

# **The Effects of Immigration Policies and Labor Market Structures on the Income of Immigrants to the More Developed Countries of Europe and North America\***

Richard A. Wanner<sup>†</sup> & Jaap Dronkers<sup>‡</sup>

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## **Introduction**

Until quite recently, research on the economic integration of immigrants into destination societies focused on one destination society 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 labor market duality in accounting for relative immigrant disadvantage in specific national labor 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 labor 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' labor 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, Maas & Flap,

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<sup>†</sup> Department of Sociology, University of Calgary, Calgary, Alberta T2N 1N4, Canada. Phone: (403) 220-6501. Fax: (403) 282-9298. Email: [wanner@ucalgary.ca](mailto:wanner@ucalgary.ca).

<sup>‡</sup> Department of Political and Social Science, European University Institute, San Domenico di Fiesole I-50016, Italy. Phone: +39 055 4685260. Fax: +39 055 4685201. Email: [Jaap.Dronkers@iue.it](mailto:Jaap.Dronkers@iue.it).

2004; van Tubergen, 2005; Kogan, 2004) 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.

Our goals in this paper are, first, to determine the extent to which immigrants coming from less developed or more developed countries have lower incomes compared to the native born, and whether this remains true when human capital factors are controlled. Should we find variability in immigrant incomes across countries, we aim to determine how destination countries' immigration and settlement policies contribute to or detract from immigrants' ability to integrate economically.

## **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, 1998). 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 labor 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, 1998). 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 our analysis even though their experience as immigrant receiving countries is very recent. The "globalization of international migration" (Castles and Miller, 1998) 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 our analysis are not 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 labor force created by an insufficient domestic labor 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. (1994; 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 labor 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 our 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 labor, and weak internal controls. Australia, Canada, and New Zealand have the most formalized systems of preferences which are based on a points-scheme 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 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 incomes of immigrant to that country. Nevertheless, we expect that controlling for time since migration would weaken or altogether eliminate the effect.

Hypotheses regarding the effects on economic integration of the other dimensions of policy are less well founded. While we would anticipate that countries that have settlement policies providing more assistance to immigrants in the form of financial support, housing, and language and job training, the small amount of existing research does not support this expectation. A comparison of Russian immigrants to Israel, which provides substantial support to newcomers, and Canada, which relies on NGOs to provide such support only to the neediest immigrants, found that those settling in Canada attained both higher earnings and higher status occupations (Lewin-Epstein et al., 2003). However, the two-country design makes it difficult to disentangle the effects of selectivity, which is greater in Canada with its point system, from the effect of settlement policy. We therefore hypothesize that over a large range of countries and in the presence of a control for selectivity, immigrants to countries providing more settlement assistance should have higher earnings.

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, 2004). To capture the importance of welfare regimes for the success of immigrants in the labor market we include the following characteristics of the social security systems of the analyzed countries: the percentage of GDP spent on social security expenses, and the degree of full access to the social security system for family members.

To our knowledge, no existing research addresses 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. However, their arguments have persuaded us that such factors may influence the success of immigrants’ economic integration. We therefore add to our Models the following characteristics of the migration policies of the countries included in the analysis: the percentage of immigrants in the total population; net migration rate; the inflow of asylum seekers; the percentage of immigrants with a recognized status; the proportion of

immigrants that are naturalized; whether or not a country is a member of the *Schengen* agreement<sup>4</sup>, 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.

Because the functioning of a labor market and its openness to immigrants can influence the effectiveness of immigration policies, we also include characteristics of the labor markets of the countries in the analysis. We incorporate measures of the following labor market characteristics: the percent of immigrant workers in the labor force; the overall unemployment rate; the unemployment rate among male immigrants; the self-employment rate of immigrants; the labor market participation rate of non-migrants; the labor market participation rate of immigrants; and the percentage of immigrants with a tertiary education.

### **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 net 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 we propose. Our 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>5</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 I of the ESS took place during 2002 for 21 of the 23 countries participating, thus making the data current. 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 section, with Round II interviewing scheduled to take place in late 2004. While the sample sizes in each round are relatively small for research on immigrants, we plan to expand the sample size by incorporating additional waves of data as they become available.

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, 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 status attainment Models at the individual level.

Other sources of European data we surveyed all had just one advantage over the ESS: larger sample sizes. In all other respects, they were inferior. One promising data project that in the future will provide high-quality large sample data on member countries of the European Union is the European Union Labor Force Survey (EULFS) coordinated by Eurostat (2002). The main defect of this survey is that, for confidentiality reasons, microdata are not yet available (Charlier and Franco, 2001) so that researchers must rely on the use of large customized Tables, which restrict the number of variables available for Modeling. In addition, the EULFS includes no measure of either respondent earnings or household income, except for a few countries after 2000, variables are not always measured consistently, as in the case of education after 1997, and variables relevant to research on migration were not always collected, particularly country of birth.

Data for the United States comes from the March 2002 Labor Force Survey (US Bureau of the Census), while the Canadian data comes from the Public Use Microdata File of the 1996 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 greater than those available in the ESS. Therefore, we drew a simple random sample from each of 3000 cases. While this represents a considerable sacrifice of data, it prevents the two larger samples from dominating statistical inference in our Models.

Given our interest in the functioning of the labor market, the subpopulation used here is restricted to immigrant and native-born men and women age 20 to 64 who had non-zero incomes. Given the relatively small representation of immigrants in most of the countries used in the analysis, we were not able to estimate separate Models for men and women. To partially adjust for this, we include the main effect of sex as a control.

*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 indigenous. While simple and conventional, this approach to measurement gives rise to a number of problems, which we cannot solve 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, we overestimate the number of better-integrated immigrants. 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 'indigenous' 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, we 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 Third World 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 labor 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, we may underestimate the lack of integration of immigrants. On the other hand, this failure highlights the problem of defining immigrants noted above: for how many generations must a Hindu family 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 highly 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 labor markets of these developed countries, although less visible at the bottom and most vulnerable, as attested by the recent tragic fires in Paris that killed many illegal immigrants. One can argue that by failing to include illegal immigrants in surveys, we overestimate the integration of immigrants. Therefore our results should be seen as an indication of the labor market attainments of official immigrants or of illegal immigrants who has become official by means of such mechanisms as loopholes in the law, general pardons, marriage, or fraud.

Most refined distinctions among immigrants based on their country of birth failed due to a lack of sufficient numbers of immigrants from a specific country (e.g. Turkey) or a group of countries (e.g. South Mediterranean countries) in most surveys. In part this is a consequence of the problem of defining immigrants mentioned above, but it is also in part a consequence of selective migration between countries. We finally made the distinction among: First World immigrants, arriving from one a more developed country of the EU member-states (before the last extension), the USA, Canada, Australia or New Zealand; Second- and Third World immigrants, arriving from all middle- and lower-income countries; and immigrants from countries with long-standing dependency relations with a country of immigration. These are in the first place countries that 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). But in the case 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). In our data set, this category of immigrants from colonies existed only for Austria, Belgium, Germany, Spain, UK, the Netherlands, Portugal, Sweden and the USA, although in some cases the number involved are small.

*Measures of Other Socioeconomic Characteristics.* Our dependent variable is the log household income expressed in Euros. This household income includes all money income of a household, irrespectively of the source (paid labor, 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 Canada and the US, the local currency was converted into Euros at the prevailing exchange rate at the time of the surveys. Household income is not an ideal index of immigrant success in the labor 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. We 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 earnings, and we are at least able to control for household size.

Size of place of residence has three categories indicating residence in either a large city or one of its suburbs, a small city or town, or a village or rural area.

Educational highest level is measured by the ISCED scale (OECD 1999a), which runs from the lowest level (primary education not completed) to the highest level (second stage of tertiary education). In most countries included in the analysis this measure of highest education better reflects educational attainment than years of schooling, since the educational systems in many countries are characterized by a dual-track structure.

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). If the respondent was not employed and thus had no occupation to code into the ISEI (in most cases because the respondent was a housewife), we replaced the missing value by the average ISEI score for that country. We also added a dichotomous variable, scored one if the respondent had no occupation, zero otherwise.

