

A Service of

ZBW

Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre for Economics

Kabrelyan, Dmitri

## Working Paper A Comparison of the Earnings of Immigrants in Canada, United States, Australia and Germany

LIS Working Paper Series, No. 241

**Provided in Cooperation with:** Luxembourg Income Study (LIS)

*Suggested Citation:* Kabrelyan, Dmitri (2000) : A Comparison of the Earnings of Immigrants in Canada, United States, Australia and Germany, LIS Working Paper Series, No. 241, Luxembourg Income Study (LIS), Luxembourg

This Version is available at: https://hdl.handle.net/10419/160913

#### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



# WWW.ECONSTOR.EU

Luxembourg Income Study Working Paper No. 241

A Comparison of the Earnings of Immigrants in Canada, United States, Australia and Germany

Dmitri Kabrelyan

May 2000

## A Comparison of the Earnings of Immigrants in Canada, United States, Australia and Germany

by

### **Dmitry Kabrelyan**

University of Ottawa

#1882902

Major Paper presented to the Department of Economics of the University of Ottawa in partial fulfillment of the requirements of the M.A. Degree

Supervisor: Professor Gilles Grenier ECO 7997

> Ottawa, Ontario May, 2000

| I. INTRODUCTION  | 3                            |
|--|------------------------------|
| II. LITERATURE AND ISSUE REVIEW  | 5                            |
| IMMIGRATION POLICY<br>SUMMARY OF PREVIOUS FINDINGS   | 5<br>. 10                    |
| III. DATA AND METHODOLOGY  | . 17                         |
| DEFINITION OF DATASETS<br>SAMPLE SELECTION<br>MODEL SPECIFICATION<br>DEFINITION OF INDEPENDENT VARIABLES   | . 17<br>. 18<br>. 19<br>. 20 |
| IV. DESCRIPTIVE ANALYSIS OF THE RESULTS  | . 22                         |
| LEVEL OF EDUCATIONAL ATTAINMENT<br>REGION OF ORIGIN GROUPS AND DETAILED IMMIGRATION STATUS .<br>AVERAGE ANNUAL EARNINGS AND<br>MEAN VALUES OF OLS REGRESSION VARIABLES | . 22<br>. 26<br>. 30         |
| V. OLS REGRESSIONS RESULTS   | . 35                         |
| VI. CONCLUSION   | . 52                         |
| BIBLIOGRAPHY   | . 54<br>58                   |
|  |                              |

### CONTENTS

#### I. Introduction

The legislation on employment equity is designed to protect the rights of all persons to equitable treatment in employment, but particularly those who belong to groups designated as disadvantaged. In Canada, for example, the stated purpose of the 1986 Federal Employment Equity Act (Section 2) is to "achieve equality in the work place so that no person shall be denied employment opportunities or benefits for reasons unrelated to ability and, in the fulfillment of that goal, to correct the conditions of disadvantage in employment experienced by women, aboriginal peoples, persons with disabilities and persons who are, because of their race or color, is a visible minority in Canada". In this paper I would like to test the hypothesis that immigrants could be defined as such disadvantaged group.

This paper is a comparative study. It investigates the earnings of immigrants relative to non-immigrants in four countries: Canada, the United States, Australia and Germany. Also, in this paper I address the question of the effects of gender, marital status, educational attainment, years since migration and country of origin as key explanatory factors on the earnings gap between different groups of immigrants. Although wages are only one aspect of labour market performance, comparisons based on wage rates are widely used to describe the labour-market disadvantages of paid employees in the designated groups.

In general, studies in economic performance of immigrants are very important in order to define the role of immigrants in the labour market and to help policy makers adjust admission criteria to enhance the earnings of immigrants and their contribution to the country to which they immigrated. The comparison of cross country differences in economic performance of immigrants seems to be very interesting, especially for countries with large amount of immigrants, such as Canada, Australia and United States, in terms of the analysis of the effectiveness of immigration policy in these countries.

This paper proceeds as follows. Section II briefly describes immigration policy in the four countries of interest and summarizes previous findings. Section III describes the data and discusses the definitions of the population of interest, the measure of earnings, and the taxonomy of the independent variables. Section IV presents the results in terms of descriptive statistics, Section V contains an analysis of the econometric results, and Section VI concludes the paper by discussion the interpretation one might place on these results. An appendix presents the sensitivity of results to changes in model specification and gives some technical details.

#### II. Literature and Issue Review

#### **IMMIGRATION POLICY**

Among the objectives of immigration policy in the discussed countries, the more important ones are those related to the promotion of national and regional economic prosperity, family reunification, and the fulfillment of international legal obligations with respect to refugees.

Immigrants to Canada are admitted under various classes: family class, assisted relatives, independent class, business class, Convention refugees, and the designated class. The family class, Convention refugees, and the designated class are admitted under humanitarian considerations, while the independents, business immigrants, and assisted relatives are required to pass a selection test to determine how well they would perform in the Canadian economic environment.

The immigrant class structure in Canada is closely related to the attainment of economic objectives. Individuals qualifying under the family class are admitted for reasons of family reunification, while the independents and the business class are admitted solely for economic considerations. Assisted relatives are admitted for both economic and family reunification considerations, whereas the admission of Convention refugees and the designated class is directly linked to the fulfillment of Canada's international legal obligations. The independents are those who apply on their own without a Canadian sponsor and who have to pass a selection test. The

"point" system used in the assessment of independents and assisted relatives came into existence in 1967, but has undergone a series of revisions at various times. The points related to independent immigrants included not only the basic factors as age, education, and French and English language proficiency, but also factors such as intended occupation, personal suitability, previous work experience (in the intended occupation), specific vocational preparation (skills required to pursue the candidate's intended occupation), pre-arranged employment, designated occupation (which refers to occupations in heavy demand), location (designated areas that were believed to experience labour shortages carried bonus points), and the presence of a relative in Canada. There are some important differences in the way assisted relatives and independents are assessed. The list of selection factors governing assisted relatives is much shorter. Among the requirements that they are exempted from, the most important ones are language proficiency and pre-arranged employment. In addition, since assisted relatives receive bonus points, they need to score fewer points than the independents on the other selection factors in order to qualify for admission.

The immigration system in Australia is nearly identical to the Canadian one. Australia accepts people from overseas for permanent settlement under two main migration programs: the Migration Program and the Humanitarian Program. As in Canada, migrants to Australia are not selected because of their race, gender or culture. Instead, the right to migrate depends on such things as skills, health, age, finances, ability to speak English and whether potential immigrants have family or business contacts in Australia. Immigrants fall into two main categories for a place in the Migration

Program: half the 70,000 places each year go to skilled migrants as Australia seeks those migrants who have skills and qualifications to improve the society and the economy. These categories are Skilled Migrants and Business Migrants. The other half of the Migration Program places go to family reunion and resettlement of former residents and citizens, and for the families of New Zealanders. These categories are Family Migrants and Special Eligibility.

Unlike in Canada and Australia, the immigration policy in the United States is mostly based on family reunification. The 1965 corrections to the Immigration and Nationality Act (and the revisions that followed in the immigration laws through the 1980s) are the key laws that regulate the process of legal immigration into the United States. A certain number of persons are permitted to enter every year. About 80 per cent of that limited number of people who can get visas is made up of "close" relatives of US citizens or residents: unmarried adult children of the US citizens, siblings of adult US citizens, and spouses of the US residents. Among relatives of adult US citizens, there are categories, which are automatically entitled to entry into the country (for example, parents and spouses) and do not have to apply for the visas and go through all required procedures. The evidence shows that more immigrants enter the United States under "automatically qualify for entry" than under all family reunification preferences combined. Just about 20 percent of the total number of limited visas go to immigrants on the basis of their skills. Therefore, only a small percentage of the US immigrants who enter the country because of their skills receive visas. The determination of refugee status and the allocation of refugee visas to

applicants reflect the US political environment. The US legislation sets an annual limit on the number of refugees granted admission. However, the actual number of authorised refugee entries depends on political conditions in the source countries and in the United States. People who do not qualify for either "relative" or "skilled-based" visas find that the entering as a refugee is the only legal way. Many prospective immigrants take advantage of the situation and try to apply as a refugee in order to get those benefits

In Germany, the immigration system is less restrictive than in other European countries and known as "temporary" immigration. Unlike Canada and Australia, Germany is not considered to be traditional immigrant country. There is no active labour immigration policy there. However, a German immigration policy exists. It is based on ethnicity, the rejection of permanent non-German immigration, and the adjustment of migration measures to the conditions of the labour market. The evidence shows that ethnic Germans from other countries have a priority in admitting Therefore, the German immigration policy accept those who have citizenship. German roots. Also, in the 1950s and 1960s there was an active recruitment policy of foreign workers to fulfil the needs of the labour market. Since 1973 Germany has made some attempts to induce return migration. There were active labour recruitment policies in many western European countries that came to a halt at the time of the first oil crisis in 1973. However, assimilation policies turned out not to be very successful. Unlike Australia and Canada, Germany accepts its immigrants mainly based on family matter policy or "easy workers" policy, not skill-based policy. Since Germany is not an immigrant country and does not have strong immigration policy, the proportion of immigrants there is less than in Canada, Australia and the United States.

Hence, among the objectives of the immigration policy in the United States and in Germany, the more important ones are those related to family reunification and the fulfilment of international legal obligations with respect to refugees; those related to the promotion of national and regional economic prosperity promotion are less important.

#### SUMMARY OF PREVIOUS FINDINGS

There are a few studies that have addressed the issue of the effectiveness of the immigrant selection system. For example, Duleep and Regets (1992) tried to examine whether the Canadian immigrant selection system, which places strong emphasis on economic criteria, is more effective than the US immigration system, which is largely based on family reunification, by comparing the experience of immigrants in the two countries. The authors found that although immigrants to Canada were younger at the time of arrival and reported greater language proficiency than those who entered the United States, this did not necessarily translate into an advantage in terms of education and earnings. The authors concluded that the Canadian immigrant selection system is more effective than the US system. However, the above conclusion may be premature, because the study is based on a single census for each country and therefore, is unlikely to capture the effect of different policy regimes on immigrant performance.

Borjas (1993) also made a comparison of the performance of immigrants in Canada and the United States. However, unlike Duleep and Regets, his analysis dealt with immigrants from all countries and was based on pooled data from two census years. He found that immigrants to Canada were more educated and had higher entry earnings than those coming to the US, which in turn was interpreted as evidence that immigrants admitted on economic grounds tend to be more successful than those admitted for family-based reasons. As in the case of Canada, there is very little research on the economic adjustment of immigrant classes even in the United States. The pioneering studies on the subject have been done by Duleep and Regets (1992, 1994, 1996, 1997). Their main findings are as follows. First, although recent immigrants start with low earnings, this initial disadvantage is more than offset by very rapid subsequent growth in earnings. As a result, their earnings tend to converge to the native-born level over time. Second, Duleep and Regets found that, while the declines in admissions on the basis of occupational skills and the corresponding increases in family-based admissions have contributed to a decrease in initial earnings, the same factors have also produced a rapid increase in earnings growth. Third, the authors also found that the earnings of demographically comparable immigrants, regardless of their country of origin, converge over time.

Economic studies of immigrant labour market adjustment have focused on differences in earnings between immigrants and non-immigrants as a function of the immigrant's years since migration (YSM) and arrival cohort. The results for men indicate that immigrant men have lower earnings than similar non-immigrant men immediately after migration. However, the immigrant men experience higher growth in earnings over time, with the magnitude of this difference being the focus of much of the debate in the literature (see Chiswick 1978; Borjas 1985; Bloom and Gunderson 1991; LaLonde and Topel 1992; Baker and Benjamin 1994).

A few studies have reported results on female immigrant earnings differentials. Long (1980) for the US and Akbari (1990) for Canada present regression results based on Census data (for 1969 US earnings in Long and 1980 Canadian earnings in Akbari). Canadian Census data provide information only on marital status and number of

children born within broad age categories (Miller 1987; Smith and Stelcner 1988; Shapiro and Stelcner 1987). In contrast, the 1973 Job Mobility Survey (Boyd et al., 1985) has a unique characteristic for Canada, direct measure of actual reported work experience, and it has been used in studies by R.Meng (1987) and Meng and J. Sentance (n.d). This reported experience variable is used as an alternative to age or a Mincer potential experience variable (i.e. age - education - 5), and serves as the basis for a novel variable for 'hometime' that turns out to have considerable explanatory power. This allows one to control better for past labour market experience and hence to estimate better the net effect on foreign birth on earnings differentials. The analysis focuses only on earnings and not on any non-monetary employment benefits on which no data are available.

As found for men, the coefficients on education and experience themselves are significantly lower for foreign than for native-born, leading to a lower return on standard human capital skills to immigrant women. For immigrant women, the marginal cost of time at home greatly exceeds the human capital returns to work experience because of their very flat earnings profile. Note also that, once home-time variables are introduced into the earnings equation, the traditional term for picking up home-time effects, the number of children variable, turns out to be not at all significant.

Using Census data, Nakamura and Nakamura (1992) found that, on average, the hourly wage rates of immigrant workers, as compared with native workers in Canada,

12

are higher than is the case in the United States, and that is consistent with the authors' finding that, compared with native populations, immigrant workers in Canada have more education on average than in the United States. At the same time, in Canada, as in the United States, immigrant workers earn lower rates of return on their years of schooling than native workers. Authors found no evidence, however, that this rate-of-return disadvantage is less severe for Canada than for the United States. Nor are the estimated levels for the rates of return on Years of Schooling higher for Canadian than for U.S. working immigrants. Authors concluded that there was no evidence that Canadian immigration policies have been more effective than U.S. policies from an economic perspective.

The study by deSilva (1992) examines the earnings of immigrants, with emphasis on foreign-born visible minorities. Minority women, for example, may earn lower wages because they are victims of double jeopardy based on gender and race. The existing literature on wage discrimination tends to focus on either race or gender, making it difficult to interpret the interaction between these two characteristics. Data obtained from the 1989 Labour Market Activity Survey (LMAS) show that gender and race indeed exert a significant effect on observed wage rates. Only part of the observed gender and racial wage rate differentials can be attributed to differences in the productivity-related characteristics of individuals in these groups. Studies in the US by Chiswick (1978) and Borjas (1985) show that new immigrants earn considerably lower wages, and in a recent Canadian study, Beach and Worswick (1993) also report that immigrant status has a negative effect on the earnings of some female workers,

especially those originating from Third World regions. However, deSilva's (1992) study concludes that there is no detectable, general tendency to discriminate against foreign-born visible minorities in Canada. Where they exist, observed wage differentials can be explained largely by lower compensation for both schooling and work experience acquired abroad.

Christofides and Swidinsky (1994) use the 1989 Labour Market Activity Survey (LMAS) to examine wage differences between white and visible-minority workers. Although they find significant wage differentials between those two groups, they do not explore ethnically based earnings differences within the white and visible-minority aggregate categories. Closer inspection of the data reveals much variation among visible minority groups in annual earnings, hours worked, the proportion of females or immigrants in each group, etc. Accordingly, wage rates are a better measure of labour market opportunity for paid workers than annual earnings (Christofides and Swidinsky 1994, p.35). Additionally, if immigration status is a proxy for a number of labour market disadvantaging factors, color aside, it may contribute to observed wage differentials. In short, one should not generalize the labour market opportunities for visible minorities without distinguishing among the various visible minority groups or the influences of gender, education, work experience, and immigration status. Studies of visible minorities in Canada often begin by acknowledging that they constitute a disadvantaged category with respect to labour markets. Christofides and Swidinsky (1994) employ the 1989 Labour Market Activity Survey (LMAS) to investigate the wage implications of visible minority status and gender status for all age groups. They

find that minority women are especially disadvantaged, but that "the labour market disadvantage of visible minority males is comparable to those of white females"(1994, p.46). They employ a dichotomous variable derived from a self-perception question to capture visible minority membership and acknowledge that "their data do not allow [them] to conduct an analysis of individual minority groups" (ibid.). Consequently, it is not possible to determine whether some visible minority members earn more than their white counterparts, while other visible minority groups earn less. And, while two-thirds of Canada's immigrants are visible minorities, Christofides and Swidinsky conclude that immigrants are "generally not disadvantaged in the Canadian labour market" (1994, p.39).

Bloom, Grenier and Gunderson (1995), on the other hand, used pooled Census data from 1971, 1981, and 1986 to examine the earnings of immigrants. They use a model developed by Chiswick (1978) and Borjas (1985) to explain the logarithm of earnings as a function of human capital variables, such as education and potential experience (age less five years of education), labour market measures (such as the number of weeks worked and the number of hours worked per week), and immigration variables. The immigration variables include a dummy variable distinguishing those born outside Canada to measure "the entry effect", and the number of years since migration to Canada to measure "the assimilation effect". Bloom, Grenier and Gunderson find a negative entry effect (earnings are less for immigrants upon entry into Canada) and a positive assimilation effect (earnings of immigrants tend to grow faster than average). DeSilva (1996) also uses Census data to examine the earnings of immigrants, many of whom, as noted, are visible minorities. He concludes that differential returns for visible minority immigrants can be explained by differences in the quality of seemingly identical educational qualifications. This conclusion is based upon the fact that no earnings differential (and hence discrimination) was found between Canadian-born visible minorities and Canadian-born whites. DeSilva makes no distinction among different visible minority groups.

Recent studies of immigrant assimilation paint a somewhat pessimistic picture of the future prospects of new immigrants. Grant (1999) uses the 1991 Canadian Census to investigate the validity of these predictions for full-year, full-time male immigrants. She finds that this prediction has not been realized: new immigrants, specifically those arriving in the early 1980s, are experiencing assimilation rates far above those experienced by their predecessors. Furthermore, immigrants arriving in the late 1980s had similar entry earnings to those arriving in the early 1980s, suggesting a suspension of the downward trend in the entry earnings of successive immigrant cohorts.

The gender dimension of employment opportunities of immigrants in Canada cannot be ignored. The problem of racial discrimination toward visible minorities poses a question about Canada being a kinder and gentler society. At the same time, Canada's immigrants increasingly differ from non-immigrants; hence Canada's self-image as an immigration-tolerant society is also at stake.

#### III. Data and Methodology

#### **DEFINITION OF DATASETS**

For my research I used several data sources: for Canada - Canadian Census (1996 PUMF); for the United States - US Census (1990 PUMF); for Australia (1994) and for Germany (1994) - Luxembourg Income Study database. After selecting only those who were employed full-year, worked full-time without self-employment income, were aged from 20 to 64 years, the data sets were reduced to: 75478 observations for Canada, 99749 observations for the United States, 4557 observations for Australia, and 4668 observations for Germany (for details see Appendix Table 1). Observations were included in this paper, for which annual earnings, employment status, usual hours worked per week, weeks worked per year, educational attainment, number of children, immigrant's origin and number of years since migration, or year of migration, were available. Since some variables, like weeks worked (for Australia), immigrant's origin, and time since migration (for Germany) are not available through the Luxembourg Income Study, the analysis based on these variables cannot be done for these countries.

For over a decade the Luxembourg Income Study (LIS) has been involved in harmonizing national survey data on household incomes and income components (e.g., earnings) with a common data framework. By improving data comparability, LIS has achieved one of its major objectives: to facilitate cross-country comparisons of inequality, poverty and other distribution issues.

The LIS project has established a "lowest common denominator" framework of data consistency that permits ready comparability of results from analyses that employ the LIS data. Although data series like educational attainment cannot be readily harmonized, it is possible to isolate the definitional difficulty and clarify its importance.

#### SAMPLE SELECTION

There are different ways to address the problem that annual earnings differentials involve differences in both wages and hours. The common and straightforward approach that I employ here is to limit the population of interest to workers who worked full time (generally 34 hours per week or more) during the survey period and reported full-year employment during 47 or more weeks, thus eliminating those who had substantial spells of unemployment or part-time employment. Because young workers are often still in training, while older workers are a self-selected group from among those who may be eligible for retirement, I have followed the procedure of restricting my sample to persons aged 20 to 64. I follow the usual procedure of reporting results separately by gender. However, I also pooled males and females together in order to get the explanatory variable for gender earnings differences. Another important technical decision concerns the treatment of self-employment income. In principle, self-employment generates income, which is a mix of labour earnings, returns to capital, and returns to entreprenership. Moreover, self-employment income is notoriously misreported (see Atkinson, Rainwater and Smeeding 1995, Table 3.1), and the definition of a "self-employed worker" varies across nations. Therefore, there is no completely consistent way to expunge the earnings of selfemployed workers, and I decided to delete from the sample all households and persons with any self-employment income at all.

Summing up, the earnings measure is the reported annual earnings of full-year, fulltime workers aged 20 to 64 (excluding the self-employed). The dependent variable [ln (Wage)] is the natural logarithm of annual wages and salaries, expressed in national currency units (NCU). I faced the standard estimation problem by observing earnings only for those people who are employed. Although, this presents a potential selection problem, which can result in biased parameter estimates. Correction for a sample selection is not used in this paper (Heckman 1986).

#### **MODEL SPECIFICATION**

In order to estimate the regression-adjusted effects of educational attainment and immigration status on annual earnings - net of differences in productivity- and jobrelated variables - I constructed standard semi-log wage equations, specified as closely as possible across countries. I estimate the parameters of the wage equations for both sexes together and also for males and females separately, using ordinary least squares (OLS) regression. Their independent variables include age, age squared, weekly hours, weeks worked, and dummy variables indicating educational level, marital status, gender and immigration status in terms of immigrants' origin and time since migration.

