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The institutional framework of ethnic inclusion and exclusion: A cross-national analysis of the earnings of foreigners in Germany and immigrants in Canada

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**THE INSTITUTIONAL FRAMEWORK OF  
ETHNIC INCLUSION AND EXCLUSION:**

**A Cross-National Analysis of the Earnings of  
Foreigners in Germany And Immigrants in Canada**

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## **Abstract**

The European social-welfare model differs from the North American individualistic model in the patterns, more than the overall extent, of ethnic inclusion and exclusion. Focussing on foreigners in Germany and immigrants in Canada as illustrative cases, conventional earnings decomposition analysis is extended cross-nationally to highlight institutional effects, using the German Socio-Economic Panel (GSOEP) first wave for 1984, and the 1986 Canadian Census. German education and labor market institutions benefit low-skill migrants, but generate less earnings assimilation. Such assimilation in Canada is greater but varies more by ethnic and racial origins. Institutional frameworks may generate social imperatives shaping patterns of ethnic inclusion and exclusion, quite apart from national policies of citizenship or culture.

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History and popular mythology, as well as law and public policy, all suggest that the United States or Canada compared to Europe are very different places for the settlement of migrants from other lands. The North American countries were built by immigrants, they welcome immigrants, Americans and Canadians 'are all immigrants,' so goes the slogan. Even if the strange cultures of new groups of immigrants raise concerns for some (and native-born racial minorities remain marginal), a basic openness to immigration is part of the North American heritage, built into the fabric of society. It would seem that Europe in this regard could not be more different, given its traditions of ethnic nationalism and pride in the self-sufficiency and vitality of its ancestral cultures. In this environment, if new settlers are needed it is only for specific economic tasks. Cultural contributions are neither needed nor expected -- and not wanted at all. Acceptance of newcomers as permanent settlers in Europe would seem to be fraught with problems and difficulty.

These differences are more than public stereotypes, given their powerful political expression in citizenship and employment law, and in cultural and social policy (Booth 1985; deRham 1990; Hoskin 1991; Castles 1992; Brubaker 1989a, 1992, pp. 50-72; Soyak 1994). Here we will address the question of what consequences they have for everyday experiences of inclusion and exclusion for migrants in the two settings. One theme of commentary as migrant settlement in Europe became noticed as a trend in the decades after World War II was that the differences may be more apparent than real (Power 1979; Faist

1995b). Migration after all responds to economic forces, and North America and Europe share the economic institutions and imperatives of industrial capitalism (Castles and Kosack 1985; Bendix 1990; Cross 1992; Hollifield 1992; Zimmerman 1995). Yet economic institutions are 'embedded' in a social and cultural framework (Granovetter 1985; Kalleberg and Berg 1987), which may respond to ethnicity and racialization as fundamental forces shaping economic behaviour (Portes and Sensenbrenner 1993). If so the mythology may have to be taken seriously as shaping social reality.

There are two distinct dimensions of the Europe-North American social divide which may affect immigrant integration. The most prominent has been the question of the newcomers' acceptance within institutions, which in the case of labor markets raises the issue of direct or indirect employment discrimination based on ethnicity or race. If North American institutions are more open to newcomers, does this really imply more equal treatment within mainstream institutions such as labor markets? A second dimension relates to the structure of institutions themselves. Compared to North America, Europe maintains a tradition of broader guarantees for collective social and economic welfare, which may potentially benefit newcomers. North Americans leave actual economic outcomes to relatively unregulated individualistic competition which may be a forbidding prospect for newly-arriving outsiders. Do the European collective agreements protect less-skilled workers and thus facilitate the settlement of newcomers? At the macro-sociological level, these two potentially offsetting institutional dimensions may in fact be related to one another. A dynamic tension between institutional collectivism and tolerance of diversity may animate both settings, albeit working itself out in different ways.

This paper explores these issues in a detailed quantitative measurement of both abovementioned institutional forces affecting the inclusion and exclusion of migrant ethnic communities in Europe and North America. A previous comparison of the three traditional immigrant-receiving societies of the United States, Canada and Australia (Reitz 1998) showed that even in these cases, there are variations in institutional structures along the individualist-collectivist dimension which do matter. American education

and labor markets both reflect greater individualism and both produce lower earnings for immigrants, particularly in the high-immigration cities. In these three cases, any differences in the treatment of immigrants within institutions appear to be fairly small. The analysis here considers the more dramatic institutional contrasts provided by the European case. On the one hand, the stronger social democratic tradition in Europe may increase the impact of institutional structures; on the other hand the potential for offsetting differences in the treatment of immigrants within institutions may also be greater.

The analysis here focuses on the illustrative cases of Germany and Canada. As will be seen, these cases are not only representative, their comparison is strategic, facilitating the identification of institutional effects in two ways. First, both Germany and Canada accepted large and quite comparable migrant populations from Southern Europe over a period of decades following World-War II -- guestworkers“ in Germany, economic immigrants in Canada. Though the two countries have since diverged in patterns of in-migration, the similarity of earlier migrant origins and individual characteristics offers a macro-level ‘control’ variable in addition to controls which are possible statistically. Second, for both cases there are nationally-representative quantitative data available which have been used to examine migrant earnings in each country -- the public use census file for Canada (Li 1988; Borjas 1990; Boyd 1992; Reitz and Breton 1994; Baker and Benjamin 1997; Reitz 1998), and the Socio-Economic Panel Survey for Germany (Pischke 1992; Dustmann 1993; Licht and Steiner 1994; Seifert 1995; Haisken-DeNew 1996). These data can be used to prepare parallel earnings decomposition analyses measuring the extent to which earnings disparities are due to differences in migrant treatment within labor market institutions in each respective country. Then, the decompositions can be extended to a cross-national level, to measure the effects of country-specific institutions. The extension involves substitution of institutional parameters from earnings determination equations of one society into parallel earnings determination analysis for the other (a procedure used in the previous comparison of the US, Canada and Australia; Reitz 1998).

## **Two Institutional Dimensions**

The two institutional dimensions – the degree of individualism or collectivism of basic institutional structures, and the degree of equality within institutions – may shape many facets of the social and economic allocation affecting migrants; our concern here is with earnings in labor markets. While there are institutional variations within Europe, and Canada is somewhat less individualistic than the United States, there is ample evidence that continental patterns do find clear expression in the specific comparison of Canada and Germany. Germany exemplifies the European social-welfare model, Canada the North American individualist model. There are significant variations within each continental domain, but it is unlikely that they override the broader comparative benchmark. If we consider these differences, it becomes clear that theoretically-expected effects on migrant earnings would include complex effects on inclusion and exclusion, and would likely vary by specific origins, skill levels and gender.

**Institutions of Collective Social-Welfare and Individualism** European traditions of social and economic policy are significantly more collectivist compared to the individualism both in the U.S. and in Canada, despite the differences between Canada and the US highlighted by Lipset (1989, 1996). These European-North American differences are reflected not only in the welfare state itself, but also in comparative industrial relations systems (Bamber and Lansbury 1993; Williams 1988), which affect earnings and income distributions. DePrete and McManus (1996) found individual career earnings trajectories to be far more stable over time in Germany than in the United States, powerful evidence for an institutional effect. Earnings distributions are also more equal in Europe than in North America, with a smaller gap between rich and poor, and lower rates of poverty.

German labor markets clearly are more regulated than the Canadian, with greater union presence and power, and more egalitarian earnings distributions as outcomes. OECD (1993, pp. 159-61) data show that the Germany-Canada difference in earnings distribution is mainly at the bottom end. During the 1980s the ratio of the bottom-decile earnings to median was about 0.7 in Germany, and only about 0.4 to 0.5 in



Canada. Ratios of top-decile earnings to median were similar in the two countries, 1.7 in Germany, 1.6 in Canada. Differences in the progressivity of taxation and of government transfers increase this cross-national contrast, again at the bottom end mainly. Luxembourg Income Study data show that for persons with market incomes under 50 percent of the median, transfers were 90 percent of market incomes in Canada, and 120 percent of market incomes in Germany (Atkinson *et al.* 1995: Appendix 7, Table A7.2).

A floor on earnings in Europe may provide an important economic assist for migrants, whatever their social or political status. Overall labor market equality is important for migrants who often begin near the bottom of the earnings hierarchy, and benefit from lower limits placed on earnings. It should not be assumed that these institutional effects are automatically cancelled by lack of acceptance within institutions. Union participation by foreigners in Germany, for example, is significant (Kühne 1988), and welfare use by foreigners (Ulrich 1994a; Frick *et al.* 1997) is extensive enough to raise controversy as it has in the United States (Faist 1995a; Bade and Weiner 1997).

Educational systems are also part of the broader institutional difference. Canada has moved rapidly toward alignment with the U.S. pursuit of mass university education, creating a formidable competitive obstacle for newcomers (Wanner 1986; Reitz 1998). Europe continues to place less emphasis on mass higher education, in favour of more specific vocational training and trades skills. The German educational system, linked as it is to an apprenticeship system which provides a bridge to the labor market, certainly exemplifies this difference (Munch 1982; Blossfeld 1987; Wagner *et al.* 1997). Vocational training in Germany is well recognized in the labor market (Winkelmann 1996). For migrants with little formal schooling, but with experience in a trade, a less schooling-oriented environment might represent a plus.

**Acceptance within Institutions.** Compared to North America, the contrasting pattern of European ethnic nationalism, with its greater formal barriers to naturalized citizenship, official reluctance to adopt the label of 'immigration society,' less developed tradition of legal protection for minority rights,

and social attitudes all suggesting greater reluctance to accept minorities within mainstream institutions (Brubaker 1989b; Castles and Miller 1993), would certainly seem to apply to the specific case of Germany (Wagner 1996). German human rights practices come under particular international scrutiny, and heavy criticism of the marginal legal status of 'foreigners' in Germany preceded moves toward formalized access to citizenship.

Canada as well as the U.S. has emphasized equality rights for minorities including immigrants, and has worked to protect members of these groups from discrimination. In Canada this is reflected in continually-evolving federal and provincial Human Rights, citizenship and 'employment equity' legislation, as well as in the Charter of Rights and Freedoms. Such protections (and their socio-cultural underpinnings) can be expected to benefit immigrant minorities (Jain and Sloan 1981). The Canadian variant of immigrant integration follows a 'multicultural' tradition, officially promoting inclusiveness but with the ambiguity that it also promotes preservation of internal ethnic boundaries (Rex 1985). Evidence on labor market discrimination suggests that Canada-U.S. differences are probably small (Reitz and Breton 1994), though data suggest that the speed of economic assimilation for second-generation migrants in the US is slightly greater (Baker and Benjamin 1997).

It may be that it is the temporary status of 'guestworkers' as a European migrant type which most constrains economic incorporation. An institutionally-generated difference in perceptions of the permanence of migrant residence may be important by generating a short-term view of the migrants' economic activity. This could affect both employers and also migrants themselves. In Germany, for example, employers may view 'foreigners' as inappropriate long-term promotion prospects, and invest little in their career development beyond immediate work requirements. In this context, programs to address equity issues, aimed as they are at the long-term, similarly would be hard to justify. Migrants themselves may view their situation similarly, deferring development of long-term career aspirations, as well as investment in country-specific human capital either for themselves or their children. They may also

find less incentive to seek integration in local institutions outside the minority community, which might provide contacts or eventually lead to better employment opportunities. Of course as Piore (1979) and others have pointed out, North American immigration ideology may exaggerate the extent to which migrants' plans include permanent settlement. Moreover, we know little about the actual permanence of migrant settlement either in Europe or North America. Nevertheless, differing expectations for permanence may limit the time-horizons which govern their employment histories.

Labor market research on equal opportunity has produced much evidence of inequality in both countries: Germany (Kremer and Spangenberg 1980; Fijalkowski 1984; Gaugler *et al.* 1985; Reimann and Reimann 1987; Schmidt 1992a, b; Pischke 1992; Rudolph and Morokvasic 1993; Dustmann 1993; Licht and Steiner 1994; Seifert 1995) as well as Canada (Li 1988; Borjas 1990; Boyd 1992; Reitz and Breton 1994; Christofidies and Swidinsky 1994). Potential for discrimination is reflected in data on attitudes toward migrants in Germany (Noelle-Neumann 1981; Gang and Rivera-Batiz 1994; Statistisches Bundesamt 1997: 457-67) and in Canada (Driedger 1987; Reitz and Breton 1994). Social distance data also reveal an ethnic hierarchy in both countries. Discrimination has been demonstrated in persuasive field-trials experiments (Goldberg *et al.* 1995; Henry and Ginzberg 1985). Yet it is the comparative situation which requires attention here. Some have used data on one country to argue for a comparative difference (for example, based on a lack of earnings assimilation in Germany Licht and Steiner 1994) but we require specific quantitative data to compare with North American labor markets.

Given the two potentially offsetting effects, and also their macro-sociological inter-relation, it is of interest to know their relative magnitude, and their overall net effect on immigrant earnings. Is the institutional welcome extended to newcomers warmer because of North American equality of opportunity, or because of European equality? For that matter is either difference significant?