*Country-level Indicators of Immigration Policy and Labor Force Characteristics.* Consistent with the dimensions of immigration policy discussed above, we have identified the following specific indicators of immigration policy that are consistently measured in each of the 23 countries:

- Percentage of foreigners in the total population in 2000 (a combination of the total population in 2000 (US Central Intelligence Agency, 2004) and the stock of foreigners (OECD 2000)).
- Net in migration rate of a country (Immigration – Emigration: CIA World Factbook).
- Inflow of asylum seekers in 2001 (the inflow (OECD 2002) per 1000 inhabitants).
- Percentage of immigrants with a recognized status as a percentage of all immigration decisions made in 2001 OECD (2002).
- Degree of naturalization of foreigners: the number of naturalization decisions (Eurostat, 2001; OECD, 2003) as a percentage of the stock of foreigners.
- Membership in the Schengen Agreement.
- Immigration regulated via annual quota system.<sup>6</sup>
- Skill-selective immigration policy (MPG, 2004 Country Reports).<sup>7</sup>

- Right of family reunification for non-married couples: are cohabiters and registered partners (often homosexual) eligible for family reunion? (OECD, 2000; MPG, 2004).
- Recognition of family reunification as principle or concept in immigration law (OECD 2000).
- Right of family reunification beyond spouse and children, e.g. parents, siblings, others (OECD, 2000; MPG, 2004).

The following are comparable country-level indicators of the labor market for foreigners in the 23 countries:

- Stock of the foreign labor force as a percentage of the total labor force (OECD, 2002).
- Overall unemployment rate in 2002 (CIA World Factbook).
- Unemployment rate of male foreigners in 2001.
- Difference in unemployment rate between foreigners & nationals - Male (2000/01) or between Foreigner UE rate & National UE rate: OECD (2002).
- Self-employment rate of foreigners: percentage of self-employed foreigners in non-agricultural activities relative to their share in total labor force OECD (2002).
- Labor market participation of nationals (OECD, 2003).
- Labor market participation rate of foreigners (OECD, 2003).
- Difference in labor market participation rates of nationals and foreigners
- Percentage foreigners with a third level education (OECD, 2001).

In addition to these macro-indicators related to immigration policies and characteristics of the labor market for immigrants, we also use a few general indicators of the economic prosperity and the social security expenses of the analyzed countries:

- GNI per capita in 2002 in US dollars (UNICEF, 2004).
- Social expenses as a percentage of GDP in 1998 (OECD, 1999b).

Details on the actual values for these country-level variables are provided in Table 3.

*Models and Estimation Methods.* For the core of our analyses we use a multilevel Modeling approach (MLwiN 1.1, Rasbash et al. 2000), which is 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. As consequences of history and socialization, respondents with certain characteristics are not randomly distributed among the analyzed countries, but are ‘nested’ within specific countries. If this ‘nested’ structure of individuals within countries is not appropriately taken into account, the estimation of effects may be biased.

A second 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 labor market characteristics. In this way multilevel analysis takes into account that the number of macro-level units is restricted (23 countries in our case), and uses this number via empirical Bayes methods to estimate the significance of the effects of the macro-variables on individual outcomes. With 23 countries, we have enough units at level-2 to make reliable estimates in a random coefficient Model (Snijders & Bosker, 1999: 43-44).

A third advantage of multilevel analysis is that it makes it possible to test whether effects of independent variables at the individual level are significantly different between higher

level contexts (in our case countries). In our analysis these tests for differential effects are important, because they show the degree to which effects on immigrant integration are county-specific and cannot be explained by general processes, such as a specifically designed immigration policy or a more or less open labor market for immigrants.

A disadvantage is that the multilevel software we use (MLwiN 2.0) eliminates cases with a missing value on one of the included variables from the analysis on a listwise basis. While this poses only minor problems for the level-1 data, it represents a severe problem if a macro-variable for a country is missing, as in our case for Poland, for which nearly all macro-indicators on labor market and foreigners are missing, and Luxemburg, for which the status recognition variable is missing (see Table 3). Another disadvantage of this multilevel software is that the handling of weights is not very reliable and still debated. Therefore we refrain from applying weights in the multilevel analysis, but we used design weights for the descriptive and regression analyses reported in Tables 1 and 2<sup>8</sup>.

## **Descriptive Statistics**

Table 1 shows means or percentages and their standard deviations of the dependent and independent variables separately for non-migrants, First World immigrants, Second- and Third world immigrants and colonies immigrants both for our full data set and for each country. If there are fewer than 20 immigrants in a cell, values are not reported, and all values are weighted using the design weights assuring intracountry representativeness.

In interpreting these means and standard deviations it is important to keep in mind that immigrants from colonies, the First World, and even from the Second and Third World are mostly immigrants to higher income countries, which may bias their averages upward. This can be seen in the overall figures in the top panel for log household income, educational level, and the socioeconomic index, which are all higher for the First World immigrants than for the non-migrant population. For immigrants from colonies this discrepancy between their averages and those of the non-migrant population is less pronounced, but is still evident in their higher educational level, possibly a consequence of a brain drain from the periphery to the center. This is even true for the Second and Third World immigrants: they have a slightly higher educational level than the non-migrant population. In part these higher averages of the immigrant groups might be caused by sampling methods that select official and relatively well-integrated immigrants, as discussed earlier. But these higher scores might also be a function of differences in the ages, household size and size of place of residence of the various immigrant and non-migrant populations. Straightforwardly comparing averages of these two populations can be misleading, because differences in important background variables are not taken into account. For that reason we will not comment on Table 1 more extensively, but instead will focus on the results of regression analyses presented in Table 2, which allow us to take the variations in the important background variables of various immigrant and non-migrant populations into account, including variations in countries of immigration. For that same reason we refrain from discussing the differences in means between various immigrant and non-migrant populations for each country separately. We only note that there is a large amount of variation between countries among these groups, which might indicate that macro-level differences between the countries might be relevant.

Model 1 of Table 2 is the simplest equation with log-household income as the dependent variable and dummy variables representing First World immigrants, Second and Third World

immigrants and immigrants from colonies as independent variables, using non-migrants as the reference group, along with dummies for all countries, using the USA as the reference group. The results for this first equation already show the importance of controlling for country of immigration<sup>9</sup>. If we do so, First World immigrants no longer have a significantly higher household income, but immigrants from colonies still do, while Second and Third World immigrants have a lower household income. Because these various immigrant-populations end up in different countries (for instance the USA has a relatively large number of Second and Third World immigrants, but has also the highest average household income), controlling for these differences in immigrant destinations reveals one way in which the straightforward comparison in Table 1 is misleading. If one takes the country of immigration into account, Second and Third World immigrants have lower household incomes than both the non-migrant population and other immigrant types.

Model 2 of Table 2 also takes differences in background characteristics and the interaction between gender and the marital status dummies into account. The values of these parameters are as one would expect. Higher household incomes are associated with more education, a larger household size, being married, and being older. Based on the gender-marital status interactions, we can see that single males have lower household incomes than females, but this difference disappears for married males. However, the most interesting results for us are that the income differences between First World immigrants, immigrants from colonies and the non-migrant population become nonsignificant. The higher household income of these two immigrant groups in Table 1 is fully a consequence of their favorable background characteristics. On the other hand, immigrants from the Second- and Third World have a much lower household income on average than non-migrants and the other immigrant-types in the same countries and with the same characteristics. Taking into account these background variables doubles their disadvantage in household income (from -.06 in Model 1 to -.12 in Model 2).

This disadvantage in household income might be explained by differences in effects of these background variables across the various immigrant-types and non-migrants. For instance, the disadvantage in household income might be caused by a lower rate of return to education among Second and Third World immigrants. We explore this possible explanation in Model 3 by adding all significant interaction between the three immigrant-type dummy variables and the background characteristic to Model 2. The results of Model 3 show indeed that a number of these background characteristics have different effects for immigrants, especially for those originating in Second and Third World countries. The education of Second and Third World immigrants indeed has a lower rate of return. In addition, being married lowers household income, while being an older male increases the household income of Second and Third World immigrants. But these differential effects of the background variables do not explain the lower average household income of this group of immigrants: to the contrary taking these differential effects into account only reduced the average household income further (from .12 in Model 2 to .23 in Model 3). Even adjusting for the lower return on education and the higher return on age and gender among Second and Third World immigrants, they still have lower average household incomes on average than comparable non-migrants in their host countries.

But the Second and Third World immigrants are not the only immigrants with lower average household incomes than comparable non-migrants. Taking into account the

higher rate of return of age for First World immigrants and the positive effect of marriage for immigrants from colonies, these two immigrant groups also have lower household incomes than comparable non-migrants, The equal household income of First World and colony immigrants based on Model 2 is spurious: Model 3 shows that in reality it is lower than that of comparable younger, unmarried non-migrants.