### DEFINITION OF INDEPENDENT VARIABLES

| AGE              | - age of the person;  |
|------------------|---|
| AGE <sup>2</sup> | - squared age;  |
| Hours            | - variable for hours worked full-time per week;                         |
| Weeks            | - variable for weeks worked per year;                                   |
| Low*             | - dummy variable for low level of educational attainment <sup>1</sup> ; |
| Medium*          | - dummy variable for medium level of educational attainment;            |
| High*            | - dummy variable for high level of educational attainment;              |
| Married          | - dummy variable, value is equal to 1 if person currently married;      |
| Children         | - variable for number of children in family;                            |
| Fem              | - dummy variable, values are equal to 1 and 0 for females and males     |
|                  | respectively;   |
| Imm              | - dummy variable, values are equal to 1 and 0 for immigrant and         |
|                  | country born respectively;  |
| ImmEurope        | - dummy variable, value is equal to 1 if person is an immigrant from    |
|                  | Europe, North America or Australia <sup>2</sup> ;                       |
| ImmAsia          | - dummy variable, value is equal to 1 if person is an immigrant from    |
|                  | Asia;   |
| ImmAfrica        | - dummy variable, value is equal to 1 if person is an immigrant from    |
|                  | Africa or South America;  |
| Imm 00-04        | - dummy variable, value is equal to 1 if person immigrated in period    |
|                  | 00–04 years ago;  |

<sup>&</sup>lt;sup>1</sup> - omitted in all regressions

- Imm 05-09 dummy variable, value is equal to 1 if person immigrated in period 05–09 years ago;
- Imm 10-14 dummy variable, value is equal to 1 if person immigrated in period 10–14 years ago;
- Imm 15-19 dummy variable, value is equal to 1 if person immigrated in period 15–19 years ago;
- Imm 20+ dummy variable, value is equal to 1 if person immigrated 20 or more years ago<sup>3</sup>.
- Countries differ substantially in the way in which they organise their educational systems. It is therefore unsurprising that it is not really possible to make any strong cross-country comparisons about educational attainment. I combined similar attainment categories in order to make aggregations more or less consistent in terms of cross-country comparison. Even then, it seems that harmonisation problems, like the effect of the vocational training system in Germany, exist. For the detailed coding assumptions done for educational attainment variables see Appendix Table 6.

<sup>&</sup>lt;sup>2</sup> - omitted in all regressions

<sup>&</sup>lt;sup>3</sup> - omitted in immigrants only regressions

#### IV. Descriptive Analysis of the Results

The analysis in this paper is based on several data sets that I have constructed. Basically, I have separated the total sample population of each country into a few groups: by gender (males and females) and immigration status (immigrants and natives), and into several subgroups for immigrants by years since migration (YSM) and by region of origin. Such division gives me a possibility to compare those different groups and subgroups and find some patterns typical for each group or for the whole population of interest.

#### LEVEL OF EDUCATIONAL ATTAINMENT

It is believed that education is a major requirement for success in the labour market. Therefore, it is extremely important to compare the immigrants with the natives in terms of their educational attainments and find out how well are educational levels of immigrants compared with those of native-born people. To address this issue, I consider the proportions of people with low, medium and high levels of education, in both immigrant and native-born populations in each of the four countries.

|                      |              | Non-       | Imm   | Imm   | Imm   | Imm   | Imm  | All        | Total |
|----------------------|--------------|------------|-------|-------|-------|-------|------|------------|-------|
|                      |              | immigrants | 00-04 | 05-09 | 10-14 | 15-19 | 20 + | Immigrants |       |
| Canada               | low level    | 44.6       | 43.1  | 42.7  | 42.6  | 39.0  | 39.7 | 40.6       | 43.8  |
| 1995                 | Medium level | 35.9       | 27.0  | 30.5  | 32.0  | 36.5  | 35.8 | 34.0       | 35.5  |
|                      | high level   | 19.5       | 29.8  | 26.8  | 25.4  | 24.6  | 24.4 | 25.4       | 20.7  |
|                      | Total        | 80.1       | 1.8   | 3.0   | 1.8   | 3.1   | 10.3 | 19.9       | 100.0 |
| <b>United States</b> | low level    | 36.4       | 62.6  | 57.9  | 55.7  | 56.7  | 43.7 | 54.8       | 40.2  |
| 1991                 | medium level | 36.3       | 16.7  | 21.3  | 22.2  | 21.6  | 30.2 | 22.8       | 33.5  |
|                      | high level   | 27.3       | 20.7  | 20.8  | 22.1  | 21.6  | 26.0 | 22.4       | 26.3  |
|                      | Total        | 79.5       | 4.3   | 4.5   | 3.9   | 2.8   | 5.1  | 20.5       | 100.0 |
| Australia            | low level    | 50.1       | 24.6  | 36.0  | 44.1  | 41.4  | 49.2 | 44.5       | 48.6  |
| 1994                 | medium level | 32.1       | 34.4  | 36.0  | 35.6  | 40.6  | 33.1 | 34.7       | 32.8  |
|                      | high level   | 17.8       | 41.0  | 28.0  | 20.3  | 18.0  | 17.7 | 20.8       | 18.6  |
|                      | Total        | 74.1       | 1.3   | 4.1   | 2.6   | 2.8   | 15.1 | 25.9       | 100.0 |
| Germany              | low level    | 47.8       | X     | X     | X     | X     | X    | 67.7       | 48.7  |
| 1994                 | medium level | 40.0       | x     | x     | x     | x     | х    | 20.8       | 39.1  |
|                      | high level   | 12.2       | x     | x     | x     | x     | х    | 11.5       | 12.2  |
|                      | Total        | 95.2       | Х     | X     | Х     | Х     | Х    | 4.8        | 100.0 |

**Table 1**: Sample Distribution by Country, Level of Educational Attainment and Detailed Immigrational Status, %

• Table 1 shows that immigrants in Canada have a lower proportion of people with low level of education than non-immigrants. In terms of high level of education, immigrants have a significantly higher percentage in that category than native-born. Recent immigrants tend to be concentrated in the two extreme levels (low and high) of education, with fewer of them in the medium level than earlier immigrants. For example, 27 per cent of immigrants with 00-04 YSM have medium level, compared to 35.8 per cent of those with 20 YSM and more. The percentage growth of the proportion of immigrants with high level of education could be explained by the effectiveness of the Canadian immigrant selection system based on skills. However, the increase in the proportion with low level of education reflects the increased importance of the family and refugee classes. • In the United States, the share of people with low-level education among immigrants is much higher than that for native-born. Unlike in Canada, natives born in the United States have a quite higher proportion with high level of education than immigrants. If we compare recent immigrants with those who arrived earlier, we notice that immigrants who came recently have a higher percentage of low-educated people than those who came earlier. In terms of high level of education, the proportion is smaller for the recent immigrants than for those who came earlier. The trend is different than that of Canada. The nature of the US immigrant selection system, which is mostly based on family reunification, might be an explanation for such a trend.

• In Australia, immigrants have a lower percentage of low-educated people than native born. Moreover, immigrants have a higher proportion of people with high level of education than natives. This is the same as in Canada. We can observe significant changes in proportions of low level and high level of education among immigrant cohorts over the years. Immigrants who arrived earlier have much lower percentage of high-educated people than those who came recently. This is quite an impressive change! Also, recent immigrants have a significantly lower rate of low-educated people than those who came 20 years ago. Apparently due to positive changes in immigrants selection system, recent Australian immigrants have a higher proportion of educated people and smaller shares of less educated groups. • In Germany, we can only make a comparison between natives and all immigrants. Immigrants have a higher proportion of people with low level of education than native born, and the gap is big (20 percentage points). On the other hand, the percentages of high-educated people among natives and immigrants are not very different from each other. The explanation for the difference in level of education between immigrants and non-immigrants comes from the nature of immigration policy: the majority of immigrants coming to Germany are those who come as refugees without any screening procedures based on the educational level. As a result, the proportion of people with medium or high levels of education among immigrants is lower than among nonimmigrants.

To sum up, Canada and Australia, the traditional immigrant countries with selection mechanism, show an increase in percentage of high educated population among immigrants over the past 20 years, whereas the US shows a decline. The evidence shows (see Table 1) that immigrants tend to be more educated in Canada and Australia than natives of those two countries. Immigrants in the US and Germany have a higher proportion of poorly educated persons than native born.

#### **REGION OF ORIGIN GROUPS AND DETAILED IMMIGRATION STATUS**

More than half of immigrants (aged 20 years up to 64) in Canada came 20 or more years ago (see Table 2). Another 40 % are those who arrived 5-19 years ago. Finally, the remaining 8 % are those who came fewer than 4 years ago. In the US, percentages of immigrants in 1991 who came during different periods are nearly unchanged from those in Canada.

It is clearly seen that proportions of immigrants in Australia (1994) are very similar to those in Canada (1996). Nearly 60 % of total immigrant population in 1994 came to Australia 20 or more years ago, and just 5 % of total number is those who arrived about 4 years ago.

About 50 % of the immigrant population in Canada (1996) came from Europe and North America, the traditional immigrant origin countries. In the US (see Chart 2), on the other hand, more than half of the immigrant population came from Africa and South America, new immigrant origin countries. Nearly one third of all immigrants in both Canada (1996) and the US (1991) are made up of persons who came from Asia.

Another interesting point is that the proportion of immigrants who came to Canada from Europe and North America has been declining for the past 20 years (see Chart 1). On the other hand, the proportion of immigrants from Asia has increased significantly. Canadian immigrants from Africa, Central and South America have also increased their proportion.

|               | Region of Origin                  | Imm   | Imm   | Imm   | Imm   | Imm  | Imm   |
|---------------|-----------------------------------|-------|-------|-------|-------|------|-------|
|               |                                   | 00-04 | 05-09 | 10-14 | 15-19 | 20+  | Total |
| Canada        | Europe, North America             | 24.3  | 25.9  | 31.1  | 36.1  | 67.7 | 49.4  |
| 1996          | Asia                              | 54.6  | 50.3  | 45.3  | 41.0  | 16.7 | 31.4  |
|               | Africa, Central and South America | 21.0  | 23.9  | 23.6  | 22.9  | 15.6 | 19.2  |
|               | Total                             | 8.9   | 15.1  | 9.0   | 15.4  | 51.7 | 100   |
| United States | Europe, North America, Australia  | 8.0   | 6.6   | 7.9   | 10.1  | 36.2 | 14.9  |
| 1991          | Asia                              | 31.8  | 38.8  | 39.7  | 31.6  | 21.7 | 32.3  |
|               | Africa, Central and South America | 60.2  | 54.6  | 52.4  | 58.2  | 42.1 | 52.8  |
|               | Total                             | 20.8  | 21.9  | 19.1  | 13.5  | 24.7 | 100   |
| Australia     | Europe, North America             | 72.1  | 54.8  | 58.5  | 66.4  | 86.6 | 75.9  |
| 1994          | Asia                              | 23.0  | 37.1  | 35.6  | 22.7  | 7.4  | 17.3  |
|               | Africa, Central and South America | 4.9   | 8.1   | 5.9   | 10.9  | 6.0  | 6.8   |
|               | Total                             | 5.2   | 15.7  | 10.0  | 10.8  | 58.3 | 100   |

Table 2: Sample Distribution of Immigrants by Country, Origin Group and Immigrational Status, %







🛛 Asia

Africa, Central and South America

S Europe, North America, Australia



As in Canada, the proportion of US immigrants from Europe, North America and Australia has been decreasing for the past 20 years, and the percentages of people from Asia, Africa and South America have been increasing over the years. If we compare proportions in Canada and the US, we may notice that percentage of immigrants from Europe and North America is higher in Canada than in the US. But proportion of arrivals from Africa and South America is much lower in Canada than in the US. This is because of the impact of Mexican immigration in the United States. If we look at immigrants from Asia, the proportions in Canada and the US are similar (Chart 2). In Australia, as in Canada and the US, the proportion of immigrants from Europe and North America has been decreasing until about 9 years prior to the survey, but unlike in Canada and the US, it has started to increase afterwards (Chart 3). Similar to Canada and the US, the proportion of Asian immigrants has been increasing over the years in Australia. Finally, the percentage of Australian immigrants from Africa, and Central and South America is lower during the period of about 4 years prior to the survey compared to what it was during the period of 20 or more years, it is also much lower than those in Canada and the US.

To sum up, Australia somehow maintains its high proportion of immigrants from Europe and North America throughout the period. In the US, the percentage of immigrants from Europe, North America and Australia is overtaken by that of immigrants from Africa and South America. Recent evidence shows that in Canada the proportion of immigrants from Europe and the United States became much lower over the years and was overtaken by the proportion of Asian immigrants.

## AVERAGE ANNUAL EARNINGS AND MEAN VALUES OF OLS REGRESSION VARIABLES

Looking at mean earnings of males and females (Appendix Table 2) in all four countries, we can see similar inequality. In Canada females earn 72.9 per cent of males earnings on average; in the United States – 69.4 per cent; in Australia – 76.2 per cent and in Germany – 72.2 per cent. We can see that there is a cross-country difference in the earnings differentials between immigrants and non-immigrants (Chart 4): in Australia immigrants earn more on average than non-immigrants, while they earn less in the other countries. In Canada, immigrants earn almost as much as non-immigrants. In Germany and the United States, on the other hand, differences in earnings between immigrants and natives are bigger; native males and females earn much more than immigrant males and females respectively.

Since we expect a positive relation between level of earnings and level of education, such cross-country earnings difference between immigrants and non-immigrants are related to levels of educational attainment for those groups in different countries, which could be explained by differences in immigration policies among countries.



Chart 4: Immigrants average earnings as a share of non immigrant average earnings, %

#### Table 3: Mean Values of OLS Variables by Country, Gender and Immigrational Status

|               |                          | Ma            | ales & Femal      | es               | Males         |                    | Females      |              |                   |                  |
|---------------|--------------------------|---------------|-------------------|------------------|---------------|--------------------|--------------|--------------|-------------------|------------------|
|               | -                        | Non-immigrant | Immigrants        | Total            | Non-immigrant | Immigrants         | Total        | Non-immigran | Immigrants        | Total            |
| Canada        | Age                      | 39.23         | 42.35             | 39.85            | 39.40         | 42.63              | 40.03        | 38.98        | 41.95             | 39.58            |
| 1995          | Age*Age                  | 1,634.25      | 1,894.84          | 1,686.16         | 1,648.14      | 1,922.77           | 1,702.19     | 1,613.25     | 1,854.15          | 1,662.09         |
|               | Hours worked (FT)        | 43.35         | 43.45             | 43.37            | 44.84         | 44.70              | 44.81        | 41.10        | 41.63             | 41.21            |
|               | Weeks worked (FY)        | 51.47         | 51.37             | 51.45            | 51.47         | 51.38              | 51.45        | 51.48        | 51.34             | 51.45            |
|               | Medium level of educ     | 35.92%        | 33.99%            | 35.53%           | 35.83%        | 34.76%             | 35.62%       | 36.06%       | 32.88%            | 35.41%           |
|               | High level of educ       | 19.52%        | 25.38%            | 20.69%           | 19.08%        | 26.70%             | 20.58%       | 20.19%       | 23.46%            | 20.85%           |
|               | Married                  | 58.69%        | 72.14%            | 61.37%           | 62.69%        | 76.29%             | 65.37%       | 52.64%       | 66.11%            | 55.37%           |
|               | Number of children       | 1.15          | 1.40              | 1.20             | 1.26          | 1.48               | 1.30         | 0.98         | 1.28              | 1.04             |
|               | Fem                      | 39.81%        | 40.71%            | 39.99%           | х             | х                  | х            | х            | х                 | х                |
|               | Imm                      | Х             | х                 | 19.92%           | Х             | Х                  | 19.68%       | х            | х                 | 20.28%           |
|               | ImmAsia                  | х             | 31.45%            | 6.26%            | х             | 30.60%             | 6.02%        | х            | 32.68%            | 6.63%            |
|               | ImmAfrica                | Х             | 19.16%            | 3.82%            | Х             | 17.99%             | 3.54%        | х            | 20.85%            | 4.23%            |
|               | Imm 00-04                | х             | 8.85%             | 1.76%            | х             | 8.94%              | 1.76%        | х            | 8.73%             | 1.77%            |
|               | Imm 05-09                | х             | 15.05%            | 3.00%            | х             | 15.57%             | 3.06%        | х            | 14.30%            | 2.90%            |
|               | Imm 10-14                | х             | 8.99%             | 1.79%            | х             | 8.70%              | 1.71%        | х            | 9.41%             | 1.91%            |
|               | Imm 15-19                | х             | 15.40%            | 3.07%            | х             | 14.92%             | 2.94%        | х            | 16.09%            | 3.26%            |
|               | Imm 20+                  | Х             | 51.71%            | 10.30%           | Х             | 51.87%             | 10.21%       | х            | 51.47%            | 10.44%           |
|               | LOG(Wage)                | 10.38966      | 10.31679          | 10.37515         | 10.50615      | 10.44297           | 10.49372     | 10.21355     | 10.13297          | 10.19721         |
| United States | s Age                    | 37.81         | 35.92             | 37.42            | 37.82         | 35.48              | 37.30        | 37.79        | 36.70             | 37.60            |
| 1991          | Age*Age                  | 1,548.22      | 1,403.30          | 1,518.67         | 1,550.51      | 1,371.49           | 1,511.11     | 1,545.10     | 1,459.05          | 1,529.55         |
|               | Hours worked (FT)        | 44.50         | 43.27             | 44.25            | 45.85         | 43.93              | 45.43        | 42.63        | 42.11             | 42.54            |
|               | Weeks worked (FY)        | 48.35         | 46.47             | 47.97            | 48.88         | 46.61              | 48.38        | 47.63        | 46.21             | 47.37            |
|               | Medium level of educ     | 36.66%        | 22.81%            | 33.83%           | 34.93%        | 20.63%             | 31.78%       | 39.02%       | 26.62%            | 36.78%           |
|               | High level of educ       | 27.69%        | 22.70%            | 26.67%           | 28.62%        | 22.32%             | 27.24%       | 26.40%       | 23.38%            | 25.86%           |
|               | Married                  | 57.76%        | 56.46%            | 57.50%           | 62.21%        | 57.26%             | 61.12%       | 51.66%       | 55.06%            | 52.28%           |
|               | Number of children       | 0.82          | 1.12              | 0.88             | 0.85          | 1.12               | 0.91         | 0.78         | 1.11              | 0.84             |
|               | Fem                      | 42.19%        | 36.32%            | 41.00%           | х             | Х                  | х            | х            | Х                 | х                |
|               | Imm                      | Х             | Х                 | 20.39%           | х             | Х                  | 22.01%       | х            | Х                 | 18.07%           |
|               | ImmAsia                  | Х             | 32.19%            | 6.56%            | х             | 28.81%             | 6.34%        | х            | 38.11%            | 6.89%            |
|               | ImmAfrica                | Х             | 52.66%            | 10.74%           | х             | 57.27%             | 12.60%       | х            | 44.58%            | 8.06%            |
|               | Imm 00-05                | Х             | 21.22%            | 4.33%            | х             | 23.58%             | 5.19%        | х            | 17.09%            | 3.09%            |
|               | Imm 06-10                | Х             | 22.06%            | 4.50%            | х             | 22.43%             | 4.94%        | х            | 21.42%            | 3.87%            |
|               | Imm 11-15                | Х             | 18.83%            | 3.84%            | х             | 18.57%             | 4.09%        | х            | 19.29%            | 3.48%            |
|               | Imm 16-20                | Х             | 13.29%            | 2.71%            | х             | 12.71%             | 2.80%        | х            | 14.30%            | 2.58%            |
|               | Imm 21+                  | X             | 24.60%            | 5.02%            | X             | 22.72%             | 5.00%        | X            | 27.90%            | 5.04%            |
|               | LOG(Wage)                | 10.00152      | 9.69417           | 9.93884          | 10.15431      | 9.77031            | 10.06981     | 9.79217      | 9.56069           | 9.75035          |
| Australia     | Age                      | 36.45         | 40.77             | 37.57            | 37.27         | 41.56              | 38.41        | 34.79        | 38.99             | 35.82            |
| 1994          | Age*Age                  | 1,447.71      | 1,762.33          | 1,529.09         | 1,507.14      | 1,827.18           | 1,592.02     | 1,327.68     | 1,616.68          | 1,398.49         |
|               | Hours worked (FT)        | 42.36         | 41.97             | 42.26            | 43.10         | 42.84              | 43.03        | 40.88        | 40.01             | 40.67            |
|               | Medium level of educ     | 32.82%        | 34.27%            | 33.20%           | 37.34%        | 39.23%             | 37.85%       | 23.69%       | 23.13%            | 23.56%           |
|               | High level of educ       | 17.30%        | 20.10%            | 18.08%           | 15.05%        | 21.31%             | 17.15%       | 20.81%       | 17.50%            | 20.01%           |
|               | Married                  | 02.21%        | /4.54%            | 05.40%           | 00.28%        | /0./0%             | 09.04%       | 53.98%       | 09.08%            | 57.85%           |
|               | Number of children       | 0.09          | 0.72              | 0.70             | 0.82          | 0.81               | 0.82         | 0.43         | 0.55              | 0.46             |
|               | Felli                    | 55.12%        | 50.81%            | 52.52%<br>25.97% | X             | X                  | X<br>26 520/ | X            | X                 | 24 500/          |
|               | Imm Asia                 | X             | 18 5 204          | 23.8770          | X             | 17 2204            | 20.32%       | X            | 21 4204           | 24.30%           |
|               | ImmAsia<br>ImmAfrica     | X             | 7 14%             | 4.79%            | X             | 8 1 4 %            | 4.57%        | X            | 5 86%             | 1 4 4 9%         |
|               | Imm 00 04                | A V           | 5.02%             | 1.9270           | x             | 5.07%              | 1 35%        | X            | 4 90%             | 1.44%            |
|               | Imm 05-09                | A V           | 17 58%            | 1.50%            | x             | 16 00%             | 1.55%        | X            | 18 88%            | 1.20%            |
|               | Imm 10,14                | X             | 0 70%             | 4.55%            | X             | 10.99%<br>8 4 4 0/ | 4.31%        | X            | 10.00%            | 4.03%            |
|               | Imm 15-14                | X             | 9.70%<br>10.30%   | 2.51%            | X             | 0.44%<br>10.56%    | 2.24%        | X            | 0.72%             | 2 38%            |
|               | Imm 20+                  | X             | 57.40%            | 14 85%           | x             | 58 03%             | 15 63%       | X            | 53 07%            | 13 23%           |
|               | IIIIII 20+<br>I OG(Waga) | 10 24022      | 10 27007          | 10 25718         | 10 22528      | 10 27224           | 10 24524     | 10.07546     | 10.07051          | 10.07424         |
| Cormony       | LOG(wage)                | 20.24         | 26.74             | 20.20            | 10.55528      | 27.21              | 20.00        | 27 70        | 25.62             | 27.68            |
| 100/          | Age*Age                  | 39.34         | 30.74<br>1.420.52 | 39.20            | 40.00         | 57.21<br>1 464 74  | 39.90        | 57.79        | 55.05<br>1 345 07 | 37.08<br>1529.44 |
| 1994          | Age Age                  | 1,000.02      | 1,429.52          | 1,052.45         | 1,720.13      | 1,404.74           | 1,703.00     | 1,349.40     | 20.00             | 1,556.44         |
|               | Weeks worked (FV)        | 43.27         | 42.30             | 43.23            | 44.01         | 43.71              | 43.99        | 41.09        | 57.90<br>AA 52    | 41.39            |
|               | Medium level of adva     | 49.01         | 41.00             | 49.50            | 49.77         | 48.90              | 49.72        | 49.27        | 44.33<br>32 910/  | 49.01            |
|               | High level of adua       | 40.33%        | 11 720/           | 15 05%           | 16 05%        | 17.37%             | 16 710/      | 11 520/      | 22.01%<br>2 220/  | 11 440%          |
|               | Married                  | 13.23%        | 11./2%<br>80.200/ | 62 540/          | 67 120/       | 12.72%             | 68 100/      | 11.30%       | 0.00%<br>68 100/  | 11.44%<br>50.20% |
|               | Number of shildron       | 01.40%        | 1 00              | 02.34%           | 07.12%        | 03.39%             | 00.19%       | 49.27%       | 00.19%            | 0.29%            |
|               | Fem                      | 31.60%        | 1.00<br>20.65%    | 21 58%           | 0.74          | 1.24               | 0.77         | 0.57         | 0.70              | 100.00%          |
|               | Imm                      | 51.07%        | 23.0J70           | 57404            | X             | X                  | 5 00%        | X            | X                 | 5 20%            |
|               | LOG(Wage)                | 10 78375      | 10 59547          | 10 77295         | 10 86874      | 10 70525           | 10 85910     | 10 60057     | 10 33502          | 10 58626         |
|               |                          | 10.70070      | 10.07017          | 101270           | 10.00071      | 10.,0020           | 10.00/10     | 10.00007     | 10.00000          | 10.00020         |

As we have seen, immigrants in Canada and Australia are more educated than nonimmigrants. At the same time for immigrants in the United States and Germany, the proportions of people with a low level of education are significantly higher than it is the case with non-immigrants in these countries. One more interesting point could be made by looking at levels of education between immigrants and native-born people by gender (Table 3). In Canada, male immigrants seem to be more educated than male natives.