**Logic of Effects by Class, Race, and Gender.** The logic of each institutional model suggests different theoretical implications for migrants according to educational levels, origins and gender, and our

assessment requires that these be taken into account.

Less skilled migrants stand to benefit more from the social-welfare model, both because their skills might be more competitive with their counterparts in the mainstream society, and because of greater protection against low earnings and poverty. On the other hand, well-educated migrants might do better in the individualistic environment, where they would be more competitive with mainstream workers, and would be in a better position to gain from efforts against discriminatory barriers. Net effects might also shift with length of residence in the host society. The social-welfare model would help the newly-arrived most; the individualistic model might facilitate as well as enforce assimilation over the longer-term.

Implications of institutions also may vary by cultural origins or race. While the migrant streams into the two countries have been different, there are very clear parallels as mentioned earlier. In the early post-war period, an aggressively expansionist Canadian immigration policy continued the previous orientation toward Britain and northern Europe, but also included a very significant component of low-skilled Mediterraneans: Italians, Greeks, Portuguese, and Yugoslavs, among others. These migrants averaged about 8 years of schooling. After the immigration policy reforms of the 1960s, which eliminated country-of-origin selection criteria and replaced it with a 'points' system oriented toward higher levels of education and other human capital, this Mediterranean stream shrank dramatically and continued mainly on the basis of family connections. As in the U.S., immigration to Canada has shifted toward Asian, Caribbean, and Latin American origins, which dominate today. The German guestworker system in place through the 1960s and early 1970s brought large numbers of comparatively unskilled migrants from several Mediterranean countries – Italy, Greece, Spain, Yugoslavia and Turkey – parallel to Canadian immigration prior to 1967 (see Ulrich 1994b). These guestworkers settled across the urban areas of West Germany, where they remain today despite East-West unification. After the guestworker system was discontinued, family reunification continued so that today, the German population includes many later arrivals from Mediterranean countries, parallel to 'family class' immigrants in Canada. The most recent

migrants to Germany include a large number of German ethnic-nationals from Eastern Europe (see Burkhauser *et al.* 1997), so the contemporary trend in Germany is toward ethnic re-unification while the trend in Canada is toward even greater diversity. Nevertheless, there is a high degree of diversity in both countries.

In the German case, much recent attention has focussed on Turks (Sen 1989). There have been comparatively few Turkish migrants to Canada. In Canadian statistics the Turks are subsumed within a larger 'West Asian' group which also includes origins across the Middle East. Their presence in Canada is largely a result of the post-immigration-reform period, and this group has significantly higher levels of education than Turks in Germany. Nevertheless, to pursue the implications of ethnic origins in each country, it will be interesting to compare Turks in Germany with the position of West Asians and also persons from various other Asian and non-European origins groups in Canada.

Protective boundaries drawn around social-welfare institutions would likely apply to all outsiders, with little regard for specific cultural or racial origins. Acceptance within the individualist model is as a true social member of the receiving society, and the reality is that perceived eligibility is a function of culture and race. Hence, discrimination among specific origins, based on cultural definitions of compatibility and specific group stereotypes, seems more likely in an individualist society like Canada.

Implications for gender and the position of migrant men as opposed to migrant women seem more complex, and less clear-cut. Because of their lower earnings generally, women as a disadvantaged group might be expected to benefit more than men within the social-welfare model. But it is necessary to take account of gender-relations within each society, and the extent to which men and women actually compete in the same or different labor markets. There might be institution-generated differences in gender relations. The social-welfare model could encourage the maintenance of traditional gender relations, for example by protecting families from poverty thus allowing less reliance on multiple incomes. The individualist model could help break down gender barriers by encouraging the individual independence of

women. In any case, differences in gender inequality at work might then affect the position of migrant women in each society. Greater gender inequality generally might imply lower earnings for migrant women in particular. Further, any cross-national differences in ethnic or racial discrimination might also carry different implications for men and for women. Lower earnings standards for women have been found to make their earnings less variable by ethnic or racial origins, so any protections against discrimination on those groups might matter less than protections against gender bias itself.

The question of urban-specific effects also arises because contemporary migrants are drawn to urban labor markets, and because national institutions may have varying urban-specific manifestations. Generally, the social-welfare model suggests greater inter-urban uniformity, both in terms of urban-specific manifestation, and because migrant settlement may be collectively managed. The individualist model allows greater latitude for inter-urban diversity. Functional specialization generates diverse labor markets, and social and political decentralization weakens the establishment of national standards. Migration itself is more clearly volitional, so that urban settlement may follow migrant community formation and social networks to a greater extent in individualistic societies like Canada.

The goal of our analysis will be to provide a quantitative cross-national comparison of the earnings of migrant men and women from specific origins to: (i) assess the impact of education and labor market institutions, (ii) probe inequalities based on migrant status or origins within institutions, and (iii) compare net effects for specific groups of migrants.

### **Analytic Strategy and Data Sources**

**Cross-National Earnings Decomposition for Migrants.** Data analysis to provide a quantitative cross-national comparison of migrant earnings will adapt a method for earnings decomposition of subgroups, originally developed by Oaxaca (1973) for analysis of earnings differences by gender. The conventional earnings decomposition has employed earnings equations for men and women, with cross-

gender parameter substitutions to elucidate components of earnings differences due to i) gender differences in levels of human capital, (ii) gender differences in ‘returns’ to human capital – that is, differences in the regression coefficients for items of human capital, and (iii) a residual gender difference in earnings not related to human capital. The latter two components have been interpreted as reflecting different forms of labor market discrimination. The wage gap arising from differences in human capital regression slopes may be interpreted as reflecting one result of labor market segmentation, whereby women work in jobs where human capital accumulation is less favourably rewarded than it is in jobs where men work. The residual is interpretable as reflecting discriminatory earnings across all occupations.

Our application of this method (see also Reitz 1998, pp. 128-132, 170-175) will be to the analysis of migrant earnings in Germany and Canada, and will focus specifically on the impact of education, including schooling and vocational training, and on the ways in which these items are rewarded in labor markets. Within each country, the earnings of migrants can be decomposed into components based on differences in education, differences in labor market returns to education, and a residual. In addition, to measure institutional effects, we can ask how the mainstream education and labor market parameters from one country would affect migrant earnings if applied in the other country. How would migrants in Canada do, for example, if mainstream Canadians had educational profiles similar to those of the mainstream population in Germany? How would migrants in Canada do, if human capital was rewarded in the Canadian labor market in the same way as it is in Germany?

Our focus on education and on returns to education requires that adjustments be made for other labor market factors which might also influence earnings. There are two groups of such variables: those which apply across the labor market, such as age or work experience, hours of work, or urban residence, and those which apply specifically to migrants, such as period of residence, and knowledge of the language of the host society. These variables also must be considered in our analysis.

The focus on comparable streams of immigrants – Italians in each country, for example – is most

important because institutional effects are expected to vary by group. As well, earnings within institutions may also vary by group, or earnings differences may apply to specific migrant groups. In the decomposition analysis, gender might be incorporated in two different ways. In one approach, men and women would be treated as competing in the same labor market. In such an analysis, at the institutional level the impact on migrant earnings of variations in levels of education by gender, or variations in returns to education for each gender, would be aggregated. In a second approach, men and women could be treated as competing in entirely separate labor markets. Institutional differences in the position of women might then be considered as affecting migrant women with no necessary parallel difference in the position of men. It is clear that the two methods would produce different results. The analysis to be presented here treats men and women as operating in separate labor markets. It will be seen that this assumption helps in understanding some prominent cross-national differences in the position of migrant women.

The method of decomposition employed in our approach helps identify differences in migrants' treatment within institutions, and also will be extended to highlight differences due to the institutions themselves. That is, decomposition analysis can be used in a comparative context to examine how within-institution effects vary from one context to another. Given the fact that the regression models include measures of institutional parameters, a fairly simple extension can provide a quantification of the effects of institutional differences as well. To assess the effects of a particular institutional difference, parameters representing the difference can be substituted across earnings equations for different countries.

**Data Sources.** The German Socio-Economic Panel Survey (GSOEP) was initiated with a large national sample drawn in 1984, which included the mainstream German population (4,528 households, 9,070 individuals), plus a four-times over-sampling of five groups of foreigners: Italians, Greeks, Yugoslavs, Spaniards, and Turks (1393 households, 3,175 individuals) representing the classic Mediterranean work-recruiting countries. Subsequent annual follow-up waves have preserved the representativeness of the initial sample, but immigration after 1984 is not adequately covered by the data.



Hence the 1984 sample is used for this analysis.<sup>2</sup>

For Canada, the 1986 census represents the measurement closest to the GSOEP sample year of 1984, and is preferred over either the 1981 or the 1991 census also for reasons related to the business cycle. The 1984-86 comparison captures labor markets of both countries approaching or experiencing the up-side of the business cycle. The 1986 census 2% public use sample contains ample numbers of cases for immigrants in general and for specific groups such as Italians and Greeks.

A specification of the variables for analysis is provided in Table 1. The mainstream population in the West German case is defined in a straightforward manner by German nationality, but for Canada the ‘mainstream’ is actually a complex configuration of groups. This is partially because the Canadian population consists of two linguistic communities, each of which is dominant in different parts of the country. However, a more basic issue, at least from the present standpoint, is the fact that immigrant populations themselves lay claim to mainstream status. For native-born Canadian descendants of European immigrants, the claim to mainstream status has considerable plausibility. Nevertheless, partly for simplicity, and partly reflecting the most fundamental reality, we define native-born Canadians of British ancestry as ‘mainstream.’ Among the competing or near-mainstream possibilities, native-born Canadians of French origins have somewhat lower earnings, and native-born Canadians of other European origins have somewhat higher earnings. These various groups, plus other native-born Canadians (those of non-European origins, mixed or residual categories, plus the Aboriginal Peoples) are omitted from the analysis. For migrants, in the German case we include only the five groups formally defined as the ‘foreigner’ population in the GSOEP survey. Immigrants in Canada include only those persons born outside Canada who fall into one of the groups listed in Table 1. (The omitted category for dummy-variable purposes is different: the residual European category for Canada, and Turks for German<sup>3</sup>).

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**TABLE 1 ABOUT HERE**  
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Special attention is needed for the measurement of education, including both schooling and vocational training. The substantial institutional differences in education are difficult to capture in comparable measures. The German schooling system includes three streams Hauptschule, Realschule, and Abitur, each of which leads to different career options. These three have been compared to grade levels in the Canadian system, based on the numbers of years required for their completion, their functional equivalence, and based on the types of occupations for which graduates are eligible. Hauptschule represents a 9-year program, for example, and is compared to the threshold of Canadian grade 9. Realschule may be compared to Canadian grade 11. Abitur is a universal requirement for admission to university in Germany, as is a high school diploma in Canada. This basis of comparison is adopted here. It must be remembered however that in the German system, the three are actually different types of schools, whereas in the Canadian system, grades represent levels within a single public school. This comparison is not invalidated by possible differences in the actual quality of schooling represented by the categories assumed to be parallel. In any case, such quality differences are difficult to establish, because of differences in philosophy of education in the two countries, and differences in the selectivity of the various schooling categories.

The apprenticeship system in Germany is a hybrid of training and employment, and has no obvious parallel in Canada. In Canada, various forms of non-university vocational programs are available, including trade schools, 'community colleges,' and other institutions. The census distinguishes trade schools in particular from 'other non-university vocational training.' In Germany Fachschule, which is a semi-university, might represent a level of vocationally-relevant post-secondary schooling comparable to Canada's 'other non-university vocational training.'

The vocational emphasis of the German system is also evident at higher levels of education such as university and Fachhochschule. In Canada this difference may be similar to the distinction between universities and polytechnics (which in some instances are being reclassified as universities). For our

purposes we can distinguish university graduates in both countries from those who have higher education but not a university degree ('some university' in Canada, Fachhochschule in Germany).

There is an important cross-national difference in the measurement of the education and training of migrants. In the Canadian case, migrant education is measured by the census using categories identical to those used for persons educated in Canada, despite the fact that many migrants received some or all of their education outside Canada. This measurement simply ignores differences in educational systems between Canada and countries of migrants' origins. In the GSOEP survey, foreigners and Germans were asked different sets of questions about their educational backgrounds. This approach recognizes the distinctiveness of school systems in countries of origins, but leaves to the analyst the issue of equivalence. Interestingly, these two approaches to the measurement of migrant education may themselves in part reflect the very institutional differences of concern in this study. The German approach seems to reflect a perception of migrants as a distinct group performing distinct tasks, implying that their qualifications should be assessed separately and in a way which, though it may not preclude equivalence, does not assume it. The Canadian approach does not recognize in any formal way the possibility of differences in the quality of immigrant education, which might imply outsider status.