In Model 4 we test whether or not there are country differences in the effect of belonging to one of the immigrant types. We do this by adding the significant interactions between country and immigrant-type<sup>10</sup>. Model 4 shows that Second and Third World immigrants in the Czech Republic, Canada and the Netherlands have lower household incomes than the already lower household income of comparable Second and Third World immigrants in the other countries. Also First World immigrants in the Netherlands have lower household incomes than the already lower household incomes of comparable First World immigrants in the other countries, but First World immigrants in Canada have higher household incomes than their counterparts in other countries. Finally, immigrants from the Dutch colonies have higher household incomes than comparable immigrants from colonies in other countries. Thus there is some variation in the household income of comparable immigrants in the various countries, but this doesn't account for the lower average household incomes of all types of immigrants in these countries compared to equivalent non-migrants.

One might argue that the main problem for immigrants is to obtain a good job instead of earning a higher household income, since higher incomes are ordinarily associated with higher status jobs. Obtaining such a good job is more difficult for immigrants because labor markets are often more closed to outsiders (migrants) than to insiders (non-migrants). But if immigrants are able to obtain a job at a certain level, they are likely to earn more or less the same amount as non-migrants. We test this by adding the socioeconomic status of their occupation to Model 4, together with a dummy variable scored one for those persons who had no occupation and the significant interactions between these two status indicators and gender and immigrants. The results are shown in Model 5. Although, as expected, socioeconomic status has a positive effect on household income and not being in the labor force decreases household income, the negative effect of being an immigrant of any type on household income is hardly affected by the inclusion of socioeconomic status. In other words, immigrants in all highly developed countries have lower household incomes on average than non-migrants with the same background characteristics and working in jobs with the same status. This deficit in the household income of immigrants is nearly twice as large for equivalent immigrants coming from Second and Third World countries. And even then, in some countries, such as Canada, the Czech Republic and the Netherlands, the household incomes of Second and Third World immigrants are even lower than those of equivalent Second and Third World immigrants in the other developed countries.

## The Effects of Immigration Policies and Welfare Regime

Table 4 reports parameter estimates for two multilevel models. The first of these, labeled Model 5A, is based on Model 5 in Table 4, with two exceptions. The first difference between Model 5 and 5A is that we include no explicit country dummies in Model 5A, because differences in the average income level between countries is now included into the multilevel equations as a set of random constants, as one can see in these two equations:

$$\text{Household income}_{ij} = \beta_{0ij} + \beta_1 (\text{individual variable})_{ij} + e_{ij} (\text{error-term})_{ij} \quad (1)$$

$$\beta_{0ij} = \gamma_{00} + \nu_{0j} + u_{0ij} \quad (2)$$

The variance in the constant ( $\beta_{0ij}$ ) is divided into an individual part ( $u_{0ij}$ ) and a country part ( $\nu_{0j}$ ). At the bottom of Table 4 we see that there are still unexplained variances at both the individual level and at the country level, although the amount of unexplained variance is larger at the individual level than at the country level. This should not be surprising, since there is often more within country variance in income than between country variance.

The second difference between Model 5 and Model 5A is that there are no interaction terms for country by immigrant type. In Model 5A we assume that the effect of immigrant type is equal in all countries. Multilevel analysis allows for testing the significance of the variation in the effect of a lower level variable between the various units at a higher level, in this case the variation of the effect of the independent variables between countries.

We may modify the model represented by equations 1-3 by relaxing the constraint that the coefficients of the individual-level variables be equal across countries:

$$\beta_{1ij} = \beta_1 + u_{1j} \quad (4)$$

The difference with the former model is that  $\beta_{1ij}$  now can vary between countries  $j$  and the amount of this country variance is expressed by  $u_{1j}$ . We can measure the significance of this intercountry variation by computing the difference in the  $-2 \cdot \log$  likelihood of the equation without varying effects of a certain independent variable (fixed-effects model) and the equation that permits varying effects of that independent variable at the country-level (random-effects model). The larger the decrease of  $-2 \cdot \log$  likelihood, the greater the variability of the effect of that independent variable between countries (see Snijder & Bosker, 1999: 89). This differences in  $-2 \cdot \log$  likelihood for each separate independent variable of Model 5A is given in the first column of Table 5 (the more negative, the larger the decrease). The significance of the differences in  $-2 \cdot \log$  likelihood also depends on degrees of freedom. In the case of two extra variables ( $\beta_1, u_{1j}$ ) represented in Table 5, the number of degrees of freedom is 2. If these differences in  $-2 \cdot \log$  likelihood are nonsignificant it does not mean that the parameter of a single country (for instance Holland) does not deviate from those of the other countries, but it does mean that this parameter is equal in a majority of the countries.

The first column of Table 5 shows that the effects of the three immigrant type dummy variables on household income hardly differ between societies, but that the effects of education, household size, marital status, age, residence size and occupational socioeconomic status on household income differ substantially. We will not further

analyze the country differences of these effects, but focus on two country-specific effects, which are related to immigrants: 2&3-worldmigrant and the interaction of 2&3-worldmigrant with education. Their differences in the  $-2*\log$  likelihood of the equation without country varying effects of these variables (fixed-effects model) and the equation with varying effects (random-effects model) is large enough to justify further analyses.

In the next step we add to Model 5A each of the macro-level characteristics of the countries separately. The first column of Table 6 shows the decrease in  $-2*\log$  likelihood by the addition of each of the macro-level characteristics in comparison with the  $-2*\log$  likelihood of Model 5A, at the cost of one degree of freedom. This first column of Table 6 shows that differences of household income within and between the analyzed countries can partly be explained by the GNI per capita, the stock of foreign-born labor force, the unemployment rate of male immigrants, the self-employment rate of immigrants, the labor force participation rate of natives and immigrants and the difference between these rates, the percentage of foreigners with tertiary education, and the number of years of long-term residence rights. In the second column of Table 6 we add the interaction-variable between a macro-characteristic and 2&3-worldmigrant dummy variable to the equation, which already includes the main-effect of that macro-characteristic. This second column of Table 6 shows the decrease in  $-2*\log$  likelihood by the addition of the interaction-variable in comparison with the  $-2*\log$  likelihood of a model with the macro-characteristic, at the cost of one degree of freedom. This interaction-variable measures the difference between the effect of a macro-characteristic on household income of 2&3-worldmigrants in comparison with the effect of that macro-characteristic on household income of non-2&3-worldmigrants. The second column of Table 6 shows that only the addition of the interaction-variable participation rate foreigners\*2&3-worldmigrants decreases  $-2*\log$  likelihood significantly. In the last column of Table 6 we add the interaction-variable between each macro-level characteristic and the interaction of 2&3-worldmigrant with educational level to the equation. This permits us to assess the degree to which the macro-level characteristics affect variation across these countries in returns to education among immigrants from Second and Third World countries. The third column of Table 6 shows that the participation rate foreigners, difference in participation rate nationals and foreigners and net migration rate decrease  $-2*\log$  likelihood significantly.

In the next step we add all these significant macro-characteristics and interaction-variables to the equation of Model 5A. We tried various combinations with the aim to delete the spurious ones and to maintain the significant ones. This is important because a number of the macro-characteristics correlate quite strongly, producing all the usual consequences of multicollinearity for model interpretation. Model 6 of Table 4 shows the best results of this addition and adjustment procedure. Due to missing values for Poland and Luxemburg on labor market participation and status recognition they are deleted from this final analysis.

The first important result is the strong effect of the participation rate in the labor market of both immigrants and the native born on the average individual household income of a country. The more immigrants participate at the labor market of a country, the higher the overall average household income. As well, the more natives participate at the labor market of a country in comparison with immigrants, the higher the overall average household income. Finally, high labor force participation rates of foreigners

increase the household income of the better-educated Second and Third World immigrants more than that of less educated Second and Third World immigrants or other types of immigrants. However, this also means that the overall return to education among all Second and Third World migrants becomes even lower than it already was.

The second interesting result is that a high rate of self-employment among immigrants actually decreases the overall average household income. A possible explanation is that a high level of self-employment among immigrants is an indicator of a large number of marginal shops and firms, which yield only small profits and thus low household income. A portion of these small profits might also be reinvested in the shops or firms, further reducing household income. However, it is important to realize that this negative effect of self-employment is observed after controlling for the labor market participation rate among immigrants.