For females, immigrants also are more educated than non-immigrants do. In Australia, male immigrants are also more educated than male natives, but for females the picture is reversed, since immigrants appear to be less educated than female natives. On the other hand, in Germany and in the United States immigrants, of both sexes are less educated than non-immigrants.

For Canada and Australia, the explanation for differences in education between male natives and male immigrants may come from an immigration-policy-based selection procedure. Highly educated immigrants, after going through the selection procedure of the point system, are more likely come to Canada and Australia under independent category. Given that the main applicants of prospective immigrant family are primarily males, they are more likely to be screened for occupational suitability and job readiness than females. Primary applicants in occupations that are in short supply or those who have jobs prearranged in the country of destination are given preference in the immigrant intake. They are more likely to enter the country with jobs ready for them. Immigrant women, on the other hand, usually come in as an accompanying part of the family (rather than as the primary applicant). Hence, they are not screened on the basis of educational qualifications and more susceptible to lose part of their human capital or not getting its full return. However, this is not completely the true for Canada, since female immigrants are also more educated than non-immigrant females.

There is one more interesting difference between immigrants and non-immigrants, namely the percentage of married people (see Table 3). In Canada, 72.1 per cent of immigrants are married, while it is the case for only 58.7 per cent of non-immigrants. There is a similar situation in Australia, where 74.5 per cent of immigrants are married, and only 62.2 per cent of non-immigrants. In Germany, there is even bigger gap between married immigrants and non-immigrants: 80.3 per cent of immigrants are married and only 61.5 per cent of non-immigrants are married. Therefore, in all three countries, immigrants are more likely to be married than non-immigrants. On the other hand, in the United States we observe that the proportion of married people for immigrants is even less (57 per cent), than the share of married non-immigrants (58 per cent).
#### **V. OLS REGRESSIONS RESULTS**

In Tables 4, 5 and 6, I have the main results of the OLS regressions. Detailed results of the different model specifications are presented in Appendix Tables 3, 4 and 5.

I basically took several steps in model construction by adding successively more explanatory variables to my basic regressions. From the basic model, which includes as independent variables age, hours worked, education, marital status, number of children and gender (Appendix Table 3.1), I added a dummy variable for immigration status (Appendix Table 3-2, Basic Model+Immigrants). Thus, the coefficient for the dummy variable for immigrants shows the difference in earnings between immigrants and non-immigrants. In spite of the fact that I change my model, the values of all other coefficients remain basically unchanged. The next step is to add a variable for weeks worked during the year (Appendix Table 3-3, Basic Model + Weeks Worked + Immigrants). As it was with the dummy variable representing immigrants, the values of the other coefficients remain basically unchanged, so the results are robust to the inclusion in the model the variable for the weeks worked.

In the next stage of full model construction, I added dummy variables for the immigrants' origin and I divided immigrants into several groups by time since immigration, in order to see time pattern of immigrant earnings growth trend (Appendix Table 3-4 and 3-5). For the first part I have three subgroups of immigrants: those who came from Europe, North America or Australia; those who came from Asia; and those from Africa or Central and South America.

For all models, countries and groups, values of coefficients related to age and age squared look natural – we always have concave functions as a result of negative sign of coefficient for age squared (see Appendix Table 3,4 and 5). All coefficients are statistically significant.

Given these full models, we are able to compare only two countries Canada and the United States, because there are variables missing to construct full models for Australia and Germany (Appendix Table 3-5). The model specification with or without weeks worked for Canada and the United States, the values of the other coefficients are basically unchanged. Therefore, even if we do not have weeks worked for Australia, It is likely, that we can compare result for Australia with results for Canada and United States. For Germany, there is no information on year of immigration and immigrants origin, therefore the models of Appendix Tables 3-4 and 3-5 (Basic Model + Immigrants Origin + Immigrants Subgroups) cannot be estimated. The same steps are repeated for a sample of non-immigrants only (Appendix Tables 4-1 and 4-2) and of immigrants only ((Appendix Tables 5-1 to 5-4).

Table 4 shows selected results from human capital regressions for four countries for the combined sample of immigrants and natives (for full details see Appendix Table 3.4 and 3.5). For each country I have run these regressions for three data sets, namely total population, males and females.

We may notice that there is a positive relation between the level of educational attainment and the level of earnings, as expected. Since the variable for a low level of education is omitted, the coefficients of the variables corresponding to a medium level of education and a high level show, respectively, differences in earnings compared to people with a low level of education. People with a medium level of education are supposed to earn 19.8 per cent more than those with a low educational level, and people with a high level of education earn 50.1 per cent more than those with a low level. In the United States, people with a medium level of education earn 21.9 per cent more than those with a low level. and people with a low level, and people with a high level earn 56.3 per cent more than people with a low educational level.

In Australia, people with a medium level earn 12.7 per cent more than people with a low level, and people with high level earn 30.0 per cent more than those with a low level. In Germany, people with a medium level earn 9.8 per cent more than people with a low level, and those with a high level earn 43.4 per cent more than people with a low level of education. Different levels of inequality in each country could explain these differences among our four countries. For example, a high inequality in the United States gives us an explanation for the largest gap in the earnings among different educational groups. However, such an interpretation should be made with care, because of the difficulties in reconciliation the educational groups; there is a unique survey methodology in each country, and the categories are not completely consistent even after the reconciliation.

It is also interesting to look at the coefficients of the levels of education in the regressions for men and women separetely (see Table 4). In Canada, men with a medium level of education earn 18.2 per cent more than those with a low educational level, while those with a high level earn 46.7 per cent more. Women with a medium level of education supposed to earn 20.8 per cent more than women with a low educational level, and women with a high level earn 55.2 per cent more.

In the United States, men with a medium level of education appear to earn 20.1 per cent more than men with a low educational level, and men with a high level earn 53.1 per cent more than men with a low level. Women with a medium level of education earn 22.7 per cent more than those with a low educational level, and women with a high level earn 58.0 per cent more than those with a low level.

In Australia, men with a medium level of education are likely to earn 11.2 per cent more than men with low educational level, and men with high level earn 29.6 per cent more than men with low level. Women with medium level of education are supposed to earn 13.8 per cent more than those with low educational level, and women with high level earn 31.0 per cent more than women with low level.

In Germany, males with a medium level of education may earn only 6.2 per cent more than males with a low educational level, and males with a high level earn 45.2 per cent more than males with low level of education. Women with a medium level of education, on the other hand, are estimated to earn 17.4 per cent more than women a with low

educational level, and women with a high level earn 34.5 per cent more than women with a low level.

Thus, in all countries and for all educational groups except the high-educated population in Germany, females tend to have higher earnings inequality caused by the differences in education levels.

For the total population, not separated by gender, I constructed special dummy variables for gender. Since the variable for males is omitted, the coefficient for variable presenting females shows difference in earnings between men and women (Table 4). Therefore, in Canada, females appear to earn 27.3 per cent less than males; in the United States - 27.5 per cent less than males; in Australia - 18.5 per cent less and in Germany - 20.8 per cent less. These numbers clearly show gap in earnings between males and females.

With the dummy variable standing for general immigrational status we can get values for coefficient that presents the difference in earnings between immigrants and nonimmigrants, regardless of when and where the immigrants came from (see Appendix Table 3-2). Confirming the expectations, this coefficient always has a negative sign, which means that the immigrants earn less than the native born people.

|                   |                      | Males & I | Females | Males   |         | Females |         |
|-------------------|----------------------|-----------|---------|---------|---------|---------|---------|
|                   |                      | Coeff.    | [t]     | Coeff.  | [t]     | Coeff.  | [t]     |
| Canada            | Medium level of educ | 0.1984    | 492.61  | 0.1821  | 344.00  | 0.2081  | 336.32  |
| (source: Appendix | High level of educ   | 0.5080    | 1061.61 | 0.4670  | 741.34  | 0.5524  | 751.87  |
| Table 3-5)        | Fem                  | -0.2727   | -730.61 | х       | х       | х       | х       |
|                   | ImmAsia              | -0.1838   | -185.83 | -0.2358 | -180.79 | -0.1017 | -67.52  |
|                   | ImmAfrica            | -0.1190   | -107.89 | -0.1777 | -119.38 | -0.0324 | -19.92  |
|                   | Imm 00-04            | -0.3655   | -242.10 | -0.3829 | -194.27 | -0.3415 | -146.47 |
|                   | Imm 05-09            | -0.1994   | -162.19 | -0.1808 | -113.20 | -0.2231 | -116.48 |
|                   | Imm 10-14            | -0.0781   | -53.14  | -0.0365 | -18.65  | -0.1338 | -60.72  |
|                   | Imm 15-19            | -0.0433   | -36.92  | -0.0412 | -26.38  | -0.0408 | -23.13  |
|                   | Imm 20+              | 0.0338    | 50.56   | 0.0512  | 58.73   | 0.0093  | 8.96    |
| United States     | Medium level of educ | 0.2188    | 500.04  | 0.2005  | 346.55  | 0.2268  | 343.11  |
| (source: Appendix | High level of educ   | 0.5625    | 1182.55 | 0.5307  | 858.67  | 0.5792  | 780.38  |
| Table 3-5)        | Fem                  | -0.2754   | -732.55 | х       | х       | х       | Х       |
|                   | ImmAsia              | -0.0968   | -73.40  | -0.1376 | -79.99  | -0.0403 | -19.90  |
|                   | ImmAfrica            | -0.1954   | -156.75 | -0.2326 | -145.05 | -0.1425 | -72.65  |
|                   | Imm 00-05            | -0.1900   | -134.35 | -0.1475 | -82.72  | -0.2302 | -98.95  |
|                   | Imm 06-10            | -0.0607   | -42.95  | -0.0295 | -16.28  | -0.0877 | -39.21  |
|                   | Imm 11-15            | 0.0205    | 14.23   | 0.0232  | 12.54   | 0.0287  | 12.66   |
|                   | Imm 16-20            | 0.0332    | 21.52   | 0.0387  | 19.39   | 0.0301  | 12.55   |
|                   | Imm 21+              | 0.1178    | 104.63  | 0.1396  | 94.30   | 0.0869  | 50.97   |
| Australia         | Medium level of educ | 0.1207    | 205.65  | 0.1124  | 169.75  | 0.1379  | 114.73  |
| (source: Appendix | High level of educ   | 0.3005    | 415.03  | 0.2958  | 342.31  | 0.3104  | 238.03  |
| Table 3-4)        | Fem                  | -0.1854   | -321.48 | х       | х       | х       | Х       |
|                   | ImmAsia              | -0.0723   | -50.79  | -0.0876 | -52.55  | -0.0708 | -26.46  |
|                   | ImmAfrica            | 0.0177    | 9.06    | 0.0584  | 27.17   | -0.0977 | -23.11  |
|                   | Imm 00-04            | -0.1867   | -80.52  | -0.2998 | -114.20 | 0.1048  | 22.66   |
|                   | Imm 05-09            | -0.0817   | -58.54  | -0.1022 | -62.75  | -0.0427 | -16.40  |
|                   | Imm 10-14            | 0.0095    | 5.48    | 0.0012  | 0.57    | 0.0051  | 1.65    |
|                   | Imm 15-19            | -0.0492   | -29.64  | -0.0111 | -5.90   | -0.1294 | -39.04  |
|                   | Imm 20+              | -0.0127   | -16.32  | 0.0075  | 8.41    | -0.0580 | -38.00  |
| Germany           | Medium level of educ | 0.0978    | 15.32   | 0.0622  | 7.94    | 0.1744  | 16.41   |
| (source: Appendix | High level of educ   | 0.4341    | 50.62   | 0.4519  | 45.67   | 0.3453  | 20.88   |
| Table 3-3)        | Fem                  | -0.2085   | -32.68  | Х       | X       | Х       | х       |
|                   | Imm                  | -0.0860   | -6.96   | -0.1064 | -7.21   | -0.0541 | -2.51   |

# Table 4: OLS Results, Sample of Immigrants and non-immigrants

In all four countries, immigrants earn less than non-immigrants. There is a possibility to explore these numbers a little bit deeper, if we look at the regression results by gender. In Canada, male immigrants earn 15.7 per cent less than male non-immigrants, whereas female immigrants earn 12.4 per cent less than female natives. In the United States, male immigrants earn 23.0 per cent less than male non-immigrants, and female immigrants earn 14.0 per cent less than native born females. In Australia, male immigrants earn 4.1 per cent less than male non-immigrants, and female immigrants earn 6.6 per cent less than native born females. In Germany, male immigrants appear to earn 13.3 per cent less than male non-immigrants, and female immigrants earn 19.6 per cent less than non-immigrant females.

Results of those regressions are considered to be a good illustration for cross-country differences in earnings inequality between immigrants and natives. We can see that difference when we compare the United States or Germany with Australia. It appears that Australian immigration policy is the key factor for the determination of the economic performance of immigrants. However, we do not have as clear as evidence that Canadian immigration policies have been more effective than U.S. or German policies from an economic perspective at least according to this measure of wages.

The most interesting and important observation in the full model relates to immigrants and their earnings compared to the earnings of native born. The origin of immigrants and the period of immigration are considered simultaneously. To avoid perfect multicollinearity, the category of immigrants from Europe and North America is omitted in the regressions. Therefore the period of immigration dummy variables reflects earnings gap of immigrants from Europe who arrived at various periods of time relative to natives, and the region of origin dummy variables reflect the gap of immigrants of those regions relative to natives, where it is assumed that the earnings gaps for periods of immigration are the same as for immigrants from Europe and North America. In Canada, immigrants from Asia earn 18.4 per cent less, compared to the earnings of both natives and immigrants from Europe. Immigrant women from Asia earn about 10.2 per cent less than native born and immigrants from Europe do. For immigrant males from Asia the situation is even worse: they earn 23.6 per cent less than natives and immigrants from Europe. However, female immigrants from Africa earn 01y 3.2 per cent less than native females and female immigrants from Europe. As a whole, immigrants from Africa earn 11.9 per cent less than natives and immigrants from Europe do.

In the United States, the situation looks better for immigrants from Asia, but not for those from Africa, Central and South America. There might be relatively many immigrants from Asia in Canada and relatively many immigrants from Africa, Central and South America in the United States. Returning to immigrants from Asia in the United States, we can see that they earn 9.7 per cent less than natives and immigrants from Europe. Male immigrants from Asia earn 13.7 per cent less than natives and from Europe. Women immigrants from Asia earn 4.0 per cent less than native women and those from Europe. Here come African immigrants. They earn 19.5 per cent less than

natives and immigrants from Europe. African male immigrants earn 23.3 per cent less than native men and European male immigrants, while African female immigrants earn just 14.2 per cent less than native women and immigrant women from Europe. Therefore, in Canada as well as in the US, immigrants from Asia and Africa earn less than natives and immigrants from Europe, and all coefficients corresponding to them have negative signs. Now we come to the very interesting point: immigrants by period since migration category and their earnings compared to the earnings of native born people.

In Canada, it appears that all categories of immigrants, except those who came 20 or more years ago, earn less than native born. Those who came fewer than 4 years ago earn nearly 36.6 per cent less than native people do. Let us look at how proportions are spread out among immigrants who came fewer than 4 years ago by gender. Male immigrants from this category earn 38.3 per cent less than male non-immigrants, and female, earn 34.1 per cent less than female natives. For immigrants that came 5-9 years ago, 10-14 years ago, and 15-19 years ago, situations are similar, but the gap between earnings is becoming smaller as we go further and further. Finally, immigrants who came 20 or more years ago earn 3.4 per cent more than native born. It looks like a long way. Male immigrants who arrived 20 or more years ago earn 5.1 per cent more than native born women. Before summing up, we look at the situation in the United States and Australia.

In the United States, the evidence suggests that immigrants are better relative to native born, than is the case in Canada, because immigrants earnings start to exceed the earnings of native born for category of immigrants who came 11-15 years ago. Before this category, immigrants earn less than natives. For example, those who came less than 4 years ago earn 19.0 per cent less than native born earn. By gender, male immigrants who arrived less than 4 years ago earn 14.7 per cent less than native born males, and female immigrants from "less than 4 years ago" category earn 23.0 per cent less than native women. Finally, immigrants who came 20 or more years ago earn 11.7 per cent more than native born. Male immigrants from this category earn 13.9 per cent more than native born males and female immigrants 8.7 per cent more than native women.

In Australia, given the relatively small sample size of immigrants and therefore high first type error probability, it is hard to get a strong numerical estimates of earnings differentials for different groups by period since migration. There is still clear evidence of assimilation trend in terms of earnings gap decrease for immigrants.

Hence, in all three countries, for immigrants who came earlier, the difference in earnings compared to the native born is smaller than for those who came later. Moreover, those who came a long time ago earn more than the native born do. However, the earnings gap percentage for women is smaller than percentage for men, as usual. As a consequence, immigrants who came 20 or more years ago earn more than those who came later do. The next step is to look at immigrants and non-immigrants separately (see Tables 5 and 6). I obtain basically similar results for immigrants compared to non-immigrants. Looking at males and females together, we get the value of the coefficient for dummy variable presenting females. It presents difference in earnings between men and women. In Canada, female immigrants are supposed to earn 27.3 per cent less than male immigrants; country born females earn 27.1 per cent less than country born males, i.e. almost the same.