An appropriate equivalence coding for German foreigner education is by no means obvious<sup>4</sup>. The ambiguous categories are 'secondary school' completion in country of origin, which might be coded either as equivalent to Realschule, or to Abitur; and 'college degree', which might be coded as equivalent to Fachhochschule, or to university. The most generous coding is likely to be the closest equivalent to the Canadian census data measurement; however an argument certainly can be made that the less generous coding is a more accurate reflection of foreigner educational levels and their German labor market equivalence. Because of this ambiguity, analysis of the German data below has been conducted using both possible codes, a 'minimum' version representing one plausible equivalence rating, and 'maximum' version representing what would likely be found by a Canadian-style census question.

The analysis in both countries is restricted to those aged 17-65 who were employed or self-employed with positive earnings during the previous year. This allows for the analysis of 72,894 persons in the Canadian mainstream population (Germany 4,630) and 36,468 migrants in Canada (foreigners in Germany 2,014). Earnings in the German data are summed over months, while in the Canadian data are based on a single annual report. Other differences in measurement are minor.

### **Education and Labor Market Institutions in the Mainstream**

The mainstream Canadian labor force on average had more schooling than its German counterpart, but less vocational training, as shown in Table 2. About half of the Canadians had a high school diploma, while comparatively few of the Germans went beyond the basic Hauptschule level. However, more Canadians also had very low levels of schooling, compared to the Germans. Trends over time are revealed by the age differences. In Canada, the trend toward higher levels of schooling, and higher proportions receiving the high school diploma is marked, while in Germany the corresponding trend is less obvious, and is limited to the median Realschule level. Yet in Canada nearly one in ten of those in the youngest age group did not complete a minimum of nine years of school. In Germany, although the trend toward more schooling is much less evident, and the minimum of Hauptschule is well established even in the oldest age groups.

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**TABLE 2 ABOUT HERE**  
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Germans were more likely to proceed to formal vocational training than Canadians. Nearly half the Canadians completed their schooling with no further training of any kind, while less than 15 percent of German men, and about 27 percent of German women, did so. Fully two-thirds of German men and over half of the women completed an apprenticeship, and another fifth of each group completed Fachschule. Nearly 90 percent of German men, and 70 percent of German women, have either apprenticeships or Fachschule, compared to only about 30 percent of Canadians with some form of non-university vocational

training. As the proportions of Canadians who completed high school increased, those who proceeded to some form of training beyond high school were more likely to attend university. Nearly one in four had at least some university training, and the proportions with university degrees was about 50 percent higher than was the case in Germany.

In Germany a gender difference in education is more marked than in Canada. The most striking aspect of this difference is in vocational training. Whereas the proportions of Canadian men and women with either non-university training or university was very similar, for Germans many fewer women had apprenticeships, and fewer have either university or Fachhochschule.

Two major differences potentially affecting the position of migrant workers are the greater impact of schooling on earnings in Canada, and the greater impact of vocational training on earnings in Germany. The greater equality of labor market processes in Germany can be seen in Table 3 where metric regression coefficients for men and women in each country are expressed as proportions of mean male earnings. In the regressions, categories of schooling include only those without further vocational training. The range of earnings among levels of schooling for those with no vocational training was substantially narrower in Germany than in Canada, for both men and women, and the largest difference was at the very bottom end. For Canadian men, the earnings of those with no schooling beyond 8 years and no vocational training was 17.2 percent below the earnings of those with grade 9 or 10, while in Germany those without the minimum Hauptschule level had earnings only marginally lower than those with Hauptschule. For Canadian women, the corresponding figure is 7.2 percent below, while again for those in Germany there is essentially no financial penalty in the labor market for schooling below the Hauptschule level.

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**TABLE 3 ABOUT HERE**  
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The impact of vocational training in Germany was greater, at least for men, and apprenticeships or Fachschule provide a clear advantage over any level of schooling not followed by vocational training. For Canadian men, the situation was the reverse: possession of a trade certificate or diploma from another non-

university institute beyond high school offered virtually no earnings advantage over a high school diploma.

In both countries, a university degree represents a very significant earnings advantage over all other credentials. Although Canadians are more likely to have such degrees, the situation for Germans is offset by the fact that Fachhochschule has a far more positive effect on earnings than attendance at university without a degree does for Canadians.

The labor markets magnify rather than offset cross-national differences in earnings potentials arising from differences in the educational systems. As a result, the Canadian labor market translated the products of its educational system into substantially more inequality, compared to the German labor market. The Canadian labor market places more emphasis on those attributes which vary more in Canada, namely variations in schooling without vocational training. University matters more in Canada because a larger share of the workforce has attended. The German labor market places less emphasis on schooling alone, which in any case varies less, and instead rewards vocational training which is more readily available. These differences clearly may affect the earnings potentials for migrants.

Differences in mainstream gender stratification within each country will also matter for migrants. Women's earnings disadvantage is greater in Germany, particularly when account is taken of their relatively longer working hours. An adjustment analysis for age, hours, and urban residence (average for men adjusted to women and vice versa, not shown) shows that German women earn 66.1 percent of the earnings of men, while their Canadian counterparts earn 76.6 percent.

### **Profiles of Migrant Characteristics in each Country**

Similarities and differences in the demographic and human capital attributes of migrants in the two countries are shown in Table 4, which details educational levels – including both minimum and maximum coding for foreigners in Germany, and in the variable means shown in Table 5, which also presents earnings regressions. Overall, immigrants in Canada were better-educated than foreigners in Germany, but

there were large differences by origins. Large proportions of Italian and Greek migrants to Canada and Germany lacked both schooling and vocational training. In Canada the proportions are between 40 and 45 percent for men, and 50 percent for women; in Germany the proportions are 25 to 32 percent for men, and 35 to 60 percent for women. Italian and Greek migrants to Germany are somewhat more likely to have acquired vocational training than their counterparts in Canada. Those in Canada were more likely to have completed secondary schooling, and are more likely to have university training, while those in Germany without vocational training are concentrated at the Hauptschule level. It is important to note that while foreigners in Germany had somewhat more vocational training than their counterparts in Canada, it was still far less than those in the German mainstream workforce. Yugoslavs in Germany, and Croatians and Serbs in Canada, were better educated, though even these migrants had substantially less education than their respective mainstream populations.

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**TABLES 4 AND 5 ABOUT HERE**  
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Cross-national similarities between Italian, Greek, and Yugoslav migrants' educational profiles do not extend to other comparable migrant groups. Whereas in Germany the Turks and Spaniards had levels of education generally comparable to the other migrant groups, in Canada the immigrants from elsewhere in Europe, as well as those from outside Europe, were far better educated. For example, about one-third of West Asian men in Canada, which includes Turks, and over one in five of West Asian women, had university degrees.

**Comparative Analysis of Migrant Earnings**

Generally, annual earnings of Canada's immigrants were higher than those of Germany's foreigners. In fact, migrant earnings were higher than even in the mainstream Canadian workforce. Our interest is primarily in the impact of institutions, and migrants' treatment within country-specific

institutions. These matters can best be examined in a decomposition analysis. Since our interest is in the role of educational institutions and their implications for labor market outcomes, the first step in our analysis is to adjust for other relevant differences in migrant characteristics. The adjustments presented in Table 6 are cumulative, and take account first of variables specific to migrants, namely period of arrival and language knowledge, and then take account of demographic and work-related variables common to both migrants and mainstream workers. The latter include age, which serves as a proxy for work experience, metropolitan area of residence, and hours of work.

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**TABLE 6 ABOUT HERE**  
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Period of arrival is one critical variable in these adjustments. Clearly the variable's distribution and impact are different in each country (see Table 5). Immigrants in Canada have arrived in a comparatively constant stream since World War II, and there is a marked impact of period of arrival on earnings. If cohort effects are ignored, there appears to be a marked assimilation effect on immigrant earnings in Canada. Before 1984, foreigners in Germany arrived in the largest numbers in the early 1970s just before the guestworker program ended, and the assimilation effect is much weaker. The adjustment of earnings for period of immigration was performed in two ways, one a cross-national adjustment, and the other an adjustment to a 'standard' pattern – defined arbitrarily as equal proportions of migrants in each of five arrival-intervals. The results of these two adjustments are similar. After adjustment to a standard pattern (used subsequently in the analysis), the cross-national difference in the relative earnings of migrants is reduced from 30.6 percent (108.8 percent for Canada compared to 78.2 percent for Germany) to 27.5 percent among men (104.1 for Canada compared to 76.7 percent for Germany, based on maximum education codes<sup>5</sup>). For migrant women compared to mainstream women, the adjustment for period of arrival reduces the cross-national difference in the migrant earnings gap from 16.1 percent to 12.5 percent. The adjustment for differences in language knowledge has little impact.



The adjustment for common variables matter much more. Canada's immigrants were older relative to the mainstream than Germany's foreigners. They more often lived in high-earnings areas, and among men worked longer hours relative to their mainstream counterparts. When these cross-national differences in earnings-related attributes are taken into account, net earnings for migrant men (across all groups) are 9.6 percent below mainstream earnings in Canada, and 21.4 percent below mainstream earnings in Germany (last row in Table 6). Hence the cross-national difference in the relative earnings of migrant men are reduced by this adjustment from about 27 percent down to 11.8 percent. For migrant women, net earnings are 11.6 percent below mainstream earnings in Canada, and 16.5 percent below mainstream earnings in Germany. The cross-national difference in the adjusted relative earnings of migrant women is reduced from about 12 percent down to 4.9 percent.

For migrant women we also report adjustments of earnings relative to mainstream men. In the cross-national comparison this is important because it reflects a cross-national difference in the labor market position of women. Some of this difference can be seen in the total earnings of women compared to men, which in Germany are somewhat lower than in Canada. When migrant women in Germany are compared to mainstream men, their relative position looks somewhat worse than when the comparative standard is the less well-paid mainstream German women. Compared to mainstream men, the earnings of migrant women in Germany averaged 48.4 percent, lower by 10.3 percent than the corresponding figure for Canada, 58.7 percent.<sup>6</sup> An even more important cross-national difference in the position of migrant women emerges in the adjustment for common variables. A key fact affecting this adjustment is that mainstream German women work relatively longer hours compared to their Canadian counterparts, so in hourly terms their earnings are substantially less, relative to mainstream men. The consequence is that when adjustments are made for hours and other common variables, and then migrant women in Germany are compared to mainstream men rather than the mainstream women (whose earnings on an hourly basis are very low), their position is seen to be substantially worse. The adjustment is also affected by the fact

that migrant women in Germany work even longer hours, relative to men, than do mainstream women (see Wilpert 1989-90). Whereas the adjusted earnings of migrant women in Canada are 32.3 percent below the adjusted earnings of mainstream men, the adjusted earnings of migrant women in Germany are 44.7 percent below those of the mainstream men. In comparison to mainstream men, the demographically-adjusted earnings of migrant women in Germany is 12.4 percent lower than in Canada.

The regression analyses in Table 5 show that migrant origins matter far more in Canada than in Germany. Net earnings vary only about 5 percent among origins groups in Germany for both men and women, regardless of education coding. For Canada, among men all origins have lower earnings than the reference 'other European category', varying from 6 percent less for Italians and the Croatians-Serb category, to about 15 percent for West and South Asians and Chinese, and up to 25 percent less for Greeks, Blacks, and other Asians. Among women the earnings are substantially lower only for West Asians and 'other' Asians. These origins groups are more diverse than those of migrants to Germany, but even for Canadian immigrant groups with origins comparable to those of German foreigners, the earnings vary more. This finding accords with our expectations derived from a difference in the nature of ethnic boundaries in the two countries, and will be discussed further below.

### **Comparison of Conventional Earnings Decomposition**

In each country, the impact of migrant education and labor market differences is estimated by averaging two adjustments: migrant earnings adjusted to mainstream earnings, and vice versa. Women are treated as working in a distinct labor market. The adjustments for education are cumulative to those already made for demographic and work-related variables other than education. Results summarized in Table 7 show as expected (based on the lower educational levels of migrants) that educational differences matter more in Germany.<sup>7</sup> What is more critical to our comparison are two other significant findings. First, disparities net of education differ only slightly between the two countries. Among migrant men in

Canada, earnings net of education (plus other control variables) were 10.7 percent below mainstream earnings, compared to either 13.4 or 13.8 percent in Germany, depending on the education coding, a difference in either case of about 3 percent favouring migrants in Canada. When migrant women are compared with mainstream women, those in Canada had net earnings 9.9 percent below mainstream levels, compared to either 8.4 percent or 8.8 percent in Germany, again depending on coding. The difference of about 1 percent favours Germany, but the comparison is reversed when the comparison is with mainstream men rather than women. Then, the disadvantage of migrant women in Canada, 31.0 percent, was less than the disadvantage of migrant women in Germany, closer to 40 percent.