The third result shown in the second column of Table 4 is that the length of long-term residence rights granted to immigrants is negatively associated with overall average household income. A possible explanation is that granting only short-term residence rights initially makes it possible for the authorities to quickly remove those immigrants who earn low incomes, typically by failing to find employment, by not granting a renewal of the short-term residence permit. As well, and perhaps even more important in practice, not having an immediate right to long-term residence may motivate immigrants to attain as soon as possible an income-level which gives them the right to renew a short-term residence permit. However, it is important to realize that this negative effect of long-term residence policy is found after controlling for the immigrant labor market participation rate.

A fourth interesting result is that all other macro-level variables representing policy alternatives have no significant effect on either overall average household income or the income of immigrants alone. A number of these policies are hotly debated in various countries as possible mechanisms to regulate migration streams and to improve the socioeconomic position of those who are allowed to migrate. For instance skill-selective immigration policies or restrictions on family reunification are often debated as means to improve the quality of immigrants that are admitted, but in this analysis we find no effect of these characteristics on average household income.

The fifth interesting finding is the nonsignificant effects of the percentage of immigrants in a country, the net migration rate, or the inflow of asylum seekers on the average household income. This suggests that the level of migration itself does not reduce the economic success of a country, at least to the extent that it is expressed in the average household income of the population. It only does so, if a high level of immigration leads to a low level of participation in the labor market by immigrants, as we have seen above. But our analysis shows that it is not the level of migration itself that might have a negative influence on the average household income, but that the labor force participation rate of immigrants is a central problem in highly developed country. It is also clear that not all highly developed countries of Europe and North America are as successful in achieving a high labor force participation rate among immigrants. For example, compare the 63.1 percent and 69.5 percent of Sweden and the Netherlands with the 89.5 percent and the 85.6 percent of Switzerland and the USA.

Yet a sixth result of our analysis, based on a comparison of the two columns of Table 4, is that few parameters associated with the individual characteristics have changed by

the addition of the macro characteristics, with the variables '2&3-worldmigrant' and the '2&3-worldmigrant\*education' as exceptions. The negative parameter of 2&3-worldmigrant becomes less negative after this addition, which can be interpreted to mean that specifically for them a high level of labor market participation improves their household income. This means that the household incomes of Second and Third World and First World migrants with the same individual characteristics are equal in countries with the same level of labor market participation. Note that by adding the macro-characteristics the parameter of the First World migrant dummy variable becomes as negative as that of the Second and Third World dummy, suggesting that the observed differences of labor market integration of First World and Second and Third World migrants can be fully explained by the differences in their individual characteristics (age, education, family-size) and by the macro-characteristics of the countries to which they migrated. Also the negative parameter of the variable '2&3-worldmigrant\*education' become more negative, indicating that the educational level of Second and Third World migrants has far less value in the labor market than that of other immigrants or of the native-born population. Note that when we control for important individual characteristics, First World and colonial immigrants do not have a lower return on their education. The positive parameter of 'participation rate foreigners\*2&3-worldmigrants\*educational level', which is equal in size to the negative parameter of '2&3-worldmigrant\*education', shows that only Second and Third World migrants in countries with a high labor market participation are able to neutralize the generally lower return to education among Second and Third World migrants. Note also that these Second and Third World migrants still have lower household incomes irrespective of their level of education or labor market participation.

That the parameters of the individual characteristics change little with the addition of the macro-variables to the model gives rise to a final conclusion: the effects of most individual characteristics are not strongly influenced by the immigration policies of these countries. The last column of Table 5 shows this more clearly: the between-country variation in the effect of the various immigrant types goes effectively to zero. That is, after taking into account the self-employment rate of immigrants, the difference in the labor force participation rates of immigrants and natives, the granting of long-term residence rights and the three way interaction among the Second and Third World dummy, the immigrant participation rate, and education, between country differences in the household incomes of immigrants disappear. Although these macro-characteristics are extremely important (their inclusion results in a decline of  $-2 \cdot \log$  likelihood of 4639 with only 5 degrees of freedom), between-country differences in migration policy and immigrant characteristics cannot fully explain the lower household incomes of all immigrants in the highly developed countries. An important part of these lower household incomes of immigrants and the lower return on education among Second and Third World immigrant are common to all these highly developed countries, although as we mentioned above, this does not mean that the parameter of one extreme country (for instance Holland) cannot deviate from that of another extreme country (for instance the USA), but it does mean that this parameter is equal across the range of countries.

## Conclusions

We have found that migrants from Second and Third World countries moving to Europe and North America have lower incomes than the native born, and that this income gap widens further after we controlling for individual characteristics such as age, education, and marital status. In fact controlling for these factors doubles the income gap between Second and Third World immigrants and comparable natives. To understand this partly counter-intuitive result, one should remember that as a consequence of the nature of the data sets used in this analysis, illegal immigrants are for the most part excluded. Therefore our results should be interpreted as applying to the labor market attainment of official immigrants or of illegal immigrants who have become official. This lower income for immigrants is not only true for Second and Third World immigrants, but also for First World immigrants, but only after controlling for the other individual factors. The income deficit of Second and Third World immigrants to comparable natives is more or less double that of First World immigrants. One could argue that the income deficit of First World immigrants indicates a general penalty of migration: moving to another country generally results in a loss in the capacity to earn an income equal to comparable natives. However, the Second and Third World immigrants experience a larger loss in earning capacity than First World immigrants. This larger loss might be caused by the greater cultural, social and economic distance between their country of origin and the country of destination, which decreases the applicability of their human capital. Another explanation of this larger loss might be the lower quality of education in the countries of origin in comparison with that available in the First World, which means that our control for the human capital factors is insufficient. A third explanation of this larger loss might be discrimination against immigrants, particularly immigrants of another racial background, in the labor markets of host countries. This discrimination may not necessarily be ideologically motivated (“I despise Chinese”), 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 labor market regulations and social security systems by calling for a sharper distinction between insiders and outsiders.

The returns to education are lower on average for Second and Third World immigrants than for comparable natives and First World immigrants. The three explanations of the larger income deficit of second- and Third World immigrants offered above (distance, quality, and discrimination) might be applicable here as well. However lower returns to education can also be politically risky, because such lower returns may prompt disillusionment among the better-educated immigrants, who underachieve in the labor market in relation to their expectations based on their educational attainments. The better-educated, but disillusioned immigrants can become most dangerous, because they have the cognitive means for violent action to try to change their situations, or they may simply move on to another country where their education has a better chance of being recognized.

Cross-national variability in immigrant income is very small. Only a few countries show some deviation from the reference category, the United States, notably and most clearly the Netherlands both for its First World and Second and Third World immigrants. The effects of being an immigrant and of their human capital on income are not significantly different for all other countries. The multilevel analysis shows the same

results: there are few cross-national differences in the functioning of labor markets for immigrants in these countries. This underscores an important conclusion of this analysis: lower income among immigrants is an international phenomenon, and not just characteristic of a specific society, effective or ineffective policy, or leftist or rightist governments.

However, according to our analysis, there are characteristics of labor markets that affect immigrant incomes. The higher the level of immigrant labor market participation in a country, the higher the overall average income. As well, the more natives participate at the labor market of a country in comparison with the immigrants, the higher the overall average household income. A possible explanation might be that a high labor force participation level means that a country has a low level of social security or no early retirement schemes which force workers to remain active at the labor market and to earn as much as possible to make up the shortfall in pension benefits.<sup>11</sup> Such a labor market might offer more opportunities for immigrants to find a profitable niche and earn more instead of being dependent on social welfare. However, we further find that high participation rates among immigrants increase the incomes of the better-educated Second and Third World immigrants more than those of less educated Second and Third World immigrants or other types of immigrants. In particular the overall returns to education among Second and Third World migrants is even lower in countries with high participation rates.

Consistent with both the “convergence” and “gap” hypotheses of Cornelius et al. (1994), we found just one significant effect of migration policies: the length of granted long-term residence rights to foreigners of a country is negatively associated with overall average household income. The other migration policies measured here have no significant effects on the income of migrants. This does not necessarily imply that these regulations have no effects on the economic integration of immigrants, since, for example, they might affect the labor market participation of immigrants in a country and thus indirectly their household income, but our models were not designed to detect such indirect effects. Under the gap hypothesis our negative findings are consistent with a disjuncture between the goals and outcomes of immigration policy, while under the convergence hypothesis, we would expect to observe no effects of policy at the country level, because policies are becoming increasingly similar over time. However, distinguishing the two types of effects would require longitudinal data not currently available.