In Australia, female immigrants earn 19.7 per cent less than male immigrants; native born females earn 17.7 per cent less than male natives. In Germany, female immigrants earn 19.4 per cent less than males immigrants; country born females earn 20.9 per cent less than native born males. There is a relatively bigger gap between female and male earnings even for non-immigrants in the United States,. American women appear to earn 28.0 per cent less than male natives. Immigrant females in the US earn 25.7 per cent less than immigrant males, which is better than in case for native women. These numbers above show relatively similar pattern for a gender inequality between the immigrants and non-immigrants.

|                   |                      | Males & | Females | Male   | es     | Fema   | les    |
|-------------------|----------------------|---------|---------|--------|--------|--------|--------|
|                   |                      | Coeff.  | [t]     | Coeff. | [t]    | Coeff. | [t]    |
| Canada            | Medium level of educ | 0.1878  | 424.98  | 0.1738 | 300.53 | 0.1966 | 288.42 |
| (source: Appendix | High level of educ   | 0.4983  | 928.87  | 0.4490 | 636.05 | 0.5549 | 674.20 |
| Table 4-2)        | Fem                  | -0.2710 | -656.31 | Х      | х      | х      | Х      |
| United States     | Medium level of educ | 0.2121  | 444.39  | 0.1952 | 308.58 | 0.2166 | 302.20 |
| (source: Appendix | High level of educ   | 0.5651  | 1086.72 | 0.5258 | 776.74 | 0.5886 | 728.22 |
| Table 4-2)        | Fem                  | -0.2799 | -670.17 | Х      | х      | х      | х      |
| Australia         | Medium level of educ | 0.1326  | 196.04  | 0.1311 | 170.89 | 0.1395 | 101.58 |
| (source: Appendix | High level of educ   | 0.2538  | 300.79  | 0.2835 | 274.81 | 0.2125 | 145.95 |
| Table 4-1)        | Fem                  | -0.1773 | -267.78 | Х      | х      | х      | х      |
| Germany           | Medium level of educ | 0.0940  | 14.22   | 0.0591 | 7.28   | 0.1729 | 15.81  |
| (source: Appendix | High level of educ   | 0.4367  | 49.03   | 0.4578 | 44.41  | 0.3409 | 20.09  |
| Table 4-2)        | Fem                  | -0.2087 | -31.51  | Х      | x      | Х      | Х      |

 Table 5: OLS Results, Sample of Non-immigrants Only

|                   |                      | Males & I | Temales | Mal     | es      | Fema    | les     |
|-------------------|----------------------|-----------|---------|---------|---------|---------|---------|
|                   |                      | Coeff.    | [t]     | Coeff.  | [t]     | Coeff.  | [t]     |
| Canada            | Medium level of educ | 0.2463    | 253.60  | 0.2229  | 171.76  | 0.2591  | 177.26  |
| (source: Appendix | High level of educ   | 0.5488    | 515.89  | 0.5379  | 382.76  | 0.5469  | 335.51  |
| Table 5-4)        | Fem                  | -0.2725   | -313.95 | х       | х       | х       | Х       |
|                   | ImmAsia              | -0.1821   | -174.93 | -0.2385 | -172.97 | -0.0972 | -61.72  |
|                   | ImmAfrica            | -0.1239   | -107.16 | -0.1810 | -115.60 | -0.0400 | -23.52  |
|                   | Imm 00-04            | -0.4350   | -264.91 | -0.4736 | -218.53 | -0.3849 | -153.93 |
|                   | Imm 05-09            | -0.2514   | -188.13 | -0.2498 | -142.06 | -0.2552 | -124.97 |
|                   | Imm 10-14            | -0.1287   | -81.81  | -0.1055 | -49.92  | -0.1621 | -69.59  |
|                   | Imm 15-19            | -0.0870   | -68.92  | -0.1018 | -60.08  | -0.0653 | -34.90  |
| United States     | Medium level of educ | 0.2361    | 218.96  | 0.2014  | 143.73  | 0.2728  | 162.30  |
| (source: Appendix | High level of educ   | 0.5394    | 465.02  | 0.5342  | 359.78  | 0.5221  | 281.40  |
| Table 5-4)        | Fem                  | -0.2572   | -302.34 | х       | х       | х       | Х       |
|                   | ImmAsia              | -0.0859   | -64.43  | -0.1218 | -70.13  | -0.0311 | -15.07  |
|                   | ImmAfrica            | -0.2322   | -175.17 | -0.2652 | -155.57 | -0.1887 | -90.24  |
|                   | Imm 00-05            | -0.4103   | -301.44 | -0.4136 | -243.24 | -0.4008 | -176.12 |
|                   | Imm 06-10            | -0.2588   | -197.62 | -0.2694 | -161.34 | -0.2378 | -113.54 |
|                   | Imm 11-15            | -0.1534   | -115.62 | -0.1819 | -107.22 | -0.1084 | -51.44  |
|                   | Imm 16-20            | -0.1211   | -84.58  | -0.1410 | -76.23  | -0.0928 | -41.47  |
| Australia         | Medium level of educ | 0.1042    | 89.94   | 0.0716  | 55.60   | 0.1835  | 76.57   |
| (source: Appendix | High level of educ   | 0.4250    | 305.96  | 0.3306  | 212.30  | 0.6666  | 239.51  |
| Table 5-3)        | Fem                  | -0.1970   | -170.52 | х       | х       | х       | Х       |
|                   | ImmAsia              | -0.0944   | -65.56  | -0.0977 | -58.28  | -0.1143 | -43.38  |
|                   | ImmAfrica            | -0.0129   | -6.66   | 0.0265  | 12.48   | -0.1104 | -26.68  |
|                   | Imm 00-04            | -0.2737   | -113.40 | -0.3914 | -144.65 | 0.0445  | 9.33    |
|                   | Imm 05-09            | -0.1297   | -85.18  | -0.1655 | -95.10  | -0.0858 | -30.02  |
|                   | Imm 10-14            | -0.0242   | -13.17  | -0.0611 | -28.19  | 0.0055  | 1.67    |
|                   | Imm 15-19            | -0.0589   | -34.17  | -0.0384 | -19.97  | -0.1049 | -30.68  |
| Germany           | Medium level of educ | 0.1900    | 8.16    | 0.1494  | 5.33    | 0.2388  | 5.79    |
| (source: Appendix | High level of educ   | 0.3913    | 13.48   | 0.3103  | 10.19   | 0.6187  | 8.39    |
| Table 5-2)        | Fem                  | -0.1914   | -8.89   | Х       | х       | Х       | Х       |

# Table 6: OLS Results, Sample of Immigrants Only

It is also interesting to look at and compare the coefficients reflecting a level of education, and see how they influence earnings in the regressions for immigrants and non-immigrants (Table 5 and Table 6). For immigrants in Canada, those with a medium level of education earn 24.6 per cent more than immigrants with a low educational level, and immigrants with a high level earn 54.9 per cent more than immigrants with a low education appear to earn 18.8 per cent more than those with a low educational level of education appear to earn 49.8 per cent more than those with a low level. In the United States, immigrants with a medium level of education are supposed to earn 23.6 per cent more than immigrants with a low educational level, and immigrants with a high level earn 53.9 per cent more than immigrants with a low educational level. Native born with a medium level of education are supposed to earn 21.2 per cent more than those with a low educational level, and natives with a high level earn 56.5 per cent more than natives with a low level of education.

In Australia, immigrants with a medium level of education are supposed to earn 10.4 per cent more than immigrants with a low educational level, and immigrants with a high level earn 42.5 per cent more than immigrants with a low level. Native born with a medium level of education are supposed to earn 13.3 per cent more than those with a low educational level, and natives with a high level earn 25.4 per cent more than natives with a low level of education. In Germany, immigrants with a medium level of educational level, and more than immigrants with a low educational level, and per cent more than immigrants with a low educational level of education.

immigrants with a high level earn 39.1 per cent more than immigrants with a low level. Non-immigrants with a medium level of education appear to earn 9.4 per cent more than non-immigrants with a low educational level, and non-immigrants with a high level earn 43.7 per cent more than non-immigrants with a low level of education.

We can see that in Canada and Australia, the high level of education has higher return for immigrants than for non-immigrants, when in the United States and Germany the situation is reversed.

If we look at immigrants and non-immigrants separated by gender, we can get some more detailed results (see Table 5 and Table 6). In Canada, male immigrants with a medium level of education appear to earn 22.3 per cent more than male immigrants with a low educational level, and immigrant males with a high level earn 53.8 per cent more than immigrants with low level, which indicates very favourable labour market results for this category. Canadian males with a medium level of education are supposed to earn just 17.4 per cent more than those with a low educational level. The percentage for male non-immigrants with a high level of education is also not as good as for male immigrants, namely 44.9 per cent more compared with the low-educated male natives. Female immigrants in Canada with a medium level of education earn 25.9 per cent more than those with a low education earn 54.7 per cent more than female immigrants with a low educational level. Canadian females with a medium level of education are supposed to education earn 54.7 per cent more than female immigrants with a low educational level.

more than those with a low level, and Canadian women with a high level earn 55.5 per cent more than those with a low level.

In the United States, male immigrants with a medium level of education earn 20.1 per cent more than those with a low educational level, and immigrant males with a high level earn 53.4 per cent more than immigrants with a low level. American non-immigrant males with a medium level of education earn 19.5 per cent more than non-immigrant males with a low educational level, and male natives with a high level earn 52.6 per cent more than those with a low level. Female immigrants with a medium level of education, on the other hand, earn 27.3 per cent more than those with a low educational level, and more than those with a low level. Non-immigrant females with a medium level of education earn 21.6 per cent more than non-immigrants females with a low educational level, and non-immigrant women with a high level earn just 58.9 per cent more than those with a low level. Solve earn just 58.9 per cent more than those with a low level.

In Australia, male immigrants with a medium level of education appear to earn 7.2 per cent more than those with a low educational level, and immigrant males with a high level earn 33.1 per cent more than immigrants with a low level. Non-immigrant males, in Australia, with a medium level of education are supposed to earn 13.1 per cent more than non-immigrant males with a low educational level, and male natives with a high level earn 28.3 per cent more than those with a low level. Female immigrants with a medium level of education, on the other hand, appear to earn 18.3 per cent more than

those with a low educational level, and immigrant women with a high level earn nearly 66.7 per cent more than women with a low level. Non-immigrant females with a medium level of education earn 13.9 per cent more than non-immigrants females with a low educational level, and non-immigrant women with a high level earn just 21.3 per cent more than those with a low level of education.

In Germany, male immigrants with a medium level of education are supposed to earn 14.9 per cent more than those with a low educational level, and male immigrants with a high level earn 31.0 per cent earn more than male immigrants with a low level of education. Non-immigrant males with a medium level of education are estimated to earn just 5.9 per cent more than male natives with a low educational level, and native men with a high level earn 45.8 per cent more than those with a low level.

In Germany, we cannot say anything about earnings of immigrant females due to the very small size of the sample. Non-immigrant females with a medium level of education are supposed to earn 17.3 per cent more than non-immigrant females with a low educational level, and non-immigrant women with ahigh level earn 34.1 per cent more than non-immigrant females with a low level of education.

The level of education for male immigrants in Canada and Australia has higher return than for male non-immigrants, when in the United States and Germany the situation is reversed.

#### **VI. Conclusion**

This study investigates the relationship between gender, educational attainment, immigration status and earnings differentials in four countries by using the Census data for US and Canada and the Luxembourg Income Study (LIS) database for Australia and Germany. Although the results should be considered exploratory rather than definitive, some basic conclusions can be stated.

First, I found that among advanced economies there is no obvious relationship between the degree of earnings differentials between immigrants and non-immigrants and the percentage of labour force attaining higher levels of education. Countries differ substantially both in the way they organise their educational systems and in the way they integrate their educational systems with the labour market. Moreover, factors such as age and experience, other wage-setting institutions along with the role of immigration status will also affect earnings differentials. Therefore, it is perhaps not surprising that there is no obvious correlation between simple measures of the educational attainments typical of a nation's labour force and the differentials of earnings in that nation (see also Sullivan and Smeeding, 1997).

Second, there is a clear positive correlation between the earnings differentials associated with greater educational attainment and the extent of earnings inequality. If education can be considered a rough metric of "skill", then it is indeed true that the relative size of a nation's "returns to skill" is associated with inequality in its earnings distribution. Third, economic performances of immigrants are different in the four countries. It differs first of all by the type of immigration policy, but also by a variety of other factors. I found that, on average, the annual earnings of immigrant workers as compared with native workers in Canada and Australia are relatively higher than in the United States and Germany. That is consistent with the finding that, compared with native populations, immigrant workers in Canada and Australia have more education on average than is true for immigrant workers in the United States and Germany. Also, earnings of immigrants in Australia seen to be higher than in Canada. It can be concluded that there is evidence that Canadian and especially Australian immigration policies have been more effective than German and U.S. policies from an economic perspective.

This study could help us evaluate the role of immigrants in the labour market and adjust admission criteria in order to enhance the earnings of immigrants and their contribution to the country. The comparison of cross-country differences in economic performance of immigrants seems to be very interesting. There is a clear correlation between the type of immigration policy and the economic performances of immigrants.

#### Bibliography

Akbari, A.H. (1990), "Earnings of Foreign-Born Women in Canada"

Atkinson, A., L. Rainwater, and T. Smeeding. 1995. Income Distribution in OECD Countries: Evidence from the Luxembourg Income Study (LIS). Paris: OECD.

Baker, M. and D. Benjamin (1994), "The Performance of Immigrants in the Canadian Labour Market", *Journal of Labour Economics* 12: 369-405.

(1996), "The Role of Family in Immigrants' Labour Market Activity: An Evaluation of Alternative Explanations", *American Economic Review* 86.

(1997), "Ethnicity, Foreign Birth and Earnings: A Canada/U.S. Comparison", in *Transition and Structural Change in the North American Labour Market*, ed. M. Abbott, C. Beach and R. Chaykowski (Kingston: IRC Press and John Deutsch Institute for the Study of Economic Policy, Queen's University), pp. 281-313.

Beach, C.M. and C. Worswick (1993), "Is there a Double-Negative Effect on the Earnings of Immigrant Women?" *Canadian Public Policy* 19:36-53.

Bloom, D.E. and M.Gunderson (1991), "An Analysis of the Earnings of Canadian Immigrants", in *Immigration, Trade, and the Labour Market*, ed. J.Abowd and R. Freeman (Chicago: University of Chicago Press for the NBER).

Bloom, D.E., G. Grenier and M. Gunderson (1995), "The Changing Labour Market Position of Canadian Immigrants", *Canadian Journal of Economics* 28(4b):987-1005.

Borjas, G.J. (1985), "Assimilation, Changes in Cohort Quality, and the Earnings of immigrants", *Journal of Labour Economics*, 3:4:463-89.

(1990) "Friends or Strangers: The Impact of Immigrants on the US economy, (New York: Basic Books, Inc., Publishers)

(1993), "Immigration Policy, National Origin, and Immigrant Skills: A Comparison of Canada and the United States", in *Small Differences that Matter*, ed. D.Card and R.B. Freeman (Chicago, IL: University of Chicago Press).

Callan, T., S. Adams, S. Dex, S. Gustafsson, J. Schupp, and N. Smith. 1996. "Gender Wage Differentials: New Cross-Country Evidence," LIS Working Paper #134. Luxembourg: Luxembourg Income Study.

Canada (1984) *Report of the Commission on Eqaulity in Employment*. Judge Rosalie Silberman Abella, Commissioner (Ottawa: Supply and Services Canada).

Carlson, L.A. and C. Swartz (1988), "The Earnings of Women and Ethnic Minorities, 1959-1979", *Industrial and Labour Relations Review*, 41:4:530-46.

Chiswick, B.R. (1978) "The Effect of Americanization on the Earnings of Foreign-Born Men", *Journal of Political Economy*, 85:5:897-921.

Christofides, L.N. and R. Swidinsky (1994), "Wage Determination by Gender and Visible Minority Status: Evidence from the 1989 LMAS", *Canadian Public Policy* 20(1):34-51.

deSilva, A. (1992), *Earnings of Immigrants: A Comparative Analysis* (Ottawa: Economic Council of Canada).

(1996), *Discrimination Against Visible Minority Men* (Ottawa: Human Resources Development Canada).

Duleep, H.O. and M.Regets (1992), "Some Evidence on the Effect of Admission Criteria on Immigrant Assimilation", in *Immigration, Language and Ethnicity: Canada and the United States*, ed. B.Chiswick (Washington, DC: The American Enterprise Institute).

(1994), "Country of Origin and Immigrant Earnings", Program for Research on Immigration Policy, Discussion Paper PRIP- UI - 31 (Washington, DC: The Urban Institute).

(1996), "The Elusive of Immigrant Quality: Evidence from 1970-1990", Program for Research on Immigration Policy, Discussion Paper PRIP- UI - 28 (Washington, DC: The Urban Institute).

(1997), "Immigrant Entry Earnings and Human Capital Growth: Evidence from the 1960-1990 Censuses", *Research in Labour Economics*.

Duleep, H. and S. Sanders (1993), "The Decision to Work by Married Immigrant Women", *Industrial and Labour Relations Review* 46:677-90.

Employment and Immigration Canada (1990) *Employment Equity Act*, Annual Report (Ottawa).

Grant, M. L. (1999), "Evidence of new immigrant assimilation in Canada", *Canadian Journal of Economics* 

Gottschalk, P. and M. Joyce. 1997. "Cross national Differences in the Rise in Earnings Inequality—Market and Institutional Factors," LIS Working Paper #160. Luxembourg: Luxembourg Income Study. Gunderson M. (1979) "Decomposition of the Male/Female Earnings Differential: Canada, 1970", *The Canadian Journal of Economics*, 12:3:479-85.

(1989), "Male/Female Wage Differentials and Policy Responses", *Journal of Economic Literature*, 27:1:4672.

Hum, D. and W. Simpson (1991), "The Economic Well Being and Labour Market Activity of Persons with Disabilities in Canada". A Study Prepared for the Employment Equality Program; Housing, Family and Social Statistics Division, Statistics Canada.

Kuhn, P. and P. George (1992), "The Size and Structure of Native-White Wage Differentials in Canada", McMaster University Working Paper No. 92-12.

LaLonde, R. and R.Topel (1992) "Immigrants in the American Labour Market: Quality, Assimilation, and Distributional Effects", *AEA Papers and Proceedings*, pp. 297-302.

Lampkin, L. (1985), "Visible Minorities in Canada". Pp. 651-83 in Judge R.S. Abella, Comissioner, *Research Studies of the Commision on Equality in Employment* (Ottawa: Supply and Services Canada).

Long, J.E. (1980), "The effect of Americanization on Earnings: Some Evidence for Women", *Journal of Political Economy* 88:620-29.

Meng, R. (1987), "The Earnings of Canadian Immigrant and Native-Born Males", *Applied Economics* 10 (December):1107-9.

and J. Sentance (n.d.) "The Earnings of Immigrant Women: Canadian Evidence".

Miller, P.W. (1987), "Gender Differences in Observed and Offered Wages in Canada, 1980", *Canadian Journal of Economics*, XX:2:225-44.

Mincer, J. and S. Polachek (1974), "Family Investments in Human Capital: Earnings of Women", *Journal of Political Economy* 82

Nakamura, A. and Nakamura, M. (1992), "Wage Rates of Immigrant and Native Men in Canada and the United States" in *Immigration, Language and Ethnicity: Canada and the United States*, ed. B.Chiswick (Washington, DC: The American Enterprise Institute).

O'Connor, I. 1994. "Cross-National Comparisons of Education and Earnings," LIS Working Paper #116. Luxembourg: Luxembourg Income Study.

Pendakur, K. and R. Pendakur (1998), "The Color of Money: Earnings Differentials Among Ethnic Groups in Canada", *Canadian Journal of Economics* 31(1):518-48.

Robb, R.E. (1978), "Earnings Differentials Between Males and Females in Ontario, 1971", *The Canadian Journal of Economics*, 11:1:350-9.

Samuel, T.J. and B. Woloski (1985), "The Labour Market Experiences of Canadian Immigrants", *International Migration* 23(2):34-46

Shapiro, D.M. and M. Stelcner (1981), "Male-Female Earnings Differentials and the Role of Language in Canada, Ontario and Quebec, 1970", *The Canadian Journal of Economics*, 14:2:341-8.

(1987), "The Persistence of the Male-Female Earnings Gap in Canada, 1970-1980: The Impact of Equal Pay Laws and Language Policies", *Canadian Public Policy*, XIII:4:462-76.

Smeeding, T. (1997), "American Income Inequality in a Cross-National Perspective: Why Are We So Different?" LIS Working Paper #157. Luxembourg: Luxembourg Income Study.

Smith, J.B. and M. Stelcner (1988), "Labour Supply of Married Women in Canada, 1980", *Canadian Journal of Economics*, XXI:4:857-70.

Sullivan, D. and T. Smeeding. (1997), "Educational Attainment and Earnings Inequality in Eight Nations," LIS Working Paper #168. Luxembourg: Luxembourg Income Study.

Sullivan, D. and T. Smeeding. (1997), "The Sensitivity of Earnings Differentials for Educational Attainment to Alternate Measures of Earnings, Attainment and Inequality: Results for Eight Countries," LIS Working Paper #164. Luxembourg: Luxembourg Income Study.

Worswick, C. (1996), "Immigrant Families in the Canadian Labour Market", *Canadian Public Policy* 

Zimmermann K.F. (1995) "Tackling the European Migration Problem" *The Journal of Economic Perspectives*, Spring 1995, Volume 9, Number 2.

|               |            | Male  | s     | Fema  | les                 | Total |        |
|---------------|------------|-------|-------|-------|---------------------|-------|--------|
|               |            |       | %     |       | %                   |       | %      |
| Canada        | Natives    | 36380 | 80.32 | 24063 | 79.72               | 60443 | 80.08  |
| 1996          | Imm 00-04  | 797   | 1.76  | 534   | 1.77                | 1331  | 1.76   |
|               | Imm 05-09  | 1388  | 3.06  | 875   | 2.90                | 2263  | 3.00   |
|               | Imm 10-14  | 776   | 1.71  | 576   | 1.91                | 1352  | 1.79   |
|               | Imm 15-19  | 1330  | 2.94  | 985   | 3.26                | 2315  | 3.07   |
|               | Imm 20+    | 4624  | 10.21 | 3150  | 10.44               | 7774  | 10.30  |
|               | Imm. Total | 8915  | 19.68 | 6120  | 20.28               | 15035 | 19.92  |
|               | Total      | 45295 | 60.01 | 30183 | 39.99               | 75478 | 100.00 |
| United States | Natives    | 45973 | 77.94 | 33294 | 81.68               | 79267 | 79.47  |
| 1991          | Imm 00-05  | 2983  | 5.06  | 1284  | 3.15                | 4267  | 4.28   |
|               | Imm 06-10  | 2924  | 4.96  | 1562  | 3.83                | 4486  | 4.50   |
|               | Imm 11-15  | 2456  | 4.16  | 1454  | 3.57                | 3910  | 3.92   |
|               | Imm 16-20  | 1674  | 2.84  | 1085  | 2.66                | 2759  | 2.77   |
|               | Imm 21+    | 2975  | 5.04  | 2085  | 5.11                | 5060  | 5.07   |
|               | Imm. Total | 13012 | 22.06 | 7470  | 18.32               | 20482 | 20.53  |
|               | Total      | 58985 | 59.13 | 40764 | 40.87               | 99749 | 100.00 |
| Australia     | Natives    | 2243  | 73.37 | 1132  | 75.47               | 3375  | 74.06  |
| 1994          | Imm 00-04  | 43    | 1.41  | 18    | 1.20                | 61    | 1.34   |
|               | Imm 05-09  | 123   | 4.02  | 63    | 4.20                | 186   | 4.08   |
|               | Imm 10-14  | 70    | 2.29  | 48    | 3.20                | 118   | 2.59   |
|               | Imm 15-19  | 89    | 2.91  | 39    | 2.60                | 128   | 2.81   |
|               | Imm 20+    | 489   | 16.00 | 200   | 13.33               | 689   | 15.12  |
|               | Imm. Total | 814   | 26.63 | 368   | 24.53               | 1182  | 25.94  |
|               | Total      | 3057  | 60.01 | 1500  | 32.92               | 4557  | 100.00 |
| Germany       | Natives    | 2983  | 94.79 | 1459  | 95.9 <mark>2</mark> | 4442  | 95.16  |
| 1994          | Imm. total | 164   | 5.21  | 62    | 4.08                | 226   | 4.84   |
|               | Total      | 3147  | 67.42 | 1521  | 32.58               | 4668  | 100.00 |

