predictors</i>			
Origin country a former colony		0.140***	0.136**
GNI per capita of origin country		0.011***	0.012***
Origin country Muslim		-0.090*	-0.088*
<i>Destination country predictors</i>			
GNI per capita of destination country		-0.009	-0.009
Social expenses as a percent of GDP		0.005	0.028
Unemployment rate		0.006	0.004
Mean household income of native born		0.007	0.010
<i>Destination country policies</i>			
Skill-selective policy			-0.012
Annual quota system			0.013
Long-term residence rights			0.034
Family reunification policy			0.000
Family reunification (nonmarried)			-0.216
Family reunification (nonnuclear)			0.249
Family social security access			-0.280
Net migration rate			0.047
Percent naturalized			0.000
Percentage refugees			-0.126
Constant	-1.985***	-2.300*	-3.073
<i>Random effects</i>			
Random country of destination effects	-1.621***	-1.709***	-1.514***
Random country of origin effects	-1.790***	-2.279***	-2.273***
Random residual effects	-0.106***	-0.106***	-0.106***
N of Cases	7870	7870	7870
Wald Chi-Square	1917.0***	2037.1***	2039.9***
Estimated R <sup>2</sup>	0.257	0.281	0.295
BIC'	-1836.3	-1893.6	-1806.7

Note: Hungary excluded, since a listwise deletion of missing cases leave too few cases for estimation. All parameter values net of a set of dummy variables for year of survey.

\*p<.05; \*\*p<.01; p<.001 (two-tailed tests)

**Table 4.** Crossed Random-Effects Multilevel Models for Occupational Status of Immigrants to 23 Countries

	Men			Women		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Individual-level predictors</i>						
Years of education	2.095***	2.082***	2.097***	2.239***	2.219***	2.231***
Experience/10	1.259***	1.199***	1.215***	0.276	0.230	0.245
Marital status (married=1)	0.674	0.800	0.732	-0.004	0.051	0.031
Years since migration	0.026	0.015	0.012	0.097**	0.086**	0.083**
Size of place (1=city)	1.722***	1.778***	1.791***	1.773***	1.930***	1.959***
<i>Country of origin predictors</i>						
Origin country a former colony		0.945	0.849		0.955	1.013
GNI per capita of origin country		0.219***	0.222***		0.208***	0.210***
Origin country Muslim		-1.307	-1.173		0.086	0.124
<i>Destination country predictors</i>						
GNI per capita in destination country		-0.083	-0.275		-0.197*	-0.442*
Social expenses as a percent of GDP		0.115	0.407		-0.105	0.509*
Unemployment rate		-0.454	-0.742*		-0.557*	-0.772*
Mean ISEI of native-born males		0.332	0.970*			
Mean ISEI of native-born females					0.711*	1.558***
<i>Destination country policies</i>						
Skill-selective policy			-2.375			-1.483
Annual quota system			-3.029			-1.513
Long-term residence rights			0.055			0.386
Family reunification policy			5.582			4.029
Family reunification (nonmarried)			-7.296**			-4.628*
Family reunification (nonnuclear)			4.655*			5.148*
Family social security access			-6.110			-5.556
Net migration rate			0.801			0.775
Percent naturalized			0.001			-0.005
Percentage refugees			-1.513*			-0.186
Constant	12.358***	-0.951	-31.841	11.379***	-9.992	-52.657*
<i>Random effects</i>						
Country of destination	12.358***	-0.951	-31.841	11.379***	-9.992	-52.657*
Country of origin	0.858***	0.625*	0.303	0.974***	0.721**	0.416
Random residual effects	1.359***	1.049***	1.021***	1.196***	0.888***	0.882***
N of Cases	3820	3820	3820	4111	4111	4111
Wald Chi-Square	1282.5	1382.9	1422.9	1479.9	1592.2	1625.5
Estimated R <sup>2</sup>	0.317	0.351	0.358	0.314	0.341	0.348
BIC'	-1241.3	-1283.9	-1241.4	-1438.3	-1492.3	-1442.4

Note: All parameter values net of a set of dummy variables for year of survey.