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 labor market characteristics that determine economic outcomes for immigrants and not a set of isolated characteristics. The present analysis considers only household income as an outcome, but immigration policies might instead influence labor market participation by immigrants or related outcomes such as their unemployment or use of welfare benefits instead such measures of attainment as income or occupational status. Perhaps more important is the analysis of the labor market achievements of the second-generation children of immigrants, because that is the decisive generation which should successfully integrate into the economy and society of the host country. (Portes & Rumbaut, 2001). Unfortunately, good comparative data on the

success and failure of the second generation within the European Union are not available. However, a cross-national study initiated by Heath (2006) using available national statistics on labor market achievement 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 & Dronkers (2005). 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 parents were native born. Such results undermine any optimism concerning prospects for the economic, social and cultural integration of Second and Third World migrants and their children into European societies in the near future.

## 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 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 Schengen Agreement, named for the small town in Luxembourg in which it was originally signed in 1985, is a treaty on the free flow of persons between a restricted number of EU member states. It came into effect in 1995, and the original signatories, France, Belgium, the Netherlands, Luxembourg and Germany, were joined by Spain and Portugal. At the European Union summit in Amsterdam in 1997, the Schengen Agreement was brought under the auspices of the EU.

<sup>5</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>6</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>7</sup> This means that ex ante selection based on labor market requirements prevails. Such a policy is not always easy to identify as most countries have certain labor market considerations (e.g. companies can request special employees on basis of their skills)

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built into their migration laws, but skill-selection usually means special a priori schemes which are focused on highly skilled workers.

<sup>8</sup> For an overview of the issues in the case of regression models, see Winship and Radbill (1994). In short, their advice is to use weights only for estimates of univariate population parameters and in regression models in which the dependent variable is correlated with the weights. In our data, the correlation between the person weights and the log of household income is a miniscule  $-.034$ , suggesting that the lack of weights should not significantly bias our modeling results.

<sup>9</sup> The parameters of the country dummies are more or less self-evident. Since the USA is the reference category and one of the richest countries, most country dummies are negative, particularly for the poorest countries in our sample (Czech Republic, Hungary, and Poland). We will not comment on these country dummy parameters.

<sup>10</sup> Interactions of immigrant-type dummy variables with other country dummies were nonsignificant and the model reestimated after deleting them.

<sup>11</sup> For example, in Canada the rate of labour force participation among men age 65 and over dropped precipitously after the introduction of the Canada Pension Plan in the late 1960s. Nearly half the men in this age group were in the labor force in 1946 compared to just over 11 percent by 1986.

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Table 1: Means and standard deviations of the variables per type of migrant and per country

Country & migrant	N	Log household income	Age	N in House Hold	Male	Educational Highest level	Small place of residence	Married	Divorced /separated	Widowed	Socioeconomic index	Missing Socioeconomic index
Total												
Non-migrant	31453	4.31 (.44)	45.96 (17.63)	2.94 (1.45)	.51 (.50)	2.93 (1.44)	2.11 (.83)	.58 (.49)	.08 (.27)	.07 (.26)	42.22 (17.97)	.14 (.34)
1-world migrant	1225	4.46 (.39)	48.25 (16.02)	2.83 (1.40)	.52 (.50)	3.35 (1.57)	1.96 (.87)	.62 (.48)	.11 (.31)	.07 (.25)	45.05 (15.43)	.17 (.37)
2 & 3world migrant	2129	4.37 (.42)	41.06 (15.37)	3.39 (1.60)	.51 (.50)	3.05 (1.58)	1.61 (.76)	.62 (.48)	.07 (.26)	.05 (.23)	40.39 (15.43)	.19 (.39)
Migrant colonies	253	4.38 (.40)	43.41 (15.47)	3.27 (1.55)	.52 (.50)	3.14 (1.47)	1.56 (.70)	.62 (.49)	.08 (.27)	.08 (.27)	42.40 (15.78)	.10 (.31)
Austria												
Non-migrant	1302	4.34 (.30)	44.89 (15.98)	3.10 (1.46)	.52 (.50)	3.31 (1.28)	2.06 (.88)	.60 (.49)	.08 (.27)	.06 (.24)	43.52 (13.12)	.09 (.29)
1-world migrant	40	4.36 (.29)	45.56 (13.59)	2.90 (1.33)	.63 (.49)	4.08 (1.46)	1.82 (.83)	.60 (.50)	.10 (.30)	.07 (.26)	51.88 (13.83)	.07 (.26)
2 & 3world migrant	89	4.29 (.33)	42.89 (16.09)	3.17 (1.41)	.49 (.50)	3.61 (1.76)	1.43 (.73)	.67 (.47)	.04 (.20)	.04 (.19)	41.51 (15.03)	.10 (.30)
Migrant K. & K.	27	4.22 (.36)	47.40 (17.75)	3.06 (1.85)	.61 (.50)	3.60 (1.64)	1.54 (.77)	.64 (.49)	.06 (.25)	.05 (.22)	41.33 (15.36)	.07 (.25)
Belgium												
Non-migrant	1385	4.35 (.30)	45.79 (17.66)	2.82 (1.34)	.48 (.50)	3.04 (1.49)	2.32 (.81)	.55 (.50)	.12 (.33)	.07 (.26)	43.15 (15.56)	.12 (.33)
1-world migrant	64	4.38 (.28)	49.26 (14.86)	2.78 (1.23)	.47 (.50)	3.33 (1.74)	1.88 (.88)	.66 (.48)	.11 (.31)	.03 (.18)	44.92 (15.38)	.09 (.29)
2 & 3world migrant	48	4.39 (.27)	41.15 (13.77)	3.58 (1.96)	.50 (.50)	3.54 (1.80)	1.85 (.85)	.65 (.48)	.10 (.31)	.04 (.20)	41.35 (14.81)	.23 (.42)
Switzerland												
Non-migrant	1278	4.68 (.30)	46.40 (16.69)	2.83 (1.36)	.49 (.50)	3.26 (1.04)	2.43 (.79)	.62 (.49)	.09 (.29)	.04 (.21)	47.03 (15.47)	.06 (.24)
1-world migrant	149	4.66 (.33)	51.49 (13.11)	2.58 (1.32)	.44 (.50)	3.51 (1.36)	2.31 (.78)	.68 (.47)	.14 (.34)	.06 (.24)	47.24 (17.01)	.05 (.21)
2 & 3world migrant	108	4.62 (.34)	39.22 (12.82)	3.20 (1.23)	.61 (.49)	3.31 (1.17)	1.98 (.81)	.67 (.47)	.09 (.28)	.02 (.15)	43.92 (16.17)	.10 (.30)
Czech Rep												
Non-migrant	917	3.93 (.31)	49.72 (16.66)	2.95 (1.31)	.50 (.50)	3.13 (.84)	2.07 (.78)	.66 (.47)	.11 (.31)	.10 (.31)	41.20 (14.03)	.07 (.26)
2 & 3world migrant	44	3.72 (.28)	60.02 (19.92)	2.53 (1.18)	.55 (.50)	2.95 (1.06)	1.93 (.77)	.64 (.49)	.14 (.35)	.17 (.38)	37.24 (15.23)	.15 (.36)
Germany												
Non-migrant	2114	4.40 (.31)	48.04 (17.00)	2.51 (1.25)	.52 (.50)	3.39 (1.03)	1.92 (.77)	.58 (.49)	.10 (.30)	.08 (.28)	43.88 (14.60)	.08 (.27)
1-world migrant	30	4.37 (.19)	46.75 (13.86)	2.25 (1.35)	.63 (.49)	3.75 (1.15)	1.79 (.72)	.54 (.51)	.29 (.46)	.13 (.34)	41.93 (16.44)	.08 (.28)
2 & 3world migrant	165	4.34 (.28)	41.10 (15.27)	3.17 (1.42)	.52 (.50)	3.06 (1.16)	1.69 (.65)	.67 (.47)	.09 (.29)	.06 (.23)	38.48 (13.85)	.17 (.37)
Migrant German c.	30	4.28 (.20)	38.13 (10.15)	3.63 (1.52)	.46 (.51)	2.42 (.97)	1.46 (.59)	.75 (.44)	.13 (.34)	.00 (.00)	35.13 (9.59)	.25 (.44)
Denmark												
Non-migrant	1226	4.51 (.29)	46.99 (16.80)	3.02 (1.44)	.54 (.50)	3.17 (1.18)	1.71 (.66)	.65 (.48)	.12 (.33)	.07 (.25)	42.29 (16.57)	.03 (.17)
2 & 3world migrant	54	4.49 (.38)	39.85 (14.07)	3.30 (1.69)	.56 (.50)	3.41 (1.24)	1.56 (.63)	.63 (.49)	.09 (.29)	.06 (.23)	41.33 (17.06)	.09 (.29)