Appendix Table 1: Sample size distribution by Country, Sex and Detailed Immigration Status

|               |            |          | Males    |          | ales     | Both     |          |  |
|---------------|------------|----------|----------|----------|----------|----------|----------|--|
|               |            | NCU      | log      | NCU      | log      | NCU      | log      |  |
| Canada        | Natives    | 43,625.2 | 10.50615 | 31,992.9 | 10.21355 | 38,994.3 | 10.38966 |  |
| 1996          | Immigrants | 42,402.5 | 10.44297 | 30,213.5 | 10.13297 | 37,441.0 | 10.31679 |  |
|               | Total      | 43,384.6 | 10.49372 | 31,632.1 | 10.19721 | 38,684.9 | 10.37515 |  |
| United States | Natives    | 33,188.7 | 10.15431 | 22,349.1 | 9.79217  | 28,615.2 | 10.00152 |  |
| 1991          | Immigrants | 24,026.2 | 9.77031  | 18,417.3 | 9.56069  | 21,988.8 | 9.69417  |  |
|               | Total      | 31,172.4 | 10.06981 | 21,638.7 | 9.75035  | 27,264.0 | 9.93884  |  |
| Australia     | Natives    | 35,694.4 | 10.33528 | 27,311.2 | 10.07546 | 32,918.2 | 10.24923 |  |
| 1994          | Immigrants | 36,414.4 | 10.37324 | 27,519.1 | 10.07051 | 33,673.9 | 10.27997 |  |
|               | Total      | 35,885.3 | 10.34534 | 27,362.1 | 10.07424 | 33,113.7 | 10.25718 |  |
| Germany       | Natives    | 61,129.1 | 10.86409 | 44,127.4 | 10.58630 | 55,687.2 | 10.77517 |  |
| 1994          | Immigrants | 49,599.1 | 10.70273 | 35,493.6 | 10.31442 | 45,397.2 | 10.58705 |  |
|               | Total      | 60,447.8 | 10.85455 | 43,664.9 | 10.57174 | 55,097.3 | 10.76439 |  |

Appendix Table 2: Average Annual Earnings by Country, Gender and Immigration Status

#### Appendix Table 3: OLS Results, Sample of Immigrants and

| Sample of In  | migrants and           | 31            |            |               |            |                |              |
|---------------|------------------------|---------------|------------|---------------|------------|----------------|--------------|
| non-immigra   | ints                   | Basic Model   |            |               |            |                |              |
|               |                        | Males & F     | emales     | Males         |            | Females        |              |
|               | 1                      | Coeff.        | [t]        | Coeff.        | [t]        | Coeff.         | [t]          |
| Canada        | Constatnt              | 8.211779      | 2765.675   | 8.133034      | 2099.463   | 7.995535       | 1733.001     |
| 1995          | Age*Age                | -0.000904     | -512.222   | -0.000886     | -386.334   | -0.001006      | -363.595     |
|               | Hours worked (FT)      | 0.002831      | 134.569    | 0.003366      | 133.182    | 0.000978       | 25.508       |
|               | Weeks worked (FY)      | x             | x          | х             | x          | х              | х            |
|               | Medium level of educ   | 0.20564       | 505.855    | 0.189294      | 353.897    | 0.21593        | 346.638      |
|               | High level of educ     | 0.501335      | 1041.823   | 0.454343      | 716.842    | 0.553742       | 750.503      |
|               | Married                | 0.098516      | 223.634    | 0.141694      | 231.589    | 0.041820       | 66.540       |
|               | Number of children     | -0.00412      | -23.393    | 0.007495      | 33.018     | -0.030578      | -109.141     |
|               | Fem                    | -0.275359     | -/30.3/3   | X             | X          | X              | X            |
|               | ImmAsia                | x             | x          | X             | X          | X              | x            |
|               | ImmAfrica              | x             | x          | x             | x          | x              | x            |
|               | Imm 00-04              | х             | x          | х             | x          | х              | x            |
|               | Imm 05-09              | x             | x          | х             | x          | х              | x            |
|               | Imm 10-14              | х             | x          | х             | x          | х              | х            |
|               | Imm 15-19              | х             | x          | х             | x          | х              | х            |
|               | Imm 20+                | X 0.1509      | x          | X 0.1267      | x          | X 0.1250       | x            |
|               | K-square               | 0.1598        | x          | 0.1367        | x          | 0.1259         | X            |
|               | N                      | 75478         | x          | 45295         | x          | 30183          | x            |
| United States | Constatnt              | 7.304853      | 2501.3     | 7.147186      | 1940.355   | 7.247763       | 1542.381     |
| 1991          | Age                    | 0.093385      | 630.308    | 0.09689       | 512.465    | 0.093373       | 398.585      |
|               | Age*Age                | -0.000951     | -519.477   | -0.000974     | -418.944   | -0.001001      | -343.627     |
|               | Hours worked (FT)      | 0.008294      | 331.755    | 0.0081        | 280.365    | 0.00739        | 154.238      |
|               | Weeks worked (FY)      | х             | х          | х             | х          | х              | х            |
|               | Medium level of educ   | 0.30733       | 606.283    | 0.29866       | 456.736    | 0.291764       | 368.848      |
|               | High level of educ     | 0.615921      | 1117.814   | 0.611627      | 8/6.544    | 0.581133       | 654.797      |
|               | Number of children     | -0.025976     | -120 424   | -0.016204     | -58 116    | -0.068157      | -198 533     |
|               | Fem                    | -0.299344     | -673.825   | 0.010204<br>X | x          | 0.000157<br>x  | 170.555<br>X |
|               | Imm                    | х             | x          | х             | x          | х              | x            |
|               | ImmAsia                | х             | x          | х             | x          | х              | х            |
|               | ImmAfrica              | х             | x          | х             | x          | х              | х            |
|               | Imm 00-05              | х             | x          | х             | x          | х              | x            |
|               | Imm 06-10              | х             | х          | х             | х          | х              | х            |
|               | Imm 11-15<br>Imm 16-20 | X             | x          | X             | X          | X              | X            |
|               | Imm 10-20<br>Imm 21+   | X             | x          | X             | X          | X              | X            |
|               | R-square               | 0.271         | x          | 0 3022        | x          | 0 1776         | x            |
|               | F-stat                 | 476719.72     | x          | 374466.151    | x          | 129755.436     | x            |
|               | Ν                      | 99749         | x          | 58985         | x          | 40764          | х            |
| Australia     | Constatnt              | 7.482769      | 1854.623   | 7.609577      | 1636.86    | 6.864799       | 858.643      |
| 1994          | Age                    | 0.095393      | 499.996    | 0.080756      | 361.81     | 0.142613       | 378.521      |
|               | Age*Age                | -0.001108     | -459.556   | -0.000907     | -327.197   | -0.001768      | -358.243     |
|               | Hours worked (FT)      | 0.019593      | 370.16     | 0.021771      | 370.923    | 0.012621       | 112.027      |
|               | Medium level of educ   | 0.118911      | 202.652    | 0.108958      | 164.594    | 0.139421       | 240.572      |
|               | Married                | 0.059473      | 91 709     | 0.079283      | 97 505     | 0.008236       | 7 567        |
|               | Number of children     | -0.019747     | -68.579    | -0.003603     | -11.338    | -0.086588      | -132.658     |
|               | Fem                    | -0.184298     | -319.212   | х             | x          | х              | x            |
|               | Imm                    | х             | x          | х             | x          | х              | х            |
|               | ImmAsia                | х             | x          | х             | x          | х              | х            |
|               | ImmAfrica              | х             | x          | х             | x          | х              | х            |
|               | Imm 00-04              | х             | х          | х             | х          | х              | х            |
|               | Imm 05-09              | x             | x          | X             | X          | X              | x            |
|               | Imm 10-14<br>Imm 15-19 | x             | x          | X             | x          | X              | X            |
|               | Imm 20+                | x             | x          | x             | x          | x              | x            |
|               | R-square               | 0.1955        | x          | 0.1798        | x          | 0.1517         | x            |
|               | F-stat                 | 140824.87     | x          | 98004.419     | x          | 38515.938      | х            |
|               | Ν                      | 4557          | x          | 3057          | x          | 1500           | х            |
| Germany       | Constatnt              | 9.118729      | 162.984    | 9.111236      | 132.334    | 8.503772       | 87.101       |
| 1994          | Age                    | 0.063069      | 23.006     | 0.057093      | 16.847     | 0.104367       | 22.142       |
|               | Age*Age                | -0.000619     | -18.504    | -0.000532     | -13.043    | -0.001172      | -19.810      |
|               | Weeks worked (FT)      | 0.002591<br>x | 4.952<br>x | 0.004032      | 0.909<br>x | -0.003436<br>x | -2.937       |
|               | Medium level of educ   | 0.126752      | 16 522     | 0.082889      | 8 852      | 0.226993       | x<br>17 449  |
|               | High level of educ     | 0.43006       | 41.521     | 0.448783      | 37.784     | 0.345552       | 17.033       |
|               | Married                | 0.096565      | 11.547     | 0.137254      | 12.611     | -0.010566      | -0.826       |
|               | Number of children     | -0.024169     | -5.595     | -0.00011      | -0.022     | -0.163018      | -17.849      |
|               | Fem                    | -0.228073     | -29.645    | х             | x          | х              | х            |
|               | Imm                    | x             | х          | х             | х          | х              | х            |
|               | ImmAsia                | х             | x          | х             | х          | х              | х            |
|               | ImmAtrica              | х             | х          | х             | х          | х              | х            |
|               | Imm 00-04<br>Imm 05-09 | x             | X          | X             | X          | X              | X            |
|               | 111111 03-09           | X             | х          | Х             | x          | х              | х            |

x x x

x x x

х

х

х

x 0.2293 768.576

4668

Imm 10-14

Imm 15-19

Imm 20+ R-square F-stat N х

х

x 0.2234 578.449 3147

X X X X X X X

X X X X X X X X X

x x

х

x x

0.176 200.886 1521

# Appendix Table 3: OLS Results, Sample of Immigrants and non-immigrants

32

| non-immigra   | ints                 | Basic Model + | Immigrants  | L             |            | 1             |             |
|---------------|----------------------|---------------|-------------|---------------|------------|---------------|-------------|
|               |                      | Males &       | Females     | Males         | 63         | Females       | 63          |
| Canada        | Constatut            | Coeff.        | [t]         | Coeff.        | [t]        | Coeff.        | [t]         |
| 1995          | Age                  | 0.084492      | 580 849     | 0.083872      | 440 493    | 0.090955      | 403.067     |
| 1775          | Age*Age              | -0.000873     | -495 784    | -0.000849     | -370 883   | -0.000984     | -356.020    |
|               | Hours worked (FT)    | 0.002851      | 135 986     | 0.000331      | 131 431    | 0.000564      | 30 505      |
|               | Weeks worked (FY)    | x             | x           | X             | x          | 0.001100<br>X | 201202      |
|               | Medium level of educ | 0.207152      | 511.303     | 0.192486      | 361.132    | 0.215679      | 347.155     |
|               | High level of educ   | 0.510641      | 1062.918    | 0.466993      | 737.432    | 0.558706      | 758.707     |
|               | Married              | 0.106259      | 241.686     | 0.15076       | 246.94     | 0.047630      | 75.884      |
|               | Number of children   | -0.001424     | -8.105      | 0.009396      | 41.525     | -0.026944     | -96.173     |
|               | Fem                  | -0.272584     | -725.322    | x             | х          | x             | х           |
|               | Imm                  | -0.147044     | -323.326    | -0.157228     | -261.971   | -0.124008     | -179.288    |
|               | ImmAsia              | х             | х           | х             | х          | х             | х           |
|               | ImmAfrica            | х             | х           | х             | х          | х             | х           |
|               | Imm 00-04            | х             | х           | х             | х          | х             | х           |
|               | Imm 05-09            | х             | х           | х             | х          | х             | х           |
|               | Imm 10-14            | X             | x           | X             | X          | x             | х           |
|               | Imm 15-19            | X             | X           | X             | X          | X             | x           |
|               | R-square             | 0 1656        | X           | 0 1/132       | X          | 0 1306        |             |
|               | F-stat               | 332928 226    | x           | 189279 766    | x          | 113309.039    |             |
|               | N                    | 75478         | x           | 45295         | x          | 30183         | x           |
| United States | Constatnt            | 7.431793      | 2544.875    | 7.306683      | 1986.613   | 7.310345      | 1554.723    |
| 1991          | Age                  | 0.091283      | 619.874     | 0.094311      | 503.223    | 0.092049      | 393.839     |
|               | Age*Age              | -0.000931     | -511.98     | -0.00095      | -412.319   | -0.000988     | -339.903    |
|               | Hours worked (FT)    | 0.007756      | 311.843     | 0.007353      | 256.214    | 0.007268      | 152.105     |
|               | Weeks worked (FY)    | x             | х           | x             | х          | x             | х           |
|               | Medium level of educ | 0.28091       | 552.565     | 0.265049      | 404.612    | 0.27731       | 349.259     |
|               | High level of educ   | 0.599272      | 1091.44     | 0.590001      | 850.146    | 0.572809      | 646.175     |
|               | Married              | 0.155555      | 314.993     | 0.255326      | 371.904    | 0.016706      | 23.366      |
|               | Number of children   | -0.016719     | -77.527     | -0.004055     | -14.566    | -0.062367     | -181.164    |
|               | Fem                  | -0.307609     | -696.289    | х             | х          | х             | х           |
|               | Imm                  | -0.202824     | -374.986    | -0.230473     | -342.243   | -0.139942     | -157.688    |
|               | ImmAsia              | х             | х           | х             | х          | х             | х           |
|               | ImmAfrica            | х             | х           | х             | х          | х             | х           |
|               | Imm 00-05            | х             | х           | х             | х          | х             | х           |
|               | Imm 11 15            | X             | X           | X             | X          | X             | x           |
|               | Imm 16-20            | x             | x           | x             | x          | x             |             |
|               | Imm 70-20<br>Imm 21+ | x             | x           | x             | x          | x             |             |
|               | R-square             | 0.2809        | x           | 0.3154        | x          | 0.1824        | x           |
|               | F-stat               | 445182.769    | x           | 348639.27     | x          | 117315.442    | х           |
|               | Ν                    | 99749         | х           | 58985         | х          | 40764         | х           |
| Australia     | Constatnt            | 7.471655      | 1852.039    | 7.59797       | 1633.824   | 6.853833      | 857.966     |
| 1994          | Age                  | 0.096882      | 505.736     | 0.081992      | 365.954    | 0.144918      | 382.895     |
|               | Age*Age              | -0.001123     | -464.741    | -0.000919     | -330.879   | -0.001794     | -362.341    |
|               | Hours worked (FT)    | 0.019343      | 365.047     | 0.021609      | 367.974    | 0.012089      | 107.065     |
|               | Medium level of educ | 0.12005       | 204.672     | 0.110485      | 166.867    | 0.139258      | 116.020     |
|               | High level of educ   | 0.292861      | 406.068     | 0.283944      | 329.273    | 0.311116      | 239.647     |
|               | Married              | 0.061856      | 95.348      | 0.080717      | 99.281     | 0.012446      | 11.422      |
|               | Number of children   | -0.020698     | -71.872     | -0.004513     | -14.191    | -0.086949     | -133.351    |
|               | Fem                  | -0.184935     | -320.505    | X             | X          | X             | X<br>57.400 |
|               | Imm Asia             | -0.04/98/     | - /9.803    | -0.040964     | -59.197    | -0.000508     | -57.498     |
|               | ImmAfrica            | X             | X           | X             | X          | X             |             |
|               | Imm 00-04            | x             | x           | x             | x          | x             |             |
|               | Imm 05-09            | x             | x           | x             | x          | x             | x           |
|               | Imm 10-14            | x             | x           | x             | x          | x             | x           |
|               | Imm 15-19            | х             | х           | х             | х          | x             | х           |
|               | Imm 20+              | x             | x           | х             | х          | x             | х           |
|               | R-square             | 0.1966        | х           | 0.1808        | х          | 0.1536        | х           |
|               | F-stat               | 126058.523    | х           | 86287.914     | x          | 34188.566     | х           |
|               | N                    | 4557          | х           | 3057          | х          | 1500          | х           |
| Germany       | Constatnt            | 9.130929      | 163.566     | 9.123232      | 132.735    | 8.530908      | 87.676      |
| 1994          | Age                  | 0.063302      | 23.147      | 0.057074      | 16.875     | 0.105221      | 22.408      |
|               | Age*Age              | -0.000626     | -18.743     | -0.000536     | -13.153    | -0.001187     | -20.130     |
|               | Hours worked (FT)    | 0.002506      | 4.781       | 0.004034      | 6.986      | -0.00405      | -3.449      |
|               | Weeks worked (FY)    | X 0.110242    | X           | X             | X 0.022    | X 0.21570     | X           |
|               | Medium level of educ | 0.118342      | 15.374      | 0.075486      | 8.033      | 0.21579       | 16.544      |
|               | Married              | 0.424003      | 41.047      | 0.44451       | 37.433     | 0.337601      | 10.080      |
|               | Number of children   | -0.021569     | -1 996      | 0.014349      | 0.364      | -0.157864     | -0.343      |
|               | Fem                  | -0.226561     |             | 0.001001      | 0.504      | -0.157604     | -17.505     |
|               | Imm                  | -0.151123     | -10 148     | -0 133291     | -7 546     | -0 195835     | -7 429      |
|               | ImmAsia              | v.151125      | 10.140<br>v | 0.133271<br>¥ | 7.5+0<br>v | v.175055      | ·/.+22      |
|               | ImmAfrica            | x             | x           | x             | x          | x             | x           |
|               | Imm 00-04            | x             | x           | x             | x          | x             | x           |
|               | Imm 05-09            | x             | x           | x             | x          | x             | х           |
|               | Imm 10-14            | x             | x           | х             | х          | x             | х           |
|               | Imm 15-19            | x             | x           | x             | х          | x             | х           |
|               | Imm 20+              | x             | x           | x             | х          | x             | Х           |
|               | R-square             | 0.2332        | x           | 0.2266        | х          | 0.1829        | ,           |
|               | F-stat               | 697.992       | x           | 515.273       | х          | 184.122       | х           |
|               | Ν                    | 4668          | х           | 3147          | х          | 1521          | х           |