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**TABLE 7 ABOUT HERE**  
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The second key cross-national difference is the relative impact of labor market returns to education in this overall net disparity. In the Canadian case, net disparities had little to do with differences in labor markets, while in Germany, nearly half of net disparities between migrants and Germans arose from lower 'returns' to schooling and vocational training for the migrants. For migrant men in Canada, of the overall net earnings disparity of 10.7 percent, only 0.7 percent was related to lower migrant education slopes. For migrant men in Germany, of the overall net earnings disparity of 13.8 percent (maximum code), 5.5 percent was related to lower education slopes for migrants. Cross-national differences for migrant women were parallel to those for migrant men in the two countries.<sup>8</sup>

Some of the cross-national differences are related to migrant origins (see Table 7, continuation). Figures specified to origins (shown for Italians and Greeks in each country, Yugoslavs in Germany compared to Croatians and Serbs in Canada, and Turks in Germany compared to West Asians in Canada) demonstrate that earnings disparities net of education were not consistent in the cross-national comparison.<sup>9</sup> For Italian-born men the difference in the net earnings in Canada compared to Germany was less than 1 percent. Italian women do significantly better in Germany, however. For Greeks, the comparison strongly favours Germany for both men and women; the comparison of Croatians and Serbs in

Canada to Yugoslavs in Germany favours Canada; the comparison of Turks in Germany and West Asians in Canada shows a difference of less than 2 percent for both men and women. There was no tendency for migrants from particular origins to do better in one country than the other. The main cross-national difference is the greater variability by origins in Canada compared to Germany.

In each cross-national origins group comparison in Table 7, a larger part of the net migrant-mainstream earnings disparities are traceable to differences in returns to education, rather than to the residual net difference, in Germany versus Canada. Educational levels vary among the groups, and in the Canadian case, the educational levels for West Asians are far higher than for Turks in Germany. In both countries, better-educated minorities are affected more by lower returns to education, obviously, but the lower returns for German foreigners affect every comparison (Yugoslavs somewhat more than other groups because of their higher levels of education in Germany).

### **Effects of Institutions**

The effect of institutional differences between the two countries can be examined by substituting institutional parameters from one country into earnings equations for the other. Our results for the two institutional comparisons of interest here -- education and labor markets -- are summarized in Table 8. To probe the impact of educational institutions, we substitute mainstream educational levels from one country into the mainstream earnings equations of the other, and then examine relative migrant earnings (with all figures adjusted also for demographic and other work-related variables). For men, the cross-national difference in educational distributions produced very small effects, which actually favoured migrants in Canada. The net effect of Germany's educational parameters produced a difference in migrant earnings in Canada of -0.9 percent compared to the mainstream; the net effect of Canada's educational parameters produced a difference in migrant earnings in Germany of +0.2 percent compared to the mainstream. Close examination of this result shows various offsetting effects. On the one hand, the lower frequency of

university education among mainstream men in Germany raised relative earnings for migrants; on the other hand, the fact that vocational training was more common among mainstream men in Germany than in Canada lowered the relative migrant earnings. This vocational training effect was slightly greater. The cross-national difference in the low-education population turns out not to matter for migrant-mainstream earnings differences. On the one hand, poorly educated persons in Canada would not be penalized in Germany; on the other hand, there are few poorly educated persons in Germany so their presence in Canada would have little impact. Net effects of substitutions in both directions are small.

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**TABLE 8 ABOUT HERE**  
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For women, the substitutions show much greater effects of educational differences, because of the much larger gender difference in educational levels in Germany. If migrant women in Canada were competing with mainstream women educated at the same level as mainstream women in Germany, their earnings would be 4.3 percent higher; 3.3 percent higher compared to mainstream men.

Effects of cross-national labor market differences are greater for men. It is the mainstream labor market that is of interest here, and to identify its effects on migrants, it is necessary first to adjust migrant earnings for their distinctive labor market position within countries. That is to say, the fact that the mainstream labor market applies less to migrants in Germany is part of the cross-national within-institution comparison, and must be removed from this between-institution comparison. The first step therefore is to evaluate migrant earnings in each country assuming that mainstream labor markets apply. The second step is to evaluate migrant earnings relative to mainstream, assuming the other country's mainstream labor market. The difference represents the effect of (mainstream) labor market institutions on the relative earnings of migrants.

Results under „labor market institutions“ in Table 8 show that the German labor market applied in Canada would raise migrant earnings by about 2.0 percent for men and 2.4 percent for women. The German labor market applied in Canada removes the Canadian penalty for low levels of education, while

boosting benefits for vocational training. This would benefit the relative position of migrants in Canada. The Canadian labor market applied in Germany would lower migrant earnings but to a lesser degree, because of the smaller numbers of persons completely without qualifications. For women, the effect of applying the Canadian labor market in Germany was virtually nil, because the cross-national difference in labor market parameters affects only a small proportion of the workforce.

Summarizing education and labor market effect together, the finding is that for men, German institutions improve the position of migrants but only by 1.2 percent. The offsetting difference in treatment within country-specific institutions – which is largely due to lower differences in returns to education for migrants in Germany – is in fact greater, -2.7 percent, so the overall result of the two effects is negative. For women, the net effect of institutions depends on whether the comparison is with mainstream women or mainstream men. Because of the importance of the educational difference affecting mainstream German women, the overall institutional effects are stronger in favour of migrants in Germany. Furthermore the within-institution effects also favoured Germany, so the net effect is that migrant women do substantially better in Germany. But compared to mainstream men, migrant women in Canada still have higher earnings.

It is also possible to summarize the cross-national differences by a reverse-substitution. This would show the impact of each country's institutions by an examination of how migrants with educational distributions found in one country would do if they were inserted into the earnings determination equations of the other. These results (Table 8, „other country, overall“) are roughly consistent with our findings above, and summarize the impact of between- and within-institutional differences.<sup>10</sup>

As expected, the positive effects of German institutions are most pronounced for those origins groups with the lowest education levels in both countries. The specification to origins groups (Table 8, continuation) shows that the positive effects of German institutions are greater for Italians and Greeks, and in these cases the within-institution effects are not offsetting. Hence for these two groups, and for both

men and women, earnings in Germany are significantly higher. For men in the better-educated groups, the positive effects of German institutions are less, and the net effect is more a function of the within-institution differences. Given that these offsetting within-institution effects are larger for the Croatians and Serbs, men in this group have higher earnings in Canada. The reverse is true for the West-Asian/Turk comparison. For women in these groups, the most important cross-national difference remains the effect of German educational institutions as these apply to mainstream women. Hence the migrants in both groups have higher relative earnings in Germany.

### **Summary and Implications**

Our findings demonstrate important institutional differences between Germany and Canada which affect the inclusion and exclusion of migrant groups in terms of labor market outcomes. First, German institutions do in fact raise the earnings of German foreigners when compared to immigrants in Canada, in accord with our expectation premised on the social-welfare/individualist contrast between the respective countries. The German social-welfare orientation provides an economic assist to new migrants in their efforts to establish themselves in the host society. A range of circumstances may be involved, including not only arranged employment for the original guestworker population, but also higher labor standards which place a floor on earnings across the board, and greater access of migrants to the benefits of union representation. If there are macro-economic implications of this effect, they obviously cannot be judged based on these data. However, to the extent that the economic benefits of migrant labor are measured by their earnings, as they often are, then the German social-welfare institutional environment would appear to deliver them at least as consistently as the Canadian individualist model.

Second, this institutional impact varies according to the human capital profile of migrant groups. The German labor market applies its forces of inclusion and exclusion in markedly different ways according to migrant educational levels. It offers comparatively good wages to migrants with lower skill

levels but less attractive opportunities to those with higher levels. There are two reasons for this. One is that the German labor market generally imposes a smaller penalty for low education than does the Canadian labor market. A second reason is that for migrants to Germany, increased earnings do not flow as readily from increases in education. The Canadian labor market rewards migrant education in ways more consistent with the mainstream pattern, and provides a clearer path toward upward earnings mobility. The net effect is that unskilled Italian migrants (to cite the case where the clearest specific-group comparison is possible) do better in Germany than in Canada, particularly in the early years following arrival. Canada is a better place for migrants with better education, particularly those with longer-term settlement plans. From a macro-economic perspective, it may be significant that the earnings trend for immigrants in Canada, and their potential for earnings assimilation over time, is not hindered by their comparatively low starting point.

Third, there is no consistent difference between Germany and Canada in earnings disadvantages net of education across migrant origins groups (though net disadvantages related to the reduced value of migrant education is greater in Germany, and net disadvantages which have other sources are greater in Canada). Despite Canada's individualist institutions and its equal opportunity policies, and despite Germany's reluctance to consider foreigners as Germans, net of qualifications the assignment of earnings to migrants from specific origins is not consistently affected. As a matter of fact, the Canadian labor market appears more sensitive to variability in the origins of migrants, and not only because of its greater migrant-origin diversity. Among foreigner groups in Germany, there is much less variation in earnings (net of education) than for comparable groups in Canada. Some groups in Canada, mainly those from northern Europe, are accepted virtually without penalty. Other groups suffer very substantial earnings penalties related to their origins. Italians do similarly well in Canada and Germany, but Greeks in Canada do quite poorly compared to their counterparts in Germany. West Asians, a group including Turks, appear to do slightly less well in Canada than do Turks in Germany.



The findings for migrant women must be understood within the context of gender stratification in mainstream institutions. Our analysis is based on an assumption that women compete in a distinct labor market in both countries, which is more stratified in the German case. Gender disadvantages in Germany yield benefits to migrant women who, compared to their Canadian counterparts, receive a significant boost not only from labor market differences, but even more substantially from the lower educational levels of mainstream German women. This analysis helps us to understand the significantly higher earnings of migrant women in Germany in particular origin groups such as Italians and Greeks.

Educational institutions have a rather different impact on the cross-national comparison than do labor market institutions. The overall impact of Germany's education system on migrant earnings is slightly negative for men, but positive for women (a result of low levels of education of mainstream German women). The Canada-U.S. difference in education has been shown to have a far greater impact on immigrant earnings, because educational levels remain significantly higher in the U.S. (Reitz 1998, pp. 105-132); vocational training has about the same, relatively small, significance in each country. This implies that a U.S.-German comparison would show a greater impact of differences in educational institutions. In the case of Canada, educational levels as of 1986 were rising rapidly toward the U.S. standard. Hence the Canada-Germany comparison would likely shift over time.

What finally emerges from our cross-national comparison is a very different pattern of ethnic inclusion and exclusion in the two countries, more than differences in the overall extent of such inclusion or exclusion. For Germany, inclusion is reflected in the protected labor market position of less-educated foreigners, while exclusion is reflected in the delimited nature of that position. These limitations may apply to other institutional sectors, including the experiences in the educational system for the foreigners' second generation (Schweikert 1982). Alba et al. (1994) suggested that the position of foreigners in Germany with regard to education may stand in contrast with educational mobility for the second immigrant generation in the United States (see also Faist 1993, 1994). In Canada, ethnic inclusion is

reflected in the greater potential for earnings assimilation, particularly based on education and given sufficient time in the country. Ethnic exclusion is reflected in the sensitivity to certain specific immigrant origins.

It may be that the nature of the ethnic boundary has developed differently in the two cases. In the German case, migrants considered 'foreigners' are outsiders, and in effect are assigned a particular status which is informally enforced within institutions. The status is 'assigned' in the sense that at certain (low) levels migrants are protected, but beyond these low levels there are clear limits to assimilation based on education or time in the country. Furthermore, the distinct status of 'foreigner' in Germany is reflected in the comparative lack of earnings variability among foreigner groups by specific origins. This point is actually reinforced by the differences in the experiences of ethnic German migrants from Eastern Europe, whose earnings trajectories are quite different compared to foreigners (Bauer and Zimmerman 1997). Lower assigned status for migrants occurs only when the German ethnic boundary itself is crossed.

In the Canadian case, the status of migrants is less delimited, but it is also less protected. Ethnic inclusion is possible, but contingent on specific cultural or racial markers. For immigrants in Canada, ethnic origin seems to represent a personal or individual endowment, which receives evaluation independently of other endowments. The valuation of the ethnic 'endowment' may be positive or negative, sometimes leading to acceptance and inclusion, and sometimes constituting a barrier leading to exclusion.

These differences in patterns of ethnic inclusion and exclusion may be produced by national ideologies or even government policies, but it is interesting to consider how they may be related to the institutional framework itself, and to the social imperatives generated within that framework. In fact, our initial theoretical discussion anticipated many of these patterns from the logic of the institutional structure in place in Germany and Canada in the mid-1980s. The benefits that the social-welfare framework offers to its members may necessarily increase the importance of establishing boundaries of eligibility, creating

pressures to exclude outsiders or limit their access to membership. Where a need for migrants arises, barriers toward true membership may be erected to serve the institutional need for boundary-maintenance. By the same token, when and where outsiders actually threaten these boundaries, pressures may arise for restructuring institutions along more individualistic lines. From the standpoint of this institutional logic, the specific origins of migrants, ethnic cultures or race, would matter little. Hence inclusion exists within a definite perimeter, with exclusion beyond.