\*p<.05; \*\*p<.01; p<.001 (two-tailed tests)



**Table 5.** Crossed Random-Effects Multilevel Models for the Receipt of Welfare Benefits of Immigrants to 23 Countries

	Model 1	Model 2	Model 3
<i>Individual-level predictors</i>			
Years of education	0.945***	0.945***	0.944***
Experience/10	1.064	1.069	1.069
Marital status (married=1)	0.432***	0.433***	0.437***
Years since migration	0.979***	0.981**	0.982**
Size of place (1=city)	1.065	1.040	1.055
International socioeconomic index	0.984***	0.984***	0.985***
Number of persons in household	0.967	0.963	0.960
Gender (1=male)	1.090	1.082	1.080
<i>Country of origin predictors</i>			
Origin country a former colony		0.791	0.799
GNI per capita of origin country		0.985*	0.984**
Origin country Muslim		1.233	1.237
<i>Destination country predictors</i>			
GNI per capita of destination country		1.015	1.000
Social expenses as a percent of GDP		1.087***	1.028
Unemployment rate		0.972	0.949
Percent native born receiving welfare		1.228***	1.301***
<i>Destination country policies</i>			
Skill-selective policy			0.112***
Annual quota system			1.809
Long-term residence rights			1.024
Family reunification policy			4.153*
Family reunification (nonmarried)			0.469*
Family reunification (nonnuclear)			1.627
Family social security access			0.290**
Net migration rate			1.196
Percent naturalized			0.999*
Percentage refugees			1.397***
<i>Random effects</i>			
Country of destination	-0.291	-1.365***	-22.290
Country of origin	-1.139***	-1.477***	-1.665**
N of Cases	7577	7577	7577
Wald Chi-Square	183.2***	250.2***	370.1***
BIC'	-111.7	-116.2	-146.8

Note: Fixed effects are reported as odds ratios. All parameter values net of a set of dummy variables for year of survey.

\*p<.05; \*\*p<.01; p<.001 (two-tailed tests)

**Table 6.** Crossed Random-Effects Multilevel Models for Unemployment Among Immigrants to 23 Countries

	Men			Women		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Individual-level predictors</i>						
Years of education	0.930***	0.936***	0.934***	0.964	0.967	0.959*
Experience/10	0.959	0.980	0.987	0.849*	0.847**	0.844**
Marital status (married=1)	0.595***	0.578***	0.580***	0.661**	0.666**	0.652**
Years since migration	0.979**	0.982*	0.982*	0.984*	0.985	0.987
Size of place (1=city)	1.104	1.037	1.034	0.791	0.751*	0.779
International socioeconomic index	0.987*	0.990*	0.990*	0.995	0.997	0.997
Number of persons in household	1.021	1.009	1.016	1.015	1.005	1.013
<i>Country of origin predictors</i>						
Origin country a former colony		0.909	0.945		0.970	0.888
GNI per capita of origin country		0.964***	0.963***		0.985*	0.982*
Origin country Muslim		0.888	0.905		1.176	1.260
<i>Destination country predictors</i>						
GNI per capita of destination country		1.004	0.993		0.992	0.945*
Social expenses as a percent of GDP		1.023	1.003		1.033	1.163*
Percent native-born males unemployed		1.037	0.973			
Percent native-born females unemployed					1.116*	0.793
<i>Destination country policies</i>						
Skill-selective policy			1.119			0.679
Annual quota system			0.624			0.244*
Long-term residence rights			0.998			1.087
Family reunification policy			2.903			3.042
Family reunification (nonmarried)			0.837			0.452
Family reunification (nonnuclear)			0.835			1.993*
Family social security access			1.419			1.216
Net migration rate			1.024			1.014
Percent naturalized			1.000			0.999
Percentage refugees			1.206			0.798
<i>Random effects</i>						
Country of destination	-1.754**	-2.313	-19.403	-0.780***	-1.813*	-21.173
Country of origin	-0.783**	-1.171**	-1.624*	-1.145***	-1.525**	-1.425**
N of Cases	3730	3730	3730	3982	3982	3982
Wald Chi-Square	71.56***	89.67***	114.3***	39.86***	79.57***	109.8***
BIC'	-13.99	17.24	74.86	18.17	28.19	80.86

Note: Fixed effects are reported as odds ratios. All parameter values net of a set of dummy variables for year of survey.

\*p<.05; \*\*p<.01; p<.001 (two-tailed tests)