### Appendix Table 3: OLS Results, Sample of Immigrants and non-immigrants

| Sample of In  | imigrants and                | 33              |                 |                |               |                     |               |
|---------------|------------------------------|-----------------|-----------------|----------------|---------------|---------------------|---------------|
| non-immigra   | ants                         | Basic Model + W | eeks Worked -   | + Immigrants   |               |                     |               |
|               |                              | Males & Fo      | emales          | Males          |               | Females             |               |
|               |                              | Coeff.          | [t]             | Coeff.         | [t]           | Coeff.              | [t]           |
| Canada        | Constatnt                    | 6.804015        | 847.269         | 6.880962       | 650.894       | 6.377595            | 520.908       |
| 1995          | Age                          | 0.083823        | 576.802         | 0.083302       | 437.816       | 0.090082            | 399.749       |
|               | Age*Age<br>Hours worked (FT) | -0.000867       | -492.815        | -0.000844      | -308.900      | -0.000975           | -353.408      |
|               | Weeks worked (FY)            | 0.028503        | 194.017         | 0.025709       | 132.821       | 0.032331            | 144.611       |
|               | Medium level of educ         | 0.204537        | 505.196         | 0.190568       | 357.749       | 0.211913            | 341.382       |
|               | High level of educ           | 0.504625        | 1049.515        | 0.461788       | 728.526       | 0.551542            | 748.578       |
|               | Married                      | 0.104234        | 237.308         | 0.148855       | 243.989       | 0.045442            | 72.502        |
|               | Number of children           | -0.001276       | -7.27           | 0.009523       | 42.128        | -0.026759           | -95.677       |
|               | Fem                          | -0.272756       | -726.681        | X              | X             | X                   | X             |
|               | Imm<br>Imm Asia              | -0.142985       | -314.46         | -0.153918      | -256.484      | -0.118/82           | -1/1./95      |
|               | ImmAsia<br>ImmAfrica         | X               | X               | X              | X             | X                   | X             |
|               | Imm 00-04                    | x               | x               | x              | x             | x                   | x             |
|               | Imm 05-09                    | x               | x               | x              | x             | x                   | x             |
|               | Imm 10-14                    | х               | x               | х              | x             | х                   | х             |
|               | Imm 15-19                    | х               | x               | х              | x             | х                   | х             |
|               | Imm 20+                      | х               | х               | х              | x             | х                   | х             |
|               | R-square                     | 0.1677          | х               | 0.1449         | х             | 0.1336              | х             |
|               | F-stat                       | 304146.797      | х               | 170536.457     | х             | 103391.637          | х             |
| United States | N<br>Competentiat            | 75478           | X               | 45295          | 1725 45       | 5 012507            | 1472.012      |
| 1001          | Age                          | 0.073205        | 581 613         | 0.080256       | 1755.45       | 0.067984            | 350 572       |
| 1))1          | Age*Age                      | -0.000745       | -479.522        | -0.000805      | -399.292      | -0.00073            | -303.159      |
|               | Hours worked (FT)            | 0.006722        | 316.943         | 0.006432       | 256.586       | 0.006603            | 167.220       |
|               | Weeks worked (FY)            | 0.039587        | 1964.534        | 0.038151       | 1373.328      | 0.04045             | 1397.158      |
|               | Medium level of educ         | 0.235526        | 542.724         | 0.218372       | 381.101       | 0.240856            | 366.765       |
|               | High level of educ           | 0.580121        | 1239.197        | 0.549563       | 905.82        | 0.594387            | 811.156       |
|               | Married                      | 0.112658        | 267.262         | 0.181771       | 302.017       | 0.015360            | 25.995        |
|               | Number of children           | -0.010846       | -58.989         | -0.004705      | -19.353       | -0.03/550           | -131.727      |
|               | Fem                          | -0.267788       | -/10.058        | X<br>0.165213  | X<br>280.053  | X<br>0.000408       | X<br>135 /22  |
|               | ImmAsia                      | -0.143845<br>x  | -511.525<br>X   | -0.105215<br>X | -280.055<br>x | -0.099408<br>x      | -155.455<br>x |
|               | ImmAfrica                    | x               | x               | x              | x             | X                   | x             |
|               | Imm 00-05                    | x               | x               | х              | x             | х                   | х             |
|               | Imm 06-10                    | х               | x               | х              | x             | х                   | х             |
|               | Imm 11-15                    | х               | х               | х              | x             | х                   | х             |
|               | Imm 16-20                    | х               | x               | х              | х             | х                   | х             |
|               | Imm 21+                      | X               | х               | X              | х             | X                   | х             |
|               | R-square                     | 0.4774          | X               | 0.478          | X             | 0.4416              | X             |
|               | r-stat<br>N                  | 95/551.44       | X               | 58985          | X             | 309373.833<br>40764 | X             |
| Australia     | Constatnt                    | >>/4>           | X               | x              | x             | 40704<br>X          | X             |
| 1994          | Age                          | x               | x               | х              | x             | х                   | х             |
|               | Age*Age                      | х               | x               | х              | x             | х                   | х             |
|               | Hours worked (FT)            | х               | х               | х              | x             | х                   | х             |
|               | Medium level of educ         | х               | x               | х              | х             | х                   | х             |
|               | High level of educ           | х               | х               | х              | х             | х                   | х             |
|               | Married                      | X               | X               | X              | X             | X                   | X             |
|               | Fem                          | x               | x               | x              | X             | X                   | X             |
|               | Imm                          | x               | x               | x              | x             | x                   | x             |
|               | ImmAsia                      | x               | x               | x              | x             | x                   | x             |
|               | ImmAfrica                    | х               | x               | х              | x             | х                   | х             |
|               | Imm 00-04                    | х               | x               | х              | x             | х                   | х             |
|               | Imm 05-09                    | х               | x               | х              | x             | х                   | x             |
|               | Imm 10-14                    | х               | х               | х              | x             | х                   | х             |
|               | Imm 15-19                    | х               | х               | х              | х             | х                   | х             |
|               | Imm 20+                      | X               | x               | x              | X             | X                   | X             |
|               | K-square<br>F-stat           | x               | x               | x              | X             | X                   | X             |
|               | N                            | X               | x               | x              | x             | X                   | x             |
| Germany       | Constatnt                    | 8.249331        | 172.255         | 8.163786       | 137.422       | 7.863802            | 96.736        |
| 1994          | Age                          | 0.029065        | 12.63           | 0.024743       | 8.656         | 0.065177            | 16.747        |
|               | Age*Age                      | -0.000258       | -9.217          | -0.000193      | -5.637        | -0.000742           | -15.261       |
|               | Hours worked (FT)            | 0.001745        | 4.02            | 0.003071       | 6.379         | -0.003724           | -3.880        |
|               | Weeks worked (FY)            | 0.03374         | 93.669          | 0.034966       | 76.852        | 0.03065             | 54.462        |
|               | Medium level of educ         | 0.097788        | 15.32           | 0.062226       | 7.935         | 0.1/436/            | 16.413        |
|               | Married                      | 0.454155        | 50.621<br>8.205 | 0.451917       | 45.007        | 0.345355            | 20.878        |
|               | Number of children           | -0.005343       | -1.494          | 0.008189       | 1.984         | -0.103770           | -13.862       |
|               | Fem                          | -0.208453       | -32.678         | x              | x             | x                   | 10.002<br>X   |
|               | Imm                          | -0.086037       | -6.964          | -0.106355      | -7.211        | -0.05412            | -2.513        |
|               | ImmAsia                      | х               | x               | x              | х             | х                   | х             |
|               | ImmAfrica                    | х               | х               | х              | х             | х                   | Х             |
|               | Imm 00-04                    | х               | х               | х              | x             | х                   | Х             |
|               | Imm 05-09                    | х               | х               | х              | х             | х                   | х             |
|               | Imm 10-14<br>Imm 15-10       | X               | х               | х              | х             | х                   | Х             |
|               | Imm 15-19<br>Imm 20+         | X               | x               | X              | X             | X                   | X             |
|               | R-square                     | 0.4577          | X               | x<br>0.4514    | X             | 0 4310              | X             |
|               | F-stat                       | 1730.635        | x               | 1282.262       | x             | 546.374             | x             |
|               | Ν                            | 4668            | x               | 3147           | x             | 1521                | x             |

#### Appendix Table 3: OLS Results, Sample of Immigrants and non-immigrants

| Sample of In  | migrants and                 | 34               |                     |                  |                      |               |              |
|---------------|------------------------------|------------------|---------------------|------------------|----------------------|---------------|--------------|
| non-immigra   | ants                         | Basic Model + Im | migrants + Im       | migrants Origine | e + Immigrants       | Subgroups     |              |
|               |                              | Males & Fo       | emales              | Males            | [+]                  | Females       | [+]          |
| Canada        | Constatut                    | 8.248837         | 2801.764            | 8,191613         | 2135.025             | 8.007206      | 1746.771     |
| 1995          | Age                          | 0.08637          | 596.812             | 0.085949         | 454.312              | 0.092454      | 411.210      |
|               | Age*Age                      | -0.000914        | -520.898            | -0.000896        | -393.307             | -0.001016     | -368.459     |
|               | Hours worked (FT)            | 0.002792         | 133.94              | 0.003131         | 125.231              | 0.001304      | 34.242       |
|               | Medium level of educ         | 0 200718         | x<br>498 031        | x<br>0.183693    | X<br>346 864         | X<br>0.211559 | X<br>341 715 |
|               | High level of educ           | 0.513594         | 1074.433            | 0.471738         | 749.747              | 0.559222      | 761.736      |
|               | Married                      | 0.11147          | 254.758             | 0.158827         | 261.77               | 0.051030      | 81.550       |
|               | Number of children           | -0.003153        | -18.021             | 0.007316         | 32.536               | -0.028744     | -102.748     |
|               | Fem                          | -0.272514        | -729.389            | x                | х                    | x             | Х            |
|               | Imm<br>Imm Asia              | -0 187732        | -189 682            | -0 239171        | X<br>-183 281        | -0 106454     | -70 613      |
|               | ImmAfrica                    | -0.121054        | -109.676            | -0.179305        | -120.375             | -0.035215     | -21.589      |
|               | Imm 00-04                    | -0.371611        | -245.958            | -0.38804         | -196.778             | -0.349101     | -149.553     |
|               | Imm 05-09                    | -0.202876        | -164.827            | -0.183804        | -115.028             | -0.227133     | -118.419     |
|               | Imm 10-14                    | -0.081008        | -55.062             | -0.039236        | -20.026              | -0.136937     | -62.05       |
|               | Imm 15-19                    | -0.045543        | -38.756             | -0.042487        | -27.18               | -0.044572     | -25.245      |
|               | R-square                     | 0.1758           | 49.401<br>X         | 0.1563           | 38.208<br>X          | 0.1381        | 7.855<br>X   |
|               | F-stat                       | 214659.021       | x                   | 119867.83        | x                    | 69083.035     | x            |
|               | Ν                            | 75478            | х                   | 45295            | x                    | 30183         | х            |
| United States | Constatnt                    | 7.554135         | 2592.979            | 7.430922         | 2023.336             | 7.399107      | 1581.094     |
| 1991          | Age                          | 0.087949         | 601.055             | 0.09069          | 486.523              | 0.089528      | 385.727      |
|               | Age*Age<br>Hours worked (FT) | -0.000908        | -502.470            | -0.000922        | -402.817             | -0.000973     | -557.245     |
|               | Weeks worked (FY)            | 0.007508<br>X    | x                   | 0.007125<br>X    | 250.000<br>X         | 0.007515<br>X | 104.525<br>X |
|               | Medium level of educ         | 0.257629         | 503.945             | 0.242426         | 367.277              | 0.255066      | 320.211      |
|               | High level of educ           | 0.575657         | 1034.578            | 0.567132         | 803.793              | 0.549312      | 614.072      |
|               | Married                      | 0.148175         | 302.104             | 0.248309         | 364.235              | 0.011126      | 15.660       |
|               | Number of children           | -0.018037        | -83.662             | -0.004942        | -17.741              | -0.063577     | -184.861     |
|               | Imm                          | -0.31/00/        | -723.033<br>x       | X                | X                    | X             | X            |
|               | ImmAsia                      | -0.11776         | -76.343             | -0.170991        | -87.014              | -0.035113     | -14.378      |
|               | ImmAfrica                    | -0.248792        | -170.642            | -0.280877        | -153.331             | -0.198927     | -84.143      |
|               | Imm 00-05                    | -0.325527        | -196.973            | -0.26145         | -128.456             | -0.407994     | -145.691     |
|               | Imm 06-10                    | -0.079843        | -48.263             | -0.047375        | -22.894              | -0.107563     | -39.893      |
|               | Imm 11-15<br>Imm 16-20       | 0.029253         | 17.37               | 0.024899         | 11.789               | 0.048246      | 17.678       |
|               | Imm 10-20<br>Imm 21+         | 0.134126         | 101 873             | 0.144859         | 85 627               | 0.116961      | 20.909       |
|               | R-square                     | 0.2931           | x                   | 0.3269           | x                    | 0.1955        | x            |
|               | F-stat                       | 283455.741       | х                   | 210031.646       | x                    | 73007.749     | x            |
|               | N                            | 99749            | х                   | 58985            | Х                    | 40764         | х            |
| Australia     | Constatnt                    | 7.480014         | 1851.563            | 7.615547         | 1637.772             | 6.852956      | 856.012      |
| 1994          | Age<br>Age*Age               | -0.097274        | 507.288<br>-467.583 | 0.082283         | -367.871<br>-334.994 | 0.145291      | -361.605     |
|               | Hours worked (FT)            | 0.019071         | 358.744             | 0.021243         | 360.695              | 0.011933      | 105.495      |
|               | Medium level of educ         | 0.120697         | 205.653             | 0.11235          | 169.752              | 0.137885      | 114.732      |
|               | High level of educ           | 0.300499         | 415.03              | 0.295809         | 342.31               | 0.310405      | 238.027      |
|               | Married                      | 0.063959         | 98.635              | 0.082657         | 101.879              | 0.010016      | 9.164        |
|               | Number of children           | -0.020359        | - /0. /4            | -0.003/86        | -11.934              | -0.086001     | -131.939     |
|               | Imm                          | -0.185578<br>x   | -321.462<br>x       | x                | x                    | x             | x            |
|               | ImmAsia                      | -0.072345        | -50.788             | -0.087553        | -52.548              | -0.070827     | -26.463      |
|               | ImmAfrica                    | 0.017673         | 9.056               | 0.058412         | 27.174               | -0.097722     | -23.111      |
|               | Imm 00-04                    | -0.186668        | -80.524             | -0.299765        | -114.201             | 0.104763      | 22.664       |
|               | Imm 05-09                    | -0.081712        | -58.538             | -0.102244        | -62.749              | -0.042679     | -16.396      |
|               | Imm 10-14<br>Imm 15-19       | -0.049151        | -29 641             | -0.011063        | -5 899               | -0 129423     | -39 035      |
|               | Imm 20+                      | -0.012683        | -16.317             | 0.00745          | 8.407                | -0.058012     | -37.997      |
|               | R-square                     | 0.1988           | х                   | 0.1867           | x                    | 0.1553        | x            |
|               | F-stat                       | 76695.266        | х                   | 51313.662        | х                    | 19794.913     | х            |
| Commonwe      | N                            | 4557             | X                   | 3057             | X                    | 1500          | X            |
| Germany       | Constatut                    | X                | x                   | x                | X                    | x             | X            |
| 1777          | Age*Age                      | X                | X                   | x                | x                    | x             | x            |
|               | Hours worked (FT)            | х                | х                   | х                | x                    | х             | x            |
|               | Weeks worked (FY)            | х                | х                   | х                | x                    | х             | x            |
|               | Medium level of educ         | х                | х                   | х                | х                    | х             | x            |
|               | High level of educ           | X                | х                   | x                | х                    | x             | x            |
|               | Number of children           | X                | x                   | X                | X                    | X             | X            |
|               | Fem                          | x                | x                   | x                | X                    | X             | x            |
|               | Imm                          | x                | x                   | x                | x                    | x             | x            |
|               | ImmAsia                      | х                | x                   | х                | x                    | х             | х            |
|               | ImmAfrica                    | х                | x                   | x                | х                    | х             | х            |
|               | 1mm 00-04                    | х                | х                   | х                | х                    | х             | х            |
|               | Imm 10-14                    | X                | X                   | X                | X                    | X             | X            |
|               | Imm 15-19                    | x                | x                   | x                | x                    | x             | x            |
|               | Imm 20+                      | x                | x                   | x                | x                    | x             | x            |
|               | R-square                     | x                | x                   | x                | x                    | х             | х            |
|               | F-stat                       | х                | х                   | x                | х                    | х             | х            |
|               | N                            | Х                | Х                   | Х                | Х                    | Х             | X            |

# Appendix Table 3: OLS Results, Sample of Immigrants and non-immigrants

| Sample of In  | imigrants and             | 35              |               |                  |               |                 |          |
|---------------|---------------------------|-----------------|---------------|------------------|---------------|-----------------|----------|
| non-immigra   | ants                      | Basic Model + W | eeks Worked   | + Immigrants + 1 | mm. Origine + | Immigrants Subg | roups    |
|               |                           | Males & F       | emales        | Males            | 0             | Females         |          |
|               |                           | Coeff.          | [t]           | Coeff.           | [t]           | Coeff.          | [t]      |
| Canada        | Constatnt                 | 6.920219        | 866.317       | 7.019659         | 668.536       | 6.457573        | 529.322  |
| 1995          | Age                       | 0.085727        | 592.813       | 0.085413         | 451.709       | 0.091602        | 407.898  |
|               | Age*Age                   | -0.000908       | -517.757      | -0.000891        | -391.292      | -0.001007       | -365.784 |
|               | Hours worked (FT)         | 0.00281         | 134.934       | 0.003148         | 126           | 0.00132         | 34.702   |
|               | Weeks worked (FY)         | 0.026145        | 178.891       | 0.023049         | 119.891       | 0.030533        | 137.03   |
|               | Medium level of educ      | 0.198424        | 492.61        | 0.182089         | 343.998       | 0.20807         | 336.310  |
|               | Married                   | 0.508009        | 250,520       | 0.407            | /41.341       | 0.552596        | 79 291   |
|               | Number of children        | 0.109337        | 230.329       | 0.137014         | 238.907       | 0.048924        | 102.27   |
|               | Fem                       | -0.272682       | -730.61       | 0.007455<br>v    | 55.181        | -0.028508       | -102.27  |
|               | Imm                       | -0.272082<br>x  | -750.01<br>x  | x                | x             | x               | ,        |
|               | ImmAsia                   | -0 18377        | -185 829      | -0 235788        | -180 79       | -0 101655       | -67 516  |
|               | ImmAfrica                 | -0.118958       | -107.885      | -0.177687        | -119.379      | -0.032443       | -19.919  |
|               | Imm 00-04                 | -0.365484       | -242.097      | -0.382875        | -194.266      | -0.341471       | -146.47  |
|               | Imm 05-09                 | -0.199447       | -162.193      | -0.180757        | -113.196      | -0.2231         | -116.484 |
|               | Imm 10-14                 | -0.078096       | -53.136       | -0.036505        | -18.646       | -0.133793       | -60.716  |
|               | Imm 15-19                 | -0.043341       | -36.919       | -0.04121         | -26.383       | -0.040779       | -23.13   |
|               | Imm 20+                   | 0.033807        | 50.556        | 0.051223         | 58.733        | 0.009271        | 8.962    |
|               | R-square                  | 0.1775          | x             | 0.1576           | x             | 0.1408          | 2        |
|               | F-stat                    | 203669.569      | х             | 113012.404       | х             | 65929.887       | 2        |
|               | Ν                         | 75478           | x             | 45295            | х             | 30183           | 2        |
| United States | Constatnt                 | 6.087667        | 2339.487      | 5.974535         | 1763.501      | 5.985894        | 1491.464 |
| 1991          | Age                       | 0.071214        | 567.985       | 0.07791          | 476.781       | 0.06672         | 345.358  |
|               | Age*Age                   | -0.000733       | -473.717      | -0.000788        | -392.932      | -0.000725       | -302.168 |
|               | Hours worked (FT)         | 0.006583        | 312.019       | 0.00625          | 250.639       | 0.006631        | 168.663  |
|               | Weeks worked (FY)         | 0.039083        | 1944.193      | 0.037657         | 1360.062      | 0.03998         | 1381.82  |
|               | Medium level of educ      | 0.218755        | 500.043       | 0.200479         | 346.551       | 0.226762        | 343.100  |
|               | High level of educ        | 0.562533        | 1182.545      | 0.530726         | 858.667       | 0.579167        | /80.3/0  |
|               | Number of shildren        | 0.108057        | 257.409       | 0.177450         | 290.3         | 0.011954        | 122.074  |
|               | Form                      | -0.01112        | -00.324       | -0.00431         | -10.498       | -0.038007       | -132.970 |
|               | Imm                       | -0.275502       | -732.347<br>v | x                | X             | x               | ,        |
|               | ImmAsia                   | -0.096792       | -73 402       | -0 137589        | -79 994       | -0.04031        | -19.903  |
|               | ImmAfrica                 | -0.195416       | -156 754      | -0 232592        | -145 045      | -0 142464       | -72.643  |
|               | Imm 00-05                 | -0.190031       | -134.348      | -0.147507        | -82.718       | -0.230152       | -98.949  |
|               | Imm 06-10                 | -0.060747       | -42.954       | -0.029483        | -16.279       | -0.08767        | -39.207  |
|               | Imm 11-15                 | 0.020483        | 14.228        | 0.023179         | 12.54         | 0.028652        | 12.659   |
|               | Imm 16-20                 | 0.033191        | 21.518        | 0.038679         | 19.392        | 0.030079        | 12.553   |
|               | Imm 21+                   | 0.117761        | 104.628       | 0.13962          | 94.3          | 0.086906        | 50.968   |
|               | R-square                  | 0.4834          | х             | 0.4845           | х             | 0.4467          | 2        |
|               | F-stat                    | 599893.017      | х             | 379250.101       | x             | 226373.768      | 2        |
|               | N                         | 99749           | х             | 58985            | X             | 40764           | 2        |
| Australia     | Constatnt                 | х               | х             | х                | х             | х               | 2        |
| 1994          | Age                       | х               | х             | х                | х             | х               | 2        |
|               | Age*Age                   | х               | х             | х                | х             | х               | 2        |
|               | Hours worked (FT)         | х               | х             | х                | х             | х               | 2        |
|               | Medium level of educ      | х               | x             | x                | x             | х               | 2        |
|               | Married                   | X               | X             | X                | X             | X               | ,        |
|               | Number of children        | X               | X             | X                | X             | X               |          |
|               | Form                      | X               | л<br>У        | X                | л<br>У        | A V             | ,        |
|               | Imm                       | x               | x             | x                | x             | x               | ,        |
|               | ImmAsia                   | x               | x             | x                | x             | x               | ,        |
|               | ImmAfrica                 | x               | x             | x                | x             | x               | ,        |
|               | Imm 00-04                 | x               | x             | x                | x             | x               | ,        |
|               | Imm 05-09                 | x               | x             | x                | x             | x               | ,        |
|               | Imm 10-14                 | х               | х             | х                | х             | х               | ,        |
|               | Imm 15-19                 | х               | х             | х                | x             | х               | ,        |
|               | Imm 20+                   | х               | x             | x                | х             | x               | 2        |
|               | R-square                  | х               | х             | х                | х             | х               | 2        |
|               | F-stat                    | х               | х             | х                | х             | х               | 2        |
|               | Ν                         | х               | х             | Х                | х             | х               | 2        |
| Germany       | Constatnt                 | х               | х             | х                | х             | х               | 2        |
| 1994          | Age                       | х               | х             | х                | х             | х               | 2        |
|               | Age*Age                   | х               | х             | х                | х             | х               | 3        |
|               | Hours worked (FT)         | х               | х             | х                | х             | х               | 3        |
|               | Weeks worked (FY)         | х               | х             | х                | х             | х               | 2        |
|               | Medium level of educ      | х               | х             | х                | х             | х               | 2        |
|               | High level of educ        | х               | х             | х                | х             | х               | 2        |
|               | Married                   | х               | х             | х                | х             | х               | 2        |
|               | Number of children        | х               | х             | x                | х             | х               | 2        |
|               | r'em                      | х               | х             | x                | х             | х               | 2        |
|               | IMM<br>Imm A .:           | х               | х             | x                | х             | х               | 2        |
|               | ImmAsia<br>Imm Africa     | X               | х             | x                | х             | х               | 2        |
|               | Imm 00.04                 | X               | х             | х                | х             | - X             | 2        |
|               | IIIIII 00-04<br>Imm 05-00 | X               | X             | X                | X             | X               |          |
|               | Imm 10 14                 | x               | X             |                  | X             | x               | 2        |
|               | Imm 10-14                 | x               | X             |                  | X             | x               | 2        |
|               | Imm 20+                   | x<br>v          | X             | X                | X             | x               |          |
|               | R-square                  | x x             | v v           | v                | x<br>v        | v               |          |
|               | F-stat                    | x               | x x           | v                | x x           | x               |          |
|               | N                         | x               | x             | x                | x             | x               | ,        |

# Appendix Table 4: OLS Results, Sample of non-immigrants only. 4 1

|           | Basic Model |          |          |
|-----------|-------------|----------|----------|
|           | Males & F   | emales   | Males    |
|           | Coeff.      | [t]      | Coeff.   |
| Constatnt | 8.14899     | 2515.251 | 8.088193 |
| 1 22      | 0.000603    | 564 622  | 0.00010  |

Females

**F**41

. ....