Institutional individualism, by contrast, may present a situation enabling tolerance for outsiders, partly because of greater expectations for self-reliance. The individualist framework invests less in newcomers, and for this reason can more easily offer formal inclusion. Migrants' inclusion into a competitive arena leaves each participant on his or her own, requiring relatively little from the mainstream population. Moreover, because the mainstream population arms itself so heavily for the competitive process by amassing human capital, it is more than ready to meet any competition from outsiders. In this context, the question of true inclusion may be decided on a contingent basis, according to the attractiveness or acceptability of specific features. If these features are related to ethnic culture or race, then these may become differentiating factors determining inclusion or exclusion. Characteristics similar to those of the mainstream population may lead to full inclusion, dissimilar characteristics may lead to exclusion.

The importance of the impact that institutional frameworks have on patterns of ethnic inclusion and exclusion should be assessed in view of the increasing significance of Europe as an immigrant destination, and also in light also of rapid institutional change toward greater individualism within most societies including both Europe and the traditional immigrant-receiving societies of Canada, the United States, and Australia (Kasarda *et al.* 1992; Wagner 1996; Reitz 1998). As migration becomes a salient feature of an ever-increasing number of industrial societies, not only in Europe but elsewhere, the potential and practical relevance of such analysis can only increase. The findings of this specific Germany-Canada comparison show differences which are consistent with institutional effects, but of course by no means

confirm them. Our methodology shows how very detailed cross-national comparisons of migrants that are sensitive to issues of ethnic inclusion and exclusion are possible. This methodology might well prove capable of extension to other cases. In the US, Faist (1995a, 1995b) has suggested how migrants from Mexico might be compared to German guestworkers, and a quantitative decomposition such as has been outlined here could prove useful in exploring patterns of inclusion and exclusion. To the extent that the Mexican-American population is associated with illegal immigration, they are the opposite of 'guests,' but within the individualist institutional framework their exclusion is still a matter of ethnic culture and race, rather than assigned status. Other European cases may demonstrate whether the assigned-status pattern found among German guestworkers is unique or whether it is common to comparatively collectivist societies.

This analysis has examined two institutional sectors, education and labor markets, leaving to subsequent consideration how other institutional sectors such as residential patterns and family composition, and also government transfers, may affect the overall economic well-being of specific groups of migrants. These effects are well worth considering, because institutional sectors are inter-related in a complex system, and effects of one component of this institutional system may be either increased or offset by the effects of others.

## Footnotes

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1. After 1984, migrants moving into survey households were included in the sample, but these would not include most new migrants in the country. In 1994-95, a new immigrant sample was drawn to include this missing population as well as the massive influx from Eastern Europe and asylum seekers/refugees (see Burkhauser *et al.* 1997 for a general description of this immigration process as well as for a description of the special immigrant sample of the GSOEP).
  2. A weighting scheme has been developed to compensate for over-sampling of foreigners, with a comparatively minor component also to bring sample demographics in line with census distributions. Since the analysis here is conducted separately for Germans and for foreigners, only the demographic element in the weighting scheme has significance. Weights are used to provide descriptive accuracy, though statistical significance is assessed in unweighted data.
  3. The selection of an omitted category was made for each country to maximize statistical robustness, and has no impact on the comparative analysis.
  4. The coding of 'years of schooling' for German foreigners, such as has been used by some analysts (e.g. Licht and Steiner 1994: 135; Pischke 1992: 23), may well result in over-estimates.
  5. See note 1 to Table 6. Although education codes do affect the adjustments in Table 6, they have little real impact, and so for simplicity and convenience the results are discussed in the text only for the maximum codes.
  6. This percentage difference is smaller than the corresponding 16.1 percent difference in the earnings of migrant women compared to mainstream women, but is larger in proportional terms.
  7. In the earnings regressions for German foreigners, coefficients become unstable for educational categories not well-represented in a particular coding. For example, in the minimum coding, no German

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foreigners were considered to have the equivalent of Abitur standing, and the regression result (zero effect) is meaningless for the purposes of decomposition. Where this situation exists, the decompositions have been based on coefficient measures in the analysis in which the category is in fact well-represented. For example, the coefficient for Abitur standing is taken to be well-measured only in the maximum coding.

8. The residuals for women relative to mainstream men are large, augmented significantly by the overall gender gap. These residuals do not reflect any adjustment for mainstream gender differences in education.

9. Figures for origins groups are based on the same regression equations, evaluated with origins dummies and appropriate educational levels.

10. The fact that the comparisons of migrant women with mainstream men and women here both favour Canada results from the fact that in the more detailed analysis, the within-institutions residuals included the component related to gender inequality.

Table 1.  
Description of Variables

Variables	Canada (1986 Census, 2% Public Use Sample of Individuals)	Germany (Socio-Economic Panel Survey, Wave 1, 1984)
Gender	Men, Women	Men, Women
Age:		
Age1	17-25 (omitted category)	17-25 (omitted category)
Age2	26-35	26-35
Age3	36-45	36-45
Age4	46-55	46-55
Age5	56-65	56-65
Migration Status		
Mainstream	Native-born of British origin <sup>1</sup>	German
Migrant	Immigrant (not born in Canada)	Foreigner, foreign-born
Migrant Origins	Ethnic origin for immigrants <sup>2</sup>	Nationality (citizenship)
	Italian	Italian
	Greek	Greek
	Croatian, Serbian	Yugoslav
	Other European (omitted category)	Spanish
	West Asian and Arab	Turk (omitted category)
	South Asian	
	Chinese	
	Other Asian	
	Black: Central, South American or Caribbean birthplace	
	Black: other birthplaces	
Period of Arrival	Period of immigration,	Period of arrival in Germany
Stay1	1981-86 (omitted category)	1979-84 (omitted category)
Stay2	1976-80	1974-78
Stay3	1971-75	1969-73
Stay4	1966-70	1964-68
Stay5	1961-65	1950-63 <sup>3</sup>
Stay6	1956-60	
Stay7	1951-55	
Stay8	1950 or before	
Metropolitan Residence	Mean annual earnings of nine largest Census Metropolitan Areas, plus residual	Dummy variable for urban areas over 500,000
Language Knowledge	Knowledge of spoken English, or French (in Quebec and New Brunswick)	Knowledge of spoken German at least „fair“
Education1: Schooling, Highest Level	H.S. Diploma (from highest level of schooling) Grade 11-13 (from highest grade) Grade 9-10 (omitted category) Hauptschule (omitted category) <sup>4</sup> Grade 0-8	Abitur  Realschule No School Degree

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Table 1, continued

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Education2: Vocational Training	Trade certificate or diploma, Other non-university certificate or diploma Some University (no degree) University Degree	Apprenticeship Fachschule  Fachhochschule University Degree <sup>5</sup>
Employment Status	Employed with positive earnings during past year; hourly wage >=\$1.50	Employed with positive earnings during past year; hourly wage>= DM 2.00
Labor Earnings	Annual earnings from wages and salaries, including self- employment earnings	Earnings from each month over past year, including self- employment earnings
Annual Work Hours	=Weeks worked in 1985 times normal hours per week (based on pattern of full-time vs. part time work, and typical hours for such workers of same gender in most recent week)	=months worked in 1983 times 4.33 times normal hours of work

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1. Single or multiple British origins (e.g. English and Scottish) included; native-born aboriginal peoples, French, other European including British-and-French multiple origins, non-European, and mixed or residual categories not included.

2. Origins not listed are omitted from the analysis.

3. The small numbers of migrants prior to 1960 requires the use of a collapsed category.

4. Includes foreigners with compulsory schooling in country of origin. Foreigners with secondary schooling in country of origin coded Realschule (minimum) or Abitur (maximum).

5. Foreigners with college in country of origin are coded Fachhochschule (minimum) or University (maximum).



Table 2.

Education (Schooling and Vocational Training)  
of Native-born Population of British Origins in Canada (1986)  
and German Mainstream Population in Germany (1984);  
Employed Population Aged 17-65,  
by Gender and by Age.

	Canada (1986)						Germany (1984)					
	Gender		Age				Gender	Age				
	Men	Women	17-34	35-49	50-65			Men	Women	17-34	35-49	50-65
Schooling, highest level completed												
Grade 0-8	22.0	14.8	8.9	18.1	34.1	None	0.5	0.7	1.3	0.1	0.1	
Grade 9-10	18.2	14.6	9.7	13.5	18.8	Hauptschule	63.5	57.2	50.8	66.6	68.1	
Grade 11-13	12.8	16.8	20.2	11.0	5.2	Realschule	18.2	27.6	29.3	18.0	16.3	
H.S. Diploma	47.0	53.8	61.2	57.4	41.9	Abitur	17.9	14.5	18.5	15.3	15.5	
Total	100.0	100.0	100.0	100.0	100.0	Totalo	100.1	100.0	99.9	100.0	100.0	
Schooling, highest level completed for those with no further vocational training												
Grade 0-8 <sup>1</sup>	8.8	4.3	2.3	6.3	16.6	None <sup>1</sup>	0.5	0.6	1.2	0.0	0.1	
Grade 9-10	14.2	12.3	10.2	14.5	19.9	Hauptschule	10.1	20.8	10.3	15.0	19.0	
Grade 11-13	6.9	9.4	12.2	4.7	2.0	Realschule	1.2	3.4	3.6	0.6	1.9	
H.S. Diploma	16.4	21.0	22.9	15.0	12.2	Abitur	1.3	2.0	3.7	0.2	0.4	
Total	46.3	47.0	47.6	40.5	50.7	Total	13.1	26.8	18.8	15.8	21.4	
Vocational training, beyond schooling <sup>2</sup>												
Trade School	17.6	11.2	13.6	17.2	14.2	Apprentice	68.0	51.1	62.6	61.7	59.4	
Non-univ.	10.7	18.9	16.7	19.2	13.7	Fachschule	20.1	18.9	16.9	22.2	19.7	
Some Univ.	11.0	12.1	16.0	14.0	9.2	FHschule	5.6	2.8	2.6	5.2	6.4	
Univ. Deg.	13.0	11.1	11.3	15.4	9.2	Univ. Deg.	8.9	6.1	7.2	9.6	6.0	
Total	52.3	53.3	57.6	65.8	46.3	Total	102.6	78.9	89.3	98.7	91.5	
(N)	41317	31577	36541	22844	13509		2817	1813	1769	1848	1013	

Sources: 1986 Canadian census (2% sample), and German Socio-Economic Panel Survey (GSOEP), 1984 wave.

1. In subsequent regression analyses, those in Canada whose highest grade in school was 0-8 years and who had no further vocational training, and those in Germany who completed no schooling and who had no further vocational training, are classified as having „no qualifications.“

Table 3.

Regression Analyses of Labor Market Earnings  
of Native-born Population of British Origins in Canada (1986)  
and German Mainstream Population in Germany (1984),  
for Employed Population Aged 17-65, by Gender.

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**Canada - Native-born Population of British Origins**


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Variable	Men			Women								
	Mean	S.D.	B, Metric	B, Per cent	s.e.	sig. <sup>1</sup>	Mean	S.D.	B, Metric	B, Per cent	s.e.	sig. <sup>1</sup>
\$ Earn.	24,737	18,715					13,635	11,013				
No Qual.	0.088	0.283	-4263	<b>-17.2</b>	277	(3)	0.043	0.204	-1779	<b>-7.2</b>	224	(3)
Gr. 11-13	0.069	0.493	811	<b>3.3</b>	147	(3)	0.094	0.5	554	<b>2.2</b>	90	(3)
HS Dipl.	0.164	0.371	1531	<b>6.2</b>	216	(3)	0.21	0.407	810	<b>3.3</b>	123	(3)
Trade Ct.	0.176	0.381	1341	<b>5.4</b>	202	(3)	0.112	0.315	454	<b>1.8</b>	145	(2)
Oth. Tr.	0.107	0.309	2162	<b>8.7</b>	236	(3)	0.189	0.392	2089	<b>8.4</b>	118	(3)
Some Uni.	0.11	0.313	2990	<b>12.1</b>	240	(3)	0.121	0.326	3145	<b>12.7</b>	140	(3)
Univ. Dg.	0.13	0.336	13256	<b>53.6</b>	232	(3)	0.111	0.314	9043	<b>36.6</b>	149	(3)
Ann. Hrs.	1618	579	12.57	<b>0.051</b>	0.135	(3)	1127	544	11.55	<b>0.047</b>	0.082	(3)
Metro Rs.	19.49	1.702	856	<b>3.5</b>	43	(3)	19.58	1.725	471	<b>1.9</b>	26	(3)
Age1	0.222	0.416	-12599	<b>-50.9</b>	232	(3)	0.255	0.436	-4897	<b>-19.8</b>	129	(3)
Age2	0.293	0.455	-6335	<b>-25.6</b>	200	(3)	0.291	0.454	-1499	<b>-6.1</b>	122	(3)
Age4	0.152	0.359	1559	<b>6.3</b>	237	(3)	0.143	0.35	-228	<b>-0.9</b>	147	(3)
Age5	0.111	0.314	-651	<b>-2.6</b>	264	(1)	0.087	0.282	-363	<b>-1.5</b>	174	(1)
Constant			-10260		855				-8836		505	
(N)	(41317)						(31577)					