Spain													
Non-migrant	962	4.13 (.31)	47.85 (18.79)	3.30 (1.41)	.52 (.50)	2.08 (1.60)	2.19 (.83)	.61 (.49)	.03 (.17)	.08 (.28)	36.69 (13.74)	.29 (.40)	
2 & 3world migrant	27	4.15 (.38)	34.79 (14.23)	3.61 (1.30)	.65 (.49)	2.77 (1.49)	1.99 (.83)	.64 (.49)	.13 (.35)	.03 (.17)	31.13 (13.54)	.15 (.36)	
Finland													
Non-migrant	1735	4.35 (.29)	46.62 (17.66)	2.44 (1.32)	.51 (.50)	2.95 (1.46)	2.15 (.82)	.52 (.50)	.10 (.31)	.06 (.24)	41.58 (16.85)	.03 (.16)	
2 & 3world migrant	50	4.29 (.31)	38.14 (14.50)	2.76 (1.39)	.66 (.48)	3.17 (1.24)	1.78 (.79)	.58 (.50)	.12 (.33)	.04 (.20)	40.22 (17.52)	.14 (.35)	
UK													
Non-migrant	1573	4.45 (.38)	46.91 (17.75)	2.61 (1.27)	.51 (.50)	3.01 (1.27)	2.01 (.74)	.57 (.50)	.10 (.30)	.07 (.26)	42.76 (16.75)	.02 (.14)	
1-world migrant	48	4.50 (.42)	43.75 (16.98)	2.53 (1.42)	.56 (.50)	3.51 (1.34)	1.81 (.80)	.48 (.51)	.10 (.30)	.08 (.27)	44.89 (19.63)	.01 (.11)	
2 & 3world migrant	114	4.42 (.45)	41.05 (13.17)	2.97 (1.33)	.50 (.50)	3.49 (1.45)	1.45 (.61)	.60 (.49)	.11 (.32)	.04 (.19)	48.38 (17.08)	.14 (.35)	
Migrant colonies	85	4.47 (.44)	42.47 (14.92)	2.89 (1.36)	.51 (.50)	3.47 (1.44)	1.53 (.69)	.64 (.48)	.07 (.25)	.07 (.25)	46.66 (18.09)	.05 (.22)	
Greece													
Non-migrant	1605	4.07 (.36)	49.12 (18.51)	3.17 (1.45)	.56 (.50)	2.19 (1.59)	1.83 (.91)	.69 (.46)	.02 (.14)	.09 (.28)	38.62 (13.57)	.24 (.43)	
1-world migrant	29	4.05 (.26)	32.51 (8.44)	3.34 (1.44)	.59 (.50)	2.71 (1.32)	1.80 (.94)	.53 (.51)	.00	.00	39.93 (15.62)	.14 (.36)	
2 & 3world migrant	158	4.02 (.35)	40.97 (15.76)	3.53 (1.50)	.45 (.50)	2.44 (1.28)	1.32 (.64)	.65 (.48)	.04 (.20)	.08 (.27)	30.67 (13.73)	.09 (.28)	
Hungary													
Non-migrant	1440	3.64 (.41)	47.01 (18.00)	3.15 (1.54)	.53 (.50)	2.26 (1.51)	2.17 (.79)	.57 (.50)	.10 (.30)	.13 (.33)	39.61 (14.60)	.12 (.32)	
2 & 3world migrant	31	3.57 (.31)	56.16 (18.54)	2.77 (1.28)	.55 (.51)	2.00 (1.39)	2.35 (.84)	.74 (.44)	.03 (.18)	.16 (.37)	31.69 (9.14)	.10 (.30)	
Ireland													
Non-migrant	1599	4.14 (.46)	44.72 (17.14)	3.52 (1.70)	.53 (.50)	2.72 (1.52)	2.12 (.88)	.57 (.50)	.04 (.20)	.08 (.27)	41.48 (15.33)	.12 (.33)	
1-world migrant	120	4.22 (.47)	42.50 (13.33)	3.44 (1.61)	.62 (.49)	3.57 (1.43)	2.12 (.83)	.66 (.48)	.09 (.29)	.04 (.19)	46.23 (18.02)	.07 (.25)	
Italy													
Non-migrant	638	4.25 (.34)	46.03 (17.12)	3.18 (1.23)	.52 (.50)	2.25 (1.20)	2.27 (.63)	.63 (.48)	.04 (.20)	.07 (.25)	39.09 (14.23)	.21 (.40)	
Luxemburg													
Non-migrant	624	4.60 (.28)	43.77 (17.65)	3.04 (1.44)	.51 (.50)	2.88 (1.64)	2.30 (.80)	.55 (.50)	.09 (.28)	.08 (.27)	45.72 (15.10)	.18 (.38)	
1-world migrant	182	4.59 (.28)	44.72 (14.61)	2.88 (1.31)	.44 (.50)	3.37 (1.89)	2.22 (.88)	.66 (.48)	.09 (.29)	.04 (.19)	45.34 (15.22)	.15 (.35)	
2 & 3world migrant	198	4.49 (.23)	36.22 (12.09)	3.49 (1.28)	.52 (.50)	2.35 (1.59)	2.03 (.84)	.69 (.47)	.04 (.19)	.01 (.11)	35.57 (14.34)	.13 (.34)	
Netherlands													
Non-migrant	1886	4.45 (.31)	46.07 (16.19)	2.94 (1.36)	.53 (.50)	3.01 (1.30)	2.21 (.83)	.66 (.47)	.05 (.23)	.05 (.23)	47.20 (15.67)	.05 (.22)	
1-world migrant	37	4.30 (.43)	44.19 (17.43)	2.91 (1.40)	.65 (.48)	3.33 (1.52)	2.05 (.86)	.52 (.51)	.11 (.31)	.07 (.25)	43.82 (17.32)	.04 (.20)	
2 & 3world migrant	95	4.31 (.34)	43.42 (13.79)	3.27 (1.45)	.42 (.50)	2.80 (1.34)	1.66 (.82)	.68 (.47)	.07 (.26)	.10 (.30)	44.38 (15.87)	.08 (.27)	
Migrant colonies	22	4.41 (.32)	54.53 (15.88)	2.49 (1.29)	.42 (.51)	2.87 (1.07)	1.69 (.83)	.53 (.51)	.09 (.29)	.27 (.45)	48.24 (13.06)	.09 (.29)	
Norway													