0

**F**41

|               |                      | Coeff.     | լւյ      | Cocii.     | լւյ      | Cocii.    | լւյ      |
|---------------|----------------------|------------|----------|------------|----------|-----------|----------|
| Canada        | Constatnt            | 8.14899    | 2515.251 | 8.088193   | 1917.64  | 7.920484  | 1571.034 |
| 1995          | Age                  | 0.090603   | 564.622  | 0.09019    | 429.864  | 0.096597  | 388.197  |
|               | Age*Age              | -0.000961  | -488.967 | -0.000942  | -369.11  | -0.00106  | -344.499 |
|               | Hours worked (FT)    | 0.00289    | 125.927  | 0.003266   | 119.166  | 0.001195  | 28.203   |
|               | Weeks worked (FY)    | х          | х        | Х          | х        | Х         | Х        |
|               | Medium level of educ | 0.189869   | 429.5    | 0.175124   | 302.718  | 0.200238  | 293.429  |
|               | High level of educ   | 0.503693   | 940.084  | 0.453275   | 643.021  | 0.562062  | 683.307  |
|               | Married              | 0.119685   | 251.935  | 0.166124   | 253.343  | 0.057090  | 83.568   |
|               | Number of children   | 0.001681   | 8.609    | 0.013895   | 55.434   | -0.027444 | -87.611  |
|               | Fem                  | -0.270717  | -654.908 | х          | х        | х         | х        |
|               | R-square             | 0.1703     | x        | 0.1485     | х        | 0.1361    | х        |
|               | F-stat               | 310251.286 | х        | 181340.091 | х        | 108279.2  | Х        |
|               | Ν                    | 60443      | х        | 36380      | х        | 24063     | х        |
| United States | Constatnt            | 7.35857    | 2293.474 | 7.177014   | 1768.869 | 7.261470  | 1423.891 |
| 1990          | Age                  | 0.097466   | 601.489  | 0.102281   | 493.967  | 0.097369  | 382.417  |
|               | Age*Age              | -0.001005  | -502.471 | -0.001039  | -408.592 | -0.001056 | -333.932 |
|               | Hours worked (FT)    | 0.007535   | 281.909  | 0.007178   | 234.192  | 0.007057  | 137.108  |
|               | Weeks worked (FY)    | х          | х        | х          | х        | х         | х        |
|               | Medium level of educ | 0.249877   | 450.723  | 0.236811   | 332.154  | 0.241222  | 279.164  |
|               | High level of educ   | 0.569768   | 942.272  | 0.557902   | 730.759  | 0.541927  | 556.489  |
|               | Married              | 0.13708    | 254.135  | 0.232826   | 306.662  | 0.003269  | 4.230    |
|               | Number of children   | -0.016221  | -64.831  | 0.004257   | 13.039   | -0.072800 | -184.589 |
|               | Fem                  | -0.325092  | -670.728 | x          | x        | x         | x        |
|               | R-square             | 0.267      | x        | 0.2909     | x        | 0.1675    | x        |
|               | F-stat               | 371916.383 | x        | 276636.495 | x        | 99067.087 | x        |
|               | N                    | 79267      | x        | 45973      | x        | 33294     | x        |
| Australia     | Constatnt            | 7.348331   | 1617.956 | 7.512222   | 1421.54  | 6.741520  | 770.198  |
| 1994          | Age                  | 0.106069   | 486.601  | 0.092318   | 359.112  | 0.144336  | 343.297  |
|               | Age*Age              | -0.001221  | -438.933 | -0.001035  | -320.762 | -0.001752 | -315.945 |
|               | Hours worked (FT)    | 0.017835   | 290.721  | 0.018731   | 271.114  | 0.014494  | 115.058  |
|               | Medium level of educ | 0.132599   | 196.036  | 0.131051   | 170.889  | 0.139514  | 101.584  |
|               | High level of educ   | 0.253797   | 300.793  | 0.283473   | 274.807  | 0.212519  | 145.950  |
|               | Married              | 0.068105   | 92.36    | 0.084025   | 89.897   | 0.027624  | 22.624   |
|               | Number of children   | -0.035847  | -108.762 | -0.017689  | -48.421  | -0.107578 | -143.688 |
|               | Fem                  | -0.177285  | -267.78  | х          | х        | х         | х        |
|               | R-square             | 0.2111     | х        | 0.199      | х        | 0.1657    | х        |
|               | F-stat               | 114978.966 | х        | 81572.191  | х        | 32284.57  | х        |
|               | Ν                    | 3375       | х        | 2243       | х        | 1132      | х        |
| Germany       | Constatnt            | 9.175265   | 160.149  | 9.13337    | 128.565  | 8.587468  | 88.139   |
| 1994          | Age                  | 0.061765   | 22.104   | 0.056718   | 16.314   | 0.103567  | 21.945   |
|               | Age*Age              | -0.000606  | -17.789  | -0.000527  | -12.608  | -0.00117  | -19.786  |
|               | Hours worked (FT)    | 0.002134   | 3.939    | 0.003829   | 6.34     | -0.00432  | -3.735   |
|               | Weeks worked (FY)    | х          | х        | х          | х        | х         | х        |
|               | Medium level of educ | 0.11288    | 14.393   | 0.070055   | 7.303    | 0.214007  | 16.282   |
|               | High level of educ   | 0.432964   | 40.912   | 0.449202   | 36.8     | 0.353579  | 17.411   |
|               | Married              | 0.102345   | 12.04    | 0.141446   | 12.665   | -0.009079 | -0.713   |
|               | Number of children   | -0.024625  | -5.443   | 0.002128   | 0.407    | -0.174801 | -18.688  |
|               | Fem                  | -0.220329  | -28.075  | x          | x        | x         | x        |
|               | R-square             | 0.2305     | y        | 0.2288     | x        | 0.1792    | x        |
|               | F-stat               | 729.382    | x        | 561.326    | x        | 194.29    | x        |
|               | N                    | 4442       | x        | 2983       | x        | 1459      | x        |
|               | ÷ ,                  | 1112       | А        | 2705       | Λ        | 1107      | Л        |

# Appendix Table 4: OLS Results, Sample of non-immigrants only. 4 2

|  | Basic | Model | + | weeks | worked |
|--|-------|-------|---|-------|--------|
|--|-------|-------|---|-------|--------|

|               |                      | Males & I  | Females  | Males      |          | Females    |          |
|---------------|----------------------|------------|----------|------------|----------|------------|----------|
|               |                      | Coeff.     | [t]      | Coeff.     | [t]      | Coeff.     | [t]      |
| Canada        | Constatnt            | 6.869917   | 768.749  | 7.055081   | 603.249  | 6.275392   | 457.096  |
| 1995          | Age                  | 0.090042   | 561.527  | 0.089784   | 428.103  | 0.095727   | 385.224  |
|               | Age*Age              | -0.000955  | -486.761 | -0.000938  | -367.906 | -0.001051  | -342.251 |
|               | Hours worked (FT)    | 0.002913   | 127.016  | 0.003294   | 120.231  | 0.001184   | 27.990   |
|               | Weeks worked (FY)    | 0.025152   | 153.555  | 0.020288   | 94.702   | 0.032432   | 128.794  |
|               | Medium level of educ | 0.187776   | 424.977  | 0.173801   | 300.527  | 0.196643   | 288.415  |
|               | High level of educ   | 0.498276   | 928.866  | 0.449003   | 636.05   | 0.554892   | 674.203  |
|               | Married              | 0.117949   | 248.453  | 0.164595   | 251.089  | 0.055071   | 80.731   |
|               | Number of children   | 0.001737   | 8.905    | 0.013961   | 55.734   | -0.027429  | -87.715  |
|               | Fem                  | -0.271037  | -656.314 | Х          | х        | х          | х        |
|               | R-square             | 0.172      | x        | 0.1496     | х        | 0.139      | х        |
|               | F-stat               | 278936.709 | x        | 159989.194 | х        | 97144.339  | х        |
|               | Ν                    | 60443      | x        | 36380      | х        | 24063      | х        |
| United States | Constatnt            | 5.896761   | 2039.727 | 5.758799   | 1513.619 | 5.822611   | 1328.734 |
| 1990          | Age                  | 0.078519   | 561.617  | 0.087011   | 473.059  | 0.073045   | 344.531  |
|               | Age*Age              | -0.000804  | -466.579 | -0.000877  | -388.373 | -0.00079   | -300.095 |
|               | Hours worked (FT)    | 0.006544   | 284.564  | 0.006307   | 232.166  | 0.006357   | 148.955  |
|               | Weeks worked (FY)    | 0.039797   | 1695.48  | 0.037841   | 1137.548 | 0.040949   | 1251.448 |
|               | Medium level of educ | 0.212115   | 444.392  | 0.195233   | 308.577  | 0.216603   | 302.203  |
|               | High level of educ   | 0.565144   | 1086.717 | 0.525819   | 776.738  | 0.588645   | 728.219  |
|               | Married              | 0.09702    | 208.87   | 0.164862   | 244.141  | 0.001614   | 2.518    |
|               | Number of children   | -0.007778  | -36.135  | 0.004556   | 15.753   | -0.042183  | -128.635 |
|               | Fem                  | -0.279928  | -670.172 | х          | x        | х          | х        |
|               | R-square             | 0.4579     | х        | 0.4434     | х        | 0.4277     | х        |
|               | F-stat               | 766360.333 | х        | 470152.754 | х        | 321846.555 | х        |
|               | Ν                    | 79267      | x        | 45973      | x        | 33294      | x        |
| Australia     | Constatnt            | Х          | х        | Х          | х        | Х          | х        |
| 1994          | Age                  | х          | x        | Х          | х        | х          | х        |
|               | Age*Age              | х          | x        | Х          | х        | х          | х        |
|               | Hours worked (FT)    | Х          | x        | Х          | х        | х          | х        |
|               | Medium level of educ | х          | x        | Х          | х        | х          | х        |
|               | High level of educ   | Х          | x        | Х          | х        | х          | х        |
|               | Married              | Х          | x        | Х          | х        | х          | х        |
|               | Number of children   | х          | x        | Х          | х        | х          | х        |
|               | Fem                  | х          | x        | х          | x        | х          | х        |
|               | R-square             | х          | x        | Х          | х        | х          | х        |
|               | F-stat               | х          | x        | х          | x        | х          | х        |
|               | Ν                    | х          | x        | Х          | х        | х          | х        |
| Germany       | Constatnt            | 8.288334   | 165.348  | 8.214577   | 131.895  | 7.866372   | 93.870   |
| 1994          | Age                  | 0.029278   | 12.26    | 0.024137   | 8.097    | 0.068459   | 17.170   |
|               | Age*Age              | -0.000258  | -8.91    | -0.000183  | -5.122   | -0.000782  | -15.716  |
|               | Hours worked (FT)    | 0.001517   | 3.33     | 0.002921   | 5.725    | -0.00388   | -4.019   |
|               | Weeks worked (FY)    | 0.032979   | 86.329   | 0.034153   | 71.091   | 0.029572   | 49.567   |
|               | Medium level of educ | 0.093954   | 14.223   | 0.059061   | 7.279    | 0.172916   | 15.806   |
|               | High level of educ   | 0.436677   | 49.034   | 0.457783   | 44.413   | 0.34088    | 20.087   |
|               | Married              | 0.061137   | 8.549    | 0.100629   | 10.653   | -0.043101  | -4.089   |
|               | Number of children   | -0.005704  | -1.498   | 0.010277   | 2.327    | -0.116245  | -14.784  |
|               | Fem                  | -0.208747  | -31.514  | х          | Х        | х          | Х        |
|               | R-square             | 0.4384     | х        | 0.4367     | Х        | 0.4044     | Х        |
|               | F-stat               | 1676.659   | х        | 1281.216   | Х        | 521.115    | Х        |
|               | Ν                    |            | х        |            | х        |            | х        |

#### Appendix Table 5: OLS Results,

| Sample of | Immigrants | Only |
|-----------|------------|------|
|-----------|------------|------|

| Sample of Im  | migrants Only         | 51          |          |           |          |           |          |
|---------------|-----------------------|-------------|----------|-----------|----------|-----------|----------|
|               |                       | Basic Model |          |           |          |           |          |
|               |                       | Males & H   | Females  | Males     |          | Females   |          |
|               |                       | Coeff.      | [t]      | Coeff.    | [t]      | Coeff.    | [t]      |
| Canada        | Constatnt             | 8.425052    | 1119.157 | 8.242045  | 831.485  | 8.317841  | 713.890  |
| 1995          | Age                   | 0.067114    | 185.173  | 0.07118   | 148.805  | 0.068311  | 122.025  |
|               | Age*Age               | -0.000629   | -148.958 | -0.000646 | -117.035 | -0.000696 | -105.180 |
|               | Hours worked (FT)     | 0.002591    | 51.243   | 0.003235  | 52.145   | 0.001088  | 12.337   |
|               | Weeks worked (FY)     | х           | х        | Х         | х        | Х         | х        |
|               | Medium level of educ  | 0.27095     | 272.09   | 0.252969  | 188.857  | 0.27826   | 187.344  |
|               | High level of educ    | 0.535387    | 492.469  | 0.513995  | 355.523  | 0.546982  | 331.259  |
|               | Married               | 0.044137    | 39.103   | 0.072353  | 44.74    | 0.007278  | 4.668    |
|               | Number of children    | -0.013856   | -34.123  | -0.011581 | -21.874  | -0.022795 | -36.009  |
|               | Fem                   | -0.274767   | -308.111 | Х         | х        | Х         | х        |
|               | ImmAsia               | х           | х        | Х         | х        | х         | х        |
|               | ImmAfrica             | х           | х        | Х         | х        | Х         | х        |
|               | Imm 00-04             | х           | х        | х         | х        | х         | х        |
|               | Imm 05-09             | Х           | х        | х         | х        | х         | х        |
|               | Imm 10-14             | х           | x        | х         | х        | х         | x        |
|               | Imm 15-19             | х           | x        | х         | х        | х         | x        |
|               | R-square              | 0.1517      | х        | 0.1316    | х        | 0.1085    | x        |
|               | F-stat                | 67193.814   | х        | 38590.851 | х        | 21270.947 | х        |
|               | Ν                     | 15035       | х        | 8915      | х        | 6120      | х        |
| United States | Constatnt             | 7.568674    | 1107.412 | 7.549426  | 901.913  | 7.40124   | 628.17   |
| 1990          | Age                   | 0.066446    | 191.464  | 0.065156  | 151.337  | 0.070477  | 121.290  |
|               | Age*Age               | -0.00064    | -148.353 | -0.00062  | -116.26  | -0.000717 | -98.691  |
|               | Hours worked (FT)     | 0.00853     | 131.153  | 0.00828   | 109.422  | 0.008091  | 64.517   |
|               | Weeks worked (FY)     | х           | x        | х         | x        | х         | x        |
|               | Medium level of educ  | 0.398539    | 314.119  | 0.36135   | 222.146  | 0.43826   | 217.534  |
|               | High level of educ    | 0.695048    | 531.423  | 0.692626  | 420.729  | 0.679778  | 316.929  |
|               | Married               | 0.219184    | 181.588  | 0.316848  | 198.726  | 0.069658  | 37.705   |
|               | Number of children    | -0.013965   | -31,427  | -0.01328  | -23.667  | -0.032083 | -43.917  |
|               | Fem                   | -0.245445   | -232.646 | х         | х        | х         | x        |
|               | ImmAsia               | x           | x        | х         | x        | x         | x        |
|               | ImmAfrica             | x           | x        | x         | x        | x         | x        |
|               | Imm 00-05             | x           | x        | x         | x        | x         | x        |
|               | Imm 06-10             | x           | x        | x         | x        | x         | x        |
|               | Imm 11-15             | x           | x        | x         | x        | x         | x        |
|               | Imm 16-20             | x           | x        | x         | x        | x         | x        |
|               | R-square              | 0 2607      | x        | 0 2869    | x        | 0 1986    | x        |
|               | F-stat                | 92206.017   | x        | 76572 731 | x        | 26902 662 | x        |
|               | N                     | 20482       | x        | 13012     | A<br>V   | 20702.002 | x        |
| Australia     | Constatut             | 8 145495    | 803 258  | 8 120623  | 788.96   | 7 77641   | 407.488  |
| 100/          | Age                   | 0.05/088    | 132 614  | 0.041124  | 86 822   | 0 120204  | 140 288  |
| 1774          | Age<br>Age*Age        | -0.000666   | -131 873 | -0.000467 | -82 326  | -0.001566 | -140.288 |
|               | Age Age               | -0.000000   | -131.873 | -0.000407 | -82.320  | -0.001500 | -143.911 |
|               | Modium lovel of adua  | 0.022904    | 220.387  | 0.028317  | 17 629   | 0.17458   | 72 256   |
|               | High layel of adua    | 0.090119    | 02.70    | 0.001799  | 47.038   | 0.17438   | 224.069  |
|               | Morried               | 0.047200    | 278.10   | 0.280079  | 179.008  | 0.041800  | 14 525   |
|               | Number of shildren    | 0.047399    | 33.334   | 0.079381  | 48.000   | -0.055297 | -14.323  |
|               | Form                  | 0.027515    | 47.223   | 0.030229  | 50.50    | -0.029071 | -25.556  |
|               |                       | -0.193708   | -108.058 | X         | X        | X         | X        |
|               | ImmAsia<br>Imm Africa | X           | X        | X         | X        | X         | X        |
|               |                       | х           | х        | х         | х        | х         | х        |
|               | Imm 00-04             | Х           | х        | Х         | х        | Х         | х        |
|               | Imm 05-09             | х           | х        | Х         | х        | х         | х        |
|               | Imm 10-14             | х           | х        | Х         | х        | х         | х        |
|               | lmm 15-19             | X           | х        | X         | х        | X         | х        |
|               | R-square              | 0.1816      | х        | 0.1494    | х        | 0.1955    | х        |
|               | F-stat                | 33254.647   | х        | 20822.464 | х        | 12826.752 | х        |
|               | N                     | 1182        | х        | 814       | X        | 368       | X        |
| Germany       | Constatnt             | 8.204026    | 31.84    | 8.455547  | 28.897   | 7.568459  | 10.389   |
| 1994          | Age                   | 0.106421    | 7.68     | 0.095419  | 6.006    | 0.118017  | 4.303    |
|               | Age*Age               | -0.001234   | -6.964   | -0.001138 | -5.644   | -0.001256 | -3.497   |
|               | Hours worked (FT)     | 0.003778    | 1.816    | 0.004298  | 2.174    | 0.00202   | 0.142    |
|               | Weeks worked (FY)     | х           | x        | х         | х        | х         | х        |
|               | Medium level of educ  | 0.253903    | 6.543    | 0.230761  | 4.904    | 0.292148  | 4.153    |
|               | High level of educ    | 0.283099    | 5.927    | 0.34756   | 6.893    | 0.089777  | 0.751    |
|               | Married               | 0.13708     | 3.021    | 0.126068  | 2.352    | 0.06315   | 0.703    |
|               | Number of children    | -0.01458    | -0.969   | -0.015112 | -0.966   | 0.001106  | 0.027    |
|               | Fem                   | -0.3654     | -10.358  | х         | x        | х         | x        |
|               | R-square              | 0.2482      | x        | 0.1774    | x        | 0.1816    | х        |
|               | F-stat                | 48.532      | х        | 25.388    | х        | 12.162    | х        |
|               | N                     | 226         | x        | 164       | x        | 62        | x        |

# Appendix Table 5: OLS Results,

| Sample of | Immigrants | Only |
|-----------|------------|------|
|-----------|------------|------|