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**Germany - Mainstream Population**


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Variable	Men			Women								
	Mean	S.D.	B, Metric	B, Per cent	s.e.	sig.	Mean	S.D.	B, Metric	B, Per cent	s.e.	sig.
DM Earn.	42,395	33,391					22,670	17,574				
No Qual	0.004	0.067	-777	<b>-1.8</b>	7758	(0)	0.006	0.075	742	<b>1.7</b>	4316	(0)
Realsch.	0.012	0.107	-767	<b>-1.8</b>	5898	(0)	0.034	0.182	3739	<b>8.8</b>	1864	(1)
Abitur	0.013	0.113	2431	<b>5.7</b>	4750	(0)	0.02	0.138	3873	<b>9.1</b>	2628	(0)
Apprent.	0.68	0.466	3635	<b>8.6</b>	1365	(2)	0.511	0.5	3957	<b>9.3</b>	794	(3)
Fachs.	0.201	0.401	5491	<b>13.0</b>	1448	(3)	0.189	0.391	4767	<b>11.2</b>	951	(3)
Fachhoch.	0.056	0.23	18083	<b>42.7</b>	2493	(3)	0.028	0.164	9582	<b>22.6</b>	2177	(3)
Univ. Dg.	0.089	0.285	24041	<b>56.7</b>	2137	(3)	0.061	0.239	19751	<b>46.6</b>	1570	(3)
Ann Hrs.	2183	637	13.89	<b>0.033</b>	0.946	(3)	1701	754	11.31	<b>0.027</b>	0.477	(3)
Metro Rs.	0.564	0.496	1618	<b>3.8</b>	1089	(0)	0.582	0.493	2839	<b>6.7</b>	672	(3)
Age1	0.134	0.341	-17082	<b>-40.3</b>	2018	(3)	0.185	0.388	-4841	<b>-11.4</b>	1059	(3)
Age2	0.241	0.428	-4976	<b>-11.7</b>	1499	(3)	0.26	0.439	155	<b>0.4</b>	926	(0)
Age4	0.251	0.434	-854	<b>-2.0</b>	1522	(0)	0.229	0.42	2072	<b>4.9</b>	1015	(0)
Age5	0.128	0.334	1556	<b>3.7</b>	1869	(0)	0.1	0.299	-339	<b>-0.8</b>	1334	(0)
Constant			7920		2825				-2411		1200	
(N)	(2817)						(1813)					

Sources: 1986 Canadian census (2% sample), and German Socio-Economic Panel Survey (GSOEP), 1984 wave.

1. Note: (3)=p<0.001; (2)=p<0.01; (1)=p<0.05; (0)= P>0.05. Significance in German data based on unweighted analysis.

Table 4.

Schooling and Vocational Training  
of Immigrants in Canada (1986) and Foreigners in Germany (1984),  
Employed Population Aged 17-65,  
by Gender, Origins, and (for German Foreigners) Education Coding

Men	Schooling				Schooling without Vocational Training				Vocational Training beyond schooling				(N)
	Grd. 0-8	Grade 9-10	Grade 11-13	H.S. Dipl.	Grd. 0-8	Grade 9-10	Grade 11-13	H.S. Dipl.	Trade Sch.	Oth. Voc.	Some Univ.	Univ. Degr.	
<b>Canada</b>													
Immigrants, Total	27.9	11.9	12.6	47.6	16.2	8.4	4.8	11.8	24.1	14.4	11.2	16.7	(21030)
Italians	58.8	12.1	5.0	24.1	45.0	9.2	1.9	9.8	15.5	6.0	4.3	5.6	(2903)
Greeks	56.6	14.5	4.6	24.2	41.2	12.0	2.0	11.0	11.9	7.4	5.1	5.7	(648)
Croatians, Serbs	35.7	10.1	18.5	35.7	20.9	6.4	4.5	9.9	35.5	10.3	8.0	8.2	(513)
Other Europeans	23.6	12.5	14.8	49.0	11.1	8.1	5.1	11.9	30.7	16.8	10.8	15.4	(11268)
West Asian, Arab	15.1	6.7	12.1	66.2	9.4	5.0	4.9	14.1	13.2	16.9	15.8	33.3	(597)
South Asian	14.5	10.2	10.2	65.1	5.9	7.8	4.1	12.7	19.4	15.7	17.5	29.2	(1485)
Chinese	19.5	10.2	12.7	57.6	12.6	9.3	6.5	13.1	10.5	13.9	14.0	26.4	(1683)
Other Asian	14.6	8.7	9.3	67.5	7.0	6.4	5.5	11.3	14.2	11.9	24.2	31.5	(983)
Black: Caribbean <sup>1</sup>	20.0	17.1	17.3	45.7	6.7	12.7	8.1	15.4	21.9	18.7	10.8	12.0	(817)
Black: Other	6.8	6.8	26.3	60.2	1.5	5.3	12.8	11.3	24.1	13.5	16.5	30.8	(133)
<b>Germany</b>	None	Haupt Sch.	Real Sch.	Abitur	No Qual.	Haupt Sch.	Real Sch.	Abitur	Appr.	Fach Sch.	Fach HSch.	Univ. Degr.	
<b>Min. Educ. Code</b>													
Foreigners, Total	29.2	57.2	13.0	0.6	24.7	28.9	4.4	0.0	26.7	16.4	2.4	0.4	(1344)
Italians	40.4	53.9	5.7	0.0	32.1	30.8	0.7	0.0	21.7	14.7	1.2	0.0	(294)
Greeks	27.0	60.8	11.4	0.8	25.3	40.0	5.5	0.0	19.4	2.8	5.2	2.5	(191)
Yugoslavian	19.0	69.3	11.5	0.2	15.6	18.7	1.3	0.0	36.1	36.3	2.3	0.2	(244)
Turkish	28.6	52.4	18.0	1.0	25.0	30.8	7.7	0.0	25.3	11.6	2.5	0.0	(428)
Spanish	33.4	56.5	9.9	0.2	27.1	28.3	2.6	0.0	33.4	8.7	1.6	1.6	(187)
<b>Max. Educ. Code</b>													
Foreigners, Total	29.3	57.2	0.5	13.0	24.7	28.9	0.3	4.3	26.7	16.4	0.5	2.4	
Italians	40.4	53.9	0.0	5.7	32.1	30.8	0.0	0.7	21.7	14.7	0.0	1.2	
Greeks	27.0	60.8	0.6	11.6	25.3	40.0	0.3	5.1	19.4	2.8	0.3	7.4	
Yugoslavian	19.2	69.3	0.8	10.6	15.6	18.7	0.6	0.7	36.1	36.3	0.0	2.3	
Turkish	28.7	52.4	0.3	18.6	25.0	30.8	0.3	7.7	25.3	11.6	1.0	1.8	
Spanish	33.4	56.5	1.8	8.4	27.1	28.3	0.0	2.6	33.4	8.7	0.0	3.2	

Table 4, continued.

Women	Schooling				Schooling without Vocational Training				Vocational Training beyond schooling				(N)
	Grd. 0-8	Grade 9-10	Grade 11-13	H.S. Dipl.	Grd. 0-8	Grade 9-10	Grade 11-13	H.S. Dipl.	Trade Sch.	Oth. Voc.	Some Univ.	Univ. Degr.	
<b>Canada</b>													
Immigrants, Total	26.2	11.0	14.2	48.6	17.1	8.8	7.2	17.4	13.0	17.0	11.2	12.0	(15438)
Italians	58.9	9.6	3.0	28.5	50.2	7.7	1.6	15.4	7.2	6.9	3.9	4.9	(1646)
Greeks	60.0	11.6	5.7	22.7	50.6	9.6	4.0	11.6	7.2	6.4	4.7	4.4	(405)
Croatians, etc.	41.9	9.6	12.5	35.9	30.2	6.5	5.5	13.8	18.0	9.6	10.2	5.5	(384)
Other Europeans	20.7	11.6	17.4	50.3	11.1	9.0	9.3	18.4	15.0	19.4	11.1	10.6	(8159)
West Asian, Arab	18.9	9.6	11.7	59.8	11.0	8.9	2.4	17.9	8.6	18.2	14.4	22.3	(291)
South Asian	20.3	10.3	12.8	56.6	11.1	8.5	5.8	18.0	11.6	17.4	13.7	18.4	(1077)
Chinese	24.5	10.2	13.0	52.3	18.2	9.8	6.3	16.6	7.9	16.3	12.6	16.9	(1401)
Other Asian	15.8	8.7	9.2	66.3	9.0	6.3	5.3	15.7	10.3	14.9	21.3	27.8	(1064)
Black: Caribbean <sup>1</sup>	20.3	14.8	18.6	46.3	8.0	12.1	6.7	18.8	19.4	24.1	9.5	6.8	(913)
Black: Other	11.2	6.1	26.5	56.1	7.1	4.1	13.3	17.4	18.4	25.5	13.3	9.2	(98)
<b>Germany</b>	None	Haupt Sch.	Real Sch.	Abitur	No Qual.	Haupt Sch.	Real Sch.	Abitur	Appr.	Fach Sch.	Fach HSch.	Univ. Degr.	
<b>Min. Educ. Code</b>													
Foreigners, Total	37.0	52.5	10.0	0.5	34.7	36.8	3.4	0.1	16.8	8.0	1.9	0.2	(670)
Italians	63.1	34.1	2.8	0.0	59.6	25.4	1.1	0.0	7.8	7.1	0.4	0.0	(110)
Greeks	39.5	50.4	8.2	2.0	37.3	34.9	2.1	0.0	16.4	4.5	5.8	1.0	(119)
Yugoslavian	27.2	64.8	7.2	0.9	24.0	42.1	0.9	0.2	18.0	16.6	0.8	0.5	(175)
Turkish	32.5	52.0	15.4	0.1	31.2	38.4	6.6	0.1	19.2	3.6	2.4	0.0	(186)
Spanish	43.4	48.2	8.0	0.5	41.8	33.7	1.8	0.0	17.9	5.7	0.7	0.0	(80)
<b>Max. Educ. Code</b>													
Foreigners, Total	37.1	52.5	1.8	8.6	34.7	36.8	0.7	2.8	16.8	8.0	0.1	2.0	
Italians	63.1	34.1	1.3	1.5	59.6	25.4	0.0	1.1	7.8	7.1	0.0	0.4	
Greeks	39.5	50.4	0.3	9.9	37.3	34.9	0.0	2.1	16.4	4.5	1.0	5.7	
Yugoslavian	27.5	64.8	0.4	7.3	24.0	42.1	0.1	0.9	18.0	16.6	0.0	1.2	
Turkish	32.5	52.0	2.6	12.9	31.2	38.4	1.4	5.3	19.2	3.6	0.0	2.4	
Spanish	43.4	48.2	7.3	1.2	41.8	33.7	1.8	0.0	17.9	5.7	0.0	0.7	

Sources: 1986 Canadian census (2% sample), and German Socio-Economic Panel Survey (GSOEP), 1984 wave.

1. Includes Central and South American.

Table 5.