Non-migrant	1856	4.55 (.35)	46.98 (17.42)	2.60 (1.32)	.45 (.50)	3.42 (1.12)	2.20 (.87)	.52 (.50)	.09 (.28)	.07 (.26)	42.71 (14.86)	.15 (.35)
1-world migrant	42	4.60 (.29)	47.68 (15.52)	2.41 (1.38)	.49 (.51)	3.98 (1.43)	1.66 (.83)	.46 (.50)	.08 (.27)	.14 (.35)	46.51 (15.99)	.14 (.35)
2 & 3world migrant	81	4.54 (.40)	37.87 (12.54)	2.65 (1.42)	.43 (.50)	3.60 (1.27)	1.73 (.84)	.55 (.50)	.07 (.26)	.02 (.15)	44.09 (16.01)	.18 (.39)
Poland												
Non-migrant	1769	3.71 (.35)	42.99 (18.40)	3.67 (1.68)	.51 (.50)	2.49 (1.50)	2.24 (.78)	.59 (.49)	.04 (.19)	.09 (.29)	38.96 (14.51)	.15 (.35)
Portugal												
Non-migrant	929	4.02 (.38)	48.58 (18.18)	3.07 (1.32)	.56 (.50)	1.49 (1.23)	2.05 (.84)	.72 (.45)	.03 (.18)	.09 (.28)	36.65 (14.99)	.13 (.34)
2 & 3world migrant	49	4.12 (.34)	40.32 (11.58)	3.60 (1.18)	.55 (.50)	2.38 (1.48)	1.47 (.60)	.58 (.50)	.02 (.14)	.06 (.24)	40.70 (13.66)	.01 (.09)
Migrant colonies	31	4.12 (.36)	37.83 (10.09)	3.61 (1.24)	.52 (.51)	2.23 (1.09)	1.61 (.65)	.61 (.49)	.02 (.13)	.00 (.00)	40.29 (11.60)	.01 (.09)
Sweden												
Non-migrant	1669	4.41 (.27)	47.01 (18.15)	2.53 (1.32)	.48 (.50)	3.05 (1.84)	2.02 (.80)	.47 (.50)	.09 (.29)	.06 (.23)	43.47 (16.76)	.01 (.12)
1-world migrant	72	4.41 (.27)	54.61 (14.81)	2.35 (1.21)	.60 (.49)	3.05 (2.01)	1.64 (.76)	.51 (.50)	.17 (.38)	.10 (.30)	41.39 (18.55)	.03 (.17)
2 & 3world migrant	125	4.35 (.30)	40.41 (15.73)	2.94 (1.54)	.43 (.50)	3.42 (1.76)	1.54 (.68)	.47 (.50)	.15 (.36)	.02 (.13)	42.85 (19.94)	.06 (.25)
USA												
Non-migrant	2611	4.61 (.38)	42.90 (17.88)	3.1 (1.55)	.52 (.50)	3.54 (1.25)	2.00 (.83)	.54 (.50)	.12 (.33)	.06 (.23)	42.56 (13.41)	.34 (.47)
1-world migrant	58	4.50 (.53)	45.08 (19.89)	2.67 (1.33)	.60 (.49)	3.63 (1.40)	1.75 (.88)	.50 (.50)	.14 (.35)	.10 (.30)	43.00 (14.50)	.46 (.50)
2 & 3world migrant	330	4.56 (.43)	40.13 (15.38)	3.79 (1.82)	.52 (.50)	3.12 (1.90)	1.60 (.70)	.60 (.49)	.06 (.23)	.08 (.24)	41.11 (15.82)	.31 (.46)
Migrant colonies	34	4.64 (.40)	49.44 (18.92)	4.07 (1.90)	.52 (.51)	3.42 (1.83)	1.48 (.72)	.54 (.50)	.04 (.19)	.20 (.41)	44.34 (13.70)	.31 (.47)
Canada												
Non-migrant	2335	4.48 (.37)	42.15 (17.64)	3.00 (1.40)	.52 (.50)	3.09 (1.30)	2.07 (.89)	.50 (.50)	.10 (.30)	.07 (.25)	43.12 (10.35)	.30 (.46)
1-world migrant	308	4.52 (.34)	53.43 (16.66)	2.90 (1.35)	.50 (.50)	3.10 (1.46)	1.75 (.88)	.70 (.46)	.10 (.31)	.08 (.27)	45.00 (10.60)	.36 (.48)
2 & 3world migrant	334	4.41 (.43)	41.81 (16.32)	3.88 (1.84)	.53 (.50)	3.21 (1.54)	1.25 (.57)	.60 (.49)	.07 (.25)	.07 (.25)	42.72 (10.25)	.35 (.48)

Note: Only those type of migrants per country, which have a N equal or larger than 20, are shown here and used in the further analyses. These results are weighted for design weight.

Table 2: OLS Regressions of Log Household Income on Migrant Type, Individual Characteristics, Country Dummy Variables and Second Order Interactions (Unstandardized Coefficients) .

Variables	Model 1: migrant types & countries	Model 2: 1 & characteristics & interactions with gender	Model 3: 2 & interactions with migrant types	Model 4: 3 & interactions country migrant	Model 5: 4 & socioeconomic status & interactions with migrant types
1-world migrant	.02*	-.01*	-.11	-.10	-.11
2 & 3 world migrant	-.06	-.12	-.23	-.21	-.19
colonies migrant	.05	.04*	-.05	-.07	-.07
Education		.07	.07	.07	.05
N household		.06	.06	.06	.06
Married		.05	.06	.06	.05
Age*10		.04	.04	.04	.02
Age <sup>2</sup> *1000		.05	.05	.05	.03
Small Residence		-.03	-.03	-.03	-.02
Male		-.05	-.05	-.05	-.03
Divorced/separated		-.02	-.02	-.02	-.02
Widowed		-.05	-.05	-.05	-.05
Male*Married		.04	.04	.04	.05
Male*Divorced		-.04	-.04	-.04	-.04
1-world*age*10			.02	.02	.02
2 & 3 world*education			-.02	-.02	-.02
2 & 3 world*age*10			.04	.02	.04
2 & 3 world*male			.04	.04	.05
2 & 3 world*married			-.06	-.06	-.06
2 & 3 world*residence size			.03	.02	.02*
Colonies*married			.13	.13	.11
1-world Canada				.05	.04
1-world* Holland				-.13	-.12
2 & 3 world*Czech				-.12	-.12
2 & 3 world*Canada				-.07	-.05
2 & 3 world*Holland				-.11	-.12
Colonies*Holland				.16	.16
Socioeconomic index*10					.04
Missing Socioeconomic index					-.08
Male*isei*10					-.01
2 & 3 world* missing isei					-.06
Austria	-.26	-.25	-.25	-.25	-.28
Belgium	-.25	-.19	-.19	-.19	-.22
Schweiz	.07	.11	.11	.11	.06
Czech R.	-.69	-.65	-.65	-.65	-.67
Germany	-.20	-.16	-.16	-.16	-.19
Denmark	-.09	-.05	-.05	-.05	-.07
Spain	-.47	-.38	-.38	-.38	-.40
Finland	-.26	-.17	-.17	-.17	-.20
UK	-.16	-.10	-.09	-.09	-.13
Greece	-.54	-.46	-.46	-.46	-.48
Hungary	-.96	-.87	-.87	-.87	-.90
Ireland	-.46	-.44	-.44	-.44	-.47
Italy	-.35	-.27	-.27	-.27	-.30
Luxemburg	-.02*	.04	.04	.04	.00*
Holland	-.16	-.12	-.12	-.11	-.17
Norway	-.06	-.02*	-.01*	-.01*	-.03
Poland	-.89	-.85	-.85	-.85	-.88
Portugal	-.57	-.44	-.44	-.44	-.48
Sweden	-.20	-.13	-.13	-.13	-.17
Canada	-.13	-.09	-.09	-.09	-.10
Constant	4.61	4.15	4.17	4.16	4.13
Adjusted R <sup>2</sup>	.38	.53	.53	.53	.54

Note: Non-migrant and USA are the reference categories of the three types of migrants and the countries; \* not significant. These results are weighted for design weight.



Table 3: Macro-Level Characteristics of Countries in the Analysis

Countries	GNI per capita (2002)	Social expenses per GDP (1998)	Foreigners as % of population (2000)	Net migration rate (2003)	Weighted inflow asylum seekers (2000)	Status recognized (2000)	Naturalization in % of stock of foreigners	Stock foreign labor force (2000)	Unemployment rate (2002)	Weighted unemployment male foreigners (2000-01)	Weighted self-employment foreigners (2001)
Austria	23.390	26,8	9,3%	2,4	3,7	4%	3,3%	10,5%	4,8%	4,5%	0,8
Belgium	23.250	24,5	8,4%	1,0	2,4	27%	7,2%	8,9%	7,2%	9,6%	1,1
Canada	22.300	18,0	15,4%	6,0	1,4	47%	4,3%	19,2%	7,6%	-0,4%	
Czech Republic	5.560	19,4	2,0%	1,0	1,8	1%	3,6%	2,0%	9,8%	0,5%	1,8
Denmark	30.290	29,8	4,8%	2,0	2,3	52%	7,3%	3,4%	5,1%	8,6%	1,2
Finland	23.510	26,5	1,8%	0,6	0,3	38%	3,3%	1,5%	8,5%	14,2%	1,1
Germany	22.670	27,3	8,9%	2,2	1,1	25%	2,6%	8,8%	9,8%	6,2%	0,9
Greece	11.660	22,7	2,2%	2,0	0,5	18%	0,3%	3,8%	10,3%	0,4%	0,4
Hungary	5.280	14,4	1,3%	0,8	1,0	5%	5,9%	0,9%	5,8%		1,0
Ireland	23.870	15,8	3,2%	3,6	2,7	4%	0,9%	3,7%	4,3%	1,0%	1,2
Italy	18.960	25,1	2,4%	2,1	0,2	20%	1,0%	3,6%	9,1%	-0,6%	0,7
Luxembourg	38.830	22,1	36,3%	9,1	1,6	22%	0,4%	57,3%	4,1%	-1,3%	0,9
Netherlands	23.960	23,9	4,1%	2,4	2,1	15%	7,5%	3,4%	3,0%	2,8%	1,0
Norway	37.850	27,0	4,0%	2,1	3,3	33%	5,2%	3,2%	3,9%	1,6%	1,0
Poland	4.570	22,8	0,5%	-0,5	0,1	5%	0,6%		18,1%		
Portugal	10.840	18,2	2,1%	0,5	0,0	23%	0,3%	2,0%	4,7%	5,3%	0,9
Spain	14.430	19,7	2,2%	1,0	0,2	6%	1,3%	1,2%	11,3%	3,6%	1,2
Sweden	24.820	31,0	5,4%	1,0	2,7	27%	9,1%	5,0%	4,0%	10,6%	0,9
Switzerland	37.930	28,3	19,1%	1,4	2,9	36%	2,1%	18,3%	1,9%	3,0%	0,8
United Kingdom	25.250	24,7	3,9%	2,2	1,5	26%	3,5%	4,4%	5,2%	4,3%	1,1
United States	35.060	14,6	9,8%	3,5	0,3	30%	3,1%	12,4%	5,8%	-0,5%	1,2