| Sample of Im  | migrants Only        | 52              |          |            |          |           |          |
|---------------|----------------------|-----------------|----------|------------|----------|-----------|----------|
| -             |                      | Basic Model + V | Veeks    |            |          |           |          |
|               |                      | Males & 1       | Females  | Males      |          | Females   |          |
|               |                      | Coeff.          | [t]      | Coeff.     | [t]      | Coeff.    | [t]      |
| Canada        | Constatnt            | 6.419778        | 350.993  | 5.974778   | 243.501  | 6.711213  | 246.227  |
| 1995          | Age                  | 0.065941        | 182.308  | 0.069716   | 146.091  | 0.067439  | 120.641  |
|               | Age*Age              | -0.000618       | -146.618 | -0.000632  | -114.804 | -0.000688 | -104.046 |
|               | Hours worked (FT)    | 0.002573        | 51.017   | 0.003128   | 50.547   | 0.001216  | 13.806   |
|               | Weeks worked (FY)    | 0.0397          | 120.239  | 0.045023   | 100.955  | 0.03167   | 65.178   |
|               | Medium level of educ | 0.266013        | 267.546  | 0.248007   | 185.555  | 0.273892  | 184.534  |
|               | High level of educ   | 0.527586        | 485.59   | 0.505977   | 350.445  | 0.54005   | 326.948  |
|               | Number of shildren   | 0.04091         | 22 612   | 0.009138   | 42.878   | 0.004381  | 2.813    |
|               | Form                 | -0.013212       | -52.015  | -0.011032  | -20.934  | -0.022039 | -34.009  |
|               | Imm Asia             | -0.27595        | -307.923 | X          | X        | X         | X        |
|               | ImmAsia              | X               | X        | X          | X        | X         | X        |
|               | Imm 00-04            | X               | A<br>V   | X          | X        | X         | X        |
|               | Imm 05-09            | x               | A<br>V   | x          | x        | x         | A<br>X   |
|               | Imm 10-14            | x               | x        | x          | x        | x         | x        |
|               | Imm 15-19            | x               | x        | x x        | x        | x         | x x      |
|               | R-square             | 0 1557          | x        | 0 1365     | x        | 0 1115    | x        |
|               | F-stat               | 61621 356       | x        | 35233 993  | x        | 19207 684 | x        |
|               | N                    | 15035           | x        | 8915       | x        | 6120      | x        |
| United States | Constatnt            | 6,191692        | 1063.087 | 6.087857   | 839.718  | 6.182898  | 630.626  |
| 1990          | Age                  | 0.05229         | 181.93   | 0.056379   | 156.726  | 0.047295  | 99.533   |
|               | Age*Age              | -0.000513       | -143.56  | -0.000546  | -122.49  | -0.000491 | -82.706  |
|               | Hours worked (FT)    | 0.007399        | 137.504  | 0.007158   | 113.242  | 0.007413  | 72.502   |
|               | Weeks worked (FY)    | 0.038884        | 982.693  | 0.038696   | 760.22   | 0.038741  | 619.304  |
|               | Medium level of educ | 0.332732        | 316.411  | 0.301615   | 221.662  | 0.364012  | 221.049  |
|               | High level of educ   | 0.625904        | 577.344  | 0.625439   | 453.99   | 0.607174  | 346.469  |
|               | Married              | 0.166861        | 166.891  | 0.222369   | 166.282  | 0.075367  | 50.042   |
|               | Number of children   | -0.013392       | -36.437  | -0.015113  | -32.253  | -0.022307 | -37.444  |
|               | Fem                  | -0.222369       | -254.727 | х          | х        | х         | x        |
|               | ImmAsia              | х               | х        | х          | x        | х         | x        |
|               | ImmAfrica            | х               | х        | х          | x        | Х         | х        |
|               | Imm 00-05            | х               | х        | х          | x        | Х         | х        |
|               | Imm 06-10            | х               | х        | х          | х        | х         | х        |
|               | Imm 11-15            | х               | х        | х          | х        | Х         | х        |
|               | Imm 16-20            | х               | х        | х          | х        | х         | х        |
|               | R-square             | 0.4942          | х        | 0.5027     | х        | 0.4674    | х        |
|               | F-stat               | 227093.945      | х        | 168311.854 | х        | 83363.559 | х        |
|               | N                    | 20482           | Х        | 13012      | Х        | 7470      | X        |
| Australia     | Constatnt            | х               | х        | Х          | х        | х         | х        |
| 1994          | Age                  | Х               | х        | х          | Х        | х         | Х        |
|               | Age*Age              | х               | х        | х          | х        | х         | х        |
|               | Hours worked (F1)    | X               | X        | X          | X        | X         | X        |
|               | High lovel of educ   | X               | X        | X          | X        | X         | X        |
|               | Married              | X               | X        | X          | X        | X         | х        |
|               | Number of children   | X               | A<br>V   | X          | X        | X         | X        |
|               | Fem                  | x               | x        | x          | x        | x         | x        |
|               | ImmAsia              | x               | x        | x          | x        | x         | x        |
|               | ImmAfrica            | x               | x        | x          | x        | x         | x        |
|               | Imm 00-04            | x               | x        | x          | x        | x         | x        |
|               | Imm 05-09            | X               | x        | x          | x        | X         | x        |
|               | Imm 10-14            | x               | x        | X          | x        | X         | x        |
|               | Imm 15-19            | х               | х        | х          | х        | х         | х        |
|               | R-square             | х               | х        | х          | х        | х         | х        |
|               | F-stat               | х               | х        | х          | х        | х         | х        |
|               | Ν                    | х               | x        | х          | x        | х         | x        |
| Germany       | Constatnt            | 7.787618        | 50.381   | 7.19783    | 40.712   | 8.450733  | 19.729   |
| 1994          | Age                  | 0.031073        | 3.646    | 0.05609    | 5.891    | -0.023183 | -1.335   |
|               | Age*Age              | -0.000333       | -3.064   | -0.000639  | -5.282   | 0.000338  | 1.509    |
|               | Hours worked (FT)    | 0.003997        | 3.206    | 0.00395    | 3.356    | 0.005589  | 0.671    |
|               | Weeks worked (FY)    | 0.042211        | 44.092   | 0.044205   | 38.449   | 0.0442    | 23.559   |
|               | Medium level of educ | 0.18995         | 8.156    | 0.149401   | 5.33     | 0.23879   | 5.790    |
|               | High level of educ   | 0.391276        | 13.481   | 0.310319   | 10.191   | 0.618689  | 8.385    |
|               | Married              | -0.074854       | -2.7     | -0.023379  | -0.727   | -0.110057 | -2.071   |
|               | Number of children   | -0.009349       | -1.034   | -0.021967  | -2.355   | 0.005726  | 0.243    |
|               | Fem                  | -0.191393       | -8.893   | х          | x        | х         | x        |
|               | R-square             | 0.7187          | х        | 0.7073     | x        | 0.6982    | х        |
|               | F-stat               | 334.9           | х        | 250.781    | x        | 101.658   | х        |
|               | N                    | 226             | х        | 164        | х        | 62        | Х        |

# Appendix Table 5: OLS Results, Sample of Immigrants Only

| 53            |              |              |                |        |
|---------------|--------------|--------------|----------------|--------|
| Basic Model + | Immigrants O | rigine + Red | ent Immigrants | Groups |
| Malac &       | Formolog     |              | Molog          | 1      |

|              |                         | Basic Model + Im | nmigrants Orig | ine + Recent Imm   | igrants Groups |               |          |
|--------------|-------------------------|------------------|----------------|--------------------|----------------|---------------|----------|
|              |                         | Males & Fe       | emales         | Males              |                | Females       |          |
|              |                         | Coeff.           | [t]            | Coeff.             | [t]            | Coeff.        | [t]      |
| Canada       | Constatut               | 8.936762         | 1201.295       | 8.912407           | 911.196        | 8.642664      | 748.937  |
| 995          | Age                     | 0.058935         | 166 769        | 0.059167           | 127 483        | 0.06365       | 115 879  |
| <i>.))5</i>  |                         | 0.000610         | 150 554        | 0.000600           | 114.02         | 0.000708      | 108.085  |
|              | Age Age                 | -0.000019        | -130.334       | -0.000009          | -114.02        | -0.000708     | -108.985 |
|              | Hours worked (F1)       | 0.00236          | 47.883         | 0.002384           | 39.629         | 0.001819      | 21.003   |
|              | Weeks worked (FY)       | х                | х              | Х                  | х              | Х             | х        |
|              | Medium level of educ    | 0.24945          | 256.718        | 0.225945           | 173.935        | 0.26212       | 179.328  |
|              | High level of educ      | 0.554936         | 522.05         | 0.544371           | 387.43         | 0.55238       | 339.293  |
|              | Married                 | 0.062882         | 56 907         | 0 103503           | 65 787         | 0.020660      | 13 430   |
|              | Number of children      | 0.013506         | 34 181         | 0.000877           | 10 211         | 0.026340      | 41.056   |
|              |                         | -0.013390        | -34.101        | -0.009877          | -19.211        | -0.020349     | -41.950  |
|              | Fem                     | -0.272989        | -314.136       | Х                  | х              | Х             | х        |
|              | ImmAsia                 | -0.186402        | -179.052       | -0.243294          | -176.317       | -0.100868     | -64.042  |
|              | ImmAfrica               | -0.126292        | -109.066       | -0.183393          | -116.981       | -0.042096     | -24.743  |
|              | Imm 00-04               | -0.442039        | -269.155       | -0.481469          | -222.041       | -0.390735     | -156.265 |
|              | Imm 05-09               | -0.255308        | -190.89        | -0 25446           | -144 585       | -0.258002     | -126 278 |
|              | Innii 05-05             | 0.121929         | -170.07        | 0.10051            | 51 740         | 0.16416       | -120.270 |
|              | Imm 10-14               | -0.131838        | -83.707        | -0.10951           | -51.749        | -0.16416      | -70.419  |
|              | Imm 15-19               | -0.089223        | -70.574        | -0.103625          | -61.067        | -0.067727     | -36.145  |
|              | R-square                | 0.1966           | х              | 0.1881             | х              | 0.1433        | х        |
|              | F-stat                  | 52555.593        | х              | 31771.203          | х              | 15748.369     | х        |
|              | N                       | 15035            | v              | 8915               | v              | 6120          | v        |
| wited States | Constatut               | 0 555127         | 1219.061       | 9 604016           | 002 262        | 8 100140      | 600.29   |
| mieu States  | Constant                | 0.000107         | 1218.001       | 0.004910           | 995.303        | 0.199149      | 090.38   |
| 190          | Age                     | 0.050195         | 149.269        | 0.048313           | 115.566        | 0.0562        | 100.193  |
|              | Age*Age                 | -0.000546        | -130.874       | -0.000519          | -100.496       | -0.000643     | -91.951  |
|              | Hours worked (FT)       | 0.007638         | 122.125        | 0.006958           | 95.514         | 0.008225      | 68.314   |
|              | Weeks worked (FY)       | x                | x              | х                  | х              | х             | x        |
|              | Medium level of educ    | 0.276801         | 214.11         | 0.240465           | 144 202        | 0.314406      | 154 205  |
|              | We did in level of educ | 0.270001         | 425,126        | 0.240403           | 222.964        | 0.514400      | 154.275  |
|              | High level of educ      | 0.591055         | 425.126        | 0.58/885           | 332.864        | 0.567725      | 252.449  |
|              | Married                 | 0.175369         | 150.494        | 0.268899           | 175.033        | 0.033065      | 18.470   |
|              | Number of children      | -0.008103        | -18.537        | -0.006249          | -11.366        | -0.026917     | -37.302  |
|              | Fem                     | -0.289052        | -283.358       | х                  | х              | х             | х        |
|              | ImmAsia                 | -0.110022        | -68 796        | -0 154509          | -74 745        | -0.0381       | -15 225  |
|              | Imm A frico             | 0.277141         | 174 252        | 0.212120           | 152 029        | 0.0301        | 01 602   |
|              | ImmAinca                | -0.2//141        | -1/4.555       | -0.512189          | -155.928       | -0.232246     | -91.003  |
|              | Imm 00-05               | -0.557756        | -343.744       | -0.539958          | -267.99        | -0.585094     | -213.905 |
|              | Imm 06-10               | -0.294412        | -187.435       | -0.298524          | -150.182       | -0.279866     | -110.211 |
|              | Imm 11-15               | -0.161157        | -101.265       | -0.188051          | -93.084        | -0.116004     | -45.393  |
|              | Imm 16-20               | -0 121924        | -70 993        | -0 141151          | -64 102        | -0.093221     | -34 352  |
|              | P squara                | 0.3202           | 10.555         | 0 3451             | 01.102<br>V    | 0.053221      | 51.552   |
|              | R-square                | 0.3202           | л              | 54001 721          | л              | 0.2031        | л        |
|              | F-stat                  | /0385.319        | х              | 54001.731          | х              | 20863.871     | х        |
|              | N                       | 20482            | Х              | 13012              | Х              | 7470          | Х        |
| ustralia     | Constatnt               | 8.351746         | 910.831        | 8.411445           | 816.514        | 7.839287      | 403.483  |
| 994          | Age                     | 0.053058         | 128,654        | 0.036396           | 77.959         | 0.124731      | 144.271  |
|              | Δ ge* Δ ge              | -0.000677        | -134 535       | -0.000454          | -81 344        | -0.001637     | -148 902 |
|              | Harris and (ET)         | -0.000077        | -134.333       | -0.000+34          | -01.544        | -0.001057     | -140.002 |
|              | Hours worked (F1)       | 0.021342         | 204.003        | 0.026907           | 242.261        | -0.001169     | -4.760   |
|              | Medium level of educ    | 0.104192         | 89.937         | 0.071603           | 55.597         | 0.183528      | 76.569   |
|              | High level of educ      | 0.42495          | 305.958        | 0.33059            | 212.299        | 0.666594      | 239.509  |
|              | Married                 | 0.0576           | 43.26          | 0.087097           | 54.211         | -0.041337     | -17.808  |
|              | Number of children      | 0.029688         | 51 414         | 0.040942           | 64 99          | -0.028824     | -22 797  |
|              | Form                    | 0.107020         | 170 521        | 0.0.107.1 <u>2</u> | v              | 0.020021<br>v | 22.7.57  |
|              |                         | -0.17/029        | -170.321       | A                  | A              | A             | X        |
|              | ImmAsia                 | -0.094421        | -65.555        | -0.09/695          | -58.284        | -0.114264     | -43.375  |
|              | ImmAfrica               | -0.012906        | -6.659         | 0.026478           | 12.477         | -0.110403     | -26.684  |
|              | Imm 00-04               | -0.273713        | -113.396       | -0.391371          | -144.649       | 0.044493      | 9.33     |
|              | Imm 05-09               | -0.129701        | -85,184        | -0.165473          | -95.102        | -0.085771     | -30.015  |
|              | Imm 10-14               | -0.024159        | -13 174        | -0.061074          | -28 101        | 0.005520      | 1 671    |
|              | Imm 15 10               | 0.024137         | -13.174        | 0.020420           | 10.000         | 0.104052      | 20.001   |
|              | 1mm 15-19               | -0.058891        | -34.168        | -0.038429          | -19.969        | -0.104852     | -30.681  |
|              | R-square                | 0.1996           | х              | 0.1834             | х              | 0.2073        | х        |
|              | F-stat                  | 21359.315        | х              | 14332.301          | х              | 7429.688      | х        |
|              | Ν                       | 1182             | x              | 814                | x              | 368           | х        |
| ermany       | Constatnt               | x                | x              | x                  | x              | x             | x        |
|              | Age                     |                  |                |                    | A<br>          | A             |          |
| 74           | Age                     | Х                | х              | Х                  | х              | Х             | x        |
|              | Age*Age                 | х                | х              | Х                  | х              | Х             | х        |
|              | Hours worked (FT)       | х                | х              | Х                  | х              | х             | х        |
|              | Weeks worked (FY)       | х                | x              | х                  | x              | х             | х        |
|              | Medium level of educ    | v                | v              | v                  | v              | v             | v        |
|              | High lovel of a to      | Λ                | А              | Λ                  | А              | A             | л        |
|              | right level of educ     | х                | х              | х                  | х              | х             | х        |
|              | Married                 | х                | х              | х                  | х              | х             | х        |
|              | Number of children      | х                | х              | х                  | х              | х             | х        |
|              | Fem                     | x                | x              | х                  | x              | х             | x        |
|              | R-square                | v                | v              | v                  | A V            | v             |          |
|              | E stat                  | А.               | х              | А                  | х              | А             | х        |
|              | r'-stat                 | х                | х              | Х                  | х              | х             | х        |
|              | N                       | Х                | х              | Х                  | х              | х             | 2        |

#### Appendix Table 5: OLS Results, Sample of Immigrants Only

54

Basic Model + Weeks + Immigrants Origine + Recent Immigrants Groups

|               |                      | Males &    | Females  |            | Recent minigra | Females   |              |
|---------------|----------------------|------------|----------|------------|----------------|-----------|--------------|
|               |                      | Coeff      | [t]      | Coeff      | [t]            | Coeff     | [ <b>t</b> ] |
| Canada        | Constatut            | 7 462986   | 414 277  | 7 24411    | 301 227        | 7 439781  | 275 674      |
| 1995          | Δ ge                 | 0.058223   | 164 932  | 0.058305   | 125 789        | 0.063092  | 114 954      |
| 1775          | Age*Age              | -0.000611  | -148 754 | -0.0006    | -112 364       | -0.000701 | -108 081     |
|               | Hours worked (FT)    | 0.002354   | 47.832   | 0.002323   | 38 673         | 0.001904  | 22,000       |
|               | Weeks worked (FY)    | 0.028989   | 89.803   | 0.032889   | 75.912         | 0.023583  | 49.296       |
|               | Medium level of educ | 0.246253   | 253.597  | 0.222863   | 171.755        | 0.259066  | 177.255      |
|               | High level of educ   | 0 548793   | 515 893  | 0.537921   | 382,756        | 0.546937  | 335 511      |
|               | Married              | 0.060202   | 54.534   | 0.100548   | 63.992         | 0.018395  | 11.965       |
|               | Number of children   | -0.013173  | -33.16   | -0.009521  | -18.546        | -0.025857 | -41.208      |
|               | Fem                  | -0 272469  | -313.95  | x          | 1010 10<br>X   | x         | x            |
|               | ImmAsia              | -0.182061  | -174.928 | -0.238538  | -172.971       | -0.097215 | -61.715      |
|               | ImmAfrica            | -0.123945  | -107.156 | -0.18098   | -115.604       | -0.039979 | -23.515      |
|               | Imm 00-04            | -0.434979  | -264.907 | -0.473633  | -218.532       | -0.384949 | -153.934     |
|               | Imm 05-09            | -0.251417  | -188.134 | -0.24977   | -142.061       | -0.255175 | -124,969     |
|               | Imm 10-14            | -0.128703  | -81.806  | -0.105504  | -49.921        | -0.162086 | -69.586      |
|               | Imm 15-19            | -0.087033  | -68.921  | -0.101793  | -60.077        | -0.065342 | -34.895      |
|               | R-square             | 0.1987     | X        | 0.1907     | х              | 0.145     | x            |
|               | F-stat               | 49721.065  | х        | 30008.777  | х              | 14826.082 | х            |
|               | Ν                    | 15035      | х        | 8915       | х              | 6120      | х            |
| United States | Constatnt            | 7.033742   | 1159.692 | 7.006987   | 924.011        | 6.847261  | 681.533      |
| 1990          | Age                  | 0.04127    | 147.166  | 0.044441   | 126.572        | 0.038508  | 83.115       |
|               | Age*Age              | -0.00046   | -132.262 | -0.000485  | -111.921       | -0.000457 | -79.188      |
|               | Hours worked (FT)    | 0.006654   | 127.625  | 0.006052   | 98.912         | 0.007426  | 74.815       |
|               | Weeks worked (FY)    | 0.037041   | 958.873  | 0.036925   | 746.161        | 0.036803  | 598.675      |
|               | Medium level of educ | 0.236118   | 218.963  | 0.201412   | 143.725        | 0.272842  | 162.296      |
|               | High level of educ   | 0.539436   | 465.018  | 0.534243   | 359.78         | 0.522092  | 281.400      |
|               | Married              | 0.135914   | 139.813  | 0.189899   | 146.699        | 0.047275  | 32.032       |
|               | Number of children   | -0.00598   | -16.413  | -0.00691   | -14.965        | -0.015628 | -26.260      |
|               | Fem                  | -0.257249  | -302.337 | х          | х              | х         | х            |
|               | ImmAsia              | -0.085895  | -64.429  | -0.121785  | -70.132        | -0.031089 | -15.07       |
|               | ImmAfrica            | -0.232212  | -175.165 | -0.265155  | -155.573       | -0.188708 | -90.24       |
|               | Imm 00-05            | -0.410293  | -301.441 | -0.413621  | -243.237       | -0.400789 | -176.119     |
|               | Imm 06-10            | -0.258828  | -197.623 | -0.269395  | -161.34        | -0.237793 | -113.537     |
|               | Imm 11-15            | -0.153364  | -115.62  | -0.181907  | -107.22        | -0.108355 | -51.435      |
|               | Imm 16-20            | -0.121065  | -84.578  | -0.140964  | -76.23         | -0.092757 | -41.466      |
|               | R-square             | 0.5278     | х        | 0.5382     | х              | 0.4992    | x            |
|               | F-stat               | 155861.562 | х        | 110871.178 | х              | 54112.613 | x            |
|               | Ν                    | 20482      | х        | 13012      | х              | 7470      | х            |
| Australia     | Constatnt            | X          | Х        | X          | х              | Х         | х            |
| 1994          | Age                  | x          | х        | х          | x              | х         | х            |
|               | Age*Age              | x          | х        | х          | x              | х         | х            |
|               | Hours worked (FT)    | x          | х        | x          | х              | х         | х            |
|               | Medium level of educ | x          | х        | x          | х              | х         | х            |
|               | High level of educ   | х          | х        | х          | х              | х         | х            |
|               | Married              | х          | х        | х          | х              | х         | х            |
|               | Number of children   | х          | Х        | х          | х              | х         | х            |
|               | Fem                  | х          | Х        | х          | х              | х         | х            |
|               | ImmAsia              | х          | Х        | х          | х              | х         | х            |
|               | ImmAfrica            | х          | Х        | х          | х              | х         | х            |
|               | Imm 00-04            | х          | Х        | х          | х              | х         | х            |
|               | Imm 05-09            | х          | Х        | х          | х              | х         | х            |
|               | Imm 10-14            | x          | х        | х          | х              | х         | х            |
|               | Imm 15-19            | х          | Х        | х          | х              | х         | х            |
|               | R-square             | x          | х        | х          | х              | х         | х            |
|               | F-stat               | x          | х        | х          | х              | х         | х            |
|               | N                    | X          | Х        | X          | X              | X         | X            |
| Germany       | Constatnt            | х          | х        | х          | х              | х         | х            |
| 1994          | Age                  | х          | х        | х          | х              | х         | х            |
|               | Age*Age              | х          | х        | х          | х              | х         | х            |
|               | Hours worked (FT)    | х          | х        | х          | х              | х         | х            |
|               | Weeks worked (FY)    | х          | х        | х          | х              | х         | х            |
|               | Medium level of educ | х          | х        | х          | х              | х         | х            |
|               | High level of educ   | х          | х        | х          | х              | х         | х            |
|               | Married              | х          | х        | х          | х              | х         | х            |
|               | Number of children   | х          | х        | х          | х              | х         | х            |
|               | Fem                  | х          | х        | х          | х              | х         | х            |
|               | K-square             | х          | х        | х          | х              | x         | х            |
|               | r-stat               | X          | х        | х          | х              | х         | х            |
|               | 11                   | X          | X        | Х          | X              | Х         | х            |
| Country       | Original Survey Description           | Coding |
|---------------|---------------------------------------|--------|
| Australia     | Higher degree                         | high   |
|               | Postgraduate diploma                  | high   |
|               | Bachelor Degree                       | high   |
|               | Undergraduate Diploma                 | medium |
|               | Associate Diploma                     | medium |
|               | Skilled Vocational Qualifications     | medium |
|               | Basic Vocational Qualifications       | low    |
|               | No Qualifications                     | low    |
| Canada        | Less than grade 8                     | low    |
|               | Grades 9 and 10                       | low    |
|               | Grades 11 through 13                  | low    |
|               | Graduated high school                 | low    |
|               | Some post-secondary                   | medium |
|               | Post-secondary certificate or diploma | medium |
|               | University diploma                    | high   |
| Germany       | No degree                             | low    |
|               | Other degree                          | low    |
|               | Other degree with tech                | low    |
|               | Secondary                             | low    |
|               | Secondary with technical              | low    |
|               | Non class secondary                   | low    |
|               | Non class secondary with technical    | low    |
|               | Technical school degree               | medium |
|               | Technical school with technical       | medium |
|               | High school degree                    | medium |
|               | High school with technical            | medium |
|               | Technical college                     | high   |
|               | University                            | high   |
|               | Foreign university                    | high   |
| United States | No schooling                          | low    |
|               | Elementary school                     | low    |
|               | Some high school                      | low    |
|               | High school diploma                   | low    |
|               | Some college                          | medium |
|               | Associate degree                      | medium |
|               | Bachelor degree                       | high   |
|               | Masters degree                        | high   |
|               | Doctorate                             | high   |

Appendix Table 6: Descriptions and Coding of Educational Attainment