Regression Analyses of Labor Market Earnings  
for Immigrants in Canada (1986) and Foreigners in Germany (1984);  
Employed Population Aged 17-65, by Gender and (for German Foreigners) Education Codes

<b>Canada - Immigrants</b>												
Variable	Men Mean	S.D.	B, Metric	B, per cent	s.e.	sig. <sup>1</sup>	Women Mean	S.D.	B, Metric	B, per cent	s.e.	sig.
\$ Earn.	26,916	18,839					14,530	11,107				
No Qual.	0.162	0.369	-3266	<b>-13.2</b>	367	(3)	0.171	0.376	-1810	<b>-7.3</b>	237	(3)
Gr. 11-13	0.048	0.397	-69	<b>-0.3</b>	273		0.072	0.433	499	<b>2.0</b>	165	(2)
HS Dipl.	0.118	0.323	152	<b>0.6</b>	378		0.174	0.379	942	<b>3.8</b>	215	(3)
Trade Ct.	0.241	0.428	619	<b>2.5</b>	289	(1)	0.130	0.336	687	<b>2.8</b>	220	(2)
Oth. Tr.	0.144	0.351	2627	<b>10.6</b>	317	(3)	0.170	0.376	2134	<b>8.6</b>	197	(3)
Some Uni.	0.112	0.315	2882	<b>11.6</b>	366	(3)	0.112	0.315	2588	<b>10.5</b>	237	(3)
Univ. Dg.	0.167	0.373	13383	<b>54.1</b>	335	(3)	0.120	0.325	8765	<b>35.4</b>	237	(3)
Ann. Hrs.	1709.	507.	13.05	<b>0.053</b>	0.224	(3)	1212.	512.	10.99	<b>0.044</b>	0.138	(3)
Metro Rs.	20.598	1.554	370	<b>1.5</b>	70	(3)	20.694	1.524	373	<b>1.5</b>	47	(3)
Poor Lng.	0.027	0.162	-2208	<b>-8.9</b>	691	(3)	0.045	0.207	-1073	<b>-4.3</b>	361	(2)
Italian	0.138	0.345	-1523	<b>-6.2</b>	348	(3)	0.107	0.309	-882	<b>-3.6</b>	252	(3)
Greek	0.031	0.173	-5824	<b>-23.5</b>	635	(3)	0.026	0.160	-868	<b>-3.5</b>	444	
Croatian	0.024	0.154	-1582	<b>-6.4</b>	697	(1)	0.025	0.156	-55	<b>-0.2</b>	449	
West As.	0.028	0.166	-3479	<b>-14.1</b>	662	(3)	0.019	0.136	-2184	<b>-8.8</b>	515	(3)
So. Asian	0.071	0.256	-3118	<b>-12.6</b>	455	(3)	0.070	0.255	-449	<b>-1.8</b>	296	
Chinese	0.080	0.271	-4429	<b>-17.9</b>	431	(3)	0.091	0.287	-107	<b>-0.4</b>	268	
Oth. As.	0.047	0.211	-6484	<b>-26.2</b>	546	(3)	0.069	0.253	-1123	<b>-4.5</b>	300	(3)
Black Car.	0.039	0.193	-5814	<b>-23.5</b>	577	(3)	0.059	0.236	-79	<b>-0.3</b>	312	
Oth. Bl.	0.006	0.079	-6236	<b>-25.2</b>	1347	(3)	0.006	0.079	-277	<b>-1.1</b>	870	
Stay2	0.106	0.308	2793	<b>11.3</b>	494	(3)	0.121	0.326	1087	<b>4.4</b>	303	(3)
Stay3	0.153	0.360	3490	<b>14.1</b>	466	(3)	0.173	0.378	1956	<b>7.9</b>	286	(3)
Stay4	0.186	0.389	4650	<b>18.8</b>	468	(3)	0.192	0.394	2809	<b>11.4</b>	292	(3)
Stay5	0.099	0.299	4852	<b>19.6</b>	535	(3)	0.108	0.310	2568	<b>10.4</b>	333	(3)
Stay6	0.153	0.360	5661	<b>22.9</b>	513	(3)	0.142	0.349	3288	<b>13.3</b>	331	(3)
Stay7	0.146	0.353	6038	<b>24.4</b>	526	(3)	0.109	0.312	3824	<b>15.5</b>	350	(3)
Stay8	0.075	0.264	6625	<b>26.8</b>	601	(3)	0.064	0.246	3539	<b>14.3</b>	399	(3)
Age1	0.102	0.303	-9846	<b>-39.8</b>	425	(3)	0.130	0.337	-3868	<b>-15.6</b>	243	(3)
Age2	0.201	0.401	-4904	<b>-19.8</b>	317	(3)	0.233	0.423	-1262	<b>-5.1</b>	196	(3)
Age4	0.237	0.425	-18	<b>-0.1</b>	304		0.211	0.408	-127	<b>-0.5</b>	202	
Age5	0.168	0.374	-2621	<b>-10.6</b>	356	(3)	0.124	0.330	-662	<b>-2.7</b>	251	(2)
Constant			-5840		1557				-9367		1002	
(N)	(21030)						(15438)					

Table 5 (continued).

Regression Analyses of Labor Market Earnings  
for Immigrants in Canada (1986) and Foreigners in Germany (1984);  
Employed Population Aged 17-65, by Gender and (for German Foreigners) Education Codes.

German Foreigners - Minimum Education Codes												
Variable	Men		B,	B, per	s.e.	sig.	Women		B,	B, per	s.e.	sig.
	Mean	S.D.	Metric	cent			Mean	S.D.	Metric	cent		
DM Earn.	33,155	17,948					20,487	8,759				
No Qual.	0.247	0.432	-1104	<b>-2.6</b>	1401		0.347	0.478	1253	<b>3.0</b>	666	
Realsch.	0.044	0.206	830	<b>2.0</b>	2853		0.034	0.182	449	<b>1.1</b>	1615	
Abitur	0	0		<b>0</b>			0.001	0.028	-3591	<b>-8.5</b>	5105	
Apprent.	0.267	0.443	220	<b>0.5</b>	1327		0.168	0.375	1576	<b>3.7</b>	850	
Fachsch.	0.164	0.371	2360	<b>5.6</b>	1639	(1)	0.08	0.272	1907	<b>4.5</b>	1063	
Fachhoch.	0.024	0.152	12294	<b>29.0</b>	3380	(2)	0.019	0.138	11642	<b>27.5</b>	2216	(3)
Univ. Dg.	0.004	0.059	34457	<b>81.3</b>	9623	(1)	0.002	0.049	-61	<b>-0.1</b>	5059	
Ann. Hrs.	2095.	491.	6.85	<b>0.016</b>	1.063	(2)	1864	612	7.48	<b>0.018</b>	0.481	(3)
Metro Rs.	0.680	0.467	2926	<b>6.9</b>	1134	(3)	0.657	0.477	845	<b>2.0</b>	601	
Poor Lng.	0.199	0.400	-2288	<b>-5.4</b>	1487	(1)	0.211	0.409	-972	<b>-2.3</b>	722	
Yugoslav	0.207	0.406	393	<b>0.9</b>	1644		0.279	0.45	-299	<b>-0.7</b>	807	
Greek	0.091	0.288	472	<b>1.1</b>	1743		0.111	0.315	698	<b>1.6</b>	882	
Italian	0.209	0.407	1972	<b>4.7</b>	1568		0.149	0.357	1551	<b>3.7</b>	893	
Spanish	0.056	0.230	-298	<b>-0.7</b>	1776		0.059	0.237	2199	<b>5.2</b>	1003	(1)
Stay2	0.110	0.314	-767	<b>-1.8</b>	2484		0.13	0.338	-1540	<b>-3.6</b>	1121	
Stay3	0.498	0.501	2731	<b>6.4</b>	2054		0.521	0.502	276	<b>0.7</b>	960	
Stay4	0.187	0.391	4184	<b>9.9</b>	2253	(1)	0.171	0.378	1560	<b>3.7</b>	1100	
Stay5	0.107	0.310	1483	<b>3.5</b>	2515		0.066	0.25	-99	<b>-0.2</b>	1356	
Age1	0.137	0.345	-9214	<b>-21.7</b>	1884	(3)	0.154	0.362	-3569	<b>-8.4</b>	927	(3)
Age2	0.208	0.407	-993	<b>-2.3</b>	1491		0.329	0.472	-846	<b>-2.0</b>	772	
Age4	0.220	0.415	-573	<b>-1.4</b>	1470		0.179	0.385	-1150	<b>-2.7</b>	829	
Age5	0.049	0.216	-3882	<b>-9.2</b>	2354		0.042	0.201	543	<b>1.3</b>	1362	
Constant			15690		3384				5553		3639	
(N)	(1344)						(670)					

  

German Foreigners - Maximum Education Codes												
Variable	Men		B,	B, per	s.e.	sig.	Women		B,	B, per	s.e.	sig.
	Mean	S.D.	Metric	cent			Mean	S.D.	Metric	cent		
DM Earn.	33155	17948					20487	8759				
No Qual.	0.247	0.432	-904	<b>-2.1</b>	1397		0.347	0.478	1212	<b>2.9</b>	666	
Realsch.	0.003	0.052	927	<b>2.2</b>	9567		0.007	0.084	3859	<b>9.1</b>	3230	
Abitur	0.043	0.202	551	<b>1.3</b>	2926		0.028	0.165	-537	<b>-1.3</b>	1737	
Apprent.	0.267	0.443	319	<b>0.8</b>	1323		0.168	0.375	1593	<b>3.8</b>	851	
Fachsch.	0.164	0.371	2510	<b>5.9</b>	1634	(1)	0.080	0.272	1934	<b>4.6</b>	1064	
Fachhoch.	0.005	0.067	-6542	<b>-15.4</b>	9623		0.001	0.034	3703	<b>8.7</b>	7161	
Univ. Dg.	0.023	0.152	21160	<b>49.9</b>	3363	(3)	0.020	0.142	10704	<b>25.2</b>	2135	(3)
Ann. Hrs.	2095.	491.	7.13	<b>0.017</b>	1.059	(3)	1864.	612.	7.52	<b>0.018</b>	0.479	(3)
Metro Rs.	0.680	0.467	2862	<b>6.8</b>	1133	(2)	0.657	0.477	861	<b>2.0</b>	602	
Poor Lng.	0.199	0.400	-2214	<b>-5.2</b>	1484	(1)	0.211	0.409	-936	<b>-2.2</b>	723	
Yugoslav	0.207	0.406	-388	<b>-0.9</b>	1644		0.279	0.450	-392	<b>-0.9</b>	806	
Greek	0.091	0.288	184	<b>0.4</b>	1740		0.111	0.315	697	<b>1.6</b>	884	
Italian	0.209	0.407	-503	<b>-1.2</b>	1570		0.149	0.357	1563	<b>3.7</b>	894	
Spanish	0.056	0.230	433	<b>1.0</b>	1776		0.059	0.237	2112	<b>5.0</b>	1006	
Stay2	0.110	0.314	-4244	<b>-10.0</b>	2491		0.130	0.338	-1428	<b>-3.4</b>	1127	
Stay3	0.498	0.501	1721	<b>4.1</b>	2050		0.521	0.502	265	<b>0.6</b>	962	
Stay4	0.187	0.391	-262	<b>-0.6</b>	2251	(1)	0.171	0.378	1578	<b>3.7</b>	1102	
Stay5	0.107	0.310	169	<b>0.4</b>	2517		0.066	0.250	-99	<b>-0.2</b>	1358	
Age1	0.137	0.345	3393	<b>8.0</b>	1878	(3)	0.154	0.362	-3830	<b>-9.0</b>	928	(3)
Age2	0.208	0.407	4782	<b>11.3</b>	1486		0.329	0.472	-935	<b>-2.2</b>	771	
Age4	0.220	0.415	2200	<b>5.2</b>	1468		0.179	0.385	-1180	<b>-2.8</b>	830	
Age5	0.049	0.216	-8932	<b>-21.1</b>	2349		0.042	0.201	517	<b>1.2</b>	1363	
Constant			14305		3373				5570		1527	
(N)	(1344)						(670)					

Sources: 1986 Canadian census (2% sample), and German Socio-Economic Panel Survey (GSOEP), 1984 wave.

1. Note: (3)=p<0.001; (2)=p<0.01; (1)=p<0.05; (0)=P>0.05.

Table 6.

Labor Market Earnings of Immigrants in Canada (1986) and Foreigners in Germany (1984) as Percent of Mainstream Earnings, Adjusted for Demographic and Work-related Variables other than Education, by Education Codes (for German Foreigners)<sup>†</sup>

Gender	Men			Women			Women Relative to Mainstream Men <sup>2</sup>		
	Canada	Germany		Canada	Germany		Canada	Germany	
Country	Canada	Germany	Germany	Canada	Germany	Germany	Canada	Germany	Germany
Education Codes (Germany)		Minimum	Maximum		Minimum	Maximum		Minimum	Maximum
Mainstream Earnings	100.0	100.0	100.0	100.0	100.0	100.0	55.1	53.5	53.5
Migrant Earnings, Overall	108.8	78.2	78.2	106.6	90.5	90.5	58.7	48.4	48.4
Migrant Earnings with Cumulative Adjustments for Variables Specific to Migrants:									
Period of Arrival <sup>3</sup>									
Adjusted to Other Country's Pattern	104.9	77.3	77.5	102.3	90.1	89.9	56.4	48.2	48.1
Adjusted to Standard Pattern	104.1	76.6	76.7	102.1	89.7	89.6	56.3	48.0	47.9
Language Knowledge	104.4	77.7	77.7	102.4	90.6	90.5	56.5	48.5	48.4
Migrant Earnings with Cumulative Adjustments for Common Variables: Age (work experience proxy), Residence in Metro Area, Annual Work Hours:									
Migrants adjusted to Mainstream	91.9	77.5	77.6	88.6	84.6	84.4	67.9	55.9	55.8
Mainstream adjusted to Migrants	89.0	79.6	79.6	88.3	82.8	82.7	67.6	54.7	54.6
Average	90.4	78.5	78.6	88.4	83.7	83.5	67.7	55.3	55.2
<b>Net Migrant Earnings Deficit</b>	<b>-9.6</b>	<b>-21.5</b>	<b>-21.4</b>	<b>-11.6</b>	<b>-16.3</b>	<b>-16.5</b>	<b>-32.3</b>	<b>-44.7</b>	<b>-44.8</b>

Sources: 1986 Canadian census (2% sample), and German Socio-Economic Panel Survey (GSOEP), 1984 wave.