Table 3 (continued): Macro-Level Characteristics of Countries in the Analysis

Countries	Participation rate nationals (2000-01)	Participation rates foreigners (2000-01)	Difference in participation rate national-foreigners	Foreigners with third level education	Member Schengen agreement	Immigration regulated via annual quota system	Skill-selective immigration policy	Granting of long-term residence rights (years)	Family reunification of non-married couples?	Family reunification beyond spouse and children?	Full access to social security system for family members?	Family reunification principle recognized right / concept of immigration law?
Austria	78,9%	85,1%	-6,2%	13,3%	Y	Y	Y	5	N	N	N	Y
Belgium	73,3%	72,4%	0,9%	20,2%	Y	N	N	7	N	Y	Y	Y
Canada	73,8%	68,4%	5,4%	22,9%	N	Y	Y	0	N	Y	Y	Y
Czech Republic	78,7%	87,8%	-9,1%	23,4%	N	N	N	8	N	N	N	N
Denmark	84,1%	71,2%	12,9%	27,7%	Y	N	N	7	Y	N	N	Y
Finland	79,4%	83,1%	-3,7%	28,6%	Y	N	N	2	Y	Y	N	Y
Germany	78,9%	77,6%	1,3%	15,2%	Y	N	N	5	N	N	Y	Y
Greece	76,2%	89,2%	-13,0%	19,6%	Y	Y	Y	10	N	N	N	Y
Hungary	67,6%	77,8%	-10,2%	28,1%	N	N	N	3	N	N	N	N
Ireland	79,2%	77,0%	2,2%		N	N	Y	10	N	N	N	Y
Italy	73,6%	87,7%	-14,1%	13,0%	Y	Y	N	5	N	Y	Y	Y
Luxembourg	74,0%	79,7%	-5,7%	21,7%	Y	N	N	-	N	N	N	N
Netherlands	84,9%	69,5%	15,4%	21,6%	Y	N	N	5	Y	Y	Y	Y
Norway	84,6%	82,1%	2,5%	36,5%	Y	N	N	7	Y	Y	N	Y
Poland					N	N	N	5	N	N	N	Y
Portugal	79,0%	81,5%	-2,5%	14,3%	Y	Y	Y	5	N	Y	N	Y
Spain	77,3%	85,4%	-8,1%	28,8%	Y	Y	N	5	N	Y	Y	Y
Sweden	78,0%	63,1%	14,9%	29,9%	Y	N	N	5	Y	N	N	Y
Switzerland	89,2%	89,5%	-0,3%	23,7%	N	Y	Y	10	N	Y	N	Y
United Kingdom	83,1%	75,6%	7,5%	39,3%	N	N	Y	4	Y	Y	N	Y
United States	80,7%	85,6%	-4,9%	40,9%	N	Y	Y	0	N	Y	N	Y

Table 4: Multilevel regression of log household income on migrant type, significant individual characteristics, macro-characteristics of migration and their second order interactions

Variables	Model 5A	Model 6
1-world migrant	-.08 (.03)	-.11 (.04)
2 & 3 world migrant	-.17 (.03)	-.11 (.03)
Colonies migrant	-.03 (.03)	-.04 (.04)
Education	.05 (.00)	.05 (.00)
N household	.06 (.00)	.06 (.00)
Married	.05 (.01)	.05 (.01)
Age*10	.02 (.01)	.03 (.01)
Age <sup>2</sup> *1000	.05 (.01)	.05 (.01)
Small residence size	-.02 (.00)	-.02 (.00)
Male	-.04 (.01)	.02 (.01)
Divorced/separated	-.02 (.01)	-.02 (.01)
Widowed	-.04 (.01)	.06 (.01)
Male*Married	.06 (.01)	.06 (.01)
Male*Divorced	-.04 (.01)	-.05 (.01)
1-world*age*10	.02 (.01)	.02 (.01)
2 & 3 world*education	-.02 (.00)	-.06 (.02)
2 & 3 world*age*10	.03 (.01)	.02 (.01)
2 & 3 world*male	.05 (.01)	.05 (.01)
2 & 3 world*married	-.05 (.02)	-.05 (.02)
2 & 3 world*small residence size	.02 (.01)	.02 (.01)
Colonies*married	.11 (.04)	.11 (.04)
Socioeconomic index*10	.04 (.00)	.05 (.00)
Missing Socioeconomic index	-.08 (.01)	-.10 (.01)
Male*isei*10	.01 (.00)	-.01 (.00)
2 & 3 world* missing isei	-.08 (.02)	-.05 (.02)
GNI per capita (2002)		
Social expenses per GDP (1998)		
Foreigners as % of population (2000)		
Net migration rate (2003)		
Weighted inflow asylum seekers (2000)		
Status recognized (2000)		
Naturalization in % of stock of foreigners		
Stock foreign labor force (2000)		
Unemployment rate (2002)		
Weighted unemployment male foreigners (2000-01)		
Weighted self-employment foreigners (2001)		-.33 (.09)
Participation rate nationals (2000-01)		
Participation rates foreigners (2000-01)		4.61 (.73)
Participation rate national-foreigners		4.62 (.60)
Foreigners with third level education		
Member Schengen agreement		
Immigration regulated via annual quota system		
Skill-selective immigration policy		
Granting of long-term residence rights (years)		-.04 (.01)
Family reunification recognized right / concept of immigration law		
Family reunification of non-married couples		
Family reunification beyond spouse and children		
Full access to social security system for family members		
Participation rates foreigners (2000-01)* 2 & 3 world*education		.06 (.03)
Constant	3.82 (.06)	.64 (.56)
Individual variance	.09 (.00)	.09 (.00)
Country variance	.07 (.02)	.01 (.00)
-2*log likelihood	14893	10254

Note: unstandardized parameters with standard errors in parentheses; empty cells indicate nonsignificant parameters

Table 5: Change in  $-2 \cdot \log$  likelihood by assuming ad random variance between countries of the individual independent variables in the various Models

Variables	Table 4, Model 5A	Table 4, Model 6
1-world migrant	-2	0
2 & 3 world migrant	-3	0
Colonies migrant	0	0
Education	-447	-416
N household	-198	-98
Married	-108	-42
Age	-305	-247
Age <sup>2</sup>	-342	-256
Small residence size	-214	-138
Male	-9	-6
Divorced/separated	-33	-35
Widowed	-128	-83
Socioeconomic index	-205	-185
Missing Socioeconomic index	-203	-124

Table 6: Change in -2\*log likelihood by adding separately the macro-characteristics of migration and their interaction with 2 & 3 world migrant and with 2 & 3 world migrant\*educational level

	Main effect	Interaction with 2 & 3 world migrant	Interaction with 2 & 3 world migrant *educational level
GNI per capita (2002)	40	2	2
Social expenses per GDP (1998)	5	0	0
Foreigners as % of population (2000)	7	2	2
Net migration rate (2003)	5	4	6
Weighted inflow asylum seekers (2000)	3	1	4
Status recognized (2000)	16	0	1
Naturalization in % of stock of foreigners	1	3	5
Stock foreign labor force (2000)	1152	1	1
Unemployment rate (2002)	9	0	0
Weighted unemployment male foreigners (2000-01)	2100	1	0
Weighted self-employment foreigners (2001)	2997	1	0
Participation rate nationals (2000-01)	1155	2	5
Participation rates foreigners (2000-01)	1048	8	16
Participation rate $\square$ in %	1153	3	7
Foreigners with third level education	2999	2	5
Member Schengen agreement	2	0	0
Immigration regulated via annual quota system	0	0	0
Skill-selective immigration policy	0	0	0
Granting of long-term residence rights (years)	1660	0	0
Family reunification recognized right / concept of immigration law	3	2	0
Family reunification of non-married couples	3	0	0
Family reunification beyond spouse and children	4	0	1
Full access to social security system for family members	0	4	4