1. Although education is not a variable in this table, education codes in the German data affect regression results for other variables, and hence affect adjustments in this table.
2. Earnings of mainstream women relative to mainstream men are reported in the first row. Earnings for migrant women relative to mainstream men take account of these gender differences in mainstream earnings. However, in the case of adjustments for common variables (age, residence, hours), the earnings of mainstream women relative to mainstream men are first adjusted to take account of mainstream gender differences in these common variables.
3. The two adjustments for period of arrival are alternatives and do not cumulate; subsequent cumulative adjustments are based on the adjustment of length of residence to the standard pattern.

Table 7.

Decomposition of Labor Market Earnings of Immigrants in Canada (1986) and Foreigners in Germany (1984)  
into Components based on Education (Schooling and Vocational Training) and Labor Market Differences, by Gender and (for German foreigners) Education Codes

Gender	Men			Women			Women Relative to Mainstream Men					
	Country	Canada	Germany	Country	Canada	Germany	Country	Canada	Germany			
Education Codes (Germany)		Minimum	Maximum		Minimum	Maximum		Minimum	Maximum			
Adjusted for Variables other than Education (Table 6)		90.4	78.5	78.6		88.4	83.7	83.5		67.7	55.3	55.2
<b>Education Adjustments</b>												
Migrants adjusted to Mainstream Education		90.3	83.7	83.4		90.4	89.2	89.3		69.3	59.0	59.0
Mainstream adjusted to Migrant Education		88.2	89.4	88.9		89.7	94.0	93.0		68.7	62.1	62.1
Average Education-adjusted		89.3	86.6	86.2		90.1	91.6	91.2		69.0	60.5	60.5
<b>Labor Market Adjustments</b>												
Migrants adjusted to Mainstream Labor Market		92.5	81.2	81.3		88.9	87.0	87.9		68.1	57.5	57.5
Mainstream adjusted to Migrant Labor Market		89.8	87.0	86.8		88.5	91.9	91.7		67.8	60.7	60.7
Average Labor-market-adjusted		91.1	84.1	84.1		88.7	89.5	89.8		68.0	59.1	59.1
<b>Summary</b>												
Earnings Disparity (1.0-Table 6 adjustment)		-9.6	-21.5	-21.4		-11.6	-16.3	-16.5		-32.3	-44.7	-44.8
(a) Due to Education Difference		1.2	-8.0	-7.5		-1.6	-7.9	-7.6		-1.2	-5.2	-5.3
(b) Due to Labor Market Difference		-0.7	-5.6	-5.5		-0.3	-5.7	-6.2		-0.2	-3.8	-3.9
(c) Residual Disparity		-10.0	-7.8	-8.4		-9.7	-2.6	-2.6		-30.8	-35.7	-35.6
Disparity Net of Education (=b+c)		-10.7	-13.4	-13.8		-9.9	-8.4	-8.8		-31.0	-39.5	-39.5



Table 7 (continued).

Gender	Men		Women		Women Relative to Mainstream Men				
	Canada	Germany	Canada	Germany	Canada	Germany			
Education Codes (Germany)		Minimum	Maximum		Minimum	Maximum	Minimum	Maximum	
<b>Specific Origins</b>									
<b>Italians</b>									
Earnings Disparity (1.0-Table 6 adjustment)	-19.9	-19.0	-19.3	-28.9	-11.5	-11.4	-45.6	-41.5	-41.5
(a) Due to Education Difference	-9.6	-9.4	-9.1	-15.5	-9.5	-9.5	-11.8	-6.3	-6.3
(b) Due to Labor Market Difference	0.1	-5.4	-5.2	-3.2	-5.0	-5.2	-2.4	-3.3	-3.4
(c) Residual Disparity	-10.3	-4.2	-5.0	-10.3	3.0	3.2	-31.3	-31.9	-31.8
Disparity Net of Education (=b+c)	-10.2	-9.6	-10.2	-13.5	-2.0	-1.9	-33.7	-35.3	-35.2
<b>Greeks</b>									
Earnings Disparity (1.0-Table 6 adjustment)	-35.3	-20.6	-22.4	-23.7	-12.8	-14.1	-41.5	-42.4	-43.2
(a) Due to Education Difference	-8.2	-7.6	-8.9	-13.1	-6.4	-5.5	-10.1	-4.2	-3.6
(b) Due to Labor Market Difference	0.1	-5.1	-5.0	-0.2	-5.5	-6.7	-0.1	-3.7	-4.4
(c) Residual Disparity	-27.2	-7.9	-8.5	-10.4	-0.9	-1.9	-31.3	-34.5	-35.2
Disparity Net of Education (=b+c)	-27.1	-13.0	-13.5	-10.5	-6.4	-8.6	-31.5	-38.2	-39.6
<b>Croatian, Serb (Canada)/Yugoslavs (Germany)</b>									
Earnings Disparity (1.0-Table 6 adjustment)	-14.6	-20.7	-20.7	-18.4	-19.3	-19.6	-37.5	-46.7	-46.9
(a) Due to Education Difference	-3.8	-5.8	-5.4	-8.2	-7.4	-7.3	-6.3	-4.9	-4.8
(b) Due to Labor Market Difference	-0.8	-6.7	-6.4	-0.2	-6.2	-6.4	-0.1	-4.1	-4.3
(c) Residual Disparity	-10.0	-8.1	-8.8	-10.0	-5.7	-6.0	-31.1	-37.7	-37.8
Disparity Net of Education (=b+c)	-10.8	-14.9	-15.3	-10.2	-11.9	-12.4	-31.2	-41.8	-42.1
<b>West Asian (Canada)/Turk (Germany)</b>									
Earnings Disparity (1.0-Table 6 adjustment)	-6.7	-23.2	-22.8	-4.2	-18.0	-18.1	-26.6	-45.8	-45.9
(a) Due to Education Difference	10.1	-8.6	-8.0	5.5	-7.9	-7.6	4.2	-5.2	-5.0
(b) Due to Labor Market Difference	-0.7	-5.2	-5.3	-0.5	-5.7	-6.4	-0.4	-3.8	-4.2
(c) Residual Disparity	-16.0	-9.4	-9.5	-9.3	-4.3	-4.1	-30.5	-36.8	-36.7
Disparity Net of Education (=b+c)	-16.8	-14.6	-14.8	-9.8	-10.0	-10.5	-30.9	-40.6	-40.9

Sources: 1986 Canadian census (2% sample), and German Socio-Economic Panel Survey (GSOEP), 1984 wave.

Table 8.

Cross-National Decomposition of Labor Market Earnings of Immigrants in Canada (1986) and Foreigners in Germany (1984)  
into Components based on Education (Schooling and Vocational Training) and Labor Market Differences by Gender and (for German foreigners) Education Codes  
(Migrant Earnings as Percent of Mainstream Earnings)<sup>1</sup>

Gender	Men				Women				Women, Relative to Mainstream Men			
	Canada		Germany		Canada		Germany		Canada		Germany	
Country	Canada	Germany	Canada	Germany	Canada	Germany	Canada	Germany	Canada	Germany	Canada	Germany
Education Codes (German foreigner data)	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Adjusted for Variables other than Education (Table 6)	90.4	--	78.5	78.6	88.4	--	83.7	83.5	67.7	--	55.3	55.2
<b>Educational Institutions</b>												
Mainstream Education Adjusted to Other Country	89.6	--	78.8	78.9	92.8	--	79.4	79.2	71.1	--	52.5	52.3
Impact of Difference in Education Institutions	-0.9	--	0.2	0.2	4.3	--	-4.3	-4.3	3.3	--	-2.9	-2.8
<b>Labor Market Institutions</b>												
Migrants Adjusted to Mainstream Labor Market (No Dual)	91.0	--	82.3	82.4	88.7	--	86.0	86.8	68.0	--	56.8	57.4
Mainstream Labor Market Also Adjusted to Other Country	93.0	--	80.4	80.9	91.1	--	85.7	86.6	69.8	--	56.6	57.2
Impact of Difference in Mainstream Labor Market Institutions	2.0	--	-1.9	-1.5	2.4	--	-0.3	-0.2	1.8	--	-0.2	-0.1
<b>Summary of Between-Institution Effects</b>												
Educational Institutions of Other Country	-0.9	--	0.2	0.2	4.3	--	-4.3	-4.3	3.3	--	-2.9	-2.8
Mainstream Labor Market of Other Country	2.0	--	-1.9	-1.5	2.4	--	-0.3	-0.2	1.8	--	-0.2	-0.1
Total	1.2	--	-1.6	-1.3	6.7	--	-4.6	-4.5	5.1	--	-3.1	-3.0
<b>Within-Institution Effects (from Table 7)</b>												
Impact of Difference in Migrant Dual Labor Market	-4.9	-4.8	4.9	4.8	-5.5	-5.9	5.5	5.9	-3.6	-3.7	3.6	3.7
Impact of Difference in Residual	2.2	1.7	-2.2	-1.7	7.0	7.1	-7.0	-7.1	-4.9	-4.7	4.9	4.7
Total	-2.7	-3.1	2.7	3.1	1.6	1.1	-1.6	-1.1	-8.4	-8.4	8.4	8.4
<b>Total, Between- and Within- Effects</b>												
	-1.5	-1.9	1.1	1.8	8.3	7.8	-6.2	-5.7	-3.3	-3.3	5.4	5.4
<b>Other Country, Overall</b>												
Migrant Education in Other Country's Institutions	89.6	89.3	80.5	81.3	92.8	92.9	75.2	76.0	71.1	71.1	49.7	50.2
Impact of Other Country's Institutions	-0.8	-1.2	1.9	2.6	4.4	4.4	-8.5	-7.5	3.4	3.4	-5.6	-5.0

Table 8 (continued).

Gender	Men				Women				Women, Relative to Mainstream Men			
	Canada		Germany		Canada		Germany		Canada		Germany	
Country	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
<b>Italians</b>												
Between-Institutions: Education	-0.8	--	0.2	0.2	3.5	--	-4.6	-4.6	2.7		-2.0	-3.0
Labor Markets	4.0	--	-2.6	-2.3	2.4	--	-0.3	-0.2	1.8		-0.2	-0.1
Total	3.2	--	-2.3	-2.0	5.8	--	-5.0	-4.8	4.5		-2.2	-3.2
Within-Institutions (Total, from Table 7)	0.6	0.0	-0.6	0.0	11.5	11.5	-11.5	-11.5	-1.5	-1.5	1.5	1.5
Total, Cross- and Within-Institutions Effects	3.8	3.2	-2.9	-2.3	17.3	17.4	-16.4	-16.5	2.9	3.0	-0.7	-0.8
<b>Greeks</b>												
Between-Institutions: Education	-0.6	--	0.2	0.2	3.7	--	-4.5	-4.4	2.9		-3.0	-2.9
Labor Markets	4.4	--	-2.0	-2.4	2.4	--	-0.3	-0.2	1.8		-0.2	-0.1
Total	3.8	--	-1.8	-2.2	6.1	--	-4.8	-4.6	4.7		-3.2	-3.1
Within-Institutions (Total, from Table 7)	14.1	13.6	-14.1	-13.6	4.1	1.9	-4.1	-1.9	-6.7	-8.1	6.7	8.1
Total, Between- and Within-Institution Effects	17.8	17.4	-15.9	-15.4	10.2	8.0	-8.9	-6.7	-2.0	-3.5	3.5	5.0
<b>Croatian, Serb (Canada)/Yugoslavs (Germany)</b>												
Between-Institutions: Education	-0.8	--	0.2	0.2	4.0	--	-4.2	-4.1	3.1		-2.7	-2.7
Labor Markets	2.0	--	-1.5	-0.9	2.4	--	-0.3	-0.2	1.8		-0.2	-0.1
Total	1.2	--	-1.3	-0.7	6.4	--	-4.5	-4.3	4.9		-3.0	-2.9
Within-Institutions (Total, from Table 7)	-4.1	-4.5	4.1	4.5	-1.7	-2.1	1.7	2.1	-10.6	-10.9	10.6	10.9
Total, Cross- and Within-Institution Effects	-2.9	-3.3	2.8	3.2	4.6	4.2	-2.8	-2.4	-5.7	-6.0	7.6	7.9
<b>West Asians (Canada)/Turks (Germany)</b>												
Between-Institutions: Education	-0.9	--	0.2	0.2	4.7	--	-4.2	-4.2	3.6		-2.8	-2.8
Labor Markets	2.4	--	-1.6	-1.5	2.4	--	-0.3	-0.2	1.8		-0.2	-0.1
Total	1.5	--	-1.4	-1.3	7.1	--	-4.6	-4.4	5.4		-3.0	-2.9
Within-Institutions (Total, from Table 7)	2.2	1.9	-2.2	-1.9	-0.3	-0.8	0.3	0.8	-9.7	-10.0	9.7	10.0
Total, Between- and Within-Institutions Effects	3.7	3.5	-3.6	-3.3	6.8	6.3	-4.3	-3.8	-4.3	-4.6	6.7	7.0

Sources: 1986 Canadian census (2% sample), and German Socio-Economic Panel Survey (GSOEP), 1984 wave.

1. Each figure is the average of two adjustments, one assuming migrant characteristics other than education or labor markets being adjusted to those of the mainstream, the other assuming the reverse.

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